



# hastings

## Yangibana Joint Venture Hastings – Wyloo

Unlocking a Multi-Decade  
Western Australia  
Rare Earths and Niobium Project

 **Explorers  
Conference**

20 February 2025



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## COMPETENT PERSONS’ STATEMENT

The information in this presentation relating to Mineral Resources and Ore Reserves have been prepared by a Competent Person in accordance with the 2012 edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (“JORC Code”) and have been extracted from the release title ‘Annual Report to shareholders’ dated 30 September 2024 which is available to view at [www.asx.com.au](http://www.asx.com.au) under the code “HAS” (the original release). The Company confirms that it is not aware of any other 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. Hastings confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.

The information that relates to Mineral Resources is based on information compiled by David Princep and Lyn Widenbar. Both Mr. Princep and Mr Widenbar are independent consultants to the Company and members of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Princep and Mr Widenbar have sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this announcement and to the activity which they are undertaking to qualify as a Competent Person as defined in the JORC Code.

The information that relates to the Ore Reserves at Bald Hill, Simon’s Find, Fraser’s, Auer, Auer North, Yangibana and Yangibana North is based on information reviewed or work undertaken by Mr. Stephen O’Grady. Mr O’Grady is an independent consultant to the Company and a member of the AusIMM, and a Director of Intermine Engineering Consultants. Mr O’Grady has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the preparation of mining studies to qualify as a Competent Person as defined by the JORC Code. Mr O’Grady consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The scientific and technical information in this announcement and that relates to process metallurgy is based on information reviewed by Scott Atkinson. Mr Atkinson is a full-time employee of Hastings Technology Metals Limited and member of the Australasian Institute of Mining and Metallurgy (AusIMM; 3056865) and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined by the JORC Code. Mr Atkinson consents to the inclusion in this announcement of the matters based on their information in the form and context in which it appears.

The information in this announcement that relates to exploration results in relation to the Yangibana Rare Earths and Niobium Project (“Yangibana Project” or “Yangibana”) and the Centipede Range Project (“Centipede Project” or “Centipede”) and other exploration results, are based on information compiled by Competent Person, Dr. Louis Schürmann. Dr. Schürmann is a full-time employee of Hastings and Fellow of the Australasian Institute of Mining and Metallurgy (Aus IMM: 308067). Dr Schürmann has sufficient experience relevant to the styles of mineralization and types of deposits which are covered in this announcement and to the activity which they are undertaking to qualify as a Competent Persons as defined in the JORC Code. Dr Schürmann consents to the inclusion of this announcement of the matters based on the information and context in which it appears. Dr Schürmann has +30 years’ experience as an exploration geologist and project manager.

# Acknowledgement of Country

> Hastings acknowledges the Traditional Owners of the land in which we operate including the Thiin-Mah, Warriyangka, Tharrkari and Jiwarli ("TMWTJ") People of the Gascoyne region.





# EXECUTIVE SUMMARY

# STRATEGIC HIGHLIGHTS<sup>1</sup>

## Developing Western Australia Rare Earths and Niobium

### World Class Ore Body In-Demand Critical Minerals

- One of the highest global NdPr : TREO ratio of 37% (LOM average) and up to 52%
- In-Demand REEs: Nd + Pr + Dy + Tb = ~96% of Yangibana Basket Price
- Niobium by-product credit stream
- Offtake with German, thyssenkrupp, Baotou Sky Rock.

### Fully Permitted in Tier 1 Jurisdiction

- Australia AAA Sovereign Risk, Frasers Institute ranked WA 4<sup>th</sup> out of 77 jurisdictions
- State and Commonwealth Approvals secured
- Granted Mining Lease tenure in premier rare earths province
- Native Title Agreement in place.

### 1st Quartile Globally - Robust Economics<sup>2</sup>

- \$865m Post-tax NPV<sub>11</sub> (ungeared)
- 31.28% IRR; 3.4 years payback
- \$258m per annum EBITDA. LOM Free cash flow \$3,345m
- 1st Quartile on Global Margin Curve (CRU).

### De-Risked with Infrastructure Built

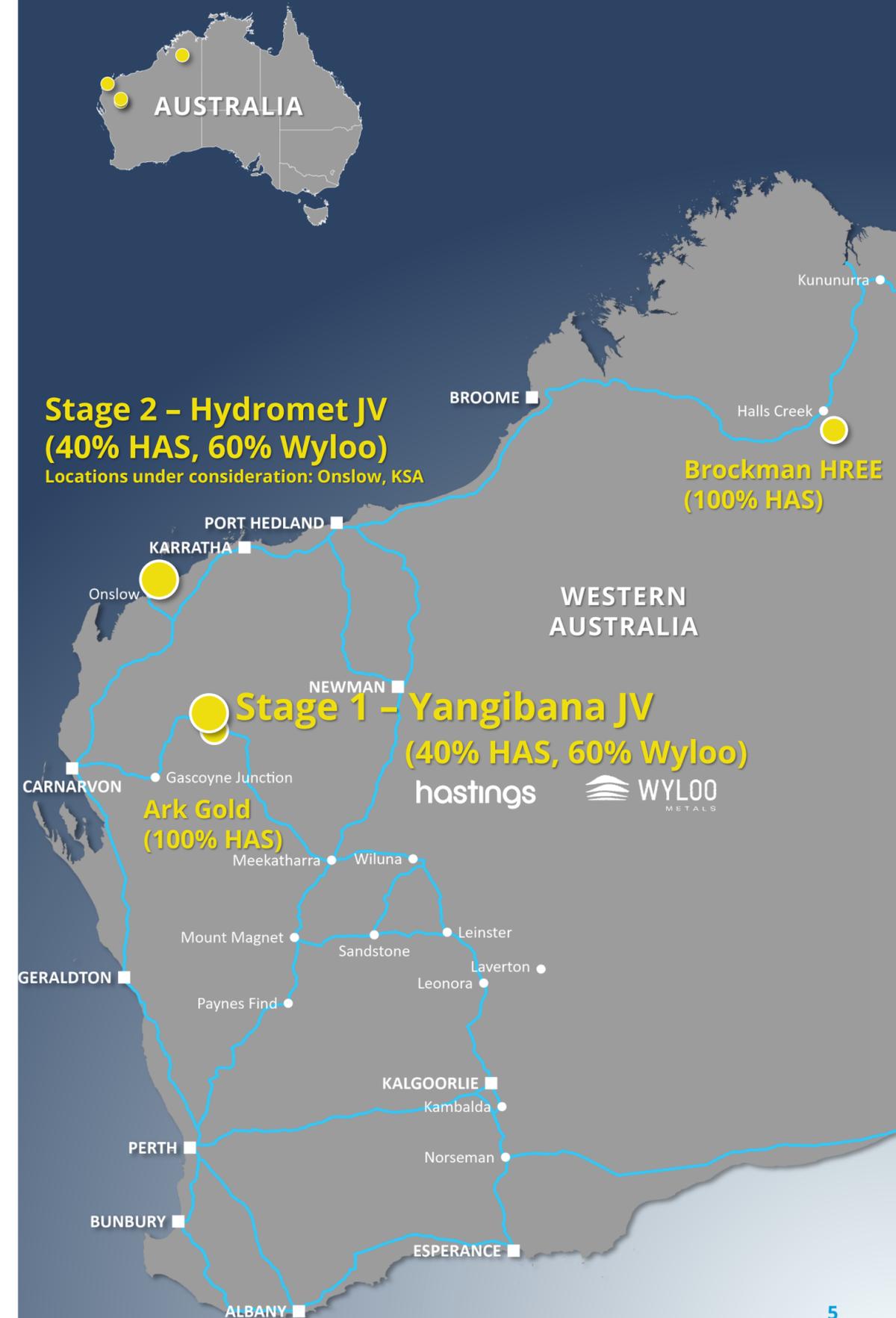
- Supporting infrastructure fully complete: 294 room village, 2km airstrip, 20km site access road, borefield, communications towers and all long-lead equipment
- \$158m spent on Yangibana (Stage 1) and \$68m on Stage 2 Plant
- 33% complete.

### Multi-Decade Project (17 years LOM)

- Initial Life of Mine of 17 years (Ore Reserves)
- 20.9Mt Reserves and 29.9Mt Mineral Resource
- Stage 2 Hydrometallurgical Plant Project will capture additional downstream processing margins Discussions ongoing for Kingdom of Saudi Arabia partnerships.

### JV Partnership (Tier 1 Partner)

- 60:40 JV with Wyloo:Hastings Term Sheet signed (non-binding). IC approved; commercial terms agreed
- Wyloo will be JV Manager/Operator
- Hastings retains pro-rata/40% of revenue (REEs, niobium), FCFs
- Project Finance to be raised jointly.



<sup>1</sup> Refer Slide 29 for source data

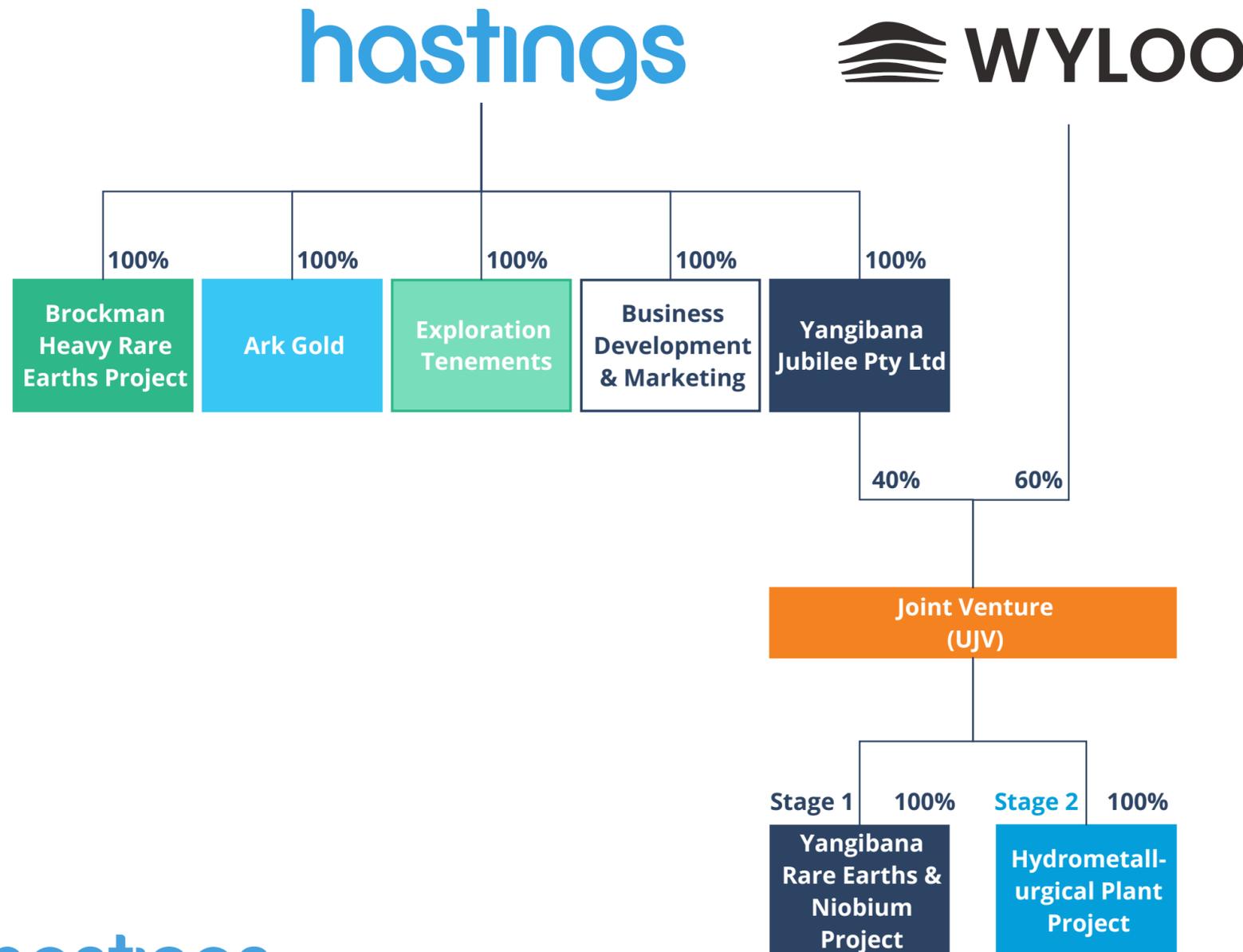
<sup>2</sup> Hastings confirms that all material assumptions underpinning the Ore Reserves supporting the Life of Mine Plan in ASX release dated 6 February 2023, forecast financial information and production targets in the ASX release dated 31 May 2023 and supplemented by the 16 February 2024 ASX release continue to apply and have not materially changed. In addition, production targets and forecast financial information are based on Ore Reserves and Mineral Resources (Measured and Indicated), and no inferred mineral resources nor exploration information is included.

