



# RIU Conference Sydney

May 9<sup>th</sup> -11<sup>th</sup> 2023

*Resources technology company  
& critical minerals developer*

**ASX:FYI**  
**FSE:SDL**  
**OTC:FYIRF**



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The DFS referred to in this presentation is a study of the potential viability of the Cadoux Project. It has been undertaken to understand the technical and economic viability of the Project. The DFS assumes as a 25-year Project life based only on Proved and Probable Ore Reserves (100%). The DFS is based on the material assumptions and modifying factors set out in the DFS announcement and the appended summary of the DFS released to ASX on 11 March 2020. These include assumptions about the availability of funding. While the Company considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by this DFS will be achieved. To achieve the range of outcomes indicated in the DFS funding in the order of US\$189 million will likely be required. Investors should note that there is no certainty that the Company will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares. It is also possible that the Company could pursue other "value realisation" strategies such as a sale, partial sale or joint venture of the Project. If it does, this could materially reduce the Company's proportionate ownership of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the DFS. The contents of this presentation reflect various technical and economic conditions, assumptions and contingencies which are based on interpretations of current market conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly and without notice over relatively short periods of time. Consequently, actual results may vary from those detailed in this presentation. Some statements in this presentation regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance.

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# DISCLAIMER

## COMPETENT PERSON'S STATEMENT

### Ore Reserves

The information in this report that relates to Ore Reserves is based on information compiled by Mr. Steve Craig, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Steve Craig is a full-time employee of Orelogy Consulting Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The information is extracted from the Ore Reserve announcement released within the DFS announcement 8 April 2021 and is available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au)

### Mineral Resources

The information in this report that relates to Mineral Resources is based on information compiled by Mr Grant Louw, under the direction and supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global. Dr Scogings is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. He is a Registered Professional Geologist in Industrial Minerals. Dr Scogings has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves". The information is extracted from the PFS announcement dated 25 September 2018 and is available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au)

### Metallurgy

The information in this report that relates to metallurgy and metallurgical test work is based on information reviewed and compiled by Mr Alex Borger, a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Borger is an employee of Independent Metallurgical Operations Pty Ltd, and is a contractor to FYI. Mr Borger 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". 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).

### General

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 and that all material assumptions and technical parameters underpinning the findings in the relevant market announcements continue to apply and have not materially changed and that all material assumptions and technical parameters underpinning the estimate in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcement.



# FYI LEADERSHIP TEAM

## DIRECTORS



**Mr Edmund Babington**  
Non-Exec Chairman



**Ms Sandy Chong**  
Non-Exec Director



**Mr David Sargeant**  
Non-Exec Director



**Mr Roland Hill**  
Managing Director

## MANAGEMENT



**Claudio Di Prinzio**  
Manager - Ops & Tech



**Hans op den Dries**  
Chief Financial Officer



**Phil Macleod**  
Company Secretary



**Phil Thick**  
Corporate Advisor

**ASX:FYI FSE:SDL OTC:FYIRF**

**Shares on issue: 366.3m**  
**Options: 3.5m**

Share price	A\$0.11
Market capitalisation	A\$40m
Cash on hand	A\$9.1m

## Capital Structure

Board & Management ~10%  
Top 20 Holders ~41%  
Top 40 Holders ~ 53%

## Corporate Details

Name: FYI Resources Limited  
Address: Unit 8-9, 88 Forrest St  
Cottesloe WA 6011  
Phone: +61 8 6313 3920  
Email: [info@fyiresources.com.au](mailto:info@fyiresources.com.au)

# FYI HPA PROJECT SUMMARY



FYI is an emerging high purity alumina producer utilising its innovative flowsheet design for high quality, low cost production of HPA



FYI's HPA process flowsheet and technologies has been demonstrated through multiple pilot plant production runs



FYI's HPA quality and purity has been demonstrated and received positively by our targeted end users



FYI's developed HPA process results in outstanding NPV & IRR / lowest quartile capex and opex demonstrating clear market advantages



FYI is actively implementing positive sustainable guidelines and standards to better manage a low carbon footprint



FYI offers exposure and leverage to future looking industries and market applications through its ultra high quality HPA

