

An aerial photograph of the Yangibana Rare Earths Project site during sunset. The site is a large, flat, reddish-brown area with several long, white, rectangular buildings arranged in rows. A green sports field is visible in the center. The background shows a vast, flat landscape under a bright orange and yellow sky.

# hastings

## Developing the Yangibana Rare Earths Project

Paul Brown, CEO  
Mines and Money London 2023

Hastings Technology Metals Ltd | ASX:HAS



# DISCLAIMER

All currency amounts are in A\$ unless stated otherwise



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The information in this release 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 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code").

The information in this announcement 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, member of the Australasian Institute of Mining and Metallurgy, and a Director of Interline 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 2012. 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 Ms. Narelle Marriott (General Manager Process Development) of Hastings Technology Metals Limited. Ms. Marriott is a member of the AusIMM 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 2012. Ms. Marriott owns shares in the company and participates in the company employee share plan. Ms. Marriott 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 Project is based on information compiled by Dr. Louis Schürmann (PhD), a Competent Person, who is a Fellow of the Australian Institute of Mining and Metallurgy. Dr. Schürmann has sufficient experience that is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. The Qualified Person has verified the data disclosed in this release, including sampling, analytical and test data underlying the information contained in this release. Dr. Schürmann consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

# STRONG DEMAND DRIVING SUPPLY DEFICIT

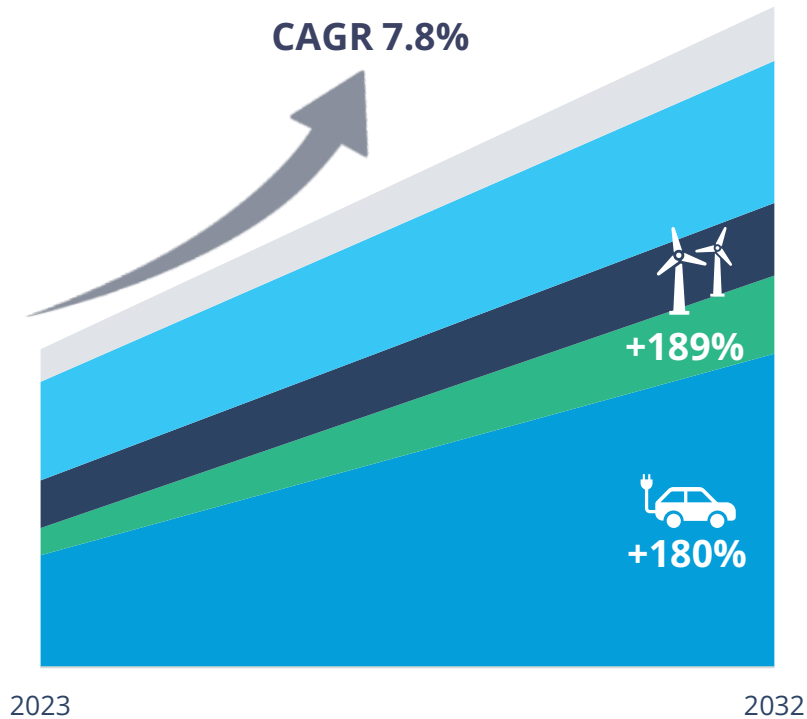
Supply gap forecast to increase during the decade, requiring around 13x Yangibana Projects

Global REO Magnet Demand – Anticipated Growth<sup>1</sup>

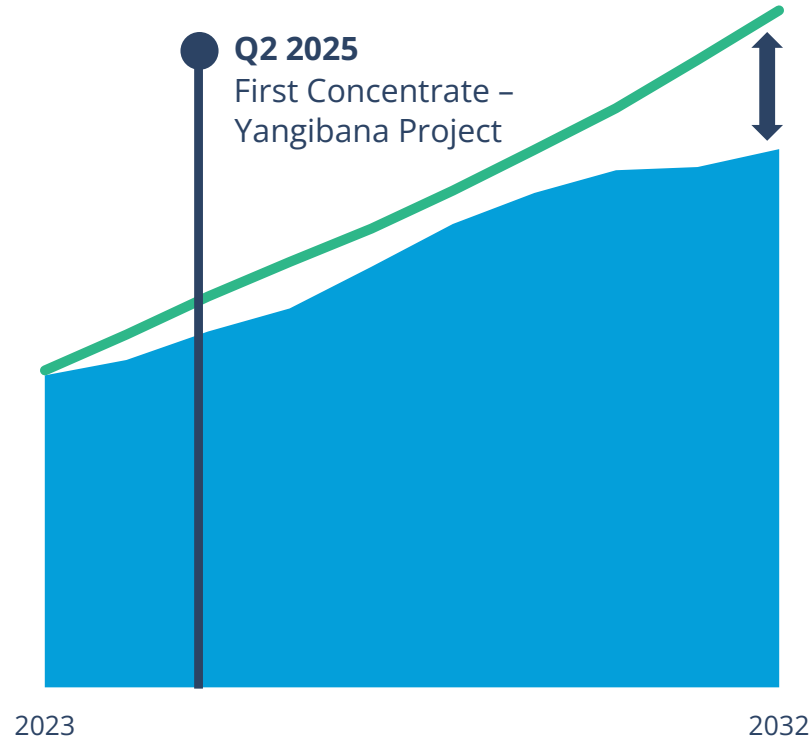
NdPr Oxide – Forecast Supply and Demand Balance

