

VANADIUM FOR A CLEANER FUTURE

RESOURCE CONNECT ASIA FUTURE FACING COMMODITIES SINGAPORE - APRIL 2023

ASX:TMT

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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 Matthew Clark. Mr Clark is a Senior Resource Geologist of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Clark 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 Clark consents 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 Ross Cheyne of Orelogy who takes overall responsibility for the Report as Competent Person. Mr Cheyne 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 he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Ross Cheyne 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 Murchison Technology Metals project is based on and fairly represents, information and supporting documentation compiled by Mr Brett Morgan, a full-time employee of Technology Metals Australia. Mr Morgan 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, Brett Morgan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Pursuant to LR-5-19-1 production target and financial forecast: Refer ASX Release - 21 August 2019 for full details of the DFS: Financial Metrics at long term historical average price of US\$8.78/lb V2O5.

Pursuant to LR-5-19-2 production target and financial forecast: The material assumptions as per the ASX release on 21 August 2019 continue to apply and have not materially changed.

Refer to ASX Releases on 5 August 2022 for full details of global Murchison Technology Metals Project Ore Reserve, and Yarrabubba Vanadium and Ilmenite Ore Reserves.



VANADIUM TO HELP SUPERCHARGE SUSTAINABLE INDUSTRIES

- Iron Steel sector one of the largest CO₂ emitters
- Adding vanadium reduces steel weight, increases capacity and reduces volume

= CO₂ Savings

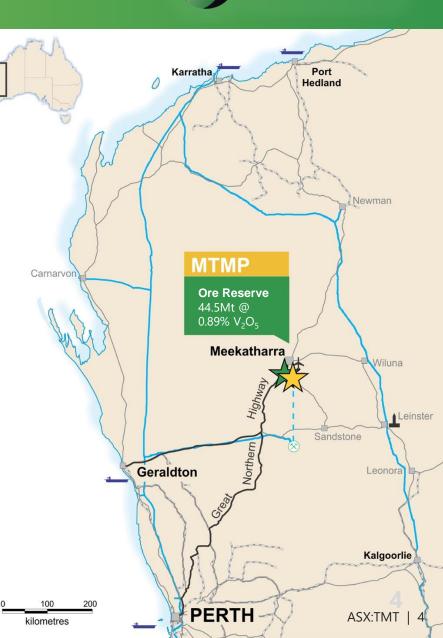
- Vanadium redox flow batteries (VRFB) ideal for time-shifting large amounts of energy for later use (long duration energy storage)
- Increases use of renewables, reducing fossil fuels

= CO₂ Savings

THE WORLD'S NEXT PRIMARY VANADIUM MINE

Outstanding project fundamentals in Tier 1 jurisdiction

- High yielding **geology** is <u>key</u>
- Integrated conventional processing delivering <u>high</u> recoveries, <u>lowest</u> quartile costs
- High purity **product** attracting <u>premium</u> pricing
- **Financial backing** by Danish export credit agency EKF to deliver a <u>critical mineral</u> to the world



CORPORATE OVERVIEW



Capital Structure

TMT ASX Code **\$12.0m** Cash (as at 31 December 2022)



209.8m

Shares on Issue

18.8m Unlisted Options¹

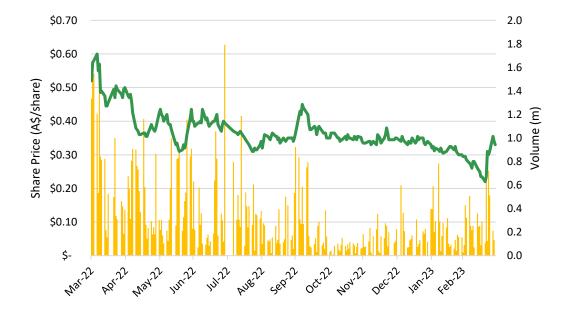
(Various exercise)

6.2m

Performance Rights²

Holder Name	Holding (%)
Resource Capital Fund VII L.P.	17.2%
BNP Paribas Nominees	10%
Standard Pastoral Company	6.7%
Retzos Group	5.2%
TOTAL TOP 20	57.7%
Board and Management holdings (fully diluted)	8.17%

*Based on issued capital as at 5 April 2023



¹ Includes 15.4m director and employee options – 3.9m vested, balance vest on project development hurdles ² 53% vest on MTMP FID, 47% vest on first production

EXPERIENCED BOARD & MANAGEMENT





Michael Fry Non-Executive Chairman

Michael holds a Bachelor of Commerce degree from the University of Western Australia, is a Fellow of the Financial Services Institute of Australasia, and is a past member of the Australian Stock Exchange.

Mr. Fry has extensive corporate and commercial experience, financial and capital market knowledge and a background in corporate treasury management.



Ian Prentice Managing Director

lan holds a Bachelor of Science (Geology) from the University of Western Australia and has over 30 years experience in the global mining industry, spanning exploration, development and open cut and underground mining.

lan is a Member of the Australasian Institute of Mining and Metallurgy.



Dr. Carmen Letton Non-Executive Director

Carmen is a mining engineer and mineral economist with 35 years of global experience in senior leadership roles in operations, business improvement and operational excellence.

Dr. Letton was most recently the Head of Resource Development and Life of Asset Planning (Asset Strategy Development) at Anglo American.

