2023 Financial Year Annual Results Presentation

Calix Limited

24 August 2023

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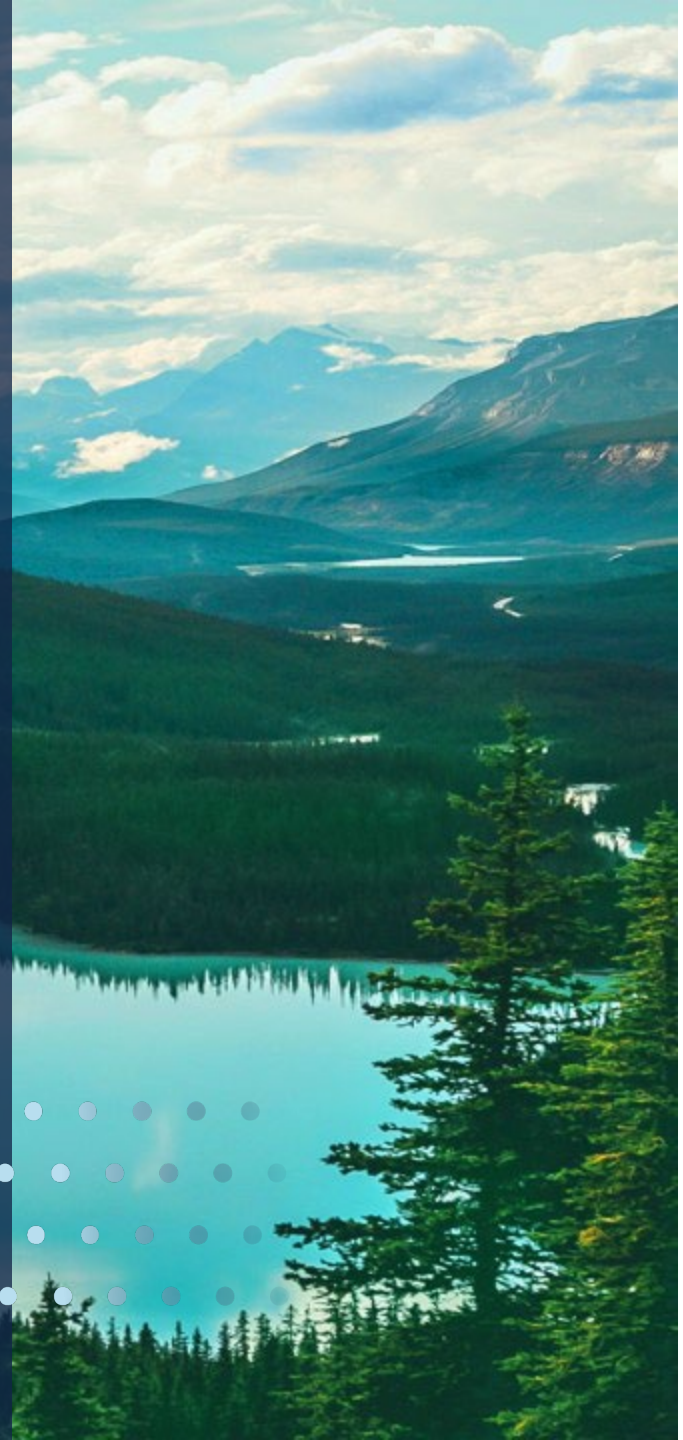
About Calix

Calix is an environmental technology company that is developing a unique platform technology to solve global challenges in industrial decarbonisation and sustainability.

We are building multiple businesses to deliver positive global impact in CO_2 mitigation, sustainable processing, advanced batteries, biotechnology and water treatment.

Because there's only one Earth, and it's already ours.

MARS IS FOR QUITTERS.



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2005 FOUNDED

ASX2018

UNGC signatory SINCE 2020

120+ employees

A$120m technology investment

9 operational SITES

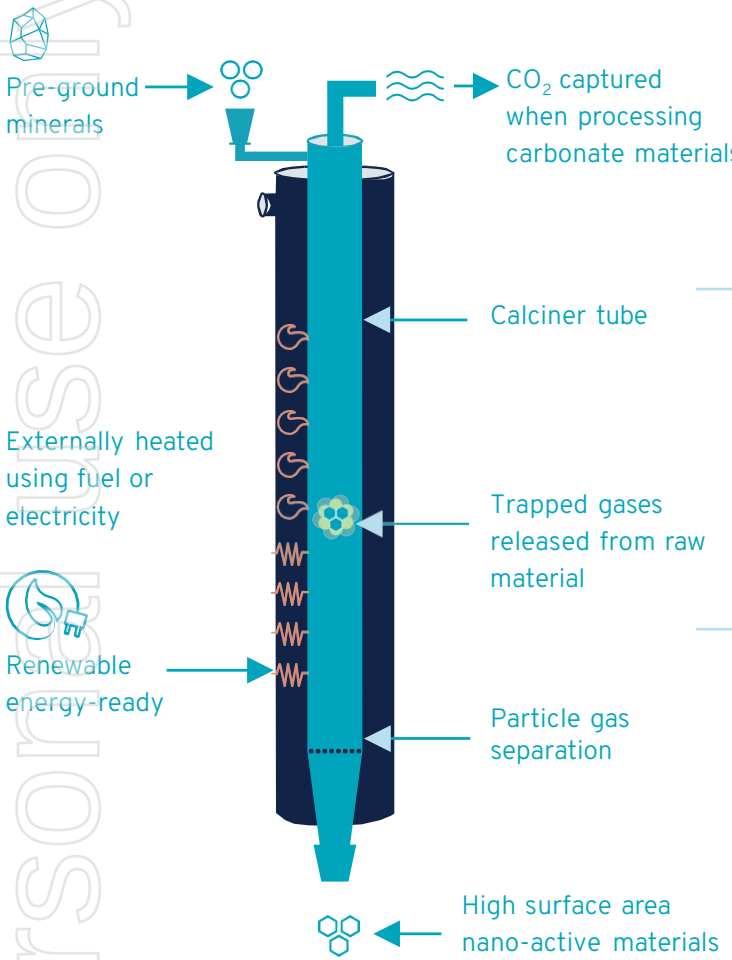
ACTIVE IN

28 PATENT families

7 countries 5 continents

Calix's core platform technology

A new way to "heat stuff up"



CO_2 CAPTURE

Unavoidable process CO_2 emissions from cement and lime production are separated for use or storage.

RENEWABLE ENERGY-READY

Compatible with electricity and alternative fuels to provide viable, flexible and economical pathways to sustainable processing.

HIGHLY-ACTIVE MATERIALS

Produces high surface area nanoporous materials with enhanced chemical and/or bioactivity.

Solving global challenges

One core platform technology

- Multiple environmental business opportunities, each of which must:
  - Focus on a significant global challenge;
  - Be consistent with our purpose, values & ethos;
  - Present significant market and shared value potential;
  - Exploit the core technology to sustainable competitive advantage; and
  - Deliver scale and speed of impact.

