



## 2018 Annual General Meeting Presentation

14 November 2018

EDE:ASX



# Disclaimer

## FORWARD LOOKING STATEMENTS

This presentation includes certain forward-looking statements of Eden's management. Forward-looking statements are statements that contemplate the happening of possible future events and are not based on historical fact. Forward-looking statements may be identified by the use of forward-looking terminology, such as "may", "shall", "could", "expect", "estimate", "anticipate", "predict", "probable", "possible", "should", "continue", or similar terms, variations of those terms or the negative of those terms. Forward-looking statements should not be read as a guarantee of future performance or results and may not be accurate indications of when or whether such performance or results will be achieved. Forward-looking statements are based on information known to Eden when those statements are made or management's good faith belief as of that time with respect to future events and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. The forward-looking statements specified in this presentation have been compiled by Eden's management on the basis of assumptions (which may or may not turn out to be accurate) made by management and considered by management to be reasonable. Eden's future operating results, however, are impossible to predict because of risks and uncertainties, and no representation, guarantee, or warranty is to be inferred from those forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements.

Forward-looking statements include, but are not limited to, the following:

Statements relating to Eden's future production capacity and sales levels, and business and financial performance; Statements relating to future research and development results and regulatory approvals of Eden's products; Statements relating to Eden's competitive position; and Other statements relating to future developments that you may take into consideration.

Actual results of Eden's operations may differ materially from information contained in the forward-looking statements as a result of risk factors some of which include, among other things: global economic stability, continued compliance with government regulations regarding production and use of carbon nanotubes in the U.S. or any other jurisdiction in which Eden conducts its operations; changing legislation or regulatory environments in the U.S. and any other jurisdiction in which Eden conducts its operations; credit risks and product sales affecting Eden's revenue and profitability; exposure to product liability claims; changes and new competitive products in the specialty concrete admixture industry; the level of market acceptance and demand for EdenCrete™; Eden's ability to effectively market all the product it can produce; Eden's ability to manage its growth, including implementing effective controls and procedures and attracting and retaining key management and personnel; changing interpretations of generally accepted accounting principles; the availability of capital resources, including in the form of capital markets financing opportunities; and general economic conditions.

This presentation has been prepared as a summary only and does not contain all information relating to Eden's assets and liabilities, financial position and performance, profits and losses and prospects: it should be read in conjunction with all of the publicly available information in relation to Eden which has been released to the Australian Securities Exchange (ASX Code: EDE).



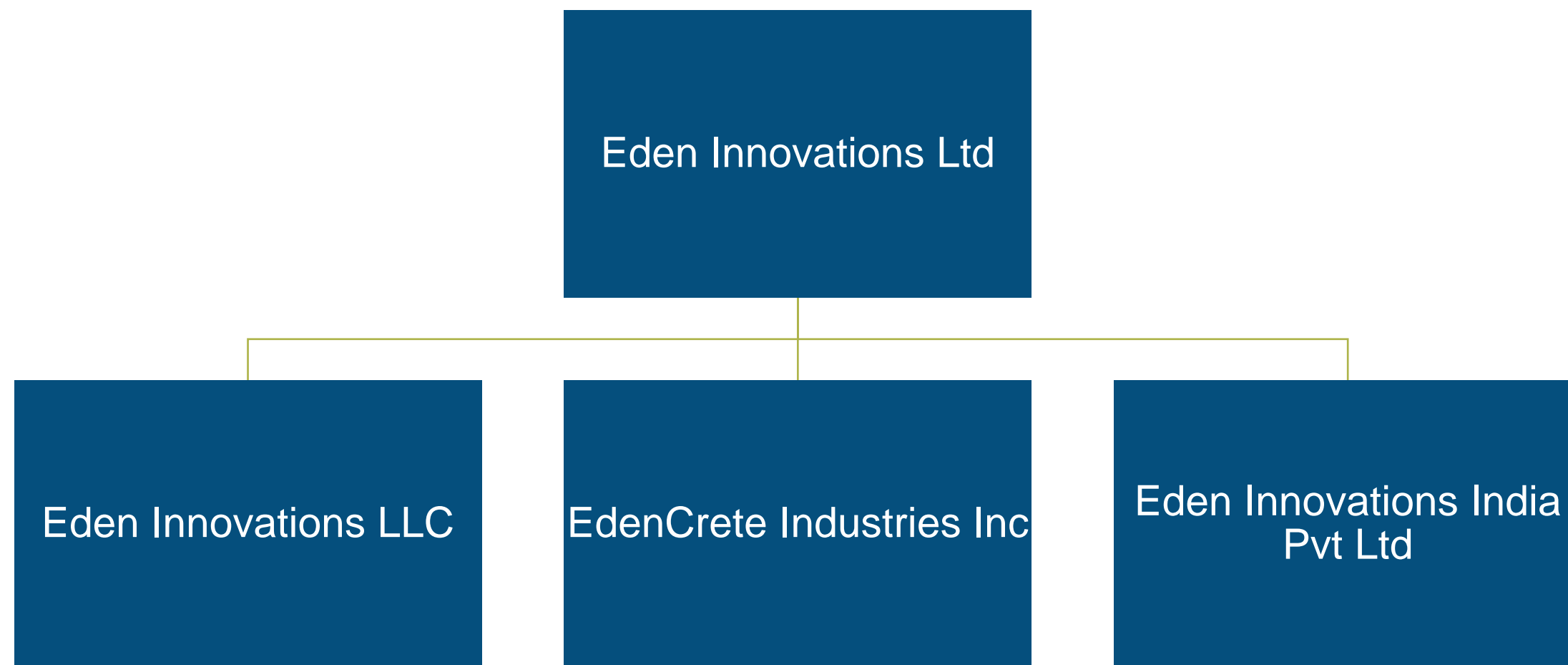
# 2017- 2018 Highlights

- 1** | **EdenCrete® HC and EdenCrete® Pz** developed / EdenCrete® Pz - NTPEP trials to complete December 2018 and ASTM trials in mid- 2019
- 2** | **Georgia** - FHWA approval of EdenCrete® in federal funded GDOT project (\$525,000) - September 2018  
MARTA White Paper – completed October 2018
- 3** | **US revenue generation accelerating-** commercial/ government projects in Georgia, Texas, Colorado
- 4** | **Strong US Government traction-** now approved by 11 State DOTs and FHWA (Georgia), in use in Texas & Georgia, DOT trials in Colorado, Idaho, N Carolina
- 5** | **International expansion** – Korean trials commenced, Australian/NZ distributor – appointed September 2018  
- Emerging European / Indian interest in hydrogen /carbon
- 6** | **EdenPlast™ product development** continued towards future plastics market entry

