

TECHNOLOGY
METALS AUSTRALIA LIMITED

ASX Announcement

17 March 2021

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www.tmtlimited.com.au

Directors

Michael Fry:
Chairman

Ian Prentice:
Managing Director

Sonu Cheema:
Director and Company Secretary

Issued Capital

149,641,390 ("TMT") Fully Paid
Ordinary Shares

6,849,834 – Unquoted Options
exercisable at \$0.25 on or before 15
June 2022

8,850,000 – Unquoted Director and
Employee Options at various
exercise prices and expiry dates

2,650,000 – Performance Rights

ASX Code: TMT

FRA Code: TN6



AUSTRALIAN ENERGY & MINERALS INVESTOR CONFERENCE

Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to announce its participation at the Australian Energy & Minerals Investor Conference to be held 17 to 18 March 2021.

Managing Director Ian Prentice will be presenting on the development and status of the Company's Projects on **Wednesday 17 March 2021 from 11:45 am Brisbane time**. A copy of the Conference Program can be accessed at <https://www.australianenergyconference.com.au/>

We invite you to join the free Webinar by registering using the following link, [TMT - Australian Energy and Minerals Investor Conference¹](#).

A copy of the investor presentation to be delivered during the Conference is attached.

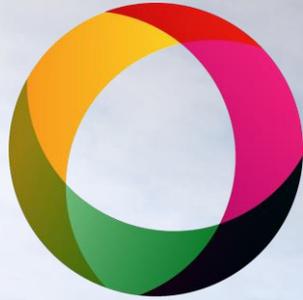
This announcement has been authorised by the Board of Technology Metals Australia Limited.

¹ <https://zoom.us/meeting/register/tJlvceCuqzotG9YuHm0nxo7RCMm4QRtthNRh>

For, and on behalf of, the Board of the Company

Sonu Cheema
Director and Company Secretary
Technology Metals Australia Limited

- ENDS -



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DEVELOPING THE WORLD'S NEXT **PRIMARY VANADIUM MINE**

Australian Energy Conference
17 – 18 March 2021





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Important Information

Disclaimer

This presentation has been prepared by Technology Metals Australia Limited (“Company”). It does not purport to contain all the information that a prospective investor may require in connection with any potential investment in the Company. You should not treat the contents of this presentation, or any information provided in connection with it, as financial advice, financial product advice or advice relating to legal, taxation or investment matters.

No representation or warranty (whether express or implied) is made by the Company or any of its officers, advisers, agents or employees as to the accuracy, completeness or reasonableness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or provided in connection with it, or any omission from this presentation, nor as to the attainability of any estimates, forecasts or projections set out in this presentation.

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Nothing in this material should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. It does not include all available information and should not be used in isolation as a basis to invest in the Company.

Future matters

This presentation contains reference to certain intentions, expectations, future plans, strategy and prospects of the Company.

Those intentions, expectations, future plans, strategy and prospects may or may not be achieved. They are based on certain assumptions, which may not be met or on which views may differ and may be affected by known and unknown risks. The performance and operations of the Company may be influenced by a number of factors, many of which are outside the control of the Company. No representation or warranty, express or implied, is made by the Company, or any of its directors, officers, employees, advisers or agents that any intentions, expectations or plans will be achieved either totally or partially or that any particular rate of return will be achieved.

Given the risks and uncertainties that may cause the Company’s actual future results, performance or achievements to be materially different from those expected, planned or intended, recipients should not place undue reliance on these intentions, expectations, future plans, strategy and prospects. The Company does not warrant or represent that the actual results, performance or achievements will be as expected, planned or intended.

Competent Person’s Statement

The information in this report that relates to Exploration Results are based on information compiled by Mr John McDougall. Mr McDougall is the Company’s Exploration Manager and a member of the Australian Institute of Geoscientists. Mr McDougall has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report 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”). Mr McDougall consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin. Mr Aaron Meakin is a Principal Consultant of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin 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 (“JORC Code”). Mr Aaron Meakin consent to the disclosure of the information in this announcement in the form and context in which it appears.

The information that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso an employee of CSA Global Pty Ltd. Mr Grosso takes overall responsibility for the Report as Competent Person. Mr Grosso is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Daniel Grosso has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

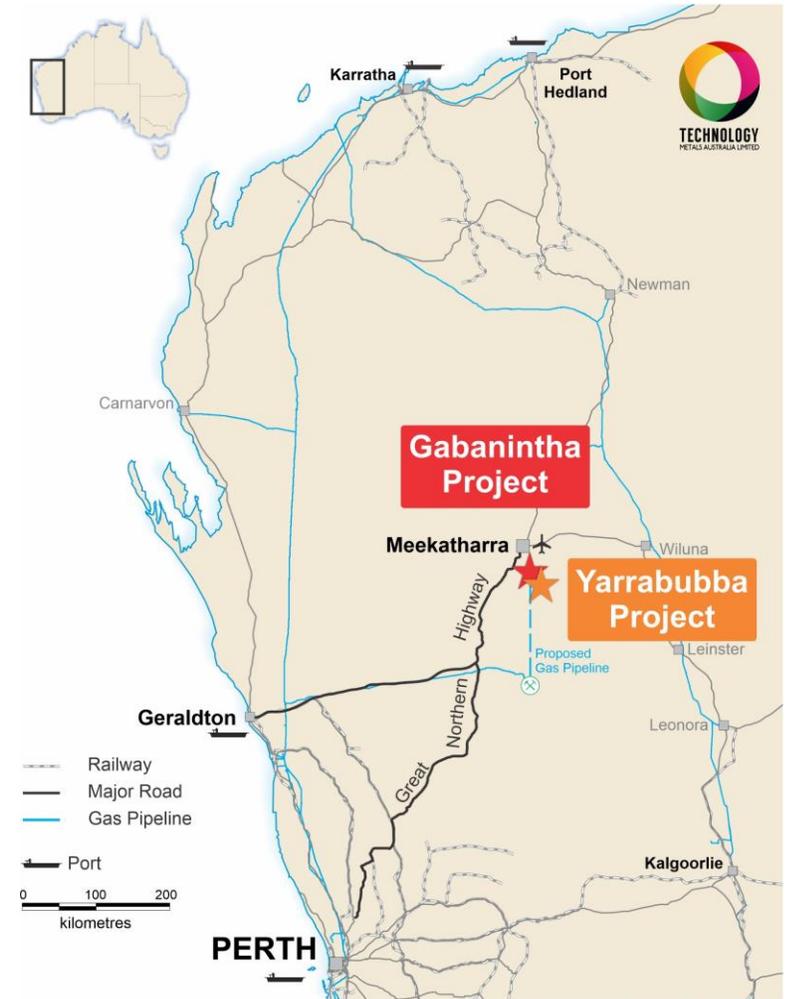
The information in this report that relates to the Processing and Metallurgy for the Gabanintha project is based on and fairly represents, information and supporting documentation compiled by Mr Brett Morgan and reviewed by Mr Damian Connelly, both employees of METS Engineering Group Pty Ltd. Mr Connelly takes overall responsibility for the Report as Competent Person. Mr Connelly is a Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is 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 Competent Person, Damian Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All currency amounts are in AUD\$ unless stated otherwise.

TMT Vision: To be High Purity Vanadium Producer of Choice

Vanadium – The Green Metal – Set to be a Key Contributor to the Decarbonization of the Globe

- **Gabanintha Vanadium Project** – a large scale, long life, low cost, high purity vanadium development project.
 - DFS completed – offtake and financing discussions progressing.
 - Regionally and nationally significant development project – critical mineral, community / Government support.
- **Downstream processing** strategy to develop vanadium electrolyte production capability in Western Australia.
 - Scope to develop a domestic VRFB business under investigation.
 - Vanadium's strategic importance recognised with inclusion in the Federal Governments Modern Manufacturing Initiative, supporting downstream processing and manufacturing
- **Staged Development Opportunity** with the emergence of the Yarrabubba Iron-Vanadium Project – minimise initial capital expenditure, maximise benefits for shareholders.