# TRANSACTION OVERVIEW<sup>1</sup>

## Unlocking value from the Yangibana Rare Earths and Niobium Project

### Joint Venture (UJV) and Asset Portfolio (Post Completion)

- Hastings' portfolio of assets incl. 40% JV interest in Stage 1 of the Yangibana Project and Stage 2 Hydrometallurgical Plant Project. Hastings will retain 100% of Brockman Heavy Rare Earths Project and Ark Gold. Exploration tenements subject to DD.



### Joint Venture Overview

- Commercial terms agreed for UJV over Yangibana Rare Earths and Niobium Project (non-binding)
- 60:40 Unincorporated JV (UJV) structure with Wyloo (60%) and Hastings' wholly owned subsidiary, Yangibana Jubilee Pty Ltd (40%)
- Wyloo will act as the UJV Manager and Operator
- Hastings retains 40% share of revenue (rare earths, niobium and other by-product credits) and Project cash flows
- Transaction consideration:
  - Cancellation of all exchangeable notes totaling \$220m at maturity in Oct-25
  - Wyloo to fund its pro-rata share of remaining capital cost<sup>1</sup>
  - Neo Performance Materials Inc. stake transferred to Wyloo. Refer Term Sheet on slide 26 for further details.

### Reduced Equity Requirements

- JV significantly de-risks project funding for Yangibana
- JV parties to procure project funding together (target minimum gearing 50%)
- Reduces Hastings' final equity contribution materially for the remaining two-thirds of the capital cost (33% complete) that is not debt funded, refer below (\$13m - \$32m subject to gearing assumption applied).

AUD	Yangibana Project (100%)	Hastings (40% JV)
Remaining Capital Cost (i)	\$316m	\$126m
Residual Project Equity (50% Gearing) (ii)	\$79m	\$32m
Residual Project Equity (60% Gearing) (iii)	\$32m	\$13m

Reduced capital requirements for Hastings

#### Explanatory Notes:

<sup>i</sup> Total capital cost for the project of \$474m (subject to further optimisation by Wyloo/ JV). Spent CAPEX as at 31 December 2024 of \$158m (excl. Stage 2 spent CAPEX of \$68m). Remaining capital costs of \$316m (100% basis) incl. contingency (excluding working capital and ancillary costs). 60% basis is \$190m

<sup>ii</sup> Assumed gearing of 50:50 (D:E) based on total Capital Cost (incl. Contingency) less spent equity

<sup>iii</sup> Assumed gearing of 60:40 (D:E) based on total Capital Cost (incl. Contingency) less spent equity.

## ABOUT WYLOO

- Privately owned by Tattarang with a focus on critical minerals for the energy transition
- Brings significant technical and financial capability to the Yangibana Rare Earths and Niobium Project as Operator
- Strong support and alignment with Hastings' mine to magnet strategy

**Greatland Gold** Au Cu



## Yangibana Rare Earths and Niobium JV<sup>1</sup>

Nd Pr Nb REE

### Yangibana JV, WA (60% Wyloo)

Development Ready

- Initial Life of Mine of 17 years
- 20.9Mt Reserves and 29.9Mt Mineral Resource
- Infrastructure completed and long lead equipment procured
- Stage 2 Hydrometallurgical Plant Project will capture additional downstream processing margins.

## Kambalda, Australia

### Kambalda Operations Ni Au

- Cassini & Northern Operations
  - Currently in care & maintenance, actively planning for re-start.
  - Ongoing exploration success to grow resource base.
  - Evaluating options for a concentrator in the region.

## Downstream Processing

### Kwinana, WA pCAM

- Feasibility Study paused

### Sudbury, Ontario pCAM

- MOU City of Greater Sudbury

### Toronto, Canada

- Neo Performance Materials<sup>2</sup>

## Ring of Fire, Canada

### Eagle's Nest Ni Cu Co PGE

- Feasibility Study
  - 15.8Mt @ 3.3% NiEq<sup>3</sup> for 522kt contained Ni Eq
  - Targeting first production: 2030
  - Mine of the future

### Chromite Cr

- Scoping / Pre-Feasibility
  - 247Mt chromite resource @ 31.5% Cr<sub>2</sub>O<sub>3</sub>

<sup>1</sup> Proposed and subject to completion of final and binding documentation expected by the end of March 2025.  
<sup>2</sup> Neo Performance Materials (TSX:NEO) 21.5% holding subject to completion of the JV with Hastings Technology Metals  
<sup>3</sup> Equivalent grades calculated using US\$8.70/lb Ni, US\$4.00/lb Cu, US\$20.00/lb Co, US\$1,200/oz Pd, US\$1,150/lb Pt and US\$1,800/oz Au.

# YANGIBANA PROJECT SNAPSHOT<sup>1</sup>

Fully permitted and high-margin project with multi-generational opportunities for the Gascoyne region

**17-year**

Life-of-mine

**20.9mt**

Ore Reserves<sup>2</sup>

**37%**

Average NdPr:TREO ratio over life of mine, driving higher realized rare earth oxide basket price

**High margins**

First quartile on global operational margin curve, as verified by CRU Group

**~1.1mtpa**

Material to the crusher, followed by a grinding and flotation circuit

**37,000tpa**

Rare earth concentrate at 27% TREO, containing ~3,400tpa of NdPr oxide

**Employment**

Construction Jobs >470  
Operations Jobs >270

**Economic Benefits**

>\$1bn in Commonwealth tax income  
>\$240m in WA state royalties  
>\$65m in Native Title royalties

<sup>1</sup> Hastings confirms that all material assumptions underpinning the Ore Reserves supporting the Life of Mine Plan in ASX release dated 6 February 2023, forecast financial information and production targets in the ASX release dated 31 May 2023 and supplemented by the 16 February 2024 ASX release continue to apply and have not materially changed. In addition, production targets and forecast financial information are based on Ore Reserves and Mineral Resources (Measured and Indicated), and no inferred mineral resources nor exploration information is included

<sup>2</sup> Refer Slide 28 for Ore Reserves and Mineral Resources  
Refer to disclaimer on Slide 2 for cautionary statements.

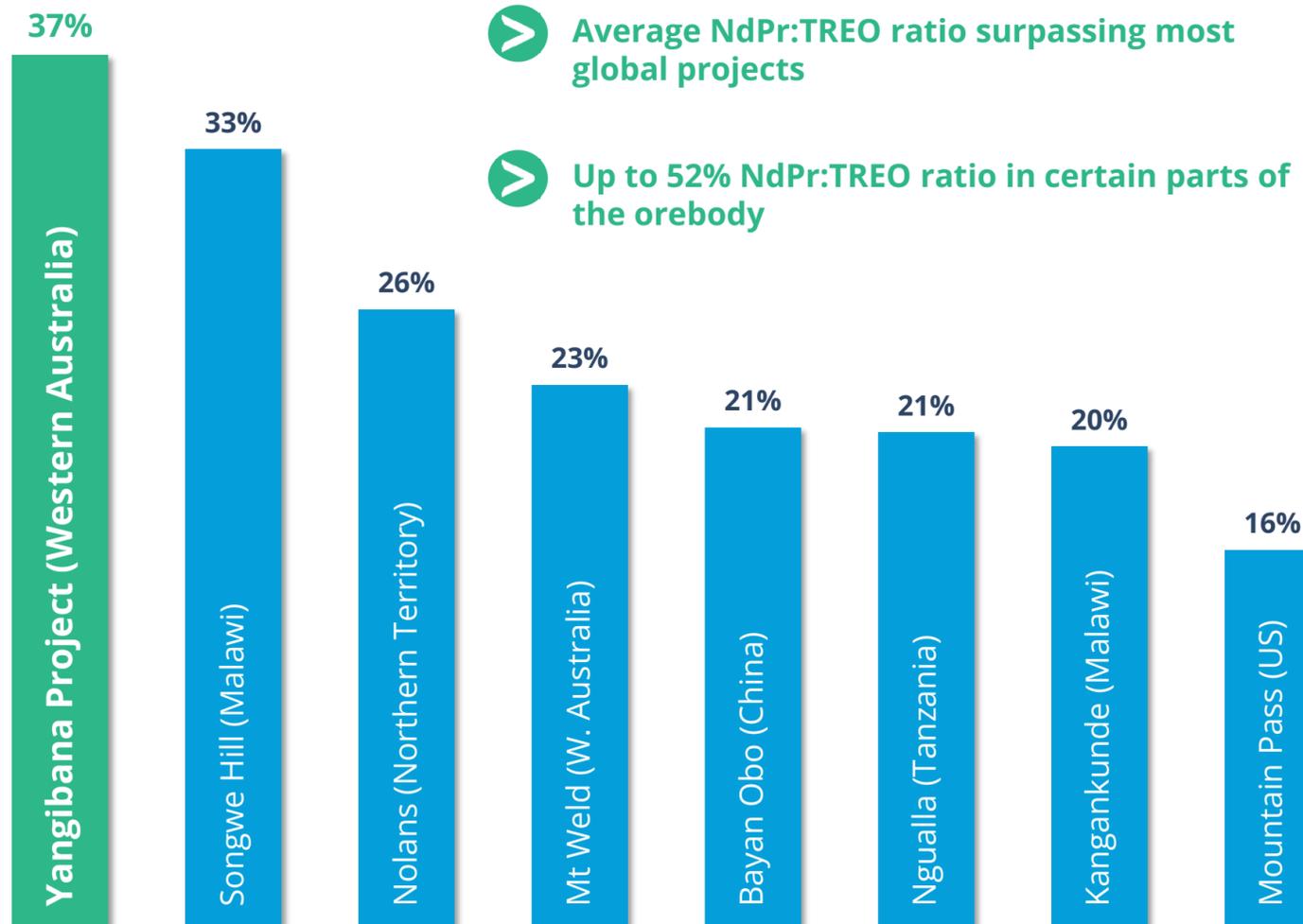


Photo: Investor Site Visit

# YANGIBANA - UNIQUE TIER ONE ASSET

World-class deposit with unrivalled high percentage of NdPr:TREO in the orebody in a tier one jurisdiction, supplying the critical raw materials for rare earth magnets

