



# Calix

## AGM PRESENTATION ACTIVITIES UPDATE

14<sup>th</sup> November, 2018



**AUSTRALIAN  
TECHNOLOGIES  
COMPETITION**  
Food & Agritech Winner 2015



RECOGNISING AUSTRALIANS  
**BUSINESS  
INNOVATION**  
& TECHNOLOGY LEADERS



**PREMIER'S NSW  
EXPORT AWARDS**  
Export Council of Australia

2016 Category Winner  
Environmental Solutions

54th Australian  
Export Awards  
**2016 NATIONAL FINALIST**



**AUSTRALIAN  
TECHNOLOGIES**  
COMPANY OF THE YEAR 2015

CREATING NEW MATERIALS AND SOLVING GLOBAL  
CHALLENGES, COMMERCIALISING A UNIQUE  
TECHNOLOGY PLATFORM

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All dollar values are in Australian dollars (\$) or A\$ and financial data is presented as at or for the year ended 30 June 2017 unless stated otherwise.

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Past performance information given in this presentation is given for illustrative purposes only and should not be relied upon as (and is not) an indication of the Company's views on its future financial performance or condition. Investors should note that past performance, including past share price performance, of Calix cannot be relied upon as an indicator of (and provides no guidance as to) future Calix performance including future share price performance.

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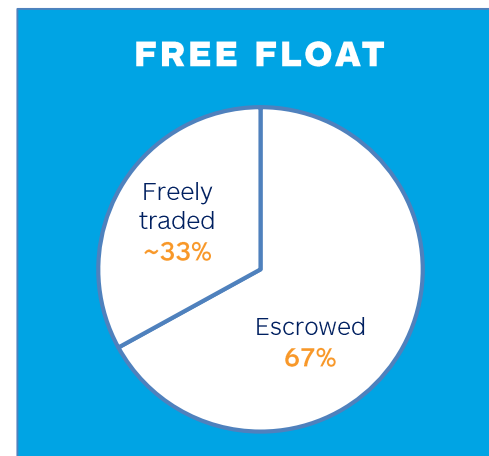
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# CAPITAL STRUCTURE AND USE OF FUNDS

## LISTED ON ASX IN JULY, 2018

	As at Oct 30, 2018
Shares on issue	~122.9m
Share price*	\$0.79 per share
Market capitalisation	~\$97m
Cash (net of debt)	\$7.9m
Enterprise value	\$89.1m

Major shareholders	As at Oct 30, 2018
Board & Management	19.7%
Och Ziff Capital Management	17.5%
Nicholas Merriman and associates	8.5%
Paul Crowther	6.7%
IOOF Holdings	5.5%
Acorn Capital	5.4%
Washington H. Soul Pattinson and Company	5.1%



Use of IPO Funds**	\$ MILLION	%
Advanced batteries development	1.5	12.5%
Booster-Mag licensing support costs	0.5	4.2%
Manufacturing logistics and efficiencies	2.3	16.7%
New market entry and development	2.2	20.8%
Working Capital	1.5	12.5%
<b>Total Uses</b>	<b>8.0</b>	<b>100%</b>

\*As at 30/10/18

\*\*The information above is indicative only. Actual use of funds will depend upon a variety of factors as the business strategy is executed, including changing market conditions and competitive response. As with any budget, intervening events and new circumstances have the potential to affect the manner in which funds are ultimately applied. The Board reserves the right to alter the way the funds are applied on this basis.

# INTRODUCING CALIX



## A fast-growing, cash positive business

- Achieved cash flow positivity in FY15
- **Statutory EBITDA growth >100% last 2 years**
- Core product growth of 25% FY17 to FY18, including 35% growth of core magnesium hydroxide liquid products
- Average gross margin growth from 30% FY17 to 35% FY18



Manufacturing facility – Bacchus Marsh, VIC



## Blue chip customers, easily scalable operation

- Value chain from own mine to customers in waste water and infrastructure
- Blue chip customers
- Exporting to Europe, China and SE Asia (Malaysia, Thailand, Indonesia, Vietnam, the Philippines)
- Commencing trials in US



## Proven technology platform – advanced materials

- Patent-protected
- **~A\$50 million capital spent to date to develop the technology**
- **Achieved A\$36 million in grant funding, majority from EU**
- Major R&D collaborators internationally
- Multiple technology awards



