

2 August 2023

Progressing Towards FID

NEED TO KNOW

- MOU signed with Indian Vanadium Battery maker
- \$11.5m raised from strategic and institutional investors
- FID expected in Q1 CY24

Steering Towards Investment Decision: TMT is diligently advancing the implementation phase of the Murchison Technology Metals Project (MTMP), targeting a final investment resolution in Q1 2024. TMT maintains a strong financial position to carry out strategic operations, with a cash balance of A\$16.5m, complemented by an anticipated R&D refund of A\$1.4m in July CY23.

Exciting Recent Milestones: In the past quarter, TMT signed a pivotal MoU with Indian Vanadium Battery (VRFB) maker Delectrik Systems, progressed Front-End Engineering Design (FEED) activities for the MTMP with key project partners, and secured A\$11.5m in a placement that included further injection from Resource Capital Funds as a cornerstone investor.

Vanadium finds a new market in batteries: Vanadium, whose primary use is for steel production, is now being increasingly utilised for energy storage in batteries. By 2040, it is expected that 74% of the global vanadium market will be for battery production, up from just 2.1% in 2021.

Investment Thesis

Progressing 100% owned Murchison Technology Metals Project (MTMP): The MTMP offers one of the highest-grade (44.5mt Ore Reserve grading 0.89% V₂O₅), lowest-cost (1st quartile) vanadium projects globally, underpinned by dual revenue streams: vanadium pentoxide and an ilmenite by-product.

Prosperous 25-year lifespan: The Integration Study for MTMP (completed August 2022) predicts strong EBITDA margins of ~46% over the mine's 25-year lifespan, with even higher margins in the first 9 years due to ilmenite production. Production commencement is planned for CY26 pending completion of critical tasks like offtake and financing.

A partnership driving global decarbonisation: Vanadium's role in 'green steel' and vanadium redox flow batteries (VRFBs) addresses carbon reduction and renewable energy adoption. As demand for these sustainable practices grows, TMT's strategic positioning allows it to leverage these market trends, providing investors with an opportunity to invest in an essential resource for global decarbonisation and ESG adherence.

Valuation: A\$0.72/share (Previous A\$0.75)

We value TMT at A\$0.72 (previous A\$0.75), fully diluted. The revised valuation is driven by dilution from an increased share count. Our valuation is based on our DCF model of MTMP. We applied a conservative 60% risk weighting to account for outstanding project risks (financing, construction, commissioning), used a 10% discount rate (nominal), a vanadium price of US\$11.00/lb and an ilmenite price of US\$260/t (both long-term real).

Risks

Key risks include inability to access funding, project delays, escalation in capital costs, a fall in the vanadium price, inability to sell large flake into the high value markets, and continuity of key persons.

Equities Research Australia

Mining and Energy

Jonathan Sharp, Analyst
jonathan.sharp@mstaccess.com.au



Technology Metals Australia (ASX:TMT) is an ASX-listed company focused on developing its flagship, 100%-owned Murchison Technology Metals Project (MTMP) located 50km SE of Meekatharra in the mid-west of Western Australia. The MTMP, comprising the Gabanintha and Yarrabubba vanadium deposits, is one of the world's highest-grade vanadium projects with the lowest-quartile operating costs once developed.

<http://www.tmtlimited.com.au/>

Valuation	A\$0.72 (Previous A\$0.75)
Current price	A\$0.28
Market cap	A\$74m
Cash on hand	A\$16.46m (June 31, 2023)

Upcoming Catalysts / Next News

Period	
Q3 2023	Completion of bankable financial model
Q1 2024	Development decision / FID
H1 2024	Secure project funding

Share Price (\$A)



Source: FactSet, MST Access

Financial Summary: Technology Metals Limited (TMT)

TECHNOLOGY METALS AUSTRALIA LIMITED

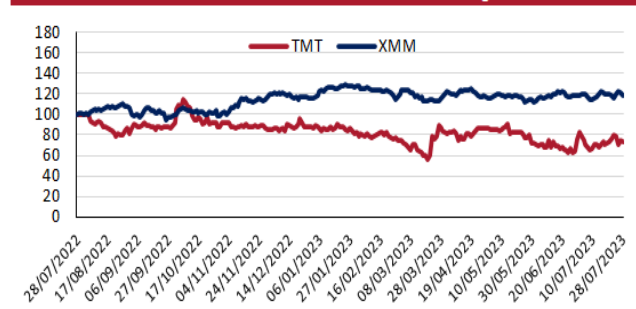
TMT.AX

Year end 30 June

MARKET DATA

Share Price	A\$/sh				0.29
52 week low/high	A\$/sh		0.21		0.45
Valuation	A\$/sh				0.72
Market Cap (A\$m)	A\$m				74
Net Cash / (Debt) (A\$m)	A\$m				16
Enterprise Value (A\$m)	A\$m				57
Shares on Issue	m				254
Options/Performance shares	m				20
Other Equity	m				436
Potential Diluted Shares on Issue	m				710