Sustainability

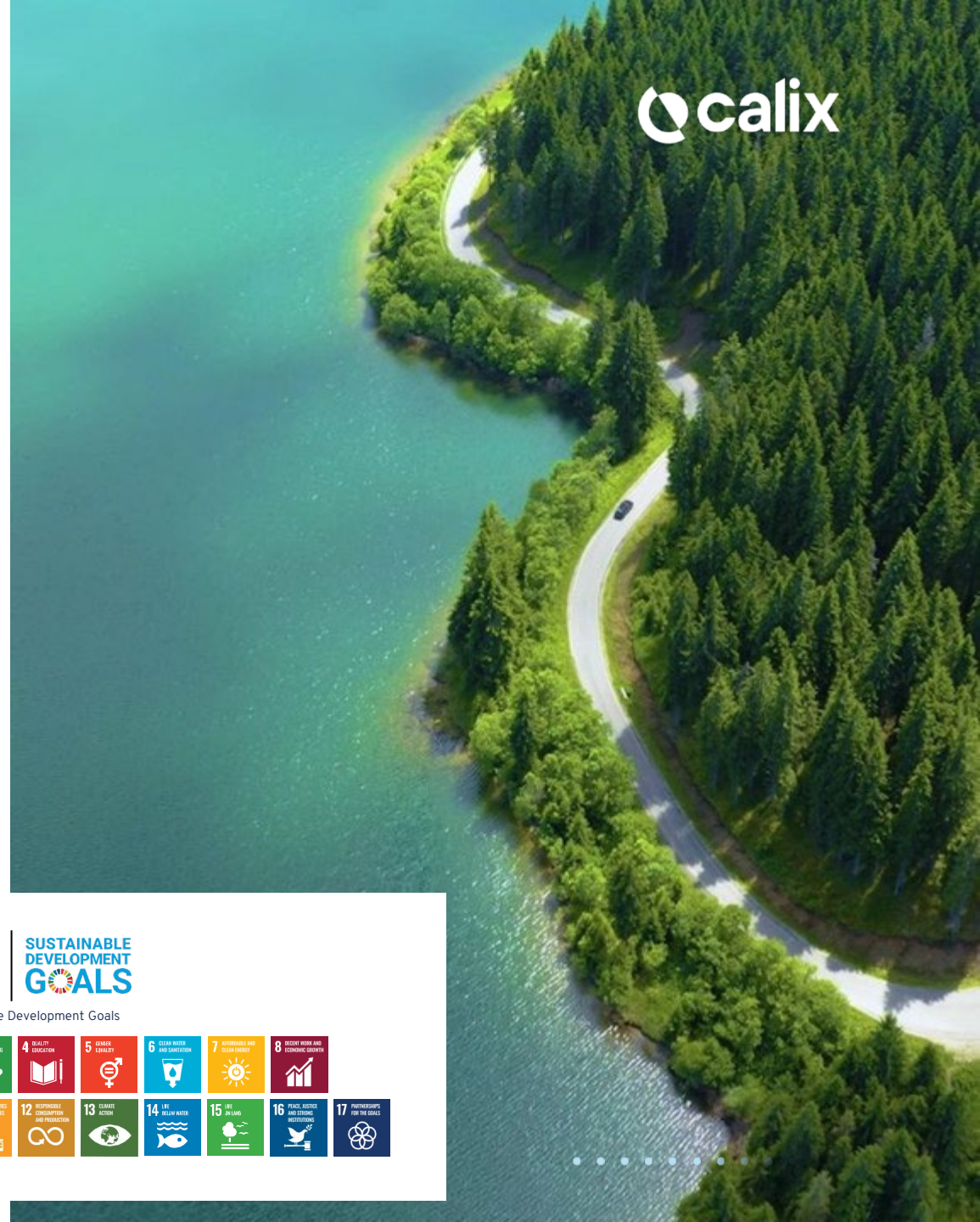
FY23 sustainability achievements:

- Reaffirmed our commitment to the UNGC
- New Board Sustainability Committee established
- Greenhouse gas assessment baseline completed

Our sustainability commitments:

- Develop an emission reduction roadmap in FY24
- Prioritise gender diversity, with an ambition of gender balance at all levels of the organisation by 2030
- Measure and reduce waste, with an ambition of 100% sustainable material inputs by 2030
- 2023 Sustainability Report coming later this year

BECAUSE MARS IS FOR QUITTERS.



FY23 HIGHLIGHTS

7

FY23 achievements

19 Oct

First licence agreement signed for cement

Leilac signs first-of-a-kind global licence agreement with Heidelberg Materials.

20 Oct

Institutional placement

Completion of AU$60m institutional placement.

8 Nov

ZESTY awarded ARENA funding

$947k ARENA grant to help fund BOD and FEED study for renewably powered 30,000 tpa demonstration plant.

15 Nov

Share Purchase Plan

Completion of AU$21.6m Share Purchase Plan.

Capital raise of AU$81.6m

to accelerate the commercialisation of Calix's technology for industrial decarbonisation.

23 Nov

Leilac & CEMEX announce 3 new projects

Studies for full-scale projects announced in Germany, Poland and the US, & progress towards a global licence agreement.

28 Nov

Joint Venture executed with Pilbara Minerals

Supported by $20m MMI grant, the JV aims to develop a novel mid-stream lithium process to produce low carbon, low waste, and high value concentrated lithium salt.

30 Jan

Calix partner in methanol project for sustainable fuels from CO_2

With funding from the HyGATE Initiative, the project aims to use CO_2 captured by the Leilac technology to produce sustainable fuels.

21 Feb

Leilac signs MOU for global licence for Direct Air Capture with Heirloom

Leilac announces a new application of its core technology for Direct Air Capture of atmospheric CO2, and executes a memorandum of understanding for a global licence and collaboration agreement with Heirloom.

FY23 KPI scorecard

- Completed
- Part
- Behind

GATEWAY
All High Level SHESQ action items completed on time

Water

US: At least

- 2 new plants (Lufkin, Wisconsin)
- A second major new US state entry (Texas)

EU:

- Re-establish market entry

Asia:

- Re-establish Chinese AQUA-Cal+ sales

Biotech

Crop Protection

- 3rd licence agreement

Marine Coatings

- Successful phase 2 trials with MTA partners

Next new biotech application…health / pharma

- Successful initial clinical study

Advanced Batteries

- First battery module – commercial format
- Basis of Design – demonstration facility for cathode production
- At least 1 new chemistry = pouch cell success