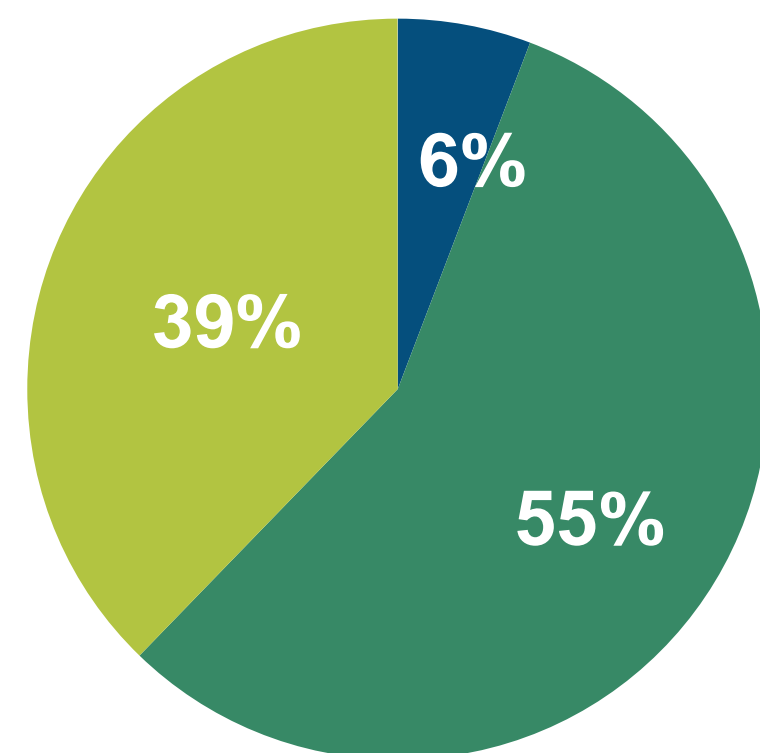


# Corporate Snapshot

## CORPORATE STRUCTURE



## SHAREHOLDERS



- Board & management
- Institutional & Other
- Tasman Resources

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

## CAPITAL STRUCTURE

### Eden Innovations Ltd

Symbol	EDE
Issued shares	1,521,399,119
Stock Price <sup>(1)</sup>	A\$0.074
Market Cap <sup>(1)</sup>	~ A\$112 million
Cash	~ A\$2.1 million <sup>(1)</sup>
Debt	~ A\$1.05 <sup>(2)</sup>

1) As at 9 November 2018

2) Mainly long term vendor finance of purchase price on first Colorado property, 2% interest rate



# 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.

Mr Reid has a degree in economics.



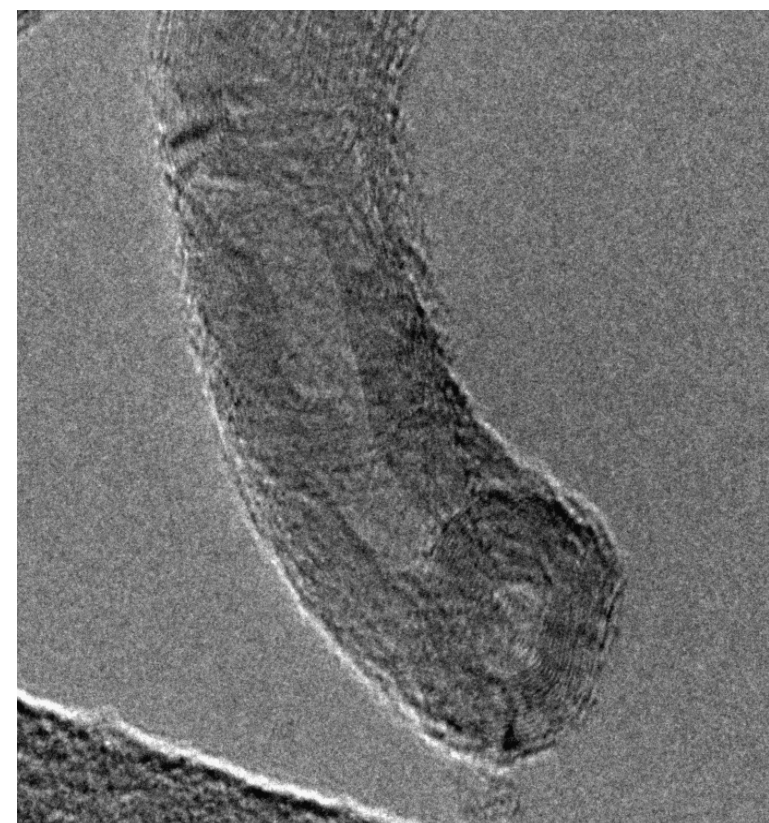
# 2.

## PRODUCT OVERVIEW



# Core Expertise – Carbon Nanotubes

Harnessing the benefits of carbon nanotube technology for commercial application in concrete and plastics



TEM image of Eden's MWCNT

## ***Key properties:***

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

# How carbon nanotubes work



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



Create quintillions ( $10^{18}$ ) of flexible, super-strong carbon nano-structures throughout the concrete