Corporate Overview

TMT

ASX Code

\$54.6m

Market Cap

(as at 15 March 2021)

15.7m

Unlisted Options¹

(various exercise)

\$9.5m

Cash

(as at 31 December 2020)

149.6m

Shares on Issue

2.65m

Performance Rights²

¹ Includes 8.85m director and employee options – 3.9m vested, 4.1m to vest on GVP FID, 0.85m vest on YIVP hurdles

² 50% vest on Yarrabubba FID, 50% vest on first production from Yarrabubba

CAPITAL STRUCTURE



Board and Management



Ian Prentice
Managing Director



Michael Fry
Non-Exec Chairman



Sonu Cheema
Non-Exec Director / Co Sec



Michael Bourke
Project Director

Manjot Singh
Process Engineer

John McDougall
Exploration Manager



GABANINTHA VANADIUM PROJECT

One of the Highest Grade Undeveloped Vanadium Deposits in the World



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NORTHERN BLOCK RESOURCE
109.5Mt
@ 0.8% V_2O_5

MINING RESERVE
29.6Mt
@ 0.88% V_2O_5

PROCESSING PLANT
SALT ROAST
WATER LEACH
27.9Mlb
 V_2O_5 pa

HIGH PURITY PRODUCT
>99% V_2O_5

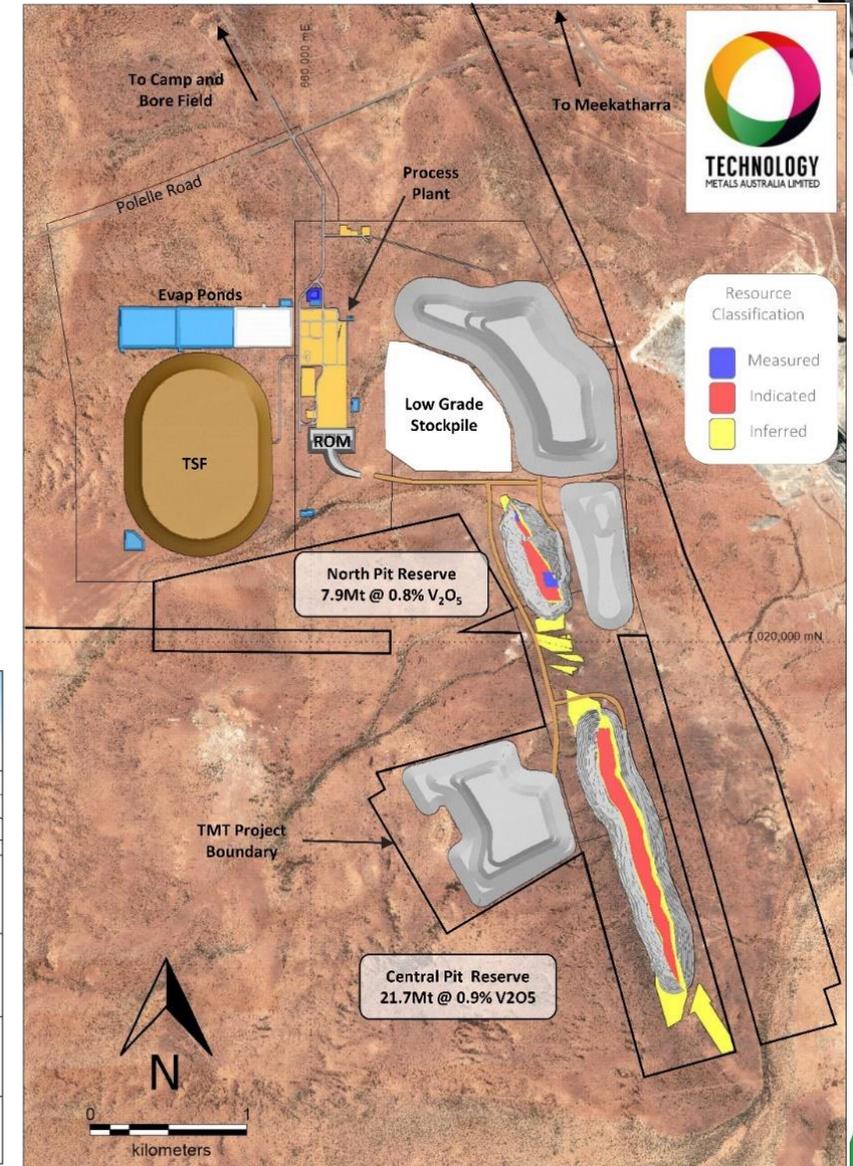
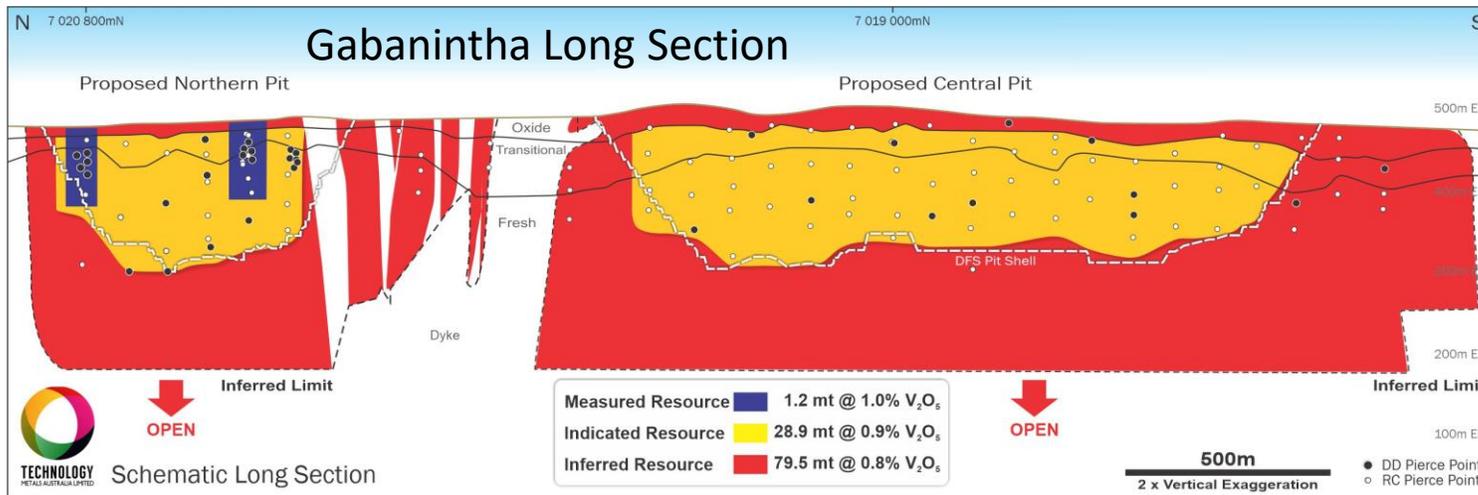
OPEX
US\$4.04
/ lb V_2O_5

