

# Next-generation assistive technology and data measurement

INVESTOR PRESENTATION APRIL 2024



CONTROLBIONICS.COM | ASX:CBL



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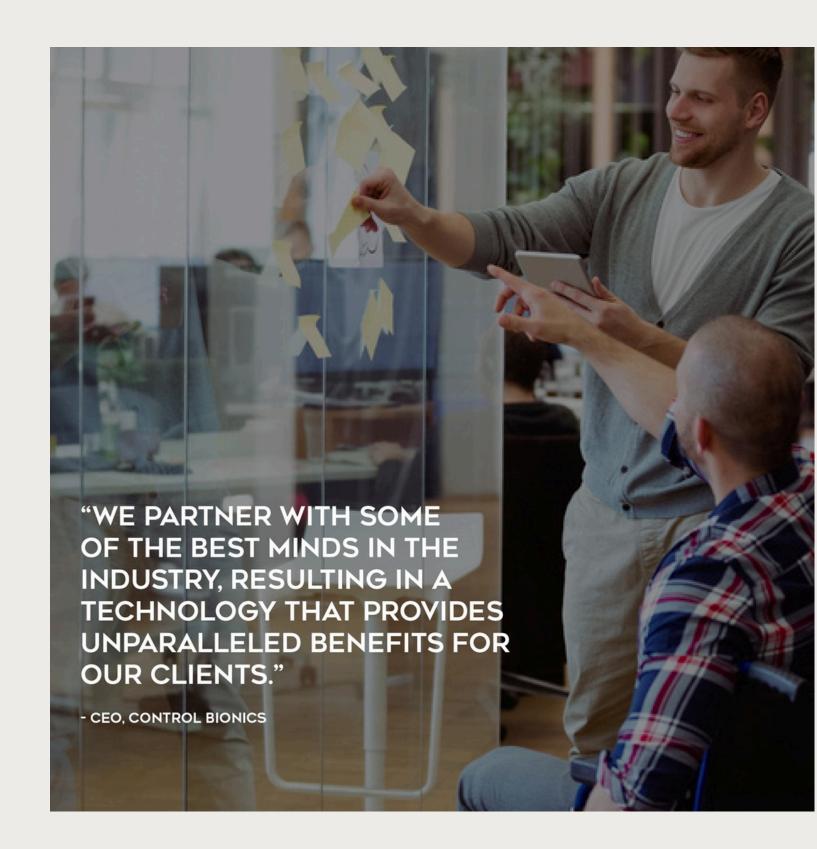
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# Proven core technology now with infinite possibilities

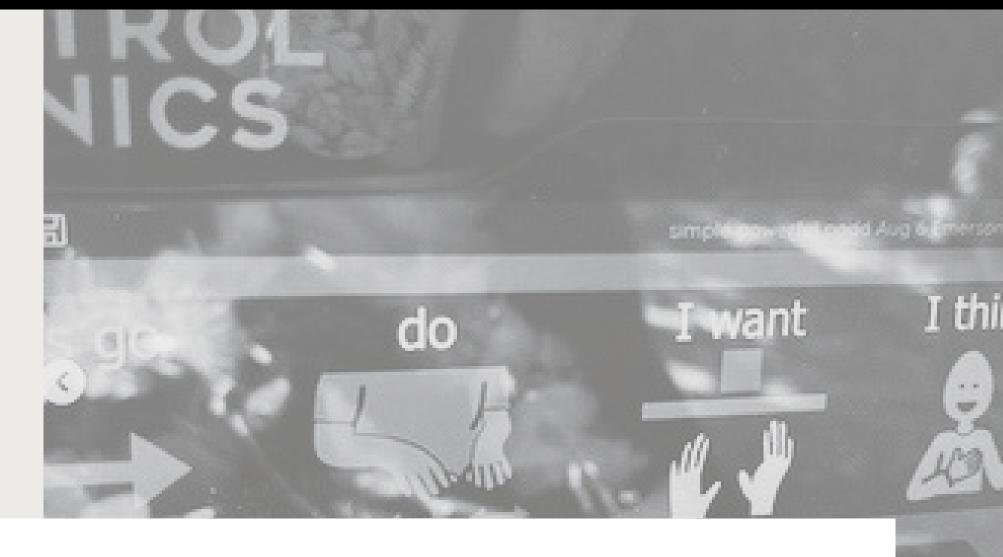
We are empowering communication and enhancing lives with a vision to revolutionise medicine, sports science, rehabilitation and more with our nextgeneration EMG technology





# On the cusp of rapid global growth

A proven medical device company with sizeable global sales of core products that we design and manufacture





20 years of expertise with our world-first, best-inclass proprietary technology



Regulatory clearance and patent protected in US, AU, UK, Japan and Europe



Core business continues to grow organically in Australia, the US and Japan



Blue sky and diversification opportunities with next generation solutions

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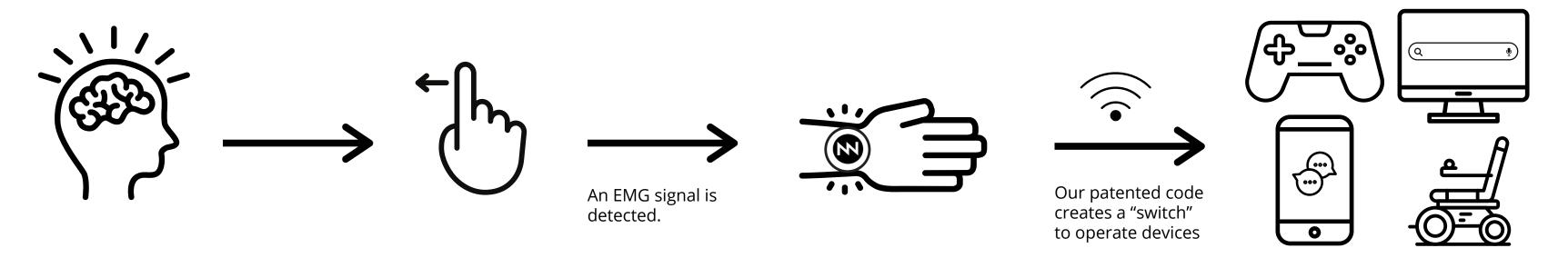
Many levers for growth with new products, uses, markets, and channel partners



Near cash flow breakeven\* excluding sales from new initiatives



### EMG technology is at the heart of our solutions



Your brain sends a thought like "move my index finger".