## Huge addressable global markets

- Near-commercial products in agriculture & aquaculture
- Three pilot projects in de-carbonised lime and cement, advanced batteries
- Many more products and applications to be developed
- Multiple touch-points with global chemical companies



Calix-led R&D consortium - Europe

## Commitment

*Calix Directors, Management and Staff have invested cash to collectively own ~20% of Calix*



# VALUE CHAIN

Calix is vertically integrated, owning the input and proprietary technology that manufacturers multiple industrial products

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"The information in this Presentation that refers to a JORC-compliant resource estimate is based on information prepared by Ric Horn of Hornet Resource Assessment Services Pty Ltd. Ric is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional and is bound by and complies strictly with the Institutes codes and recommended practices. Mr Horn has 47 years' experience in the resources industry both in exploration and mining and has sufficient experience relevant to the style of mineralisation under consideration. He has 14 years' experience involved with the deposit under consideration and activities being undertaken to qualify as a competent person as defined in the 2012 Edition of the JORC Code of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr Horn consents to the inclusion in this Presentation of the matters based on his information in the form and context in which it appears."

# FY2018 FINANCIAL RESULTS

## Financial Information

Amounts in AU\$'000 unless otherwise stated

	FY17	FY18	Mvt %
EBITDA (statutory)	901	1,933	102%
Core product revenue	3,104	3,864	24.5%
Gross Profit	1,217	1,412	16.0%
Gross Profit and other income	8,847	9,540	7.8%
Cash flow from operations	- 1,946	2,000	
EBITDA (pro forma)*	225	1,681	

\*Certain pro forma adjustments have been made to Calix's Statutory Historical Results to reflect the full year impact of the operating and capital structure that will be in place following the Company's IPO as if it were in place as at 1 July 2014. The nature of these pro forma adjustments are set out on Section 3.3.2 of the Calix Limited Prospectus lodged with ASIC on 25 June 2018. The adjustments represent the removal of a one-off sale of magnesite ore in FY 17 and the addition of an estimate of costs associated with being a listed public company through the historical periods presented.

**+ 102%**

in EBITDA to \$1.9m (FY17 \$0.9m)

**+24.5%**

in core product revenue to \$3.86m (FY17 \$3.10m)

**+16.0%**

in gross profit to \$1.41m (FY17 \$1.22m)

**+7.8%**

in gross profit and other income to \$9.5m (FY17 \$8.8m)



# ACTI-MAG

## Sewer odour and fat control, increased biogas production



ACTI-Mag™

### PROBLEM

- **Worsening odour:** Waste water “Rotten Egg Gas” problem worsening with diet changes and tightening EPA standards
- **Fat build-up:** More frequent sewer blockages due to “fatbergs”
- **Biogas Power:** Increasing need to use bio-treater methane to produce power

### Market Response

- **Toxic chemicals:** acidic iron salts and caustic soda – dangerous chemicals
- **Regular or emergency maintenance:** expensive, disruptive

**A\$36.7b**  
**(1) MARKET**

## Calix Solution...

- ACTI-Mag is dosed into sewers and industrial waste water
- Proven to be more powerful than alternatives and yet completely safe and environmentally friendly
- Helps keep infrastructure free of fat build-up, and aids in bio-treater efficiency, producing better quality and quantity of biogas

## Key Target Milestones...

- Continue role-out of high margin business model – Aus/NZ/Asia
- Initial paid trials in US
- Licensed partner deals
- Initial paid trials in EU
- First repeat sales, contracts, US, EU
- Local MHL facility established US, EU

## Key Progress Since Listing...

- Biogas SE Asia – 1 regular customer (palm oil) after 28% increase in biogas production, 1 new commenced Oct, 3 more planned by end-Dec
- Biogas Australia – trial with major water utility continues
- First PO received from US West Coast – ACTI-Mag for odour and fat control trial

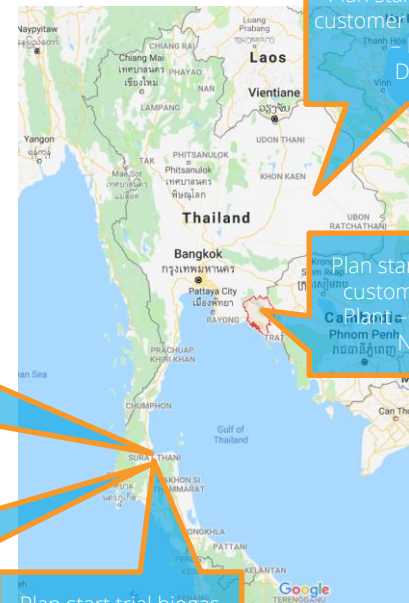
First ACTI-Mag biogas customer Palm Oil Plant Surat Thani, May 18

