



## Investor Presentation

Developing highly strategic High Purity Alumina (HPA)  
Cadoux Kaolin Project in Western Australia

# FYI Summary

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ASX-listed company



High purity alumina (HPA)  
Cadoux Kaolin Project in  
Western Australia



Positive long-term market  
fundamentals



Ground floor entry to an  
emerging growth sector



Compelling  
technical &  
geographical  
advantages



Experienced Board  
and Management



Demonstrable record of  
successful project  
development



Excellent exploration,  
development, operations,  
marketing and corporate  
capabilities

**FYI IS BUILDING A SOLID PROJECT PORTFOLIO OF LONG LIFE QUALITY ASSETS**

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“World demand for high purity alumina has gained an incredible traction, owing to growing technological advancements and increasing demand from applications”

Allied Market Research – HPA Report.





# Corporate Overview

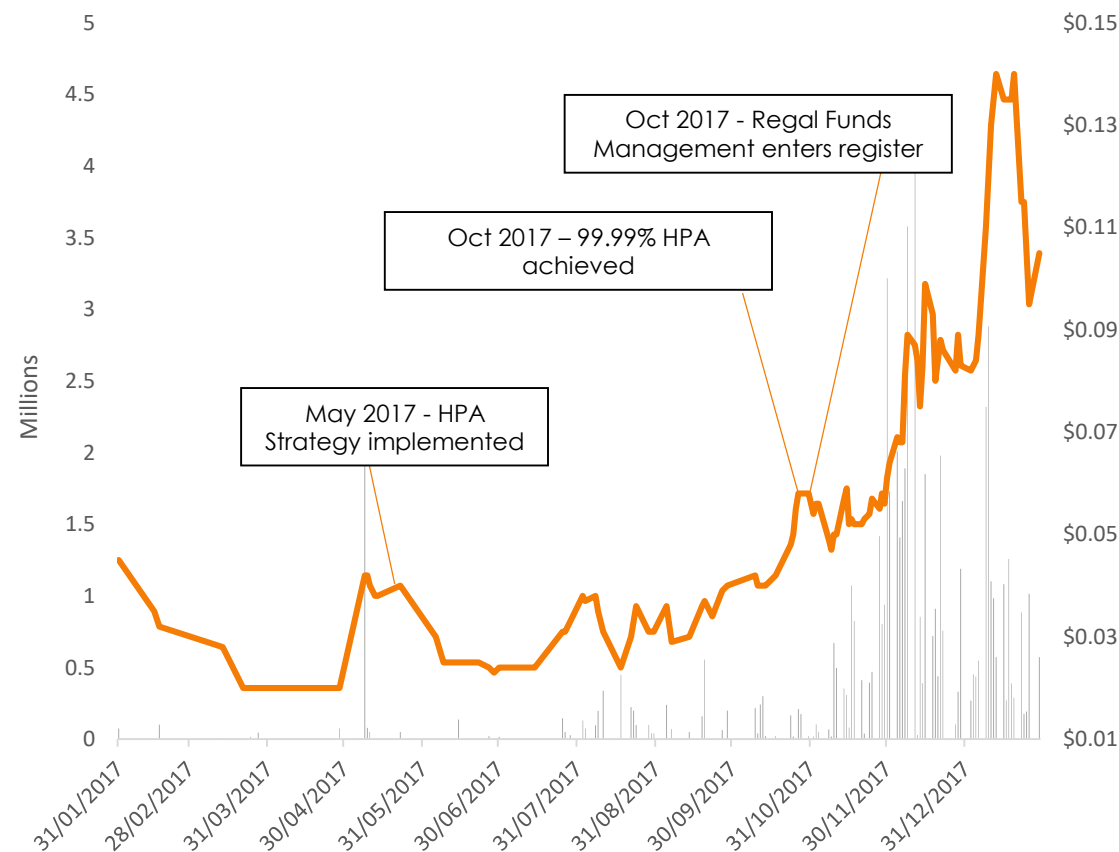
## Capital Structure

	Amount
Fully paid ordinary shares	133.6m
Options	8.7m
Share price	\$0.09
Market capitalisation	\$12.0m
Cash as at 31 December	~\$890k

## Substantial Holders

	%
FYI Board	12.0
FYI Management	9.0
Empire Resources	8.9
Regal Funds Management	8.6

## 12-month Share Price Performance



# Board of Directors

## Mr Edmund Babington

Non-Executive Chairman

Mr Babington is a Director of the Western Australian commercial law firm, Lyons Babington Lawyers. He is also a member of AMPLA (the Australian resources and energy law association), the Franchise Council of Australia and is a Western Australian committee member of the Australian Institute of Business Brokers.