# DFS - OUTSTANDING PROJECT ECONOMICS SUMMARY

## NPV SUMMARY (POST TAX)

<p>US\$1,014m</p>  <p>AFTER-TAX NPV (@ 8%)</p>	<p>55%</p>  <p>IRR</p>	<p>US\$186m</p>  <p>25 YEAR AVG ANNUAL EBITDA</p>	<p>US\$131m</p>  <p>NET CASH FLOW PER ANNUM</p>
<p>25 YEARS</p>  <p>DCF PROJECT FORECAST</p>	<p>3.2 YEAR</p>  <p>PROJECT CAPITAL PAYBACK</p>	<p>HPA CASH COST US\$6,661</p>  <p>PER TONNE PRODUCTION</p>	<p>US\$202m</p>  <p>CAPEX ESTIMATE</p>

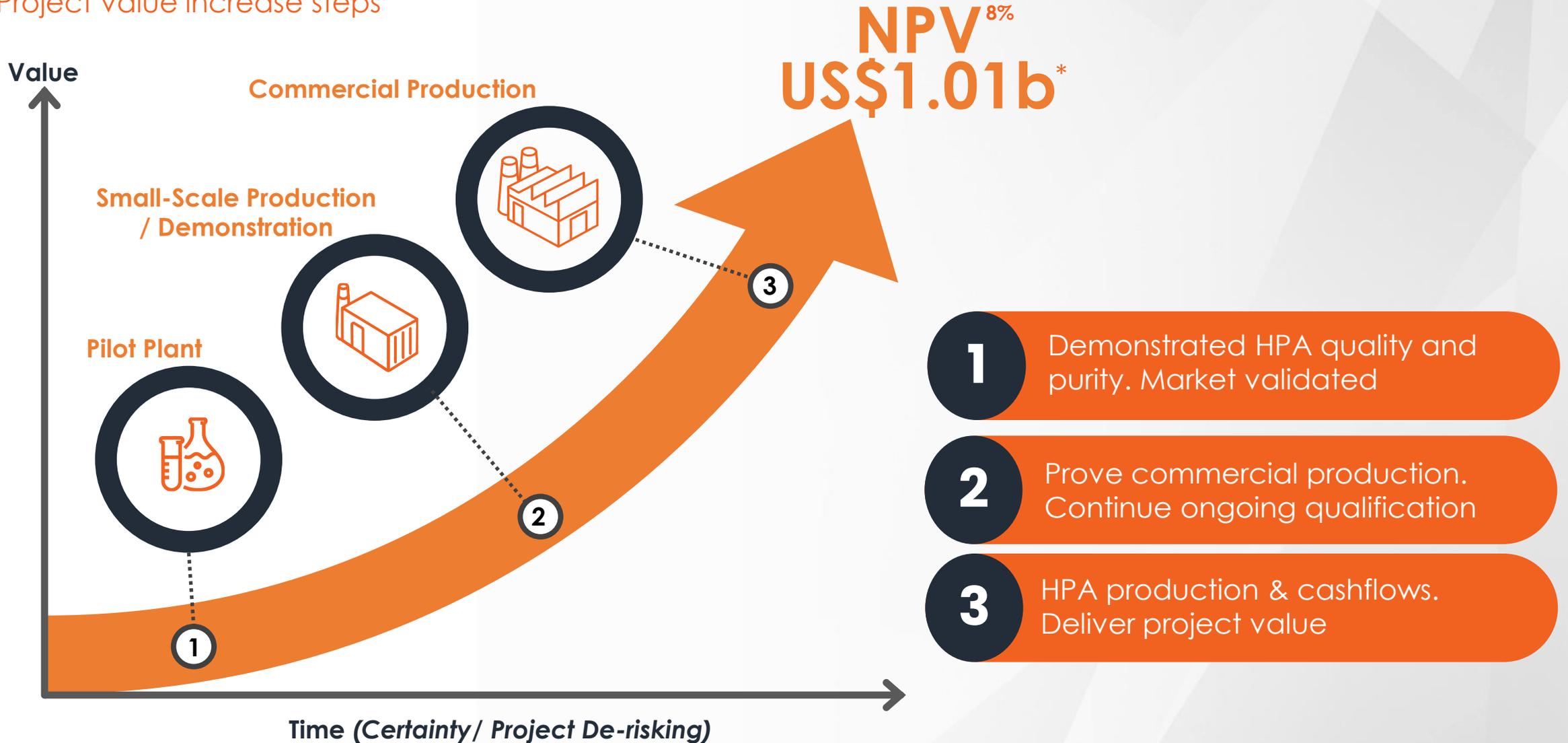
10,000 tpa HPA production

US\$26,400/t HPA sales price

15% of sales is 99.999% (5N)