Electric Vehicles / mobility  
Industrial  
Other

Wind Power  
Consumer



Supply Demand



## > Supply deficit

Forecast to start growing from 2025, fueled predominantly by growth in electric vehicles and renewables

## > 13x Yangibana Projects

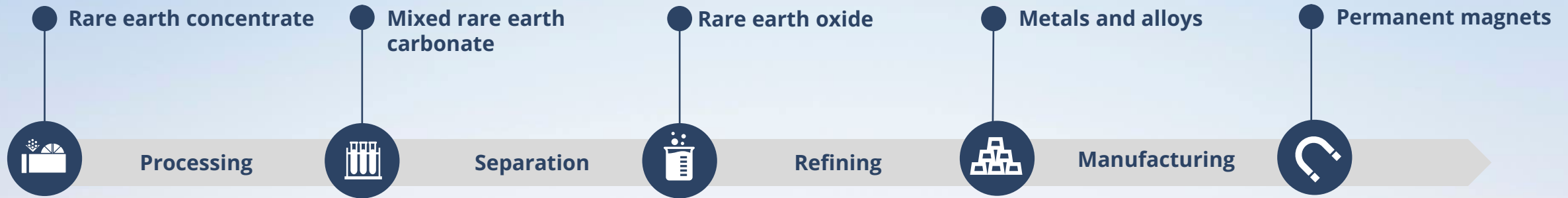
Size of anticipated supply gap for NdPr oxide by 2032

## > Long lead times

Diversified supply sources vital – questions around ability of supply ramp up due to long project development lead times