Mr Babington is a specialist in mining and resources law and the law relating to capital raisings, stock exchange requirements, corporate governance and compliance for public companies.

## Mr Roland Hill

Managing Director

Mr Hill holds a Bachelor of Science and Bachelor of Commerce from Curtin University. Mr Hill was appointed to the position of chief executive officer on 4 February 2011 and to the position of Managing Director on 1 July 2014.

Mr Hill has extensive resource industry and investment, finance and funds management experience. He has been directly associated with the mining and exploration sector for over 18 years in contracting roles and with Western Mining Corporation and Normandy Poseidon and a 7 year role as Managing Director and Chairman of Crescent Gold Limited – an ASX listed gold producer with production of ~100,000oz pa.

## Mr David Sargeant

Non-Executive Director

Mr Sargeant holds a Bachelor of Science degree in economic geology from the University of Sydney. He has more than 40 years of experience as a geologist, consultant and Company director. He is a member of AusIMM and the Geological Society of Australia.

During his career, Mr Sargeant has held a range of senior positions, including that of senior geologist with Newmont Pty Ltd and senior supervisory geologist with Esso Australia Ltd at the time of the Harbour Lights Gold Mine discovery and development. Further, Mr Sargeant was the first chief geologist at Telfer Gold Mine during exploration, development and production at that project. In addition, he was exploration manager for the Adelaide Petroleum NL group of companies, manager of resources development for Sabminco NL and a technical director of Western Reefs Limited.

## Mr Adrian Jessup

Non-Executive Director

Mr Jessup also holds a Bachelor of Science degree (with honours) in economic geology from the University of Sydney and has more than 40 years continuous experience as a geologist, Company director and consultant involved in mineral exploration, ore deposit evaluation and mining. He is a member of AusIMM, the Geological Society of Australia and the Australian Institute of Geoscientists.

For the last 15 years, Mr Jessup has operated a geological consulting company. During that time, he was a founding director of publicly listed companies Empire Resources Limited and Sylvania Resources Limited.

# What is HPA

## HPA is a versatile material allowing a multitude of uses in new age industries

High purity alumina (**HPA**) is aluminum oxide ( $\text{Al}_2\text{O}_3$ ) powder with a purity equal to or greater than 99.99%

HPA's properties include low-friction and high wear-resistance, hardness, thermal and electrical insulating ability, non-corrosive and broad chemical compatibility

HPA is utilised extensively in applications such as:

- light emitting diodes (**LEDs**)
- Electric vehicle (**EV**) components
- semiconductor wafers
- sapphire glass for smart phones, television screens and watch faces
- high-strength ceramic tools
- space and aeronautics industry components
- high tensile light weight fabrication applications
- artificial gemstones (sapphires)
- abrasives
- fire-retardant insulation for electrical circuitry
- battery technologies and energy storage





# HPA Market Overview

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## Al purity pricing scale



Smelter Grade Alumina  
95% Al<sub>2</sub>O<sub>3</sub>  
US\$450/t

SGA



Aluminum  
99% Al  
US\$2200/t

SA



High Purity Alumina  
99.99% Al<sub>2</sub>O<sub>3</sub>  
US\$6000/t

HPA

99.999% Al<sub>2</sub>O<sub>3</sub>  
US\$23000/t

HPA

99.9999% Al<sub>2</sub>O<sub>3</sub>  
US\$35000/t

HPA

## FYI's HPA strategy is based upon positive market fundamentals

- Historically a small market – no justification for innovation
- Consistent, low-growth demand previously; new applications have created demand and new market opportunities
- The current global 4N (99.99% Al<sub>2</sub>O<sub>3</sub>) HPA market demand is ~18k tpa; this is expected to increase to ~48k tpa by 2025 and ~86k tpa by 2030\*
- The market for HPA is witnessing dramatic growth - Anticipated CAGR ~20.5%
- HPA market forecast to be US\$4.49Bn by 2022\*
- Including a forecast volume growth of 20.5% CAGR\*
- HPA is experiencing increasing demand due to its significance in today's high-performance electronic devices