Started trial biogas customer Palm Oil Plant - Surat Thani, Oct 18

Plan start trial biogas customer Palm Oil Plant - Surat Thani, Dec 18

Plan start trial biogas customer Cassava Plant - Roi Et, Dec 18

Plan start trial biogas customer Palm Oil Plant - Chantaburi, Nov 18



# PROTECTA-MAG

## Cost-effective, safe sewer asset protection



### PROBLEM

- **Accelerating Corrosion:** H<sub>2</sub>S corrosion of aging, global sewer infrastructure due to increasing bio-activity
- **Accelerating Collapses:** Est. US\$60 Trillion in replacement cost: few economic solutions

### Market Response

- **Epoxy / Plastic Lining:** Expensive, and temperamental
- **Re-cement:** Expensive, requires man-entry & shuts the sewer down

**A\$25b<sup>(1)</sup>**  
**MARKET**

## Calix Solution...

- PROTECTA-Mag is simply sprayed onto a water-washed sewer surface
- <1/3 of the total cost of alternative methods
- Can be applied without shutting down the sewer and is safe and environmentally friendly

### Key Target Milestones...

- Continue role-out of high margin business model – Aus/NZ/Asia
- Initial paid trials in US
- Licensed partner deals
- Initial paid trials in EU
- First repeat sales, contracts, US, EU
- Local MHL facility established US, EU

### Key Progress Since Listing...

- First WA assets coated in June to October campaign with new WA partner – Hutton Contracting
- Coupon (unpaid) trial commenced in US West Coast
- US Paid (manhole / wet well) trials in advanced discussions



Aug 2018, 36 months after PROTECTA-Mag application – still high pH.  
Gold Coast City Council



(1) Frost & Sullivan: Market Opportunity for Calix Flash Calcination, dated 17 April 2018. Refer to Section 4 of the Calix Prospectus dated 25 June 2018 for risks associated with the competitive environment, retaining and winning customers and market development.



# AQUA-Cal+

## An emerging aquaculture water treatment product



### PROBLEM

- **Rapid Growth:** Aquaculture is growing rapidly. More fish are now grown than caught. Rapid depletion of coastal habitats
- **Increased disease outbreaks from intensification:** Numerous catastrophic crop losses due to disease in last decade

### Market Response

- **Growth of antibiotics:** but this leads to faster evolution of resistance
- **Growth of probiotics:** problems with efficacy and shelf life

**A\$1.5b<sup>(1)</sup>**  
**MARKET**

## Calix Solution...

- AQUA-Cal+ is simple to use, suppresses iron, nitrates and phosphates, reduces sludge and increases oxygen
- Extends the life of existing ponds and improves yields
- Improved yields on controlled trials have delivered over 20x return on the cost of the product to the farmer

### Key Target Milestones...

- AQUA-Cal+ repeat sales achieved in Thailand, Vietnam, Indonesia
- AQUA-Cal+ paid trials, then repeat sales in Southern China

### Key Progress Since Listing...

- Regular customers now established in China – 3<sup>rd</sup> container shipped in October
- Trials continue in Vietnam, Thailand and Indonesia



Lake at Petaling Jaya – Malaysia – May 2018

Dead fish and algae – early March 2018

New Application – fresh water lake remediation, continuing to show excellent results 8 months into 12 month trial



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# BOOSTER-Mag

## An emerging sustainable crop protection product



### PROBLEM

- **Increased Agricultural Demand:** By 2050 agricultural demand is expected to increase 50%, from declining arable land
- **Increasing Pesticide Restrictions:** 1993 to 2011: EU banned three quarters of active pesticide ingredients. Over the next 5 years nearly all remaining substances will come up for review
- **Chemical Pesticide Development Costs:** to find and bring to market new chemical products, is now estimated at US\$200m and 10 years per product

### Market Response

- **Investment in Ag-tech:** VC investment in Ag Tech has grown 10-fold in the last 6 years
- **Mega-mergers:** Major global chemical companies are consolidating in an effort to mitigate R&D costs