Sustainable Processing

Refractories

- Convert MOU to full Project or Licence agreement

Spodumene

- Full JV Agreement
- Successful FEED study leading to FID

Iron and Steel

- Successful expanded ore program
- Basis of Design: Demonstration facility

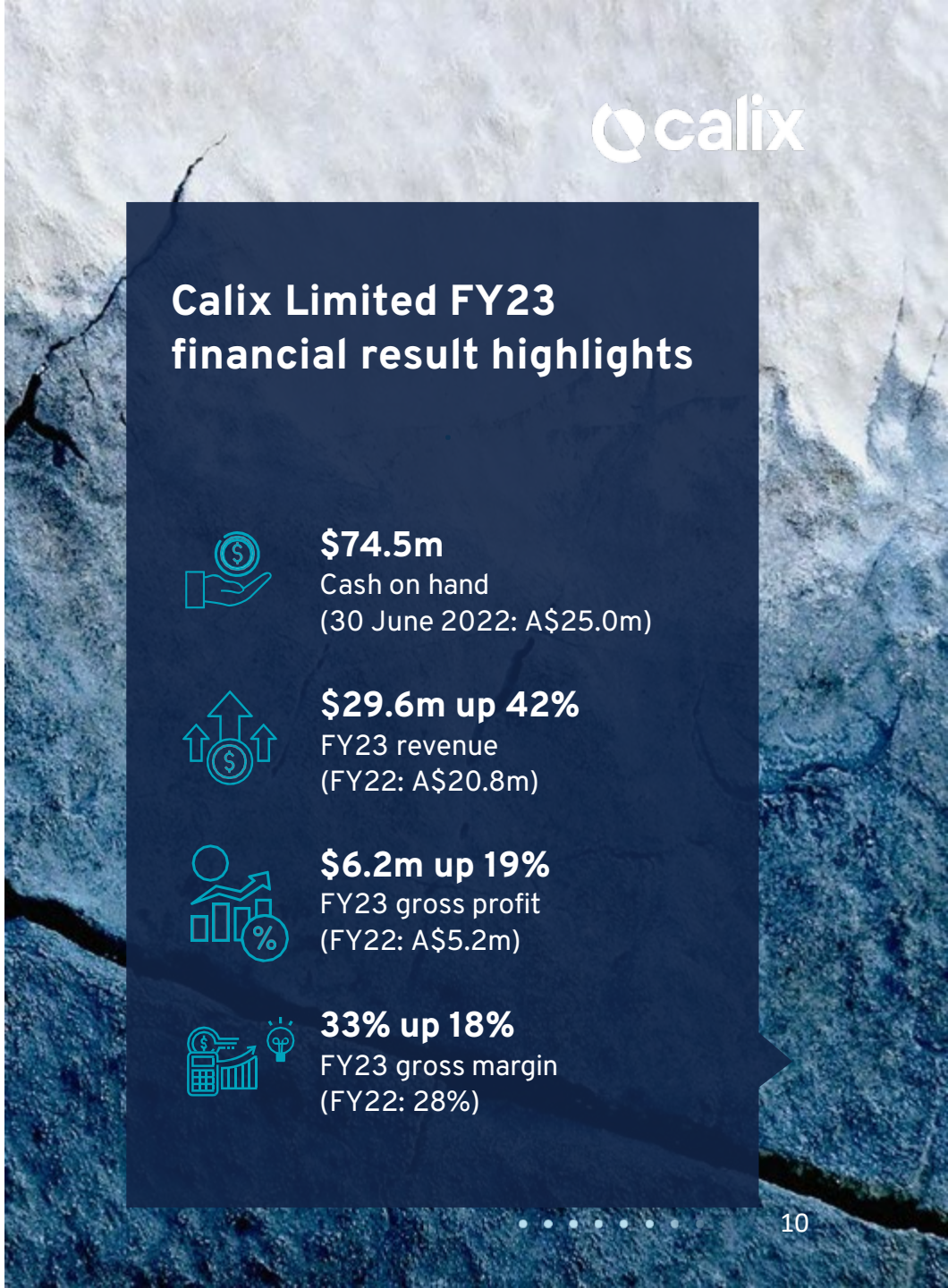
Leilac

- Convert at least two MOU's to full project / licence agreements – "full-scale" application
- Convert at least 2 projects from BOD's to FEED studies
- Leilac-2 long lead items procured, site works commenced

FY23 financial update

Investing for growth

- A focus on people and ongoing fiscal prudence has enabled Calix to grow multiple successful lines of business simultaneously into large addressable markets.
- In FY23 Calix continued its planned investment in:
    1. **People,** including 32 new engineers, 5 new R&D, and 8 new production;
    2. **Plant & equipment** to enhance and accelerate technology development; and
    3. **Professional services** to advance commercialisation.
- Investment part-offset by $10.7m in grants and tax rebates.
- Solid revenue and margin growth underpinned by new sales in the US water business.
- Balance sheet strength supported by a **$60.0m** private placement and **$21.6m** Share Purchase Plan.
- Support from our shareholders for our growth plans is very much appreciated.



Profit & Loss highlights

Investing in capability to capitalise on technology commercialisation

	FY 23 ($m's)	FY 22 ($m's)
Revenue & other income	**29.6**	**20.8**
Water revenue & other income	19.7	16.9
Other LoB[1]'s revenue & other income	9.9	3.9
Gross Profit	**6.2**	**5.2**
Operating expenses		
Sales & Marketing expenses	9.5	7.7
R&D	14.5	7.1
Admin	7.7	4.9
Operating result	**(14.5)**	**(12.1)**

1. Lines of Business

Key takeaways:

- 42% increase in revenue:
  - strong growth in Water business in 2H
  - positive contribution from grants & rebates for our R&D spend.
- 19% increase in GP of Water business:
  - improving margin through service & quality.
- Focusing investment in people:
  - Specifically, R&D & engineering capability. Our technology teams have doubled in just over 12 months.

Balance Sheet strength

Balance sheet strength to pursue commercialisation opportunities

	30 June 23 ($m's)	30 June 22 ($m's)
Cash & Cash equivalents	**74.5**	**25.0**
Total Assets	127.5	61.2
Total Liabilities	22.5	16.4
Net Assets/Total Equity	**105.0**	**44.8**
Excluding deferred revenue		
Current assets	89.1	31.6
Current liabilities	7.7	5.8
Net surplus of current assets over current liabilities [ex deferred revenue]	**81.4**	**25.8**
Property, plant & equipment	**24.4**	**18.7**
Intangible assets, including goodwill	**12.7**	**10.1**

Key takeaways:

- Balance sheet strength:
  - to pursue commercialisation opportunities across multiple lines of business.
- Flexibility retained:
  - to pursue the right capital/funding strategy for each application and investment opportunity.
- Strong cash position:
  - essentially debt free – can control our own destiny as we pursue our "multiple shots on goal".

Consolidated cash flows

Balance sheet strength to pursue commercialisation opportunities

	FY 23 ($m's)	FY 22 ($m's)
Cash flows used in operating activities	**(17.2)**	**(3.7)**
Receipts	26.3	31.1
Payments	(43.5)	(34.8)
Cash flows used in investing activities	**(13.0)**	**(9.0)**
Property, plant & equipment	(9.8)	(7.4)
Intellectual property	(3.2)	(1.6)
Cash flows from financing activities	**79.8**	**22.6**
Proceeds from issue of shares	79.6	0.8
Proceeds from sale of interest in subsidiary	-	22.8
Movements in loans/borrowings	0.2	(1.0)
Cash at the end of the year	**74.5**	**25.0**

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Key takeaways:

- Working capital for investment in capability will be partially offset through draw down on receivables and working capital in coming months
- Investing in:
  - adding US manufacturing capacity to support growth opportunity
  - Leilac-2 long lead item procurement
  - Midstream pilot plant UJV with PLS (joint operation).
- Placement and Share Purchase Plan have set us up for the next 2+ years including current project commitments.

Policies driving decarbonisation

Carbon penalties, value & support in Europe, US & Australia

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EUROPE

Emissions Trading Scheme

- €80 – 2022 average EU ETS price, up from €50 in 2021
- 2.2% year-on-year reduction in free CO_2 permits to 2030

Carbon Border Adjustment Mechanism

- A new carbon tariff, commencing in 2023
- Paves the way for phase out of exemptions for heavy industry

Innovation Fund

- Energy, CCU/S, Energy Storage
- €10b funding from 2020 to 2030
- Up to 60% project cost contribution

Net-Zero Industry Act

- CCS identified as a strategic priority
- 50 million tonnes of annual CO_2 storage capacity to be developed by 2030

US

Inflation Reduction Act

- US$85 / tonne of CO_2 permanently stored
- US$180 / tonne for DAC + permanent CO_2 storage
- US$130 / tonne for DAC + used CO_2

US-Australia Climate, Critical Minerals & Clean Energy Transformation Compact

- Fast-track critical mineral supply chains
- Access to US capital and IRA benefits for Australian companies
- Australia to be a 'domestic source' under DPA, enabling financing and purchasing of Australian minerals

DAC hubs

- US$3.5 billion to establish Regional Direct Air Capture hubs
- Develop networks to facilitate sequestration or carbon utilization

AUSTRALIA

Safeguard Mechanism

- A price on carbon, capped at AU$75

AU$15b National Reconstruction Fund

- Up to AU$3b for renewables and low-emission technologies & AU$1b for value-adding in resources.

AU$1.9b Powering the Regions Fund

- AU$400m over 3 years for Critical Inputs to Clean Energy Industries, such as steel, cement & lime, & alumina

Carbon Capture Technologies Program

- AU$141m for hard-to-abate industries, such as cement

Critical Minerals Strategy

- Value-add, downstream processing & decarbonisation

Carbon Border Adjustment Mechanism

- Review of an Australian CBAM imminent

FY23 by line of business

Leilac

Leilac

Decarbonising cement and lime

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Largest single source of industrial emissions:

- ~8% of global emissions.[1]
- Unavoidable process emissions released directly from limestone.

