

Orbital Corporation Limited (ASX: OEC)

Introduction to REMSAFE Pty Ltd

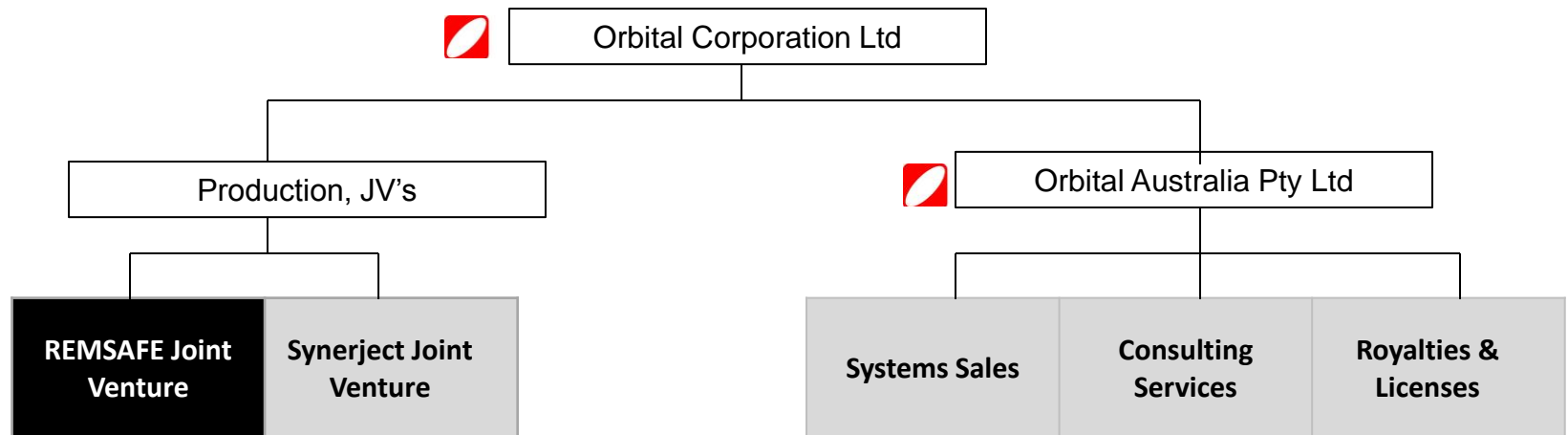


The safety system that
generates revenue

The Orbital Business Today



Orbital today earns income via 5 operating segments; System Sales, REMSAFE JV Synerject Joint Venture, Consulting Services and Royalties & Licences.



Operating Sector¹

Remote Electrical Isolation Systems

Non Auto EMS global supplier

Engine and Fuel Systems Sales and Distribution

Engineering Consulting for Powertrain Applications

Royalty Revenue from Orbital Patents

Applications / Systems



Notes:

1. EMS: Engine Management System. UAS: Unmanned Aircraft System. LNG: Liquid Natural Gas.



The safety system that
generates revenue



Made in Western Australia



February 2015

Overview of REMSAFE

REMSAFE has developed, and is selling, a remote isolation product titled “REMSAFE” to bulk commodity above ground producers such as BHPB, Rio Tinto and FMG.

Overview of REMSAFE Product



- What is REMSAFE?**
- A high voltage remote isolate system designed by REMSAFE initially for use at hard rock mining operations
- What does it do?**
- System will quickly and safely de-energise and isolate bulk handling plant from motive energy sources
- Why the need for REMSAFE?**
- REMSAFE replaces a typical **40 to 90 minute process** where an electrician uses manually operated isolators
 - REMSAFE de-energises and isolates all drive energies to high voltage equipment in **less than 3 minutes**
 - **System has the potential to save clients millions of dollar in lost tonnages**

Who is using REMSAFE currently?