**A\$9.8b**  
(1) **MARKET**

## Calix Solution...

- **BOOSTER-Mag improved yields at over 50 % less pesticide use**
- **Non-toxic, fertiliser PLUS crop protection**
- **1/5<sup>th</sup> the average price point of existing pesticides / fungicides**
- **Calix has launched global partnership license “auction” based upon high gross margin ex-gate business model**

### Key Target Milestones...

- Material Transfer Agreement/s executed
- APVMA submission
- APVMA approval achieved
- Sales and Marketing license/s achieved

### Key Progress Since Listing...

- Two additional Material Transfer Agreement/s executed, now three in total

#### Latest European Summer Results:

- Reims, France – grape & maize - targeting chemical free within 5 years. 3<sup>rd</sup> year of trials. Again performed well – in high disease (powdery mildew) performed as well as in-market chemical
- Holland – onion – looking for Mancozeb substitute (expecting it will be banned in next few years) – vs downy mildew, again similar control of disease as in-market chemicals

Vines near the village of Ay, Champagne, France – just finishing European summer BOOSTER-Mag trials



Olive trees near Moron, Spain – full year BOOSTER-Mag trials starting Jan 19.



(1) Frost & Sullivan: Market Opportunity for Calix Flash Calcination, dated 17 April 2018. Refer to Section 4 of the Calix Prospectus dated 25 June 2018 for risks associated with the competitive environment, retaining and winning customers and market development.

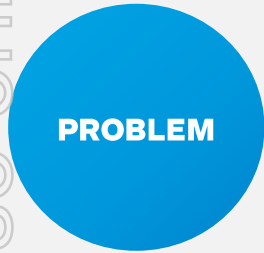
# LEILAC

## Low Emissions Intensity Lime and Cement - Europe



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 654465

HEIDELBERGCEMENT



- For every tonne of lime or cement produced, roughly one tonne of CO<sub>2</sub> is emitted directly from the raw limestone
- Phase 4 of the EU's CO<sub>2</sub> emissions reduction directive is starting in 2021 – accelerating the reduction in “free” CO<sub>2</sub> allowances



- EU Innovation programs for industrial CO<sub>2</sub> reduction
- Increased activity in the European cement and lime industry in CO<sub>2</sub> reduction technologies



## Calix Solution...

- Calix leading the LEILAC consortium to demonstrate direct separation of CO<sub>2</sub> for lime and cement
- Awarded €12m in funding from the EU, project commenced in January 2016
- Commissioning on time and budget for April 2019, demonstration plant then runs for 21 months

## Key Target Milestones... Key Progress Since Listing...

- Successful start-up / commissioning Apr 19
- LEILAC next scale-up funding
- LEILAC – first Lime or Cement License

- LEILAC construction phase continues on time and budget
- Key Milestone achieved in October – European Commission review of the project and approval of grant milestone payment of €4.8m.



**The LEILAC Project  
HeidelbergCement - CBR  
Lixhe, October, 2018**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 654465

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# ADVANCED BATTERIES

## The BATMn and SOCRATCES Projects

BATMn

SOCRATCES

### PROBLEM

- Slow-charging of energy storage devices (batteries) for EV's, electronics etc
- Relative high cost of battery materials
- Ease of recycling
- Use of rarer materials such as cobalt

### Market Response

- Search for cheap, efficient, high performance, highly recyclable battery materials and processes

A\$10.7b  
(1) MARKET

## Calix Solution...

Use of Calix Flash Calciner technology to

1. BATMn – explore high surface area formulations for manganese oxide as a Li ion battery cathode material – funded 0.8m by AusIndustry AMGF
2. SOCRATCES – explore solar thermal energy storage via splitting and recombining Ca and CO<sub>2</sub> – funded €5m by the EU H2020 scheme

### Key Target Milestones...

- BATMn – Construct and commission successful by end-Aug, 2019
- BATMn – first product trials
- SOCRATCES – Construct and commission successful

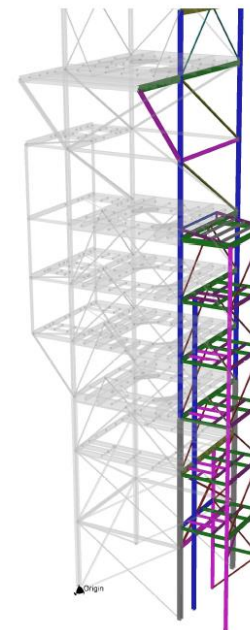
SOCRATCES



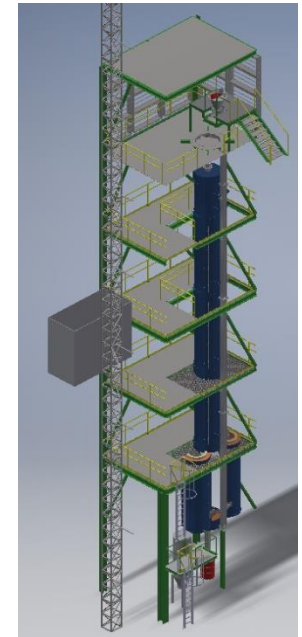
This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no. 727348