### Major industry drivers include:

- ✓ increasing environmental policies and awareness
- ✓ phasing out of old and inefficient technologies (eg incandescent lighting and internal combustion engines)
- ✓ burgeoning sustainable & clean technology industries (eg LEDs & EV batteries)
- ✓ providing assurance to manufactures of a reliable and consistent supply of HPA

Light  
Emitting  
Diode (LED)

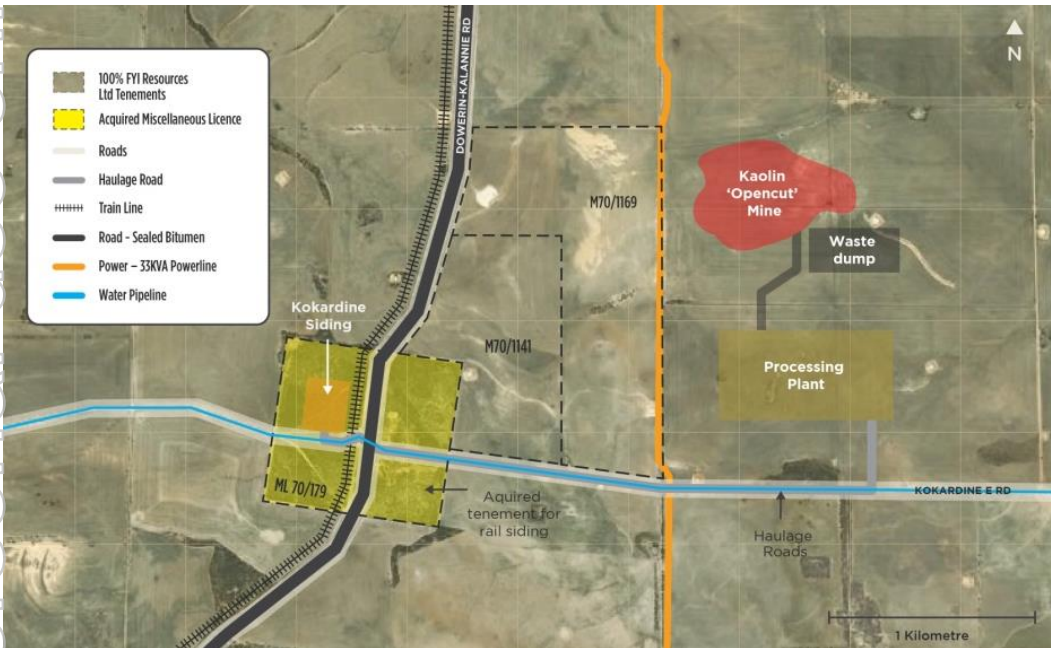
- The LED market is forecast to grow from US\$26Bn (2016) to US\$54Bn by 2022 and progressively take the major share of the global market of US\$110Bn\*\*\*

Electric  
Vehicles  
(EV)

- The EV battery market forecast to grow from US\$450Mn (2016) to US\$35Bn (2025)\*\*

# It all starts with a quality Resource

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The Cadoux project is ideal quality feedstock for HPA

- Feedstock will be sourced from our 100% owned Cadoux Kaolin project (EL70/4673)
- Cadoux geology is ideal – shallow, flat lying, low strip, free digging, excellent quality & easily accessible
- The project area boasts excellent infrastructure:
  - ✓ ~220kms from Perth
  - ✓ Major arterial sealed roads
  - ✓ Rail siding < 1km from site
  - ✓ Water, power and telephone services all on tenement boundary
- Cadoux contains over 50 years of high quality HPA feedstock

## CURRENT JORC RESOURCE \*

JORC (2012)	Tonnage (Mt)	%-45 Microns	Average Al <sub>2</sub> O <sub>3</sub> %	Average Fe%	Average Ti%
Indicated Resource	13.0	84.4	11.58	0.47	0.34
Inferred Resource	3.1	84.4	12.50	0.69	0.49
<b>Total Resource</b>	<b>16.1</b>	<b>84.4</b>	<b>11.76</b>	<b>0.51</b>	<b>0.37</b>

