



### INVENTION TO INVESTMENT ENGINEERS' WEEK 2013







#### **Engineers Week 2013**

#### **INVENTION TO INVESTMENT**

#### Ken Johnsen CEO Advanced Braking Technology Ltd

Advanced Braking Technology | Engineers Week 2013 Presentation

### **Company Overview**



- ABT is a developer, manufacturer and distributor of its patented Sealed Integrated Braking System (SIBS<sup>®</sup>)
  - SIBS<sup>®</sup> is a fail-safe, enclosed "wet" braking system;
  - SIBS<sup>®</sup> technology is proven in the mining industry over many years
- ABT is now targeting full scale
  commercial roll out of a SIBS<sup>®</sup> Truck
  Brake.

ABT is listed on the ASX	
ASX Code	ABV
Top 20 Holding (%)	47.3%
Ownership Directors / Management (%)	15.8%
Shares on Issue	1.1 billion
Market Cap	\$19 million
Share Price	\$0.018

	Directors of ABT
David Humann	Chairman of Mincor Resources & Director of India Resources
David Slack	CIO of Karara Capital Co-founder & Joint MD of Portfolio Partners (sold to Norwich Union)
Adam Levine	Managing Partner of Rockwell Bates, a law firm in Australia and India
Bruce Grey	MD of Advanced Manufacturing CRC Former MD Bishop Technologies
Ken Johnsen	CEO of ABT Former Director of Orbital Corporation

### **ABT Technology**



#### Sealed Integrated Braking System (SIBS®)

- > Fully enclosed, single rotor, wet brake
- > Incorporates fail-safe features
- > Designed for retro-fit or factory fit
- Virtually wear and maintenance-free
- > Manufactured in Thailand, through subsidiary

#### **Comprehensive Patent Protection**

- > 61 international patents or patent applications
- > Average patent life of 12 years
- > New patents being lodged as developments continues

### **IP Strategy**



- IP is embedded in the product
- More attractive than licensing model
  - > Higher \$ margin per product
  - Shorter time to market
  - Know-how remains in-house
  - Patents are being "worked"
  - Patents give competitive advantage
- "Careful" management of Patent Portfolio
- Inherited a previous strategy of uneconomic "patent flooding"
- Pruned portfolio to useful patent in main markets
- Ongoing developments protect with new applications



### **Invention Stage**

- 1991 Australian Minerals Industries Research Association grant
  - Objective to develop a "retrofittable", low maintenance wet disc brake and park brake for all mine site light four wheel drive vehicles
- 1992 First Patent Filed Improved Wet Disc Brake
  - Inventor Frank Parsons (Geelong Victoria)
  - 1992 2002 Further patent families created
    - Funded by various entities/investors

## **Commercialisation Phase**



- **2002 Safe Effect Technologies Ltd listed on ASX**
- 2004 Thai manufacturing facility established
- **2005 Company re-capitalised and commenced push into mining markets**
- 2007 Company Name changed to Advanced Braking Technology Ltd
- 2008 Truck Brake development commences
- 2010 Truck Brake "Proof of Concept"
- 2011 \$2 million Early Stage Commercialisation Grant awarded
- **2013 Commercial launch of Truck Brake**

### **Robust Commercial Model**



#### Attractive and established business:

- > High margins
- > Highly scalable cost base
- > Established supplier base
- > Established global network in mining
- Benefits from offshore outsourced manufacturi
- > Low cost model
- > Low capital intensity





### **Mining: Established Presence**



#### Australia:

- > 25% market share
- > SIBS<sup>®</sup> standard at many mining sites
  - Olympic Dam, Xstrata Zinc George Fisher, BHP Nickel West
- Applicable to light (Landcruiser, etc.) Medium (Isuzu, etc.) and Heavy (Mack, etc) Vehicles

#### **Export:**

- Representing 25% of total sales (average over last 4 years)
- > Strong foothold in South Africa and Canada
- Expansion into new markets (e.g. USA, Central/West Africa, South America)

