



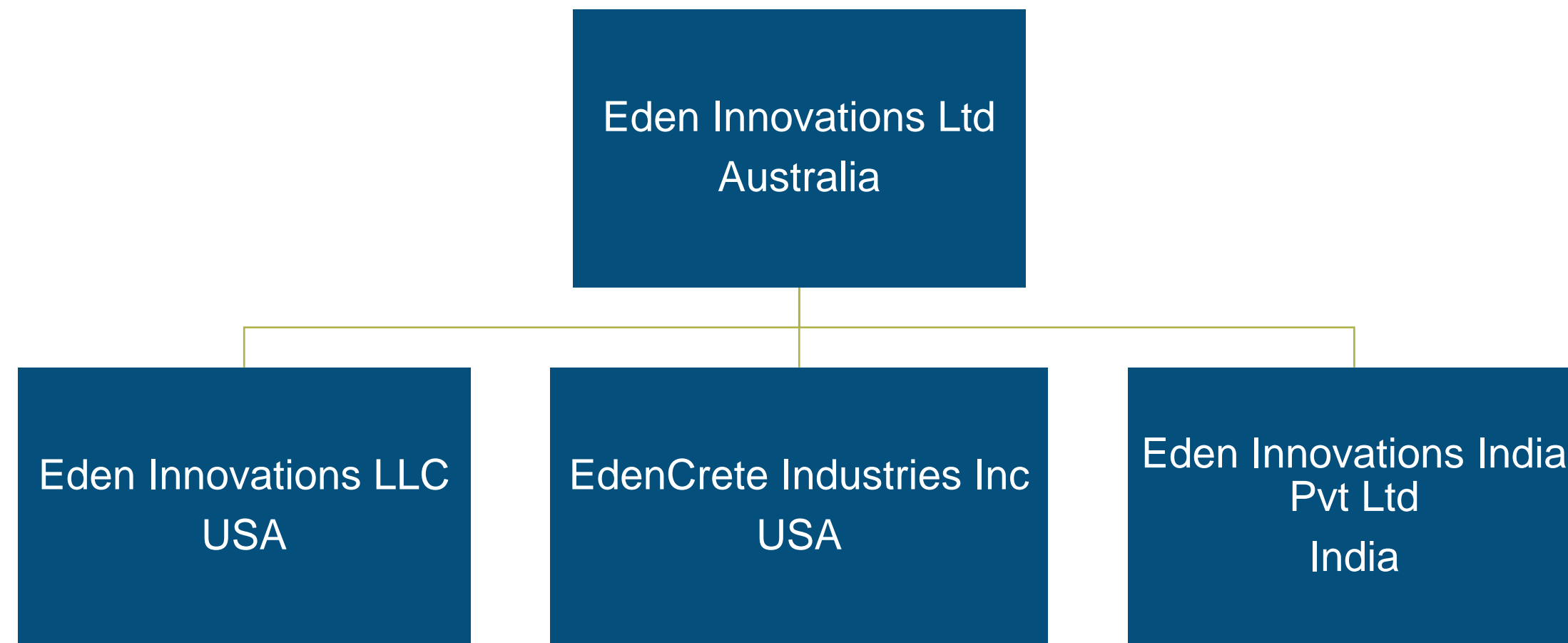
## Corporate Presentation

August 2019

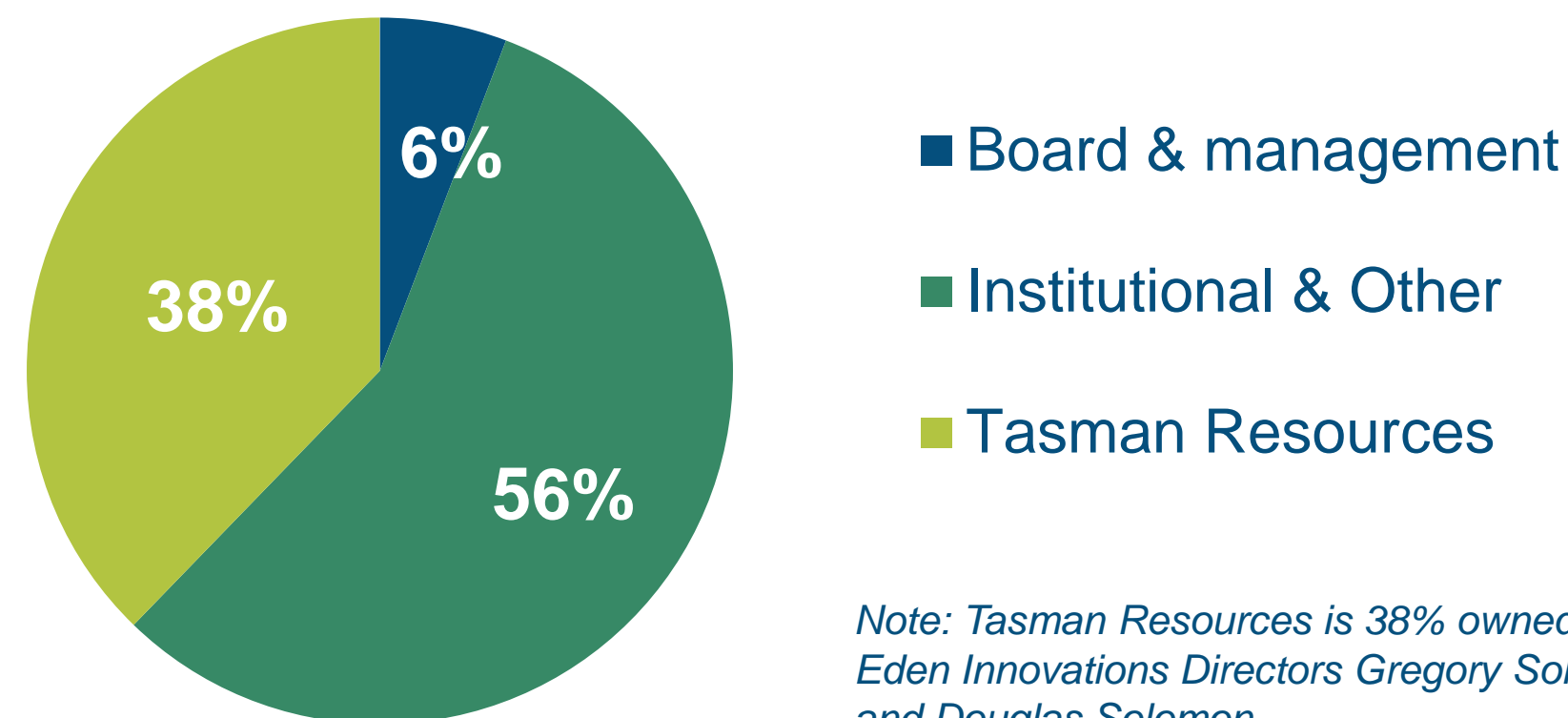


# Corporate Snapshot

## CORPORATE STRUCTURE



## SHAREHOLDERS



Note: Tasman Resources is 38% owned by Eden Innovations Directors Gregory Solomon and Douglas Solomon

## CAPITAL STRUCTURE

### Eden Innovations Ltd

<b>Symbol</b>	EDE
<b>Issued shares</b>	1,665,436,366
<b>Stock Price <sup>(1)</sup></b>	A\$0.054
<b>Market Cap <sup>(1)</sup></b>	~ A\$91 million
<b>Cash</b>	~ A\$2.05 million <sup>(1)</sup>
<b>Debt</b>	~ A\$1.02 <sup>(2)</sup>