Net-zero commitments:

- GCCA member companies covering 40% of global cement production (80% outside of China) – have set a net zero by 2050 target.[2]
- 1.4 billion tonnes of CO_2 from cement needs to be captured and stored annually by 2050 to reach net zero.[2]

"Carbon Capture and Storage (CCS) plays a major role in decarbonizing the industry sector in the context of 1.5°C and 2°C pathways, especially in industries with higher process emissions, such as cement." – IPCC[3]

Market drivers

Carbon pricing: 73 carbon pricing initiatives implemented, covering 11.7 $GtCO_2e$, or 23% of global emissions[4]

>€100/tonne – EU ETS price reached a record high in Feb 2023

US$85/tonne
US tax credit for stored CO_2

SDG Impact

1. Trends in global CO_2 emissions; 2016 Report, The Hague: PBL Netherlands Environmental Assessment Agency
2. Global Cement & Concrete Association. Concrete Future Roadmap.
3. SR1.5 Chapter 2. IPCC. 2018
4. https://carbonpricingdashboard.worldbank.org/

Leilac – Scaling up the Leilac technology

A modular design for delivery through a blueprint model

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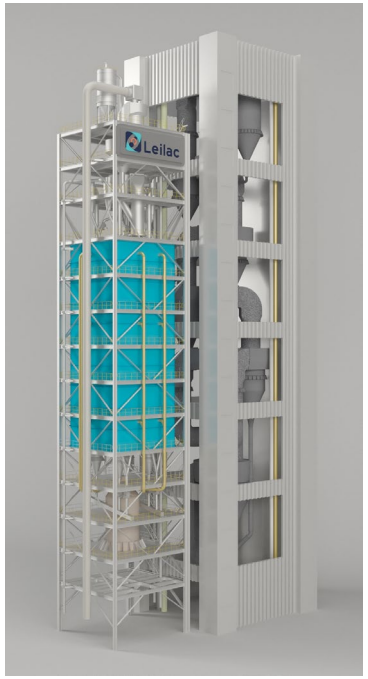
Leilac-1
Pilot plant

Lixhe, Belgium 2019
CO_2 capacity: 25 ktpa
Clinker: 160 tpd
~5% throughput

CAPTURE CO_2 | TUBE QTY 1

Leilac-2
Demonstration plant

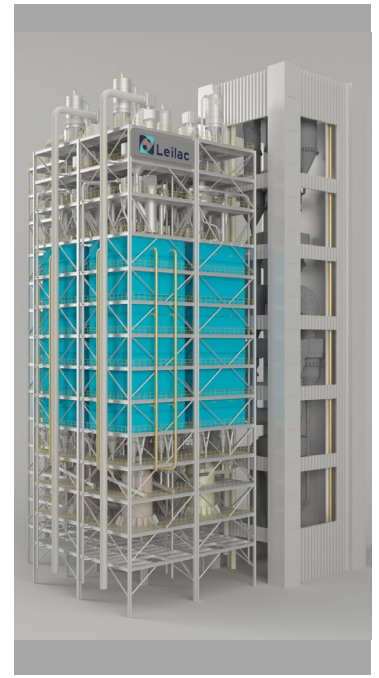
Hannover, Germany
CO_2 capacity: 100 ktpa
Clinker: 640 tpd
~20% throughput



CAPTURE CO_2 | TUBE QTY 4

Leilac-3
Full scale

The future
CO_2 capacity: 500+ ktpa
Clinker: 3000+ tpd
100% throughput



CAPTURE CO_2 | TUBE QTY 20+

Heidelberg Materials · TARMAC A CRH COMPANY · CEMEX Building a better future · SOLVAY · Lhoist · CIMPOR · ENGIE Laborelec · Port of Rotterdam

Leilac's full-scale vision

BUT…we need to mitigate 1.4 billion tonnes per annum of process CO_2 emissions

= up to 3,000 Leilac-3s

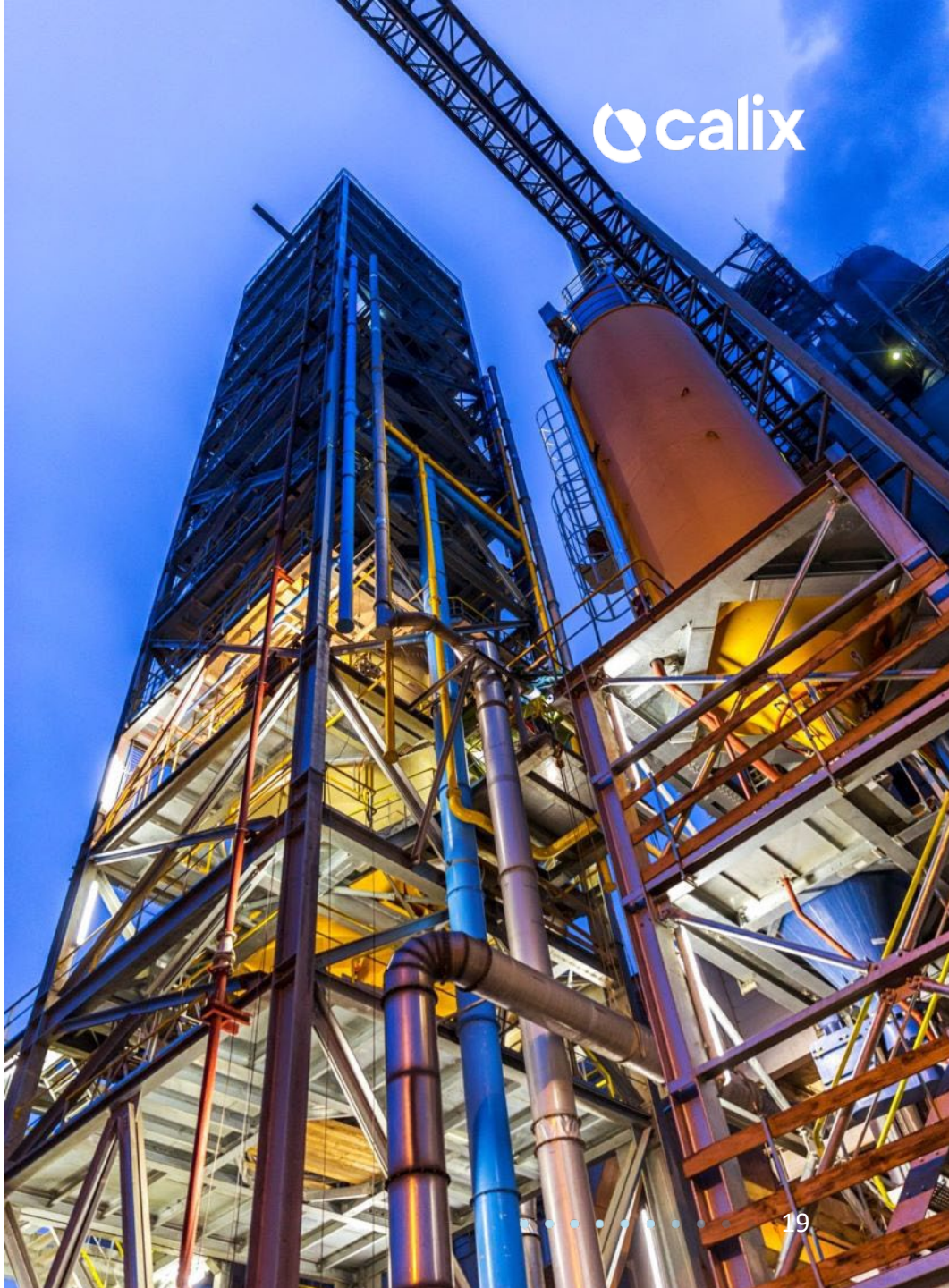
~2 built every week from now until 2050!!

Leilac

FY23 – Leilac business model validation

Heidelberg Materials global licence executed

- The first-of-a-kind, perpetual licence agreement applies to any Heidelberg Materials facility where the Leilac technology is installed.
  - Heidelberg Materials operates 149 cement plants across 5 continents.
  - On average, each plant emits 0.5 to 1 million tonnes of CO_2 each year.
- A first-of-a-kind technology licence fee for the industry:
  i. A royalty floor
  ii. A variable component linked to the EU ETS price/value
  iii. A royalty cap linked to costs versus alternative technologies.
- Calix will retain all improvements to Calix IP.
- Further licence agreements are under negotiation with CEMEX and others.