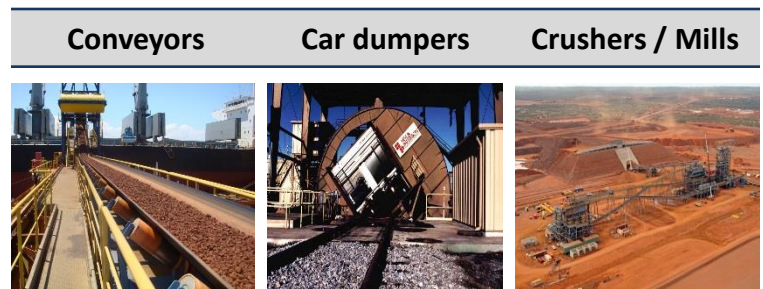


RioTinto

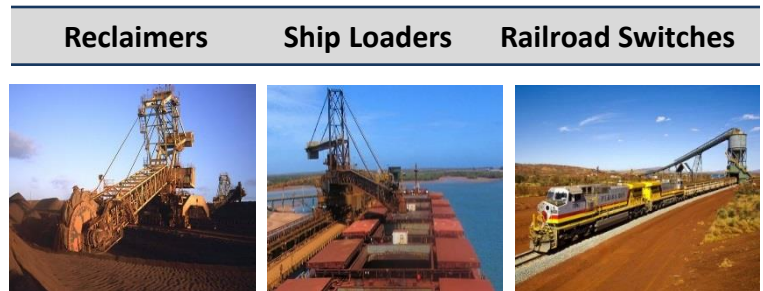


REMSAFE Applications

- The REMSAFE product is targeted at high-volume fixed material handling plants such as:



- REMSAFE also suits balance plants such as:



The REMSAFE Product

The REMSAFE product is a system collectively made up of a number of individual components. Each installation requires a “Master Control Station” and at least one “Field Isolation Station”.

Master Control Station (MCS)



- Each site requires a MCS
- One MCS will operate 30 REMSAFE systems
- The system accommodates the master safety PLC and industrial PC for data logging

Field Isolation Station (FIS)



- Each conveyor, car dumper etc requires at least one FIS
- Mounted in close proximity to the plant it is used to isolate
- Several field isolation stations can be used for a single item of plant (typically long conveyors)

Selectable Isolation Mode Cubicle (SIMC)



- SIMC provides the operator with the ability to de-select drives from the overall isolation
- Only one SIMC is installed per conveyor, usually located adjacent to the FIS at the conveyor’s head end

Failsafe Instrument Cubicle (FIC)



- Where there is inadequate room in a MSC isolator cubicle for the remote isolation hardware, REMSAFE install a Failsafe Instrument Cubicle nearby

Source: REMSAFE

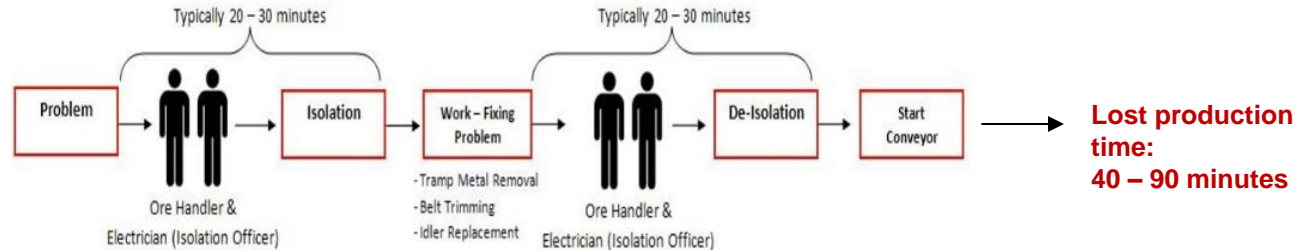
REMSAFE Process Explained

A typical manual isolation of a bulk haulage system can take up to 40-90 minutes. The REMSAFE remote isolation system can complete the same task in less than 3 minutes. The REMSAFE system also completes the isolation remotely and is therefore safer than current manual processes. Isolation does not require a licensed electrician.

