

NEWS

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HIGHLIGHTS

CALIX SUCCESSFULLY COMPLETES ITS IPO

ACTI-MAG FOR SEPTICITY CONTROL

CALIX EXPANDS IT CAPABILITIES TO OFFER CAC

A NEW PATHWAY FOR TREATMENT OF DISEASES



The Calix name was well-represented throughout September at events held by VicWater, WIOA Bendigo, and NZ Water. At the VicWater event, Phil Hodgson spoke about the need to innovate in a volatile world. An example of Calix's innovation is the Charleston, a high-tech, fully self-contained, self-bunded MHL dosing station. At NZ Water's event, Ralph Lloyd-Smith spoke about Calix's project at Mission Beach, where Calix applied MHL dosing to control septicity, odour, and corrosion issues.

EDITORIAL

Welcome to Issue 28 of the Calix Newsletter.



Phil Hodgson
CEO and Managing Director

We are very pleased to have achieved the successful IPO of the company on July 20. We thank all of our shareholders who supported the company to get to this important milestone, and welcome all of our new shareholders to the company.

Despite the intense workload leading up to, and following, the IPO, we have continued to progress well across our numerous commercial and pre-commercial activities.

Our ACTI-Mag product continues to show impressive results, with new trial results from Cassowary Coast Regional Council demonstrating not only great performance in odour reduction in the sewer network, but also substantial other benefits including reduction in fat build-up and phosphate discharge.

Our PROTECTA-Mag service offering has been expanded with the addition of Calcium Aluminate Cement for structural repair of sewer assets, supplied under an arrangement with BASF.

Our push in Asia continues well - we have sent a third container to China of our AQUA-Cal+ product, and our biogas application for ACTI-Mag continues to grow well with several trials planned before end-year. We recently held a partner conference for all our Asian business partners and the outcomes will feature in our next Newsletter.

Our R&D team continues to develop the technology, with a new Australian Academy of Technological Science grant award funding collaboration with CERTH in Greece to help develop our high surface area magnesium oxide into medical / pharmaceutical applications. A patent application has been filed covering this exciting new opportunity.

And our LEILAC Project continues to progress, with construction remaining on time and budget, and the technology gaining world-wide attention through publications in the Fifth Estate and Cemweek Magazine, as well as conference speaker invitations to the VDZ Congress (Germany, September 2018) and Greenhouse Gas Control Technologies Conference (GHGT-14, Melbourne, October 2018).

The Calix team look forward to the next chapter in our development as an ASX-listed company, and thank you all for your interest and support in our mission to create new materials and processes that solve global challenges

KEY MILESTONES

CALIX'S SUCCESSFUL INITIAL PUBLIC OFFERING UNVEILS A GREAT AND PROMISING FUTURE FOR THE COMPANY...

On 20 July 2018, Calix successfully completed its initial public offering (IPO) and its shares commenced trading on the Australian Stock Exchange. The IPO provided funding for our growth strategy - including operational improvements as well as new market and product pipeline development.

Funds raised through the IPO will be used to improve the efficiency of our existing production facilities to drive margin expansion and expand sales and marketing capabilities, to increase revenues and enter new markets - and to continue progressing the company's development pipeline for additional applications of its technology platform - including creating better materials to build batteries.



"As a cash-flow positive business with multiple products and applications being developed across multiple industries, we look forward to using the IPO proceeds to continue and accelerate the commercialisation of Calix's products and technology platform."

ACTI-MAG TRIAL AT MISSION BEACH SEWERAGE SCHEME

MISSION BEACH: THE BENEFITS OF A WHOLE OF CATCHMENT APPROACH



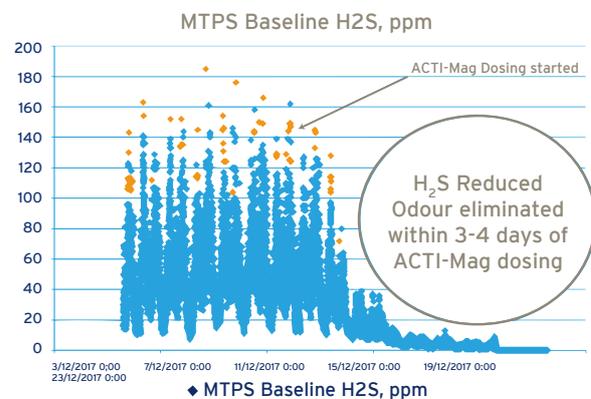
Mission Beach is a mixed residential and tourist area and is home to the iconic cassowary. A sewerage scheme was commissioned by Cassowary Coast Regional Council in 2006 to collect the wastewater from three constituent communities and pumped by two major stations, at Wongaling and North Mission Beach, to the Main Transfer Pump Station (MTPS). The MTPS then pumps 23km to the Tully Sewerage Treatment Plant (STP).