Produces denser, stronger, tougher and more durable concrete

# EdenCrete® Range



**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®**

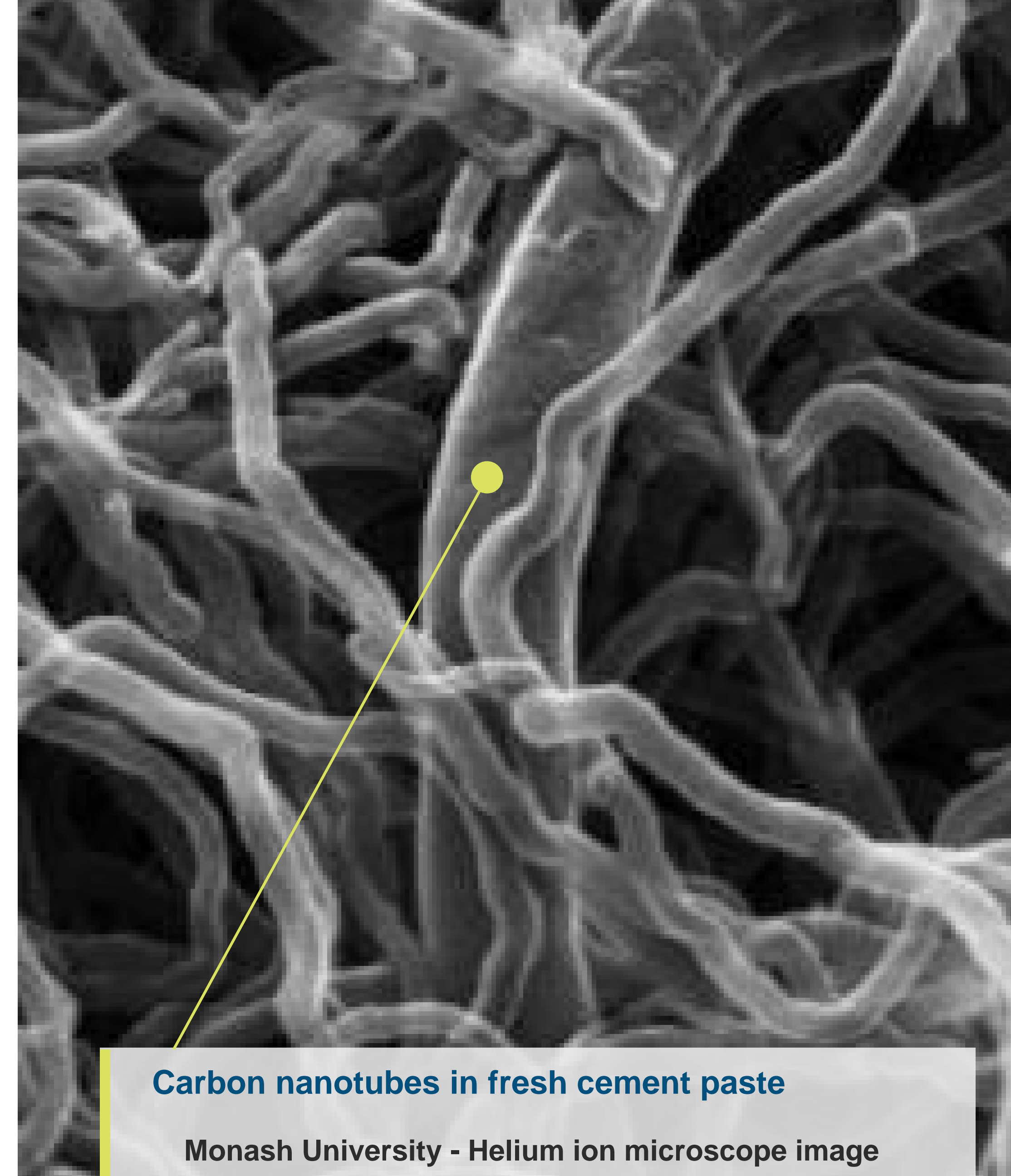
Suitable for Portland cement

### **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



# New product development: 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

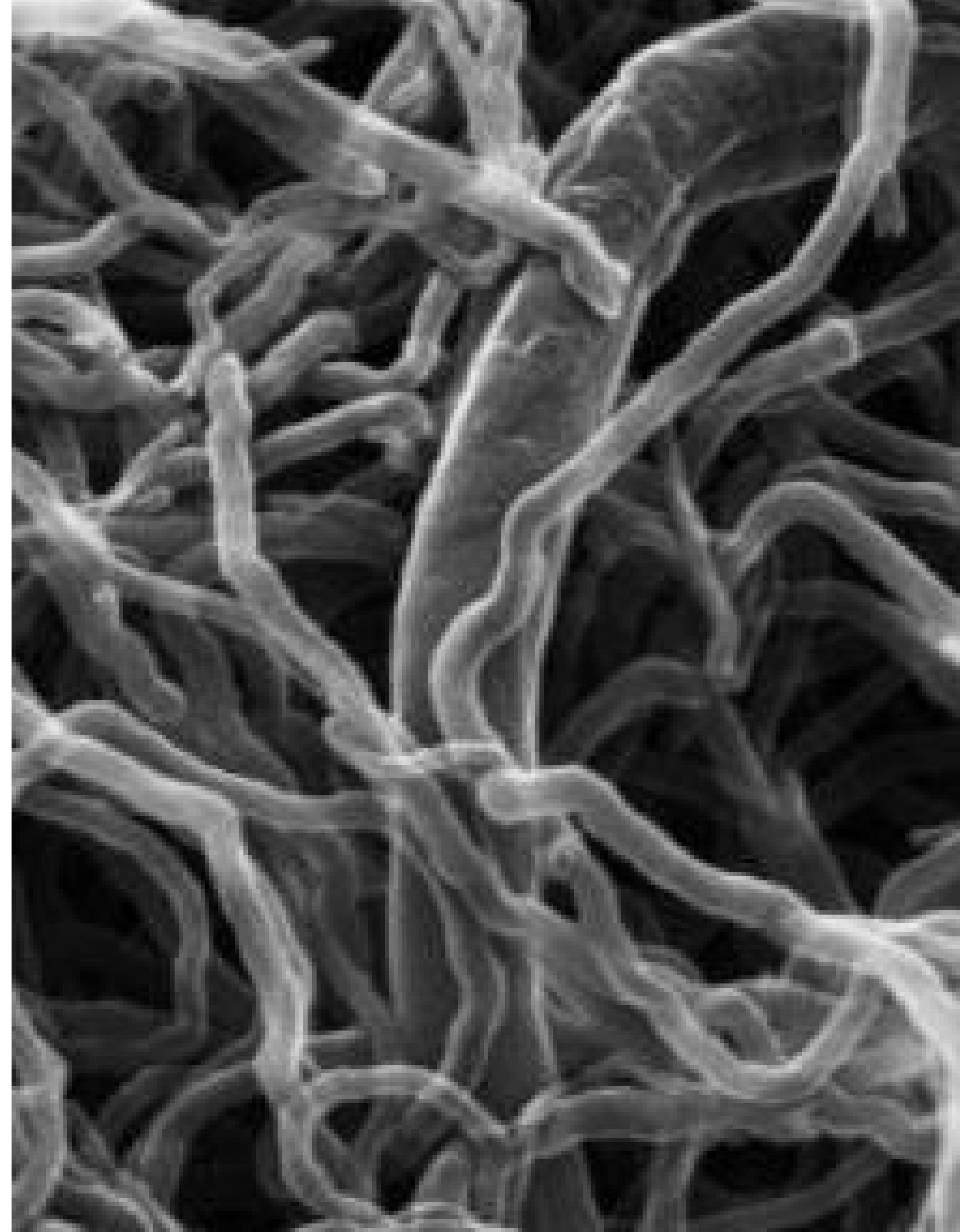
- EdenCrete®
- EdenCrete® HC
- EdenCrete® Pz
- OptiBlend®
- Hythane®

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



# Barriers to Entry-EdenCrete®

- 10 years of product development
- Product field testing by Government departments after initial approval typically requires 12 months, including lab tests
- Typical sales cycle for EdenCrete® is 6 -9 months, after successful field testing by the relevant DOT
- 100% ownership of the Pyrolysis Project (CNT production) Patents granted for Pyrolysis Project
- Patent applications pending for EdenCrete®, EdenCrete® Pz and EdenPlast™





The background of the slide is a photograph of a city skyline, likely New York City, with several tall buildings visible. The skyline is reflected in a body of water in the foreground. The image is darkened with a blue overlay. On the left side, there is a white rectangular area containing the text.