### Key Progress Since Listing...

- BATMn project passes stage 2 milestone of Australian Manufacturing Growth Fund – major components ordered
- BATMn remains on-time and budget for commissioning August 2019
- SOCRATCES Front-End Engineering Design FEED on-track for completion end-Dec, 2018



Calix's BATMn reactor



(1) Frost & Sullivan: Market Opportunity for Calix Flash Calcination, dated 17 April 2018. Refer to Section 4 of the Calix Prospectus dated 25 June 2018 for risks associated with the competitive environment, retaining and winning customers and market development.



# Successful grant funding continues

**A\$26.6m**

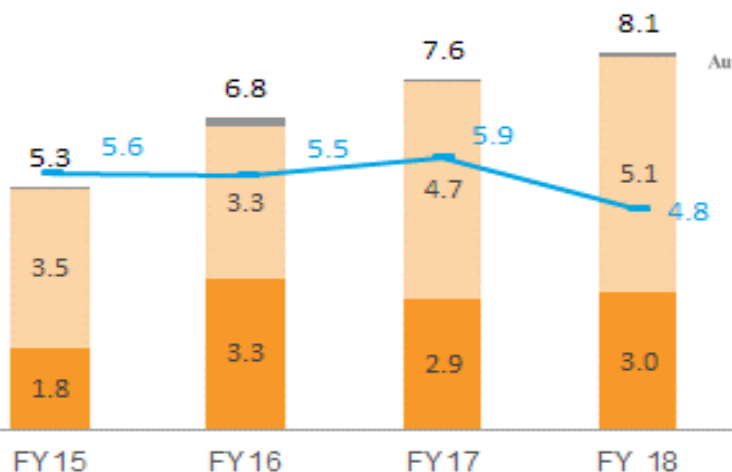
Total grant funding and R&D rebate received - last 4 years

- Calix has been successful in achieving ~\$10m over the last 4 years to pursue BOOSTER-Mag, cement and lime, advanced batteries and CO<sub>2</sub> mitigation across multiple projects
- In addition, Calix has secured \$16.6 in R&D rebates over the same period

LEILAC and SOCRATCES grants to run for two more years

- As previously stated, the Company will continue its R&D efforts as long as it continues to receive the appropriate funding (i.e. not with shareholder equity)
- The number of products near commercialisation demonstrates value produced as a result of R&D in significant markets.
- Our most recent funding is our first tranche to start to address pharmaceutical applications

**Fully-funded R&D pipeline**



■ R&D Rebates  
■ Grants  
■ Other income  
— R&D Expenses



**Business**  
business.gov.au



R&D Tax Incentive

GLOBAL CONNECTIONS FUND

Export Market Development Grants

Accelerating Commercialisation





## Other achievements...



[Carbon capture from cement manufacturing nears market readiness](#)

David Thorpe | 28 August 2018

A consortium led by Australian firm **Calix** is now well on the way to completing a pilot plant for its breakthrough technology that will capture carbon emissions from the manufacture of lime cement.



CemWeek Magazine: Jul/Aug 2018

[Leaders Q&A: Phil Hodgson](#)

As environment-friendly technology has become an inescapable subject of discussion in the cement industry, CemWeek presents an exclusive interview with Phil Hodgson, Managing Director at Calix, about carbon capture and storage (CCS) and how it can help the cement sector step up its ecologic game



**Business**  
business.gov.au

Calix is pleased to announce it has received notification our FY1718 R&D Tax rebate of ~\$5.1m will be paid on November 15.



## Negative CO2 Cement Market to See 26.7% Annual Growth Through 2023 Push to Lower Greenhouse Gas Emissions Will Contribute to Steady Gains

WELLESLEY, Mass., Oct. 08, 2018 (GLOBE NEWSWIRE) -- A global drive to reduce greenhouse gas emissions is sparking intense interest in the negative CO<sub>2</sub> market, according to a report by BCC Research.