To move your finger, an electrical signal is created and Electromyography (EMG) is the detection of this signal.

Our core IP uses smart algorithms to detect, analyse and convert your body's bioelectrical EMG into code so a user can select an item and operate a device. Users can type, generate speech, send emails, browse the web, stream entertainment, access social apps, control their environment (lights, electric beds), play with toys, and more.





### The evolution of our core IP

Smaller, wireless and wearable



One of the first prototype systems in the NeuroEDUCATOR series was developed 20 years ago with feedback from Stephen Hawking who trialled our technology for many years. A wireless, wearable NeuroNode was first launched in 2017. Using our IP, EMG assists disabled people in accessing technology for the world's best communication experience.

Just launched in 2023, the NeuroStrip weighs less than a piece of paper and is a miniature version of our core IP. It's our main lever for growth with unlimited uses beyond disability.



# Solutions





#### PRODUCT OVERVIEW

# Core products and those newly launched

Currently assisting those disabled and leaping to new untapped markets

	CUSTOMERS	CURRENT CORE PRODUCTS	NEW PRODUCTS
ASSISTIVE COMMUNICATIONS	Disabled and diseased people with degenerative neurological conditions, spinal cord injuries, cerebral palsy, and other conditions with movement restrictions.	Speech-generating solutions with flexible access methods (touch, eye, EMG) to assist people with various conditions. NeuroNode bundles give the world's easiest and fastest communication experience with the least effort.   OFFICIAL ENERGNODE OF COSMOS	Standalone EMG and spatial access method that can connect to competitor products for the best available communication experience.  NEURONODE
ASSISTIVE MOBILITY	Disabled and diseased people who have powered wheelchairs. This population size is larger than the assistive communication market.		A world-first allowing powered wheelchair users to safely and independently navigate their home.  DROVE  MUTONOMOUS WHEELCHAIR MODULE
DATA MEASUREMENT	Endless market and application possibilities outside of the disability market like medicine, sports science and rehabilitation.		A world-first all-in-one accelerometer and EMG device that measures physiological data like unintentional muscle movement.  NEUROSTRIP





#### **ASSISTIVE COMMUNICATION**

# 3 types of technology access

Flexible access to communication and speech-generating technology for those who cannot speak



#### **TOUCH ACCESS**

For those who can touch a computer screen to select letters, words, phrases, or symbols to learn language or communicate.

#### **EYE ACCESS**



EyeGaze is our state-of-the-art eye tracking system enabling those who can only move their eyes to control a computer mouse. The highly accurate camera with learning algorithm and software determines what button the user is looking at and, if they hold their gaze long enough, the device selects it. For both in and outdoor use.

#### **EMG AND SPATIAL ACCESS**



Only possible with our patented NeuroNode. It's a wireless, non-invasive EMG and spatial sensor that communicates with a display device via Bluetooth, acting as a bridge between a person's thoughts and technology. This is the world's fastest access method.

connects

# Our key communication device and software A computer to generate speech, browse the web, listen to music, and more. Other devices like smartphones, Xbox, robotics, and electric beds can also be connected to our system.







THE WORLD'S ONLY WIRELESS, WEARABLE SENSOR THAT **GIVES THE USER** THE ABILITY TO **ACCESS THEIR** TECHNOLOGY BY BIOELECTRIC SIGNALS OR SPATIAL MOVEMENTS.

#### **ASSISTIVE COMMUNICATION**



# Our core IP remains innovative and without major competition even today

Those with degenerative neurological conditions, spinal cord injuries, cerebral palsy, and other conditions with movement restrictions can now access a computer, phone, tablet, and other assistive devices with subtle muscle signals.

On the communication device, **NeuroNode acts as a switch that is translated into a mouse click** to manipulate the client's communication and control software.

There is also a provisional patent for our AI-based software that gamifies our core technology. This means our users can create original content like digital art and stories to share with teachers, parents and loved ones. We believe this is also a world first.

Watch to see NeuroNode in action







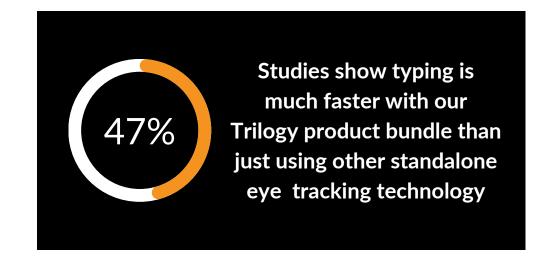
#### **ASSISTIVE COMMUNICATION**



Our flagship product is the world's fastest, lowest-fatigue eye-tracking system, combining a camera, computer and NeuroNode (EMG/spatial) control

This 3 in 1 solution suits those living with paralysis and loss of speech. Unlike other technologies, no movement is required to communicate.