# HASTINGS' STRATEGY

Capturing increased value by pursuing downstream processing opportunities



## Yangibana Mine and Beneficiation Plant

Establishing Hastings as a leading Australian supplier of rare earth concentrate



## Pursue downstream opportunities

Developing processing capability to capture higher margins



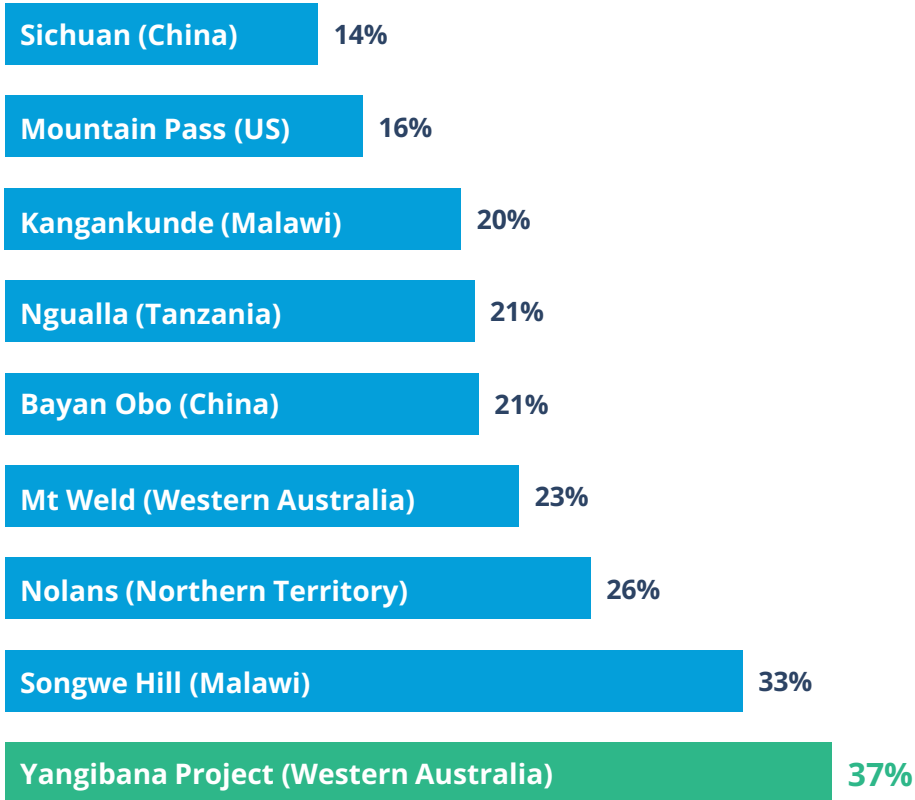
## Mine to magnet

Exploring opportunities to build a vertically integrated rare earths to magnet business

# WORLD-CLASS ASSET

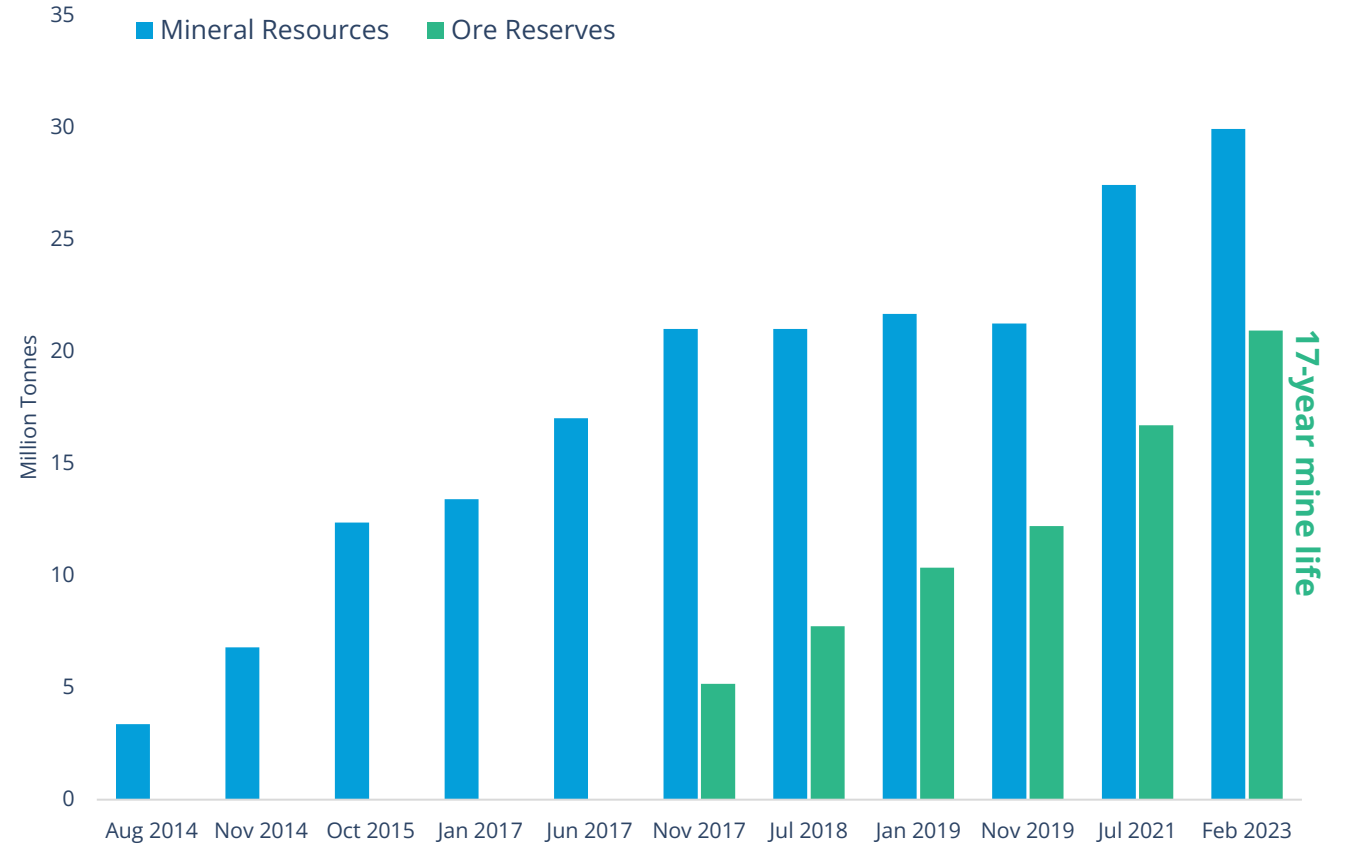
Unique deposit located in a tier one jurisdiction with unrivalled high percentage of NdPr:TREO in orebody