The industry expects to see a compound annual growth rate (CAGR) of 26.7% through 2023, when it is expected to reach nearly \$53.2 million, according to the report **Negative CO<sub>2</sub> Cement, The Blue Ocean of Growth**.

Major players in the market include banahCEM, Calera SCM, **Calix**, Ceratech.MENA, Emc Cement Co., Geopolymer Solutions, IronKast Technologies, Reco Cement Products, Solidia Technologies and Zeobond.



Nineteen New South Wales businesses have been recognised and celebrated for their outstanding success and contribution to the state's trade output at the Premier's New South Wales Export Awards which were held at the Star on Wednesday 24 October 2018.

**Environmental Solutions winner:** **Calix** (Pymble) – Australian technology company that is developing new processes and materials to solve global challenges.



## In summary...

### • **Financing Growth:**

- Calix is fully financed for EU and US market entry and SE Asia expansion following IPO growth capital injection
- Development pipeline will continue to be covered by existing grant funding for 2 years
- New grant funding will be sought for new applications

### • **Grant income secured to provide cash flow** committed, materially covering the costs of running the business

### • **Margin expansion and stronger profitability** expected with changing product mix and role out of business models, introduction of new products and achieving production scale at Bacchus Marsh

#### Commitment

*Calix Directors, Management and Staff have invested cash to collectively own ~20% of Calix*



#### **A fast-growing, cash positive business**

- Achieved cash flow positivity in FY15
- **Statutory EBITDA growth >100% last 2 years**
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#### **Huge addressable global markets**

- Near-commercial products in agriculture & aquaculture
- Three pilot projects in de-carbonised lime and cement, advanced batteries
- Many more products and applications to be developed
- Multiple touch-points with global chemical companies



#### **Proven technology platform – advanced materials**

- Patent-protected
- **~A\$50 million capital spent to date to develop the technology**
- **Achieved A\$36 million in grant funding, majority from EU**
- Major R&D collaborators internationally
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#### **Blue chip customers, easily scalable operation**

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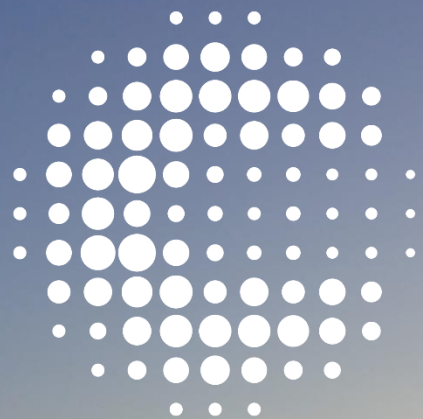
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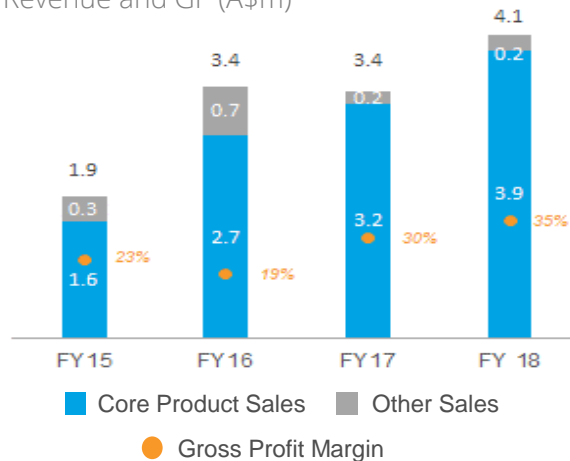
# Calix