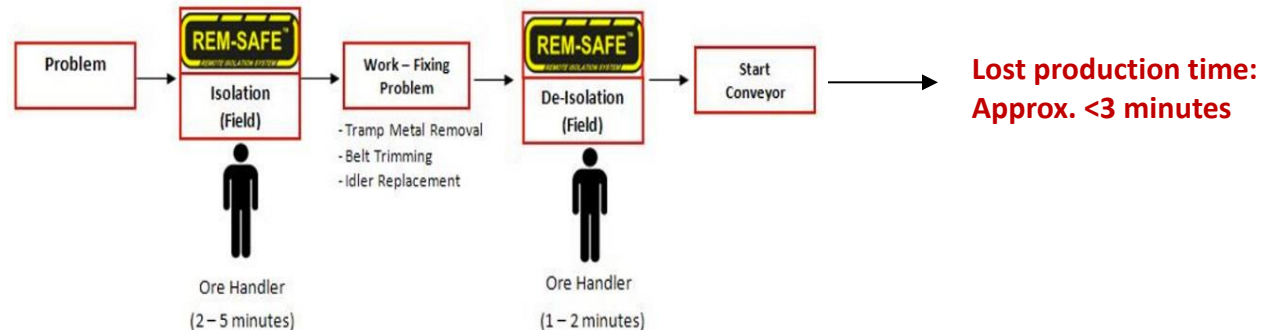
Event on bulk haulage system
i.e. conveyor system



Manual Isolation



REMSAFE Remote Isolation

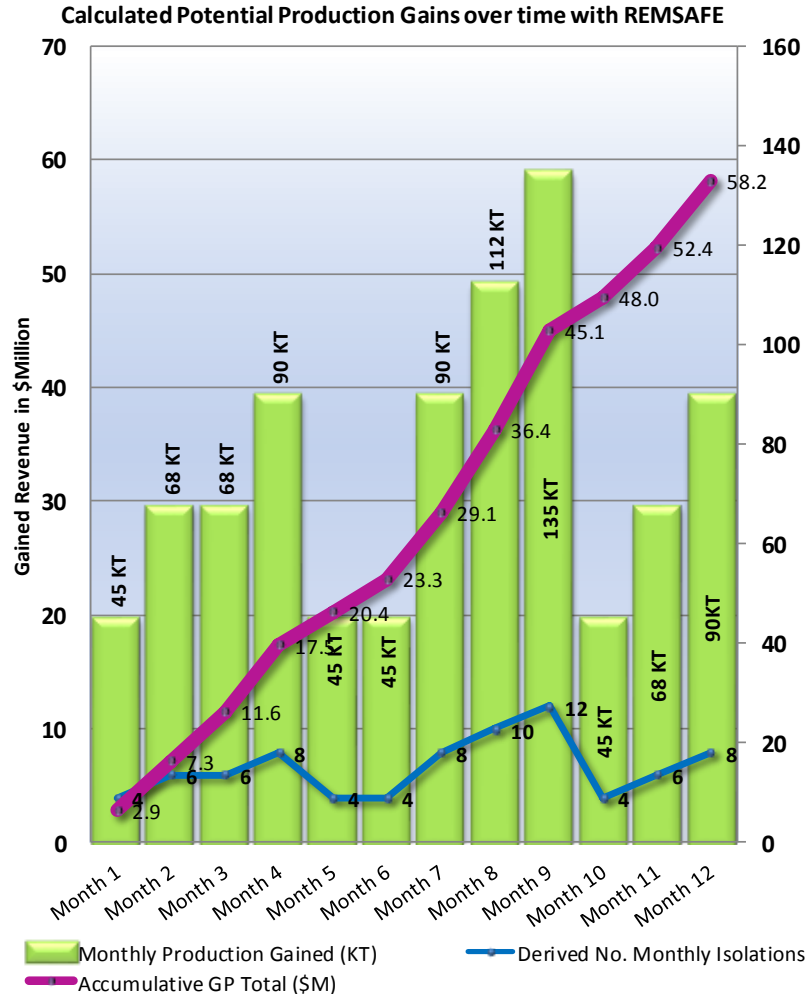


Source: REMSAFE.

