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# FY20 Half Year Results Presentation

February / March, 2020



Solving global challenges

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# Calix Limited Investment Highlights



- Cash flow Positive
- Growing Revenues
- Exporting to 8 countries
- Operations in Aus/US/Eur/Asia
- Strong Balance Sheet
- Highly Scalable
- Recent acquisition secured - 5 fold sales revenue increase\*



Partnering with  
Global Majors



- Patented Platform Technology
- Funded Development Pipeline



- Highly Experienced Team
- Personally Invested – owning 17.5% of equity

Multiple, multi x \$b  
verticals ...

...disruptive solutions to  
global sustainability  
challenges



WATER and  
WASTE WATER



AQUACULTURE  
& FRESH WATER  
REMEDATION



AGRICULTURE  
CROP PROTECTION



CO2 MITIGATION  
LIME & CEMENT



ADVANCED  
BATTERIES

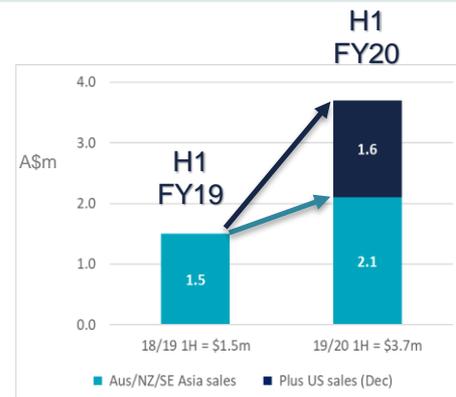
# H1 FY20 Results Overview

## Sales revenue growth



**TOTAL: UP 144% pcp to \$3.7m**

**AUS/NZ/SE Asia: UP 39% pcp to \$2.1m**



**~\$30m in new grant funding secured for further R&D**



**Cash flow positive from operations**



**\$12.4m capital invested**



**1260 shareholders\***  
\* As of Feb 2020



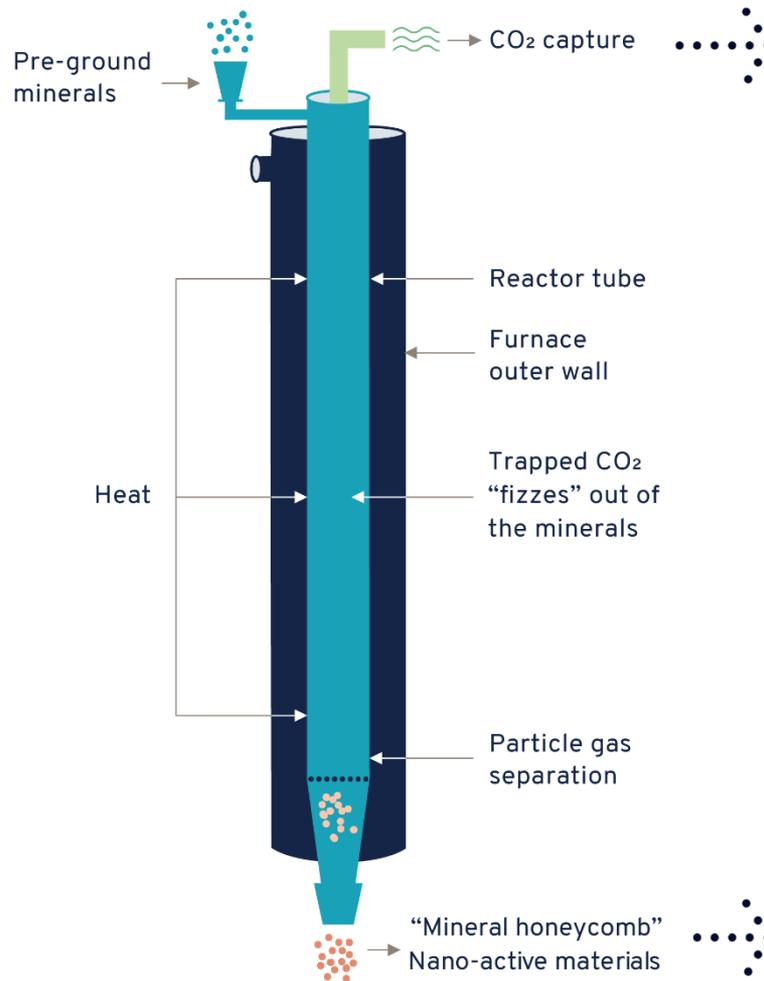
**December: Successful completion of US acquisition set to deliver 5-fold sales revenue uplift\***

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## The Core Technology

- A New Type of Kiln
- Two Unique Benefits...