# 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



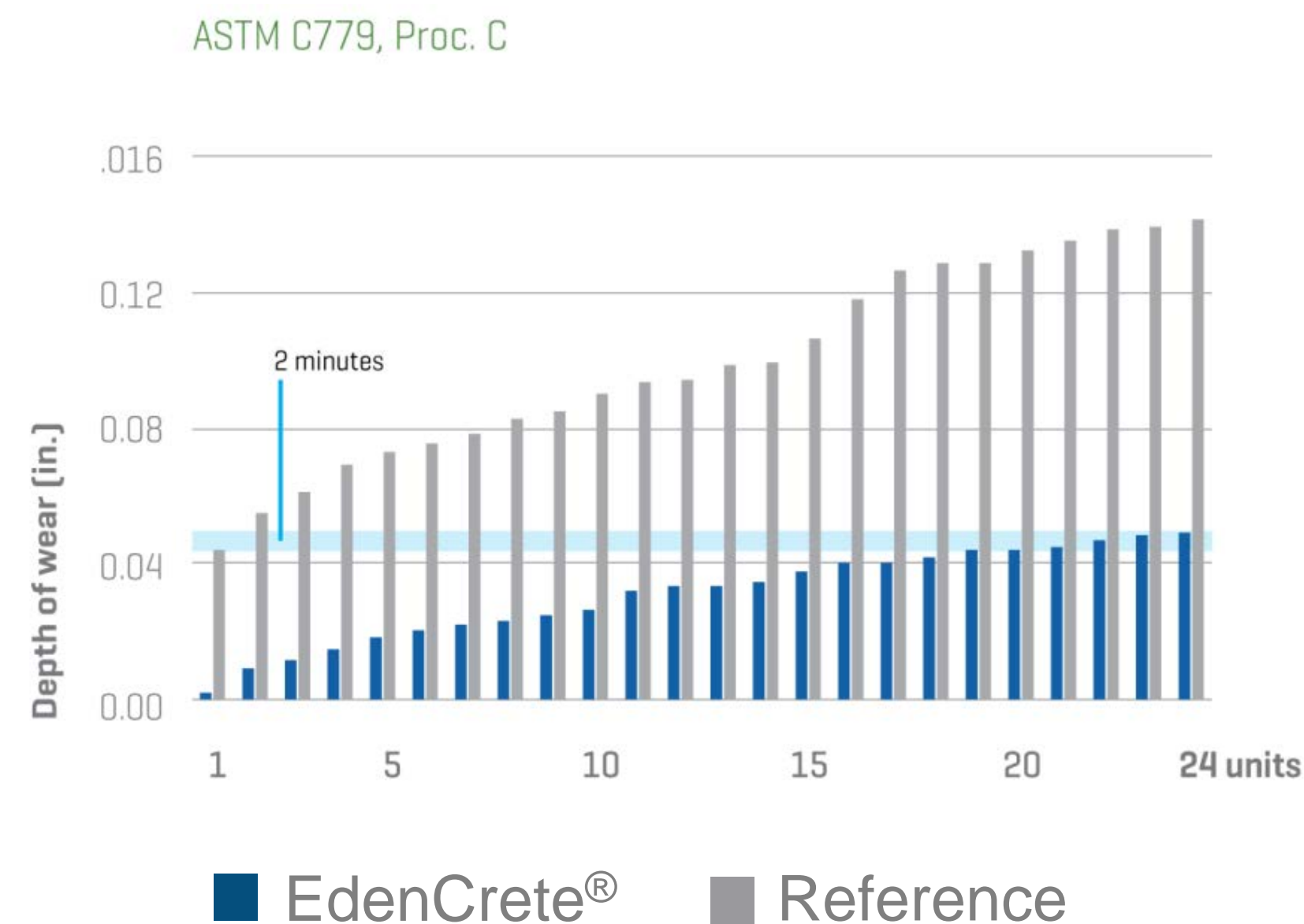
## CUSTOMERS

- 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® - Outstanding Product Benefits

## ABRASION RESISTANCE



**Dramatic increase in abrasion resistance**

## REDUCED PERMEABILITY

Chloride Content (Wt.%)			
Depth (mm)	Control Mix – Not Ponded	Control Mix – Ponded	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 Ponded	Test Mix – Ponded	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® - Value Proposition

- Cost advantages resulting from price and reduced concrete volumes, plus faster setting times
- Combines multiple product advantages
- Liquid suspension, easy controlled mixing
- Environmental impact from reduced concrete consumption

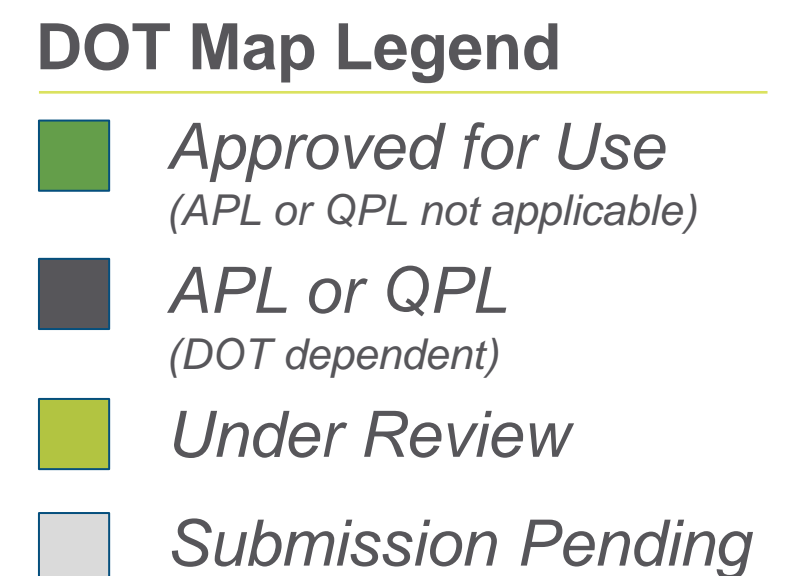
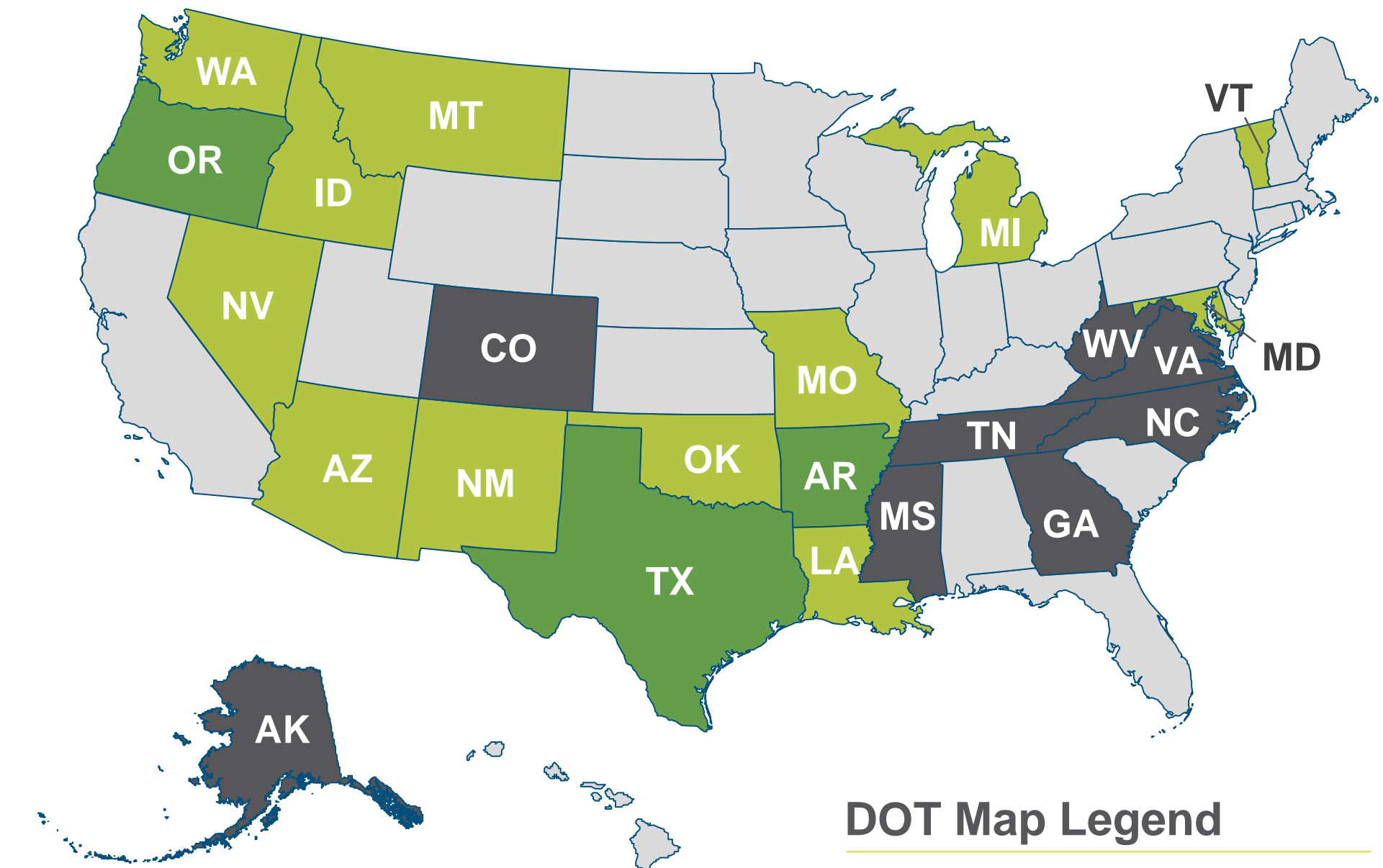
Products	Increases Compressive Strength	Increases Split-Tensile Strength	Increases Flexural Strength	Reduces Shrinkage	Reduces Permeability	Increases Abrasion Resistance	Drawback
<b>EdenCrete™</b>	✓	✓	✓	✓	✓	✓	
Fibers (PP,PVA,ACRY,LOK)		●	●	●			Reduced workability, difficult to handle
Shrinkage Reducers			●				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