### Mining: Value Proposition



- > SIBS offers much reduced maintenance cost in harsh conditions
  - Payback as short as 12 months
- > SIBS can be retrofitted to most standard road vehicles used in mining
  - Light, Medium and Heavy vehicles made more "fit for purpose"
  - On-road licensing compliance retained,
- SIBS has a proprietary "fail to safe" feature the virtually eliminates "uncontrolled vehicle movements" from driver error or equipment failure.
- > SIBS has become mandatory on many mine sites
  - Xstrata Zinc, Olympic Dam, Nickel West

## Significant Growth in Revenue





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### Waste Trucks: Major Growth Opportunity

### INITIAL TARGET MARKET - WASTE TRUCK BRAKES

#### **Identified Real Need for Change:**

- Brakes are the second biggest expenditure after fuel for garbage truck fleet operators
- > Public desire for noise reduction
- > Global drive to reduce pollution

#### Australian market:

> Dynamic, recession-proof industry

#### **Global growth potential:**

- > Next targets:
  - Expanding into North America and Europe waste markets
  - Other truck brake applications with high wear.



### Waste Trucks: Market Strategy



- > Multi year development program now complete
- Commercial roll out commenced CY2013
- > Technical risk is very low:
  - ABT has significant experience and expertise with the associated technology
  - Extensive and successful testing process
- > Targeted customers expressing significant interest
- > Launch Strategy:
  - Initial Sales into Australian retro-fit market low barriers to entry
  - Retro-fit facilitates rapid take up
  - Australian OE (new truck sales) will follow
  - Export markets (retro-fit and OE) will follow after Australian launch

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### Waste Trucks: Value Proposition

#### "Triple bottom line" benefits

- > Financial Savings:
  - Dramatically reduces frequency of brake overhauls from more than twice a year, to once every two years or longer
  - Up to \$15k per annum savings per truck in severe conditions
- > Superior Operating Performance:
  - Brakes are virtually wear and maintenance-free, unlike conventional drum and disc brakes
- > Safety and Environmental Benefits:
  - Total elimination of brake noise and dust emissions
  - Provides consistent safer braking at all times
  - Avoids need for regular checking and adjustment





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#### Investment in Truck Brake Development



- > Development cost supported by:
  - Third Party Funding (\$2.5 million)
  - Commonwealth CA Grant (\$2 million)
  - R&D Tax Offsets (\$1.1 million)

Total Cost \$8.3 million

Net Cost \$2.7 million

# **Commercialisation Australia Grant**



- 2 Year Grant Jan 2010 Dec 2012
- Maximum Grant \$2 million
- Extended to 30 June 2013
- Project Outcome:
  - Successful Commercial Launch of New Truck Brake

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# **Commercialisation Australia Grant**

#### Key Components for Award of Grant

- "Proof of Concept" demonstrated and well documented
- Matching funds in place
- Strong support from stakeholders (industry and customers)
- Clear demonstration the funds would accelerate time to market
  - Improving "prospect, rate and timing" of commercialisation
- Need for funding:
  - Access to equity funding limited
  - > Access to bank finance nil (at that time)!
- Did not represent project would not happen without funding
  - Demonstrated funds would enhance chances of commercialisation



#### **Waste Truck: Revenue Potential**



Note: The graph represents an indicative scenario based on current market estimates

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#### **Ingredients for Success**



- > Five year intensive development program
- > Leverages >10 years of product success in mining
- > Involvement of key stakeholders in development activity:
  - Waste Companies
  - OE Truck Suppliers
  - Key Suppliers
  - Brake and Auto Industry Experts
  - Local and Commonwealth Governments
- > Extensive bench, test track and in field trials
- > Product applicable to other global applications; trailers, buses, etc

#### **Current Outlook and Priorities**



- > Main focus is the **commercial roll out of the SIBS® Truck Brake** 
  - > All indicators suggest that there will be a strong demand
  - > A progressive and controlled launch is planned
- > Mining sales will always play an important role in the Company's future
- SIBS® Truck Brake sales are expected to provide strong sales growth to eclipse mining sales in short term
- Export sales in mining will continue to grow through expansion into other countries, such as USA, Central/West Africa, South America. Truck brake export sales will be the major growth opportunity.

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www.advancedbraking.com

info.perth@advancedbraking.com

Phone: +61 8 9273 4800 | Fax: +61 8 9201 9986