12-Month Relative Performance vs S&P/ASX Metals & Mining



INVESTMENT FUNDAMENTALS

		Jun-21	Jun-22	Jun-23e	Jun-24e	Jun-25e
Reported NPAT	A\$m	(2)	(2)	(14)	(4)	104
Underlying NPAT	A\$m	(2)	(2)	(14)	(4)	104
EPS Reported (undiluted)	¢ps	n/m	n/m	n/m	n/m	15.7¢
EPS Underlying (undiluted)	¢ps	n/m	n/m	n/m	n/m	15.7¢
Underlying EPS Growth	%	-185%	-28%	684%	-87%	-1932%
P/E Reported (undiluted)	x	n/m	n/m	n/m	n/m	1.8
P/E Underlying (undiluted)	x	n/m	n/m	n/m	n/m	1.8
Operating Cash Flow / Share	A\$	(0.01)	(0.00)	(0.01)	(0.00)	0.21
Price / Operating Cash Flow	x	n/m	n/m	n/m	n/m	1.4
Free Cash Flow / Share	A\$	(0.04)	(0.04)	(0.06)	(0.99)	0.16
Price / Free Cash Flow	x	n/m	n/m	n/m	n/m	1.8
Book Value / Share	A\$	0.22	0.25	0.29	0.48	0.67
Price / Book	x	1.33	1.16	0.99	0.60	0.43
NTA / Share	A\$	0.22	0.25	0.29	0.48	0.67
Price / NTA	x	1.33	1.16	0.99	0.60	0.43
Year End Shares	m	150	210	210	666	666
Market Cap (spot)	A\$m	44	61	61	193	193
Net Cash / (Debt)	A\$m	6	19	17	(380)	(275)
Enterprise Value	A\$m	38	42	44	573	468
EV / EBITDA	x	n/m	n/m	n/m	n/m	0.3x
Net Debt / Enterprise Value		(0.1)	(0.3)	(0.3)	6.6	4.8

Profit & Loss (A\$m)

	Jun-21	Jun-22	Jun-23e	Jun-24e	Jun-25e
Sales	-	-	-	-	402
Expenses	(2)	(2)	(14)	(4)	(208)
EBITDA	(2)	(2)	(14)	(4)	194
D&A	(0)	(0)	(0)	(0)	(33)
EBIT	(2)	(3)	(14)	(4)	161
Interest	0	0	1	0	(11)
Tax	1	1	-	-	(45)
Underlying NPAT	(2)	(2)	(14)	(4)	104
Exceptionals	-	-	-	-	-
Reported Profit	(2)	(2)	(14)	(4)	104

Balance Sheet (A\$m)

	Jun-21	Jun-22	Jun-23e	Jun-24e	Jun-25e
Cash	6	19	17	13	117
Receivables	0	1	1	1	33
Inventory	-	-	-	-	20
PP&E	-	-	11	666	667
Exploration	28	35	35	35	35
Other	-	-	-	-	-
Assets	34	54	63	714	872
Creditors	1	1	1	1	33
Debt	-	-	-	392	392
Other	-	-	-	-	-
Liabilities	1	1	1	393	425
Net Assets	33	53	62	321	447

Cashflow (A\$m)

	Jun-21	Jun-22	Jun-23e	Jun-24e	Jun-25e
Cash From Operations	(1)	(1)	(3)	(3)	195
Interest	-	-	-	-	(45)
Tax	-	0	1	0	(11)
Net Cash From Operations	(1)	(1)	(3)	(3)	139
Capex	(0)	(0)	(0)	(654)	(33)
Exploration	(5)	(7)	(11)	(1)	(1)
Investments	-	-	-	-	-
Free Cash Flow	(6)	(8)	(14)	(658)	104
Equity	9	21	12	262	-
Borrowings	-	-	-	392	-
Dividend	-	-	-	-	-
Net Increase / (Decrease) in Cash	2	13	(2)	(4)	104

PRODUCTION AND PRICING

	Jun-21	Jun-22	Jun-23e	Jun-24e	Jun-25e	
V2O5 Flake Production	kt	-	-	-	9.5	
Ilmenite Production	kt	-	-	-	120	
Vanadium Price (US\$/lb)	US\$/lb	-	-	11.3	11.6	11.8
Ilmenite 45-50% (US\$/t)	US\$/t	-	-	266.5	273.2	280.0
AUDUSD	:	-	-	0.70	0.70	0.70