# 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\$525,000) commenced Q3 2018.
- > Customer sales to Texas Department of Transport-approved pre-stressed bridge beam manufacturer. Sales expanding to include additional plant for Valley Prestress
- > MARTA Whitepaper endorses use of EdenCrete® and confirms increased durability of concrete and long term cost savings when EdenCrete® used

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



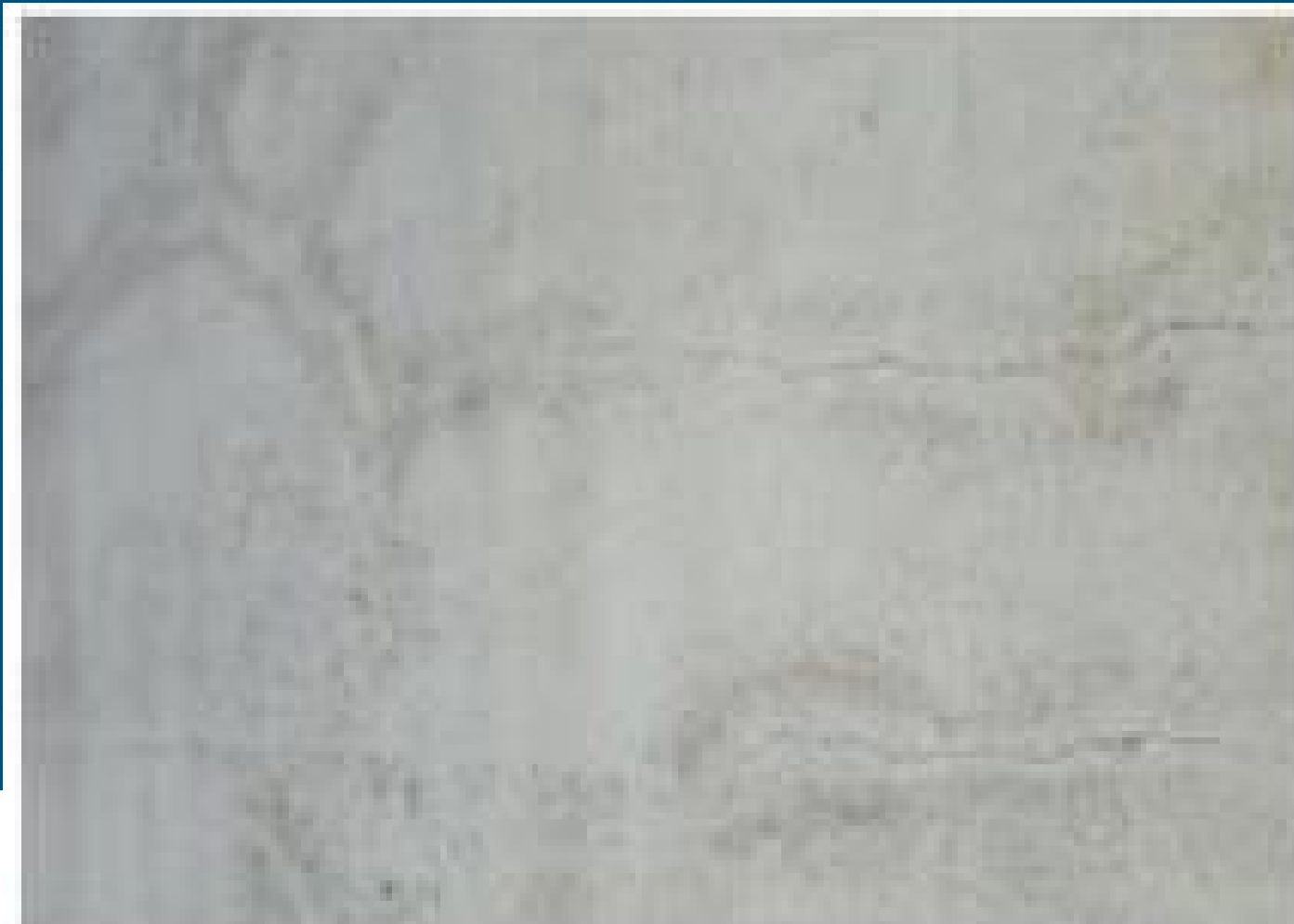
*DOTs where CNT admixture is on the APL or QPL or 'Approved for Use' represent...*

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



# 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

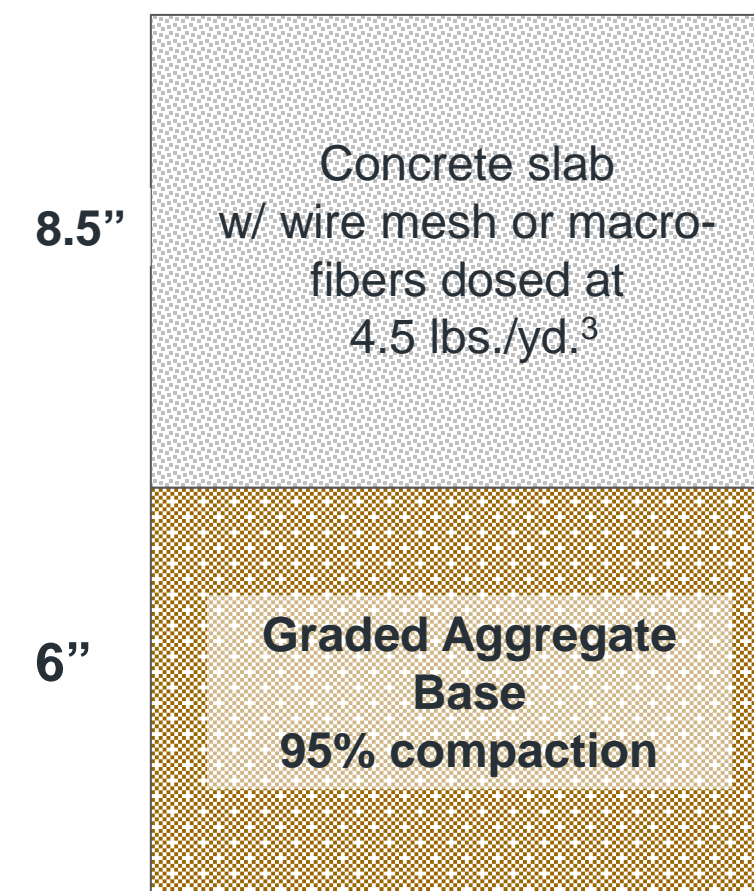
Ultra High Wear /Abrasion Resistance Application