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



 **Average NdPr:TREO ratio surpassing most global projects**

Yangibana Project – Mineral Resources and Ore Reserves<sup>2</sup>





# STAGED DEVELOPMENT FEASIBILITY STUDY<sup>1</sup>

Staged delivery model supporting de-risked pathway to becoming Australia's next rare earths producer

## Yangibana Project Mining and Beneficiation

- 20.9mt Ore Reserve for 17-year mine life
- Traditional drill, blast, load and haul
- ~1.1mtpa to crusher
- Crushing, grinding, flotation, tailings and handling

Output of up to 37,000tpa of rare earth concentrate at 27% TREO

## Downstream processing Hydrometallurgical Plant

- Cracking, leaching, precipitation and drying

Output of up to 15,000tpa of rare earth carbonate at 59% TREO



# STRONG BASE TO RAMP UP CONSTRUCTION

\$126 million invested in non-processing infrastructure for Stage 1 of Yangibana Project



## Development ready

Fully permitted to begin construction and for first concentrate production in 2025



## Non-Processing Infrastructure

\$126 million investment in finalising early site works

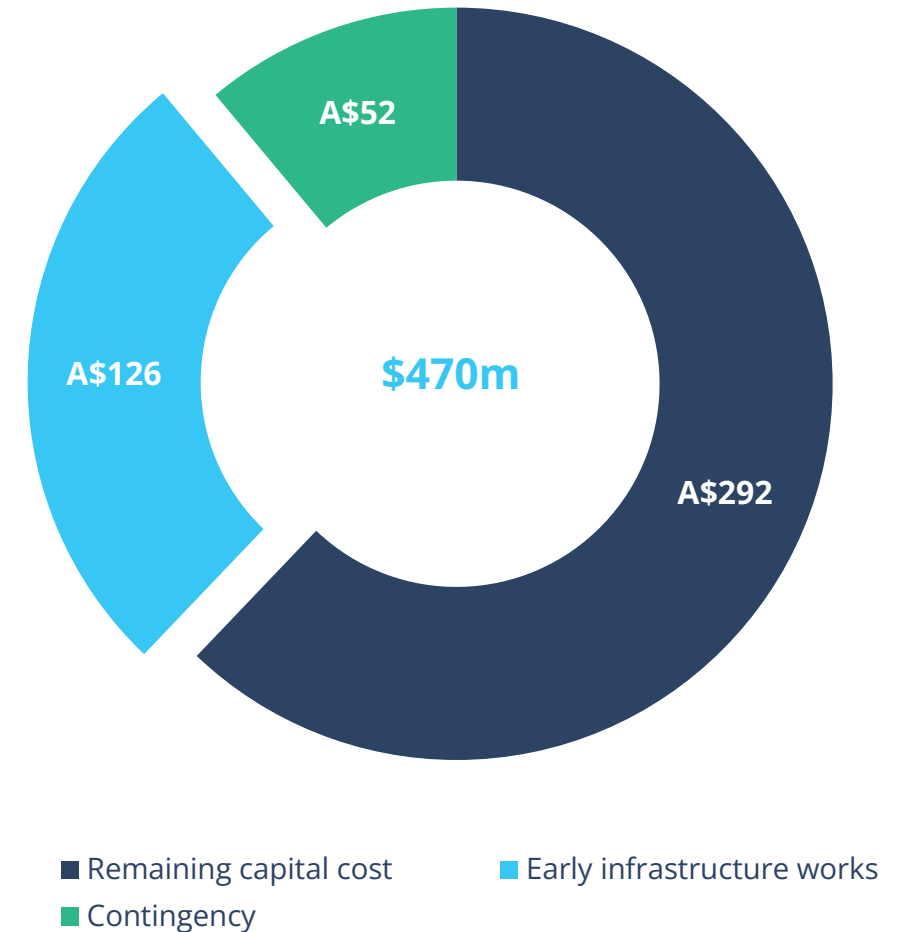
- Kurrbili Accommodation Village
- Yangibana Airstrip
- SipHon Well Borefield
- Site Access Road