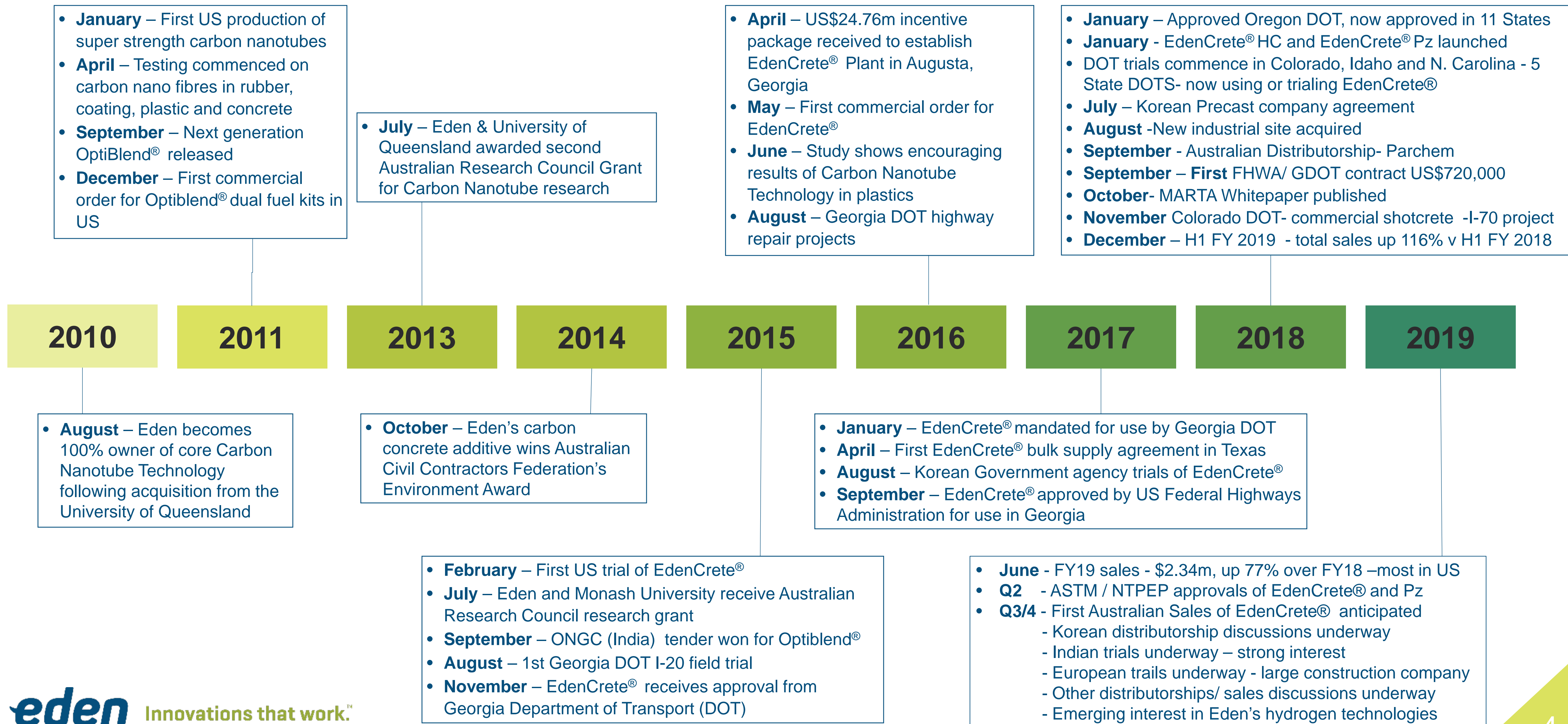


- 1) As at 2 August 2019
- 2) Long term vendor finance from purchase of first Colorado property, 2% interest rate

# Introducing Eden Innovations Ltd

- Eden Innovations Ltd (“Eden” or the “Company”) is an Australian company, incorporated in 2004 (and originally named Eden Energy Ltd), that listed on the ASX in 2006 (ASX: EDE), with 100% owned subsidiaries in the USA and India.
- Eden has 15 years proven in-house development and commercialisation expertise having successfully developed in Colorado its 100% owned EdenCrete®, OptiBlend® and Hythane® products.
- Eden developed and commercialized a patented low cost, low GHG footprint catalytic process to produce hydrogen and carbon nanotubes or carbon nanofibres from methane.
- EdenCrete®, its flagship carbon-strengthened concrete liquid additive:
  - delivers stronger, tougher, longer lasting concrete -benefits all concrete including ready mix, precast, and shotcrete;
  - is suitable for construction and maintenance of most structures and infrastructure, including roads, bridges, tunnels, dams, ports, high rise buildings, industrial structures, underground mining, and hard stand areas;
  - is already approved for use in the US by the Federal Highway Administration (“FHWA”) and the Department of Transport (“DOT”) in 11 States, and is commercially used in Georgia, Colorado and Texas.
  - In addition to its existing production facilities in Colorado, Eden has acquired an excellent 26.5 ha industrial site in Georgia to enable greatly expanded EdenCrete® production capacity as demand grows;
  - EdenCrete® marketing is focused on rapidly expanding its footprint and sales in both the US and Internationally.
  - Australian sales to start. Trials and/or distributorship discussions underway in Europe, India, Korea.

# EdenCrete® - Product Development Timeline





# Investment Highlights

- **High Growth Trajectory** – EdenCrete® now approved for use by Departments of Transport in 12 States (including Texas, Georgia, Colorado and North Carolina) representing more than 26% of US bridges in need of repair totalling approximately 37,800 bridges. Industrial/commercial markets growing.
- **Accelerating Revenues** – Eden recently reported FY19 total sales revenue of \$2.34m, up 77% over FY18, with strong year on year revenue growth particularly for EdenCrete®, but also for OptiBlend®, expected to accelerate in FY20 and FY21.
- **Superior Technical Attributes** – EdenCrete® produces a stronger, lighter and longer lasting concrete when added to conventional concrete, reducing total life cycle cost and on occasions also reducing up front costs in various projects, including in precast applications, construction applications, shotcrete applications
- **US Government Endorsements – Federal Highway Administration (FHWA) approval** received for the use of EdenCrete® in federally funded repair projects - first project in Georgia completed in April 2019 (value approx. US\$720,000) . **Metropolitan Atlanta Rapid Transit Authority (“MARTA”)** **Whitepaper** completed in 2018 documenting superior performance of EdenCrete® in 2 year field trial in Atlanta, GA.
- **Australian distributorship – Parchem** - sales anticipated to start Q3/Q4 2019.  
**Trials and/or distributorship discussions –Europe, Korea and India** - underway.
- **High Barriers to Entry** – Eden owns 100% of its carbon nanotube production process which was developed over a 5 year period in conjunction with the University of Queensland. Product field testing by customers and Government departments can take up to 2 years or more with typical sales cycle being 6 to 9 months from field validation giving Eden a significant head start over any potential competitor.