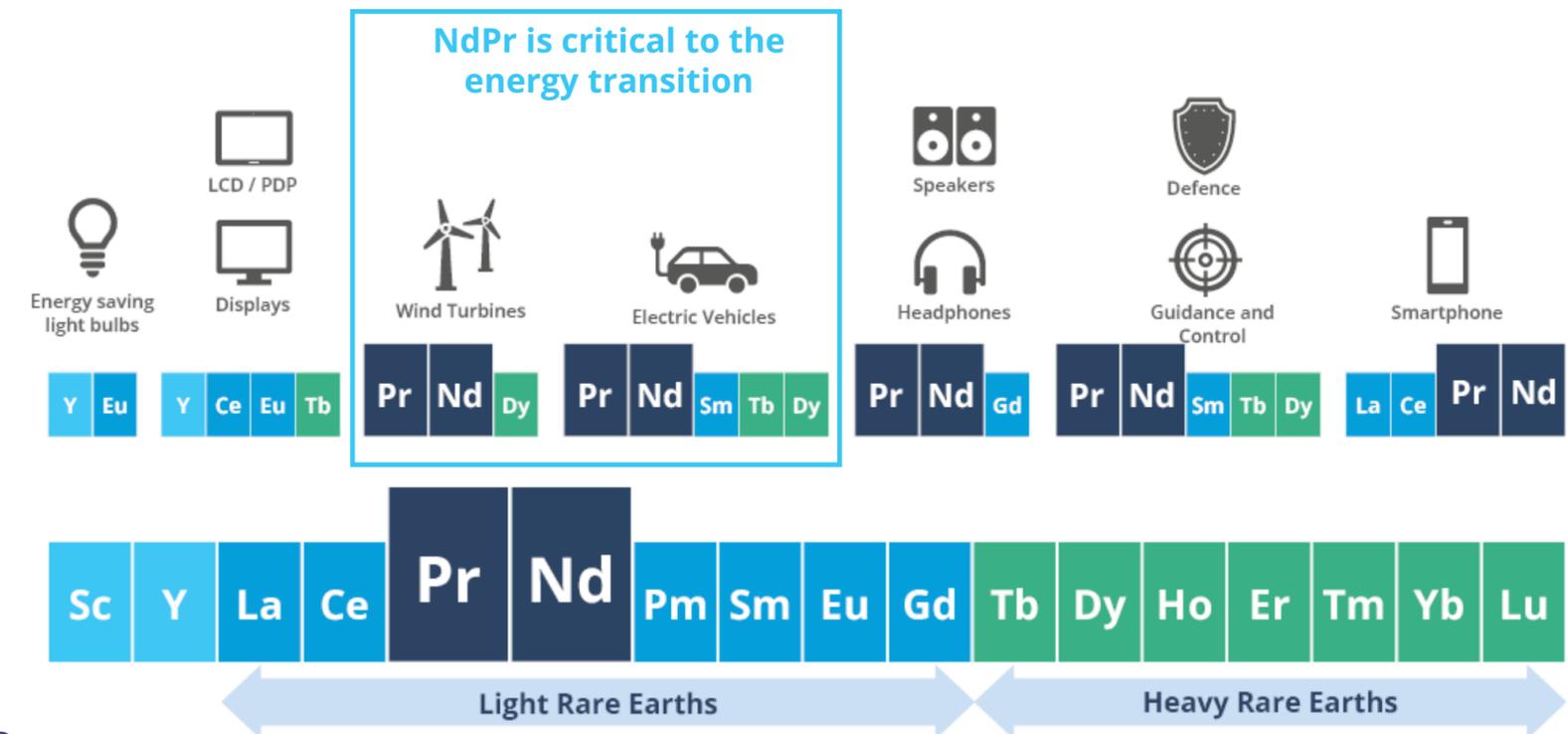
## Average NdPr:TREO Ratio<sup>1</sup>



- Average NdPr:TREO ratio surpassing most global projects
- Up to 52% NdPr:TREO ratio in certain parts of the orebody

## Uses of Rare Earth Elements

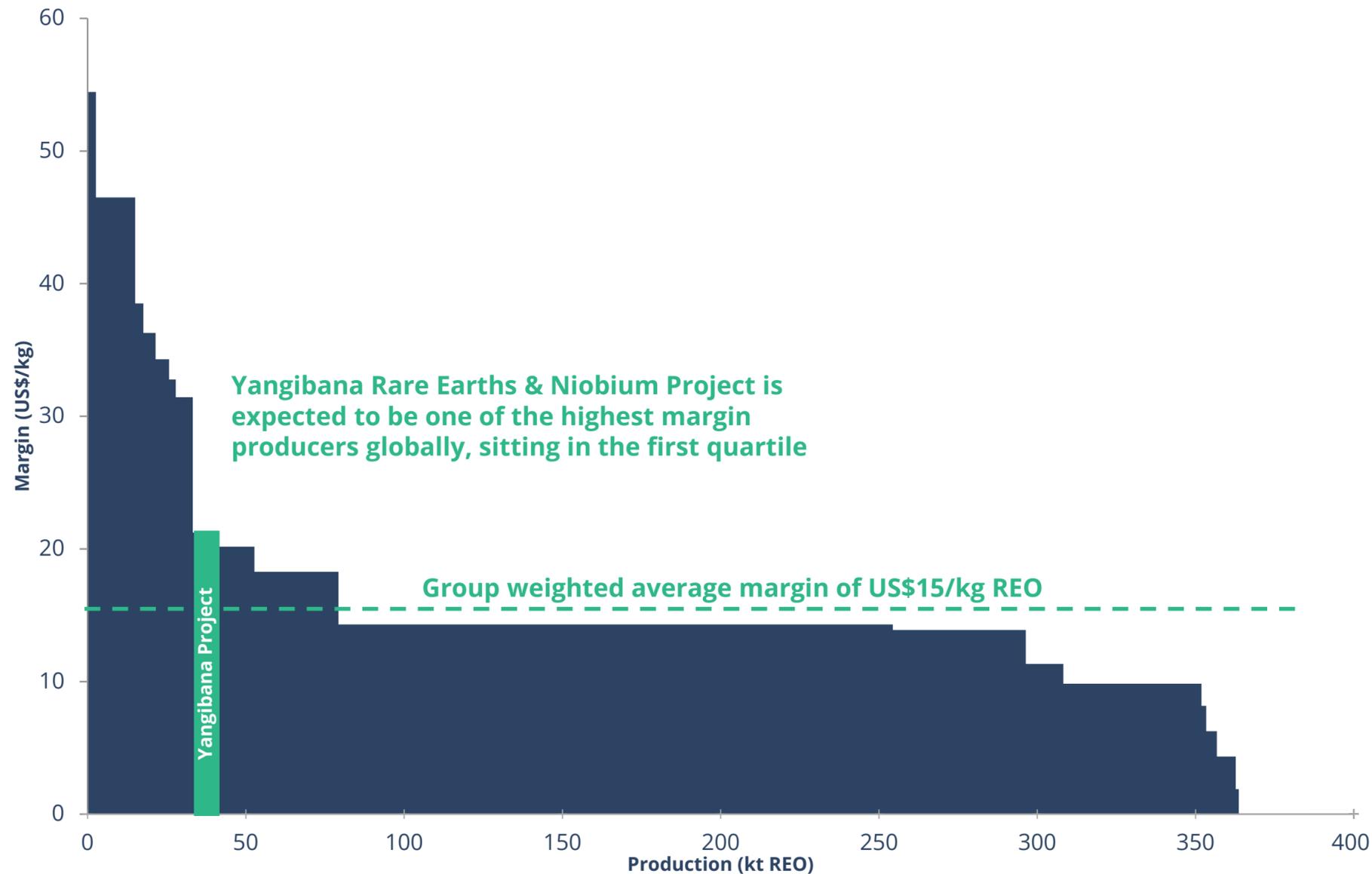
- REE's have a variety of end uses, the most significant area for current and future demand growth relates to NdFeB permanent magnets
- Demand for NdFeB permanent magnets is being driven by the transition to a "green economy", with the electrification of vehicles and decarbonisation of the economy.



# OPERATIONAL MARGIN IN FIRST QUARTILE GLOBALLY

Favourable Rare Earths basket composition provides strong cash margins

Operational margin curve, 2028, real 2024 US\$/kg<sup>1</sup>



- > Due to its 37% NdPr:TREO LOM driving the high basket price, Yangibana is situated in the 1st quartile of the global cash margin curve
- > Nd, Pr, Dy and Tb accounts for 94% of its rare earth basket price
- > Leveraging its favourable basket composition with high NdPr, EBITDA margin is approx. 40%.

# PROJECT ECONOMICS<sup>1</sup>

## Robust Financial Metrics

**\$865m**

Post-tax NPV<sub>11</sub> (ungeared)

**31.28%**

Post-tax IRR (ungeared)

**3.4 years**

Payback period

**\$9,639m**

Net revenue (Life-of-Mine)

**\$3,345m**

Free cash flow (Life-of-Mine)

**\$258m**

Average EBITDA per annum

### Key Material Assumptions / Updates

The Base Case Financial Model (“BCFM”) assumptions adopted in the Staged Development Study released on 31 May 2023 continues to apply and have not materially changed, save for the following key updates:

- **Offtake and payabilities:** Shift from domestic profit-sharing model to rare earth concentrate sale and third-party processing (hydrometallurgical and oxide separation) to achieve a full rare earth oxide basket price, on terms expected in the term sheet with Baotou Sky Rock. Adjustments to yields and costs may be required following pre-production pilot test work, as contemplated in the Term Sheet. Negotiations are ongoing with other potential customers to conclude similar arrangements.
- Spent capital cost: \$158m of capital cost estimate incurred as at 31 December 2024

- **Commodity price:** Average 10-year blended neodymium and praseodymium (“NdPr”) oxide price (Wood Mackenzie, CRU, Adamas Intelligence) of US\$121/kg real, 2024\$ (reduction from US\$129/kg adopted in the Staged Development Study).
- **Stage 1 standalone:** The impact of Stage 2 for the Yangibana Project (i.e. the potential hydrometallurgical plant) is excluded from the economic analysis.
- **Mining:** Mine schedule optimisation for the first five years of mining targets lower strip ratio zones of the Yangibana Project’s ore bodies, while maintaining the grade to the beneficiation plant. The total ore processed remains at 20.9Mt, the mine life remains at 17 years, and annual average production of rare earth concentrate remains at 37,000tpa as per the ASX Announcement 6 February 2023 “Yangibana Ore Reserves increase by 25%”

- **Macroeconomics:** FX Forward (Bloomberg), 10-year average AUD:USD 0.65.
- **Cost assumptions:** Incorporation of MREC and oxide separation fees based on the fees provided in the Term Sheet, updated power tariffs (40% renewable) from Independent Power Producer, and other revisions for escalation.

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# **YANGIBANA PROJECT OVERVIEW**

# YANGIBANA PROJECT PROGRESS

\$158m spent on mine infrastructure and long lead equipment + \$68m spent on Stage 2 equipment<sup>1</sup>



**Kurrbili Village** - 294 rooms fully commissioned with medical centre, sports court, shop, dry and wet mess.



**Yangibana Airstrip** - 2km in length, suitable for planes up to 70 seat capacity and with airport buildings are in place ensuring fast changeovers for employees.



**Site Access Roads** - 20km site access road to connect the Yangibana Project's mine site with the shire road network to the beneficiation plant, village, mine and construction work.



**SipHon Borefield** - Fully permitted consisting of 6 bores, fully equipped with holding tanks and high flow pumps and pipeline to the process plant.



