

TECHNOLOGY
METALS AUSTRALIA LIMITED

ASX Announcement

8 February 2021

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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

8,550,000 – Unquoted Director and
Employee Options at various
exercise prices and expiry dates

2,350,000 – Performance Rights

ASX Code: TMT

FRA Code: TN6



PROJECT DIRECTOR APPOINTED TO DRIVE YARRABUBBA DFS EXPANDED ENGAGEMENT WITH LEADING VRFB COMPANY

HIGHLIGHTS

- Resource industry professional Michael Bourke appointed to advance the Yarrabubba development.
- Broad ranging experience in project development, operations and commercial contracting.
- Joins a strong team that is focused on the rapid progression of Yarrabubba towards development.
- Expanded engagement with Big Power in regard to assessing downstream vanadium processing.
- MOU extension provides opportunity to explore joint development of vanadium electrolyte production.

Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to announce the appointment of Mr Michael Bourke as Project Director. Michael has been engaged to work with TMT's team of employees and consultants to drive the rapid progression of the Yarrabubba Iron-Vanadium Project ("**Yarrabubba Project**") towards development. His role also includes supporting the progression of the environmental approvals for the Gabanintha Vanadium Project ("**GVP**").

Michael has over 30 years' experience across development, operational and commercial roles, including seven years with Iluka Resources and six years with WMC Resources. He deployed a surface mining fleet and maintenance services on projects in Canada for Emeco and was responsible for process plant maintenance services and fabrication for AGC in the mining and oil & gas sector of WA. His most recent role was as Project Manager at Bluestone Mines Tasmania progressing a study on the development of a major tin tailings treatment project and enhancing the existing processing plant and underground operation.

Managing Director Ian Prentice commented: "Michael is a fantastic addition to our small highly focused professional team at TMT, with his strong project development, cost management and financial modelling / planning skills to be invaluable as we progress the Yarrabubba Project towards development.

The expanded engagement with Big Power is a very big vote of confidence in the Company's project development strategy and ensures TMT participation in the rapidly emerging VRFB industry."

BIG PAWER MOU

Technology Metals entered into an MOU with Big Power Electrical Technology Xiangyang Inc. Co., Ltd. ("**Big Power**") in May 2020 covering negotiating a definitive and binding offtake agreement for the supply and purchase of high purity GVP V₂O₅ and the establishment of a JV to produce vanadium electrolyte / establish a VRFB manufacturing base in Australia. Engagement with Big Power, which included proposed site visits to complete mutual due diligence, has been impacted by the travel restrictions imposed as part of the global COVID-19 pandemic. The Parties have however maintained dialogue with regard to exploring the opportunity to bring together Big Power's world leading proprietary VRFB technology and TMT's very high purity vanadium product, enabling the companies to increase the understanding of each other's businesses and the opportunities presented.

The Company is very pleased that the Parties have now agreed on an expanded engagement and an extension of the MOU until 31 December 2021, to further facilitate the development of this very important relationship. Big Power is continuing to develop its world leading technology, with the MOU extension providing an opportunity for the Company to participate in the joint development of electrolyte production facilities, further strengthening the opportunity to establish a significant downstream value add industry in Western Australia. This marks another significant step in TMT's vision of becoming a key participant in the stationary storage battery market through the potential development and support of a VRFB manufacturing base to target the rapidly emerging stationary storage battery market opportunities in Australia.

This opportunity further enhances the significant economic and social benefits for the Mid-West region of Western Australia, the State and the Nation that the development of Yarrabubba and Gabanintha is expected to generate over a long period of time.

Big Power is considered to be in the top 3 of VRFB enterprises in China and to date has deployed over 20 VRFB's across Asia, including Singapore, South Korea and India with a VRFB R&D team considered to be one of the top six R&D teams in the World. Headquartered in Xiangyang, Hubei Province, Peoples Republic of China, Big Power was established in 2002. Big Power continues to progress the development and roll out of its VRFB's, with a focus on very large stationary storage solutions in China.

ABOUT BIG PAWER ELECTRICAL TECHNOLOGY XIANGYANG INC. CO., LTD

Big Power Electrical Technology Xiangyang Inc. Co., Ltd, established in 2002, is a leader in the R&D, manufacture, sales and technical service of motor soft starting and supporting high-tech enterprises with electrical control equipment and stationary energy storage systems. Big Power, which plans to list on the Science and Technology Innovation Board of the Shanghai Stock Exchange (SSE Star Market), the Chinese equivalent of the NASDAQ, has 420 employees, including 120 in R&D, and exports equipment to Africa, Australia, South East Asia, Turkey, Russia.

Big Power commenced R&D into VRFB development in 2009 and established its industrial production platform in 2014, having to date deployed over 20 VRFB's across Asia, including Singapore, South Korea and India. The Big Power VRFB R&D team is considered to be one of the top six R&D teams in the World. It has been listed as one of the key companies in the China Torch Program, a national program actively seeking dynamic and high technology innovation. Big Power, with its operational base in Xiangyang, Hubei Province, Peoples Republic of China, has 19 patents in place covering all key components of the VRFB technology. Big Power is considered to be in the top 3 of VRFB enterprises in China, with only Dalian Rongce, Big Power and VRB Energy having MW scale projects.