>\$50m has been invested to date in developing the technology.



### CO<sub>2</sub> Capture

When processing limestone or cement meal, gas exhaust is pure CO<sub>2</sub>

### Low Cost + Very High Surface Area (Reactive) Products

For

 Wastewater

 Aquaculture

 Lake remediation

 Crop protection

 Advanced batteries

# Calix Business Strategy

- Short, Medium and Longer-Term Value

## Growing Sales Revenues

- Wastewater
- Aquaculture
- Lake remediation

Established value chain from mine to customer



## Developing Licensing Incomes

- Crop protection



## Funded Innovation

- Carbon capture
- Advanced batteries

Global collaborative networks



Project LEILAC 1, Belgium



New "BATMn" Reactor, VIC Australia

# FY20 Key Milestones



ON TRACK



WATCH POINTS

**TAM**  
A\$B\*\*



## WATER and WASTE WATER



Core sales growth >25%: H1 pcp 39%



Close IER (US) acquisition by end-Dec 2019, secure 5-fold increase in annualised sales revenue\*



Exploit IER synergies – logistics, product quality, technology – drive us growth

36.7



## AQUACULTURE & FRESH WATER REMEDIATION



Continue SE ASIAN expansion – farmed prawns: watch point – coronavirus



Progress commercialisation – freshwater lake remediation

1.5  
FARMED  
PRAWN

??  
LAKES



## AGRICULTURE CROP PROTECTION



First commercial sales – Europe



Progress licensing deals – rest of world



APVMA application lodged for approval “anti-pest” label – Australia

9.8



## CO<sub>2</sub> MITIGATION LIME & CEMENT



Continue operational performance proofing – LEILAC



Progress financing next scale-up LEILAC-2 \$26m



Progress application to other industries

10.8



## ADVANCED BATTERIES



Collaborative agreements with new battery R&D networks



Produce first pouch cells for testing



\$3m funded CRC-P launched

10.7

\* FY19 Annualised basis

\*\* Frost & Sullivan: Market Opportunity for Calix Flash Calcination, dated 17 April 2018. Refer to Section 4 of the Calix Prospectus for risks associated with the competitive environment, retaining and winning customers and market development.

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# Growing Sales Revenues

- Update on our Sales and US Acquisition



**WATER and WASTE WATER**

**Sewer odour and fat control, increase biogas production, asset protection...**

.....

	COMPETITOR MHL	CALIX "ACTI-Mag"
Safe / Env. Friendly	✓	✓
Reduces Rotten Egg Gas	✓	✓
Breaks Up Sewer Fatbergs	✓	✓
Produces more biogas	✓	✓
Reduce Phosphates, Nitrates and Heavy Metals	✗	✓
	✗	✓
Travel long distances	✗	✓

.....



**ACTI-Mag™**



**GROWTH**

**42% H1 FY20 PCP**

## Business model

- Aus/NZ and now US: Direct sales growth
- Exploit logistics advantage – better product stability
- Exploit value-in-use – higher product activity
- EU market entry

## Business Update Acquisition

- US acquisition of IER announced Oct 2019
- Acquisition Completed December 2019
- Annualised Sales Revenues from **\$3.3m to \$16.7m\***
- Sales across 11 US states
- Exploit logistics advantages of more stable product
- Integration activities underway – technical, sales, finance / back office

*\*Consolidated basis FY19, on closing of the acquisition*

# Growing Sales Revenues

- Update on our SE Asian Business



**AQUACULTURE & FRESH WATER REMEDIATION**

**Water conditioner – traps Nitrogen and Phosphorous**  
**-prawn farming for yield boost**  
**-lake remediation**  
.....

## FARMED PRAWNS    FRESHWATER LAKES

Nitrogen, Phosphorous



Blue Green Algae



Disease



Fish Kills



**GROWTH**

**110% H1 FY20 PCP**

### Business model

- Distributors – 3 established, covering Hong Kong, China, Taiwan, Indonesia, Malaysia, Vietnam, Thailand, Philippines
- Technical support of paid trials – new markets
- Expand and Exploit value-in-use – unique mode of action

### Business Update

#### Aquaculture

- Coronavirus impacting Chinese business – watch point
- Malaysia sales going well – prawns and biogas
- Indonesia license granted – trials to begin
- India market entry underway

#### Freshwater lake remediation...

- Malaysian lake – 2-year trial completed successfully
- Locks up phosphorous and nitrogen, adds O<sub>2</sub>
- Trials on pond bottom remediation in planning
- Seeking first commercial use