#### **ASSISTIVE COMMUNICATION PRODUCT SUITE**

### A voice for those without





A user's condition will determine the type of access method and hence product

PRICING (\$AUD FOR AUSTRALIAN USERS)
Rental with buyout option starting price
Buyout option starting price

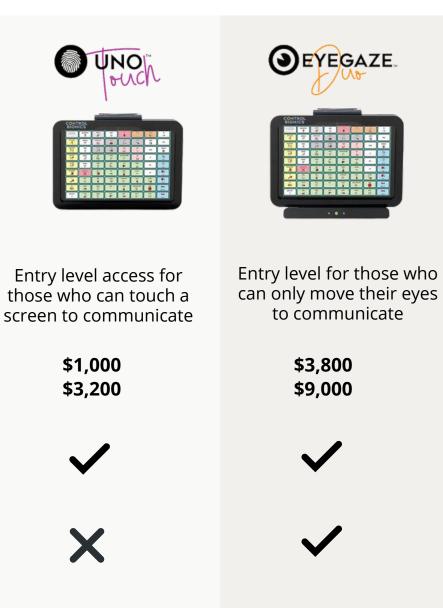
Powerful, professional-grade system including language software for use on the go

EYE TRACKING TECHNOLOGY

Controls a computer mouse with your eyes using a camera and continuous learning algorithm

NEURONODE SENSOR

EMG signal and spatial control gives users flexibility to change access modes



#### NEURONODE NEURONODE. ©¢osmos A UnoTouch upgrade Includes all 3 access types with EMG access for for ultimate efficiency or greater efficiency high physical incapacity n/a \$8,000 \$5,400 \$950 \$20,875 \$16,875 Access smart phones, play video games, activate switch toys, dine independently, and more

Bundle with a NeuroNode for faster, less tiring and easier communication





#### **ASSISTIVE COMMUNICATION**

# Why our communication solutions are better

Other Providers	Control Bionics	Benefit to the customer
Require a keyboard, mouse, joystick, touchscreen, or eye tracking to function.	Uses EMG and/or eye tracking.	Proven to be both faster and less fatiguing in multiple studies. It also reduces repetitive strain injuries and gives people who cannot use eye technologies, like those with cerebral palsy, the ability to communicate.
Require movement.	Can detect the intention of movement whilst excluding unintentional movement - patent protected.	Less fatigue, faster, and more consistent communication. Can be used by severely disabled people who cannot move at all.
Single solution offering (eg Tobii or Smart Box).	Offers a choice of speech- generating software, cameras and casings.	Allows customers to make a choice based on the best-suited system for their needs, ensuring effective use and reduced device abandonment.
Only wired or Bluetooth or EMG	Only company to combine spatial, EMG and EOG switch.	Allows flexibility and versatility of use. Caters to a user's changing needs during the day and as their condition changes over time.  Our patent-protected settings ensure a user's intentions are acted on rather than any unintentional movements.





ASSISTIVE MOBILITY

# A new world first autonomous wheelchair

Partnering with Deakin University, we made the world's first upgrade for powered wheelchairs, so the user's intentions can control them

DROVE is a patent pending module that retrofits powered wheelchairs. Its technology helped us rank 4th in AFR's Australia's Most Innovative Healthcare Companies 2023.

TGA registration expected FY24.

First sales are expected in the coming months as we build towards 3rd party distribution relationships.

In Jan-24, we were awarded a A\$575k research grant by the US ALS Association to assess how DROVE could be sold in the US. International interest is also growing.







A lightweight, flexible design means the NeuroStrip can be worn anywhere on the body.



The electrode is attached directly to the skin, detecting the faintest of signals, with best-in-class data telemetry fed straight to an app.

**BEYOND ASSISTIVE TECHNOLOGY** 

# The new NeuroStrip is a game-changer

We are on a path to revolutionise new markets such as health diagnostics, sports science, critical care and more with the new miniaturisation of our world-class, award-winning core technology

The NeuroStrip measures physiological data as an all-in-one unique accelerometer and EMG device. This means it opens up endless market and application possibilities <u>beyond disability</u>.

Our strategy is to enter markets with the quickest, lowest-cost access requiring no further approvals. Currently, these are likely to be sports performance, biofeedback, and rehabilitation.

Partner for those applications needing more research or clinical trials.

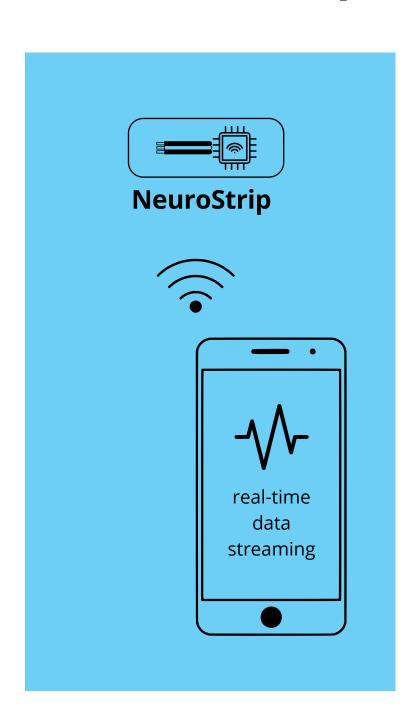
Low-cost and high-volume product relative to our other products.





