



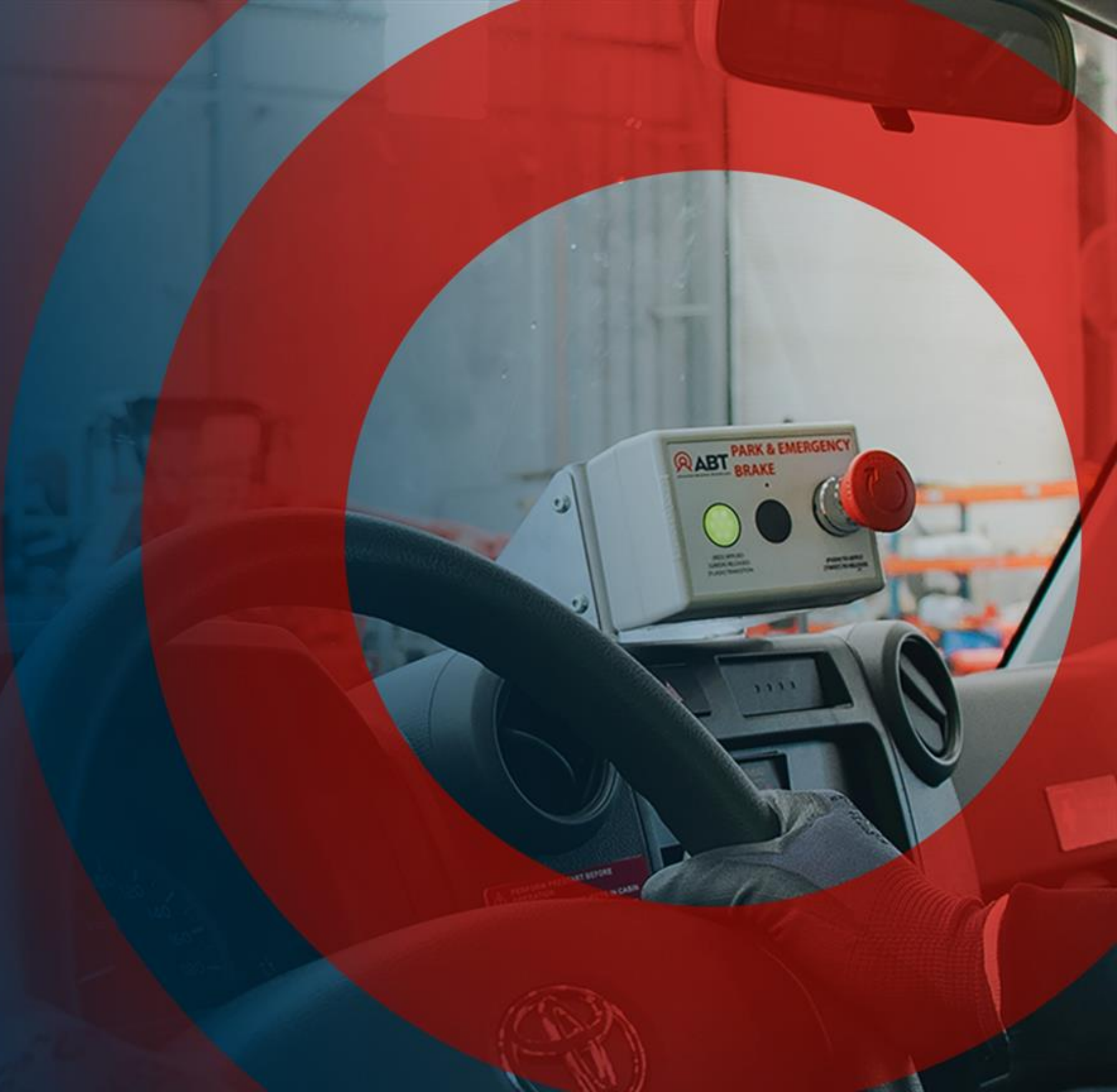
# “BRAKING” RANKS

Solutioning for Mines today and  
Mines of the Future.

## THE ABT STORY

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Presented by: **Andrew Booth, CEO**



# About ABT

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## Innovative braking solutions that protect people, assets and the environment

- Designed, developed, tested and manufactured in Australia
- Own Intellectual Property in Sealed Wet FailSAFE brake technology for vehicle fleets operating in rugged high-risk environments.
- A leading brand across the underground mining sector.
- ABT brakes have a proven reputation for unmatched safety, heightened productivity, zero emissions, and durability in the most challenging environments worldwide.