MINE LIFE
+16years

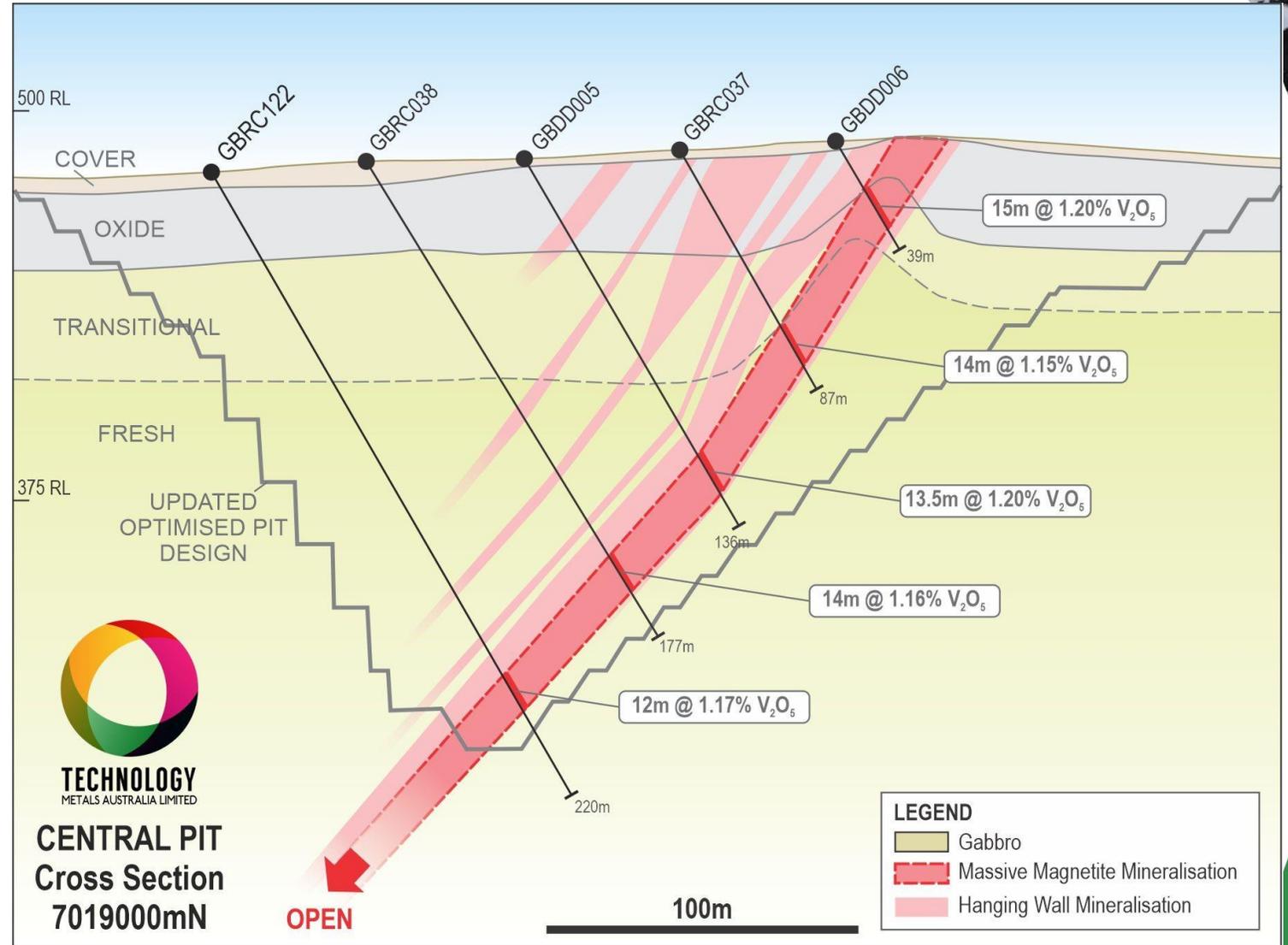
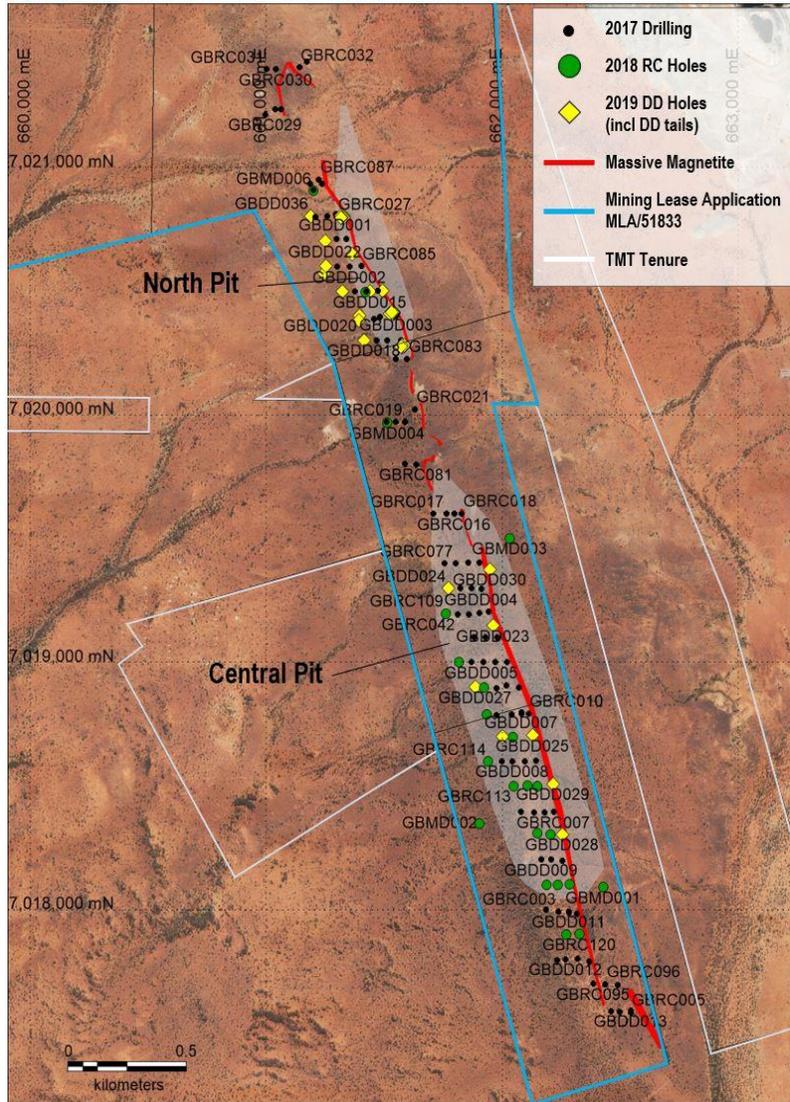
World Class Resource – Simple Open Pit Mining

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- Mine life of 16 years on Ore Reserve of 29.6Mt at 0.88% V₂O₅.
- Average annual production of 27.9Mlb delivering premium +99% purity product at lowest cost quartile operating costs.
- High grade mineral resource of 60.7Mt at 1.1% V₂O₅ within total mineral resource of 109.5Mt at 0.8% V₂O₅.
- Crusher feed in excess of 1.0% V₂O₅ for at least first 12 years.
- Ore body characterised by very shallow oxidation profile.
- Open pits limited by drilling at depth and on strike to the south.



Shallow Oxidation – Consistent High Grade Basal Unit



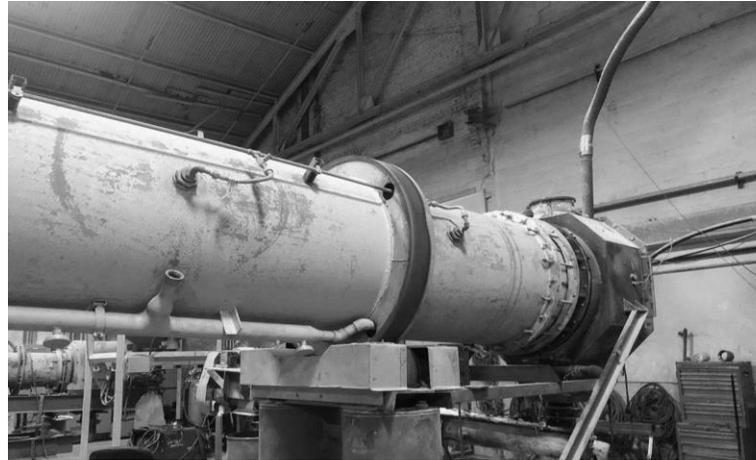
Pilot Test Work De-Risks Project and Confirms Scalability



CONFIRMS VERY HIGH YIELD TO MAGNETIC CONCENTRATE

11.5T bulk sample processed through Crushing Milling Beneficiation pilot plant

Confirmed very high yield to magnetic concentrate with low deleterious elements



PILOT SCALE KILN TESTWORK CONFIRMS VERY HIGH RECOVERY RATES

7.5T of magnetic concentrate processed through pilot scale rotary kiln delivered average vanadium recovery of 88.6%

Confirms end-to-end vanadium recovery of 77% for fresh massive magnetite ore



DFS INCORPORATES KILN DESIGN AND OPERATING PARAMETERS

Pilot scale continuous salt roast / kiln testwork completed by kiln experts
FLSmidth

FLSmidth provided kiln design and operating parameter inputs for DFS

CNMNC a subsidiary of China Nonferrous Metal Mining Group Company.

- Binding take-or-pay offtake for **2,000Tpa** (4.4Mlb pa) ~16% of annual production.
- Three year term with three-year extension.



Shaanxi Fengyuan offtake MOU over 3,000Tpa.

- Take-or-pay ~24% of annual production.
- Five-year term with five-year extension.

Big Paver offtake MOU over 1,000Tpa take-or-pay and up to 5,000 Tpa

LE System technical collaboration and downstream electrolyte production MOU.