David English Chief Operating Officer

David is a mining professional with over 30 years operations and project development experience in the Western Australian resources industry, having delivered Sandfire Resources' DeGrussa Project and IGO Limited's Nova Nickel Project as the Project Manager.

Mr. English was GM Operations at the Windimurra Vanadium Project from February 2008 until February 2010 involved in the process of redeveloping the project.

Sonu Cheema Company Secretary

Sonu is a Partner at Cicero Group with over 10 years' experience working with public and private companies in Australia and abroad.

Mr. Cheema 's responsibilities include completion and preparation of management and ASX financial reports, investor relations, initial public offers, mergers and acquisitions, management of capital raising activities and auditor liaison.

Elisha Civil Chief Financial Officer

Elisha is a Chartered Accountant with over 20 years' experience in the resources sector including General Manager Finance at Regis Resources, and Group Manager Finance and Tax at Fortescue Metals Group.

Ms. Civil holds an MBA from the University of Western Australia, and a Bachelor of Commerce from Murdoch University.

John McDougall Exploration Manager

John holds a Bachelor of Science with Honours (Geology) from the University of Tasmania and has over 20 years experience in mineral exploration, with iron ore, base and precious metals experience.

John has been managing the geological data acquisition at Gabanintha and Yarrabubba since February 2017.

SUSTAINABILITY





Environment

- Addressing environmental approval requirements
- Sustainable water usage, greenhouse gas emission reduction strategies



Native Title/Heritage

- Regular briefing sessions with Traditional Owners
- On-country heritage surveys in support of Cultural Heritage Management Plan

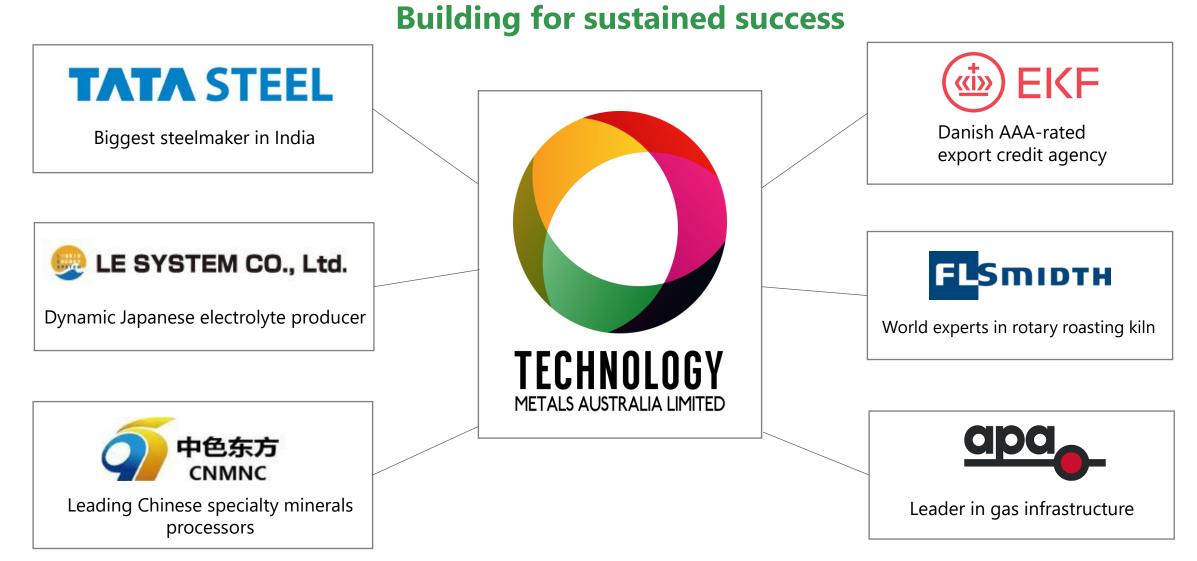


Governance

- Diversity of personnel at every level of the Company
- Policies in place to guide ethics and expected behaviours

TIER ONE PARTNERSHIPS





ASX:TMT | 8

MTMP – A TIER ONE PROJECT



Ahead of the curve with industry-leading metrics



Large high-grade resource – supports +25 year life with high concentrate grades (up to $1.6\% V_2O_5$)



Shallow weathering provides high yielding, high recovery fresh ore early in project life



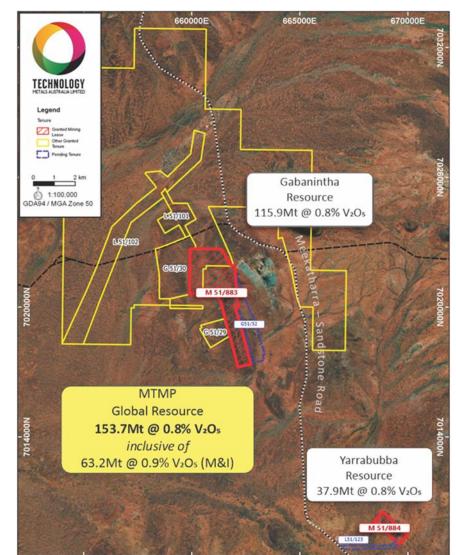
Conventional integrated salt roast water leach processing – **lower end-to-end emissions** than peers