High Growth

Accelerating Revenue

Superior Technology

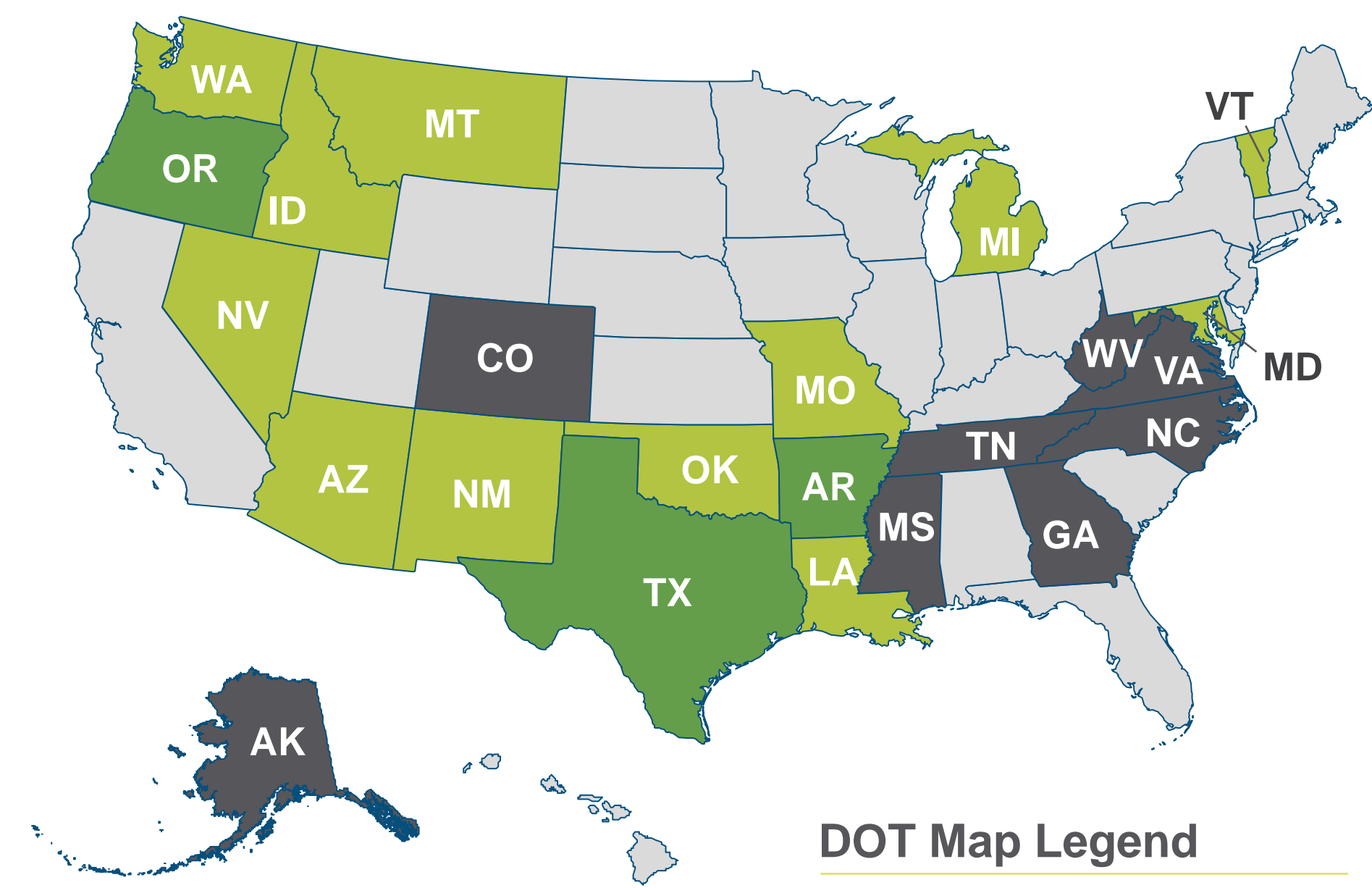
US Government  
Endorsement

New Markets Emerging

Competitive Advantage

# Government Validation and Commercialisation

- Government approval for use by Departments of Transport (DOTs) in 11 US States, 26% of total US bridges in need of repair, with 11 further DOT applications pending
- Georgia Department of Transport (GDOT) mandated use of EdenCrete® in all State funded full depth slab repair projects in Jan 2017
- Federal Highway Administration (FHWA) approval for use of EdenCrete® in federally funded, repair projects in Georgia in September 2017. First FHWA contract (US\$720,000) completed Q2 2019.
- Sales to Texas Department of Transport-approved pre-stressed bridge beam manufacturer.
- MARTA Whitepaper endorses use of EdenCrete® and confirms increased durability of concrete and long term cost savings when EdenCrete® used



**DOT Map Legend**

- Approved for Use*  
(APL or QPL not applicable)
- APL or QPL*  
(DOT dependent)
- Under Review*
- Submission Pending*

*DOTs where CNT admixture is on the APL or QPL or 'Approved for Use' represent...*

- 25% of US population
- 26% of US bridges in need of repair (approximately 37,800)
- 39% of US total land area

\* DOT Fact Sheets Highlight Grim State of US Roads and Bridges – 9 July 2015





# Executive Management Team



**Gregory Solomon**

Executive Chairman

Chairman of Eden since incorporation in 2004. More than 30 years experience as a director of public companies. Currently executive chairman of Tasman Resources Ltd and a non-executive chairman of Conico Ltd.

A commercial lawyer by background with more than 30 years Australian and international experience in many areas including mining and energy law, commercial and corporate law.

*LLB*



**Aaron P. Gates**

CFO, Company Secretary

A qualified accountant with more than 14 years of accounting, audit and corporate finance experience.

Chartered Accountant and Chartered Secretary.

Bachelor of Commerce (Curtin University) with majors in accounting and business law and completed a Diploma of Corporate Governance.

*BCom CA AGIA*



**Roger Marmaro**

President / CEO - Eden Innovations U.S

Responsible for corporate planning and implementation, management development and commercial business expansion.

Co-inventor of Hythane®.

Formerly at ADA Technologies and BOC Edwards.

*BFA in Design, BSME*



**Robert Reid III**

Executive Business Director-EdenCrete Industries Inc. US

Responsible for assisting in the strategic planning, development of the sales and marketing strategy, policies and operating procedures.

Mr Reid has over 40 years of experience in Risk Management and Private Equity dealing with a wide array of operating companies.

*Degree in economics*

The background of the slide is a photograph of a city skyline, likely New York City, with several skyscrapers visible. The buildings are reflected in a body of water in the foreground. The image is dark and moody, with a blue and grey color palette. The text is overlaid on a white rectangular area on the left side of the image.

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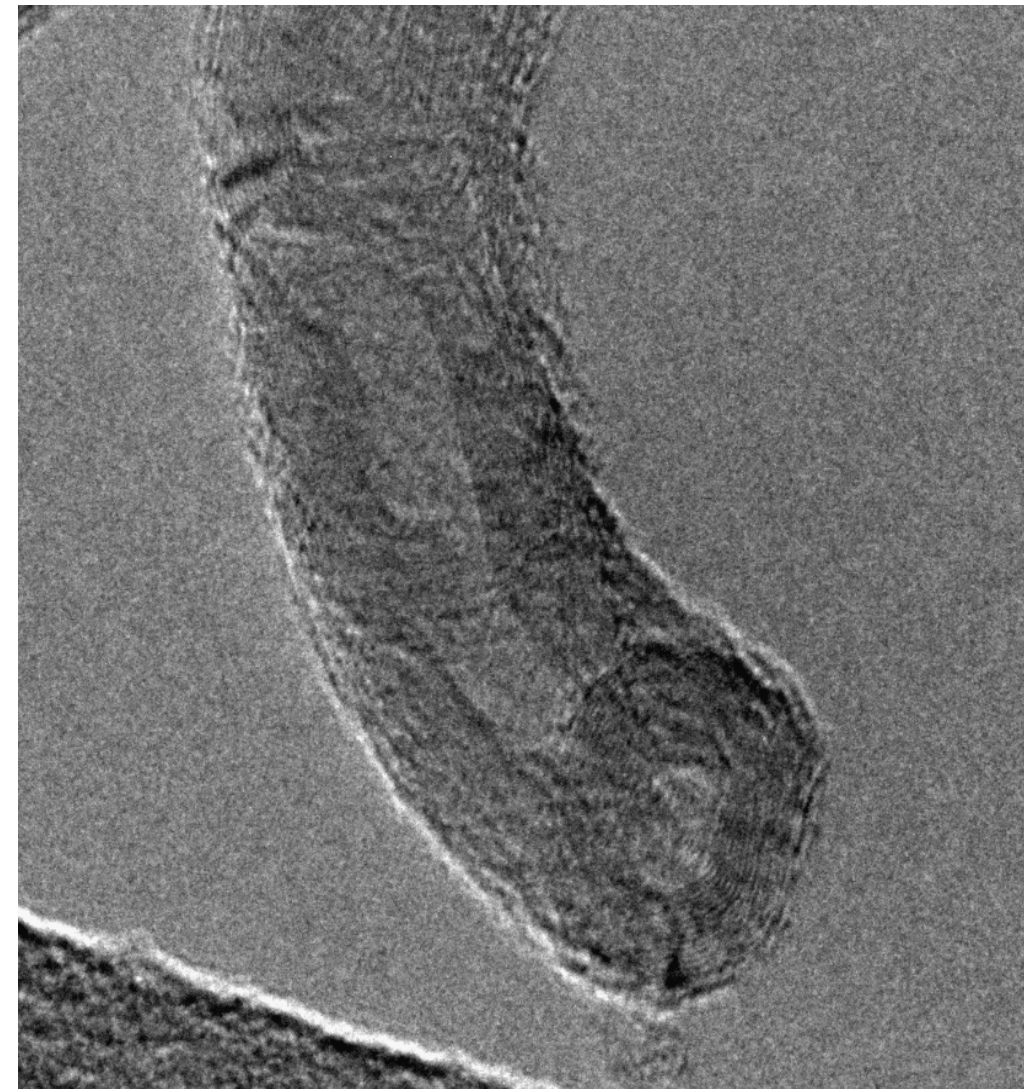
## PRODUCT OVERVIEW