#### **BEYOND ASSISTIVE TECHNOLOGY**

### NeuroStrip features and benefits



#### **FEATURE** BENEFIT Small, light, flexible and non-invasive. Increased choice of placement where At 3g, it weighs less than a piece of you want to switch with, monitor or paper and is 4cm long. improve. It's also easy to use. With no cables or moving parts, it has Better uses for medicine, sports science, rehabilitation and other unprecedented accuracy (<1 micro volt) with more sensitive readings. applications yet to be discovered. Attaches directly to the skin with no limit Increases the number of applications to how many are used at any one time. across markets. Measures a wide range of electrical Flexibility in choice of signal and signals in the body like EOG, ECG, EMG ability to measure both intended and unintended movement for a wider (and potentially electroencephalography EEG). range of outcomes. Disposable (reusable in final development). — Can be used in medical settings







#### **PRODUCT**

# Regulatory approvals

	US	Australia	Japan	UK	Europe
Regulatory Scheme	FDA	TGA	PMDA	MHRA	CE Mark
NeuroNode	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
DROVE	0	0			
NeuroStrip *	<b>✓</b>	<b>✓</b>		<b>✓</b>	<b>✓</b>

• May require further approvals if the product use materially changes

**/** 

**Approved** 

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Pending or near-term application

Yet to be approved



# Assistive Technology Market

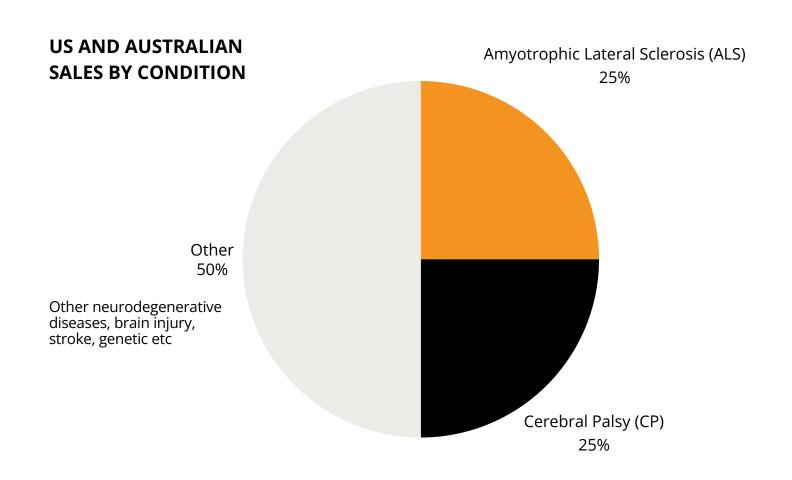






### Our users

Our devices help people of all ages living with conditions like ALS/Motor Neuron Disease (MND), Spinal Muscular Atrophy, Cerebral Palsy, and Spinal Cord Injury to control communication technology





"Since starting to work with this EMG technology, I have been able to connect technology with people who have some of the greatest communication challenges I have ever seen in my 25-year career.

I have been able to help people who could not speak, move, eat, or breathe on their own, and communicate to loved ones, even when they were placed into ICU units or in palliative care"

-Speech Language Pathologist (SLP)





# Minimum \$1.3bn global market opportunity p.a.

An underserved niche market with few competitors and plenty of room for growth in the US, UK, Japan, Australia and select European countries

About 66,000 <u>new</u> cases are diagnosed each year for ALS/Motor Neuron Disease, Multiple Sclerosis, Cerebral Palsy and Spinal Cord Injuries in our chosen markets. This represents a \$1.3bn+ market opportunity per annum.

However, the **market** is significantly larger at \$2bn+ as we can now offer our products to people with <u>existing</u> assistive communication technology. By upgrading to our NeuroNode, customers get a faster, easier and more consistent communication experience.



- Existing sales for our bundled offerings eg NeuroNode Trilogy.
- New markets for standalone NeuroNode Japan, UK, Germany, Belgium, and the Netherlands given regulatory approvals in March 2024 for the UK and Europe. NZ will also be considered.





# Minimum \$100 million market opportunity p.a.

This is a new market for us where our add-on module to powered wheelchairs allows users to independently and safely navigate their homes

The market opportunity is based on a 1% penetration of <u>new</u> global annual sales.

The opportunity may be 4x larger as millions of powered wheelchairs currently exist around the world that could also use DROVE.











New markets where DROVE is expected to be sold.



## Current Business Model

A retail business model where our sales team work with prescribers to offer just assistive communication solutions.



#### **ASSISTIVE COMMUNICATION**

# The market's most personalised solution



#### **LANGUAGE SYSTEM**

Our catalogue of synthetic voices, library of symbols, and text-based systems are customised solutions for both younger and older users.

#### **SOFTWARE**



Our software allows users to access their devices, text, browse the web, control robotics, play video games, access social apps, develop literacy skills, create their own artwork and more.

#### **HARDWARE**



Our hardware options are chosen to suit the customer and include a computer, various eye tracking cameras and NeuroNode (bundled with other hardware or standalone). Our Cosmos Connect device connects our system to smartphones, gaming consoles, accessible toys, robotics, electric beds, lights and more.



#### **FUNDING**

Our funding team helps families and professionals apply for funding through Government and private insurance.



#### **SUPPORT**

We provide education and hands-on training through professionals so our customers get the most out of their personalised solutions.

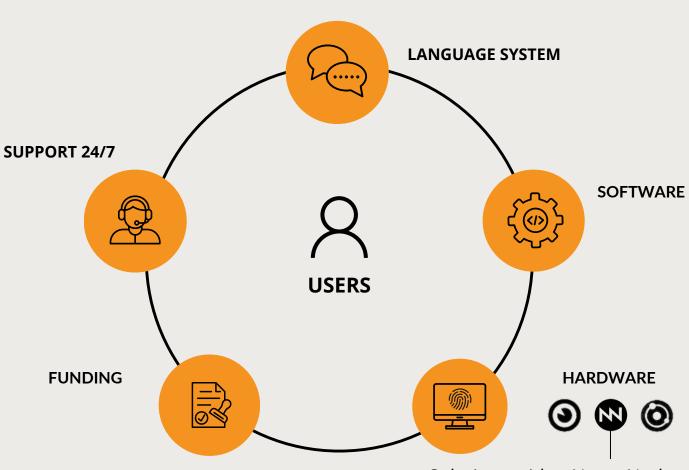
#### **OUR PRESCRIBERS**



Prescribers demonstrate and recommend our solutions. They include Speech Language Pathologists (SLPs), industry bodies, clinics, schools, hospitals and more