Premium vanadium, plus **ilmenite** by-product for first nine years – revenue from **well-established markets**



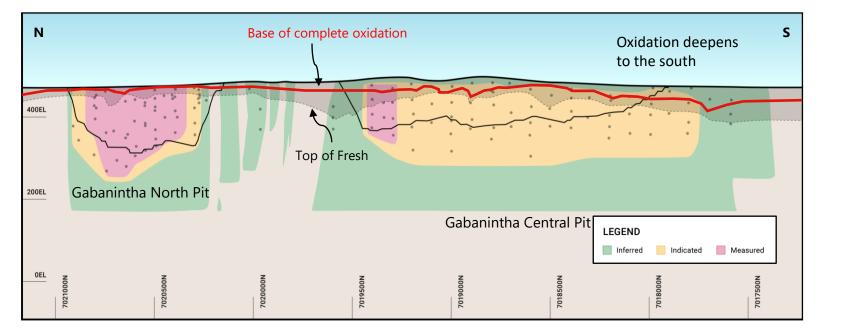
Average annual EBITDA of A\$182m*

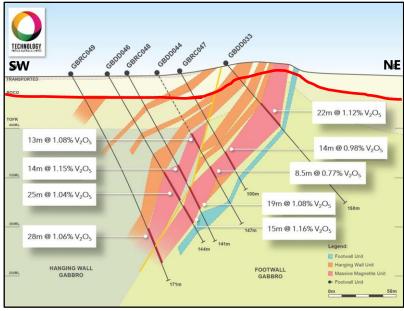


EARLY ACCESS TO HIGH YIELDING ORE

TECHNOLOG METALS AUSTRALIA LIMIT

- Outcropping high grade ore traditional open pit ore mining from surface
- Very shallow (<5m) weathering at Yarrabubba and Gabanintha North
- Fresh and transitional ore = high yield from mined ore to magnetic concentrate at coarse grind size
- Enables use of conventional salt roast water leach processing with industry leading recoveries



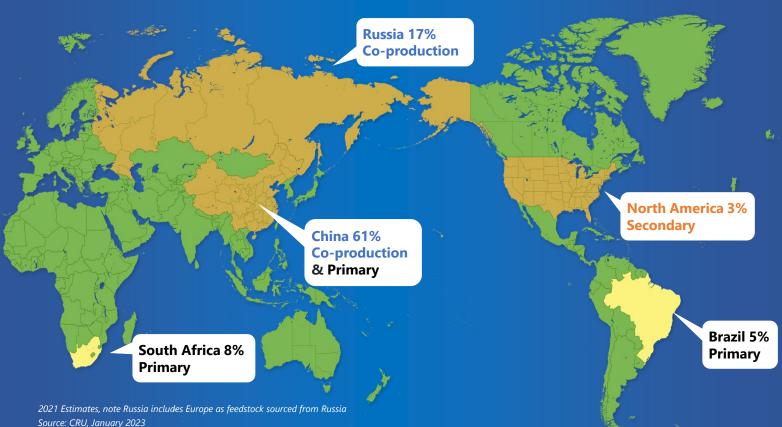


Gabanintha Long Section

Yarrabubba Cross Section

GLOBAL VANADIUM SUPPLY





Customers looking for secure supply

Co-production ~71% supply

Primary production ~17% supply

Secondary production ~12% supply

China and Russia dominate supply

Australia hosts 18% of the world's vanadium resources*

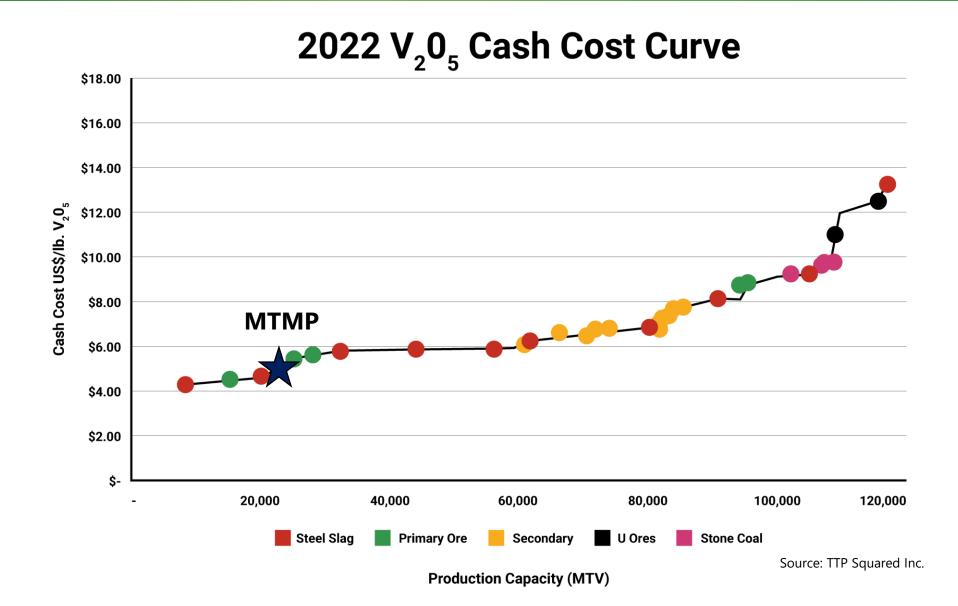
Supply disruptions stemming from China could have a potentially large effect on energy security in the West given the concentration of battery material production in China

Source: CRU, January 2023

*United States Geological Survey and Geoscience Australia, 2017.