# What are Carbon Nanotubes?

Eden's proprietary pyrolysis technology produces nano-scale carbon nanotubes or carbon nanofibres plus hydrogen from natural gas without directly producing CO<sup>2</sup>

Eden is presently focusing on harnessing the benefits of its carbon nanotube technology for commercial applications in concrete and plastics



TEM image of Eden's MWCNT

## ***Key properties of carbon nanotubes:***

- Tensile Strength: 100-300x steel
- Weight: ~17% of steel
- Highly conductive: thermally and electrically

# How do nanotubes work in concrete?



Act as nucleation points for dense cement hydration - builds on all surfaces of CNT



Create quintillions (10<sup>18</sup>) of flexible, super-strong carbon nano-structures throughout the concrete



Produces denser, stronger, tougher and more durable concrete



# EdenCrete®

EdenCrete® is a cost effective, carbon nanotube enriched liquid admixture for concrete that is mixed into wet concrete

- Increases flexural, tensile & compressive strength, and abrasion resistance
- Reduces shrinkage, permeability and damage from salt and chemicals and increases freeze/ thaw resistance

## All key qualities for infrastructure



### EdenCrete®

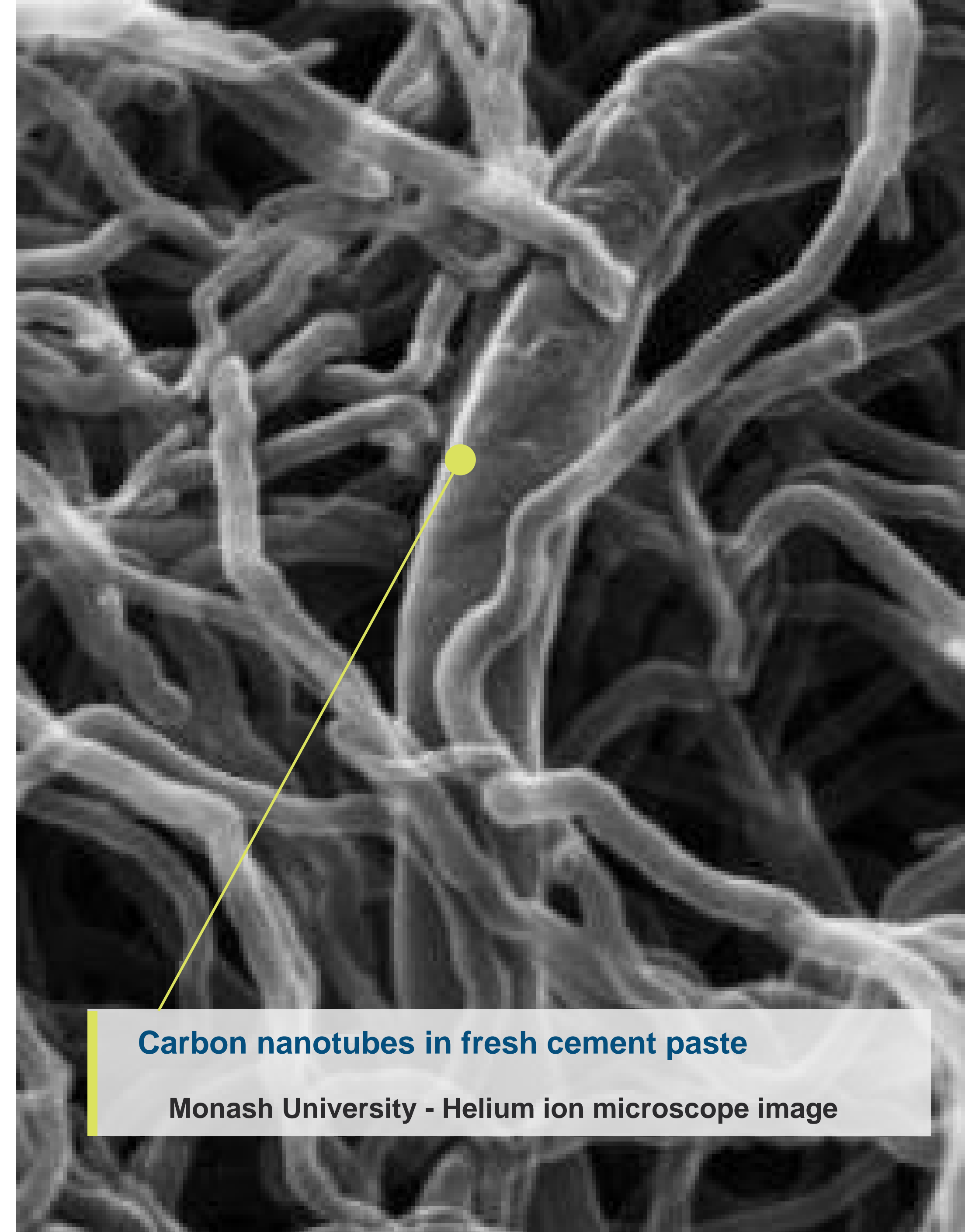
Suitable for  
Portland cement

### EdenCrete® Pz

Suitable for both  
Pozzolanic and  
Portland cements

### EdenCrete® HC

High concentration  
lower cost



**Carbon nanotubes in fresh cement paste**

Monash University - Helium ion microscope image



# EdenPlast™

Eden aims to enter the plastics market with its new product, EdenPlast™

- Aims to develop CNT in Nylon 6 plastic and other polymers
- Jointly funded project with University of Queensland
- Awarded Australian Research Council funding
- Relatively low-cost processing method