# Our Customers

Global Mining and Mining Services Operators





# Demand For Underground Mining

The International Energy Agency estimates the demand for minerals used for electric vehicles and battery storage will grow tenfold by 2040.

This market dynamic is boosting continued and unprecedented investment and growth in underground and other mining formats.

Since the global pandemic, the industry has seen an accelerated focus on Environment, Social and Governance (ESG) focus in the form of safety, compliance and technology driven environmental solutioning as a key driver for innovation.





## ABT Exports Brakes to 7 Continents:

From Finland in the North to Antarctica in the South....  
We've got you covered.

**40%**

of revenue from overseas locations including:

- North America
- Europe
- Asia-Pacific
- South Africa
- South America
- Antarctica



**60%**

of revenue from the Australian Market

| <b>Summary Financial Results</b>   | <b>FY23</b> | <b>FY22</b> | <b>Change</b> |
|------------------------------------|-------------|-------------|---------------|
| Revenue from ordinary activities   | \$14.69M    | \$11.74M    | 25.1%         |
| Revenue from continuing activities | \$14.15M    | \$11.1M     | 27.9%         |
| Product margin                     | 49.9%       | 43.9%       | 5.79%         |
| Total Expenses                     | \$6.7M      | \$4.9M      | 25.1%         |
| EBITDA                             | \$1.5M      | \$0.7M      | 82.6%         |
| Net profit after tax               | \$1.47M     | \$0.64M     | 129%          |
| Cash and cash equivalents          | \$2.05M     | \$1.74M     | 17.8%         |



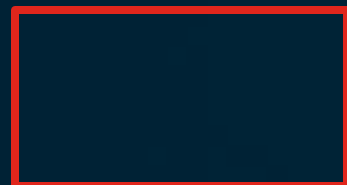
# ABT BrakeSAFE Current and Development Innovation

Advanced braking systems and technology for a wide range of vehicle specifications and makes / models.

## Legend:



Current



In Development

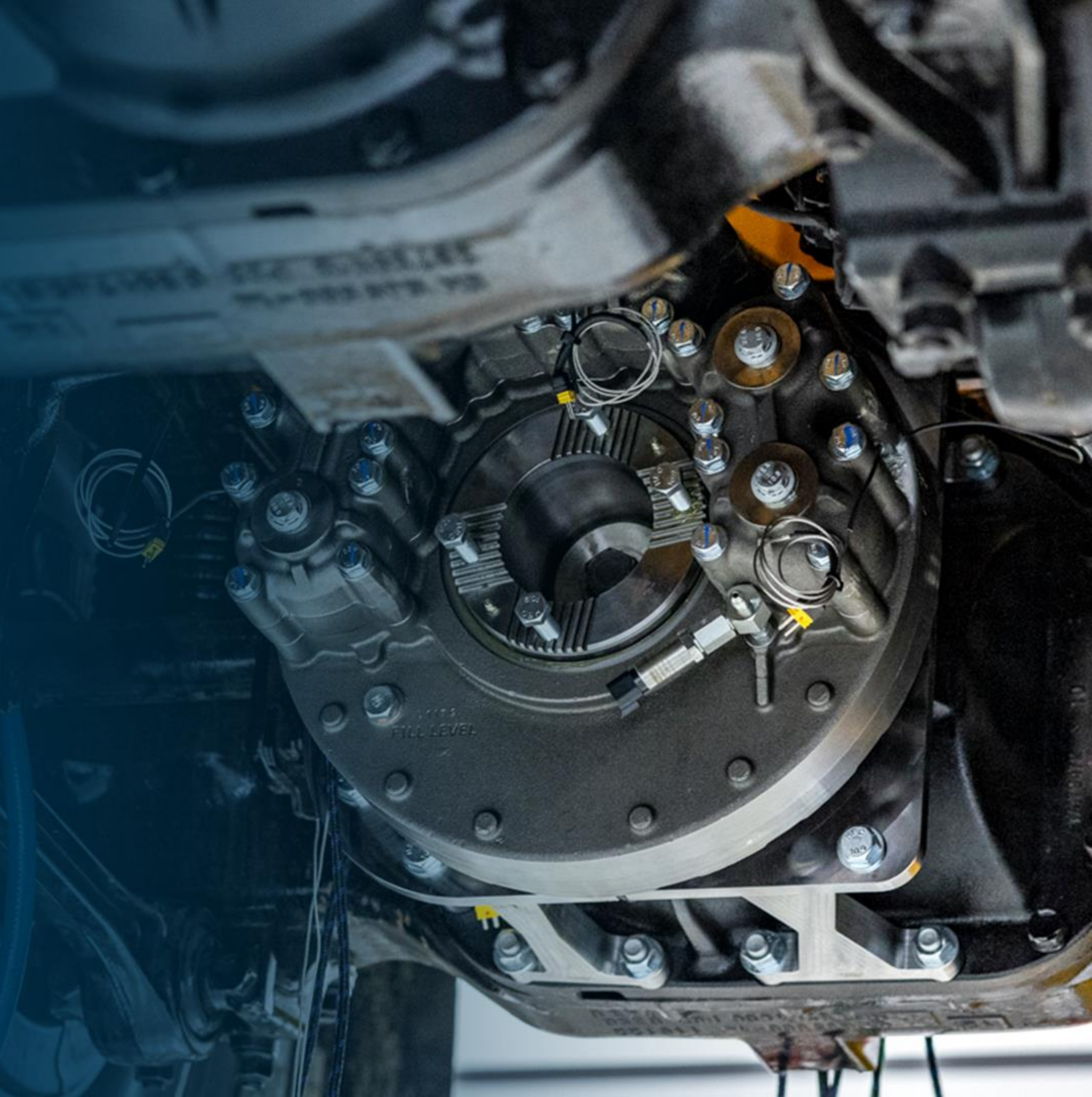
| ABT                 | BrakeSAFE Wheelend | BrakeSAFE Driveline | Collision Avoidance Systems |
|---------------------|--------------------|---------------------|-----------------------------|
| TOYOTA Landcruiser  |                    |                     |                             |
| TOYOTA Hilux        |                    |                     |                             |
| FORD Ranger         |                    |                     |                             |
| Ancillary Machinery |                    |                     |                             |
| Light Truck         |                    |                     |                             |
| Medium Truck        |                    |                     |                             |
| Heavy/Medium Truck  |                    |                     |                             |
| Heavy Truck         |                    |                     |                             |