ABOUT VANADIUM

Vanadium is a hard, silvery grey, ductile and malleable speciality metal with a resistance to corrosion, good structural strength and stability against alkalis, acids and salt water. The elemental metal is rarely found in nature. The main use of vanadium is in the steel industry where it is primarily used in metal alloys such as rebar and structural steel, high-speed tools, titanium alloys and aircraft. The addition of a small amount of vanadium can increase steel strength by up to 100% and reduces weight by up to 30%. Vanadium high-carbon steel alloys contain in the order of 0.15 to 0.25% vanadium while high-speed tool steels, used in surgical instruments and speciality tools, contain in the range of 1 to 5% vanadium content. Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

An emerging and likely very significant use for vanadium is the rapidly developing energy storage (battery) sector with the expanding use and increasing penetration of the vanadium redox flow batteries (“**VRFB’s**”). VRFB’s are a rechargeable flow battery that uses vanadium in different oxidation states to store energy, using the unique ability of vanadium to exist in solution in four different oxidation states. VRB’s provide an efficient storage and re-supply solution for renewable energy – being able to time-shift large amounts of previously generated energy for later use – ideally suited to micro-grid to large scale energy storage solutions (grid stabilisation). Some of the unique advantages of VRB’s are:

- a lifespan of 20 years with very high cycle life (up to 20,000 cycles) and no capacity loss,
- rapid recharge and discharge,
- easily scalable into large MW applications,
- excellent long-term charge retention,
- improved safety (non-flammable) compared to Li-ion batteries, and
- can discharge to 100% with no damage.

Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

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

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

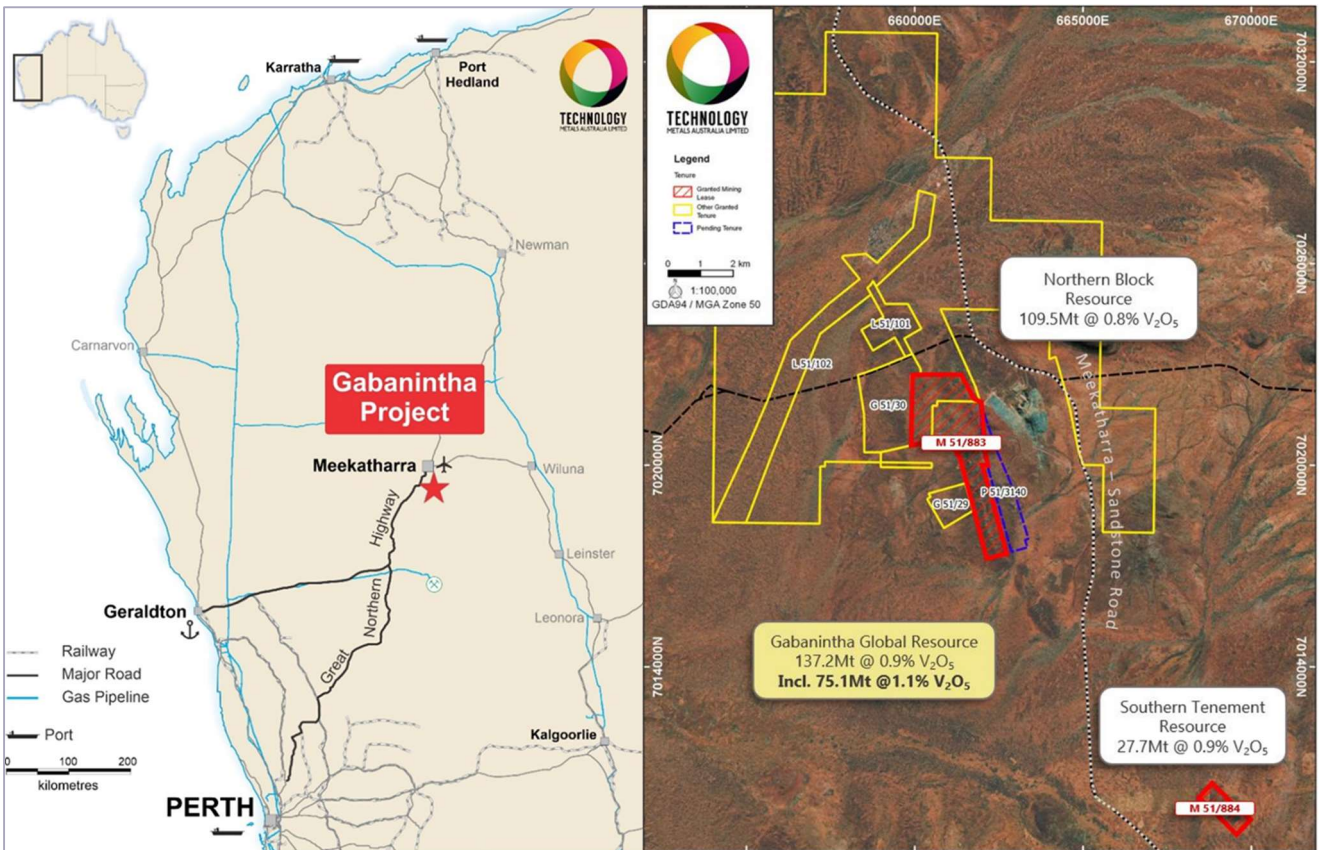
Ian Prentice
Managing Director
Technology Metals Australia Limited