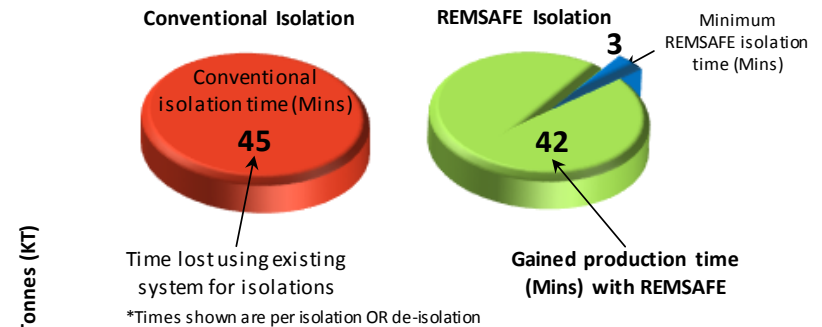
Case Study - 8000 tonne/hr Conveyor



REMSAFE Remote Isolation System Installation Benefits Summary Typical Conveyor Installation



Gained Production Time with REMSAFE



REMSAFE INVESTMENT BREAK EVEN POINT

Number of isolations to break even	2.1
Days to break even	9

Calculation Assumed Parameters

Investment Cost	\$1,500,000
Tonnes per hour	8,000
Nominal revenue per tonne	\$65.00
Isolations per month	6.7
Conventional isolation time (Mins)	45
Minimum REMSAFE isolation time (Mins)	3