#### **OUR SOLUTION**



Solutions with a NeuroNode give us a competitive advantage

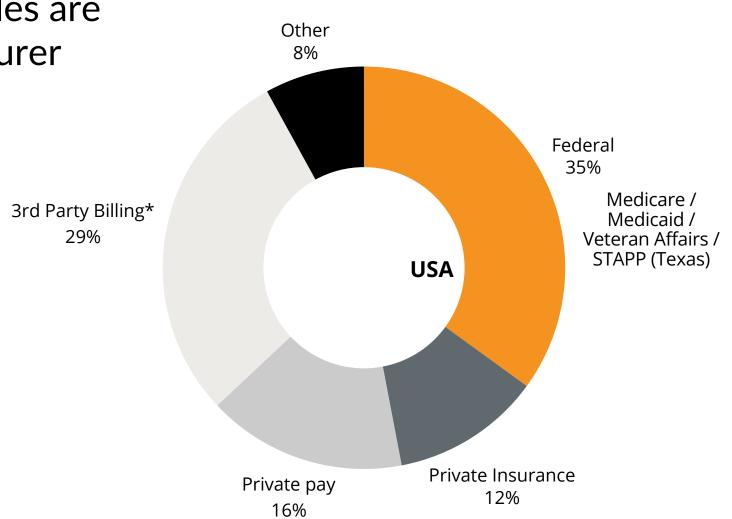


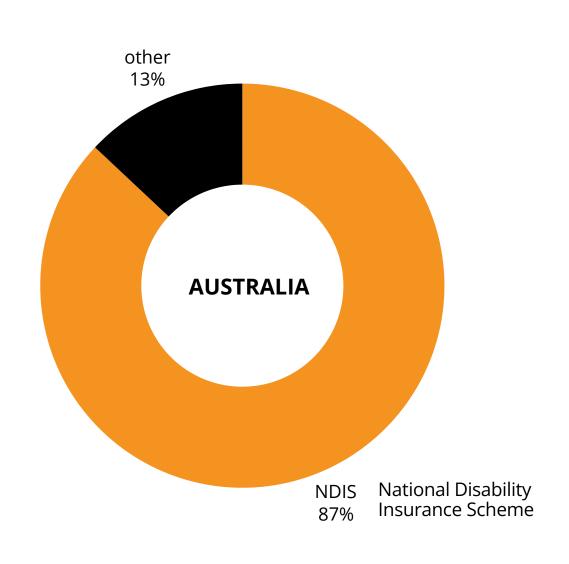


#### **ASSISTIVE COMMUNICATION**

# Funding overview

At least 75% of our sales are through a person's insurer



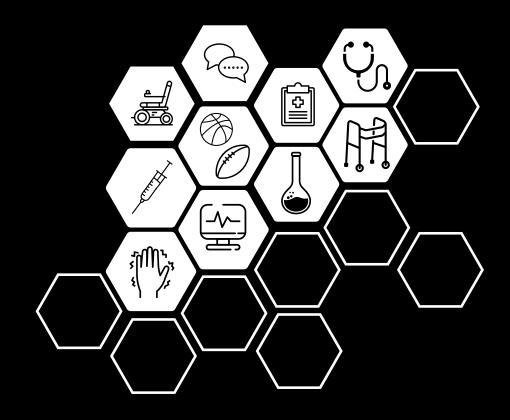


<sup>&#</sup>x27;\* Outsource to third-party biller who collects from the insurer (both public and private)
Data based on FY24 YTD



## **Growth Strategy**

A new wholesale business model where we work with resellers and partners to offer more products with more uses in more geographical locations, generating new income streams and recurring revenue.

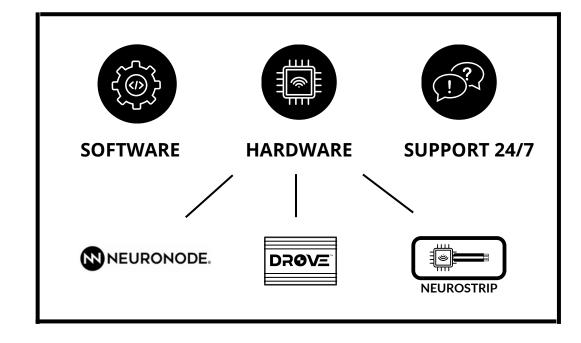




# New wholesale strategy for growth

Continued innovation means we can further diversify the use of our products and enter new markets

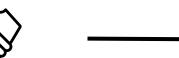
#### **OUR SOLUTIONS**



#### RESELLER OR PARTNER

**USER** 







#### **NEURONODE ADVANTAGE**

- Quicker to market
- Can be used with competitor products as an add-on upgrade
- Gives distributors an edge because they can now offer an EMG switch that no one else has
- Enhances new sales
- Price control
- Lower fixed cost base
- Profitable more quickly
- Higher volume sales

#### **DROVE ADVANTAGE**

- World first product with compelling benefits to users, family and care givers
- Priced to be attractive to both insurers, private pay and government funders
- Can be quickly installed, maintains the relationship between distributor and client
- DROVE distributor package provides both software and hardware