COST CURVE





PRIMARY USES OF VANADIUM



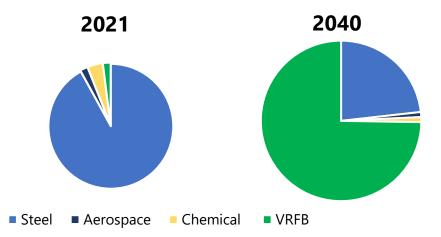
· · · · · · · · · · · · · · · · · · ·	 Ti-Al-V alloys used for jet e 	ngines and high speed aircraft				
	 Particularly with titanium and aluminium ✓ Ti-Al-V alloys used for jet engines and high speed aircraft ✓ V-Ti alloys for best strength-to-weight ratio of any engineered material in the world 					
	Vanadium used to add: ✓ Strength ✓ Toughness ✓ Corrosion resistance ✓ Seismic resistance = Reduction of steel required	Vanadium steel is: ✓ Lightweight ✓ Durable ✓ Easily machined				

By 2025, an estimated 85% of all cars will use vanadium alloys to reduce weight and increase fuel efficiency to meet stringent fuel economy standards

Batteries...to dominate market growth

Supply shortfall forecast for 2031 of ~45,000t V_2O_5

MTMP to produce ~12,500tpa





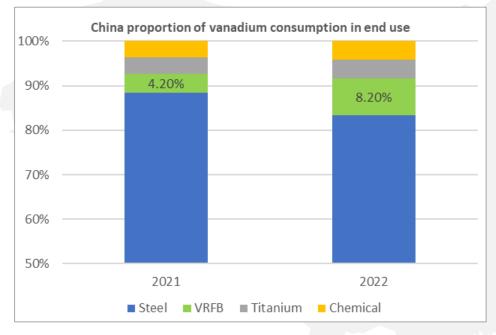
VRFBs IN CHINA

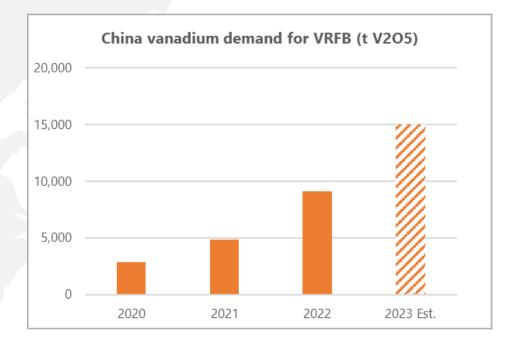


China leading the deployment of VRFBs

VRFBs expected to be main driver of vanadium demand growth in China

- Government banned lithium and Na-S batteries for large energy storage VRFBs promoted as safer option
- World's largest VRFBs developed to date are in China
- Two largest producers have announced substantial VRFB supply agreements and construction of sizeable vanadium electrolyte production facilities





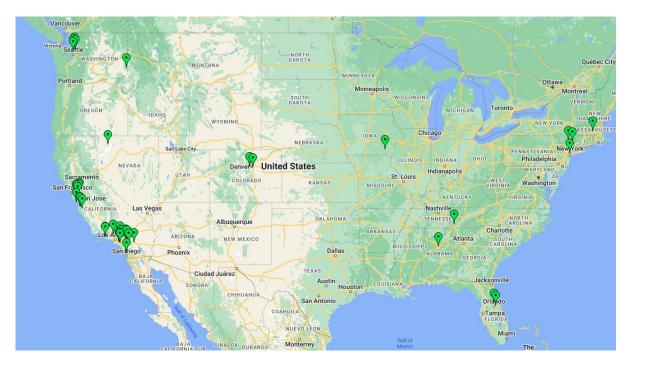
VRFB DEVELOPMENTS NORTH AMERICA



US Inflation Reduction Act supporting demand

- Around 35 VRFBs announced or operational in North America
- Largest, manufactured by Sumitomo Electric, is in San Diego, California
- Three large systems, with 8-hour storage duration, under installation in California





1MWh of energy storage requires $\sim 10T V_2O_5$

Projects announced and under construction in North America total ~480 MWh

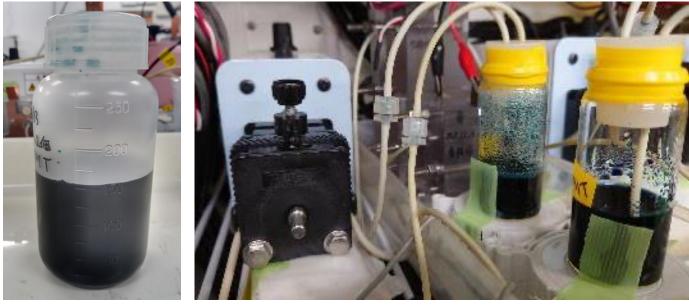
Requiring around 4,800t V₂O₅, equivalent to around **35% of TMT annual production**

Sumitomo Electric's VRFB in San Diego, California



Battery grade electrolyte produced from MTMP feedstock

💎 vLYTE 🕂 🧶 LE SYSTEM CO., Ltd.