6,000 to 10,000 tonnes of TMT's proposed production of 12,800Tpa V_2O_5 covered under Binding Offtake and MoU

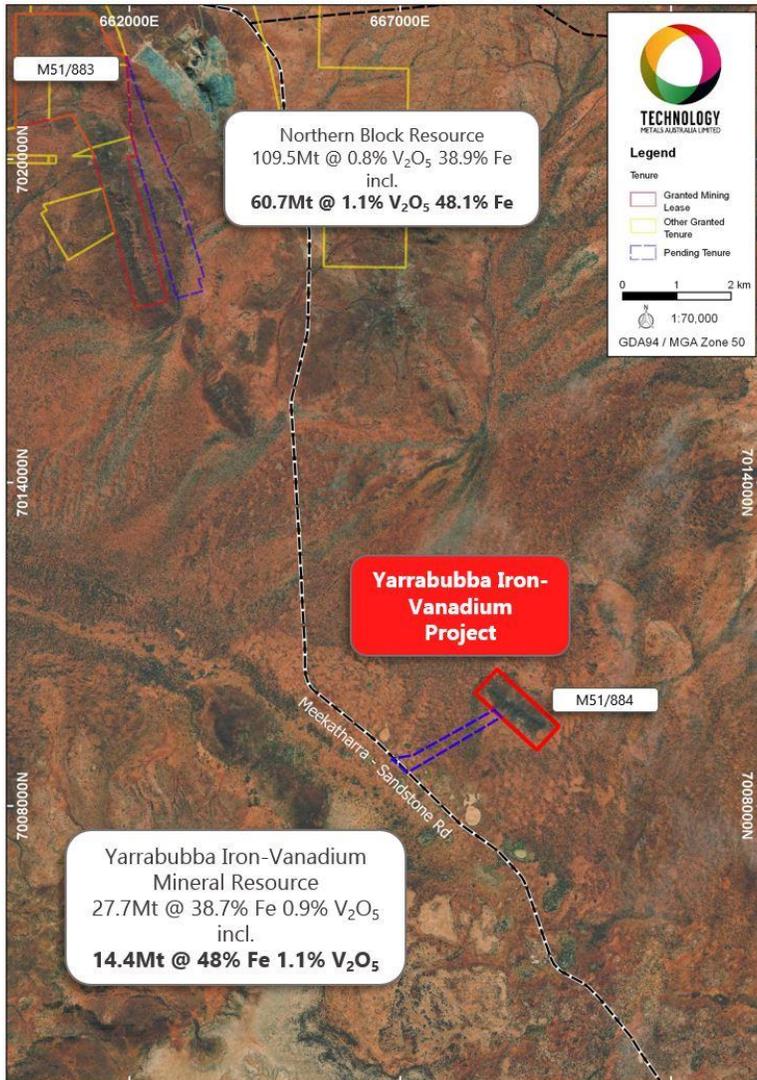


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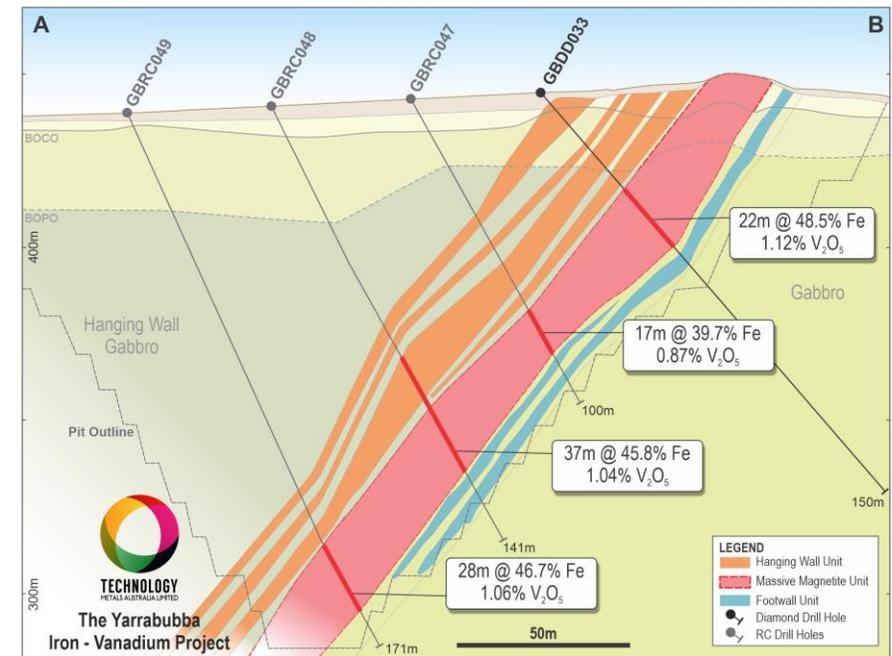
THE EMERGING OPPORTUNITY YARRABUBBA IRON-VANADIUM PROJECT

Yarrabubba – Unlocking the Value

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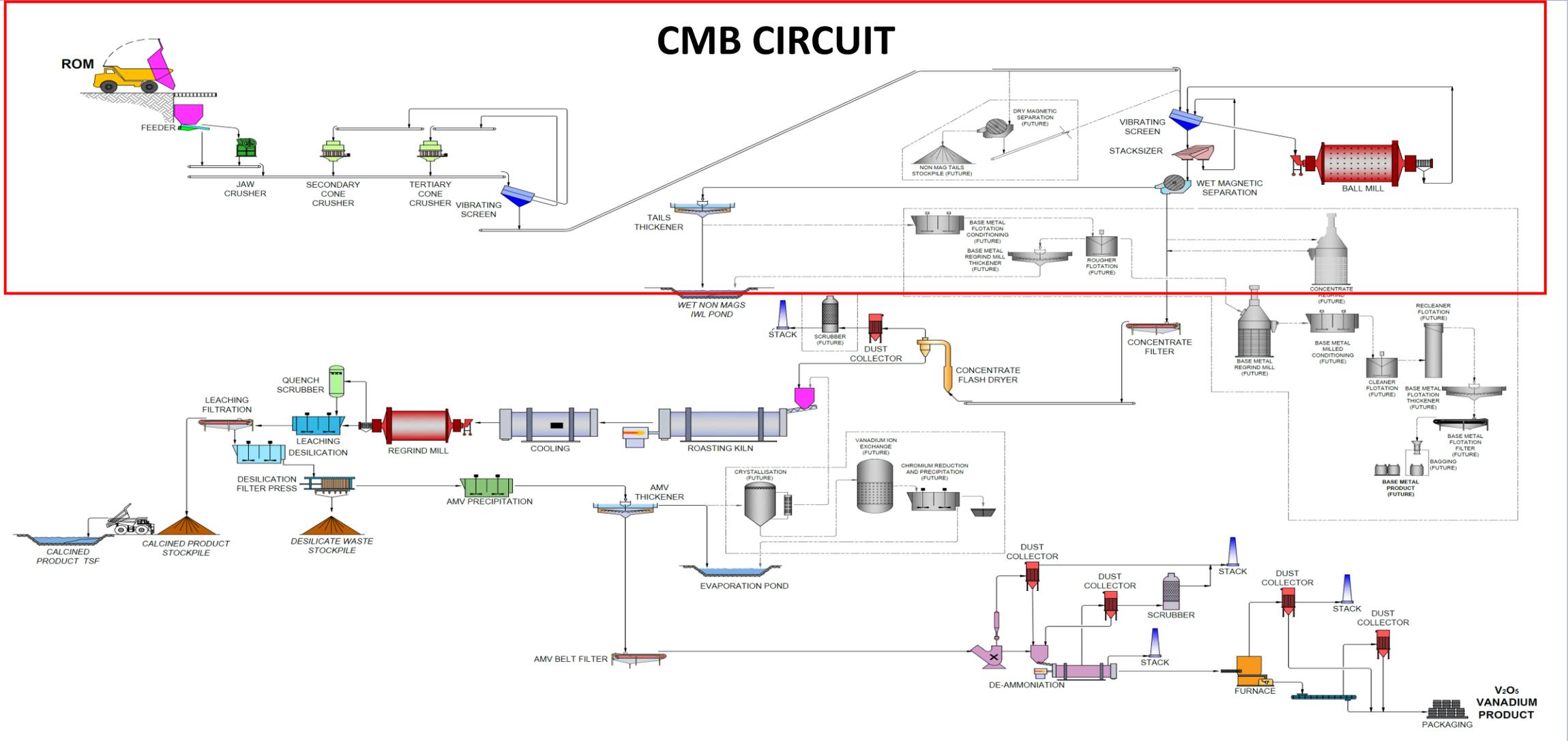