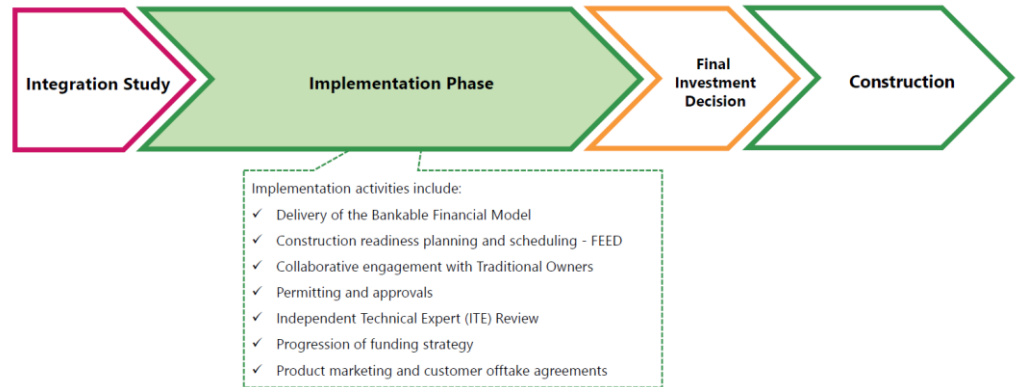
Source: Company Data, MST Access

MTMP Progress: Unlocking Value for Sustained Success

Cash position: A\$16.5m, with an expected A\$1.4m R&D refund due shortly.

TMT is actively working on the implementation phase of the Murchison Technology Metals Project (MTMP), aiming for a final investment decision by Q1 2024. Presently, the company's cash position is at A\$16.5m (30 June 2023), and a research & development refund of A\$1.4m is expected this month, providing significant runway through FID.

Figure 1: Implementation Program Underway



Source: TMT

The primary objective is to progress the MTMP's Front-End Engineering Design (FEED) activities, improving development efficiencies. This coincides with the ongoing permitting and approvals and project financing efforts. The Integrated Project Team, consisting of TMT, GR Engineering, Iron Mine Contracting and FLSmidth, will provide cost estimates and development schedules to inform the commercial pricing for contracts as these simultaneous processes conclude.

During this period, an updated MTMP Ore Reserve Estimate is advancing, which will form the foundation for the MTMP Financial Model. This model will incorporate cost estimates and construction timelines developed by the Integrated Project Team. The resulting data, including the Ore Reserve Estimate, will assist the Company in attracting financing for the MTMP.

Updated MTMP Ore Reserve is progressing and will underpin the financial model.

Diligence Program in Progress: Independent Technical Expert Review

In conjunction with TMT's joint financial advisors, SRK Consulting (SRK) was appointed as the Independent Technical Expert (ITE) on behalf of the prospective future debt financiers to the MTMP. SRK provides specialised consulting services for mining projects. SRK has undertaken ITE roles of a similar scope in the past for projects such as Pilbara Minerals' Pilgangoora Lithium Project, Tropicana Gold Mine (JV AngloGold and Regis Resources) and Sheffield Resources' Thunderbird Mineral Sands Project.

SRK's scope of work on the MTMP encompasses due diligence review of the feasibility study and other technical reports released by the company including resource and reserve estimations, metallurgy and process engineering, project infrastructure, capital and operating costs, scheduling, material contracts and proposed labour requirements, and ESG and regulatory compliance matters.

Figure 2: SRK team inspecting drill cores at the MTMP



Source: TMT

Report prepared by MST Access, a registered business name of MST Financial services ABN 617 475 180 AFSL 500 557
MST Access has been engaged and paid by the company covered in this report for ongoing research coverage. Please refer to full disclaimers and disclosures.

Making Strides in EPA Approval

EPA documents were scheduled for submission in late July '23, and a thorough review process is anticipated, with no concerns from TMT about approval.

During the quarter, TMT hosted representatives from the WA Environmental Protection Agency (EPA) and Department of Water and Environmental Regulation (DWER) on-site. Representatives from the EPA and DWER reviewed the proposed development area and were able to get an insight into the environmental factors relating to the Project. An updated Environmental Review Document (ERD) has been provided to stakeholders for review prior to submission to the EPA.

From our perspective, we see this as an instrumental step in TMT's project development. The company is not only ensuring transparency and adherence to environmental standards but also fostering a strong, collaborative relationship with regulatory bodies. This active engagement underscores TMT's commitment to responsibly advancing their projects while mitigating environmental impact, a position that we view as integral to their future success.

Traditional Owner Engagement

TMT continued to collaborate and work constructively with the Yugunga-Nya (YN) People, who hold non-exclusive native title over the proposed development area at the MTMP. The Company engaged with the YN People during the quarter in regard to the opportunities and activities of the proposed development. TMT hosted a site orientation visit with the YN People knowledge holders, affirming the Company's commitment to maintaining open and respectful dialogues with the local community.