Left: TMT's electrolyte product. Right: Mini-cells tests conducted at LE System's Tsukuba Battery Laboratory Source: LE System

- Collaboration with leading Japanese electrolyte developer, LE System
- LE System manufactured electrolyte from MTMP feedstock in its laboratory in Japan
- Series of mini-cell tests conducted to examine electrolyte performance
- Test results meet specifications of major VRFB manufacturers



Supplying high-grade vanadium to support India's energy transition





Delectrik's VRFB for dispatch to USA and Australia. Source: Delectrik

- Delectrik is a fast-growing VRFB manufacturer based in India
- Indian Government committed US\$4.3b towards energy transition
- MoU between vLYTE and Delectrik contemplates supply of MTMP vanadium to Delectrik
- Also supply of vanadium electrolyte by vLYTE for use in Delectrik VRFB in Australia

PROJECT ACTIVITIES



Developing a long-term successful business



Engagement of preferred partners – collaboration on detailed construction planning, schedule definition and site infrastructure





Collaborative engagement with Traditional Owners



Progression of environmental approvals



ESG strategy implementation



Advancing implementation phase





TMT: A COMPELLING INVESTMENT







Industry Leading Tier 1 Project

- Outstanding geology enabling proven processing techniques
- Located in Western Australia, a Tier one mining jurisdiction
- Excellent access to gas and essential infrastructure

Critical Minerals for a Cleaner Future

- Vanadium, a Critical Mineral in the EU, USA and Australia
- Intensifying demand for vanadium redox flow batteries
- Strategic use of vanadium in steel for lower CO₂ emissions



Strong Experienced Team to Deliver

- High-performing professionals who have delivered major projects
- Focused on development strategy to maximise shareholder value
- Seasoned industry players engaged for project implementation



Tier 1 Investors and Partners

- Backing from RCF VII provides long-term project development support
- Building robust relationships with international partners, including LE System and Tata Steel





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@TechnologyMetal

MTMP GLOBAL MINERAL RESOURCE ESTIMATE



Classification	Material	Mt	V₂O₅ %	Fe %	Al₂O₃ %	SiO₂ %	TiO₂ %	LOI %	Р%	S %
	Massive	4.4	1.1	48.1	5.5	7.3	12.4	-0.4	0.01	0.3
Measured (Yarrabubba)	Disseminated	1.5	0.6	30.0	10.8	23.4	7.7	2.5	0.01	0.2
	Massive	5.1	1.1	46.9	5.7	8.4	12.1	-0.2	0.01	0.3
Measured (Gabanintha)	Disseminated	1.1	0.8	36.4	7.9	19.6	9.0	0.5	0.01	0.2
Measured	Massive + disseminated	12.1	1.0	44.3	6.5	10.9	11.4	0.1	0.01	0.2
	Massive	8.0	1.1	48.1	5.4	7.1	12.5	0.0	0.01	0.3
Indicated (Yarrabubba)	Disseminated	6.9	0.6	28.4	12.5	25.2	7.2	2.6	0.02	0.3
Indicated (Gabanintha)	Massive	19.5	1.1	48.9	5.2	6.2	12.8	-0.1	0.01	0.2
	Disseminated	16.7	0.6	27.3	13.3	26.7	7.0	3.0	0.03	0.2
Indicated	Massive + disseminated	51.2	0.9	39.0	8.9	15.6	10.1	1.3	0.02	0.2
Measured plus Indicated	Massive + disseminated	63.2	0.9	40.0	8.4	14.7	10.4	1.1	0.02	0.2
	Massive	5.7	1.1	47.4	5.6	7.8	12.3	0.1	0.01	0.3
Inferred (Yarrabubba)	Disseminated	11.4	0.6	27.9	12.6	25.8	7.2	2.0	0.02	0.4
	Massive	36.5	1.1	46.7	6.0	8.3	12.3	0.4	0.01	0.2
Inferred (Gabanintha)	Disseminated	36.9	0.5	26.6	12.9	27.6	6.9	3.4	0.03	0.3
Inferred	Massive + disseminated	90.5	0.8	36.2	9.6	18.3	9.5	1.8	0.02	0.2
TOTAL	Massive + disseminated	153.7	0.8	37.7	9.1	16.8	9.8	1.5	0.02	0.2

Source: TMT Announcement, MTMP Global Mineral Resource Upgrade Delivers 26% Increase to Measured and Indicated Resource, 7 November 2022

*Notes:

• Mineral Resources are reported in accordance with the JORC Code (2012 Edition).

• 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.

• Mineral Resources are quoted from all classified blocks within the wireframe solids above a lower cut-off grade of 0.4% V2O5.

• Differences may occur due to rounding. Yarrabubba Measured and Indicated Mineral Resources are reported above an open pit optimised pit shell. Inferred Mineral Resources are reported to a lower RL limit of 250 mRL. Gabanintha Measured and Indicated Mineral Resources are reported above a lower RL limit of 240 to 280 mRL that approximates the Ore Reserve pit shells. Inferred Mineral Resources are reported to a lower RL limit of 170 mRL.