## Critical path equipment

\$22 million invested in long lead items

- In Transit/Delivered – SAG Mill and Regrind Mill
- Fabrication – Flotation Cells, Thickener, Mill Liner Handler





# KURRBILI ACCOMMODATION VILLAGE





# SIPHON WELL BOREFIELD





# YANGIBANA AIRSTrip



# SAG MILL



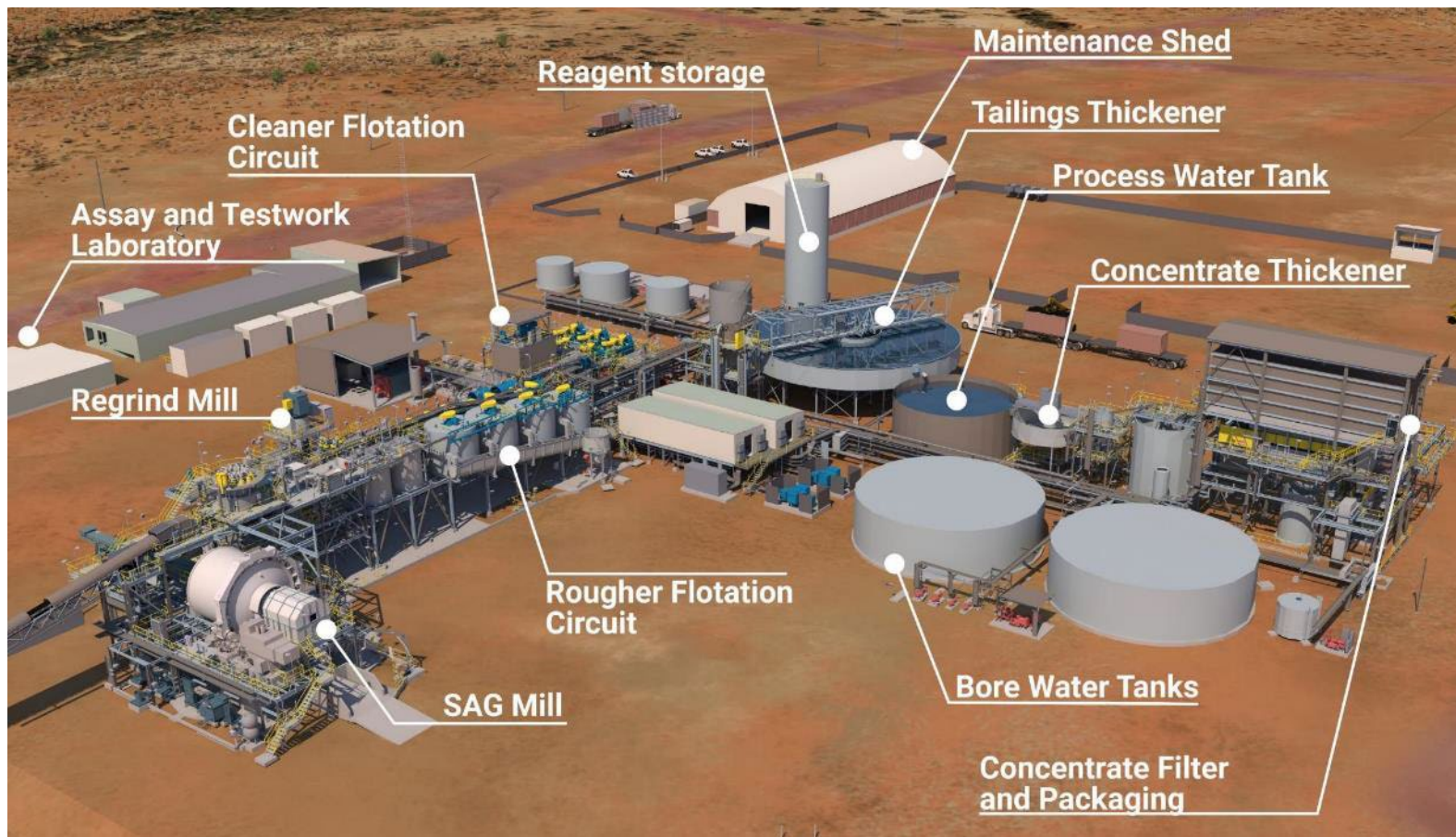
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# BENEFICIATION PLANT CONSTRUCTION<sup>1</sup>

Engineering, Procurement and Construction (“EPC”) contract in place with leading engineering and contracting company



