



**TECHNOLOGY**  
METALS AUSTRALIA LIMITED

**ASX Announcement**

**24 June 2020**

ACN: 612 531 389

T: 08 6489 1600

F: 08 6489 1601

E: [investors@tmtlimited.com.au](mailto:investors@tmtlimited.com.au)

Suite 9, 330 Churchill Avenue,

Subiaco WA 6008

[www.tmtlimited.com.au](http://www.tmtlimited.com.au)

#### **Directors**

Michael Fry:  
**Chairman**

Ian Prentice:  
**Managing Director**

Sonu Cheema:  
**Director and Company Secretary**

#### **Issued Capital**

122,400,000 ("TMT") Fully Paid Ordinary Shares

8,250,000 – Unquoted Director and Employee Options exercisable at \$0.20 on or before 10 May 2023

9,599,834 – Unquoted Options – various exercise prices and dates

**ASX Code: TMT**

**FRA Code: TN6**



# **NOTICE OF AWARD EXECUTED WITH LEADING KILN SUPPLIER FLSMIDTH**

## **HIGHLIGHTS**

- Danish company FLSMIDTH selected under a binding Notice of Award as preferred supplier of the key roasting kiln section of the Gabanintha processing plant.
- Technology Metals will engage in discussions with EKF, the Danish Export Credit agency, to assess if equipment supplied by FLSMIDTH under the agreement qualifies for export credit agency financing support.
- The value of the proposed supply contract is circa A\$50 million (ex GST).
- Technology Metals has a strong working relationship with FLSMIDTH on the back of the successful pilot scale testwork completed during the Gabanintha DFS.
- The Company is also engaged in discussions with FLSMIDTH on supply of the Crushing, Milling and Magnetic Separation section of the Gabanintha processing plant.

Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to announce the execution of a binding Notice of Award ("**NoA**") with FLSMIDTH to supply the key roasting kiln section ("the **Equipment**") of the Gabanintha Vanadium Project ("**Project**" or "**GVP**") processing plant.

FLSMIDTH is a Danish engineering company based in Copenhagen, Denmark with almost 11,700 employees worldwide. It is a leading supplier of production facilities, equipment and service solutions to the mining and cement industries and has demonstrated World leading expertise in rotary roasting kilns.

FLSMIDTH supplied equipment qualifies for export credit agency financing support through Denmark's EKF, subject to EKF board approval and thorough due diligence. Technology Metals will be actively pursuing the opportunity to access this funding support as an important part of the overall Project funding strategy.

**Managing Director Ian Prentice commented:** "We are very pleased to have further developed our relationship with FLSMIDTH through to this Notice of Award for what is the key operating component of the Gabanintha processing plant. Formalising this relationship with the World's leading supplier of rotary kilns enables the Company to leverage off FLSMIDTH's expertise as well as pursue the opportunity to access support from the Danish export credit agency, EKF, as a major step in implementing the Company's Project financing strategy".

Technology Metals has executed a binding NoA confirming that it has selected FLSMIDTH as the preferred supplier of the key roasting kiln section of the Gabanintha vanadium processing plant and committing to entering in to a supply contract with FLSMIDTH on agreed terms and conditions. FLSMIDTH are kiln experts, offering advanced, custom-tailored rotary kiln solutions, with recent experience in the design, installation and support of roasting kilns for vanadium operations.

The Company developed a relationship with FLSMIDTH during the Definitive Feasibility Study (“DFS”) phase of the Project, with FLSMIDTH conducting the pilot plant scale salt roasting testwork on a bulk sample of Gabanintha magnetic concentrate at its facility in Pennsylvania, USA. The pilot scale rotary kiln test work, utilising a 9.8m long by 0.9m in diameter rotary kiln (Figure 1), enabled continuous processing of the magnetic concentrate to provide measurement of key processing factors such as salt dosage, vanadium solubility, recovery and residence times. Data generated from the pilot scale rotary kiln test work was used by FLSMIDTH to assist in engineering design, sizing and cost estimate studies for the “roasting” section of the processing circuit for inclusion in the DFS.