- Staged development strategy complementary to Gabanintha Vanadium Project.
- CMB circuit to be built at Gabanintha – benefitting the long term Project development.
- Key differentiators:
 - ✓ High in-situ iron grades
 - ✓ Very high mass recoveries
 - ✓ Simple open pit mining
 - ✓ Low risk processing
 - ✓ High quality product



Processing Flow Sheet

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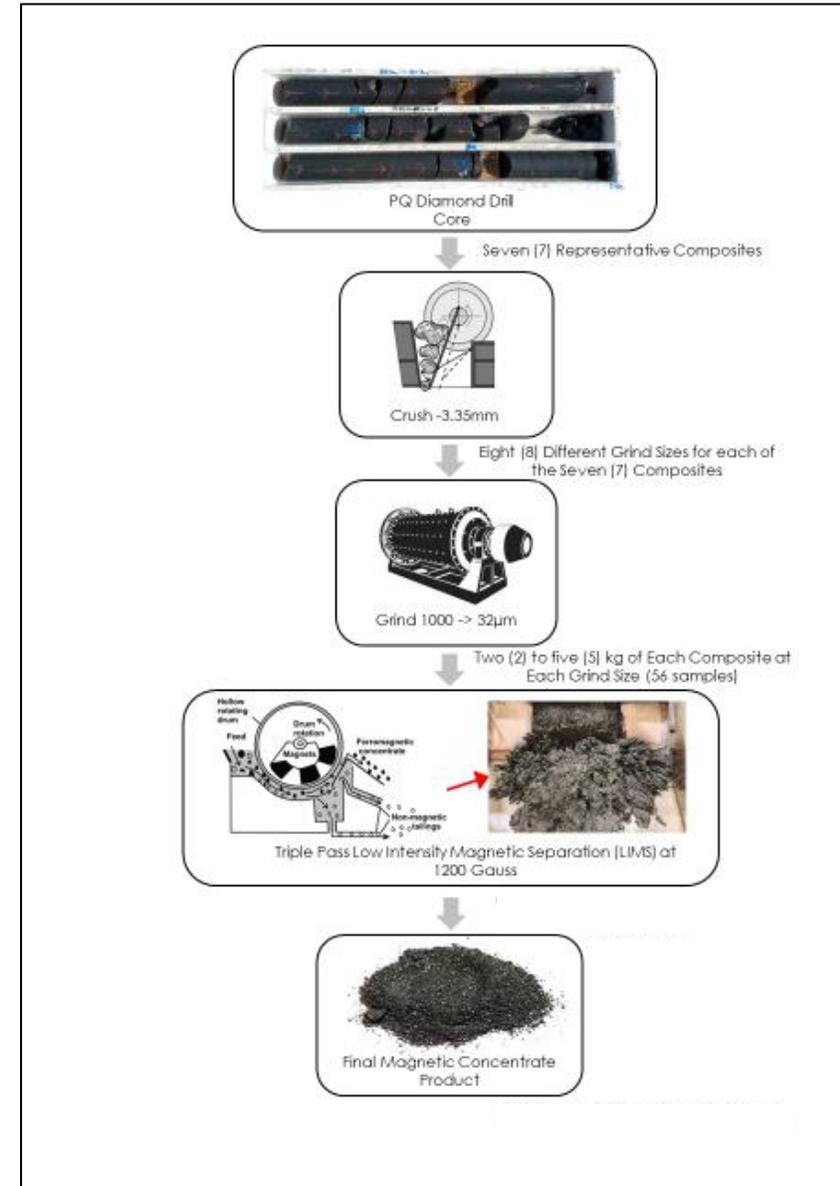
Gabanintha Schematic Flow Sheet Block Diagram



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Premium Iron-Vanadium Magnetic Concentrate

- LIMS testwork confirms high grade, high purity iron-vanadium magnetic concentrate.
- Weighted average grade of **62.8% Fe** and **1.66% V₂O₅** at a 75-micron grind size with mass recovery of 49.6%.
- Low levels of deleterious elements at weighted average 0.62% SiO₂, 0.96% Al₂O₃, 0.017% S and 0.001% P.
- **Expected to generate premium product** with associated premium pricing.
- Sighter testwork on non-magnetic tails demonstrated scope to produce valuable titanium (ilmenite) bearing by-product.
- High titanium recovery using standard gravity separation processing; larger scale testwork nearing completion.





Sinosteel Australia Letter of Intent

- Sinosteel Australia part of the WA business community since 1991.
- Lol covers negotiation of a life-of-mine iron-vanadium offtake.
 - Annual quantity of up to 1.5Mtpa
- EPC contract to be negotiated with Sinosteel Equipment & Engineering Co., Ltd (MECC).

“Sinosteel Australia is very pleased to have established this relationship with Technology Metals Australia and aim to progress our offtake and EPC contract discussions on the premium quality Yarrabubba Iron-Vanadium Product based on the principles of mutual benefit and respect” Sinosteel Australia Managing Director David Sun



Yarrabubba Development Activities

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Premium Iron-Vanadium
Product Confirmed

Flowsheet
Definition

Pilot Scale
Testwork

Engineering -
Process Design

Bulk Product
Generation

Feasibility Study
Completion

**Development
Decision**



■ Workstreams in support of project development :

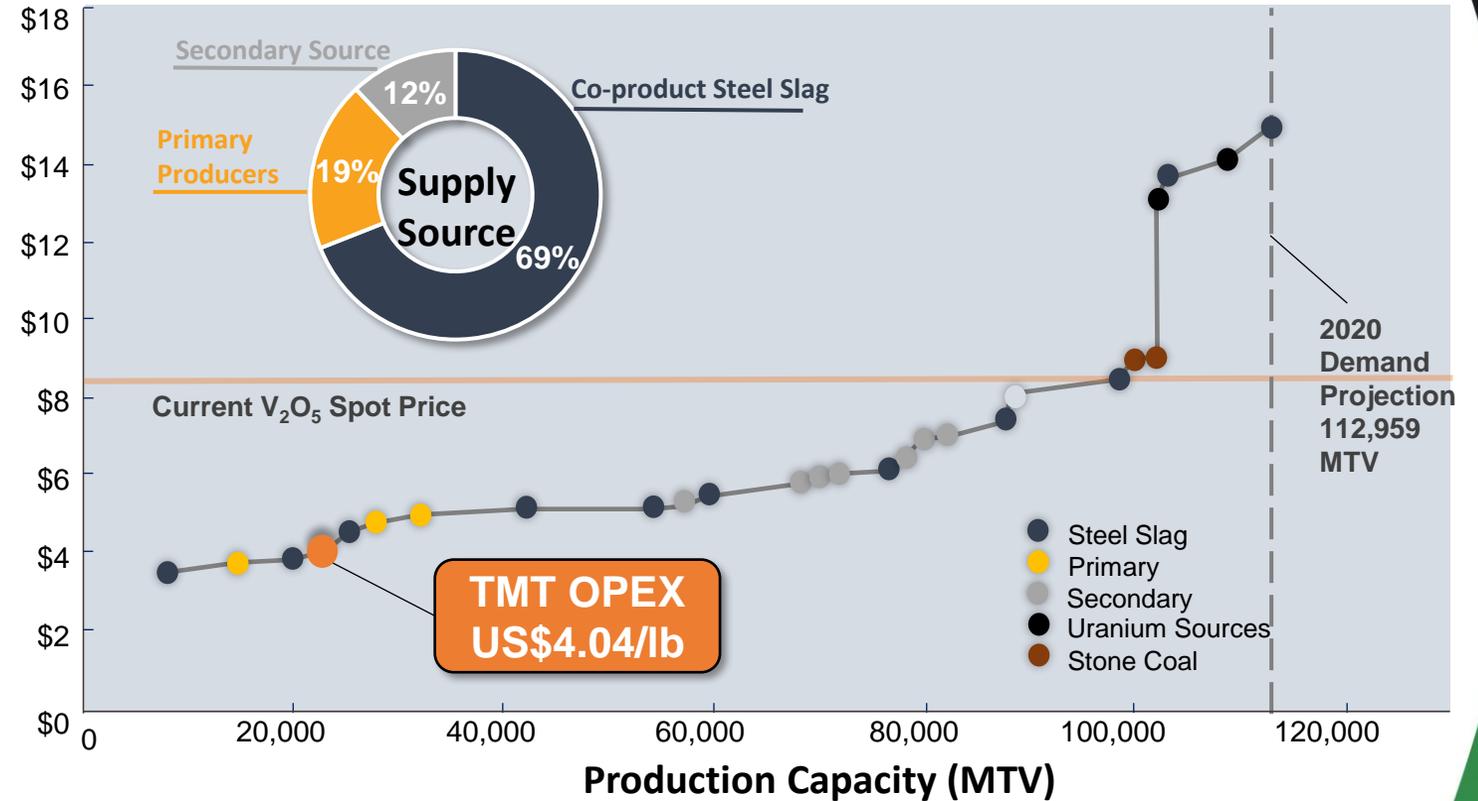
- Diamond drilling to generate bulk sample, geotechnical data and resource infill – **done**;
- Environmental Review Document for Gabanintha development envelope – **draft submitted**;
- Evaluation of logistics options, haulage routes, port access - **progressing**;
- Definition of the process flowsheet – **progressing in line with testwork**;
- Resource infill and extension RC drilling – scheduled for April/May 2021;
- Pilot scale testwork to up-scale flowsheet, customer samples – scheduled for June/August 2021;
- Preparation of Yarrabubba environmental submissions to progress Mining Approvals.