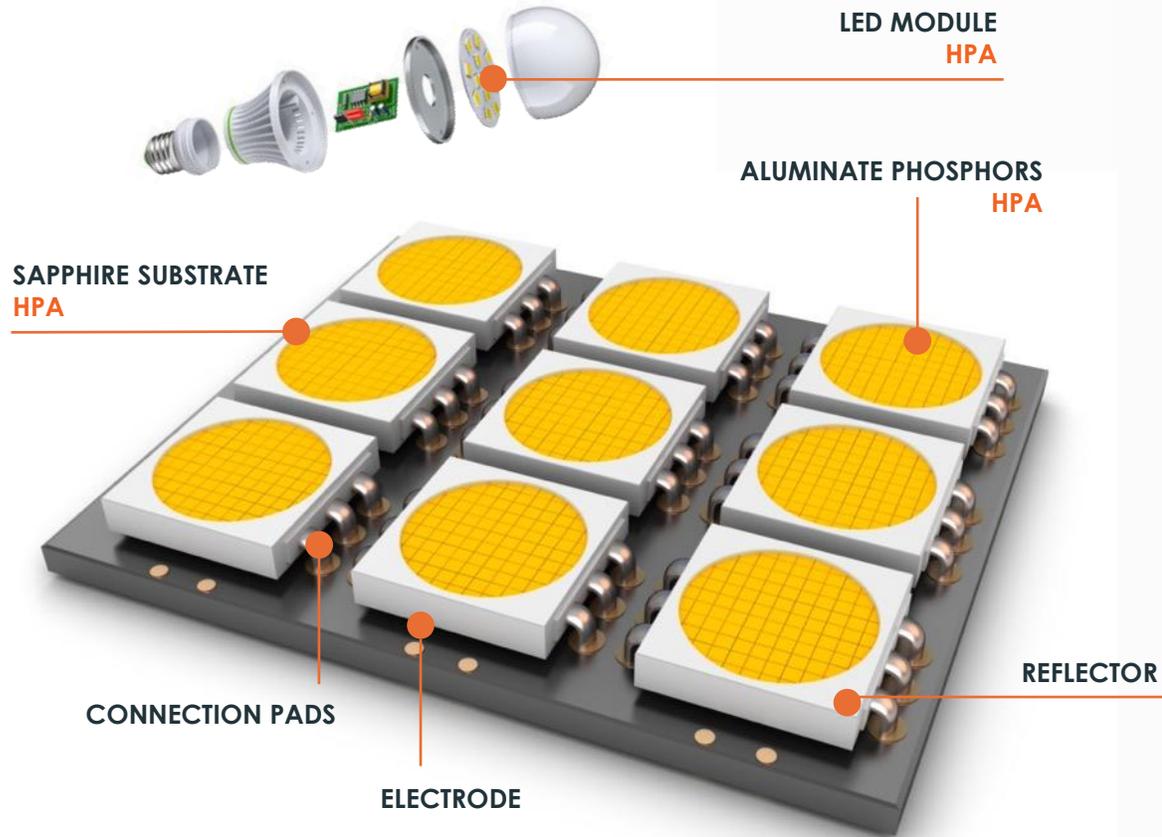
# DEVELOPMENT PATHWAY

Project value increase steps



# HPA MARKET OVERVIEW

## SAPPHIRE GLASS / LED MODULE



## CATALYST DRIVERS



Increasing energy consumption awareness and strict Government emission policies phasing out of old and inefficient lighting applications (eg. incandescent, neon, halogen) being replaced by LED



LED market has grown from US\$26b (2016) to US\$74b in 2023 and is forecast to progressively take the major share of the global market of US\$192b in 2030\*