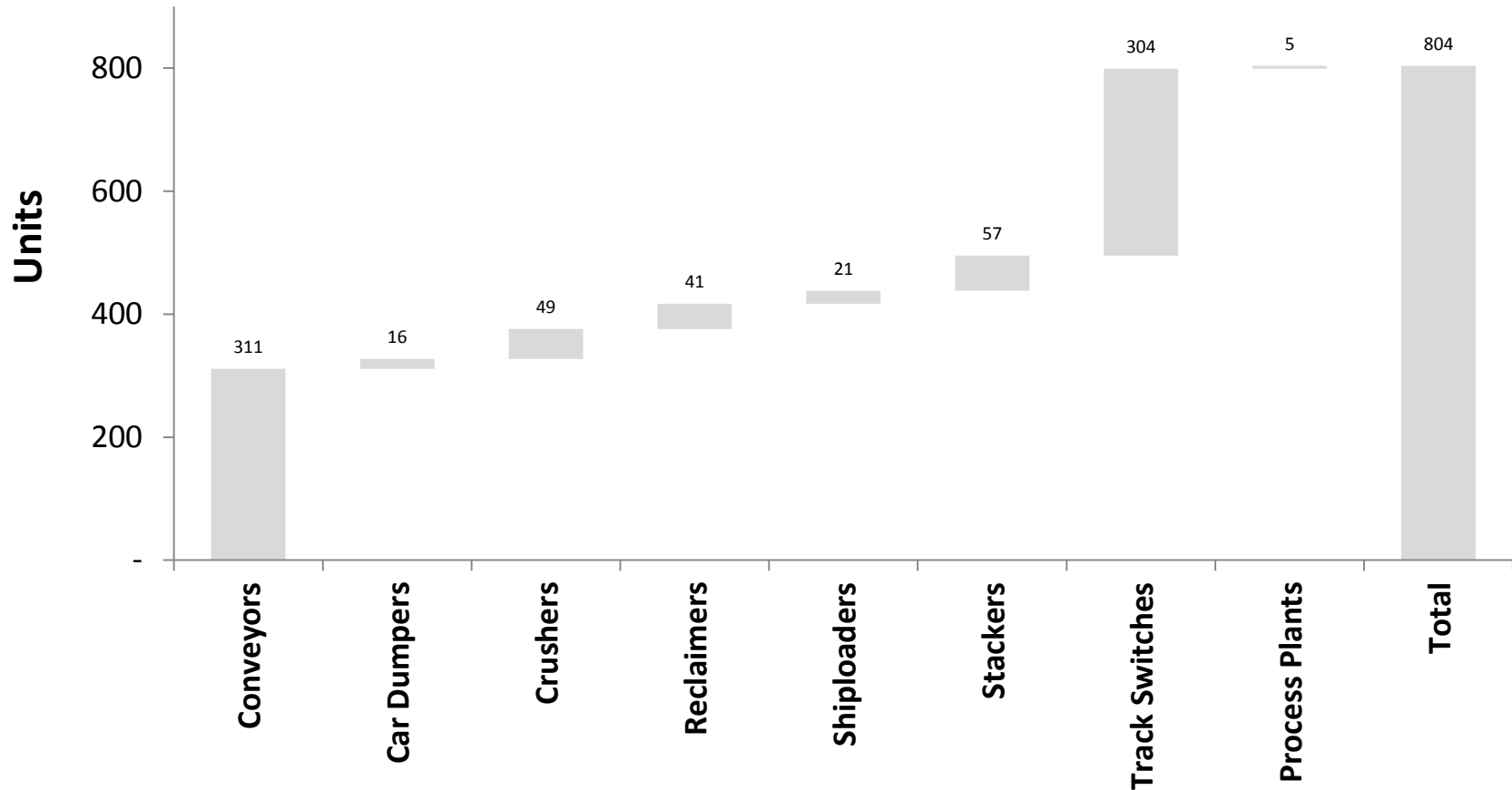
*Tonnage, revenue and break even point calculations include isolation & de-isolation events