Vanadium Market Dynamics

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- China net importer of vanadium in late 2019 – first time in 10 years.
- Price environment removed some higher cost / highly polluting Chinese supply.
- Tightening domestic Chinese market due to increased consumption in steel.
- COVID-19 impacts – stimulus spending on steel intensive infrastructure.
- Current pricing very supportive of VRFB roll out – Dalian, Hokkaido batteries.
- Gabanintha lowest quartile costs at US\$4.04/lb* V₂O₅.
- All In Sustaining Cost estimate of US\$5.75/lb V₂O₅.

V₂O₅ Cash Cost Curve (Forecast CY2020)



Source: TTP Squared

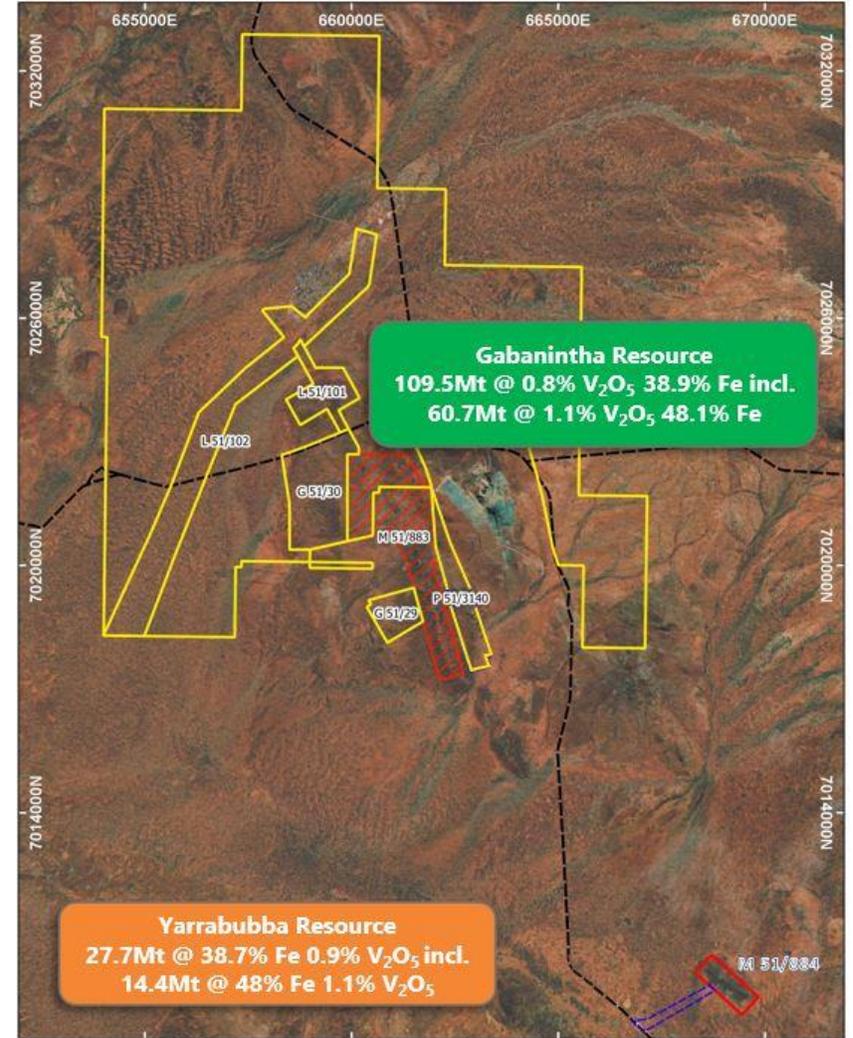
* TMT operating costs do not incorporate any revenue benefits that may be generated from by-product credits, such as base metal production

Project Development Partners

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- Western Australian Government Lead Agency Support - Future Battery Industry strategy supporting downstream processing options.
- NAIF engagement – part of strategic funding approach.
- Gabanintha environmental approvals - ERD lodged Q1 CY 2021.
- Gas transportation agreement with APA – reduces gas transportation costs and facilitates access to emerging Perth Basin gas fields.
- Equipment vendor engagement – FLSmidth kiln supply agreement executed.
- Ongoing market engagement for product offtake and funding options.



Investment Case

- ✓ **Leveraged** to the rapidly emerging stationary storage / renewables market and trend towards decarbonization.
- ✓ **Delivering** offtake and partner engagement underpinned by high quality technical work.
- ✓ **Globally Significant** low cost, large scale and long life vanadium project.
- ✓ **Stable** operating environment with excellent infrastructure and access to services.
- ✓ **Team in place** focused on progressing the project to maximise shareholder value.





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**FOLLOW US AS WE CREATE
VALUE FOR SHAREHOLDERS**



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APPENDICES



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One of The Highest Grade Deposits in the World*

- Global combined resource of 137.2Mt at 38.9% Fe and 0.9% V₂O₅
- High grade resource of 75.1Mt at 48.1% Fe and 1.1% V₂O₅ in consistent basal massive magnetite
- Gabanintha Vanadium Project **Proven and Probable Reserve of 29.6Mt at 0.88% V₂O₅** at extremely high 98% tonnage conversion
- Yarrabubba Project maiden **Probable Reserve of 9.4Mt at 45.3% Fe and 0.97% V₂O₅**

**MINING
RESERVE**

29.6Mt
@ 0.88% V₂O₅

Material Type	Classification	Mt	V ₂ O ₅ %	Fe%	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI%	P%	S%
Massive Magnetite	Measured (North)	1.2	1	44.7	6.2	10.4	11.4	0	0.009	0.2
	Indicated (North)	18.5	1.1	49.1	5.2	5.8	12.9	-0.1	0.007	0.2
	Indicated (South)	7.3	1.1	49.2	5.1	5.8	12.6	-0.6	0.004	0.3
	Total Indicated	25.8	1.1	49.1	5.1	5.8	12.8	-0.3	0.007	0.2
	Inferred (North)	41	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	7.1	1.1	46.9	5.6	7.4	12.1	0.5	0.005	0.3
	Total Inferred	48.1	1.1	47.6	5.6	7.2	12.5	0.3	0.008	0.2
	Massive Global	75.1	1.1	48.1	5.5	6.8	12.6	0.1	0.007	0.2
Disseminated / Banded Magnetite	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3	0.03	0.2
	Indicated (South)	2.3	0.7	33.1	9.5	20.6	8.5	2.3	0.014	0.3
	Total Indicated	12.6	0.6	29.5	12.5	24.6	7.7	2.8	0.027	0.2
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	11	0.6	27.7	13	25.9	7	2.7	0.015	0.3
	Total Inferred	49.5	0.5	27.2	12.8	27.1	6.9	3.2	0.024	0.2
	Diss / Band Global	62.1	0.6	27.7	12.7	26.6	7.1	3.1	0.025	0.2
Combined	Global Combined	137.2	0.9	38.9	8.7	15.7	10.1	1.5	0.015	0.2