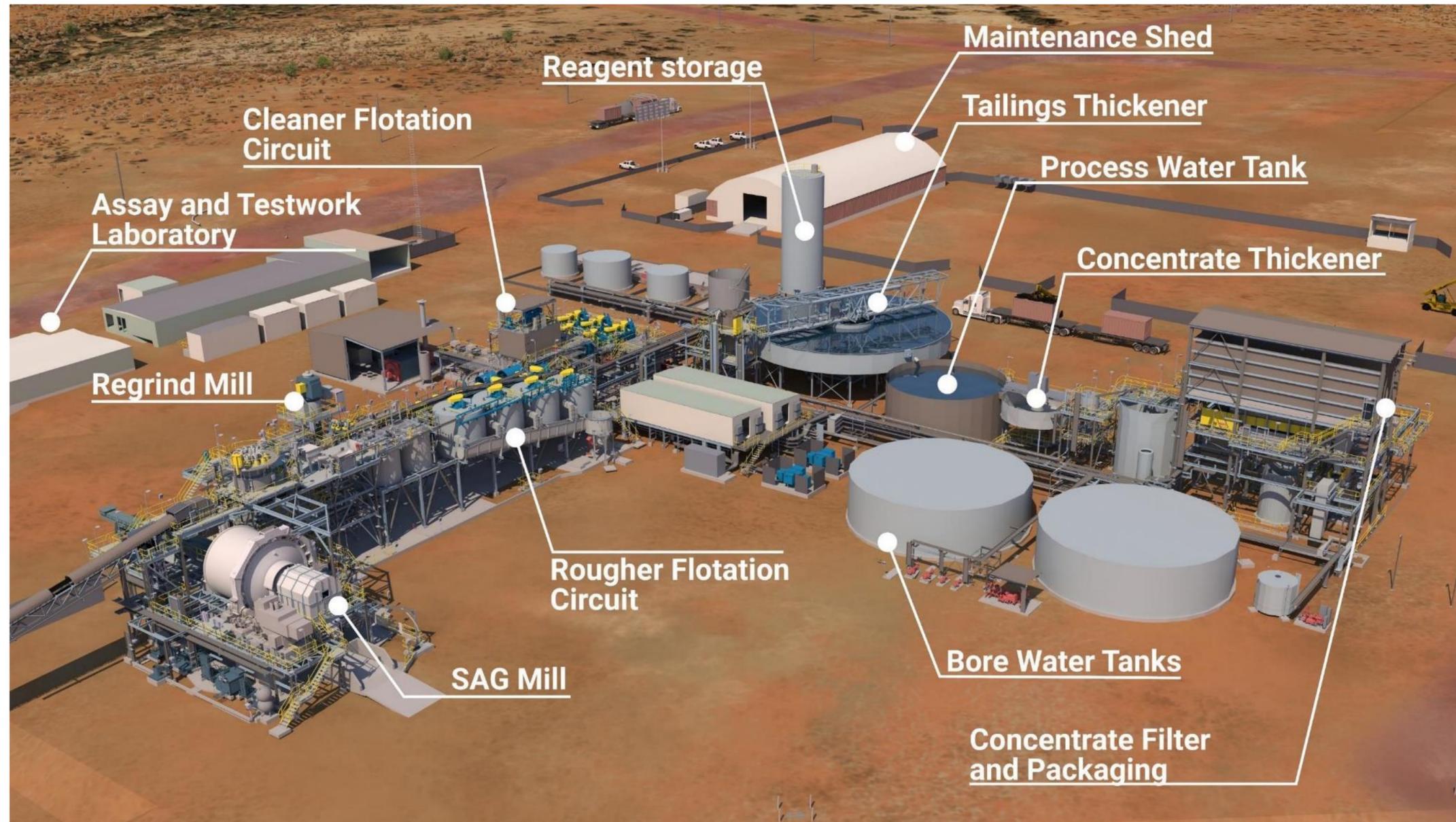
**Equipment** - Long Lead Equipment in WA and in storage ready for installation.



**Flotation Cells & Structural Steel** ready for installation.

# BENEFICIATION PLANT CONSTRUCTION

EPC contract with leading engineering and construction firm GR Engineering Services



Proposed Beneficiation Plant layout

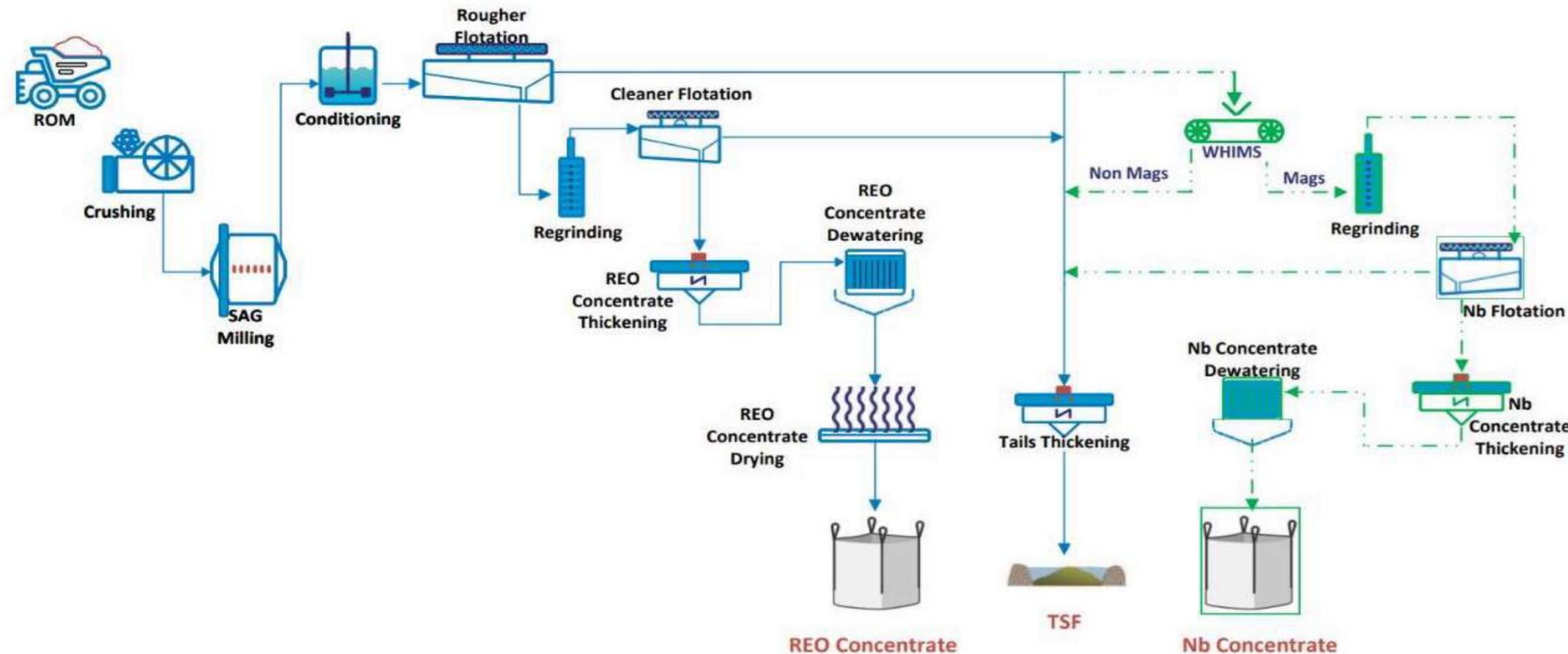
**\$201m contract<sup>1</sup>**  
Fixed price lump sum contract

**Key benefits**  
Lowers project delivery risks, lower cost, greater certainty on timeframe, process and product quality guarantees

**Performance guarantees**  
Commissioning and operational support to ensure facility achieves quality and throughput guarantees.

# RARE EARTH BENEFICIATION FLOW SHEET

Conventional flotation process which has been extensively tested and de-risked



> **>100 bench scale tests**  
Completed at four commercial labs in Perth to develop robust beneficiation flowsheet (2016 – 2022)

> **>80 variability samples**  
Covering expected range of grade and mineralogy tested through standard flowsheet

> **Two pilot plant tests**  
Successfully validated simple and effective flowsheet tested successfully for cumulative two weeks

> **Successful bulk samples**  
For use in downstream engineering equipment design test work

> **Scale up from 150kg/h to 124t/h**  
Translation of process development batch and pilot programs into engineering design.

**NIOBIUM –  
ADDITIONAL  
BY-PRODUCT CREDIT  
REVENUE STREAM**

# NIOBIUM MARKET

Niobium is a critical and strategic mineral

## > ~90% of the world's niobium produced by Brazil<sup>1</sup>

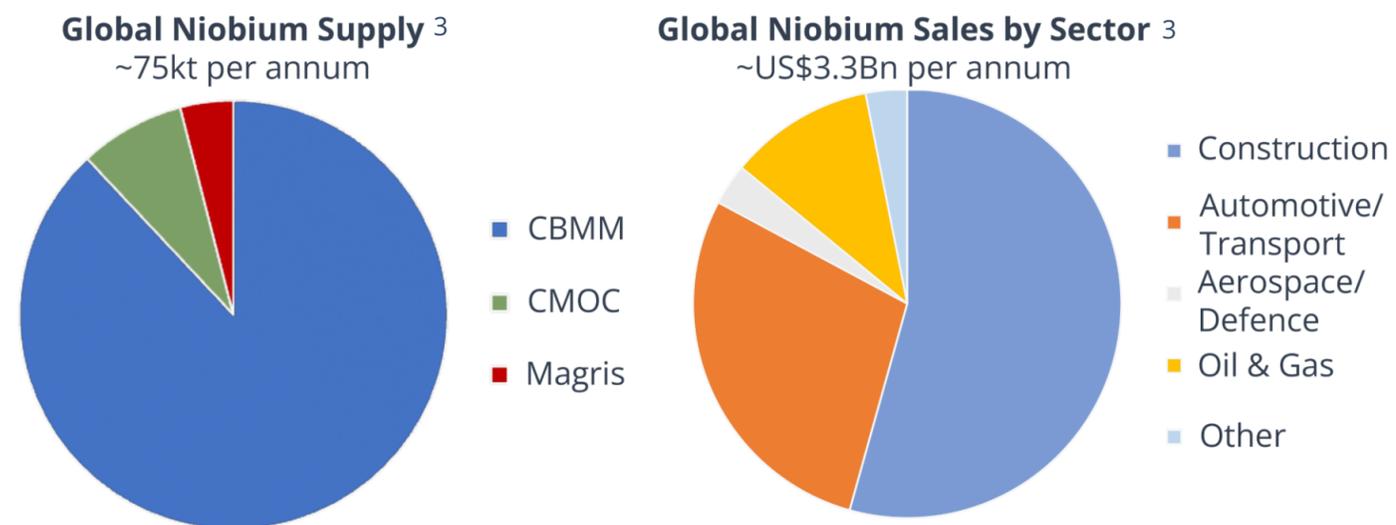
Listed as a critical mineral by the US, Australia<sup>2</sup>, India, Japan, China and the EU.  
Ranked number 2 out of 50 on the US Critical Minerals List<sup>1</sup>

## > Majority of niobium used in steel

Approximately 90% of all niobium is consumed in steelmaking. Strength of the steel can be increased by more than 30% by adding 0.03-0.05% niobium

## > High-tech uses emerging (Lithium-ion batteries)

Key growth area is niobium's potential use in the next generation of Li-Ion Batteries (Faster Charging) many other potential high-tech applications including superconducting magnets used in medical imaging devices, magnetic levitation trains and nuclear reactors.



### Niobium Demand Drivers<sup>3</sup>



**Stronger and lighter steel for buildings, bridges & mega-infrastructure projects**

0.025% Niobium in the steel of the Viaduct de Millau bridge reduced the overall weight by 60%<sup>4</sup>



**Growing demand for lighter weight and more fuel efficient cars, trucks and buses**

300g Nb reduces weight of mid-sized car by 200kg and increases fuel efficiency by 5%<sup>4</sup>