# WHY ABT?

Improving the safety of miners and the efficiency of mining operations.

- Unintended Vehicle Movement
- Brake Fade / Brake Failure
- Durability
- Environment





# Example 1: Unintended Vehicle Movement

## Causes



Technical Failure in the vehicle control system



Operator Error – forgetting to operate the Park Brake





# Example 1: Unintended Vehicle Movement

## Safety Issues



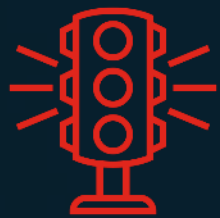
Steep inclines and declines



Heavy Vehicle Traffic



Hard Rock Walls



Stop/Start frequent  
alighting vehicles



## ABT Solution

ABT Failsafe provides back up activation methods designed to support the operating environment and vehicle operator activities.

Primary Activation Method

- Pressing the ABT controller e-stop button
- Ignition off

Secondary Activation Method – Interlock Systems

- Seat belt removed
- Door opened
- Engine stall



# Example 2: Brake Fade and Brake Failure

## Brake Fade Issues

Brake failure can occur due to various reasons, including:



**Overheating and Inadequate Cooling**



**Brake Material and Design**

## Brake Failure Issues

Brake failure can occur due to various reasons, including:



**Component Wear and Tear**



**Hydraulic System Failure**



**Contaminants**



**Inadequate Maintenance**



## ABT Solution

- Wet Brakes provide optimal thermal performance.
- Failsafe brake system Independent of the Vehicle
- Specifically designed for mine gradients over prolonged distances
- Specifically designed for mine gradients
- Sealed Brakes prevent intrusion of contaminants

# Example 3: Open Brake Systems Lack Durability

ABT demonstrates superior total cost of ownership benefits of 23% over standard Brakes

## Weekly and Fortnightly Servicing Required








Component Wear and Tear



Contaminants



## ABT Solution

-  SIBS offers superior Service Cycles  
IE: Wet / Sealed Brakes reduce service frequency from weeks to months.
-  Sealed wet brakes prevent wear and tear in harsh rugged operating environments
-  Wet brakes offer superior brake pad life  
Coefficient of friction creates less pad wear
-  Less downtime = Improved Fleet Availability = Smaller more efficient fleets
-  Lower CAPEX / OPEX



# Example 4: Cleaner Air Environment

Approximately, 20% of a vehicle's emissions are sourced from harmful brake dust particles.