Becoming a Vertically Integrated Producer of Ore to Electrolyte

TMT's long-term strategy involves becoming a vertically integrated producer with a supply chain spanning from ore extraction to electrolyte production. This comprehensive chain involves multiple steps: ore extraction, material processing, electrolyte manufacturing and assisting with battery integration.

In alignment with this ambition, TMT is collaborating with its Japanese technology partner, LE System, to investigate establishing a vanadium electrolyte production facility in Western Australia. Such a facility would play a pivotal role in enabling the nationwide rollout of vanadium batteries.

As part of this strategic approach, TMT is actively participating in offtake discussions. Offtake agreements will involve TMT distributing high-purity vanadium pentoxide from the MTMP to third-party electrolyte manufacturers and vanadium battery producers.

MOU to Supply V₂O₅ to Indian VRFB Manufacturer

In April 2023, TMT entered into an MOU with Delectrik Systems, a fast-expanding Indian VRFB manufacturer. The Indian VRFB manufacturer has been bolstered by the Indian Government's US\$4.3 billion energy transition investment. Delectrik specialises in the production of vanadium electrolyte and the design of VRFB systems on a kW to MW scale. Under the MOU TMT will supply vanadium products from the MTMP to Delectrik, along with vLYTE's domestic supply of vanadium electrolyte for Delectrik's projects in Australia.

We regard this MOU with the Indian battery producer, Delectrik Systems, as a pivotal step. It not only deepens TMT's connection with India but also broadens its prospective customer base. Moreover, it contributes significantly to the implementation of TMT's vertical integration strategy.

Corporate Update

In June, TMT appointed Ms Jo Gaines, a former Deputy Chief of Staff to the Western Australian Premier, as an independent Non-Executive Director. With her significant experience in policy development, negotiations, and leadership roles across various organisations, Gaines is a strategic addition expected to enhance TMT's stakeholder engagement and governance.

Shares and Cash

As of 18th July 2023, the top 20 TMT shareholders held 59.38% of the shares, and the firm had a cash reserve of \$16.5m (30th June), complemented by an anticipated R&D refund of A\$1.4m July CY23.

Institutional Share Placement

During the recent quarter, TMT raised A\$11.5m through a placement of approximately 41.1m new shares priced at A\$0.28 each. Long-term investor RCF demonstrated its ongoing confidence in TMT by investing an additional \$2.75m, strengthening its stake to roughly 18% post-placement.

TMT aims to employ the raised funds to accelerate MTMP's construction readiness, alongside obtaining EPA approvals, finalising the Independent Technical Expert review to facilitate project financing and enhancing product marketing and customer interactions.

TMT's collaboration with regulatory bodies like the EPA and DWER is pivotal for its future success.

TMT partnered with Indian VRFB producer Delectrik Systems to supply V₂O₅

Cash reserves: \$16.5m, with an expected A\$1.4m R&D refund in July 2023.

Market Outlook: Growing Interest in VRFB

The vanadium battery sector has experienced notable advancements within both the Australian and Asian markets, further propelling the progression of this clean energy technology.

Advancements in Australia's Vanadium Battery Sector

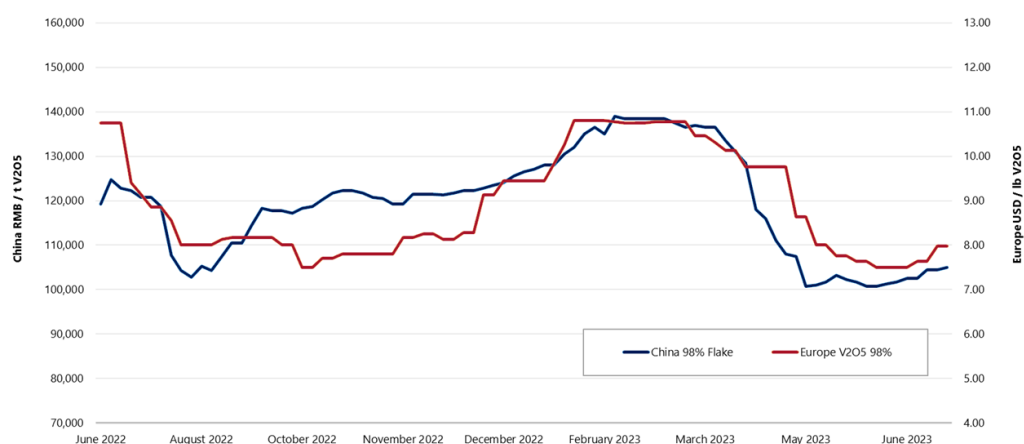
Australia's vanadium battery industry is advancing, as evidenced by Yadlamalka Energy's completion of the Southern Hemisphere's first commercial vanadium-flow battery. Supported by a \$5.7 million grant from the Australian Renewable Energy Agency (ARENA), the project consists of a 2MW/8MWh VRFB and a 6MW solar PV in South Australia. The Company acknowledged the project's potential to demonstrate the feasibility of grid-connected vanadium batteries in reducing Australia's greenhouse gas emissions by 43% from 2005 levels by 2030.