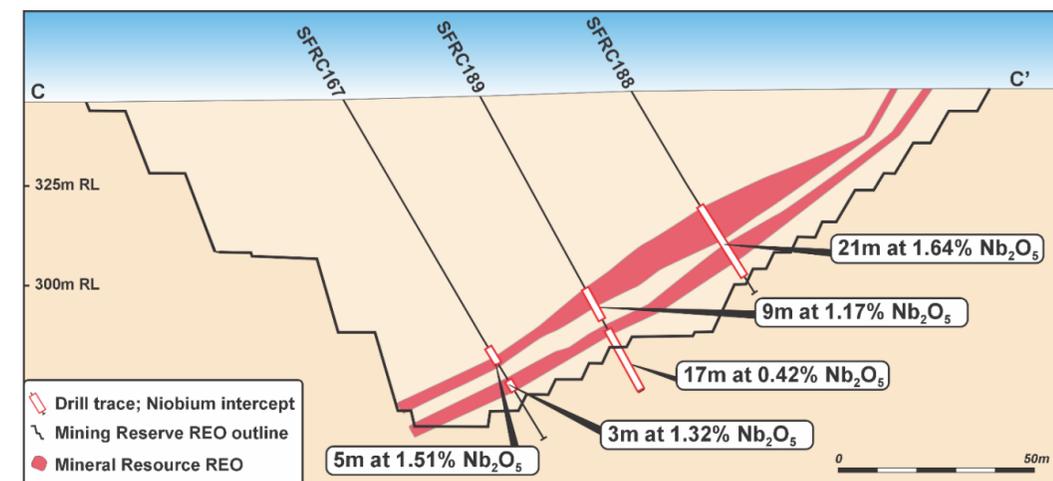
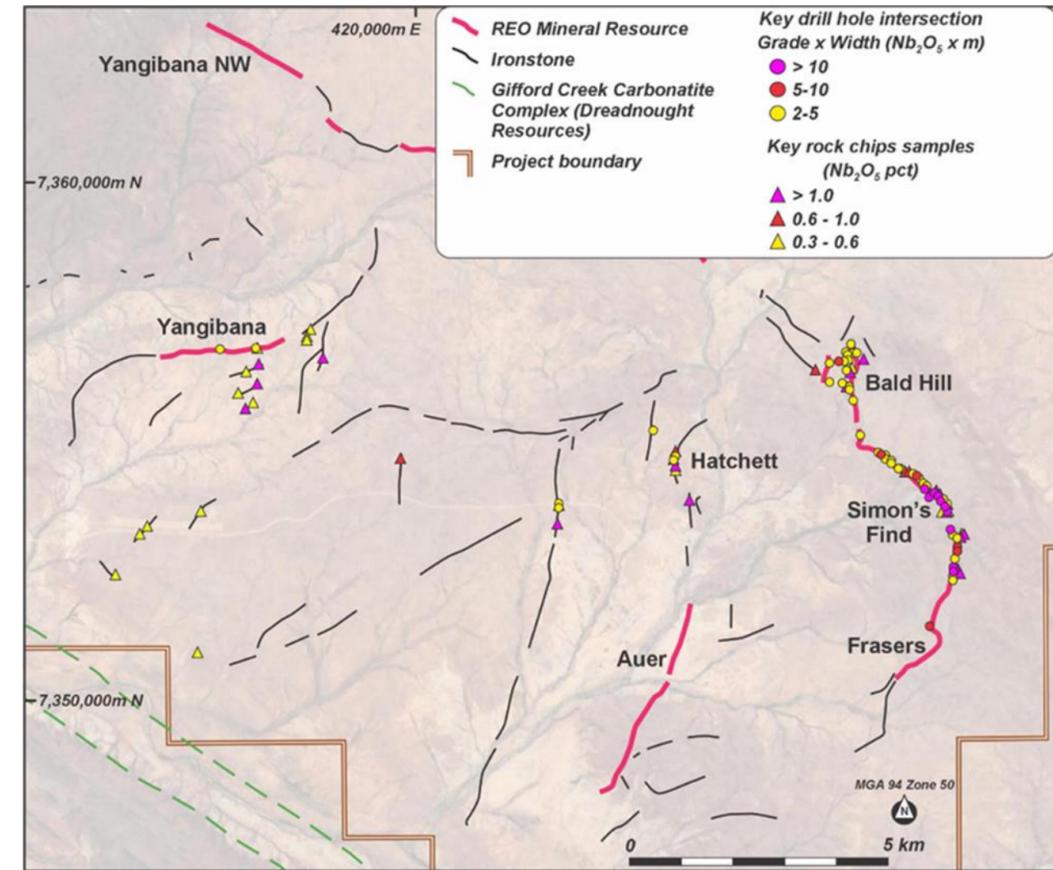
**Next Gen Niobium-Lithium-Ion Batteries**

Significant potential demand CBMM expects nearly 35ktpa Nb oxide sales by 2030<sup>5</sup> (270t in 2022)

# MAIDEN NIOBIUM RESOURCE AT YANGIBANA<sup>1</sup>

Measured and indicated category released in September 2024

- Maiden Niobium Pentoxide Measured and Indicated Mineral Resource now **6.7Mt at 2,305ppm for 15,501t Nb<sub>2</sub>O<sub>5</sub>**
- Niobium (Nb<sub>2</sub>O<sub>5</sub>) concentrations occur in the form of mineral ferro-columbite at the Yangibana Project over a 4-kilometre strike at the existing Simon's Find and Bald Hill deposits
- Metallurgical testing and a flowsheet review is underway which will allow the estimation of an Ore Reserve estimate (from the current Mineral Resource)
- Hafnium-rich zircon has been found at Bald Hill at a ratio of 13:1 which is significantly better than the global benchmark of 50:1
- An updated Mineral Resource estimate is expected in H1 2025 to include the potential of associated Critical Minerals zircon and hafnium after the conclusion of metallurgical test work
- Hafnium is a critical mineral used in aerospace, defence and energy technologies with additional potential for another valuable revenue stream.



# RESOURCE AND RESERVE UPSIDE

Significant exploration targets providing growth optionality (Rare Earths and Niobium)



**> Exploration focus**  
Priority areas identified to expand mine life beyond initial 17-years and provide significant additional upside to build long-term value for shareholders

**> 66km strike length**  
Significant exploration upside with only one-third of strike length (24km) defined as a resource

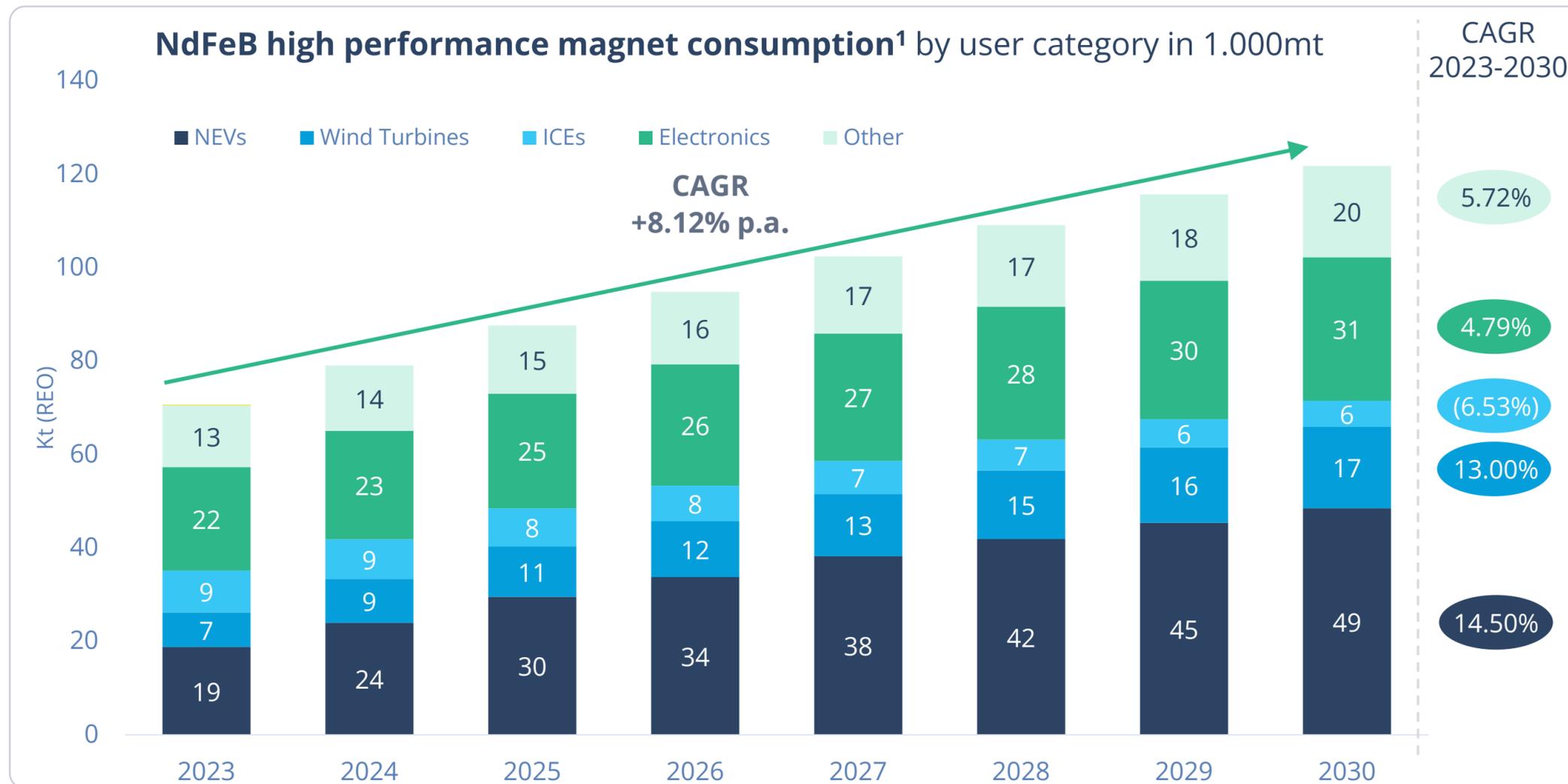
**> Exploration target**  
40 – 60 million tonnes, confined to ironstone hosted mineralisation.

-  Existing 29.93mt Mineral Resource has been defined over 24km of strike length
-  Additional exploration potential strike length of 42km identified

# RARE EARTHS MARKET

# CLIMATE CHANGE DRIVING STRONG DEMAND FOR MAGNETS

NdFeB magnets are power and energy efficient

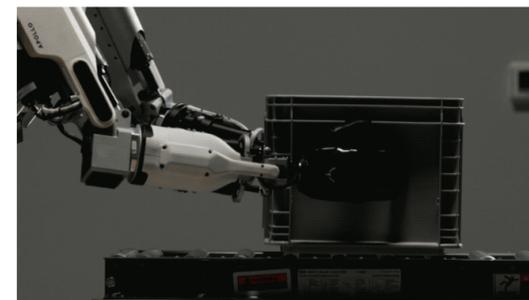
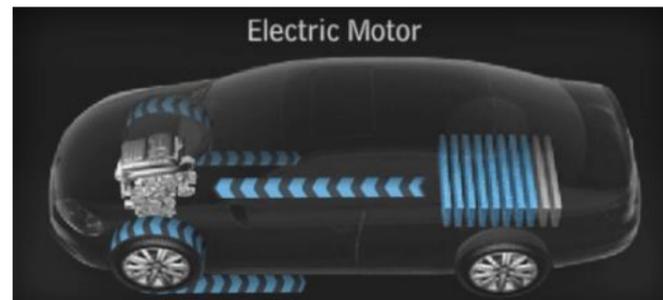


UN Climate Change Conference has pronounced that the world comes together to address a climate crisis and target net-zero emissions by 2050

Increasingly strong structural shift to a green economy by the adoption of advanced technologies that leverage on power and efficiency of magnet motors using NdPr

- E-mobility (e.g. EV)** - 2kg of permanent magnets<sup>2</sup> in a standard EV traction motor, with additional demand for micro/other motors
- Wind Turbines** – high performance generators will contain up to 600 kilograms of NdFeB magnets per MW<sup>2</sup>
- Humanoid Robotics** – global market size estimated at \$2.90 billion in 2024 is expected to reach \$46.31 billion in 2031. CAGR 2024 to 2031 is projected to be 48.6%<sup>3</sup>