## Environmental



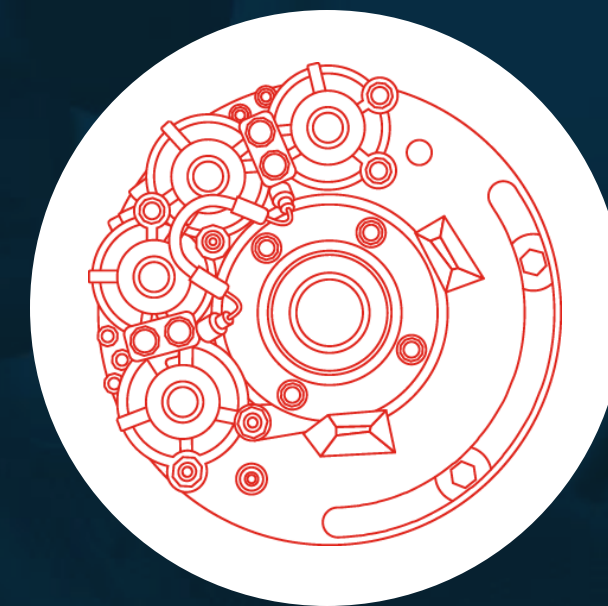
Air filtration represents a significant investment for underground operators



Essential for safety and regulatory compliance



## ABT Solution



Our brakes prevent **100% of Brake Dust Particulates** emitting into the environment where clean air is critical

# SIBS Failsafe Braking for Electric



Proportion of emissions emitted by a diesel vehicle.

**SIBS = 100% Sealed Brakes can reduce vehicle related greenhouse gas emissions by up to 20%.**

The adoption of electric vehicles is likely to continue to grow as technology advances and regulatory pressure to reduce emissions increases.





# Failsafe Braking for Collision Avoidance



Each year, between 30-40% of mining industry deaths are attributable to failures of vehicle interaction controls and of these about half involve pedestrians (EMESRT)

Collision Avoidance Level 9 to intervene and override the driver.

Failsafe Braking and Collision Avoidance Technologies provide complementary safety intervention systems which save lives.



# What About Autonomous?



FMG has equipped autonomous driving technology to **a fleet of Ford Rangers** – after developing similar systems for heavy duty mining trucks since 2015.

ABT's Failsafe system is an integral part of the Driverless Vehicle System.

Autonomous Ford Ranger developed by Australian mining company - Drive



# Evolution of BrakeSAFE



## ABT solutioning for Road Trucks for Mine Haulage

### Advantages of Conventional Road Trucks

- Cost – Operating Costs
- Speed – Power to Weight Ratio
- Capital Cost
- Future Electrification and Automation.
- Mine spec / Ruggedising Conventional Road Trucks
- Emergency Braking System (Failsafe Secondary System)
- Custom Body
- Upgraded Tires

**Rio Tinto turns to mining mosquito fleet**

Rio Tinto turns to mining mosquito fleet

- Australian Mining





# Solutioning for Heavy Ancillary Fleets in Mining

Preventing Unintended Vehicle Movement with a range of Failsafe Brake Systems.

## Advantages of After Market Failsafe Brakes

- Emergency Braking System (Failsafe Secondary System)
- Mine spec / Ruggedising Conventional Road and Construction Fleets
- Driveline brakes designed to integrate into a diverse range of Heavy Fleets





# Executive Management Team



**Andrew Booth**  
Chief Executive Officer

More than 15 years Strategic Leadership in Australia and Asia in both Corporates and Multinational Co's. Experience spans International Business Operations, Transforming Organisational Culture, Business Turnaround, Business Development, Risk, Governance and Financial Management.



**Angela Godbeer**  
Chief Financial Officer

Significant experience in ASX listed manufacturing environments with a successful track record within well-regarded organisations, some of which have undergone significant transformation aligned to strategic objectives.



**Ben Weetman**  
Sales and Marketing  
Director

Ben offers extensive Mining and Mining equipment, technology and services (METS) experience both in Australia and Internationally.



**Cale Ginbey**  
Operations & Engineering  
Director

16 years' experience in the Mining and Mining Equipment (METS) sectors including BHP, RIO Tinto and Schenck Australia. Cale has driven strategic programs focussed on delivering technology integration into large scale engineering lead operations.



# ABT Highlights

- Financial Strength
- Valuable Intellectual Property
- Strong foundations for Scalability
- Sustained Profitability
- Bluechip Customer Base
- International Market Growth

**ABT is solutioning for today and Mines of the Future**



This presentation is approved for release by the Board of Advanced Braking Technology Limited.

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## Thankyou. For further information please contact:

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