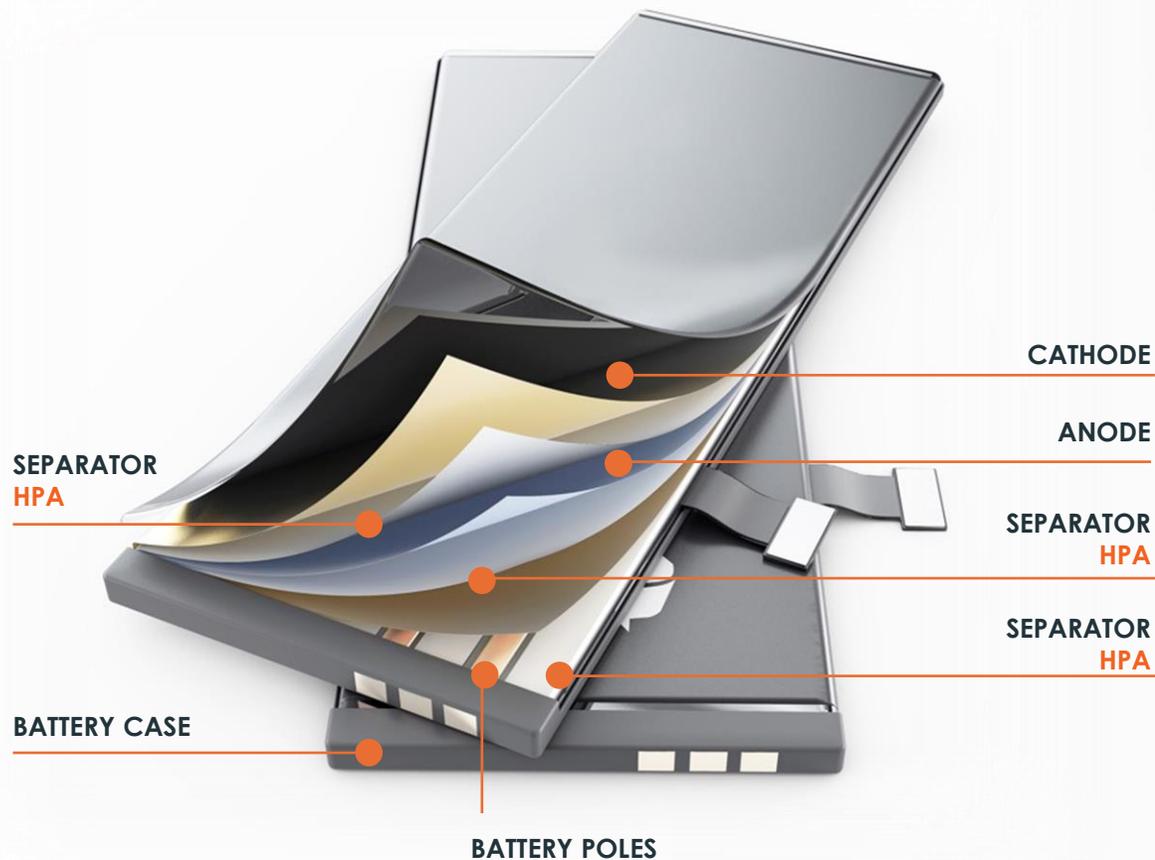
The global market for Micro-LED market at US\$574m in 2023, is projected to reach US\$58b by 2030 (CAGR of 78%)\*\*



LEDs use up to 95% less energy than conventional lighting (incandescent & neon)

# HPA MARKET OVERVIEW

## LITHIUM-ION BATTERY



## CATALYST DRIVERS



HPA is a major input into ceramic coated separators (CCS) in batteries



HPA provides greater safety, integrity, performance and charging rates in EV batteries



EV battery market forecast to grow from US\$450m (2016), US\$37b (2021) to US\$98b (2029)\*



Ceramic coated separator sales in 2021 were US\$1.6b and are forecast to be US\$7.8b by 2028 at a 25% CAGR\*\*

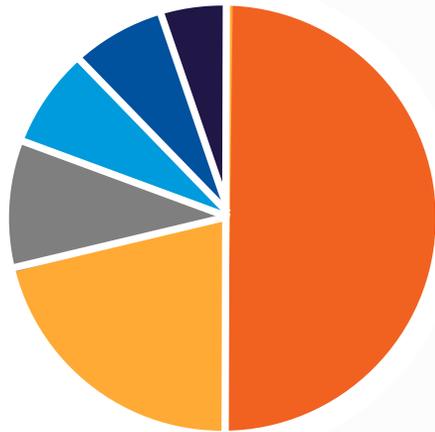
# HPA MARKET OVERVIEW

Global HPA markets are growing rapidly requiring high quality and reputable supply