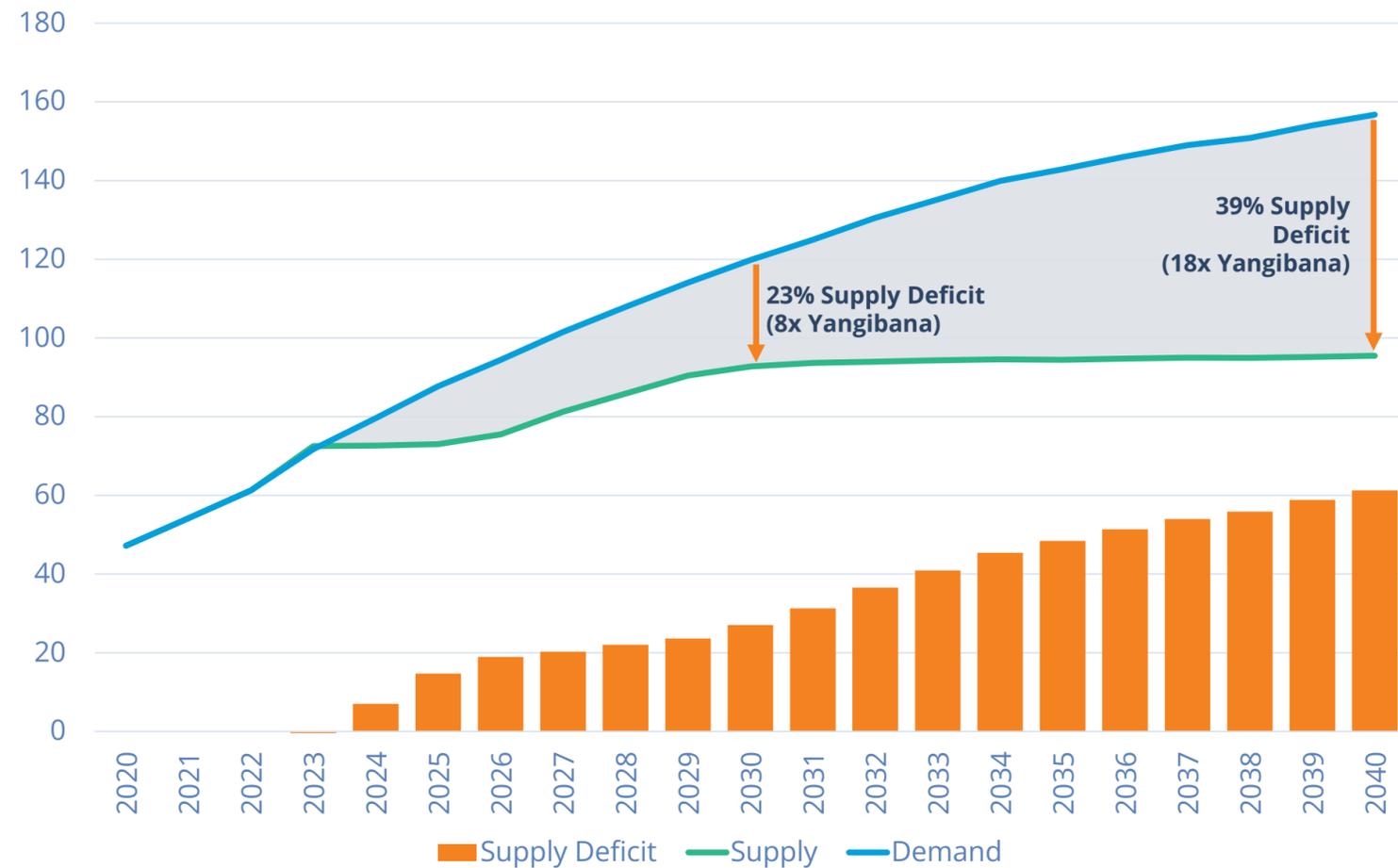
- Heating, Ventilation and Air Conditioning (“HVAC”)** - driven by stricter worldwide government regulations on energy efficiency and intelligent buildings; variable frequency air conditioners (VFAC) demand is forecast to grow at ~9% pa for rest of the decade.



# STRONG MAGNET DEMAND DRIVING SUPPLY DEFICIT

Supply gap forecast to increase during this decade, requiring around 8x Yangibana Projects

NdPr market balance - (kt NdPr oxide), 2020-2040<sup>1</sup>



## Commentary

### Demand

- Price recovery underway with NdPr prices up ~20% since a low in June 2024. Significant deficit to start growing from 2026 onwards coinciding with first concentrate from Yangibana in mid 2026 is well-timed to meet demand surge
- Worldwide consumption of Rare Earth Oxides for Permanent Magnets is growing at CAGR 2022 – 2030 of 9.2%<sup>1</sup>
- Demand for NdPr oxides expected to increase by ~80% over the next decade (from 2026), fueled predominantly by growth in E-mobility, humanoid robotics and wind turbines.

### Supply

- Long project development lead times raise questions around ability of new mines in permitting, financing and supply ramp up
- CRU forecast supply gap to 2030 represents around 8x Yangibana’s NdPr oxides production of 3.4ktpa
- Worldwide NdPr supply is projected to grow at a CAGR of 5.3% from 2022 to 2030<sup>1</sup>. However, this growth significantly lags behind the increasing demand for rare earths in permanent magnets, highlighting a critical supply-demand gap.

# APPENDIX

# BOARD OF DIRECTORS

Highly experienced and credentialed Board



**Charles Lew**  
**Executive Chairman**  
(Chair, ESG Committee)



**Guy Robertson**  
**Executive Director /**  
**Joint Company Secretary**  
(Chair, Remuneration Committee)



**Jean Claude Steinmetz**  
**Non-Executive Director**  
(Chair, Project Review Committee)



**Neil Hackett**  
**Non-Executive Director /**  
**Joint Company Secretary**  
(Chair, Audit Committee)



**Mal Randall**  
**Non-Executive Director**

- Took over Hastings in December 2013 and working with two veteran geologists, discovered Yangibana's unique high grade NdPr ore body in May 2014. Led Hastings right through from exploration to being shovel ready
- 30+ years investment banking experience. 1996-2000: MD of ABN Amro Investment Bank Singapore
- 2004 to 2016 - Independent Non-Executive Director of RHB Banking Group
- He holds a BA (Hons) in Finance from University of East London and MSc in Management Science from Imperial College, University of London.

- Served on the Board of Hastings since October 2012
- 30+ years CFO experience
- CFO for various ASX listed junior mining companies
- Senior finance executive in Jardine Matheson Group in Hong Kong and Australia including Jardine Lloyd Thompson, Colliers Jardine, and Franklins Limited
- He holds a Bachelor of Commerce (Hons) in Chartered Accountancy.

- Joined the Board in July 2016
- Chief Operating Officer for Lynas Corporation 2013 - 2015
- 25+ years in the chemical industry with Rhodia and General Electric
- Chairman of the Auto Plastic and Innovative Materials Committee of Sino-EU Chemical Manufacturers Association
- He holds a Bachelor of Science in Chemical Engineering and a Masters of Science in Industrial Management.

- Joined the Board in November 2018
- 15+ years ASX Director, Company Secretary with mining and industrial experience
- Corporate Finance and Regulatory Experience with ASIC 1990-1999
- Independent Corporate Governance Advisor and AICD Facilitator
- He holds a Bachelor of Economics from University of Western Australia, Graduate Diploma in Applied Finance & Investment, Graduate Diploma in Financial Planning, is a Fellow of FINSIA, and a Graduate (Order of Merit) and Facilitator with the Australian Institute of Company Directors.

- Joined the Board in February 2019
- 45+ years extensive experience in corporate, management and marketing in the resources sector, including 25+ years with the Rio Tinto group of companies
- He holds a Diploma of Applied Chemistry and is a Fellow of the Australian Institute of Company Directors.

# EXPERIENCED SENIOR MANAGEMENT

Strong leadership team



**Charles Lew**  
Executive Chairman

- Took over Hastings in December 2013 and working with two veteran geologists, discovered Yangibana's unique high grade NdPr ore body in May 2014. Led Hastings right through from exploration to being shovel ready
- 30+ years investment banking experience. 1996-2000: MD of ABN Amro Investment Bank Singapore
- 2004 to 2016 - Independent Non-Executive Director of RHB Banking Group
- He holds a BA (Hons) in Finance from University of East London and MSc in Management Science from Imperial College, University of London.



**Teck Lim**  
Chief Financial Officer

- Chartered accountant with 20+ years accounting and finance experience, specialising in the mining and metals sector
- Former CFO at a nickel/cobalt company and held various roles with KPMG, ING Bank, HSBC Bank and Deloitte
- Corporate Finance and Project Finance experience with juniors through to mega project financings in Australia, Africa and Asia
- MBA from the University of Western Australia (UWA) and graduate of the Australian Institute of Company Directors (GAICD).



**Tim Gilbert**  
Chief Operating Officer

- Mining engineer with over 30 years of experience in a range of senior roles in the resources sector across multiple commodities in different jurisdictions, including battery and base metals, diamonds and gold
- Expertise extends across a range of strategic, operational and technical roles for global mining companies including Rio Tinto, Gold Fields and Newmont, Covalent Lithium, as well as leading mining contractor Thiess
- B Eng (Hons) in Mining Engineering & ACSM.



**Vince Catania**  
GM - Corporate

- A Member of the WA Parliament for 18 years during which he held senior roles in Government
- Before retiring from politics, Mr Catania held the vast seat of NW Central, which covers the Gascoyne in which Hastings' Yangibana Rare Earth Elements Project is situated
- Exceptional State and Federal government knowledge, well established media contacts, a detailed knowledge of government agency processes and a good understanding of the community and stakeholder needs of the area.



**Peter Phan**  
Project Director

- Strong track record with over 30 years of mining industry experience across a wide range of commodities (iron ore, gold, nickel and lithium)
- Diverse range of roles including project development, strategic planning, studies, operational readiness, mine operations, mine technical services, management and commercial
- Held senior roles at Rio Tinto Iron Ore, Roy Hill Holdings, and Mineral Resources amongst others
- Bachelor of Engineering (Civil) from UWA and a Masters of Science (Mineral Economics) from Curtin.



**Dr Louis Schürmann**  
Chief Geologist

- More than 30 years' experience as an exploration geologist and project manager with specific expertise on alkaline rocks, carbonatites, and ultramafic to mafic layered intrusions
- Extensive global experience includes working for exploration companies in South Africa, Zambia, DRC, East African Rift valley, Australia, and northwest Asia
- Involved in discovery teams for the Platreef PGM Project, and the Copper Belt projects (west Kolwezi, DRC) for Ivanhoe Nickel & Platinum (SA) Ltd and Ivanhoe Mines Ltd respectively
- PhD, Geology / Exploration / Economic Geology / REE mineralisation (FSEG, FAUSIMM).



**Brianna Kent**  
Human Resources Manager

- Over 12 years' experience in the resources sector, with an established reputation in people strategy and culture
- Experience across all phases of the mining cycle, exploration, project development, operational readiness, commissioning, and operations
- Holds an MBA (Leadership) and has completed the Australian Institute of Company Directors, Company Directors Course.