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About Technology Metals Australia Limited

Technology Metals Australia Limited (ASX: TMT) was incorporated on 20 May 2016 for the primary purpose of identifying exploration projects in Australia and overseas with the aim of discovering commercially significant mineral deposits. The Company's primary exploration focus has been on the Gabanintha Vanadium Project located 40 km south east of Meekatharra in the mid-west region of Western Australia with the aim to develop this project to potentially supply high-quality V₂O₅ flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

The Project consists of eight granted tenements and two applications divided between the Gabanintha Vanadium Project (8 tenements) and the Yarrabubba Project (2 tenements). Vanadium mineralisation is hosted by a north west – south east trending layered mafic igneous unit with a distinct magnetic signature. A key difference between Gabanintha and several other vanadium deposits is the consistent presence of the high-grade massive vanadium – titanium – magnetite basal unit, which results in an overall higher grade for the Gabanintha Vanadium Project.



GVP Location and Tenure

Data from the Company's 2017 and 2018 drilling programs, including 111 RC holes and 53 HQ and PQ diamond holes at the Northern Block and 31 RC holes and 4 PQ sized diamond holes completed in late 2018 at the Southern Tenement, has been used by independent geological consultants CSA Global to generate a global Inferred and Indicated Mineral Resource estimate, reported in accordance with the JORC Code 2012 edition, for the Project. The Resource estimate confirms the position of the Gabanintha Vanadium Project as one of the highest grade vanadium projects in the world.

Global Mineral Resource estimate for the Gabanintha Vanadium Project as at 29 June 2020.

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.

Data from the global Mineral Resource estimate and the 2019 DFS on the GVP were used by independent consultants CSA Global to generate a Proven and Probable Ore Reserve estimate based on the Measured and Indicated Mineral Resource of 39.6 Mt at 0.9% V₂O₅ located within the Northern Block of tenements and the Southern Tenement at Gabanintha.

Ore Reserve Estimate as at 15 September 2020

Reserve Category	Tonnes (Mt)	Grade V ₂ O ₅ %	Contained V ₂ O ₅ Tonnes (Mt)
Proven	1.1	0.96	0.01
Probable	37.9	0.90	0.34
Total	39.0	0.90	0.26

- Note: Includes allowance for mining recovery (98% for massive magnetite ore and 95% for banded and disseminated ore) and mining dilution applied as a 1 metre dilution skin; resulting in a North Pit dilution for massive magnetite ore of 13% at 0.45% V₂O₅, and North Pit dilution for banded and disseminated ore of 29% at 0.0% V₂O₅; a Central Pit dilution for massive magnetite ore of 10% at 0.46% V₂O₅, and Central Pit dilution for banded and disseminated ore of 20% at 0.0% V₂O₅; a Southern Pit dilution for massive magnetite ore of 12% at 0.49% V₂O₅, and Southern Pit dilution for banded and disseminated ore of 15% at 0.21% V₂O₅)
- Rounding errors may occur

Capital Structure	
Fully Paid Ordinary Shares on Issue	149.6m
Unquoted Options (\$0.25 – 15/06/22 expiry)	6.850m
Unquoted Options (\$0.20 – 10/05/23 expiry) ¹	8.0m
Unquoted Options (\$0.50 – 01/01/24 expiry) ²	0.55m
Class B Performance Rights ³	1.175m
Class C Performance Rights ⁴	1.175m

- Director and employee options – 50% vested on grant of the mining licences, 50% vest on Gabanintha FID
- Employee options – 50% vest and subject to the Company making a final investment decision (FID) for the Yarrabubba Project prior to 30 October 2023 and 50% vest subject to the Company achieving first commercial production from the Yarrabubba Project prior to 30 October 2023.
- Each Class B Performance Right is a right to receive one fully paid ordinary share in TMT, subject to the terms of the employee incentive scheme and subject to the Company making a final investment decision (FID) for the Yarrabubba Project prior to 30 October 2023.
- Each Class C Performance Right is a right to receive one fully paid ordinary share in TMT, subject to the terms of the employee incentive scheme and subject to the Company achieving first commercial production from the Yarrabubba Project prior to 30 October 2023.

Forward-Looking Statements

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Technology Metal Australia Limited's planned exploration programs, corporate activities and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. Technology Metal Australia Limited believes that it has a reasonable basis for its forward-looking statements; however, forward-looking statements involve risks and uncertainties and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

Competent Persons Statement

*The information in this report that relates to Exploration Results is 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 a 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 Yarrabubba project is based on and fairly represents, information and supporting documentation compiled by Mr Brett Morgan of METS Engineering Group Pty Ltd. 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.