TMT is strategically aligning with Australia's decarbonisation efforts through active involvement in vanadium electrolyte development. Recently Queensland's government announced its partnership with Vecco Group and Sumitomo Electric to trial a vanadium battery, with Vecco Group producing the electrolyte from its vanadium battery manufacturing facility. TMT views these developments as further validation of vanadium's important role in Australia's energy landscape. The Company is exploring a vanadium electrolyte production facility in Western Australia and continuing negotiations for the supply of high purity vanadium pentoxide from the MTMP to global manufacturers.

Asia's Vanadium Sector: Impact of China's Economic Shifts

China's recovery was relatively muted in Q4 FY2023. Ongoing Chinese softness resulted in weaker than expected industrial and construction activity. Subdued total output impacted the demand for steel in Q2. Coupled with the subdued demand was an increase in supply of Russian Vanadium Pentoxide (V_2O_5), which drove imports of 1,961t of V_2O_5 for the first half of the year compared to only 120t in first half 2022. These two factors resulted in a price decline as highlighted in Figure 3. Prices have seen a recovery from the trough and the long-term view of V_2O_5 looks very positive as China continues to lead the way in global vanadium battery installations.

Figure 3: China Vs Europe Relative Vanadium Pentoxide Price Performance



Source: TMT

Quick Revisit of Demand Drives for Vanadium

There are two main demand drivers for vanadium, which are analysed below.

Higher vanadium intensity

Vanadium intensity¹ in steel production is increasing due to growing industrial demands for better material properties and global efforts to reduce CO₂ emissions. As developing nations like India expand their industries and infrastructure, the demand for high-performance, vanadium-enhanced steel is set to rise. For instance, India currently utilises ~39g/t of vanadium in steel, while Europe uses ~85g/t and North America ~104g/t. It is forecast that India's steel-specific vanadium intensity of use will increase to 58g/t by 2030.

¹ Intensity is measured in kilograms of vanadium per tonne of crude steel produced

Incorporating vanadium into steel production can significantly reduce CO₂ emissions. For example, vanadium's use in rebar production led to a 1.5% reduction in Chinese CO₂ emissions in 2019. As a result, vanadium-enhanced steel is expected to play a crucial role in transitioning towards greener, more efficient industries.

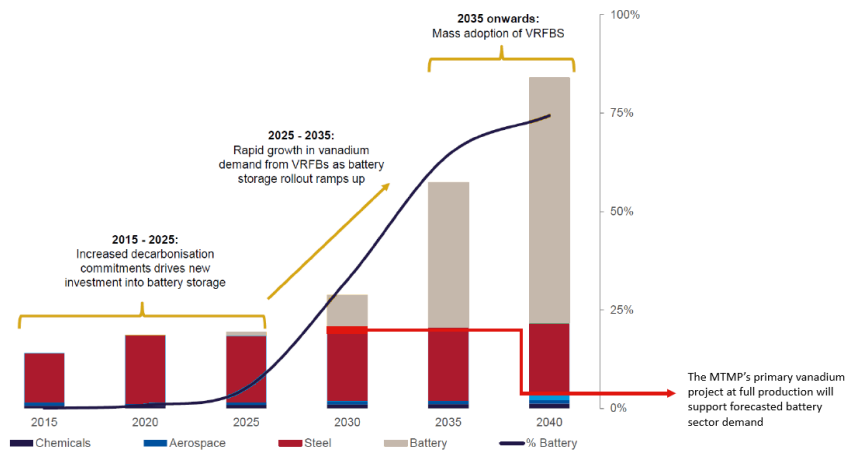
Vanadium Redox Flow Batteries (VRFBs)

Vanadium Redox Flow Battery (VRFB) are rechargeable energy storage systems that use vanadium ions in liquid electrolyte solutions to store and release electrical energy. VRFBs offer advantages like long cycle life, minimal capacity degradation, and suitability for large-scale storage applications, making them ideal for renewable energy integration, load levelling, and backup power supply.

The market research firm CRU forecasts that Vanadium battery demand, which accounted for 2.1% of the global market in 2021, is projected to increase significantly, representing 33% of the market by 2030 and 74% by 2040 (refer to Figure 4).