**Figure 1:** Pilot Rotary Kiln (9.8m long by 0.9m diameter) at FLSMIDTH Test Facility

## **EUROPEAN EXPORT CREDIT AGENCY**

Equipment and technology supplied by FLSMIDTH qualifies for financing support through the Danish export credit agency EKF, subject to EKF board approval and thorough due diligence processes. FLSMIDTH will engage in the process of obtaining support from EKF.

EKF and FLSMIDTH have co-operated for more than 90 years with projects all over the world. As a result, FLSmidth is one of EKF's highly valued customers. EKF have historically been able to support FLSMIDTH's global business with financing solutions which may not necessarily be suited for a typical bank loan.

Technology Metals will be actively pursuing the opportunity to access export credit agency funding support through EKF, with the assistance of FLSMIDTH, as an important part of the overall Project funding strategy. This is a very important first step in the process of implementing the Company's Project financing strategy and the pathway to development of the GVP as the World's next large scale, low cost, long life primary vanadium mine.

## **COMMERCIAL TERMS**

The supply proposal under the NoA contemplates the completion of a front-end engineering and design ("FEED") study and supply of the required Equipment for the complete roasting kiln section of the Gabanintha processing plant. The value of the proposed supply contract is circa A\$50 million (ex GST), including approximately A\$860,000 (ex GST) for the FEED study. The commencement of the FEED study is subject to written instruction from the Company to proceed and is envisaged to be completed within 26 weeks. FLSMIDTH shall proceed, subject to written approval from the Company, to progress long lead procurement activities in relation to the Equipment.

Technology Metals may terminate the NoA at any time without cause, subject to payment to FLSMIDTH of any outstanding fees related to services activities completed up to the date of termination.

## **ABOUT FLSMIDTH**

FLSMIDTH & Co A/S is a Danish engineering company based in Copenhagen, Denmark, that delivers sustainable productivity to the global mining and cement industries. It delivers market-leading engineering, equipment and service solutions to its customers enabling them to improve performance, drive down costs and reduce environmental impact. With MissionZero, its 2030 ambition is to enable zero emission and zero waste (water, energy) in cement production and mining. Its operations span the globe with 11,700 employees present in more than 60 countries. In 2019, FLSmidth generated revenue of DKK 20,6 billion. [www.flsmidth.com](http://www.flsmidth.com)

.

## **ABOUT EKF**

EKF is Denmark's Export Credit Agency, owned and guaranteed by the Danish state, operates as a modern financial enterprise. EKF helps Danish export by making it possible and attractive for customers abroad to purchase Danish products from Danish companies. It does so by helping raise financing and by insuring companies and banks against the potential financial and political risks of trading with other countries. It assists both large and small companies and is happy to provide solutions tailored to each company's specific needs. [www.ekf.dk/en](http://www.ekf.dk/en)