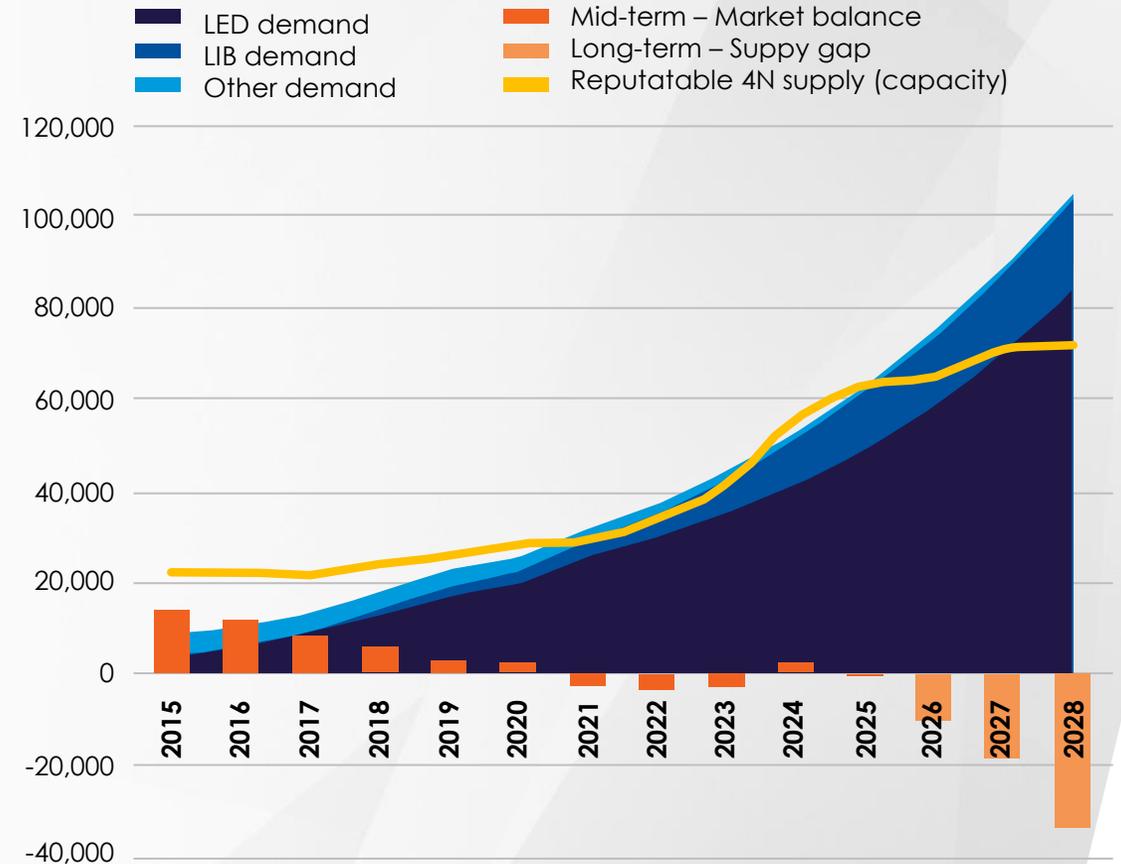
- HPA growth has been invigorated in response to global investment in EV's as post COVID19 and critical minerals stimulus incentives achieve traction
- New applications and technologies have created increased demand and market opportunities