MTMP ORE RESERVE ESTIMATE

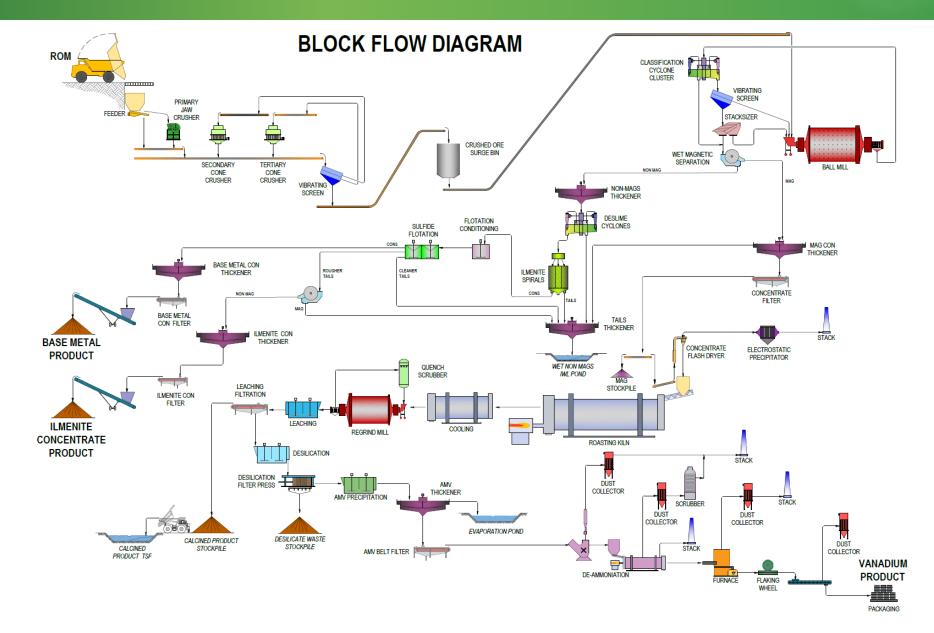


Demoit		Ex-Pi	t Ore		Magnetic Conc.		Non-Magnetic Conc.		Rec. V ₂ O ₅	Rec. Ilmenite	Waste	Total
Deposit	Mt	V₂O₅%	TiO₂%	Mass Yield	Mt	V₂O₅%	Mt	TiO₂%	M lb	kt	Mt	Mt
Yarrabubba Probable	15.88	0.87%	10.0%	44.4%	7.04	1.61%	8.84	12.35%	202.7	1132.6	110.1	126.0
Yarrabubba Total	15.88	0.87%	10.0%	44.4%	7.04	1.61%	8.84	12.35%	202.7	1132.6	110.1	126.0
Gabanintha Proven	1.12	0.95%		69.8%	0.78	1.30%			18.1			
Gabanintha Probable	27.48	0.90%		57.1%	15.69	1.31%			369.4		154.5	183.1
Gabanintha Total	28.60	0.91%	10.7%	57.6%	16.47	1.31%			387.5	0.0		
Global MTMP Total	44.48	0.89%	10.5%	52.9%	23.52	1.40%	8.84	12.35%	590.3	1132.6	264.6	309.1

Source: TMT Announcement: MTMP Mine Life Increased to 25 Years – Maiden Ilmenite Reserve and Production Profile, 5 August 2022

FLOWSHEET





ASX:TMT | 23

NET ZERO STRATEGY FOR THE MTMP



Committed to reduction of greenhouse gas emissions at the MTMP To produce a mineral that enables a cleaner future

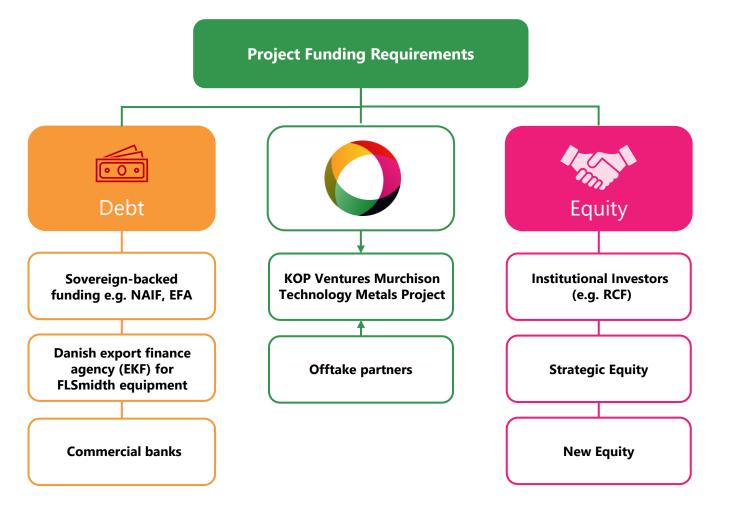
- Solar farm installation coupled with battery storage
- Roof-mounted solar arrays for all accommodation buildings and walkway areas at the village
- Adoption of low carbon energy solutions for mine dewatering and water supply activities
- Transition to electric and/or non-carbon fuel options for mining fleet
- Incorporation of heat loss and capture strategies and energy recovery at the processing plant