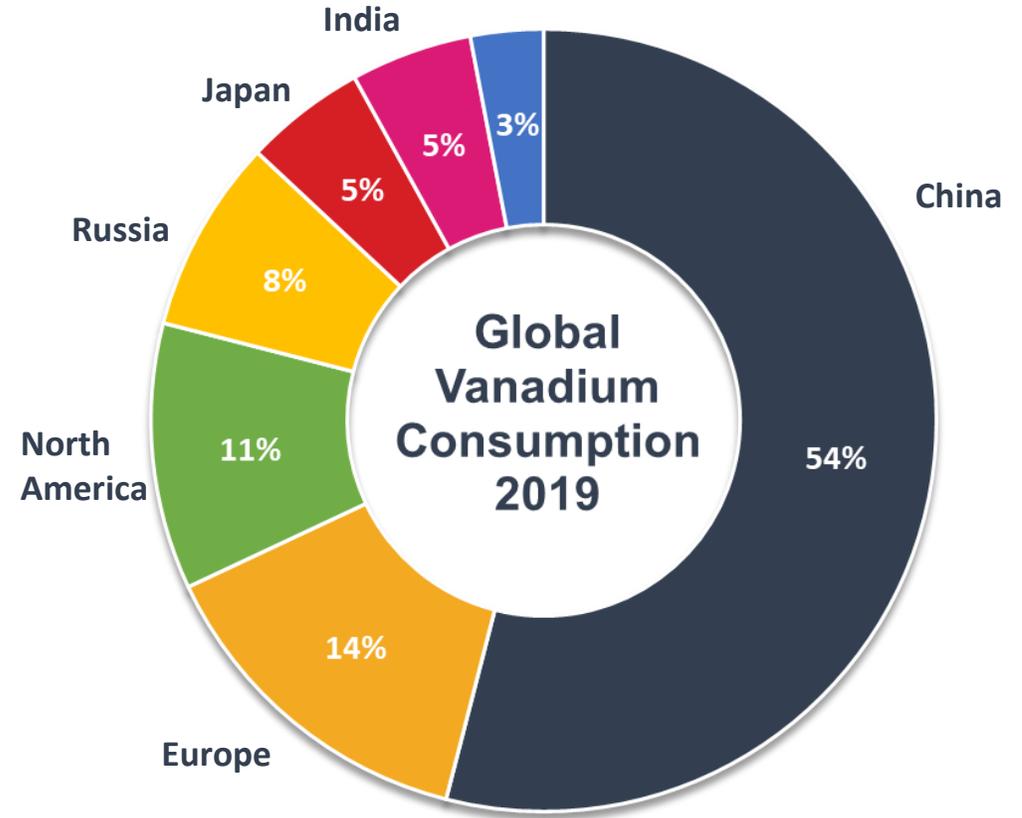
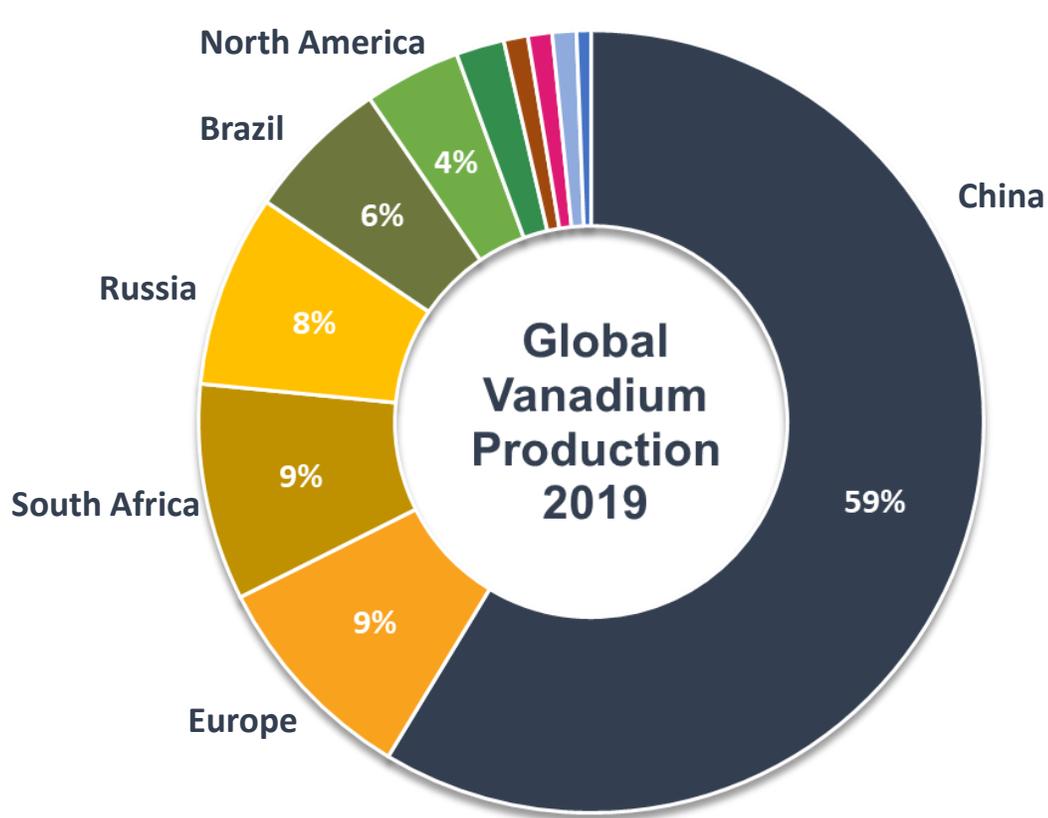
*Note: The Mineral Resources were estimated within constraining wireframe solids using a nominal 0.9% V₂O₅% lower cut-off grade for the massive magnetite zones and using a nominal 0.4% V₂O₅% lower cut-off grade for the banded and disseminated mineralisation zones. The Mineral Resources are quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V₂O₅%. Differences may occur due to rounding.

* – Refer TMT ASX announcements dated 29 March 2019 and 1 July 2020 for full details of the mineral resource estimation.

Major Use is in Steel – Batteries Rapidly Emerging

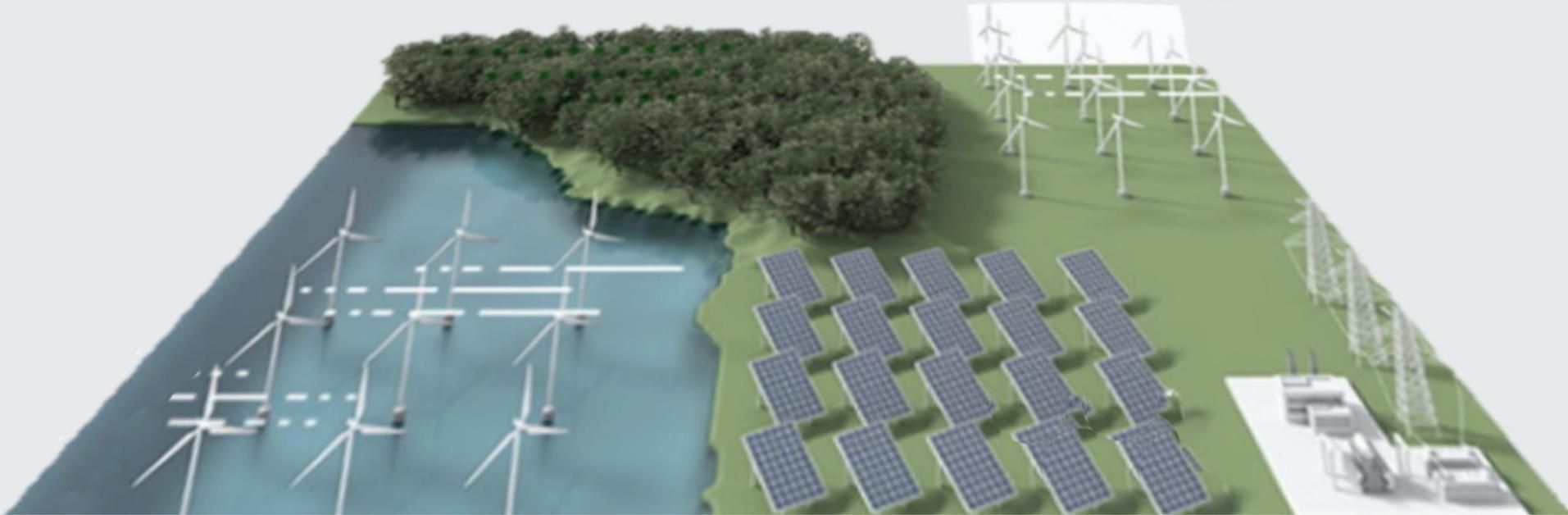


Vanadium Supply / Demand



- Europe, North America, Japan and India net importers.
- Indian consumption set to grow significantly in near to mid term.
- Currently no production from Australia