Leilac – new markets

Decarbonising shipping & aviation

Market tailwinds:

- International Maritime Organisation targeting net zero by 2050 and 10% clean energy use by 2030.[1]
- Maersk now has 25 methanol enabled vessels on order.[2]
- Industry, particularly cement, requires offtake for unavoidable CO_2 emissions.

Sustainable fuels from captured CO_2 – the Solar Methanol Project:

- Methanol is an alternative fuel for shipping and a precursor to sustainable aviation fuels.
- German-Australian HyGATE initiative[3] is targeting green methanol to be produced from green hydrogen, renewable energy and CO_2 captured by the Leilac technology.

Shipping & aviation are two of the hardest-to-abate transport sectors, responsible for 4.3% of global CO_2 emissions[4].

1. https://www.imo.org/en/MediaCentre/HotTopics/Pages/Cutting-GHG-emissions.aspx
2. https://www.maersk.com/news/articles/2023/06/26/maersk-orders-six-methanol-powered-vessels
3. Calix part of Australian-German consortium awarded funding to manufacture sustainable fuels from captured CO2 4. https://www.iea.org/reports/transport

Leilac Direct Air Capture

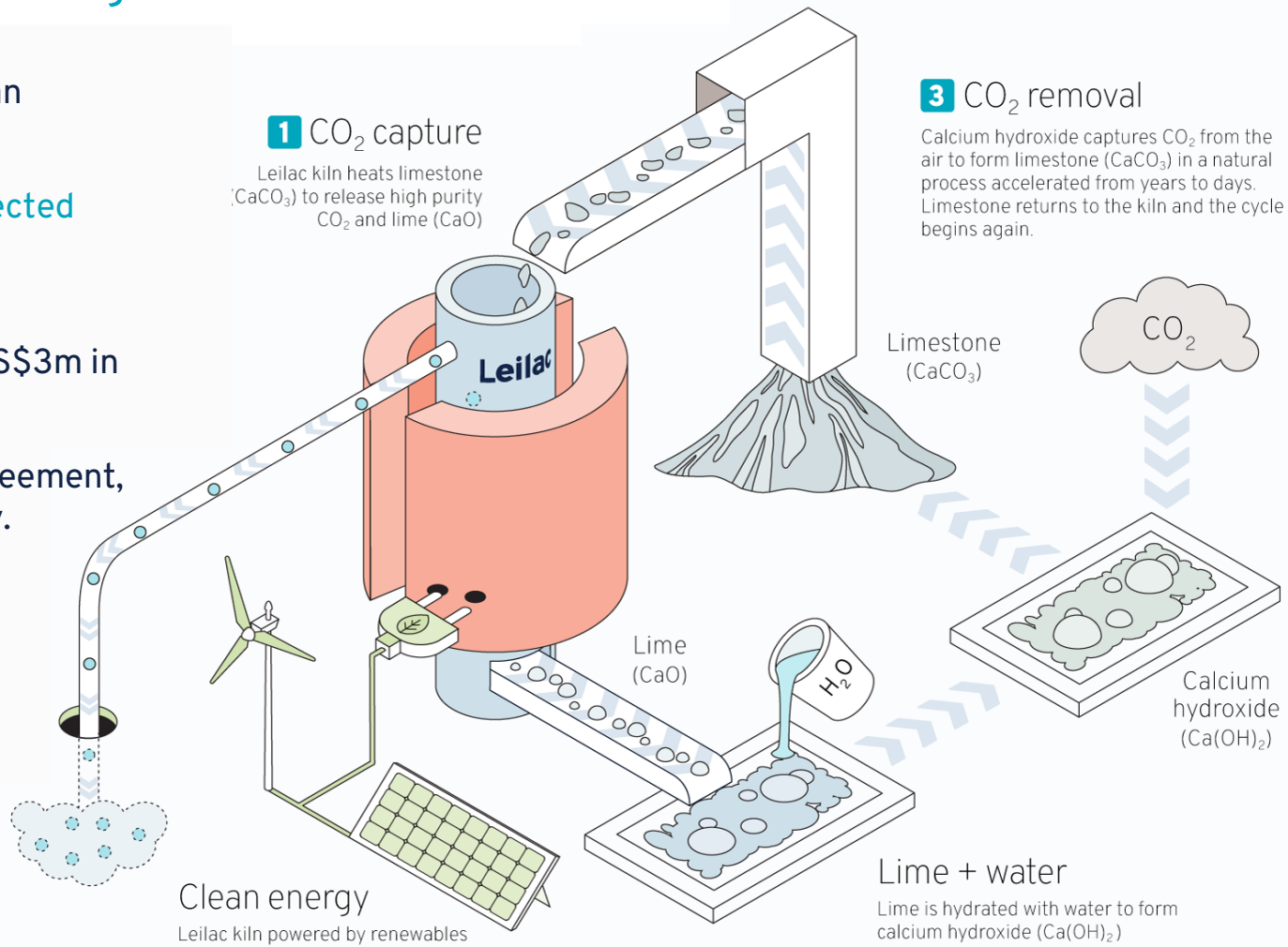
Heirloom calix

Non-binding MOU for DAC global licence agreement with Heirloom

- Heirloom[1] is a Direct Air Capture (DAC) company with an objective of capturing 1 billion tonnes of CO_2 by 2035.
- Heirloom part of Project Cypress, one of 2 projects selected for the US Department of Energy's US$1.2b DAC Hubs program.[2]
- The MOU outlines key collaboration terms, including US$3m in R&D contribution from Heirloom.
- The MOU also covers key terms for a global licence agreement, which once executed, will apply to any Heirloom facility.
- The technology licence fee comprises:

  i. A royalty floor of US$3 per tonne of CO_2 captured; and

  ii. A variable royalty rate based on the prevailing CO_2 price for lime decarbonisation, less the amortised cost of capital of the Leilac kiln per tonne of CO_2 separated.



1. https://www.heirloomcarbon.com/
2. Biden-Harris Administration Announces Up To $1.2 Billion For Nation's First Direct Air Capture Demonstrations in Texas and Louisiana

Leilac – a growing pipeline of projects

	Project discussions	Initial scoping	Detailed scoping / MOU	Pre-FEED / BOD	FEED	FID + construction	Operational	Total
Aug 2021	21	7	4	1			1	**34**
Aug 2022	25	13	9	5		1	1	**54**
Aug 2023	**34**	**25**	**8**	**4** (ADBRI, CEMEX)	**2** (TARMAC)	**1** *Leilac-2*	**1** *Leilac-1*	**76**

- Pipeline growth: as at August 2023 there were **76 projects** in the pipeline.
  - Projects are ~ 2/3 cement and 1/3 lime, at average capacity of 500kTpa CO_2 for cement and 80 kTpa CO_2 for lime.
  - Leilac pipeline represents potential for over **20 Mtpa of CO_2 abatement projects.**
- **TARMAC** project passes UK Govt due diligence: 30kTpa lime facility with partial H_2 firing and CO_2 capture as part of HYNET project, UK.
- Three new projects with **CEMEX** announced in Germany, Poland and the US.
- **Adbri** – work continues on pre-FEED for a 20kTpa electric facility with CO_2 capture.
- **Leilac-2** – site works (demolition) have started after some permitting delays – likely to push completion / commissioning into 2025.