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

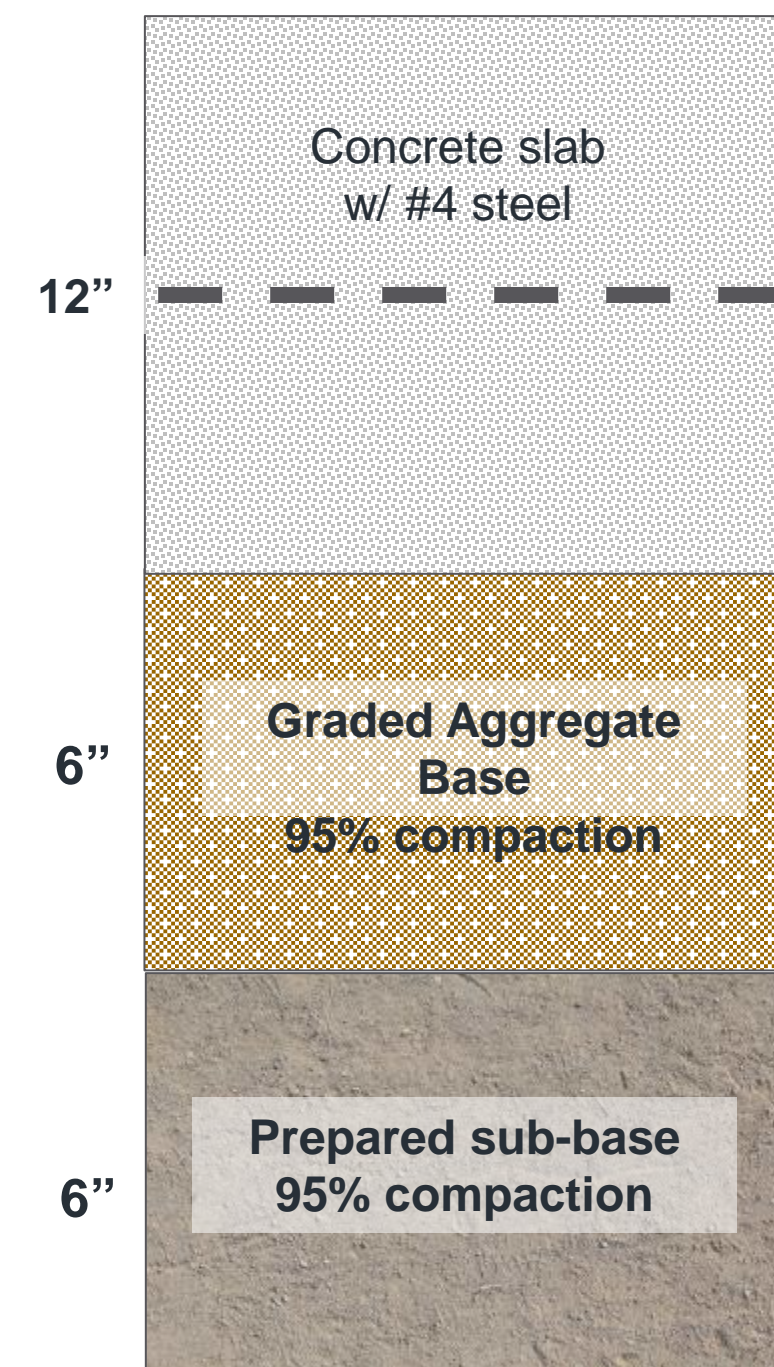
This project delivered significant cost advantages to the customer.

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>





# Commercialisation Progress

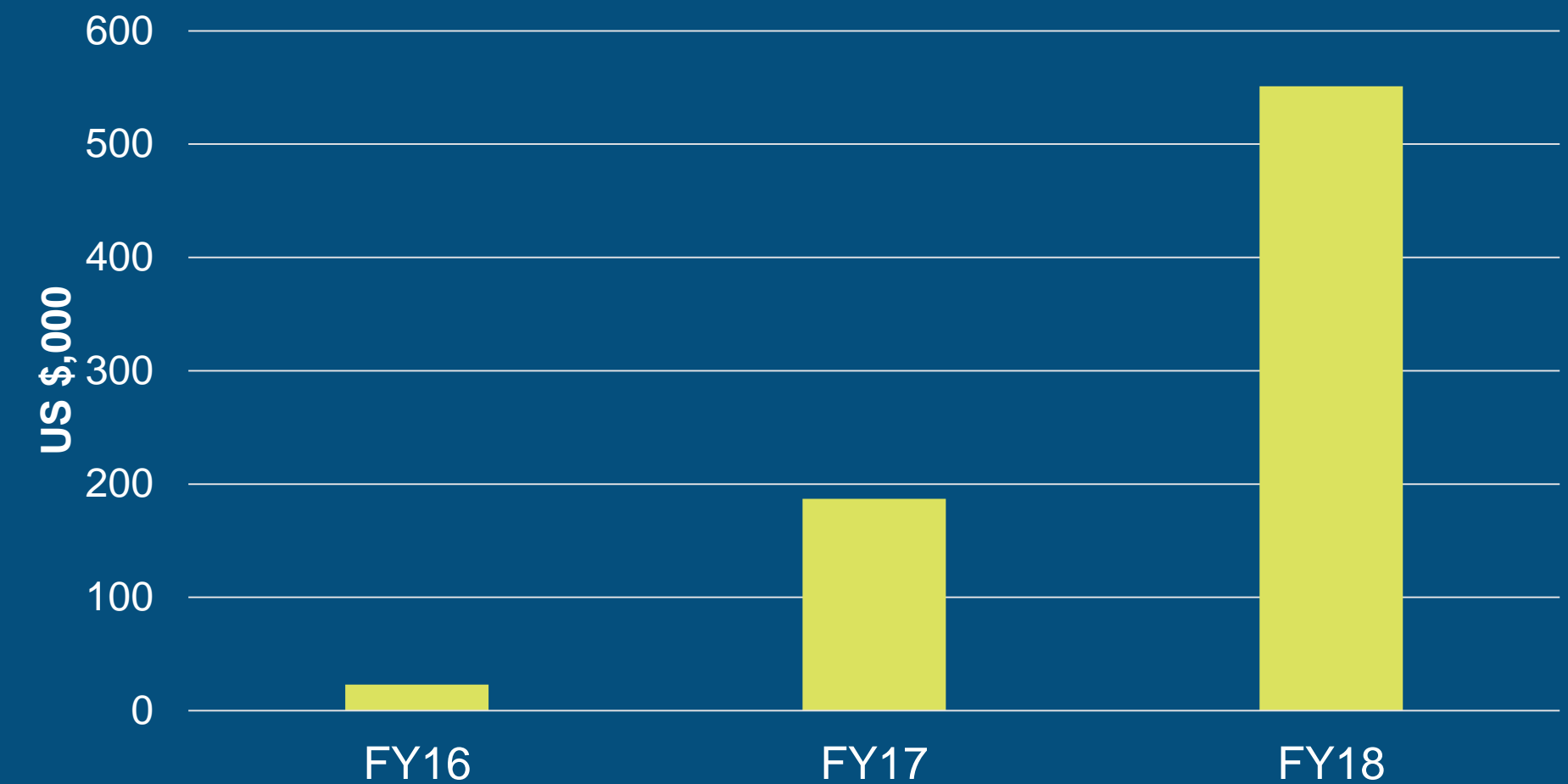
## EdenCrete®

- Bulk distribution contracts
- Repeat business customers - government and private
- Supply contracts vary by volume for each project
- Significant revenue growth projected FY 2019 and FY 2020
- Targeted to be cash flow positive FY 2020