- > \$210 million**  
Including fixed-price component of \$180 million
- > GR Engineering Services**  
Strong track record of delivering integrated project solutions
- > Key benefits**  
Lowers project delivery risks, lower cost, greater certainty on timeframe, process and product quality guarantees
- > Early works agreement**  
Engineering and procurement work underway until mobilisation to site



# PROJECT EXECUTION STRATEGY

Hastings is well-positioned to move into development of the Yangibana Project

## Execution

- All key approvals in place for first production in 2025
- Early engagement and consultation with Traditional Owners since 2017
- Early infrastructure works finalised
- 34% of mechanical equipment (by value) ordered, including long lead critical path items

## Cost Management

- \$210 million EPC contract with GRES – 85% on a fixed price basis
- Ongoing work to identify cost savings and maximise operational efficiencies

## Design and Schedule

- Early works agreement in place with GRES ahead of mobilisation
- Engineering designs for beneficiation plant at 74% complete
- Detailed design for bulk earthworks, civil and structural elements underway

## Operational Readiness

- Key leadership roles filled, including EGM Mining Operations with oversight of operational readiness
- Ongoing work to build internal processes and capabilities

# ROBUST PROJECT METRICS<sup>1</sup>

Comprehensive project delivery and capital review in H1 2023  
reaffirming attractive project economics

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**\$530 - \$1,010 million**

Post-tax NPV<sub>11</sub> (ungeared)<sup>2</sup>

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**27.5% - 50.9%**

Post-tax IRR (ungeared)<sup>2</sup>

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**\$175 - \$250 million**

Average EBITDA per annum<sup>2</sup>

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**2.1 – 4.4 years**

Payback period<sup>2</sup>

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**First quartile**

Global margin curve as verified by CRU  
Group

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**Higher realised  
basket**

High value NdPr composition leads to  
higher realised oxide basket price





# PROJECT FUNDING

Multiple non-binding financing proposals received in order of target gearing ratio of 60% (~US\$300 million)



# LEADING ESG CREDENTIALS

## Green Finance Accreditation

- > Certified by DNV for green bonds and/or green loans
- > Aligned with International Capital Market Association's Green Bond Principles and Loan Market Association's Green Loan Principles



### Ranked fourth

Out of 159 companies in 2022 diversified metals mining subindustry category



### Gold Rating

Ranked in top five per cent of companies assessed



### Formal Supporter

Taskforce on Climate-Related Financial Disclosures



### Participant

Ten Principles of the UN Global Compact



### World Bank

Positively assessed against IFC performance standards and Equator Principles IV



# 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** 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.

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# APPENDIX



# PEER COMPARISON

Average NdPr:TREO ratio over life of mine

Mine	Ownership	Ticker	NdPr:TREO ratio	Source
Yangibana	Hastings Technology Metals Ltd	HAS:ASX	37%	<b>6 February 2023:</b> ASX Announcement: "Yangibana Ore Reserves Increase by 25%"
Songwe Hill	Mkango Resources Ltd	MKA:TSXV	33%	<b>5 July 2022:</b> SEDAR Announcement: "Mkango Announces Results of Definitive Feasibility Study For The Songwe Hill Rare Earths Project In Malawi - NPV of US\$559.0 Million And IRR of 31.5%"
Nolans	Arafura Rare Earths Ltd	ARU:ASX	26%	<b>11 November 2022:</b> ASX Announcement: "Nolans Project Update"
Mt Weld	Lynas Rare Earths Ltd	LYC:ASX	23%	<b>6 August 2018:</b> ASX Announcement: "Lynas announces a 60% increase to Mt Weld Ore Reserves, one of the world's richest sources of Rare Earths"
Bayan Obo	China Northern Rare Earth Group High-Tech Co Ltd	600111:CH	21%	<b>15 December 2020:</b> Ord Minnett Report, Hastings Tech Metals, Thematic Firing
Ngualla	Peak Rare Earths Limited	PEK:ASX	21%	<b>24 October 2022:</b> Ngualla Rare Earths Project Completion of BFS Update
Kangankunde	Lindian Resources Limited	LIN:ASX	20%	<b>17 April 2023:</b> ASX Announcement: "Investor Webinar Presentation"
Mountain Pass	MP Materials Corp	MP:NYSE	16%	<b>28 February 2023:</b> SEC Filing: Form 10-K – Annual Report,
Sichuan	Rising Nonferrous Metals Share Co. Ltd	600259:CH	14%	<b>15 December 2020:</b> Ord Minnett Report, Hastings Tech Metals, Thematic Firing