# KEY COMMERCIAL TERMS<sup>1</sup>

<b>Parties (Joint Venturers):</b>	A related entity of Wyloo ( <b>Wyloo JV Party</b> ) Yangibana Jubilee Pty Ltd (YJPL)
<b>Unincorporated Joint Venture Interests:</b>	<ul style="list-style-type: none"> <li>Wyloo JV Party: 60% participating interest</li> <li>YJPL: 40% participating interest</li> </ul>
<b>Committees:</b>	Management Committee with representation proportionate to each Party's participating interest. Decisions based on a simple majority basis. Marketing Committee to be established.
<b>Cancellation of Exchangeable Notes:</b>	Wyloo to extinguish all Exchangeable Notes issued by HTM Investments (One) Pty Ltd (a subsidiary of Hastings) on 11 October 2022 and any subsequent notes issued in satisfaction of interest payments. Balance as at 31 December 2024 is A\$199.7m (~\$220m at maturity).  A share purchase agreement (SPA) has been executed pursuant to which Hastings will sell to Wyloo 8,350,311 shares held in Neo, representing a 19.99% interest in Neo (Transferred Neo Shares). The Transferred Neo Shares have a value of A\$79.8m, which will be paid by Wyloo by way of a set-off against the outstanding amount of the Exchangeable Notes. Upon Wyloo earning a 60% participating interest in the UJV over the Project, security over the remaining 623,816 shares (1.49%) will be released and Hastings will settle the value of those shares via cash payment to Wyloo, and the balance of the Exchangeable Notes will be cancelled. Hastings has the flexibility to meet the final payment of A\$6.0m by selling the remaining 623,816 Neo shares held (current market value of A\$6.0m).
<b>UJV Assets:</b>	All assets associated with the Yangibana Project including the Hydrometallurgical Project will be transferred to the UJV. All other assets and exploration tenements to remain with Hastings.
<b>CPs:</b>	Receipt of all third-party consents, permits and/or licenses (as necessary), shareholder and regulatory approvals.
<b>Option and compulsory buy-out:</b>	Wyloo has an option to acquire an additional 10% interest at the lower of: (i) the fair market value as determined by an independent expert valuation, or (ii) A\$20m (subject to CPI escalation). If Hastings' participating interest falls below 10%, Wyloo can acquire Hastings' interest at the lower of: (i) fair market value as determined by an independent expert valuation, or (ii) A\$2m for each 1% interest in the Joint Venture.
<b>Right to match:</b>	Customary right in favour of Wyloo to match a proposal by Hastings to dispose of its participating interest to a third party, which extends (subject to limited exceptions) to a change of control of Hastings or its subsidiaries that directly or indirectly hold the participating interest. Exceptions include: <ul style="list-style-type: none"> <li>change of control for organisational restructure</li> <li>where unequivocally prohibited by law or ASX listing rules, or in situations where Hastings is unable to prevent a change of control from occurring.</li> </ul>
<b>Project Funding:</b>	Parties to jointly arrange project finance for remaining Project capital costs with target minimum gearing of 50:50 (Debt: Equity). JV funding to be contributed by Parties on a pro rata basis. To the extent there is required residual equity contribution from the Parties that are not raised from project finance, the dilution mechanism for unsatisfied cash calls include 0.5% per A\$1m or loan carried for 60 days at BBSY +15% (pre-FID) and for 90 days at BBSY + 10% (post-FID). No cash calls for 90 days post FID (together with 90 days loan carried period, a period of 180 days exists prior to dilution mechanism if relevant post FID).
<b>Stage 2 Hydrometallurgical Process Plant:</b>	Wyloo undertakes to work with Hastings to continue with its ambition to enter into a JV with an appropriate local party in the Kingdom of Saudi Arabia in line with the non-binding MOU with the Ministry of Investment of Saudi Arabia for their Global Supply Chain Resilience Initiative.
<b>Reporting:</b>	The JV will prepare regular reports including, but not limited to, the following: <ul style="list-style-type: none"> <li>Financial Statements</li> <li>Monthly reports</li> <li>Resource and Reserve information that complies with the JORC Code</li> <li>Quarterly Management Committee papers.</li> </ul> YJPL will have a period of one month to review the JV's annual business plans and budgets, during which the JV must use reasonable endeavors to incorporate feedback from YJPL. Hastings is permitted to conduct an audit of the JV's operations and finances annually, at Hastings' cost. The JV will provide all such information as Hastings requires in order to satisfy its obligations under the ASX Listing Rules.
<b>Exclusivity:</b>	The parties have agreed customary exclusivity obligations in favour of Wyloo that Hastings will not solicit or invite, participate in discussions or negotiations in relation to, or provide information to another person (other than Wyloo) in relation to, a competing proposal that would be inconsistent with the proposed UJV. The exclusivity period will run until the earlier of binding documentation being entered into between the parties in relation to the UJV and 31 December 2025. Break fee to cover transaction costs.
<b>Other:</b>	Right of last refusal on same acquisition offer terms, final due diligence and other terms in respect of the Project JV and usually found in an agreement of that nature.
<b>Management:</b>	The JV entity will have the necessary employees, management and reporting functions required to develop and operate the Project. Any supporting services provided by the Parties to the UJV such as IT infrastructure and office space will be charged back to the UJV on a cost recovery basis.
<b>Completion:</b>	The Parties are targeting execution of the JVA, Transaction Agreement and binding JV documentation by end March 2025.

<sup>1</sup> Refer ASX Announcement "Hastings and Wyloo to form Joint Venture on the Yangibana Rare Earths & Niobium Project" dated 20 February 2025.

# YANGIBANA PROJECT – PEER COMPARISON

PEER COMPARISON – NDPR:TREO RATIO												
Mine	Majority / Full Ownership	Ticker	Stage of Development	Capex (A\$m)	Ore Reserves (Proved) Mt	Ore Reserves (Proved) Grade – NdPr / TREO	Ore Reserves (Probable) Mt	Ore Reserves (Probable) Grade NdPr/TREO	Ore Reserves (Total) Mt	Ore Reserves (Total) Grade NdPr/TREO	NdPr:TREO ratio <sup>1</sup> (Total Ore Reserves)	Source
Yangibana	Hastings Technology Metals Ltd	HAS:ASX	Pre-production	474	4.89	0.37 / 0.95%	16.03	0.32 / 0.88%	20.93	0.33 / 0.90%	37%	<b>6 February 2023:</b> ASX Announcement: “Yangibana Ore Reserves Increase by 25%”
Nolans	Arafura Rare Earths Ltd	ARU:ASX	Pre-production	1,886 (US\$1,226m)	5	0.79 <sup>1</sup> / 3.00%	24.6	0.74 <sup>1</sup> / 2.80%	29.50	0.77 <sup>1</sup> / 2.90%	26%	<b>11 November 2022:</b> ASX Announcement: "Nolans Project Update" <b>23 July 2024:</b> ASX Announcement: "Arafura achieves major debt funding milestone"
Mt Weld	Lynas Rare Earths Ltd	LYC:ASX	Production	N/A	21.2	1.72 / 7.40%	10.8	1.06 / 4.50%	32.0	1.50 / 6.42%	23%	<b>5 August 2024:</b> ASX Announcement: “Mineral Resources and Ore Reserve Update”
Bayan Obo <sup>2</sup>	China Northern Rare Earth Group High-Tech Co Ltd	600111:CH	Production	N/A	-	-	-	-	48	1.26 <sup>1</sup> / 6%	21%	<b>September 2021:</b> Dating of monazite-apatite-allanite-epidote corona from the Bayan Obo Group in the northern margin of the North China Craton: implications for the time of regional Au and REE mineralization <b>4-7 September 2014:</b> 1 <sup>st</sup> European Rare Earth Conference, “China’s Rare Earth Ore Deposits and Beneficiation Techniques” refer table 2
Ngualla	Peak Rare Earths Limited	PEK:ASX	FEED Completed	441	17.0	1.02 <sup>1</sup> / 4.78%	1.5	1.08 <sup>1</sup> / 5.10%	18.5	1.07 / 4.80%	21%	<b>24 October 2022:</b> ASX Announcement: “Ngualla Rare Earths Project Completion of Bankable Feasibility Study Update” <b>30 November 2023:</b> ASX Announcement: “Completion of FEED Study”
Songwe Hill	Mkango Resources Ltd	MKA:TSXV	Feasibility	479 (US\$311m)	8.16	0.26 / 1.28%	9.99	0.21 / 1.07%	18.15	0.24 / 1.16%	20%	<b>19 August 2022:</b> SEDAR Announcement: “Technical report (NI-43-101) Mkango”
Kangankunde	Lindian Resources Limited	LIN:ASX	Feasibility	A\$60m (US\$40m)	-	-	23.7	0.57 <sup>1</sup> / 2.9%	23.7	0.57 <sup>1</sup> / 2.9%	20%	<b>1 July 2024:</b> ASX Announcement: “Kangankunde Project Stage 1 Outstanding Feasibility Study Results”
Mountain Pass	MP Materials Corp	MP:NYSE	Production	N/A	0.58 <sup>3</sup>	0.67 <sup>1</sup> / 4.28%	25.23 <sup>3</sup>	0.98 <sup>1</sup> / 6.25%	25.81 <sup>3</sup>	0.97 <sup>1</sup> / 6.20%	16%	<b>28 February 2024:</b> SEC Filing: Form 10-K – Annual Report

Notes:

<sup>1</sup> Calculated from available information i.e. NdPr/TREO ratio when provided converted to NdPr % (grade)

<sup>2</sup> Bayan Obo is a Chinese Ore Reserve estimate and doesn't have Proved and Probable estimates. The Ore Reserve estimate (Total) was obtained from a geological research paper

<sup>3</sup> Mountain Pass has been converted from US short-tons to metric tonnes  
Capital Costs in US Dollars converted at 0.65 AUD/USD exchange rate.

# YANGIBANA PROJECT – RESOURCES AND RESERVES

## MINERAL RESOURCES AND ORE RESERVES<sup>1</sup>

### TOTAL JORC (2012) MINERAL RESOURCES (30 OCTOBER 2022)

Category	mt	%TREO	%NdPr	TREO tonnes
Measured	4.97	0.96	0.37	47,721
Indicated	19.51	0.88	0.32	171,936
<b>Sub-total</b>	<b>24.49</b>	<b>0.90</b>	<b>0.33</b>	<b>219,657</b>
Inferred	5.45	1.05	0.31	57,298
<b>TOTAL</b>	<b>29.93</b>	<b>0.93</b>	<b>0.32</b>	<b>276,955</b>

### INDIVIDUAL DEPOSITS (at Yangibana)

Bald Hill				
Category	mt	%TREO	%NdPr	TREO tonnes
Measured	3.55	0.82	0.34	29,136
Indicated	5.23	0.75	0.30	39,290
<b>Sub-total</b>	<b>8.79</b>	<b>0.78</b>	<b>0.31</b>	<b>68,425</b>
Inferred	1.17	0.67	0.27	7,787
<b>TOTAL</b>	<b>9.96</b>	<b>0.77</b>	<b>0.31</b>	<b>76,212</b>

Simon's Find				
Category	mt	%TREO	%NdPr	TREO tonnes
Measured	-	-	-	-
Indicated	3.14	0.52	0.27	16,206
<b>Sub-total</b>	<b>3.14</b>	<b>0.52</b>	<b>0.27</b>	<b>16,206</b>
Inferred	0.05	0.06	0.31	295
<b>TOTAL</b>	<b>3.19</b>	<b>0.52</b>	<b>0.27</b>	<b>16,501</b>

Fraser's				
Category	mt	%TREO	%NdPr	TREO tonnes
Measured	0.75	1.25	0.53	9,407
Indicated	1.47	0.75	0.32	11,001
<b>Sub-total</b>	<b>2.23</b>	<b>0.92</b>	<b>0.39</b>	<b>20,408</b>
Inferred	0.01	0.60	0.25	44
<b>TOTAL</b>	<b>2.24</b>	<b>0.91</b>	<b>0.39</b>	<b>20,452</b>

Auer				
Category	mt	%TREO	%NdPr	TREO tonnes
Measured	-	-	-	-
Indicated	3.54	0.93	0.32	32,796
<b>Sub-total</b>	<b>3.54</b>	<b>0.93</b>	<b>0.32</b>	<b>32,796</b>
Inferred	1.10	0.76	0.24	8,297
<b>TOTAL</b>	<b>4.64</b>	<b>0.89</b>	<b>0.30</b>	<b>41,093</b>

Yangibana				
Category	mt	%TREO	%NdPr	TREO tonnes
Measured	-	-	-	-
Indicated	1.98	0.71	0.34	14,034
<b>Sub-total</b>	<b>1.98</b>	<b>0.71</b>	<b>0.34</b>	<b>14,034</b>
Inferred	0.33	0.64	0.31	2,146
<b>TOTAL</b>	<b>2.31</b>	<b>0.70</b>	<b>0.33</b>	<b>16,180</b>

Yangibana North				
Category	mt	%TREO	%NdPr	TREO tonnes
Measured	0.66	1.39	0.36	9,179
Indicated	4.15	1.41	0.36	58,609
<b>Sub-total</b>	<b>4.81</b>	<b>1.41</b>	<b>0.36</b>	<b>67,788</b>
Inferred	0.97	1.43	0.37	13,914
<b>TOTAL</b>	<b>5.78</b>	<b>1.41</b>	<b>0.36</b>	<b>81,702</b>

### TOTAL JORC (2012) ORE RESERVES BY CATEGORY AND DEPOSIT (6 FEBRUARY 2023)

Category	mt	%TREO	%NdPr	NdPr: TREO
Proved	4.89	0.95	0.37	39
Probable	16.03	0.88	0.32	36
<b>TOTAL</b>	<b>20.93</b>	<b>0.90</b>	<b>0.33</b>	<b>37</b>

Deposit	mt	%TREO	%NdPr	NdPr: TREO
Bald Hill	8.12	0.79	0.32	41
Fraser's	1.77	1.01	0.43	43
Simon's Find	2.69	0.53	0.28	53
Auer	2.83	0.96	0.34	35
Yangibana	1.31	0.79	0.37	47
Yangibana North	4.21	1.29	0.34	26
<b>TOTAL</b>	<b>20.93</b>	<b>0.90</b>	<b>0.33</b>	<b>37</b>

### NIObIUM RESOURCES (at Yangibana)

Category	mt	Nb <sub>2</sub> O <sub>5</sub> ppm	Nb <sub>2</sub> O <sub>5</sub> tonnes
Measured	2.37	1,035	2,251
Indicated	4.36	2,995	13,050
<b>Sub-total</b>	<b>6.73</b>	<b>2,305</b>	<b>15,501</b>
Inferred	0.01	1,435	20
<b>TOTAL</b>	<b>6.74</b>	<b>2,305</b>	<b>15,521</b>

<sup>1</sup> Refer ASX Announcement 6 February 2023 "Yangibana Ore Reserves Increase by 25%"; numbers may not add due to rounding; for reference that the Ore Reserves stated is included as part of the Mineral Resources. Other prospects of 1.82Mt not included in the individual prospects section.