**ADDITIONAL SLIDES – KEY FINANCIALS**

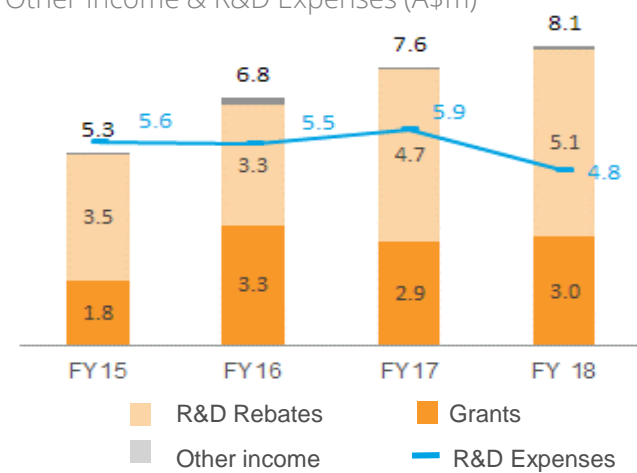


# FY2018 FINANCIAL RESULTS (Pro Forma)

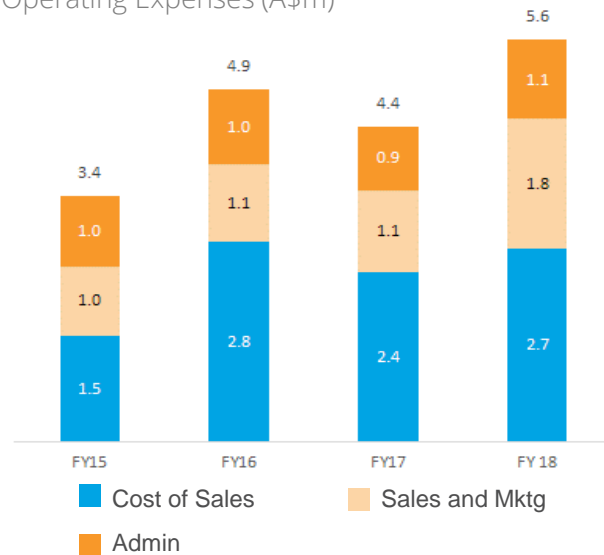
Revenue and GP (A\$m)



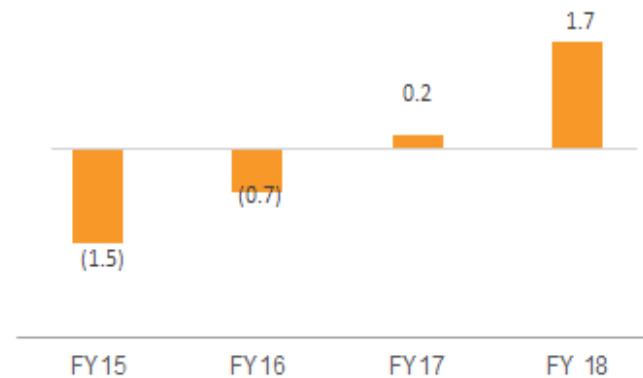
Other Income & R&D Expenses (A\$m)



Operating Expenses (A\$m)



EBITDA (A\$m)





# PRO FORMA STATEMENT OF FINANCIAL PERFORMANCE

\$'000	Pro Forma Historical			
	FY15	FY16	FY17	FY18
Core product revenues	1,582	2,745	3,181	3,865
<i>growth (%)</i>	-	73.5%	15.9%	35.0%
Other product revenues	354	702	200	236
Cost of sales	(1,483)	(2,791)	(2,374)	(2,689)
<b>Gross profit</b>	<b>454</b>	<b>656</b>	<b>1,007</b>	<b>1,412</b>
<i>Gross Margin (%)</i>	23.4%	19.0%	29.8%	35.0%
Other income	5,392	6,783	7,630	8,128
<b>Total operating income</b>	<b>5,846</b>	<b>7,439</b>	<b>8,637</b>	<b>9,540</b>
Sales & marketing expenses	(962)	(1,080)	(1,132)	(1,755)
R & D expenses	(5,201)	(5,545)	(5,919)	(4,764)
Admin expenses	(1,211)	(1,466)	(1,362)	(1,340)
<b>Total operating expenses</b>	<b>(7,373)</b>	<b>(8,091)</b>	<b>(8,412)</b>	<b>(7,859)</b>
<b>EBITDA</b>	<b>(1,527)</b>	<b>(652)</b>	<b>225</b>	<b>1,681</b>
Depreciation & impairment expense	(1,996)	(1,704)	(2,658)	(4,669)
<b>EBIT</b>	<b>(3,523)</b>	<b>(2,356)</b>	<b>(2,433)</b>	<b>(2,988)</b>
Other Expenses	-	-	-	(209)
Finance costs	(3)	(2)	(160)	(80)
<b>Profit before tax</b>	<b>(3,526)</b>	<b>(2,358)</b>	<b>(2,593)</b>	<b>(2,699)</b>
Income tax expense	-	-	-	-
<b>NPAT</b>	<b>(3,526)</b>	<b>(2,358)</b>	<b>(2,593)</b>	<b>(2,699)</b>