## Suitable plastics markets:

- Automotive and packaging

## Highly encouraging preliminary results:

- 50% increase in stiffness
- Increase in electrical conductivity

## Next steps:

- ARC R&D project into possible commercial scale-up underway

## Proven in-house capability

Development, testing and commercialisation

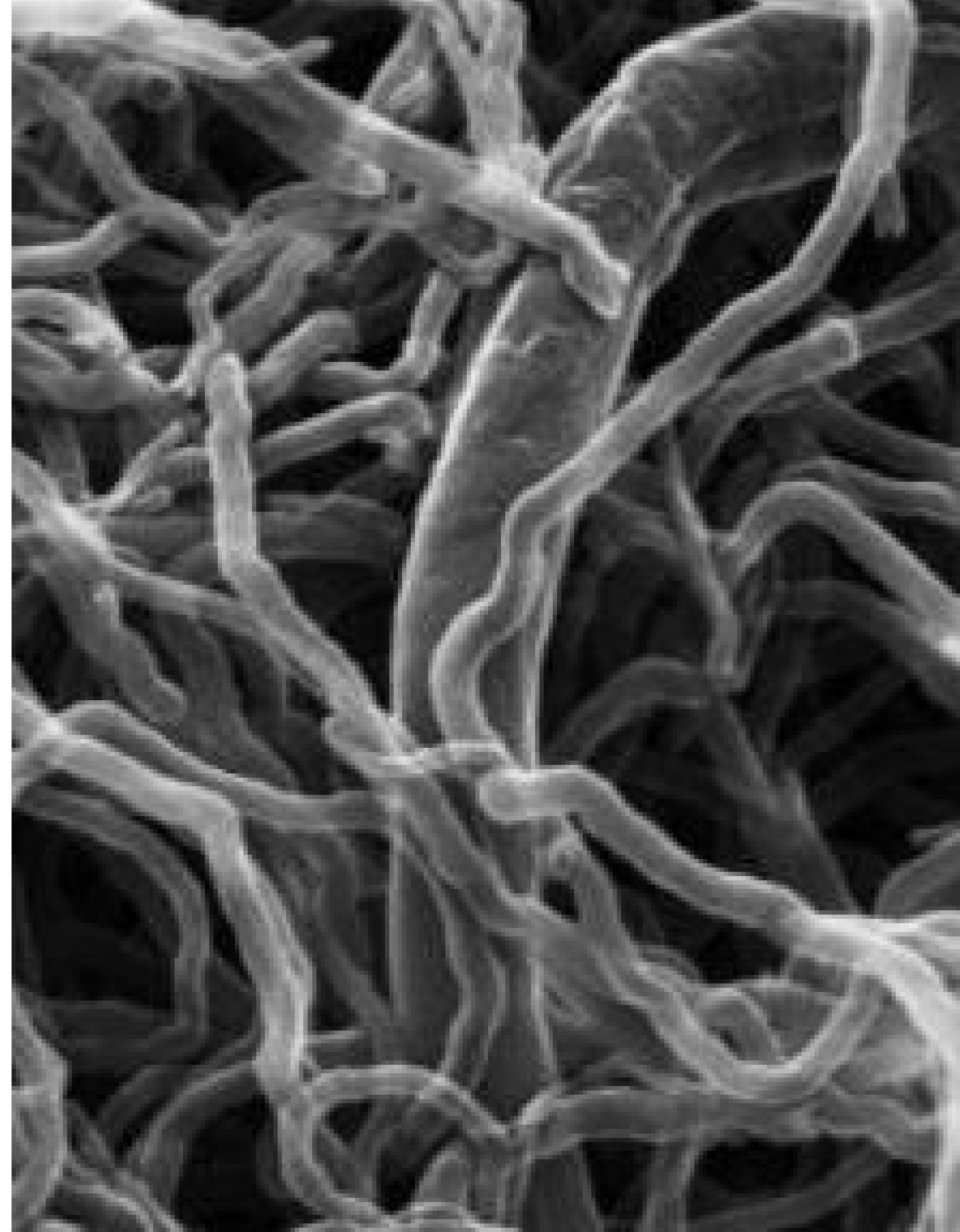
- EdenCrete®
- EdenCrete® HC
- EdenCrete® Pz
- OptiBlend®
- Hythane®

HC and Pz products launched at World of Concrete in January 2018



# High Barriers to Entry

- 10+ years of product development
- Product field testing by Government departments after initial approval typically requires up to 24 months or more, including laboratory tests
- Typical sales cycle for EdenCrete<sup>®</sup> up to 9-6 months after successful field testing by the relevant DOT or customer
- 100% ownership of the Pyrolysis Project (CNT production) Patents granted for Pyrolysis Project
- Patent applications pending for EdenCrete<sup>®</sup>, EdenCrete<sup>®</sup> Pz and EdenPlast<sup>™</sup>





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**3.**

**EdenCrete® - GLOBAL  
MARKET OPPORTUNITY**



# EdenCrete® Applications & Customers

## ADVANTAGE

## SUITABLE FOR

**Permeability / salt resistance / shrinkage**

Roads, airfields, coastal, marine, dams, sewers, bridges, runways, coastal/marine environments, dams, sewer/water pipelines



**Abrasion resistance**

Hard-stand areas, warehouse floors, roads, bridges, pavements



**Flexural, tensile & compressive strength / early strength**

Beams and slabs, roads and bridges, precast & pre-fabricated products, high rise buildings, retaining walls, shotcrete



## CUSTOMERS



Government Department of Transport authorities - ~40% of US concrete market



Pre-cast concrete manufacturers - ~30% of US concrete market



Ready-mix suppliers - ~30% of US concrete market



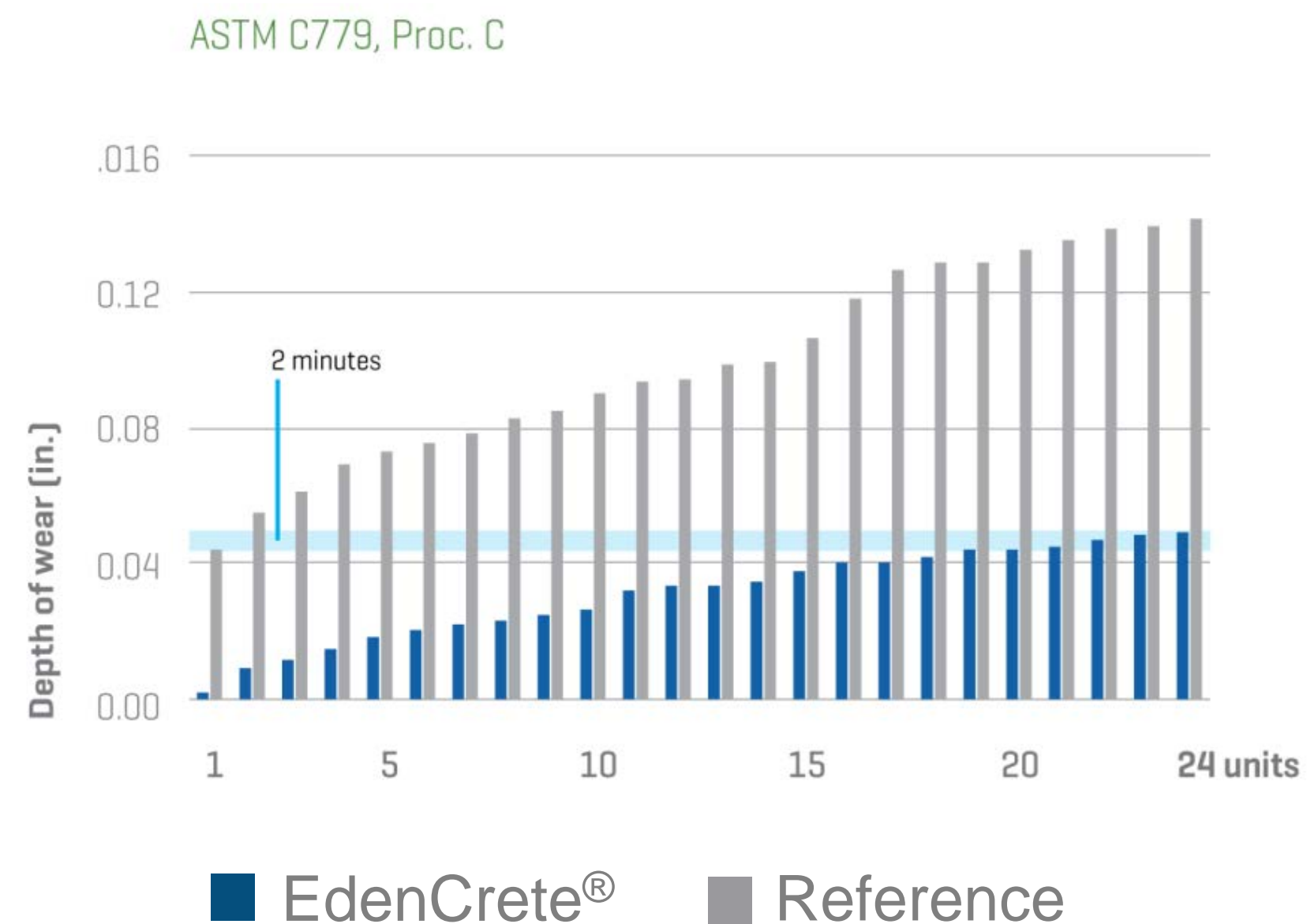
# EdenCrete® Value Proposition

Products	Increases Compressive Strength	Increases Split-Tensile Strength	Increases Flexural Strength	Reduces Shrinkage	Reduces Permeability	Increases Abrasion Resistance	Drawback
<b>EdenCrete™</b>	✓	✓	✓	✓	✓	✓	
Fibers (PP,PVA,ACRY,LOK)		•	•	•			Reduced workability, difficult to handle
Shrinkage Reducers			•				Strength reduction, expensive, reduces workability, impacts entrained air
Steel Reinforcement			•	•			Expensive, corrosion potential, weight factor, job-site safety
Surface Hardener					•	•	Potential alkali-silica reaction
Silica Fume, Fly Ash	•				•	•	Expensive, increased water, hard to handle, worker/workplace safety
Steel Fibres	•						Reduced workability, difficult to handle, job-site safety