VRFBs – The Solution for Grid Storage

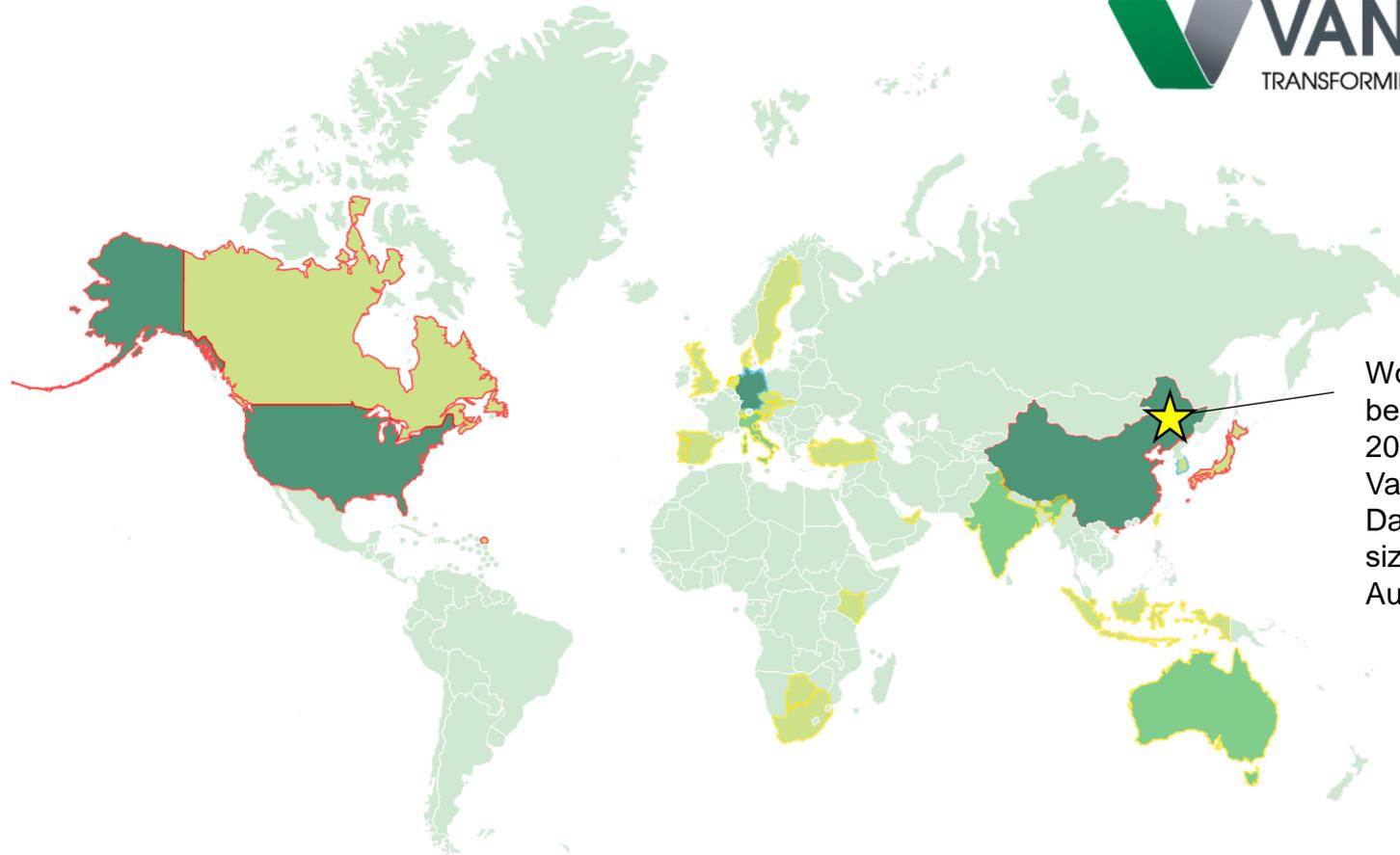


- Grid scale stationary storage solutions – peak shaving, regulating load frequency, driving grid efficiency.
- Ideally suited to renewable energy – contributing to the efficient roll out of green energy – able to time-shift large amounts of previously generated energy.
- Lifespan of +20 years with very high cycle life (up to 20,000 cycles) and no capacity loss.
- Can discharge 100% with no performance degradation with excellent long term charge retention.
- Only one battery element – vanadium is anode and cathode – unique among flow batteries.
- Easily scalable into large MW applications; expandable by simply adding more electrolyte storage capacity.
- Non-flammable – enhanced safety.

Globally - 113 VRFB Installations and growing

Country	VRFBs	kW	kWh
Australia	7	945	4,629.90
Barbuda	1	3,000	12,000.00
Botswana	1	112	560.00
Canada	3	2,500	10,000.00
China	17	15,825	48,005.00
Czech Rep.	3	47	209.90
Denmark	3	40	260.00
Germany	15	1,530	86,190.00
India	4	155	740.15
Indonesia	2	400	500.00
Italy	5	631	2,610.00
Japan	5	2,330	7,481.00
Netherlands	1	10	80.00
Portugal	5	5	60.00
Singapore	1	250	2,000.00
Slovenia	1	10	45.00
South Africa	2	745	2,950.00
South Korea	5	1,250	4,900.00
Spain	4	220	800.00
Sweden	1	800	1,800.00
Switzerland	2	210	460.00
U. Kingdom	5	805	5,180.00
USA	17	7,418	33,173.70
Austria	1	14	84.00
Kenya	1	140	84.00
Slovakia	2	107	640.00
UAE	1	10	40.00
Taiwan	1	125	750.00
Turkey	1	10	40.00

Last updated 30-04-2019



World's Largest Battery will be Rongke Power's 200MW/800MWh Vanadium Flow Battery in Dalian China (Double the size of Australia's South Australian Li-ion battery)

113 VRFB Installations globally

39,664 kW of power

209,800 kWh of energy

Number of VRFBs
 ● 1 - 5 VRFBs ● 6 - 10 VRFBs ● > 11 VRFBs

Size of VRFBs in Kilowatts
 ○ 1 - 1000 kW ○ 1001 - 2000 kW ○ > 2000 kW

Australia – 6 Installations, 50MW Battery in Development

- Australia is adopting VRFBs as a viable alternative to lithium-iron batteries for large scale stationary storage applications.
- A large 50MW/200MWh VRFB battery linked to a 50MW solar farm to be built as part of the Pangea Storage Project in Port Augusta, South Australia.
- This will be an important point of reference for VRFBs, increasing exposure and proving long lived grid scale application <https://www.cellcubeenergystorage.com/cube-press-release-5142019>.

Size	Location	Company	Year	Site	Standalone / Network
30kW, 130kWh	Sydney, NSW	CellCube	2015	University of NSW	Standalone
10kW, 100kWh	Busselton, WA	VSUN	2016	Native tree nursery	Standalone
25kW, 100kWh	Perth, WA	Protean Energy	2018	Industrial site	Standalone
80kW, 320kWh	Meredith, VIC	VSUN	2019	Dairy Farm	Standalone
20kW, 80kWh	Packenham, VIC	VSUN	2019	Orchard	Standalone
180kW, 900kWh	Melbourne, VIC	RedT	2018	Monash University	Network
In Construction / Planned					
50MW, 200MWh	Port Augusta, SA	CellCube	2020	Pangea Storage Project	Network
Unknown	East Pilbara, WA	VSUN	2020	Strelly Community School	Standalone



- Operating
- Planned