Demand for vanadium batteries, from 2.1% of the global market in 2021 to an expected 33% by 2030 and 74% by 2040

Figure 4: Steel and battery demand growth



Source: TMT, CRU, January 2023

Firm Valuation: Mitigated Risk Amid Strong Market Momentum

We value TMT at A\$0.72 per share, fully diluted.

Our updated valuation for TMT is A\$0.72 per share (down from A\$0.74), on a fully diluted basis. This represents a substantial 156% upside potential from the current share price. The revised valuation is driven by dilution from an increased share count (post raising), with no change to the NPV of MTMP.

The valuation is based on a 10% discount rate, US\$11.00/lb vanadium, and US\$260/t ilmenite prices, we project construction starting in 2023 and production in 2025. The estimated A\$654m capital expenditure is funded 60% by debt and 40% by equity. We exclude potential expansions, downstream investments, or exploration impacts.

Valuation Summary

Figure 5: Base-case valuation summary

NPV OF PROJECTS	A\$M	EQUITY VALUE A\$/SHARE FULLY DILUTED	Valuation Methodology
MTMP	479	0.67	60% probability weighting Project NPV
Exploration and Investments	30	0.04	MST Estimate
ENTERPRISE NPV	509	0.72	
Add: Cash	16	0.03	As reported 30 June 2023
Add: Options Cash	6	0.01	MST Estimate
EQUITY VALUE PRE SG&A	531	0.75	
SG&A	(23)	(0.03)	NPV of Corporate Costs
EQUITY VALUE	508	0.72	

Source: MST Access

Pre-development CAPEX of A\$654m: 60% Debt, 40% Equity.

Base-case valuation – risked NPV of A\$0.72/share, fully diluted

MTMP has a substantial Ore Reserve of 44.5mt, which provides a very long 22.5-year operation life based on the production plan scheduled under the August 2022 Integration Study.

Exploration success would contribute most to material valuation upside if high-grade material could be added to the current operational plan. Given the long operation life, incremental years of mine life at the end of the current plan, at a lower grade, would likely provide only limited leverage to additional value creation (although it may defer rehabilitation costs which can be beneficial).

We have applied a 60% probability weighting to the Project given the advanced stage of the development pending a financing solution and FID.

Given the materiality of MTMP to TMT's overall valuation and the current strategic focus on the Project, we have not performed a detailed valuation on any of TMT's other assets but have applied a nominal value of A\$30m.

Key assumptions to our NPV valuation

Our base-case NPV valuation is built upon a mine plan which aligns with that compiled by the technical experts under the recently published Integration Study. Figure 6 shows critical headline metrics.

Assumptions for Valuation: 10% Discount Rate, US\$11.00/lb Vanadium, US\$260/t Ilmenite

We have used a 10% discount rate (nominal), a vanadium price² of US\$11.00/lb and an ilmenite price of US\$260/t (both long-term real). In addition, we assume a project timeline that commences construction in CY2023 and achieves first production in CY2025 after a construction period of approximately 18 months. We regard this timeline as reasonable given the location of the Project and our knowledge of other mining projects in development.

We assume the project capital expenditure to be A\$654m, funded by 60% debt and 40% equity (at a 50c issue price). Accordingly, our valuation does not incorporate the benefit of any additional potential project expansions, downstream investments or exploration success, which may increase the scale of such expansions or extend the operation life.

Our valuation assumes TMT will pay tax from the first year of production. However, the Company is likely to have significant capital allowances from the upfront investment, which should defer the payment of

² Spot Price: V₂O₅ Vanadium Pentoxide Flake 98% Price USD / lb. Europe: US\$8.50/lb, Apr 27, 2023

corporate cash tax for several years. Given the inherent difficulties in anticipating the potential timing of corporate tax payments (linked to the realised commodity price profile), we adopt a conservative stance.