# Key EdenCrete® Product Benefits

## ABRASION RESISTANCE



**Dramatic increase in abrasion resistance**

## REDUCED PERMEABILITY

Chloride Content (Wt.%)			
Depth (mm)	Control Mix – Not Poned	Control Mix – Poned	Penetrated Chloride Values
10-20	0.004	0.059	0.055
25-35	0.006	0.045	0.039
40-50	0.004	0.005	0.001
55-65	0.003	0.004	0.001

Depth (mm)	Test Mix – Not Poned	Test Mix – Poned	Penetrated Chloride Values
10-20	0.006	0.012	0.006
25-35	0.004	0.005	0.001
40-50	0.004	0.004	0.000
55-65	0.003	0.003	0.000

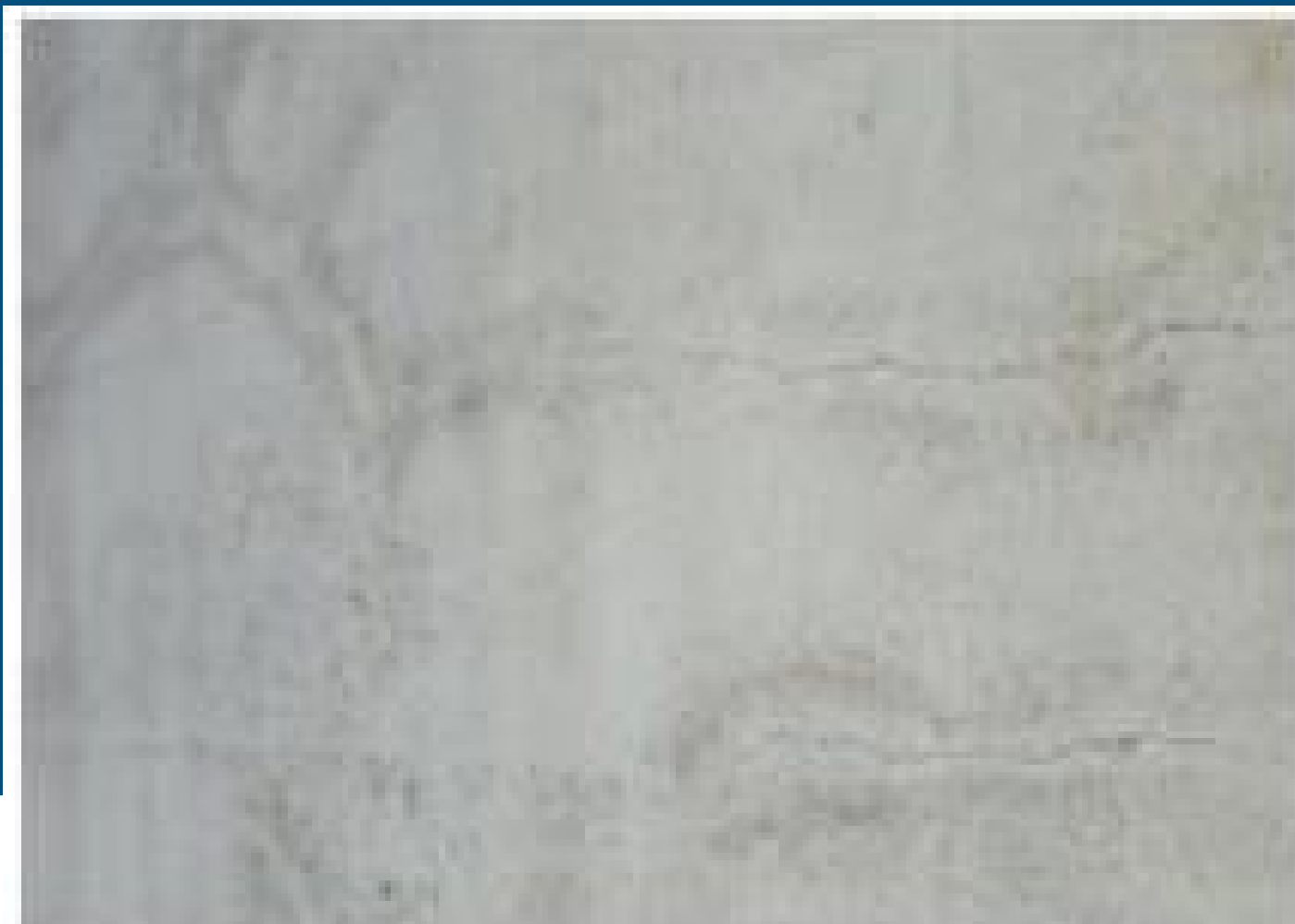
### MARTA Test Results

**Dramatic reduction in permeability**



# EdenCrete® - Case Study

## ABRASION RESISTANCE / ULTRA HIGH WEAR APPLICATION



**CONTROL TRIAL SLAB**

Significant cracks and wear after 6 months



**TYPICAL ULTRA HIGH LOAD**

High loading/ abrasive application at site – repeat contracts



**EdenCrete® TRIAL SLAB**

No cracks or evidence of wear

# EdenCrete® Cost Comparison

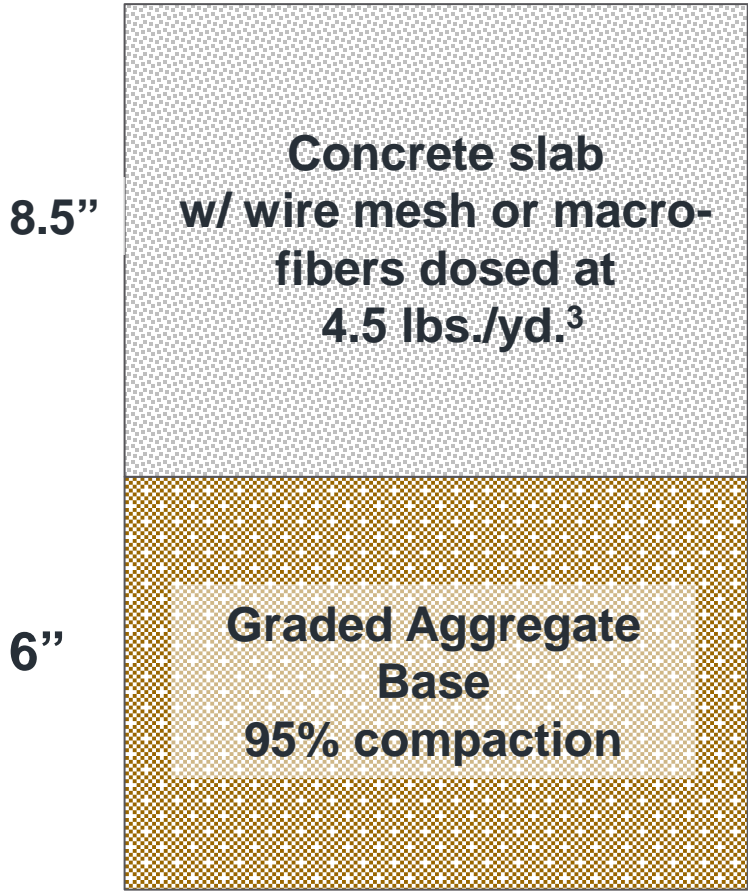
Ultra High Wear /Abrasion Resistance Commercial Project

Longer wearing concrete required less depth, without base and compacted layers.