1. https://arena.gov.au/funding/german-australian-hydrogen-innovation-and-technology-incubator-hygate/

FY23 by line of business

Sustainable Processing

Sustainable lithium demonstration plant

Financial Investment Decision approved

- Calix and Pilbara Minerals (ASX: PLS) have approved the FID on a mid-stream lithium-phosphate demonstration plant.
- The Demonstration Plant will use Calix's electric calciner and be located at Pilbara Minerals' Pilgangoora Project.
- Project objectives:
  - Reduce carbon intensity, waste and transport costs
  - Demonstrate lower CAPEX and OPEX with electric calcination
  - Create a higher value lithium product at the mine site
- Construction expected to commence in Q4 FY24.
- Targeting production of first lithium salt in Q4 FY25.
- Demonstration Plant CAPEX is ~ AU$105m
  - Supported by $20m in Australian Government funding
  - Calix will receive ~24% free carried equity in the facility, targeting $17.5 CAPEX contribution for 45% equity

At current lithium prices, the demonstration plant could generate ~US$85m revenue for the JV on an annual basis[1]

Carbon emissions savings

A Life Cycle Assessment study[2] found that renewably powered electric calcination of spodumene would reduce emissions by:

↓ 90% vs a coal-fired rotary kiln

↓ 80% vs a natural gas-fired rotary kiln

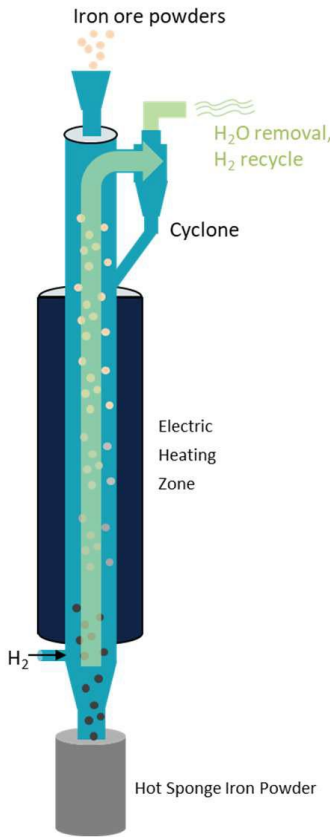
1. Calix share is projected to be 45% of the JV. JV total revenue assumes prevailing lithium prices Li-Carbonate-equivalent of ~US$29k/tonne and targeted lithium phosphate production of ~3,000tpa (source: Trading Economics 23rd August 2023)
2. Minviro Lifecycle Assessment study on the climate change impact of lithium, commissioned by Pilbara Minerals

Zero Emissions Steel TechnologY

Potential lowest cost zero emissions iron & steel

About ZESTY

- Hydrogen reduction of iron ore
- Can be easily and efficiently renewably powered
- Targeting theoretical minimum hydrogen use – simple gas recycle
- Processes fines <~0.3mm, no pelletisation
- Targeting zero emissions iron and steel*



in conjunction with Calix's "Leilac" zero emissions lime

Development – Phase 1 & 2 completed:

- ✓ Theoretical kinetic studies
- ✓ Conversion of electric calciner to run hydrogen
- ✓ Confirmation of electric calciner + hydrogen reduction performance
- ✓ Successful pilot testing with multiple ores

Phase 3: Pre-FEED / FEED study

- A$947,035 ARENA grant.
- Proposed 30,000 tpa, zero CO_2 emissions ZESTY-iron demonstration plant.
- Study towards final investment decision: including:
  - Testing / confirmation / design input from pilot test runs
  - Beneficiation / passivation / briquetting / smelting trials
  - Multiple ore testing – due to demand = expanded program Q1,2 FY24
  - Site determination

FY23 by line of business

Advanced Batteries

Advanced Batteries

Developing sustainable, low-cost cathode materials

- Calix is developing a platform technology for cathode material production:
  - Renewably powered
  - Energy efficient
  - Low cost
  - High performance nanostructured materials
- Initial focus on Lithium Manganese Oxide (LMO) cathode materials
- Targeting a battery chemistry agnostic platform technology

Market trends

5x Growth in the battery market expected by 2030[1]

$400b Expected global battery market value by 2030[1]

Increasing demand for more simple, economical & sustainable production methods

SDG Impact

1. Global lithium-ion battery capacity to rise five-fold by 2030

Advanced Batteries

FY23 achievements

- Prototype Single Layer Pouch (SLP) cell testing demonstrated Calix LMO's high-power capabilities.
- Identified high-power battery segment as a target beachhead market.
- Produced 4Ah commercial-prototype battery cells using Calix Lithium Manganese Oxide (LMO) cathode powder, in collaboration with UK production partner, AMTE.
- Expanded cathode development to additional battery chemistries favoured by the electric vehicle market:
  - Lithium iron phosphate (LFP)
  - Lithium nickel manganese oxide (LNMO)

FY23 by line of business

Biotech

Biotech

Sustainable bioactive materials for multiple global applications

- Calix's Biotech business is developing high surface area magnesium oxide materials with bioactive properties for three applications:

    1. Agriculture: reducing dependence on lethal pesticides with sustainable alternatives that use a non-lethal mode of action

    2. Marine: reduce use of toxic antifoul paints and coatings with non-toxic bioactive additives

    3. Antimicrobial Resistance (AMR): Calix's bioactive materials have antimicrobial properties with low resistance development potential, offering an alternative to conventional actives

Market trends

Demand for non-conventional pesticides predicted to grow at 15% per annum for the next ten years[1]

IMO has adopted a new emissions reduction strategy[2] and is strengthening biofouling measures[3]

Rise in antimicrobial-resistant bacterial infections is an emerging global crisis[3]

SDG Impact

1. Insightace analytic
2. 2023 IMO Strategy on Reduction of GHG Emissions from Ships.
3. Draft revised Biofouling Guidelines approved at PPR 10th session
4. United Nations Environment Programme (2022). Environmental Dimensions of Antimicrobial Resistance: Summary for Policymakers.

Biotech

FY23 achievements

Agriculture:

- Continued field trials in the EU in collaboration an agricultural co-operative, following the banning of the fungicide Mancozeb.

Marine:

- Completed phase 2 static tests with global coatings firms.
- Dynamic tests and coatings formulation work underway in sites across North America, Australia, New Zealand and Asia.

Antimicrobial Resistance (AMR):

- Calix became a Tier 1 partner in Australia's CRC SAAFE[1].
- First project to study application of Calix's bioactive materials in intensive livestock health management commenced.

1. Cooperative Research Centre (CRC) Solving Antimicrobial Resistance in Agribusiness, Food and Environments (SAAFE) project.

FY23 by line of business

Water

Water

Magnesium Hydroxide Liquid “MHL” – a safe alkali chemical

- Calix’s water business delivers safe, effective, economical, and sustainable solutions for the treatment of water and wastewater.
- Provide an environmentally friendly alternative to existing products, such as caustic soda, for pH and odour control.
- Products:
  - AQUA-Cal+, ACTI-Mag, and ALKA-Mag+.
- Industries:
  - Water utilities, wastewater treatment, aquaculture, food & drink.

calix

Market trends

80% Wastewater that flows back into the ecosystem without being treated or reused

Need for environmentally friendly alternatives to existing products, such as caustic soda

Regulation requires pH control that maintains microorganism activity & minimises water corrosivity