## 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,*

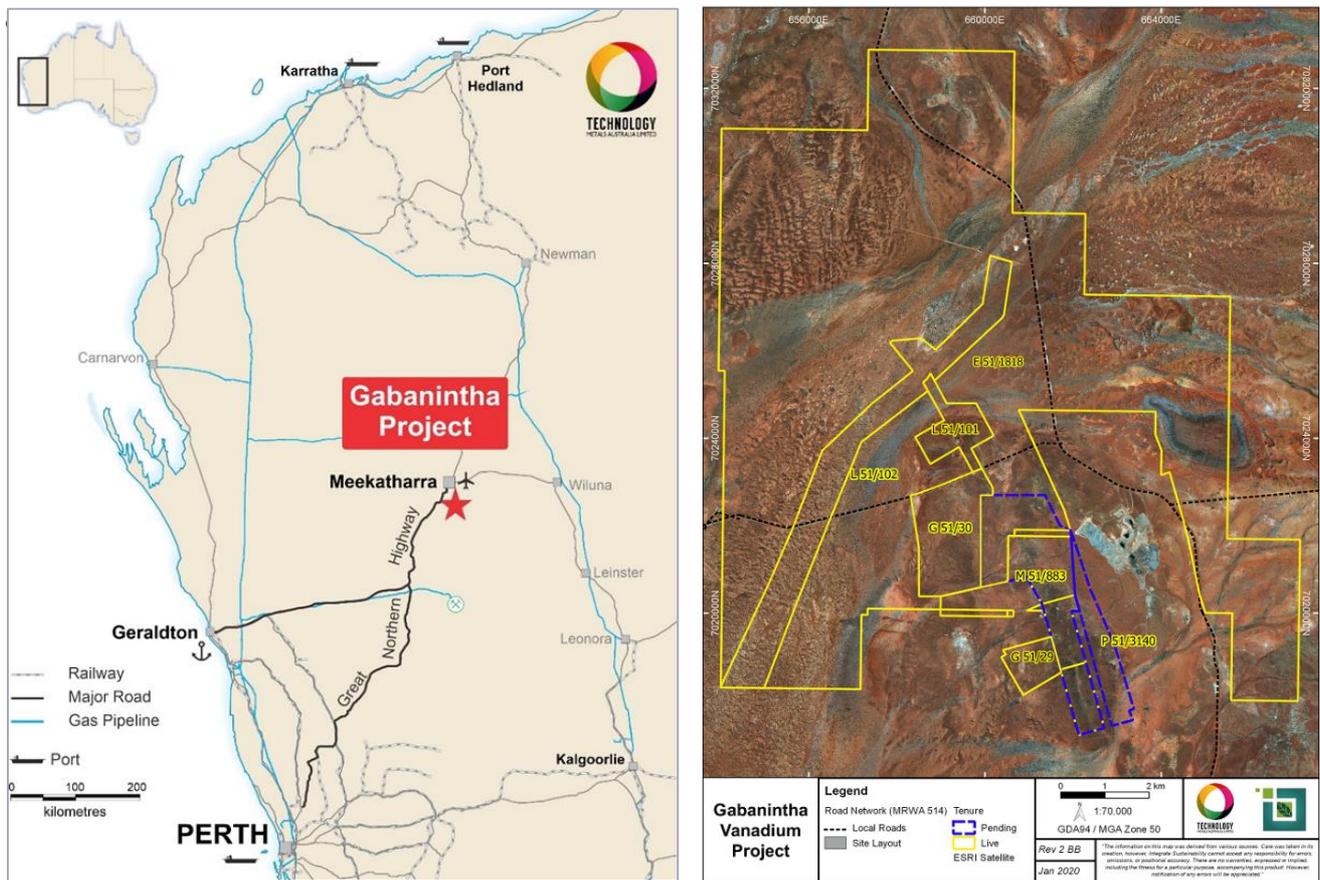
Ian Prentice  
**Managing Director**  
**Technology Metals Australia Limited**

- ENDS -

**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 V<sub>2</sub>O<sub>5</sub> flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

The Project consists of eleven granted tenements and three applications (including two Mining Leases) divided between the Northern Block of Tenements (12 tenements) and the Southern Tenement (2 tenements). Vanadium mineralisation is hosted by a north west – south east trending layered mafic igneous unit with a distinct magnetic signature. Mineralisation at Gabanintha is similar to the Windimurra Vanadium Deposit, located 270km to the south, and the Barrambie Vanadium-Titanium Deposit, located 155km to the south east. The key difference between Gabanintha and these 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 23 RC holes (for 2,232 m) 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 27 March 2019