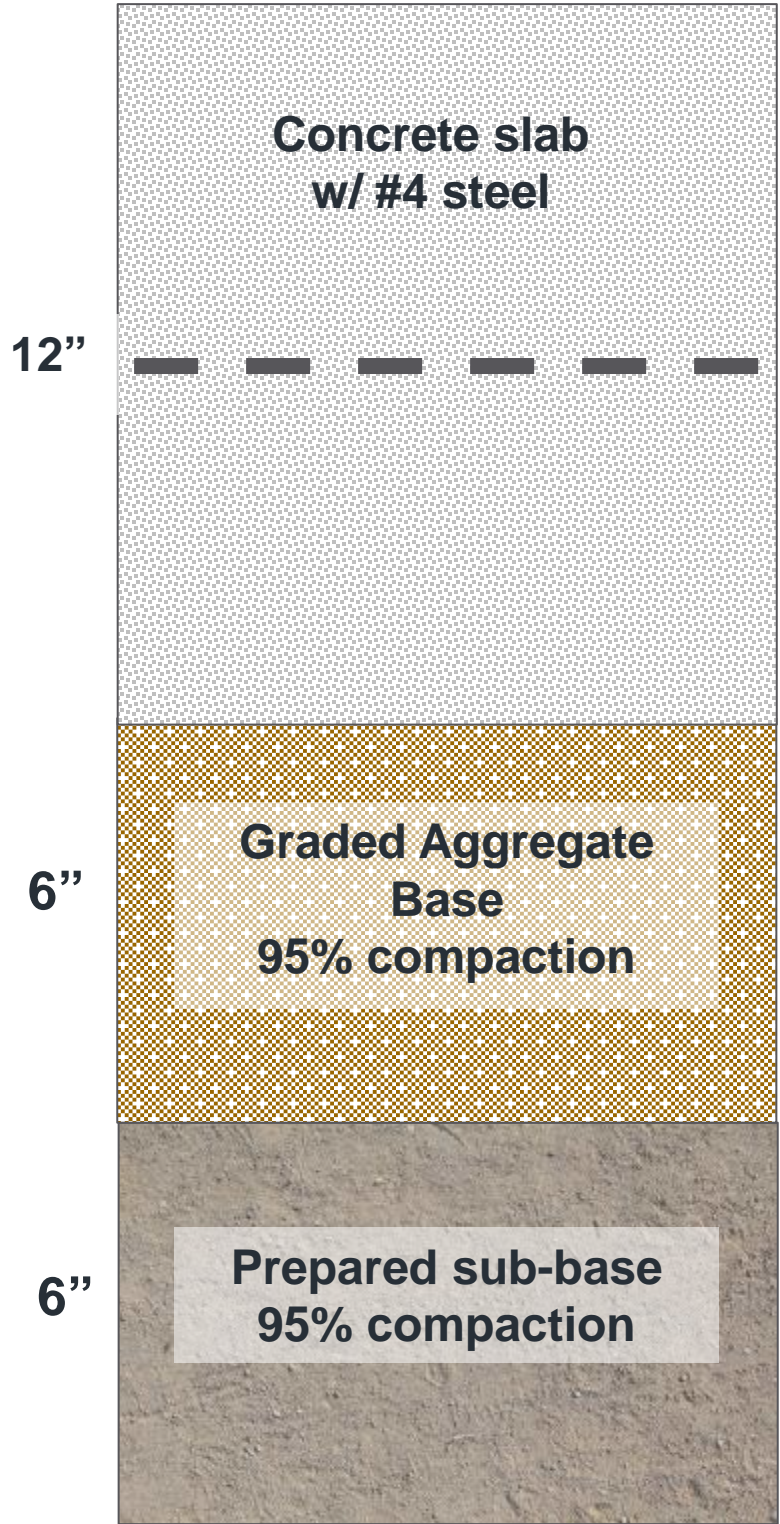
This project delivered significant cost advantages to the customer.

This project has resulted in an increasing number of similar contracts

**Concrete slab with wire mesh or macro-fibers**  
~ \$15/ ft.<sup>2</sup>



**Concrete slab with steel**  
~ \$22/ ft.<sup>2</sup>



**Concrete slab with EdenCrete®**  
~ \$12/ ft.<sup>2</sup>





# Infrastructure Markets

- Roads, Bridges, Tunnels
- Ports and marine applications
- Airports
- Railways
- Dams and water systems
- Bus transit stations/ light rail
- Toll Roads
- Shotcrete – various applications
- Public/ Private Partnerships





# Commercial Markets

- Hardstand areas
- Factories/ Showrooms
- Warehouses/ logistics hubs
- Driveways / car parks
- Precast
- Building / construction
- Shotcrete –including for retaining walls, swimming pools





# EdenCrete® Sales Pipeline

## GEORGIA

### GDOT State funded repair projects using EdenCrete®

- EdenCrete® specified by name in repair projects
- Further repair projects and bridge trial in pipeline

### FHWA Federally funded projects using EdenCrete®

- 1<sup>st</sup> FHWA funded pavement replacement project -11 lane miles - completed April 2019- US\$720,000 EdenCrete®
- Next project being planned

### Corporate, privately funded projects

- Follow-up orders- warehouses and hardstand projects

### Metropolitan Atlanta Rapid Transit Authority (MARTA)

- Whitepaper - Potential projects under discussion

### Ready mix companies

- Development of standard ready mix designs underway for various applications incl. ports and warehouses

## COLORADO

### Denver Public Works / Colorado Department of Transport (CDOT)

- Projects expected - salt/chemicals, abrasion resistance, freeze thaw
- Follow-up trials and production scale up to meet future demand
- Tunnels- EdenCrete® approved for shotcrete project - 2019

### Commercial sales- driveways, tunnels (shotcrete), warehouses

### Vail and Gypsum—various possible projects

## OTHER US STATES

### Precast and ready mix

- Additional precast contractors, manufacturers being approached
- Various trials with ready mix companies- pozzolanic concrete mixes