<sup>2</sup> Refer ASX Announcement 4 September 2024 "Maiden Niobium Measured and Indicated Mineral Resource at the Yangibana Rare Earth and Niobium Project"

Disclaimer: There is no certainty that further exploration work will result in the determination of Mineral Resources (or Ore Reserves).

# SOURCE DATA FOR SLIDE 5

SOURCE DATA FOR SLIDE 5	
Statement	Source(s)
<ul style="list-style-type: none"> <li>One of the highest global NdPr : TREO ratio of 37% (LOM average) and up to 52%</li> </ul>	<p><b>6 February 2023:</b> ASX Announcement: "Yangibana Ore Reserves Increase by 25%" and refer to slide 27</p>
<ul style="list-style-type: none"> <li>In-Demand REEs: Nd + Pr + Dy + Tb = ~96% of Yangibana Basket Price</li> </ul>	<p><b>16 February 2024:</b> ASX Announcement: "Presentation - Offtake and Economics Update"</p>
<ul style="list-style-type: none"> <li>Niobium by-product credit stream</li> </ul>	<p><b>4 September 2024:</b> ASX Announcement: "Niobium Maiden Mineral Resource" and <b>26 August 2024:</b> "High-Grade Niobium, REE and Hafnium-Rich Zircon Results"</p>
<ul style="list-style-type: none"> <li>Offtake with German, thyssenkrupp, Baotou Sky Rock</li> </ul>	<p><b>16 February 2024:</b> ASX Announcement: "Binding Term Sheet Signed for Integrated Tolling and Offtake"  <b>20 April 2021:</b> ASX Announcement "Hastings Signs Major Offtake Contract with thyssenkrupp"  <b>12 September 2023:</b> ASX Announcement "TK Expanded Offtake to Meet Bankability Requirements"</p>
<ul style="list-style-type: none"> <li>Australia AAA Sovereign Risk, WA Frasers Institute ranked 4th out of 77 jurisdictions</li> </ul>	<p><b>13 February 2024:</b> "Australia's AAA credit rating reaffirmed following MYEFO" Available: <a href="https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/media-releases/australias-aaa-credit-rating-reaffirmed-following-myefo">https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/media-releases/australias-aaa-credit-rating-reaffirmed-following-myefo</a>  <b>14 May 2024:</b> Fraser Institute "2023 Annual Survey of Mining Companies" Available: <a href="https://www.fraserinstitute.org/sites/default/files/2023-annual-survey-of-mining-companies.pdf">https://www.fraserinstitute.org/sites/default/files/2023-annual-survey-of-mining-companies.pdf</a></p>
<ul style="list-style-type: none"> <li>State and Commonwealth Approvals secured</li> </ul>	<p><b>14 April 2020:</b> ASX Announcement "Commonwealth Environmental Approval Received at Yangibana"  <b>20 August 2019:</b> ASX Announcement "Significant Milestone Achieved EPA Approval for Yangibana"</p>
<ul style="list-style-type: none"> <li>Granted Mining Lease tenure in premier rare earths province</li> </ul>	<p><b>21 February 2022:</b> ASX Announcement "Yangibana Project NPV increased 84% to A\$1Billion (post tax)  <b>30 September 2024:</b> ASX Announcement "Annual Report to Shareholders"</p>
<ul style="list-style-type: none"> <li>Native Title Agreement in place</li> </ul>	<p><b>14 November 2017:</b> ASX Announcement "HAS Signs NTA Covering Entire 650 sq km Yangibana Project"  <b>16 October 2023:</b> ASX Announcement "Hastings &amp; TMWTJ People Review Native Title Agreement"</p>

SOURCE DATA FOR SLIDE 5	
Statement	Source(s)
<ul style="list-style-type: none"> <li>\$865m Post-tax NPV<sup>11</sup> (ungeared)</li> <li>31.28% IRR; 3.4 years payback</li> <li>\$258m per annum EBITDA. LoM Free cash flow \$3,345m</li> </ul>	<p><b>16 February 2024:</b> ASX Announcement: "Binding Term Sheet Signed for Integrated Tolling and Offtake"</p>
<ul style="list-style-type: none"> <li>1st Quartile on Global Margin Curve (CRU)</li> </ul>	<p>Rare Earth Margin Curve (2028) as produced by independent commodities analysis group CRU (2024)</p>
<ul style="list-style-type: none"> <li>Supporting infrastructure fully completed: 294 room village, 2km airstrip, 20km site access road, 6 water borefield, communications towers and all long-lead equipment.</li> </ul>	<p><b>30 January 2024:</b> ASX Announcement "Quarterly Activities Report December 2023"</p>
<ul style="list-style-type: none"> <li>\$158m on Yangibana (Stage 1) and \$68m on Stage 2 Plant</li> <li>33% complete</li> </ul>	<p><b>30 January 2025:</b> ASX Announcement "Quarterly Activities Report December 2024"  <b>20 February 2025:</b> ASX Announcement "Hastings and Wyloo to Form Joint Venture on the Yangibana Rare Earths &amp; Niobium Project"</p>
<ul style="list-style-type: none"> <li>Initial Life of Mine of 17 years (Ore Reserves)</li> </ul>	<p><b>6 February 2023:</b> ASX Announcement: "Yangibana Ore Reserves Increase by 25%"</p>
<ul style="list-style-type: none"> <li>20.9Mt Reserves and 29.9Mt Mineral Resource</li> </ul>	<p><b>6 February 2023:</b> ASX Announcement: "Yangibana Ore Reserves Increase by 25%"</p>
<ul style="list-style-type: none"> <li>Stage 2 Hydrometallurgical Plant Project will capture additional downstream processing margins. Discussions ongoing for Kingdom of Saudi Arabia partnerships.</li> </ul>	<p><b>28 November 2024:</b> ASX Announcement: "HAS Signs MOU Ministry of Investment Kingdom of Saudi Arabia"</p>
<ul style="list-style-type: none"> <li>60:40 JV with Wyloo:Hastings. Term Sheet signed (non-binding) IC approved; commercial terms agreed</li> <li>Wyloo will be JV Manager and Operator</li> <li>Hastings retains pro-rata/40% of revenue (REEs, niobium), FCFs. Project Finance to be raised jointly.</li> </ul>	<p><b>20 February 2025:</b> ASX Announcement "Hastings and Wyloo to form Joint Venture on the Yangibana Rare Earths &amp; Niobium Project"</p>

# GLOSSARY

<b>µm</b>	micrometre, metric unit of measure for length equal to 0.001 mm	<b>HREE</b>	Heavy Rare Earth Elements	<b>Project</b>	Yangibana Rare Earths & Niobium Project
<b>ANSTO</b>	Australian Nuclear Science and Technology Organisation	<b>Hydromet</b>	Hydrometallurgical Plant	<b>Pr<sub>6</sub>O<sub>11</sub></b>	Praseodymium oxide
<b>ASX</b>	Australian Securities Exchange Ltd	<b>IRR</b>	Internal Rate of Return	<b>Q</b>	Quarter
<b>AusIMM</b>	Australasian Institute of Mining and Metallurgy	<b>IC</b>	Investment Committee	<b>RE</b>	Rare Earths
<b>BCFM</b>	Base Case Financial Model	<b>JORC</b>	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves	<b>REE</b>	Rare Earth Elements
<b>bn</b>	Billion	<b>JV</b>	Joint Venture	<b>REO</b>	Rare Earth Oxides
<b>CAGR</b>	Compound Annual Growth Rate	<b>kg/h</b>	Kilograms per hour	<b>SAG mill</b>	Semi-Autogenous Grinding mill
<b>CBMM</b>	Companhia Brasileira de Metalurgia e Mineração	<b>Kt</b>	Kilotonnes	<b>SkyRock</b>	Baotou Sky Rock Rare Earth New Material Co.
<b>CFO</b>	Chief Financial Officer	<b>KSA</b>	Kingdom of Saudi Arabia	<b>t</b>	Metric tonne
<b>CMOC</b>	China Molybdenum Company Limited	<b>LoM</b>	Life-of-Mine	<b>Tb</b>	Terbium
<b>Company</b>	Hastings Technology Metals Ltd (ASX:HAS)	<b>Lynas</b>	Lynas Corporation Ltd	<b>TK or TMT</b>	thyssenkrupp Materials Trading, thyssenkrupp Materials Services, and thyssenkrupp AG
<b>CRU</b>	CRU Group	<b>Magris</b>	Magris Performance Materials	<b>TMWTJ</b>	Thiin-Mah Warriyangka, Tharrkari and Jiwarli
<b>CP</b>	Conditions Precedent	<b>MD</b>	Managing Director	<b>tpa</b>	Tonnes Per Annum
<b>CPI</b>	Consumer Price Index	<b>MoU</b>	Memorandum of Understanding	<b>t/hr</b>	Tonnes per hour
<b>Dy</b>	Dysprosium	<b>MREC</b>	Mixed Rare Earth Carbonate	<b>TREO</b>	Total Rare Earth Oxides
<b>EBITDA</b>	Earnings Before Interest, Tax, Depreciation and Amortisation	<b>Mt</b>	Million tonnes	<b>TSX</b>	Toronto Stock Exchange
<b>e-mobility</b>	Electromobility	<b>mtpa</b>	Million tonnes per annum	<b>UJV</b>	Unincorporated Joint Venture
<b>EPC</b>	Engineering, Procurement, and Construction	<b>Nb<sub>2</sub>O<sub>5</sub></b>	Niobium Pentoxide	<b>UN</b>	United Nations
<b>ESG</b>	Environmental, Social, and Governance	<b>Nd</b>	Neodymium	<b>US\$</b>	United States Dollar
<b>EV</b>	Electric Vehicle	<b>NdPr: TREO</b>	NdPr to Total Rare Earth Oxide ratio	<b>USA or US</b>	United States of America
<b>EU</b>	European Union	<b>NdFeB</b>	Neodymium-Iron-Boron	<b>VFAC</b>	Variable frequency air conditioners
<b>FEED</b>	Front End Engineering Design	<b>Neo</b>	Neo Performance Materials Inc (NEO:TSX)	<b>WA</b>	Western Australia
<b>FCFs</b>	Free Cash Flows	<b>NPV</b>	Net Present Valuation	<b>WMC</b>	Western Mining Corporation (which BHP acquired in 2005)
<b>FID</b>	Final Investment Decision	<b>NTA</b>	Native Title Agreement	<b>w/w</b>	weight by weight
<b>FX</b>	Exchange Rate	<b>Owner</b>	Hastings Technology Metals Ltd (ASX:HAS)	<b>Wyloo</b>	Wyloo Metals Pty Ltd
<b>GRES</b>	GR Engineering Services Ltd	<b>P80</b>	Probability 80%	<b>Yangibana</b>	Yangibana Rare Earths & Niobium Project
<b>Hastings or HAS</b>	Hastings Technology Metals Ltd (ASX:HAS)	<b>ppm</b>	Parts per million	<b>YJPL</b>	Yangibana Jubilee Pty Ltd
<b>HVAC</b>	Heating, Ventilation and Air Conditioning	<b>Pr</b>	Praseodymium		

## Our Vision and Values

To be a leading Australian producer of rare earth minerals needed to meet the global transition to renewable energy and advanced technologies.



### Passion

We are **loyal** to the project and work passionately to deliver our vision.



### Teamwork

We are honest, **we care for each other**, and work as one team to achieve our common goal.



### Tenacity

We pursue new opportunities and solutions with **integrity** and persistence.



### Owner's Mindset

We strive towards **excellence** and take care and responsibility in everything we do.

# hastings

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