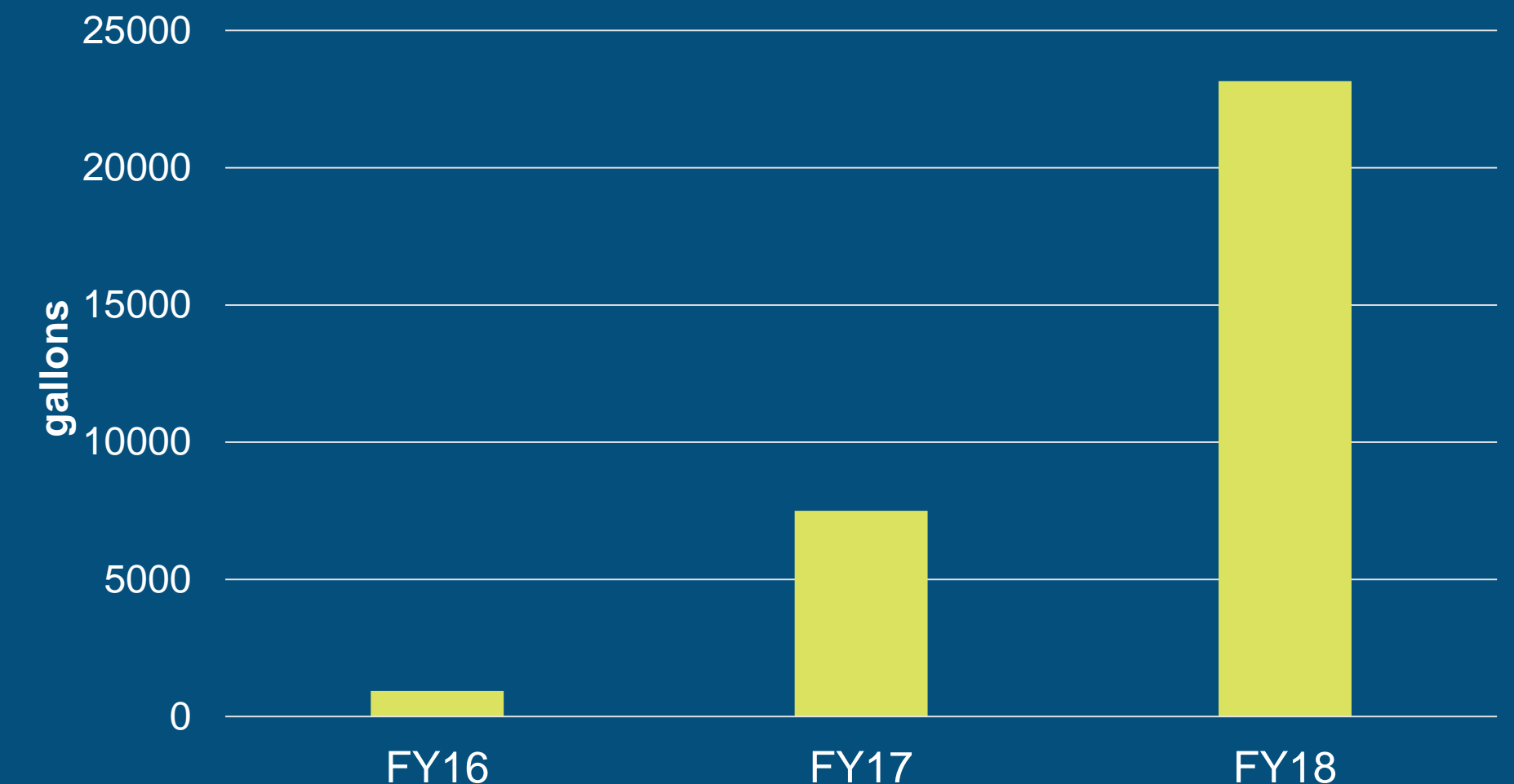
## OptiBlend®

- Customised one-off contracts
- Typically installation plus unit purchase - US\$ 23k-40k (AU \$30k-50k)

EDENCRETE REVENUE



EDENCRETE SALES BY VOLUME





# Infrastructure Markets

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





# Commercial Markets

- Hardstand areas
- Factories
- Showrooms
- Warehouses/ logistics hubs
- Driveways / car parks
- Precast
- Building / construction





# Current 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> large, FHWA funded pavement replacement project -11 lanes miles - order received Sept 2018 - US\$525,000
- 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--** Contracts bridges and road repairs

## OTHER US STATES

### **Precast and ready mix**

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

## AUSTRALIA and KOREA

- Parchem appointed Australian distributor – rollout in Q1 2019
- Korean trials underway – sales anticipated Q1 2019



# Outlook & News Flow Pipeline

## OUTLOOK



Strong year on year revenue growth expected for FY19 and beyond driven by EdenCrete® sales based on :

- Georgia - Growing number of existing projects already underway including US\$525,000 order for first FHWA project
- Georgia - MARTA Whitepaper in October 2018 endorses use of EdenCrete®; states it will save MARTA costs over long term
- Colorado - Colorado DOT, Denver Public Works trials underway
- DOT trials in North Carolina (bridge) and Idaho (road) underway
- Georgia, Colorado, New York - commercial sales and trials increasing
- Anticipated pipeline of commercial and infrastructure projects including Georgia with DOT/ FHWA projects / MARTA contracts, and in Colorado and States where sales and various trials underway
- Appointment of Australian distributor anticipated to produce increasingly strong sales of EdenCrete® from 2019

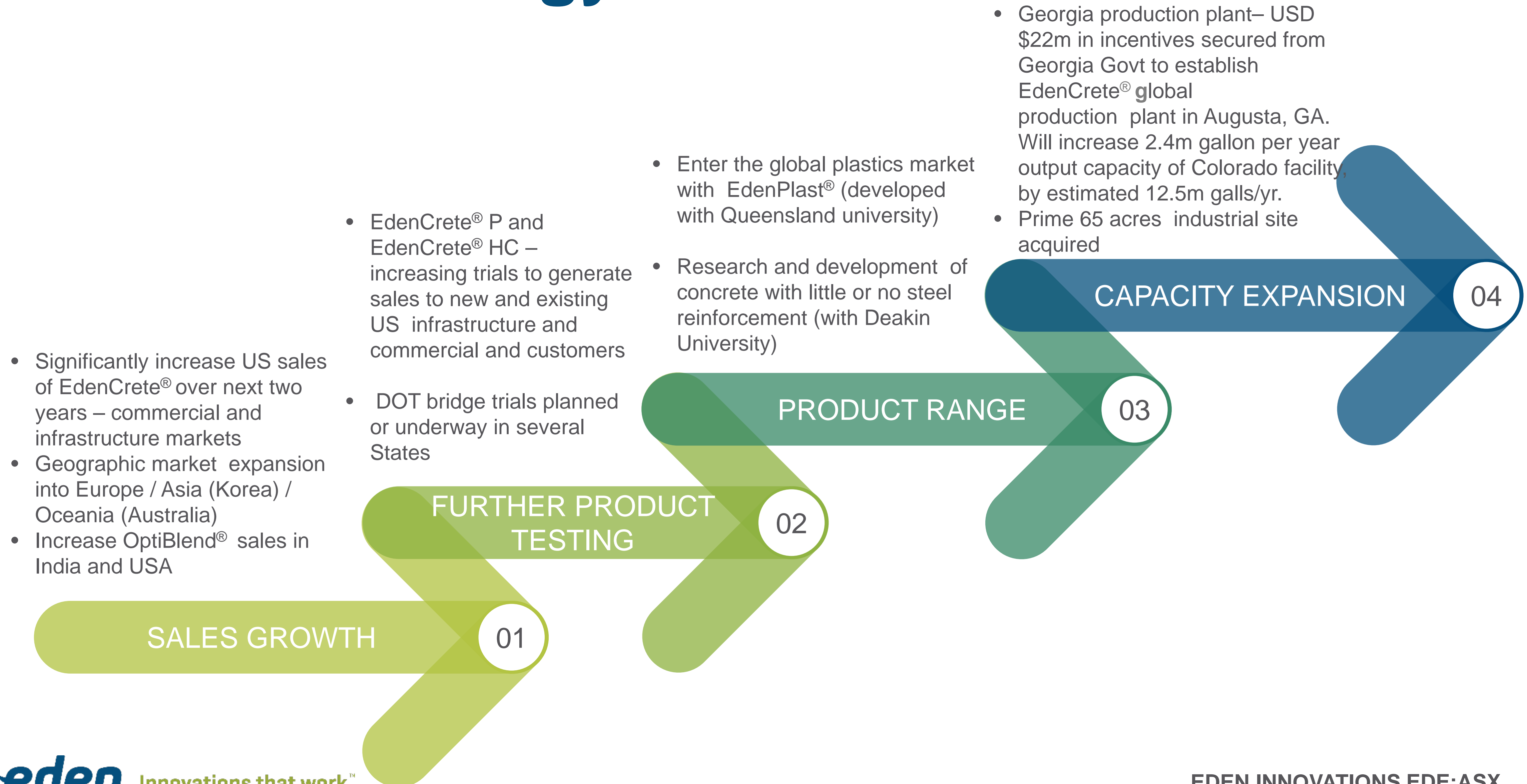
Significant interest anticipated when plastics and polymer R&D project moves towards commercialisation in 2019.