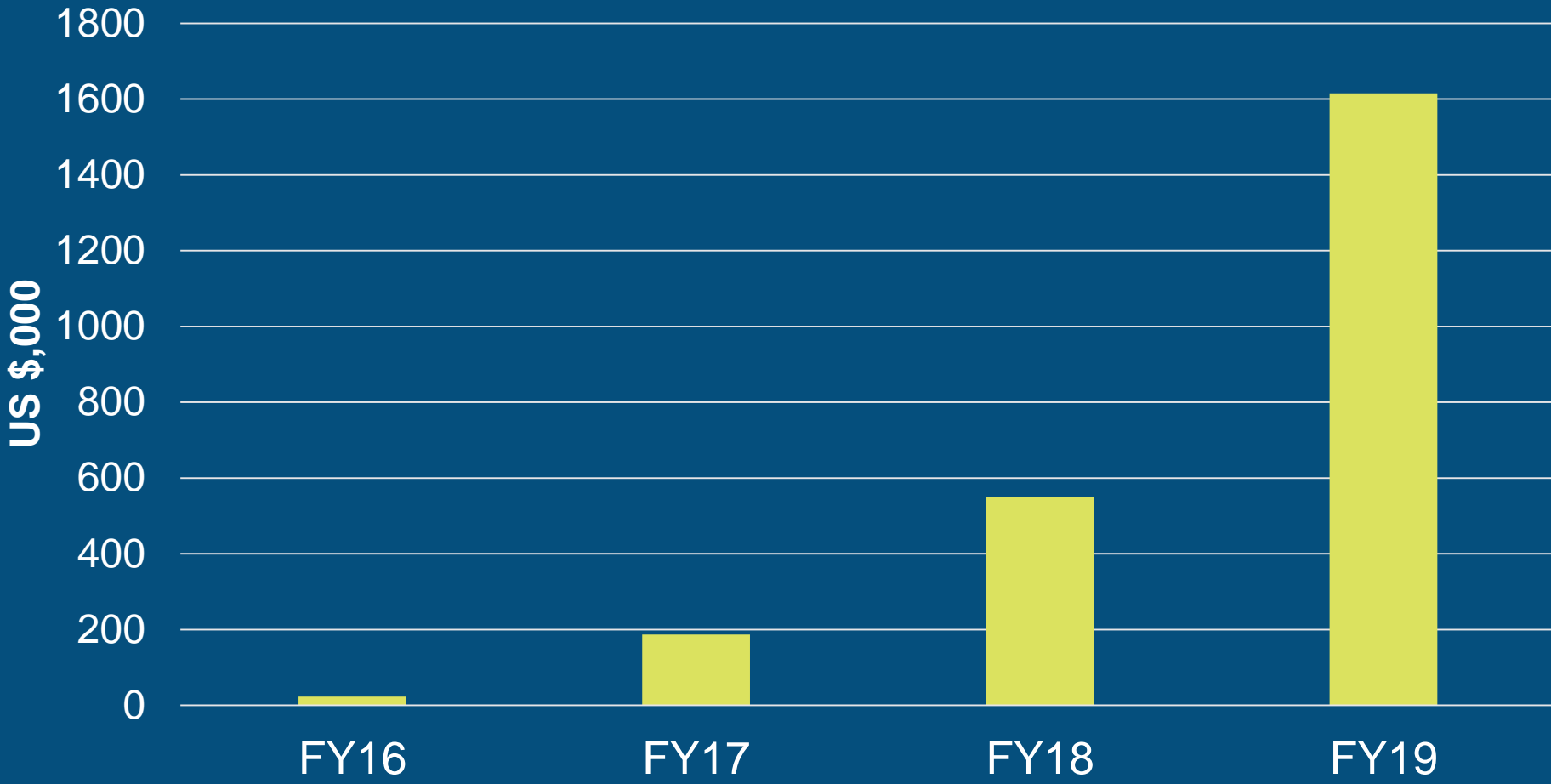
## AUSTRALIA, KOREA

- Parchem appointed Australian distributor – sales anticipated Q3/Q4 2019
- Korea- successful testing undertaken – looking for suitable distributor

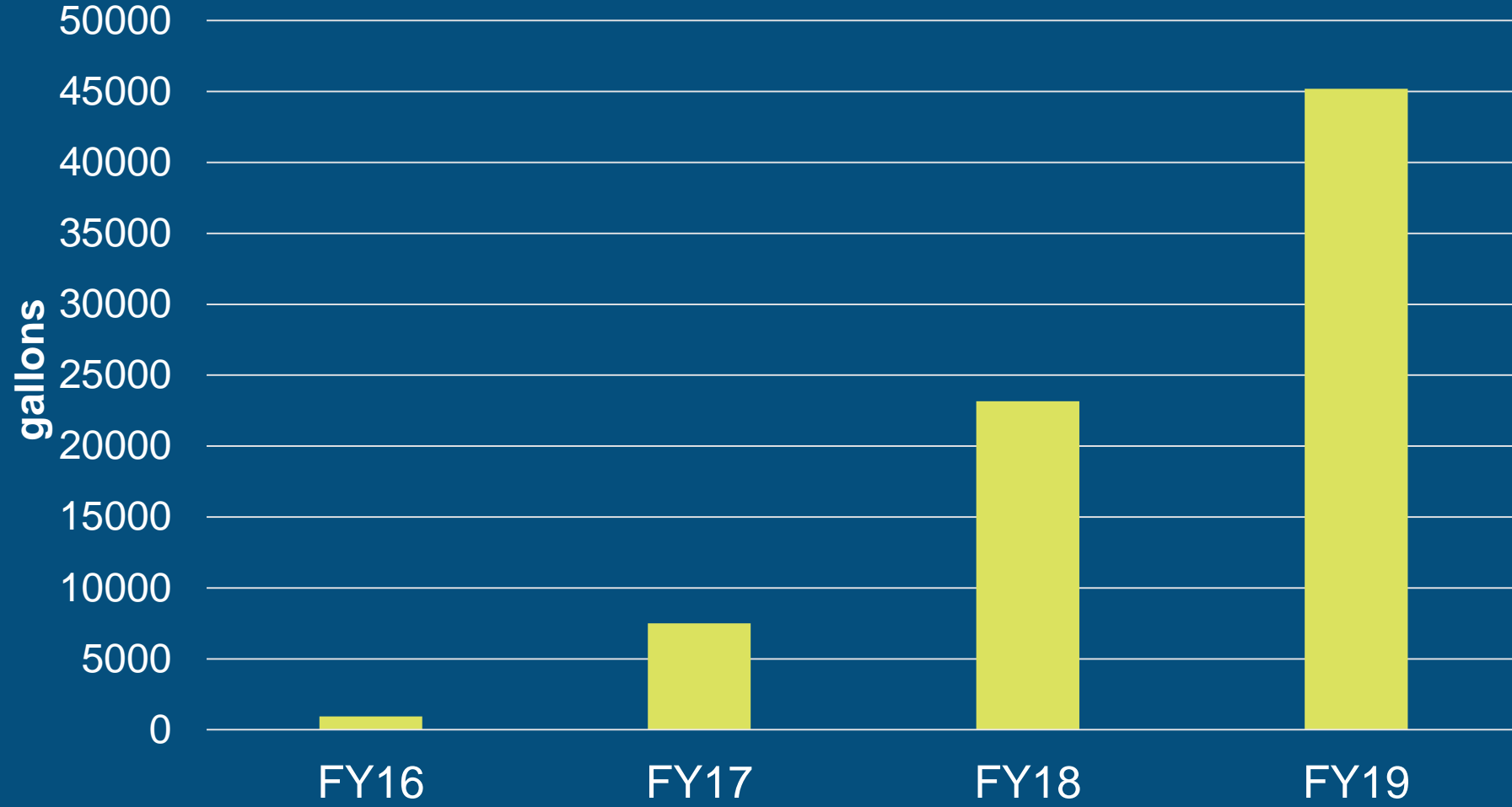
# Strong Revenue Growth

- Bulk distribution contracts
- Repeat business customers - government and private
- Supply contracts vary by volume for each project
- Significant revenue growth projected balance FY 2020 and FY 2021

EDENCRETE REVENUE



EDENCRETE SALES BY VOLUME





# Growth Strategy

- Significantly increase US sales of EdenCrete® over next two years
- Geographic market expansion into Europe / Asia (Korea) / Oceania (Australia/ NZ) / India
- Increase OptiBlend® sales in India and USA

SALES GROWTH

01

- EdenCrete® Pz and EdenCrete® HC trials to generate sales to new and existing US infrastructure and commercial customers
- DOT trials planned or underway in several US States

FURTHER PRODUCT TESTING

02

- Research underway into proposed commercialisation of EdenPlast® to enter plastics market
- Emerging interest in Eden's various technologies for coatings, rubber, batteries and hydrogen

PRODUCT RANGE

03

- Production capacity to increase from 2.4m gallons p.a. to ~12.5m gallons p.a.
- Approx US\$20million incentives secured from Georgia Govt to establish EdenCrete® global production plant in Augusta, GA. Prime 65 acre industrial site acquired

CAPACITY EXPANSION

04

**Greg Solomon**

Executive Chairman

**Eden Innovations Ltd**

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