# Developing License Incomes

## - Update on our Crop Protection Developments



### AGRICULTURE CROP PROTECTION

Safe, environmentally friendly crop protection at a fraction of the cost

#### New Product

- Safe, environmentally friendly
- 1/5<sup>th</sup> the price point of average pesticide / fungicide
- Enables >50% reduction in standard fungicide / pesticide use
- Existing chemicals under increasing pressure associated with toxicity



#### First Commercial Orders

- “AFEPASA Mg” launched containing Calix’s BOOSTER-Mag active ingredient
- First orders received and 14 tonnes shipped for EU 2020 summer

### Business model

- (Similar to pharmaceuticals)
  - material transfer agreements for development and testing
- Establish licensed sales / marketing agreements with crop protection majors covering Asia, Americas, Oceania
- Supply under margin-share

### Business Update Validation

- ✓ Successful 5<sup>th</sup> year Australian and 4<sup>th</sup> year European summer trials.
- ✓ “Anti-pest” approval application lodged with APVMA



Australian Government  
Australian Pesticides and  
Veterinary Medicines Authority

- ✓ First license agreement – Afepasa - Europe



# Funded Innovation

- Update on our LEILAC Project



CO<sub>2</sub> MITIGATION FOR LIME AND CEMENT

## Low Emissions Intensity Lime and Cement... Calix's "LEILAC" technology

### CO<sub>2</sub> Mitigation Drivers

- EU Emissions Trading Scheme ("ETS") CO<sub>2</sub> permit price jumps from €5/T to over €20/T in 2018
- ETS CO<sub>2</sub> permit price averages ~€25/T in 2019
- European Governments commence legislating Net-Zero CO<sub>2</sub>, in most cases by 2050, but by some (Norway) as early as 2030

### Industry-backed

HEIDELBERGCEMENT



Solvay joins the consortium Sep 2019

### Business model

- Secure funding for next scale-up - COMPLETED
- Prove technology at scale by ~ 2025
- License technology to industry / royalty basis
- Pursue other verticals (lime, refractories, soda-ash industries)

### Technology Development

- Belgium pilot plant delivered on time and budget, May 2019
- Initial testing confirmed technology concept
- Operational testing gradually expanding temperatures and throughputs
- Project runs to end 2020
- LEILAC-2 Consortium formed and €16m in grant funding announced from H2020 in December 2019
- Subject to LEILAC-2 Project agreements being executed (in final negotiations)

# Funded Innovation

## - Update on our Battery Projects



### ADVANCED BATTERIES

Cheaper, more recyclable and better performing batteries

#### Why better batteries?

- Rapid growth in electric vehicles and renewable energy
- Issues of cost, capacity, safety and sustainability of current solutions
- Need for advanced materials for lithium-ion batteries with reduced environmental impact

#### Calix 'BATMn' technology

- Controlled porosity = better performance
- BATMn reactor built with funding from Federal Govt. - \$0.9m
- BATMn is already at commercial scale
- Industry network includes...



#### Business model

- 3-yr development program on “drop-in” materials for Li-Ion batteries
- Investigate uses of Calix technology in other areas of the value chain - eg Spodumene processing for Li extraction
- Once proven - license technology to industry

#### Expanding R&D networks...

- Aug 2019 – Calix lead consortium wins \$3m in funding from Federal Government - CRC-P for Advanced Hybrid Batteries targeting
  - High porosity Manganese Oxide
  - Minimise Ni and Co
  - New Anode materials
- Dec 2019 – Calix joins the \$150m Future Batteries Initiative CRC – the largest Australian battery development program



# ASX:CXL

## IPO July, 2018

	As at 19 Feb 2020
Shares on issue	~147.4m
Share price for IPO Capital Raise	\$0.53 per share
Share price on IPO	\$0.62 per share
Share price*	\$0.91 per share*
Market capitalisation	~\$134.1m
Cash (net of debt)	\$4.9m
Enterprise value	\$129.2m

## Share Price Performance Since Listing



Major shareholders	As at 19 Feb 2020
Board & Management	17.5%
Perennial Value Management	14.1%
Sculptor Capital Management	11.5%
Nicholas Merriman and associates	8.9%
Paul Crowther	5.7%
Thorney Investments	5.6%
Acorn Capital	5.4%
AustralianSuper Pty Ltd	5.1%

Further Equity Detail	As at 19 Feb 2020
Free Float	126.8m shares
Escrowed Shares (Directors / Promoters) to July 2020	20.6m shares
Warrants Escrowed to July 2022 (\$0.66 Strike Price)	2.4m warrants
Employee Incentive Scheme Rights	7.8m rights

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Because there's only one Earth...



...Mars is for quitters