This sewer main suffered significant corrosion due to "rotten egg gas" (H₂S) release in the drained sections. The Tully plant is designed for phosphate removal with liquid alum dosing for phosphate trimming and powdered lime dosing for alkalinity and pH correction.

A trial of Calix's ACTI-Mag Magnesium Hydroxide Liquid (MHL) dosing commenced in December 2017 with the primary objective to control septicity, odour and corrosion issues. Calix proposed additional objectives, i.e. the control of Fat, Oil & Grease (FOG) build-up, elimination of lime dosing at the Tully plant,

and partial elimination of alum dosing for phosphate removal.

The trial eliminated odours by maintaining pH between 8.2 and 8.5. Pump station cleaning has been substantially reduced due to decreased FOG accumulation. The lime dosing system was prone to blockage and breakdowns, however dosing of ACTI-Mag has allowed suspension of lime dosing. Also, Alum dose rate has been reduced by more than 75% whilst still meeting phosphate effluent discharge limits.



NOW OFFERING CAC AND PROTECTA-MAG

CALIX CAN INSPECT, ASSESS AND OFFER THE MOST SUITABLE AND COST-EFFECTIVE SOLUTION TO SEWER ASSET CORROSION.



Calix understands the importance of providing a complete repair and protection package for the entire sewer network including manholes, wet wells, and sewage treatment plants' inlet works. Calix innovates in chemicals to offer the right sewer network solution, depending on the condition of the asset and each site's specific requirements.

Calix has used Calcium Aluminate Cement (CAC) to repair failed concrete sewer assets in Tamworth Regional Council and Fraser Coast Regional Council. The scope of works included re-grouting and profiling of

significantly corroded manholes and pumping stations with Calcium Aluminate (CAC) from specialty chemical company BASF.

The Calix's difference comes from the top coat finish of PROTECTA-Mag that can be added onto the applied CAC layer, thus providing long-lasting corrosion protection of the assets.



A Pit lined with CAC and sprayed with PROTECTA-Mag for long lasting protection.



R&D UPDATE

A NEW PATHWAY FOR TREATMENT OF DISEASES



There is a demand for products that treat diseases in humans, animals and plants, bypassing the use of expensive, toxic, antibiotics to which many diseases have become resistant.

A collaboration with Professor George Karagiannakis and his team at the research institute CERTH, in Thessaloniki, Greece, was established to test whether the Calix's nano-active Magnesium Hydroxide (MgO) produced with very high surface area, was a source of Reactive Oxygen Species (ROS). ROS generation is used by animals and plants as the first defence to combat most diseases that originate from pathogenic anaerobic microorganisms. CERTH uses spin-trap Electron Paramagnetic Resonance to quantify ROS. The results confirmed that our nano-active MgO is a source of ROS, and furthermore a higher dose of ROS was generated as the particle was being hydrated. This implies that direct application could be effective against disease, because acids exuded by the pathogens will trigger a burst of ROS ("ROS Bomb"TM) when the particle meets the pathogen. Calix has been awarded a Linkage Grant through the Australian Academy of Technological Science to investigate the ROS Bomb mechanism, and then set up a broad Australian-European collaboration with Calix and CERTH to explore its use in combating diseases. **A patent application has been filed covering this exciting new opportunity.**



STOP PRESS

Calix was featured in an article published by the FifthEstate, as one of ways to capture carbon emissions from the manufacture of lime cement and reduce the global warming impact of construction with concrete.

<https://www.thefifthestate.com.au/innovation/materials/carbon-capture-cement-manufacturing>

The 45th issue of CemWeek Magazine also features 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.

<http://www.magcloud.com/browse/issue/1496160>

In his address to the recent International VDZ Congress in Germany, Phil Hodgson, Managing Director of Calix, presented Calix Process CO₂ Separation Technology and the progress of the LEILAC Project.

<https://www.vdz-online.de/en/latest-news/events/vdz-congress-2018/>

INTRODUCING

GLENN ALFORD STATE SALES MANAGER



Glenn is a dedicated Sales Manager with a demonstrated history of supplying quality products and services throughout Australia & New Zealand. He is experienced in the sale and supply of a wide range of products through multiple channels and simultaneously, and is a skilled in Sales and Contract Negotiation, Operations Management, chemical logistics and chemical injection. A passionate people person and empathetic people manager.

Born in Melbourne, Glenn spent 19 years working in odour control, bringing over 10 years of wastewater and chemical supply experience to Calix.

Glenn has recently joined the WIOA Committee.

Outside of work, he loves coaching his sons' basketball team.

To learn more about Calix technology, products, applications and services,
Visit www.calix.com.au
Or call 02 8199 7400

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