Material Type	Classification	Tonnage (Mt)	V <sub>2</sub> O <sub>5</sub> %	Fe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	TiO <sub>2</sub> %	LOI %	P%	S%
Massive Magnetite	<b>Measured (North)</b>	<b>1.2</b>	<b>1.0</b>	<b>44.7</b>	<b>6.2</b>	<b>10.4</b>	<b>11.4</b>	<b>0.0</b>	<b>0.009</b>	<b>0.2</b>
	<b>Indicated (North)</b>	<b>18.5</b>	<b>1.1</b>	<b>49.1</b>	<b>5.2</b>	<b>5.8</b>	<b>12.9</b>	<b>-0.1</b>	<b>0.007</b>	<b>0.2</b>
	Inferred (North)	41.0	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	10.4	1.1	49.1	4.9	5.9	12.6	-0.4	0.004	0.3
	<b>Total Inferred</b>	<b>51.5</b>	<b>1.1</b>	<b>48.0</b>	<b>5.5</b>	<b>6.9</b>	<b>12.6</b>	<b>0.1</b>	<b>0.007</b>	<b>0.2</b>
	<b>Massive Global</b>	<b>71.2</b>	<b>1.1</b>	<b>48.2</b>	<b>5.4</b>	<b>6.7</b>	<b>12.7</b>	<b>0.1</b>	<b>0.007</b>	<b>0.2</b>
Disseminated / Banded Magnetite	<b>Indicated (North)</b>	<b>10.3</b>	<b>0.6</b>	<b>28.6</b>	<b>13.1</b>	<b>25.5</b>	<b>7.5</b>	<b>3.0</b>	<b>0.030</b>	<b>0.2</b>
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	11.1	0.6	30.2	11.9	23.4	7.7	2.4	0.012	0.4
	<b>Total Inferred</b>	<b>49.6</b>	<b>0.6</b>	<b>27.8</b>	<b>12.5</b>	<b>26.5</b>	<b>7.1</b>	<b>3.1</b>	<b>0.024</b>	<b>0.2</b>
	<b>Diss / Band Global</b>	<b>59.9</b>	<b>0.6</b>	<b>27.9</b>	<b>12.6</b>	<b>26.4</b>	<b>7.2</b>	<b>3.1</b>	<b>0.025</b>	<b>0.2</b>
<b>Combined</b>	<b>Global Combined</b>	<b>131</b>	<b>0.9</b>	<b>39.0</b>	<b>8.7</b>	<b>15.7</b>	<b>10.1</b>	<b>1.4</b>	<b>0.015</b>	<b>0.2</b>

\* Note: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V<sub>2</sub>O<sub>5</sub> lower cut-off grade for the basal massive magnetite zone and using a nominal 0.4% V<sub>2</sub>O<sub>5</sub> lower cut-off grade for the banded and disseminated mineralisation zones. The Mineral Resource is quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V<sub>2</sub>O<sub>5</sub>. Differences may occur due to rounding

Data from the global Mineral Resource and the recently completed 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 30.1 Mt at 0.9% V<sub>2</sub>O<sub>5</sub> located within the Northern Block of tenements at Gabanintha.

Ore Reserve Estimate as at 31 May 2018

Reserve Category	Tonnes (Mt)	Grade V <sub>2</sub> O <sub>5</sub> %	Contained V <sub>2</sub> O <sub>5</sub> Tonnes (Mt)
Proven	1.1	0.96	0.01
Probable	28.5	0.88	0.25
<b>Total</b>	<b>29.6</b>	<b>0.88</b>	<b>0.26</b>

- 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% V<sub>2</sub>O<sub>5</sub>, and North Pit dilution for banded and disseminated ore of 29% at 0.0% V<sub>2</sub>O<sub>5</sub>; a Central Pit dilution for massive magnetite ore of 10% at 0.46% V<sub>2</sub>O<sub>5</sub>, and Central Pit dilution for banded and disseminated ore of 20% at 0.0% V<sub>2</sub>O<sub>5</sub>.)
- Rounding errors may occur

Capital Structure	
Fully Paid Ordinary Shares on Issue	122.4m
Unquoted Options (\$0.20 – 10/05/23 expiry)	8.25m
Unquoted Options (\$0.35 – 12/01/21 expiry)	2.75m
Unquoted Options (\$0.25 – 15/06/22 expiry)	6.850m

\* - Director and employee options – 50% vest on grant of mining licence, 50% vest on Gabanintha FID

**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 are; 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 are based on information compiled by Mr Ian Prentice. Mr Prentice is Managing Director of the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Prentice 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 Prentice 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 Grant Louw. Mr Louw is a Principal Consultant with CSA Global and a Member of the Australian Institute of Geoscientists. Mr Louw has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report 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' ("**JORC Code**"). Mr Louw 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 that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso and reviewed by Mr Karl van Olden, both employees of CSA Global Pty Ltd. Mr van Olden takes overall responsibility for the Report as Competent Person. Mr van Olden 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, Karl van Olden 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