**Global High Purity Alumina Market – Share by Application (%)#**

- LED
- Semiconductor
- Phosphor
- Sapphire
- Separator / EV Battery
- Other



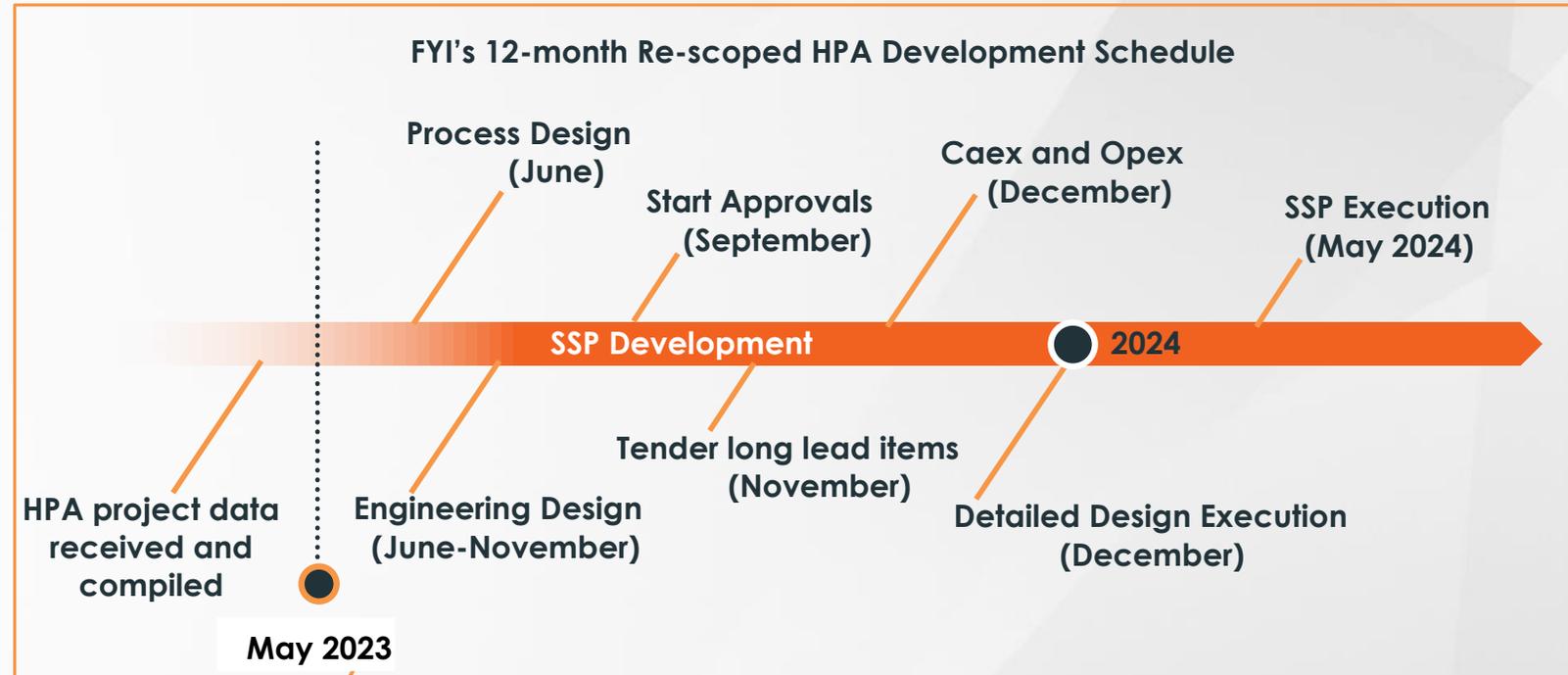
**Forecast global HPA demand forecast (tpa)\***



# SMALL SCALE PRODUCTION PLANT DEVELOPMENT OUTLINE

## Development milestones for the SSP

- Revised development
- Shortened schedule
- ~1000tpa production
- Development based on definitive feasibility study
- Incorporating optimised process improvements during project development