#### **NEUROSTRIP ADVANTAGE**

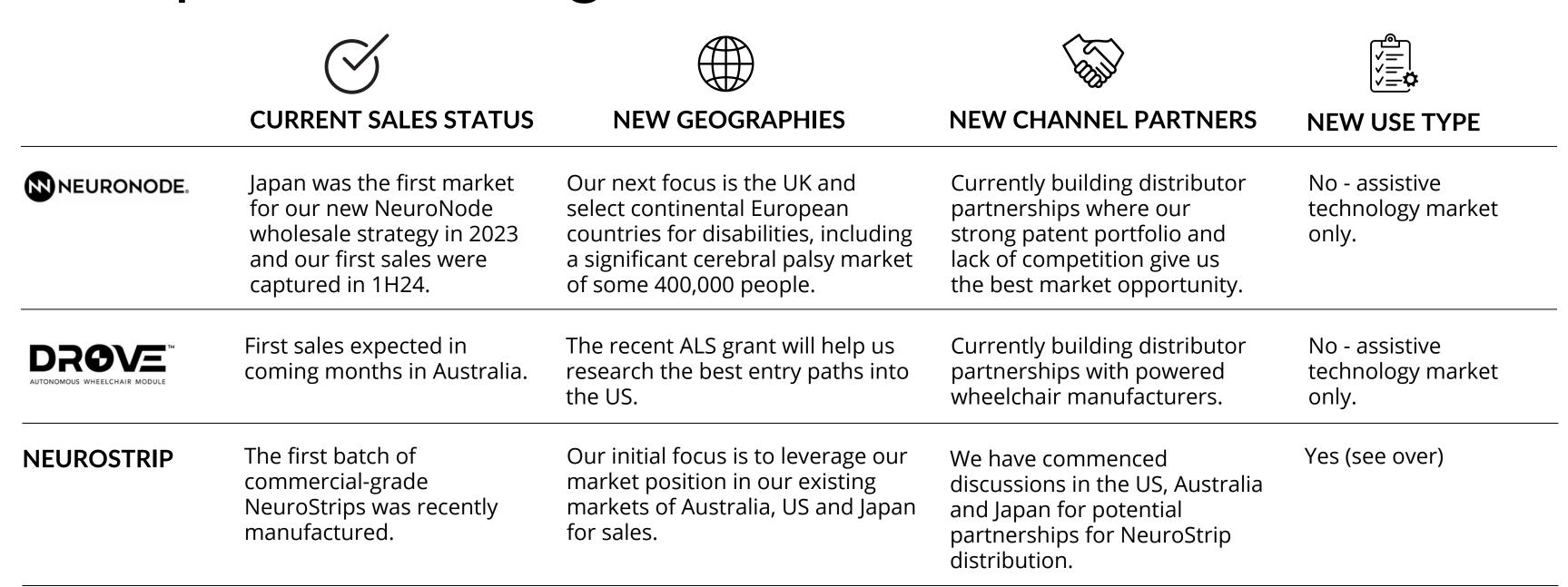
- Flexibility and versatility of use creates for multiple distribution routes
- Securing data collected behind the walled garden of the NS app ensures CBL sits in the centre
- Reusable and disposable options allows for a wide range of uses
- Lower cost EMG device will drive demand in new product markets







## Multiple levers for growth









# Blue sky growth strategy with NeuroStrip

USE TYPE	FOR WHAT OUTCOME	EASE OF MARKET ENTRY / PRODUCT READINESS	SELLING POINTS	REGULATORY REQUIREMENTS	CURRENT BUSINESS DEVELOPMENT OPPORTUNITIES
Sports science	sEMG is used to assess muscle performance and recovery with the objective of making the sportsperson more effective and reducing injury.	CBL has existing track record and customers in this space. This is our likely launch market.	Lightweight, wireless, electrode against the skin to improve data.	None	In discussions with existing customers about upgrading to NS.  Identifying sports clinics (US) that currently use sEMG in their service.
Rehab and biofeedback	Assess: level and timing of muscle activation, muscle fatigue, provide uptraining and down-training of muscles.	Will require development of marketing materials and testing of user interface to meet market demand.  Device ready to go. Some further work may be required on App.	Lightweight, wireless, available for in clinic and at home use.	Minimal. NeuroEDUCATOR (a pre-cursor to NS) already has FDA approval as Class I device. Will submit an engineering change notice to benefit from that approval extending to the NS	In discussions with existing customers about upgrading to NS. Have multiple partnership opportunities in Japan. Discussions underway in Australia about clinical deployment.
Movement disorders	sEMG is used to diagnose and treat conditions such as Parkinson's and Myasthenia gravis. <u>PKG</u> operates in this market but does not use sEMG.	Can commence customer trials quickly. However, likely to require some regulatory approvals to scale.  App was designed with this use case.	Lightweight, wireless, electrode against the skin to improve data	Will require Class II registration if being used to diagnose treatment. As sEMG already used for this condition there is an understandable / manageable process to receive this clearance.	Have identified minimum viable product (MVP) with world-leading doctors. With commercial quantities now available, will move to discuss clinical implementation with them.







# Blue sky growth strategy with NeuroStrip

USE TYPE	FOR WHAT OUTCOME	EASE OF MARKET ENTRY / PRODUCT READINESS	SELLING POINTS	REGULATORY REQUIREMENTS	CURRENT BUSINESS DEVELOPMENT OPPORTUNITIES
Dysphagia	sEMG biofeedback is used to retrain people on swallowing.  An example here	Established market however new to CBL. Required to develop a specific front end for users.	Lightweight, wireless, available for in clinic and at home use.	Minimal. NeuroEDUCATOR (a pre-cursor to NS) already has FDA approval as Class I device. Will submit an engineering change notice to benefit from that approval extending to the NS.	CBL previously approached by Dysphagia clinics to use our technology. Will now reengage.
Incontinence	sEMG could be used to manage incontinence through the placement of the NS over the bladder muscles.	Significant opportunity but would likely require clinical and industry partners to scale. Would require 'productisation'.	Lightweight, wireless, flexible electrode against the skin. Ability to provide haptic feedback and create alerts for user and care staff.	Will require Class II registration.Higher level of approvals as sEMG being used for a unique purpose.	Initial discussions with a globally recognised Uroneurologist.  Obvious market demand and efficacy of sEMG use in incontinence management are already established.