FUNDING STRATEGY



Debt and equity mix from a range of partners

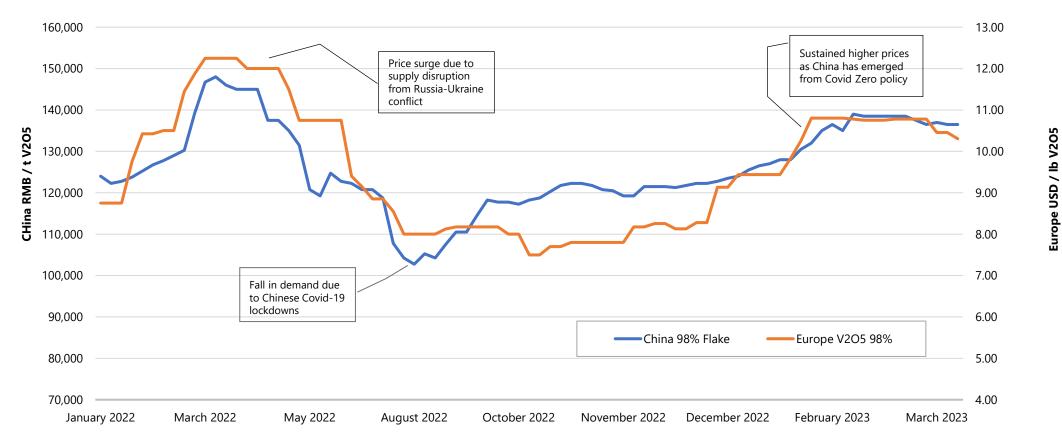


- RCF is the largest shareholder with a holding of 17.2%, with continuing support and positive outlook for the vanadium sector
- EKF issued letter of interest for A\$150m financing support for major equipment
- Discussions ongoing with potential offtake partners and others on strategic investment into the MTMP
- Project economics expected to support up to 65% debt gearing





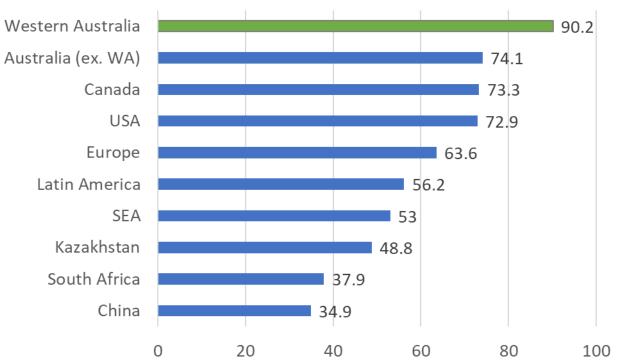
CHINA VS EUROPE RELATIVE PRICE PERFORMANCE



Source: FerroAlloy.Net



WA is the most attractive source of new vanadium supply globally



Mining Investment Attractiveness Score 2021

Source: CRU, January 2023, Fraser Institute

- The MTMP is located in Western Australia, the most attractive mining jurisdiction in the world
- Australia hosts 18% of the world's vanadium resources*
- Alternative sources of new supply are in China, Russia or South Africa, all of which are far less attractive locations for investment

Australia has the potential to serve an important role among allies to secure critical energy metals such as vanadium

Source: CRU, January 2023

VANADIUM IN STEEL REDUCES CO₂ EMISSIONS

Steel sector one of the largest CO₂ emitters

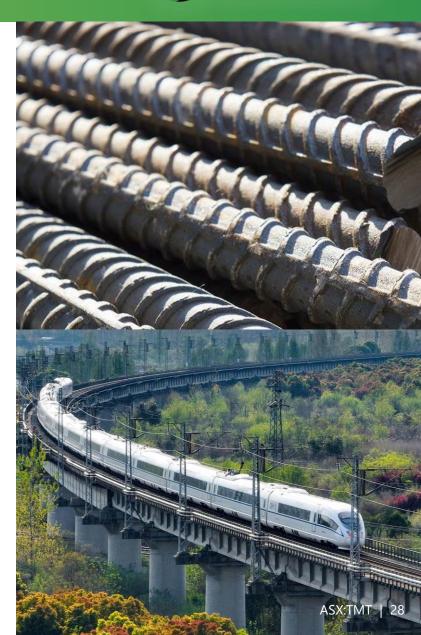
- 1 tonne steel = 1.85 tonne CO₂ released
- Approximately 8% global CO₂ emissions from steel in 2020
- Inclusion of vanadium enables higher quality, stronger steel, lowering emissions
- Chinese industry reduced 2019 CO₂ emissions by 1.5% by including vanadium in rebar¹