# Rare Earth Strategy

*fyi*

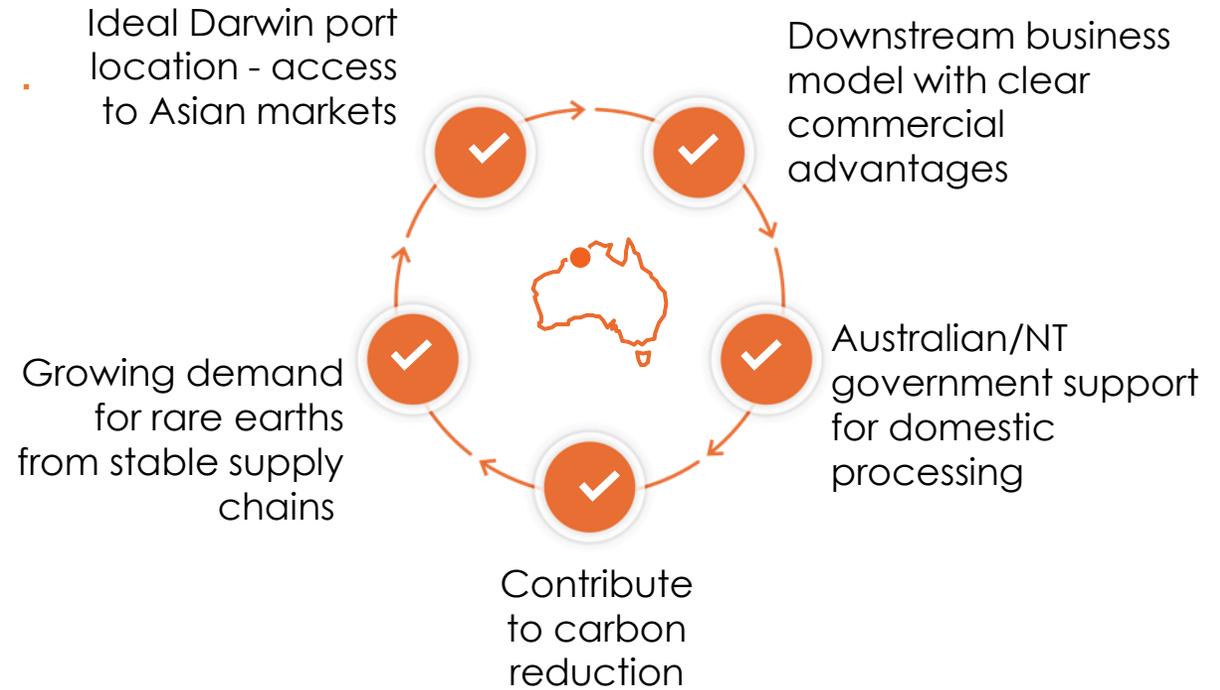


# MINHUB STRATEGY

## MINHUB OUTLINE SUMMARY



1. FYI acquires Minhub Operations Pty Ltd (MOPL). MOPL is Manager of the Minhub Project (Minhub)
2. MOPL aims to develop, construct, and operate a mineral separation plant in Darwin to extract rare earths for global markets
3. The value-add to the Minhub strategy is to supply additional rare earth concentrates to Arafura Rare Earths (ASX: ARU). Arafura has the right to fund and own up to 50% of Minhub Project
4. Minhub will collaborate with emerging Mineral Sands Producers to process concentrates and supply Arafura with rare earths feedstocks
5. MOPL will form long-term contracts, purchase and process third-party xenotime and monazite to refine the REE and upgrade other mineral sands suites to premium products



MOPL is seeking long term feedstock agreements



Darwin Port has excellent logistics including direct rail connection to ARU's Nolans Project

# HPA PROJECT REMAINS FYI'S FOCUS

The rare earths project strategy is a great adjunct to the HPA project



FYI's focus is on our core HPA project



The HPA project metrics and market outlook is compelling



The project team is being expanded and a re-engineered development plan and revised schedule has been established



Project improvements, technical learnings and process optimisations will be incorporated into the new project development



Project development to the HPA investment decision is funded



Both HPA and rare earths projects demonstrate tremendous market opportunities via their development strategies

## WHAT IS THE MINHUB PROJECT?

- The Minhub Project is proposed as a mineral separation plant to be located in the Darwin Port Precinct, Northern Territory
- The Minhub Project will be co-owned by FYI and Arafura and managed by MOPL
- FYI and Arafura will co-fund the development of Minhub on a 50:50 basis to feasibility study – due early 2024
- Further funding to production will be on a 50:50 basis between FYI and Arafura or as agreed
- Minhub will sell traditional mineral sands products zircon, ilmenite, & rutile
- Monazite & xenotime will be either sold to targeted markets by Minhub or transported to Arafura's Nolans Project for further processing into rare earth oxides
- Good shared rail logistics with Nolans

## WHY THE MINHUB PROJECT?

- Minhub Operations Pty Ltd (**MOPL**) is developing an independent collaborative mineral processing option for the mineral sands industry
- The Minhub project reduces the significant barriers to entry that emerging rare earth rich mineral sands projects face
- Rare earth minerals are co-products with zircon and titanium minerals which are highly concentrated markets
- The mineral sands industry has developed a structural reliance on the Chinese concentrate market to achieve value for contained rare earths which faces geopolitical headwinds
- For a decade junior companies have relied on the concentrate market enabling lower capex and lower permitting hurdles