Case Study - Summary

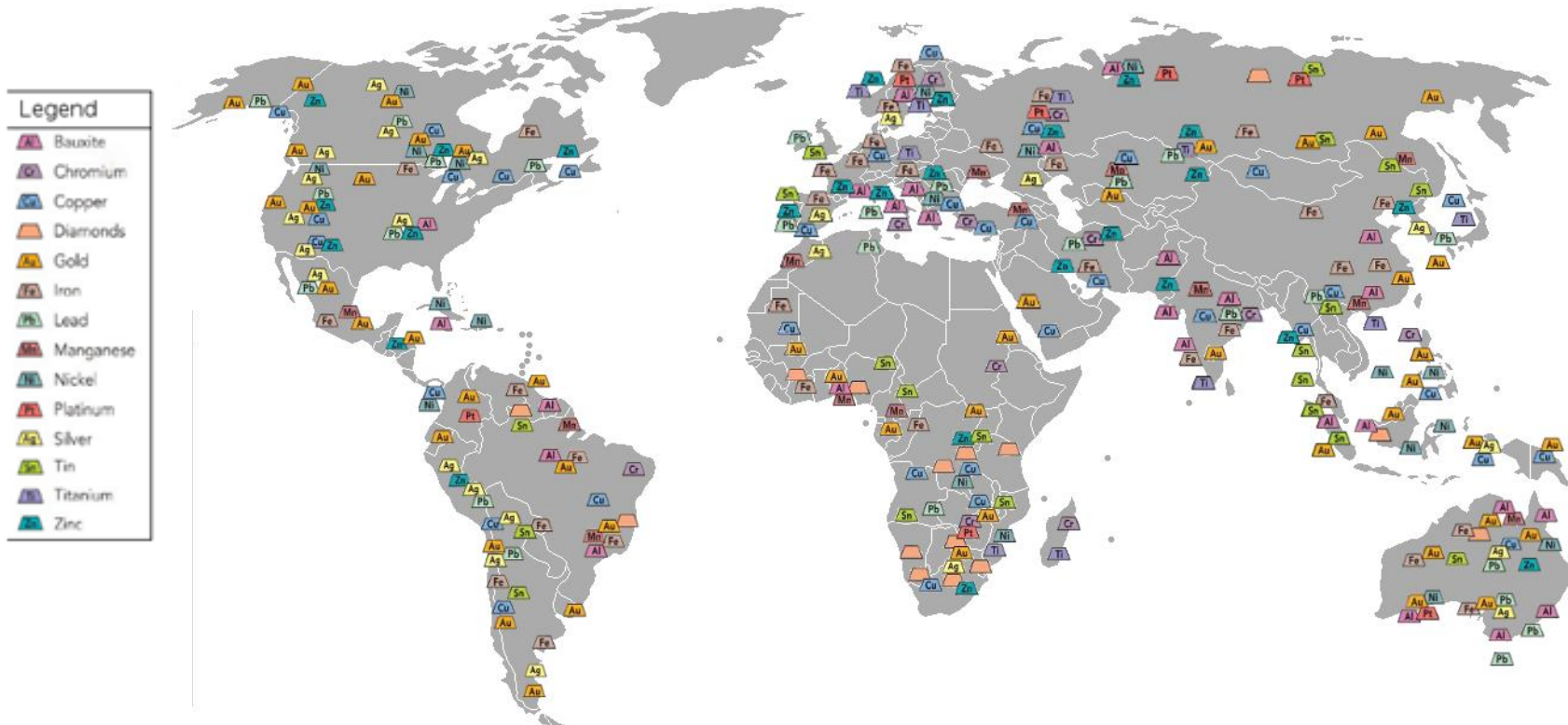
	Pre REMSAFE	With REMSAFE	Saving
Conveyor Tonnes/hr	8,000	8,000	
Price Iron Ore (\$)	\$65	\$65	
# of isolations/month	6.7	6.7	
Isolation Time (Minutes)	45	3	42 min/isolation
De-isolation Time (Minutes)	45	3	42 min/de-isolation
Tonnes lost/isolation	12,000	800	11,200 tonnes
Tonnes lost/month	80,000	5,333	28,800 tonnes
Tonnes lost/year	960,000	64,000	896,000 tonnes
Revenue lost/year (\$)	\$62.4 million	\$4.2 million	\$58.2 million
Return on Investment			9 days
Additional Revenue with REMSAFE (\$)			\$58.2 million

REMSAFE West Australia Opportunity

\$350 to \$550 million WA Mining Market Potential for REMSAFE



REMSAFE - Global Mining Potential



■ Immediate Markets

- WA Pilbara
- QLD Coal Mining
- South Africa

■ Target Markets for Expansion

- USA Mining
- Oil & Gas (Aust + Global)
- Brazil Mining
- Australian Agriculture

REMSAFE Delivers on Orbital Strategy

- **Sales Growth**

- Huge Market Potential
- Resources sector
- Applications beyond Resources
- International market potential

- **Domestic Growth**

- Iron ore
- Other mineral resources
- Underground mining
- Oil and gas

- **Diversification**

- New products
- New markets
- New technology
- Fits with High Tech Image

- **Reduced Risk**

- Solid Order Book
- Business with (3) biggest miners
- Patent protected
- Strong Unique Selling Proposition

Orbital Delivers to REMSAFE

- Funding
- Intellectual Property/Patents Support
- Commercialisation Experience
- Back Office – Finance, Legal, Admin, Marketing, Business Development
- Local Operating Base – Balcatta, West Australia
- World Wide Industry Connections
- Existing Engineering Infrastructure
- Electronics/Software Support

**Contact Orbital, or visit the website for further
information www.orbital.com.au**

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