# PRO FORMA STATEMENT OF FINANCIAL POSITION

\$'000	Pro forma 30-Jun-18
<b>Current assets</b>	
Cash & cash equivalents	8,874
Trade & other receivables	7,867
Inventory	181
<b>Total current assets</b>	<b>16,922</b>
<b>Non-current assets</b>	
Trade and other receivables	274
Intangible assets	649
Property, plant and equipment	11,784
<b>Total non-current assets</b>	<b>12,707</b>
<b>Total assets</b>	<b>29,629</b>
<b>Current liabilities</b>	
Trade and other payables	(3,741)
Borrowings	(1,891)
Provisions	(331)
Deferred revenue	(202)
<b>Total current liabilities</b>	<b>(6,165)</b>
<b>Non-current liabilities</b>	
Borrowings	(131)
Deferred revenue	(1,093)
Provisions	(470)
<b>Total non-current liabilities</b>	<b>(1,694)</b>
<b>Total liabilities</b>	<b>(7,859)</b>
<b>Net assets</b>	<b>21,770</b>
<b>Equity</b>	
Issued equity	33,397
Reserves	3,015
Retained earnings	(14,644)
Non-controlling interests	2
<b>Total equity</b>	<b>21,770</b>

# PRO FORMA STATEMENT OF CASH FLOWS

\$'000	Pro Forma Historical			
	FY15	FY16	FY17	FY18
<b>Cash flows from operating activities</b>				
Receipts from customers & government agencies	8,356	9,701	6,591	12,814
Payments to suppliers and employees	(8,104)	(10,569)	(9,003)	(10,726)
Interest received	13	4	4	12
Net cash from discontinued operations	-	3,035	-	-
<b>Net cash flows from operating activities</b>	<b>265</b>	<b>2,170</b>	<b>(2,408)</b>	<b>2,100</b>
<b>Cash flows from investing activities</b>				
Purchases of property, plant & equipment	(1,308)	(270)	(223)	(3,513)
Purchases of intellectual property	-	-	(233)	(245)
Proceeds from sales of assets	88	-	-	-
Payments for investments in associates	(41)	-	-	-
<b>Net cash flows from investing activities</b>	<b>(1,261)</b>	<b>(270)</b>	<b>(456)</b>	<b>(3,759)</b>
<b>Cash flows from financing activities</b>				
Proceeds from issues of shares	115	279	479	1,842
Proceeds from/(repayments of) borrowings	500	(1,000)	2,167	519
Payment of interest on borrowings	(3)	(2)	(12)	(80)
<b>Net cash provided by financing activities</b>	<b>611</b>	<b>(724)</b>	<b>2,634</b>	<b>2,281</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>(385)</b>	<b>1,177</b>	<b>(229)</b>	<b>622</b>
Cash and cash equivalents at the start of the year	1,109	722	1,877	1,885
<b>Cash and cash equivalents at the end of the year</b>	<b>724</b>	<b>1,899</b>	<b>1,648</b>	<b>2,507</b>

# FUNDED DEVELOPMENT PIPELINE

Grant Name	Total Maximum Value	Start Date	Duration	FY15 (\$'000)	FY16 (\$'000)	FY17 (\$'000)	Commercial Opportunity
Commercialisation Australia	\$1.8m	Feb-14	1.5 yrs	1,722	100	-	Novel Satellite MHL Manufacturing Plants
ASCENT (EU)	€0.5m	Mar-14	4 yrs	80	246	-	Fossil Fuel Decarbonisation / Production of Hydrogen with CO <sub>2</sub> Capture
LEILAC (EU)	€7.5m	Jan-16	5 yrs	-	2,656	2,359	Lime and Cement Decarbonisation - CO <sub>2</sub> Capture
Accelerating Commercialisation	\$1.0m	Mar-16	2 yrs	-	212	429	BOOSTER-Mag - Australian Registration and Early Commercialisation
SOCRATCES (EU)	€0.9m	Jan-18	3 yrs	-	-	-	Solar-Thermal Energy Storage with Calcium Looping
Advanced Manufacturing Growth Fund	\$0.8m	Jan-18	3 yrs	-	-	-	Advanced Battery Materials
<b>TOTAL Grants Won</b>				<b>1,802</b>	<b>3,214</b>	<b>2,788</b>	
Export Market Development Grant		Annual		62	93	76	
R&D Rebate		Annual		3,483	3,252	4,694	
<b>TOTAL All Grants &amp; Rebates</b>				<b>5,347</b>	<b>6,559</b>	<b>7,558</b>	