SDG Impact

Water

FY23 achievements

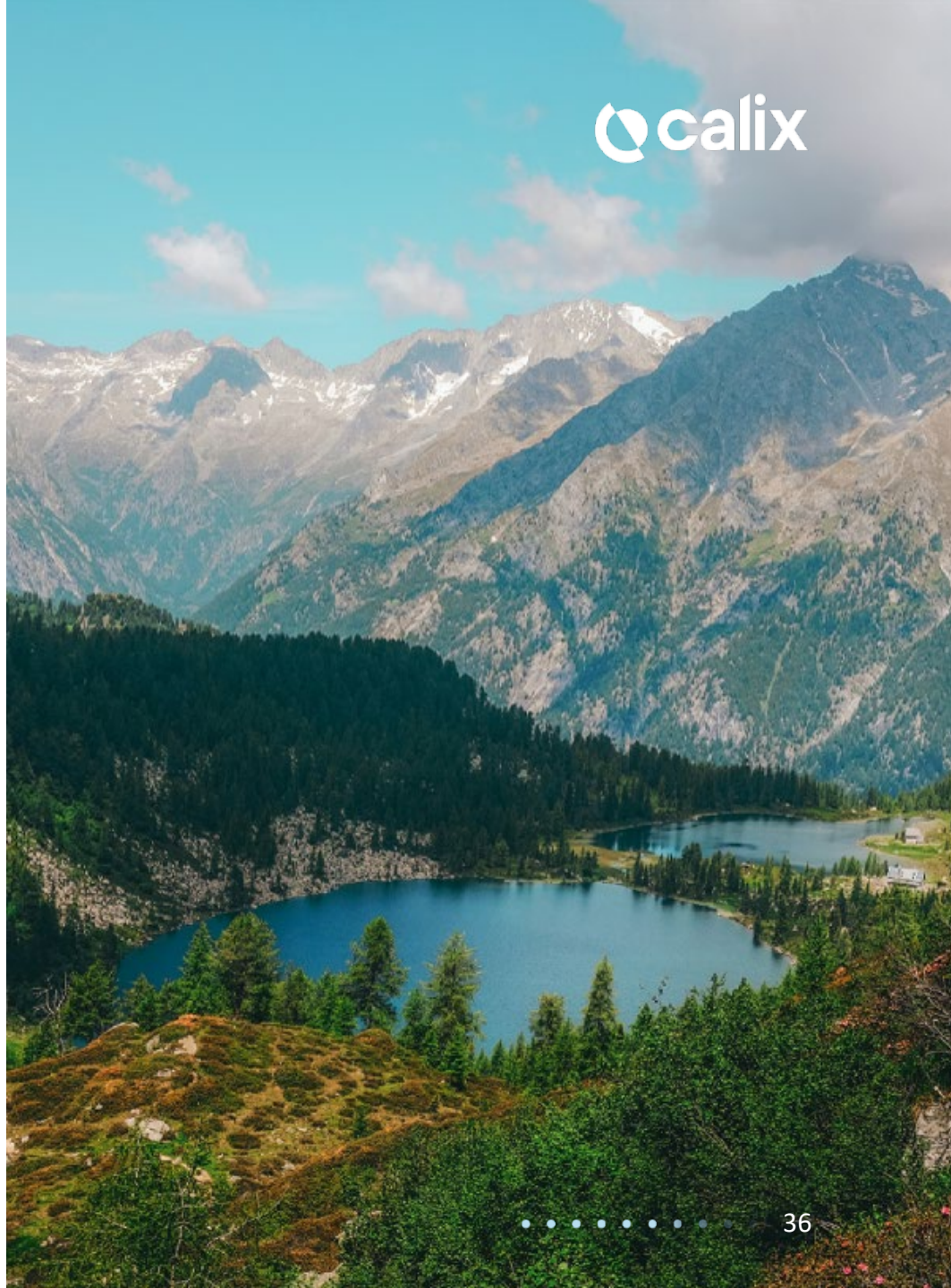
- New product, ALKA-Mag+ helped secure new business in the US.
- Revenue growth of 14.2% year-on-year.
- Gross profit of 28.6%.
- Revenue growth accelerating – up 28% H2FY23 compared with the same period last year.
- Two new hydration plants progressed:
  - Lufkin, Texas is undergoing commissioning.
  - Ripon, Wisconsin remains under construction.
  - These new plants designed to support sales in new regions, including Wisconsin, Illinois and Texas.

FY24 PRIORITIES

35

FY24 Priorities

- Focus on industrial decarbonisation:
  - Electrification of industrial processing;
  - Capture of unavoidable carbon emissions.
- Combine Water and Biotech businesses into a new Magnesia line of business to:
  - Increase focus, scale and reach of magnesium-based products and developments;
  - Develop a magnesium metal application.
- Continue to develop sustainable and cost-effective high-performance battery materials.



FY24 KPI dashboard

KPI Dashboard for FY24

GATEWAY 1
All High Level SHESQ action items completed on time

Leilac

CO_2 Capture

- Leilac-2 all permitting and civil works complete
- Continue to move projects down the pipeline
- Basis Of Design for green methanol consortia project

Sustainable Processing

Spodumene
- Spodumene Project Construction commenced

Iron and Steel – "ZESTY"
- Successful expanded ore program
- Completed FEED study leading to FID

Alumina
- First successful Pre-FEED study

Advanced Batteries

- First battery module in consumer product format
- Demonstration facility for cathode production – FEED completed
- Successful commercial format cell with a new Calix electrode chemistry

Magnesia*

Water
- Continued growth US, Asia

Mg Metal
- Basis Of Design for Mg Metal plant

Specialties
- Continued commercialisation of Agriculture, Marine and AMR applications

* *Combined Water and Biotech businesses*

Calix Limited
Annual Results FY2023
24 August 2023

Thank you

Acknowledgement of country

Calix acknowledges the First Nations people and traditional custodians of the lands upon which we live and work. We acknowledge their rich cultures and their continuing connection to land, waters and community. We pay respect to the culture and people, their Elders and leaders, past, present and emerging.

Social inclusion statement

Calix embraces diversity and inclusion. It is one of our core values. We promote an inclusive and safe space for all and proudly welcome and support people of any race, ability, gender and identity.

Sustainability statement

At Calix, sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. It is deeply embedded in our purpose: Mars is for quitters.

- Board of Directors
- Equity Structure
- Glossary

39

Board of Directors

Peter Turnbull, AM
Non-Executive Chair

Experienced Chair and Non-Executive Director with significant board and senior executive experience in the Australian and global resource, energy and technology commercialisation sectors.

Non-Executive Director of Karoon Energy Ltd. (ASX: KAR), Chair of medtech Auxita Pty Ltd, Chair of Airlie Energy, Chair of QADO Group/QADO Ventures and President of the Chartered Governance Institute (London).

Chair of Calix Remuneration and Nomination Committee, and Member of Audit and Risk Management Committee.

Helen Fisher
Non-Executive Director

CEO and Managing Director of Bio Capital Impact Fund (BCIF), a Non-Executive director and Chair of the Audit and Risk Management Committee of Paradigm Biopharmaceuticals Ltd (ASX:PAR) and Chair of the Victorian branch of AusBiotech.

Previously a partner of Deloitte for over 11 years, and led Deloitte's life sciences practice in Australia for 5 years, specialising in the financial services sector, with significant M&A transactions and strategic tax advice to publicly listed and large multinational companies.

Chair of Calix Audit and Risk Management Committee and member of the Rem and Nom Committee

Alison Deans
Non-Executive Director

Chair of Cochlear Limited (ASX: COH), Non-Executive Director at Ramsay Health Care Limited (ASX: RHC), and Non-Executive Director at Deputy Group Pty Ltd. Ms Deans is also a member of the Investment Committee at Main Sequence Ventures (CSIRO's innovation fund) and a Member of the AICD Corporate Governance Committee. Ms Deans' previous directorships include Westpac Banking Corporation, Insurance Australia Group Limited and Social Ventures Australia.

In her executive career, Ms Deans was previously the CEO of eBay Australia and New Zealand, CEO of eCorp Limited, CEO of Hoyts Cinemas, CEO of netus Pty Ltd, and a consultant with McKinsey & Company. Ms Deans holds a MBA from the Stanford Graduate School of Business and a MA (Physics) from Cambridge University.

Phil Hodgson
Managing Director & Chief Executive Officer

14 years of multidisciplinary experience with Shell, including as the General Manager and Alternate Director of its subsidiary Fuelink Pty Ltd, a $700m revenue, 300-employee distribution and sales subsidiary.

7 years running a private consultancy providing strategy and M&A services across energy, food, infrastructure and water sectors.

Joined Calix in 2013 as CEO, became a Director in 2014 and is a member of Calix's Technology Committee.

Dr Mark Sceats
Executive Director And Chief Scientist

Co-founder of Calix, and a member of Calix's Technology Committee.

Qualified physical chemist with over 52 years' experience, numerous academic roles, and numerous fellowships and recognitions.