The benefits of upgrading to high-strength vanadium steel



1 - Santos et al, Texas A&M University

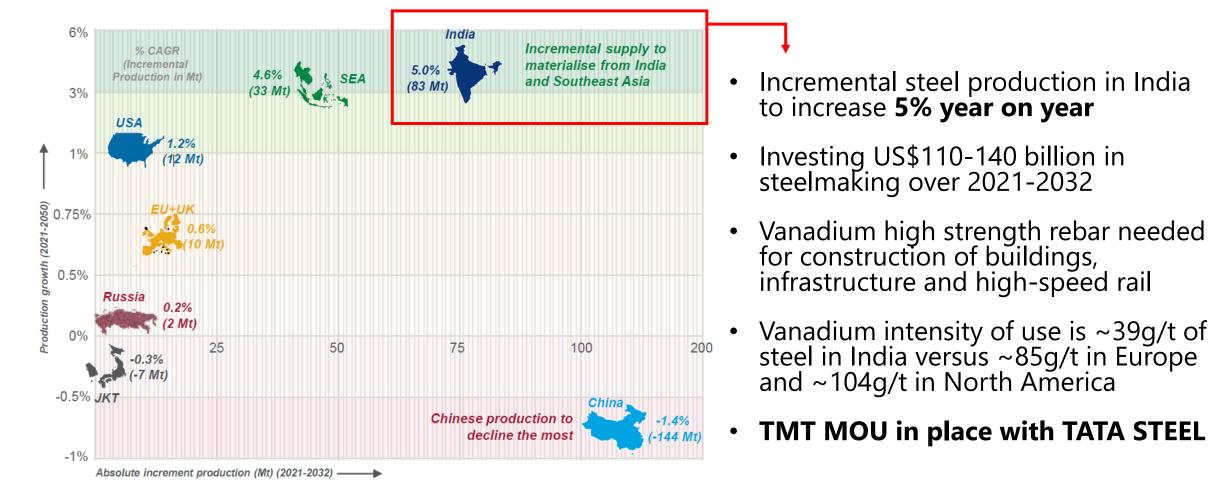








India's steel demand increasing to 9% of global consumption by 2032





Safe, stable, reliable, low cost, long life performance



SAFETY

Water based and totally non-flammable, non-combustible, and non-toxic



LOW ENERGY COST

Over its 20+ year lifespan, vanadium batteries offer the lowest cost per kWh stored (LCOE)



EASY TO EXPAND CAPACITY

Battery capacity easily expandable by adding more storage tanks



NO DEGRADATION

Performance remains constant with excellent long term charge retention



SUSTAINABILITY

The vanadium is fully reusable and recyclable at end of battery life



LONG LIFE

Can easily last more than 20 years with very high cycle life (up to 20,000 cycles)



RELIABLE PERFORMANCE

Work in harsh environmental conditions without loss of performance

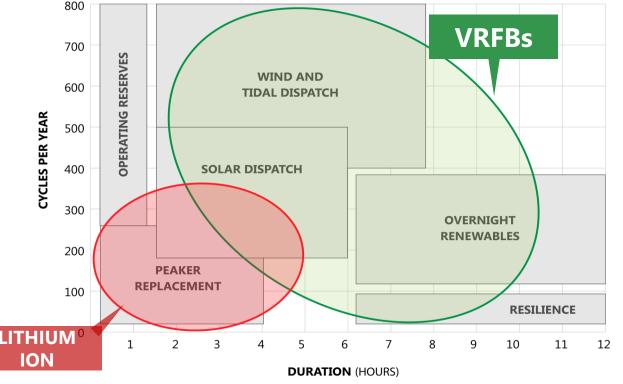


SINGLE CHEMICAL ELEMENT

Use multiple forms of vanadium to store and release charge – eliminating need for any other elements

Cost efficiently time-shift large amounts of energy for later use

- While solar and wind generate very cheap electricity, long duration energy storage is needed to maximise efficiency
- Lithium-ion being superseded by VRFBs for long duration storage with low maintenance costs and long operational lifetimes
- Most suited to large-scale grid stabilisation and industrial energy storage application
- By 2050, Australia will require 50GW/1,000GWh of energy storage*



VRFBs ideal for use in medium-long duration applications. Source: Invinity

*Andrew Blakers, Director of Australian National University Centre for Sustainable Energy Systems



Deployment of large scale VRFBs globally

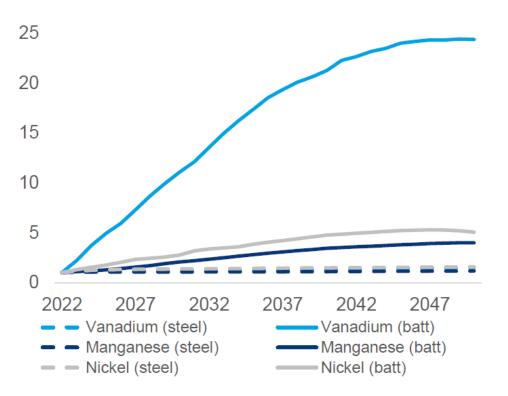
Details	Sumitomo	Rongke Power	Invinity	Shanghai Electric	Yadlamalka Energy
Image				n/a	
Project Location	Hokkaido, Japan	Dalian City, China	Alberta, Canada	Jiangsu province, China	South Australia
Stage	Commenced operations in 2015	Operational	Construction/Installation	Public plans	Construction /Installation
Developer		融料储能 RONGKE POWER			YADLAMALKA ENERGY
Scale*	60MWh (15MW for 4h)	800MWh (200MW)	8.4MWh	400MWh (100MW)	8MWh (2MW)

* 1kWhr requires ~10kg of V₂O₅

Source: Company announcements



Vanadium for VRFBs expected to grow to 33% of global market in 2030*



Increase in demand (index 2022)

Source: Wood Mackenzie, Batteries and Steel: friends or enemies?, March 2023

- Current market in balance at around ~220,000t V₂O₅ in 2022
- Consumption is expected to grow to \sim 380,000t V₂O₅ by 2031
- Current production, state supported projects in China and vanadium from recycling is not expected to meet future consumption
- Supply shortfall forecast for 2031 of ~45,000t V_2O_5 MTMP to produce ~12,500ktpa

Source: CRU, January 2023