# Roadmap

Q4 FY24

DROVE TGA approval

NeuroStrip customer trials start

NeuroStrip App v1.0 release

NeuroStrip launch at Al For Good conference in Geneva

Q1 FY25

First sales DROVE expected

New partnerships for standalone NeuroNode strategy in Japan and Europe

Prototype for first reuseable NeuroStrip finalised

Clinical trials commence in the US for DROVE

First commercial sales of NeuroStrip in sports and rehab segments Q2 FY25

US breakeven expected

Japan breakeven expected

First EU sales for NeuroNode expected

First NeuroStrip research partner

Q3 FY25

Final tranche of US research grant payment for DROVE

Q4 FY25

FDA submission for DROVE

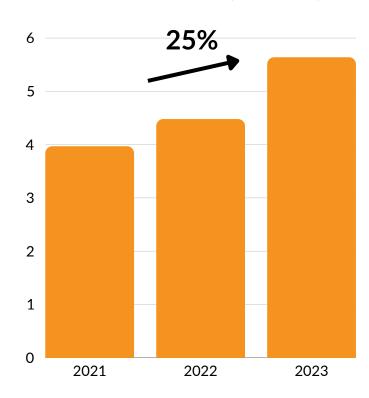


# Financial Performance

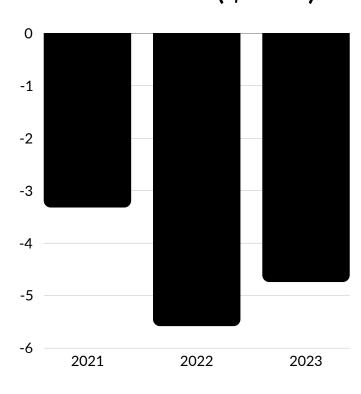




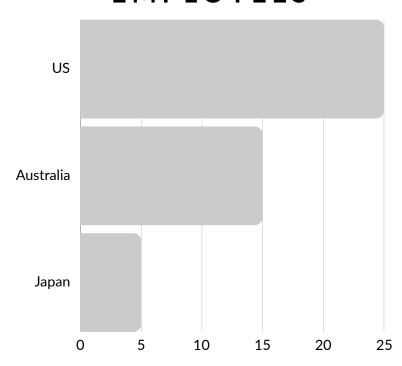


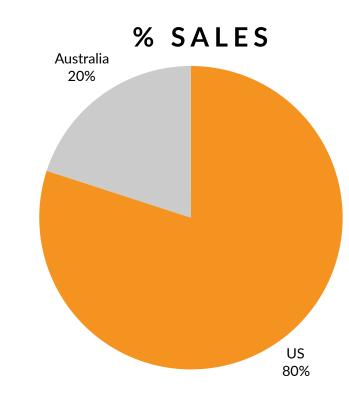


#### EBITDA (\$A m)



#### **EMPLOYEES**





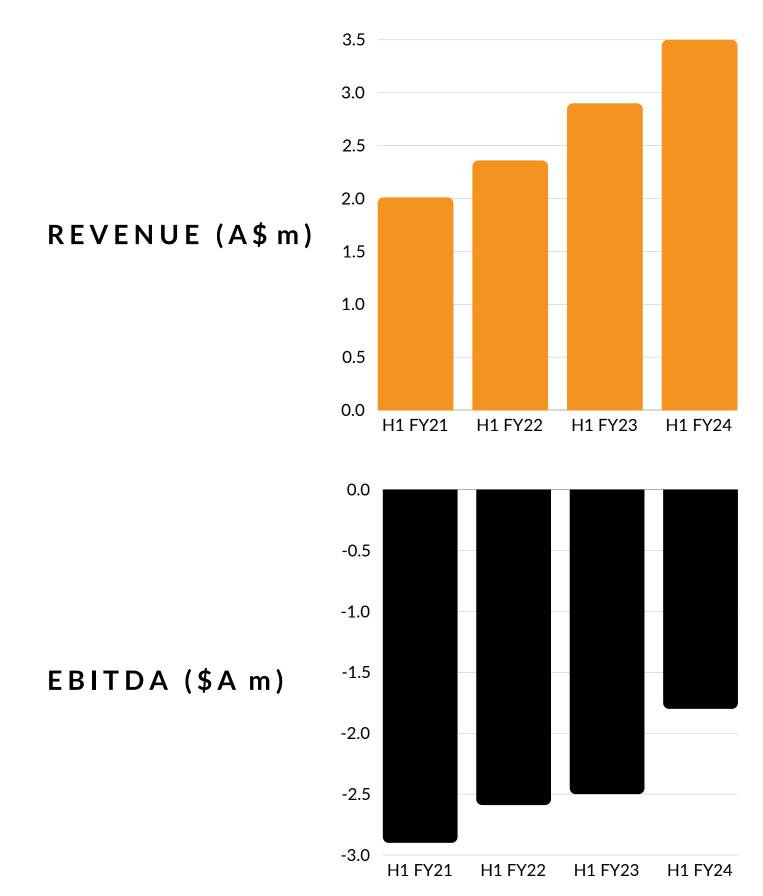
#### FINANCIALS

# Gaining traction year on year

- 300 systems sold in our key markets in FY23.
- FY23 revenue up an impressive 25% over FY22.
- US is the strongest market as the strength of our team and time in-market delivers.
- Strong cost control saw losses narrow.
- Australian operations deliver positive EBITDA for FY23.
   US operations are expected to be monthly breakeven by Dec-24.
- Board revitalisation with new board member, Professor Rob Heard and CEO appointment of Jeremy Steele.