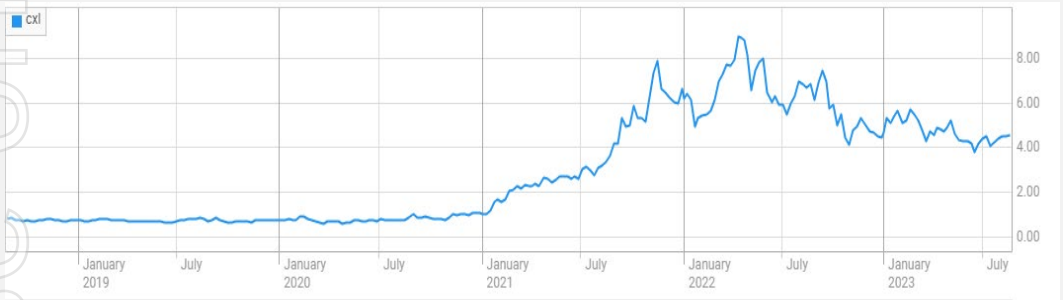
CEO of the Australian Photonics CRC for 14 years.

Author of more than 165 academic papers in physical chemistry and inventor of 55 patented inventions.

Listed on the ASX in July, 2018

ASX:CXL

Share Price Performance Since Listing



	As at 21 Aug 2023
Shares on issue	~181.2m
Share price on IPO	$0.53 per share
Current Share price	$4.56 per share
Market capitalisation	~$826m

Further Equity Detail	As at 21 August 2023
Free Float	181.2m shares
Employee Incentive Scheme Options	5.8m options

Major shareholders	As at 21 Aug 2023
AustralianSuper Pty Ltd	10.4%
Board & Management	8.3%
Nicholas Merriman and associates	6.0%

Glossary

Term	Meaning
Aluminium (Al)	Chemical element with the symbol Al
Anode	The negative electrode of a battery
Antimicrobial	Antimicrobial products kill or slow the spread of microorganisms, including bacteria, viruses and fungi.
AMR	Antimicrobial resistance – the development of resistance in bacteria, viruses, fungi and parasites to antimicrobials.
ARENA	The Australian Renewable Energy A
ASX	The Australian Securities Exchange
APVMA	Australian Pesticides and Veterinary Medicines Authority
BATMn	Calix's core kiln technology – electrified – for battery and catalyst materials production
BOD	Basis of Design
Calcium (Ca)	Chemical element with the symbol Ca
Carbonation	The capture of carbon dioxide by contacting with lime (calcium oxide), to form limestone (calcium carbonate)
Cathode	The positive electrode of a battery
CCS	Carbon Capture and Storage
CCUS	Carbon Capture, Utilisation and Storage
CO_2	Carbon Dioxide
Copper (Cu)	Chemical element with the symbol Cu
CRC	Cooperative Research Centre – Australian Government supported industry-led collaborative research centres
CRC SAAFE	Cooperative Research Centre Solving Antimicrobial Resistance in Agribusiness, Food, and Environments
DAC	Direct Air Capture – the extraction of carbon dioxide directly from the atmosphere
EAF	Electric arc furnace – a furnace that heats material by means of an electric arc between two electrodes

Glossary

Term	Meaning
EAP	Employee Assistance Program
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
Electrode	The material that stores the lithium ions in a charged (anode) or discharged (cathode) state in a lithium-ion battery
Electrolyte	The medium that allows ions to move between the battery electrodes, via the separator
ESG	Environment, Social and Governance considerations
FEED	Front-End Engineering Design
FID	Final Investment Decision
Fines	Small particles, which are usually very difficult to handle in kilns etc as they simply get blown out
Green Hydrogen	Hydrogen that is produced from an electrolyser using renewable energy
Goethite	A mineral that is an ore of iron
HBI	Hot Briquetted Iron – "bricks" of relatively high purity iron ready for steel-making
H-DRI	The process of reducing iron ore to metallic iron with hydrogen as the reductant
Hematite	A mineral that is an ore of iron
HILT CRC	Heavy Industry Low-carbon Transition Cooperative Research Centre
HPO	"Hierarchical Porous Onion" - a crystal structure of lithium manganese oxide resembling tiny onion layers – allowing both strength and easier passage of lithium ions
Hydrometallurgy	A metal recovery method used to obtain metals from ores and waste materials
Iron (Fe)	The chemical element, represented by "Fe" on the periodic table
Iron Ore	Iron oxide mixed with various other minerals, as mined and "pre-processed" (purified) as best as possible
kTpa	Thousands of tonnes per annum
Leilac	Calix's core kiln technology for Low Emissions Intensity Lime and Cement production with CO_2 capture
LFP	Lithium Iron Phosphate – a battery cathode material

Glossary

Term	Meaning
LHM	Lithium Hydroxide Monohydrate – used in the production of cathode active materials for lithium-ion batteries
Lithium (Li)	Chemical element with the symbol Li
Lithium-phosphate / Lithium Salt / "Mid-Stream" Lithium	A form of lithium that is high in lithium content, to be shipped and utilised by battery producers
Lithium ion	The ionic form of lithium (Li+) – a positively charged atom of lithium
LMO	Lithium Manganese Oxide – a battery cathode material
LNMO	Lithium Nickel Manganese Oxide – a battery cathode material
LTO	Lithium Titanium Oxide – a battery anode material
Manganese Carbonate (MnCO3)	Form of manganese used mainly in agriculture as a fertiliser supplement
Magnesium (Mg)	Chemical element with the symbol Mg
Manganese (Mn)	Chemical element with the symbol Mn
Magnetite	A mineral that is an ore of iron
Metallurgical Coal	Very high carbon coal
MgO	Magnesium Oxide
MHL	Magnesium Hydroxide Liquid
MOU	Memorandum of Understanding
Nanoporous	A material with a regular, porous structure, with a pore size generally less than 100 nanometres.
Nickel (Ni)	Chemical element with the symbol Ni
NCA	A battery cathode material made from nickel, aluminium and cobalt
NCM, or NMC	A battery cathode material made from nickel, manganese and cobalt
Pelletisation	The formation of pellets from finer materials to aid in handling

Glossary

Term	Meaning
Potassium (K)	Chemical element with the symbol K
Process emissions	Process emissions are inherent to the chemical reaction and are released directly and unavoidably from the chemical processing of raw material. They are distinct from energy related emissions that may result from the consumption of fuel to heat the reaction.
SDGs	The UN's Sustainable Development Goals or Global Goals are a collection of seventeen interlinked objectives designed to serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future."
Separator	The barrier between the anode and the cathode that prevents them touching, inside the battery
Siderite	A mineral that is an ore of iron
SLP	Single layer pouch cells – a soft battery design where most of the cell components are enclosed in a aluminium-coated plastic film.
Sodium (Na)	Chemical element with the symbol Na
Spodumene	A high lithium-containing ore, and the source of the majority of the world's lithium supply
α-Spodumene	A tight Li-crystal formation, from which extraction of Li is difficult
β-Spodumene	A loose Li-crystal formation, from which extraction of Li is much easier than the alpha-form
Reduce / Reduction	The process by which oxygen is removed
Reductant	A material that, through its chemical properties, carries out reduction
RDF	Refuse-derived fuel – a fuel produced from various types of waste
Sponge Iron	Iron Ore that has been reduced (had the oxygen removed)
Steel	Mainly iron, with some carbon and other trace metals such as nickel, manganese etc depending upon the grade of steel being made
Sulphur (S)	Chemical element with the symbol S
Tpa	Tonnes per annum
UNGC	The United Nations Global Compact, the world's largest corporate sustainability intiative
Wh / kWh	Watt-hours / kilowatt-hours - a measure of energy
ZESTY	Calix's Zero Emissions Steel TechnologY

Phil Hodgson
Managing Director & CEO
phodgson@calix.global
+61 2 8199 7400

Darren Charles
CFO & Company Secretary
dcharles@calix.global
+61 2 8199 7400

Investor relations
Investorrelations@calix.global

Media enquiries
media@calix.global

Follow us on Twitter @Calixlimited

www.calix.global

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