Figure 6: DFS assumptions underpinning our base-case valuation

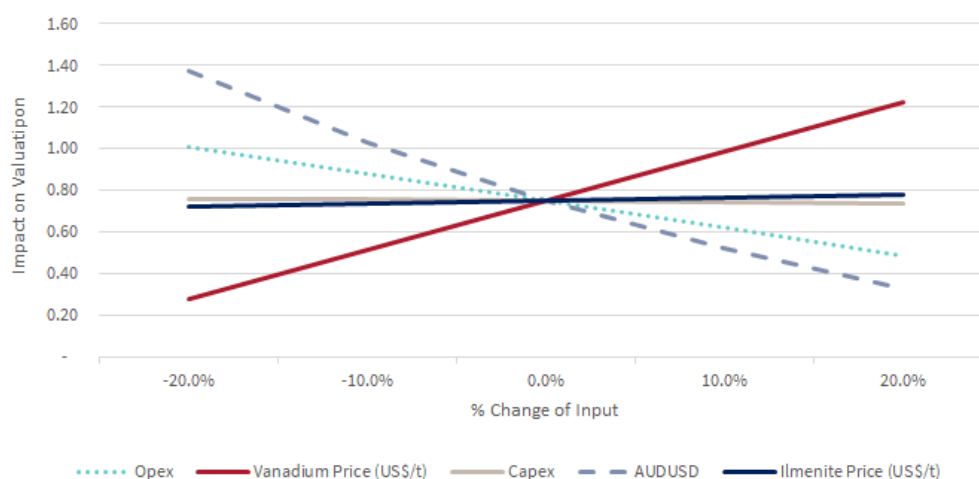
Assumptions	MSTe
PROJECT ASSUMPTIONS	
Project Ownership (%)	100%
Strip Ratio (waste : ore)	5.95
Average Diluted Mining Grade (% V2O5)	0.89%
Average V2O5 Production (ktpa)	12.5
Mine Life (years)	22.5
Capex (A\$m, real)	654
Ore Reserve (mt)	44.5
Ore Reserve Grade (% V2O5)	0.89%
COST & FINANCING ASSUMPTIONS	
Discount Rate (%)	10.0%
Inflation Rate (%)	2.5%
AISC (US\$/lb)	5.65
Pre-Tax NPV (A\$m)	1,276
Post-Tax NPV (A\$m)	798
PRICING & EXCHANGE RATE ASSUMPTIONS	
AUDUSD	0.70
V2O5 Flake Price (US\$/lb)	11.00
47% TiO2 Ilmenite Concentrate Price (US\$/t)	260
Royalty Rate (%)	5.0%
Corporate Tax Rate (%)	30.0%

Source: MST Access

Key sensitivities

Our valuation is most sensitive to assumptions on the vanadium price and AUD/USD exchange rate, as well as (to a lesser extent) capital and operating costs. Figure 7 shows how our base-case valuation would change from a variation in these assumptions.

Figure 7: Sensitivity analysis to key financial modelling assumptions



Source: MST Access

Investment Thesis: World-Class Vanadium Project + Tier 1 Location

TMT owns 100% of its flagship asset, the world-class Murchison Technology Metals Project (MTMP), located in the Tier 1 mining jurisdiction of Western Australia, just 50km south of the inland town of Meekatharra. The Project straddles two of the world's leading undeveloped vanadium deposits, Gabanintha and Yarrabubba. It has a high-grade vanadium resource, recoverable ilmenite credits at Yarrabubba, and first-quartile operating costs.

Flagship Project: Murchison Technology Metals Project (MTMP), Western Australia

In August 2022, TMT published a comprehensive 'Integration Study' on the MTMP. As an extension of the prior DFS completed for the Gabanintha vanadium deposit in isolation, the Integration Study incorporated the significant value identified at Yarrabubba and the potential for significant ilmenite by-product credits. The study estimated strong life-of-mine EBITDA margins of ~46%, which are likely to be much higher over the first 9 years of the operation, given that ilmenite production is weighted towards that period. TMT expects production at MTMP to ramp up over the course of 2026, assuming critical tasks are completed as per the current schedule (primarily offtake and financing).

Key operational and financial characteristics of existing project

- **Meaningful Ore Reserve:** 44.5mt Ore Reserve grading 0.89% V₂O₅; significant uplift in the Ore Reserve at Yarrabubba (+69%) to 15.9mt grading 0.87% V₂O₅ and 10% TiO₂.
- **Very long operation life** of 25 years (reserve life = 22.5 years), including 10.5mt of material currently classified as Inferred Resource within the Ore Reserve pit designs (we think this will be included as exploration and definition work advances).
- **Lowest-quartile operating costs** from high yielding geology enabling a simple operation and advantageous ilmenite by-product revenue.
- **Low cost, low emission power source:** TMT aims to utilise cost-effective natural gas for energy, offering cleaner fuel than competitors while integrating renewable energy to lower emissions.
- **Simple operations:** conventional mining and processing in a Tier 1 location for mining development (Western Australia); straightforward open-pit truck and excavator mining operation with a strip ratio of 5.95:1
- **Easy access to global export markets** from strong links to port export infrastructure at Fremantle (for V₂O₅ product) and Geraldton (for TiO₂ product)
- **Maximised early cashflows and economic returns:** average annual vanadium production of 12.5ktpa V₂O₅ flake and 1.1mt ilmenite (grading ~47%), expected to be predominantly in the first 9 years of operation life
- **LOM revenue >A\$13bn**, assuming of A\$11.00/lb for vanadium (conservative), US\$260/t for ilmenite concentrate

Key opportunities for additional value capture beyond existing project definition

- conversion of the 10.5mt Inferred Resources and inclusion of these into the economic model
- pull-forward of ilmenite production profile at Yarrabubba
- moderated key cost assumptions vs. the Integration Study when the ongoing inflation outlook was uncertain
- value-adding processing options to produce and sell finished products directly to customers.