#### FINANCIALS

### FY24 1H results

Total Revenues of \$3.5m for the period. This compares to H1 2023 as follows:

- Continued reduction in losses in EBITDA over the same comparative period in 2023 (\$1.8m from \$2.5m).
- The US represented 80% of the revenue.
- 30% reduction in cash used in operating activities.
- First revenues were reported in Japan with the unbundled version of the NeuroNode product.
- Significant delays in NDIS approvals impacted the Australian business. A substantial backlog of approvals exists, materially larger than at any other time in the business' history.

Focused on the production of NeuroStrip for release into the market and TGA Assessment of our new DROVE product.



# Company



#### **PEOPLE**

## Experienced leadership

#### BOARD



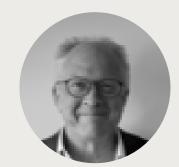
Roger Hawke
Chairman
Independent
Non Executive Director



Jeremy Steele
Managing Director



Peter Ford
Founder &
Non Executive Director



Prof Rob Heard
Independent

Non Executive Director



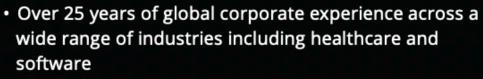
Damian Lismore
Independent
Non Executive Director



Brett Crowley
Company Secretary



Jeremy Steele CEO



 Previously CEO of CardioScan, driving international expansion (from 1 to 10 countries)

 Led greenfield expansion as well as growth through acquisition, in market experience in North America, Asia, Europe and Australia



Dominik Kucera CFO

- 25 years experience in multi sector operations with Primary, Secondary and Tertiary industries
- CFO role for ASX and large private companies, senior financial positions in multinational entities
- Coverage of all facets of financial operations, including M&A and capital raising



Todd Tyler VP – North America

- · 20 years experience in the healthcare industry
- Masters in Communication Sciences and Disorders
- Extensive experience in building and leading teams in the AAC space, having previously work for other industry operators



James Schorey CTO

- 25 years of experience
- Beginning his career as a software engineer, James as advance through multiple organisations and has led both software and hardware engineering teams
- James leads our product development efforts



## Corporate Summary

#### **TOP SHAREHOLDERS**

Phoenix Development 18.32%

Nightingale Partners 12.47%

Peter Shann Ford 11.50%

Top 20 hold 73.1% of shares

#### FINANCIAL INFORMATION

Share price (19/4/24) A\$0.044

Shares on issue 170.7 million

Market capitalisation A\$7.51 million

Cash (31/03/24) A\$0.88 million

Unlisted options / performance rights 4.37 million

Debt

### Get in touch

#### COMPANY



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#### **INVESTOR RELATIONS**



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# Additional Information





#### BEYOND ASSISTIVE TECHNOLOGY

# NeuroStrip helps elite athletes jump higher and reduce injury

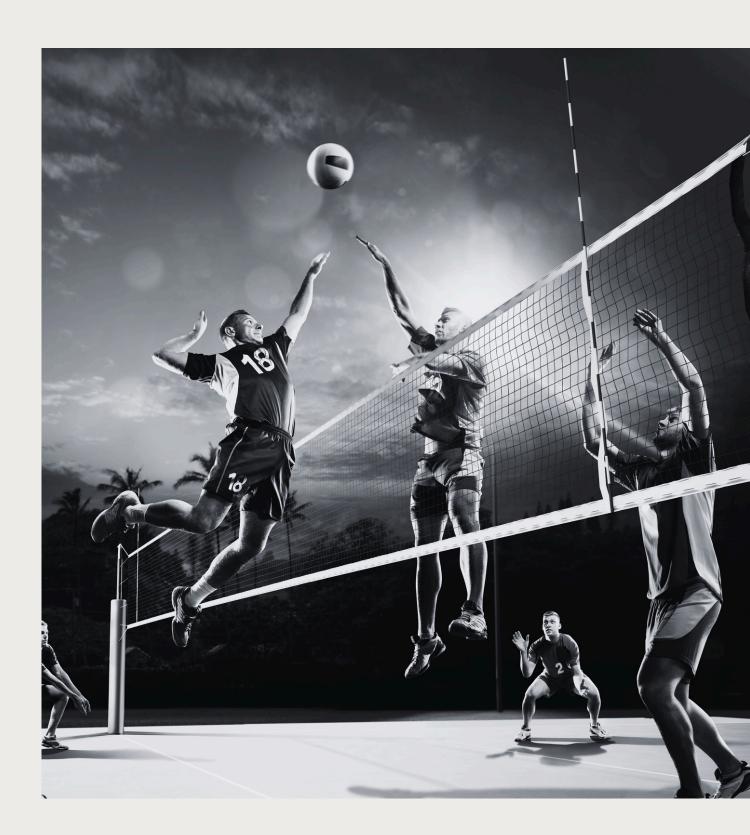
#### **NEUROBOUNCE USES OUR TECHNOLOGY**



A professional sports scientist currently uses our EMG technology to train the brain of his athletes so the motor neuron recruitment to muscles used in jumping can be maximised. With specially designed strength and power training, this results in greater explosiveness, power, and vertical jump height.

Every muscle used in jumping consists of thousands of individual muscle fibres, which must receive signals from the brain to be activated during athletic performance. A higher percentage of fibres in a given muscle that is activated (and then strengthened and trained correctly) results in more power, explosiveness, and vertical jump ability. This will give an athlete an extremely competitive edge in any sport.

Electrodes are placed on the upper and lower quads and calves to recruit and strengthen the muscle fibres.





**ABOUT** 

# Our technology is 20 years in the making

"Peter Ford, the founder, was inspired by Stephen Hawking and how there had to be a better way to help people like Stephen Hawking participate more in society.

Peter trialled the concept with Stephen Hawking over a period of five years.

His input helped shape our journey and where we are today"

Former CEO Rob Wong