## ANTICIPATED NEWS FLOW

-  Increasing number of contract wins for EdenCrete® expected over next 6-12 months
-  State DOT approval process by the US National Transportation Product Evaluation Program (NTPEP) reporting in early Q2 2019
-  ASTM (international standards) trials of EdenCrete® Pz in early 2019
-  Increasing sales expected for EdenCrete® HC and EdenCrete® Pz
-  Potential Korean distributor currently undertaking trials – may lead to appointment as a distributor
- Increasing European interest



# Growth Strategy



# 4.

## FINANCIALS





# Financials

Year Ended June 2018

## SUMMARY

	\$,000 FY18	\$,000 FY17	% change
Revenue	1,318	949	38.8% up
Other comprehensive income / (loss)*	419	(31)	n/a
Total comprehensive income / (loss) attributable to members of the parent	(10,406)	(11,295)	7.9% down

## BALANCE SHEET

	\$,000 30 June 2018	\$,000 30 June 2017
Cash and cash equivalents	3,490	7,985
Total Assets	20,132	22,981
Total Liabilities	2,370	3,416
Net Assets	17,762	19,565
Total equity	17,762	19,565

## CASH FLOW

	\$,000 30 June 2018	\$,000 30 June 2017
Receipts from customers	1,013	1,165
Net cash used in operating activities	9,204	8,451
Cash at end of period	3,490	7,985

\* Exchange differences on translating foreign operations



# 5.

## OUTLOOK & SUMMARY





# Corporate Journey

## 2005

- Eden & University of Queensland awarded ARC Grant for Carbon Nanotube research

## 2006

- **June** – Eden admitted to official list of ASX
- **June** – Eden wins major US Technology award for Hythane
- **September** – Eden in US Energy Department Breakthrough – Historic Hydrogen Fuel Test

## 2007

- **May** – Eden enters agreement with Larsen & Toubro Engineering group in India – Manufacturing and marketing hydrogen and Hythane™ technology

## 2008

- **January** – Eden wins international tender to supply India's first public hydrogen fuel station

## 2009

- **March** – Ashok Leyland launches new Indian Hythane™ Engine
- **September** – Eden Secures maiden Indian sales of OptiBlend® system. First 3 sales of OptiBlend® dual fuel system in Assam India

## 2010

- **February** – Eden signs agreement with Gail India Ltd and Mahangar Gas Ltd for commercial sized Hythane Demonstration project
- **August** – Pyrolysis (CNT) Project acquisition from the University of Queensland completed. Eden now owns 100% of the intellectual property

## 2011

- **January** – First US Production – super strength carbon nanotubes (CNT)
- **April** – Testing commenced on carbon nanofibres in rubber, coating, plastic and concrete
- **September** – Eden released next generation OptiBlend®
- **December** – Initial order for 12 OptiBlend® Dual fuel kits in US

## 2013

- **July** – Eden & University of Queensland awarded second ARC Grant for Carbon Nanotube research

## 2014

- **October** – Eden's carbon concrete additive wins Australian Civil Contractors Federation's Environment award

## 2015

- **February** – First US trial of EdenCrete®
- **July** – Eden and Monash University receive ARC research grant (transferred to Deakin)
- **September** – ONGC (India) tender won for OptiBlend®
- **August** – 1st Georgia DOT I-20 field trial
- **November** – EdenCrete® receives approval from Georgia Department of Transport (DOT)

## 2016

- **April** – US \$24.76m incentive package received to establish EdenCrete® plant in Augusta, Georgia
- **May** – First commercial order for EdenCrete®
- **June** – Study shows encouraging results of CNT in plastics
- **August** – Georgia DOT highway repair projects

## 2017

- **January** – EdenCrete® mandated for use by Georgia DOT
- **April** – First EdenCrete® bulk supply agreement in Texas
- **August** – Korean Government agency trials of EdenCrete®
- **September** - EdenCrete® approved by US Federal Highways Administration for use in Georgia

## 2018

- **January** – Conditional ® by Oregon DOT, bringing State government DOT approvals to 11
- **January** - EdenCrete® HC and EdenCrete® Pz launched
- DOT trials start in Colorado, Idaho and N. Carolina - 5 State DOTs- now using or trialling EdenCrete®
- **July**- Korean Precast company agreement
- **Sept**-FHWA contract US \$525,000
- GA industrial site acquired
- MARTA Whitepaper- supportive
- EdenPlast® - strong progress



# Summary

- ✓ Core product EdenCrete<sup>®</sup>, is a liquid concrete admixture that delivers significant cost and product advantages, facilitating denser, tougher, stronger cement and longer lasting, more durable concrete
- ✓ Operating in the global concrete market expected to reach US \$921 billion and growing at almost 8% GAGR
- ✓ Proprietary technology and core expertise in manufacturing and production of carbon nanotube products
- ✓ Three commercialised products, EdenCrete<sup>®</sup>, EdenCrete Pz<sup>®</sup> and OptiBlend<sup>®</sup>, with strong year on year revenue growth for EdenCrete<sup>®</sup> expected for FY19 and accelerating in FY20 and FY21
- ✓ High barriers to market entry, with over 10 years in product development, established direct working relationships with Government departments, plus strong patent protection and proprietary technology
- ✓ Strong US Government traction with product approval from 11 Departments of Transport and 11 further applications, plus Federal Highway Authority approval in Georgia / MARTA endorsement of EdenCrete<sup>®</sup>
- ✓ Opportunity to expand into the automotive and packaging sub sectors of the multi-billion dollar plastics industry, with EdenPlast<sup>®</sup> - R&D focusing on commercialisation - master batch produced and patent applications
- ✓ Strong news flow pipeline anticipated including customer trials with revenue conversion potential



GREG SOLOMON  
EXECUTIVE CHAIRMAN

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