\* See ASX Company announcement – 26<sup>th</sup> July 2017



# Confirmation of Process

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**FYI's 99.99% final product HPA (laboratory photo)**

## THE HPA PROCESS HAS BEEN CONFIRMED BY DEMONSTRATING 99.99% $\text{Al}_2\text{O}_3$ RECOVERY

- FYI's kaolin to HPA process flowsheet has been successfully demonstrated
- Targeted HPA of **99.99%** achieved\*
- High level of analysis used (laser ablation) to determine grade
- FYI's 100% owned Cadoux kaolin resource is ideally suited to our HPA process flowsheet
- Flowsheet design specifically engineered to Cadoux resource characteristics
- Process designed to enable consistent, high-grade premium quality HPA product

\* See ASX Company announcement – 23<sup>rd</sup> October 2017

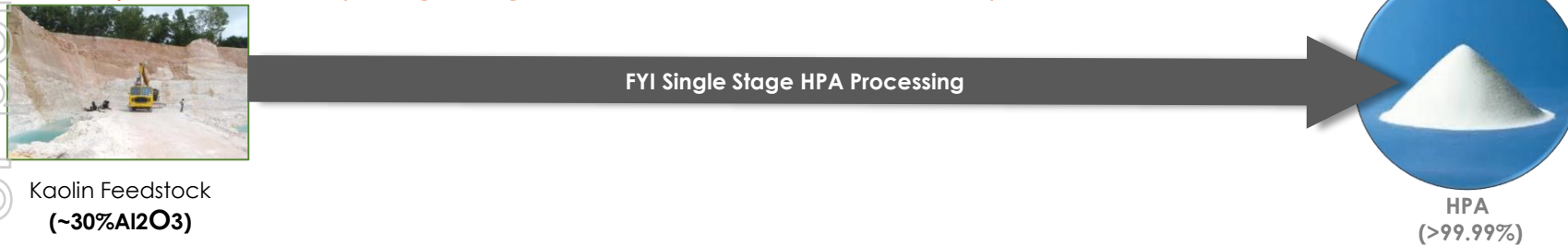
# HPA processing

## Simplified HPA Processing and Refining Pathways

Traditional Route (3 stage – capex & opex intensive)



FYI Proposed Route (1 stage – significant capex & opex reduction)



- FYI's kaolin HPA processing route has many advantages over the traditional bauxite derived HPA
- The traditional method of processing HPA is capex and opex intensive
- The FYI calcining / leaching process simplifies the flowsheet and reduces capex and opex in HPA production considerably