Robust Life-of-Mine
EBITDA Margins: ~46%

Lowest-quartile operating
costs from high-yielding
geology for effortless
operations.

Methodology & Disclosures

MST Access is a registered business name of MST Financial Services Pty Ltd (ACN 617 475 180 "MST Financial") which is a limited liability company incorporated in Australia on 10 April 2017 and holds an Australian Financial Services Licence (Number: 500 557). This research is issued in Australia through MST Access which is the research division of MST Financial. The research and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by MST Access is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a financial product you should read any relevant Product Disclosure Statement or like instrument.

This report has been commissioned by Technology Metals Australia and prepared and issued by Jonathan Sharp of MST Access in consideration of a fee payable by Technology Metals Australia. MST Access receives fees from the Company referred to in this document, for research services and other financial services or advice we may provide to that Company.

MST Financial also provides equity capital markets ("ECM") and corporate advisory services through its capital markets division, MST Capital Markets ("MST Capital"). MST Capital provides these services to a range of companies including clients of the MST Access service. As such, MST Capital may in future provide ECM and/or corporate advisory services to the Company that is the subject of this research report and, accordingly, may receive fees from the Company for providing such services. However, MST Financial has measures in place to ensure the independence of its research division is maintained, including information barriers between its Capital Markets and Research teams. In addition, neither MST Access, nor any of its research analysts, receive any financial benefit that is based on the revenues generated by MST Capital Markets or any other division of MST Financial.

The analyst has received assistance from the Company in preparing this document. The Company has provided the analyst with communication with senior management and information on the Company and industry. As part of due diligence, the analyst has independently and critically reviewed the assistance and information provided by the Company to form the opinions expressed in the report. Diligent care has been taken by the analyst to maintain an honest and fair objectivity in writing this report and making the recommendation. Where MST Access has been commissioned to prepare content and receives fees for its preparation, please note that NO part of the fee, compensation or employee remuneration paid will either directly or indirectly impact the content provided.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently certified. Opinions contained in this report represent those of MST Access at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results and estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of liability: To the fullest extent allowed by law, MST Access shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out of or in connection with the access to, use of or reliance on any information contained in this report. No guarantees or warranties regarding accuracy, completeness or fitness for purpose are provided by MST Access, and under no circumstances will any of MST Financials' officers, representatives, associates or agents be liable for any loss or damage, whether direct, incidental or consequential, caused by reliance on or use of the content.

General Advice Warning

MST Access Research may not be construed as personal advice or recommendation. MST encourages investors to seek independent financial advice regarding the suitability of investments for their individual circumstances and recommends that investments be independently evaluated. Investments involve risks and the value of any investment or income may go down as well as up. Investors may not get back the full amount invested. Past performance is not indicative of future performance. Estimates of future performance are based on assumptions that may not be realised. If provided, and unless otherwise stated, the closing price provided is that of the primary exchange for the issuer's securities or investments. The information contained within MST Access Research is published solely for information purposes and is not a solicitation or offer to buy or sell any financial instrument or participate in any trading or investment strategy. Analysis contained within MST Access Research publications is based upon publicly available information and may include numerous assumptions. Investors should be aware that different assumptions can and do result in materially different results.

MST Access Research is distributed only as may be permitted by law. It is not intended for distribution or use by any person or entity located in a jurisdiction where distribution, publication, availability or use would be prohibited. MST makes no claim that MST Access Research content may be lawfully viewed or accessed outside of Australia. Access to MST Access Research content may not be legal for certain persons and in certain jurisdictions. If you access this service or content from outside of Australia, you are responsible for compliance with the laws of your jurisdiction and/or the jurisdiction of the third party receiving such content. MST Access Research is provided to our clients through our proprietary research portal and distributed electronically by MST to its MST Access clients. Some MST Access Research products may also be made available to its clients via third party vendors or distributed through alternative electronic means as a convenience. Such alternative distribution methods are at MST's discretion.

Access & Use

Any access to or use of MST Access Research is subject to the [Terms and Conditions](#) of MST Access Research. By accessing or using MST Access Research you hereby agree to be bound by our Terms and Conditions and hereby consent to MST collecting and using your personal data (including cookies) in accordance with our [Privacy Policy](#), including for the purpose of a) setting your preferences and b) collecting readership data so we may deliver an improved and personalised service to you. If you do not agree to our Terms and Conditions and/or if you do not wish to consent to MST's use of your personal data, please do not access this service.

Copyright of the information contained within MST Access Research (including trademarks and service marks) are the property of their respective owners. MST Access Research, video interviews and other materials, or any portion thereof, may not be reprinted, reproduced, sold or redistributed without the prior written consent of MST.