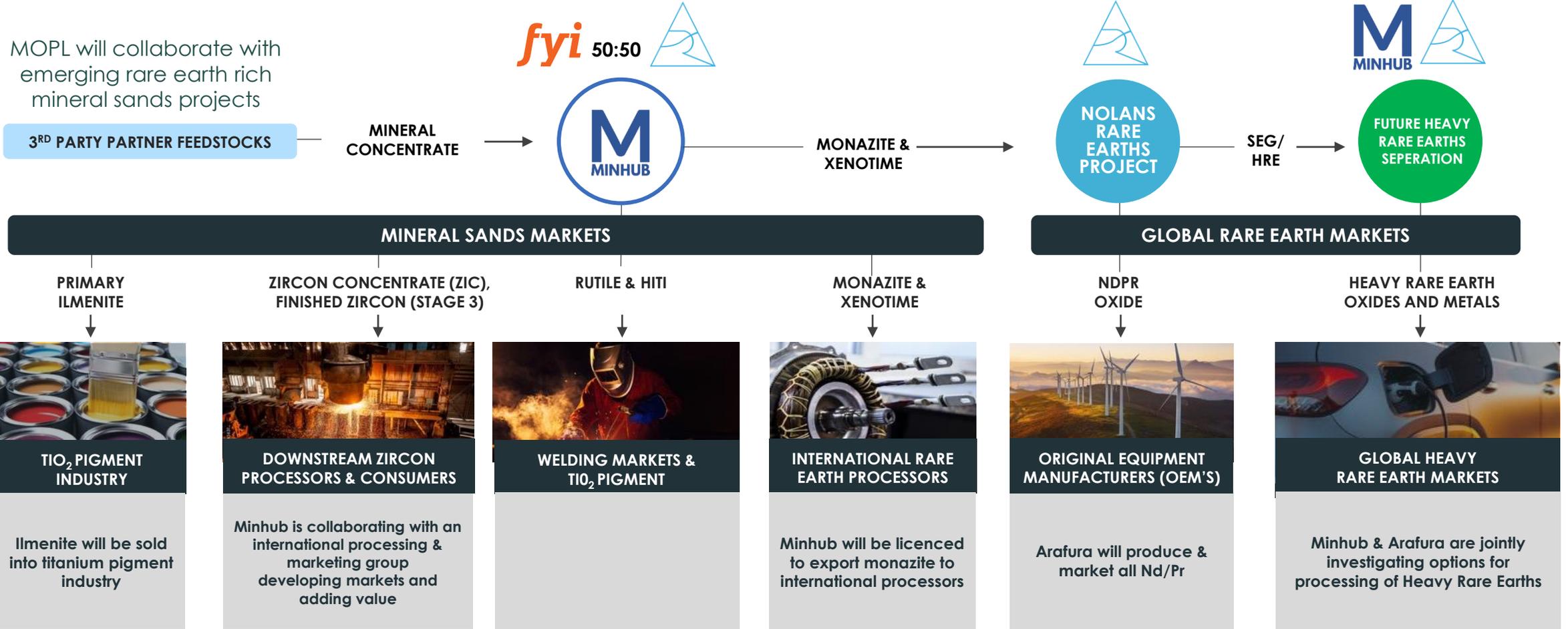
# RARE EARTH SUPPLY CHAIN THROUGH THE MINHUB PROJECT

The Minhub Project will be co-owned by FYI & Arafura and managed by MOPL

Arafura will own and operate the Nolans Rare Earths Project

Arafura & Minhub jointly investigating HRE downstream

MOPL will collaborate with emerging rare earth rich mineral sands projects



# MINHUB TRANSACTION MOTIVATION

HPA remains our focus

 An opportunity to participate in the development of a potentially world class operation. Straightforward project delivery, low development cost, well resourced team, industry and Government support

 Minhub rare earth strategy is complementary to our core HPA project. Combined capacity, project experience and technologies

 Ideally positioned with credible industry partners. Collaborating with strategic parties. Government and industry support.

 Preliminary economics look very attractive

 Perfect timing with Industry tail wind and sector growth. Contribute to Australia's sovereign supply chain capabilities

 Complementary to FYI's high quality production, critical minerals and ESG objectives

## Australia's Critical Minerals Strategy aims to grow the rare earths sector, expand downstream processing and meet future global demand

 Neodymium, Praseodymium make up approximately 30% of Nd-Fe-B permanent magnets

 Dysprosium & Terbium are used in small quantities (up to 5%) in specific high temperature applications such as EV drive chains

## 1000% demand growth by 2035



**Adamas Intelligence forecasted NdPr consumption to increase 11-fold by 2035 and DyTb by >7-fold with growth restricted by supply**



**fyi** ASX:FYI  
Resources Limited

**FOR FURTHER INFORMATION  
PLEASE CONTACT**

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