**THE SIMPLIFIED HPA PROCESSING FLOW-SHEET WILL PROVIDE IMMENSE COMMERCIAL ADVANTAGES**



# Preliminary Project Metrics

**FYI's HPA  
strategy offers  
considerable  
potential long term  
investment  
returns**

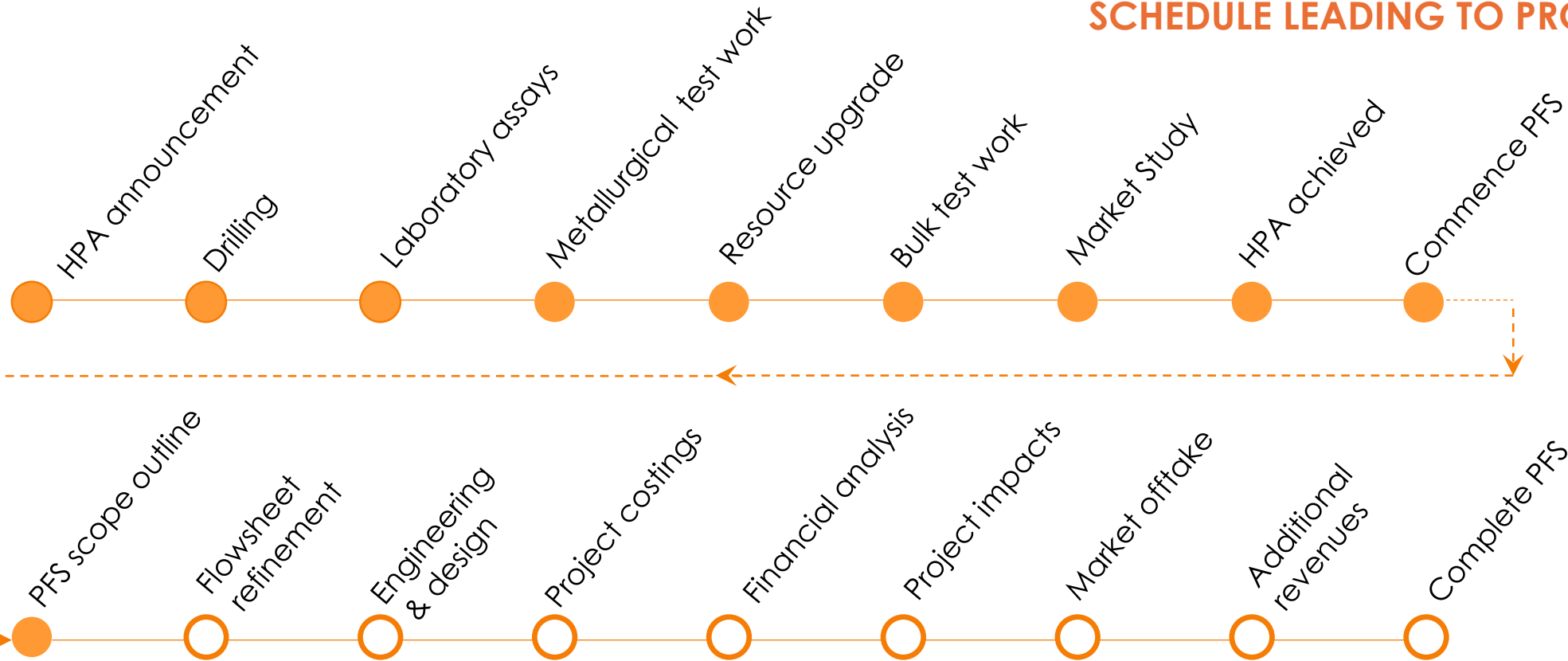
- Current schedule of works is progressing to a Pre-Feasibility Study which will determine preliminary project metrics.
- However, internal economic assessment has determined the following:
  - ✓ Capex & opex range – targeting lowest industry quartile
    - includes: mining, beneficiation and processing
  - ✓ sales range forecast – market
  - ✓ accelerated project payback anticipated
  - ✓ above average rate of return calculated long term
  - ✓ major production reactants and reagents are recycled
  - ✓ power requirement low in comparison to traditional HPA production
  - ✓ transport cost is minimal in comparison to product value
  - ✓ Low infrastructure spend expected (major items already established – i.e. road, rail, water, power etc)



# HPA Development Timeline

FYI's first six months development completed successfully

**FYI HAS A WELL DEFINED DEVELOPMENT SCHEDULE LEADING TO PROJECT DELIVERY**



- Completed
- Outstanding

FYI's PFS completion scheduled in early Q2 2018

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# Investor Notice

## COMPETENT PERSON'S STATEMENT – CADOUX KAOLIN DEPOSIT

The information in this release that relates to the Cadoux Mineral Resource is based upon information from the Company's announcement dated 8 May and 26 July 2017 and is available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au). The information that relates to Mineral Resources is based on information compiled by Mr Andrew Kohler, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy. Mr Kohler is an employee of Strategic Resource Management, and consultant to the Company.

Mr Kohler has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity that he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Mineral Resource estimate comply with recommendations in the Australian Code for Reporting of Mineral Resources and Ore Reserves (2012) by the Joint Ore Reserves Committee (JORC). Mr Kohler consents to the inclusion of the report in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

## COMPETENT PERSON'S STATEMENT – METALLURGY

The information in this release that relates to metallurgy and metallurgical test work is based on information reviewed and compiled by Mr Daryl Evans, a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Announcements in respect to metallurgical results are available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au).

Mr Evans is an employee of Independent Metallurgical Operations Pty Ltd, and is a contractor to FYI. Mr Evans has sufficient experience that is relevant to this style of processing and type of deposit under consideration, and to the activity that he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code). Mr Evans consents to the inclusion of the report in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements dated 5 September and 23 October 2017 and that all material assumptions and technical parameters underpinning the findings in the relevant market announcement continue to apply and have not materially changed.



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