

# BUILDING A GLOBAL STRATEGIC METALS COMPANY

ASX: **TNG**

**PAUL BURTON – MANAGING DIRECTOR & CEO**

**“Very advanced project ... to produce high purity Vanadium Pentoxide, high quality Titanium Pigment, high grade Iron Oxide pellet...”**

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## COMPETENT PERSON'S STATEMENTS

- ▶ The information in this report that relates to the Mount Peake Mineral Resource estimates is extracted from an ASX Announcement dated 26 March 2013, (see ASX Announcement - 26 March 2013, "Additional Information on the Mount Peake Resource", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.com.au)), and was completed in accordance with the guidelines of the JORC Code (2012). Initial mining and financial assessment work, based on the Mineral Resource, followed (see ASX Announcement - 15 July 2013, "TNG Considers Two-Stage Development Option for Mount Peake Project, NT", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.com.au)). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.
- ▶ The information in this report that relates to the Mount Peake Ore Reserve estimates is extracted from an ASX Announcement dated 31 July 2015, (see ASX Announcement - 31 July 2015, "Mount Peake Feasibility Study Confirms a World-Class Project", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asc.com.au](http://www.asc.com.au)) and was completed in accordance with the guidelines of the JORC Code (2012). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Ore Reserve estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

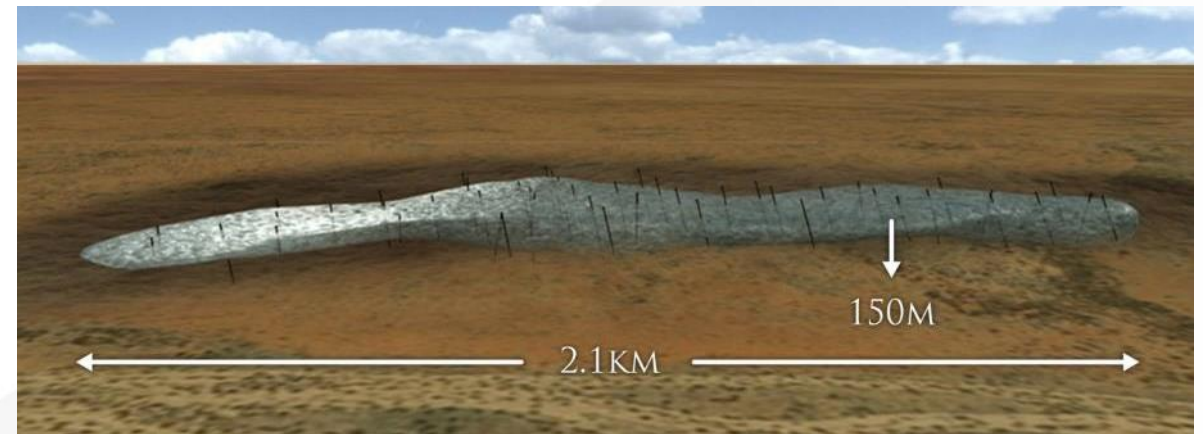
## PRODUCTION TARGETS AND FINANCIAL INFORMATION

- ▶ Information in relation to the Mount Peake Definitive Feasibility, including production targets and financial information, included in this report is extracted from an ASX Announcement dated 20 November 2017, (see ASX Announcement - 20 November 2017, "Updated Feasibility Study Results", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.com.au)). The Company confirms that all material assumptions underpinning the production target and financial information set out in the announcement released on 20 November 2017 continue to apply and have not materially changed.



# MOUNT PEAKE TITANO-MAGNETITE PROJECT

## A WORLD CLASS DEPOSIT



# SIMPLE CONCEPT : One Mine

## THREE HIGH VALUE, HIGH PURITY PRODUCTS





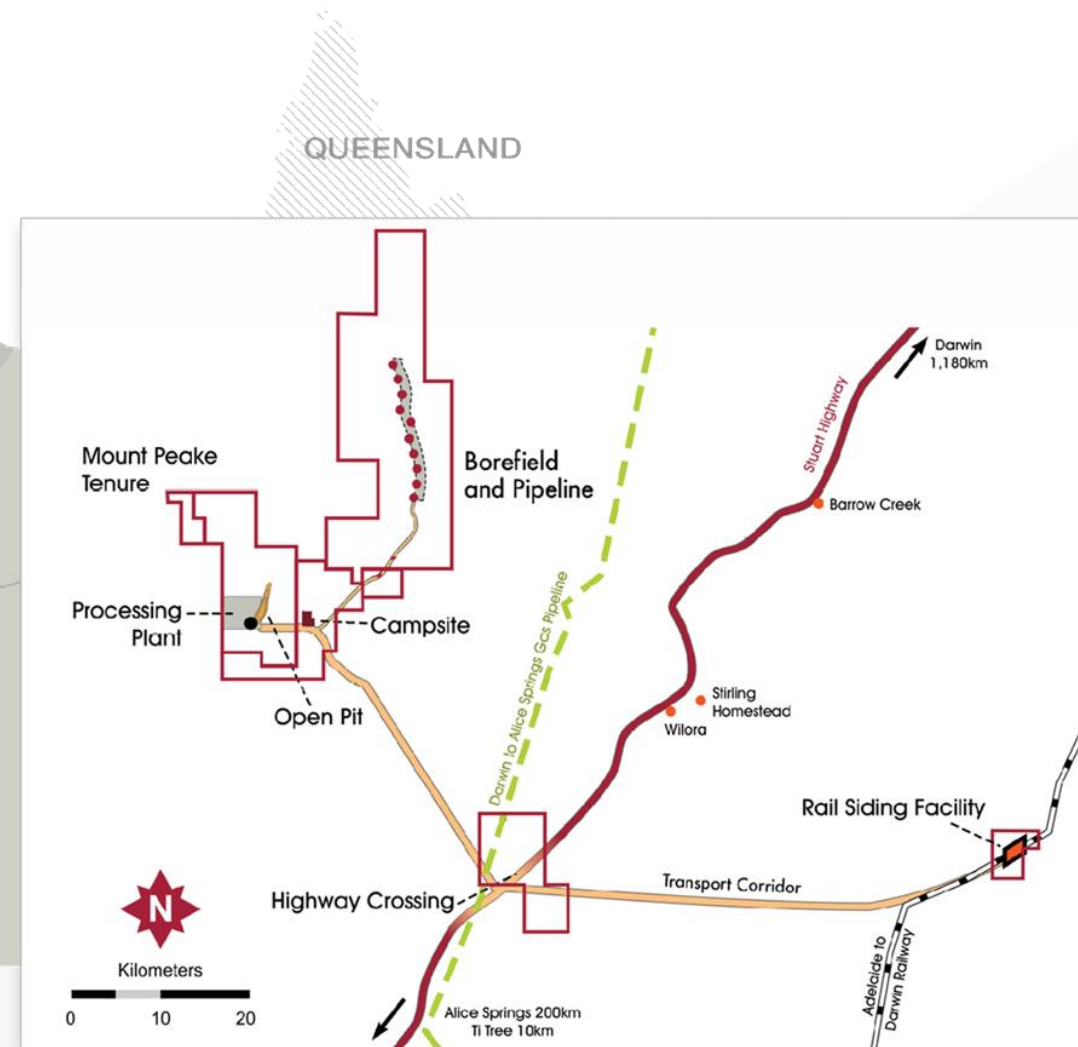
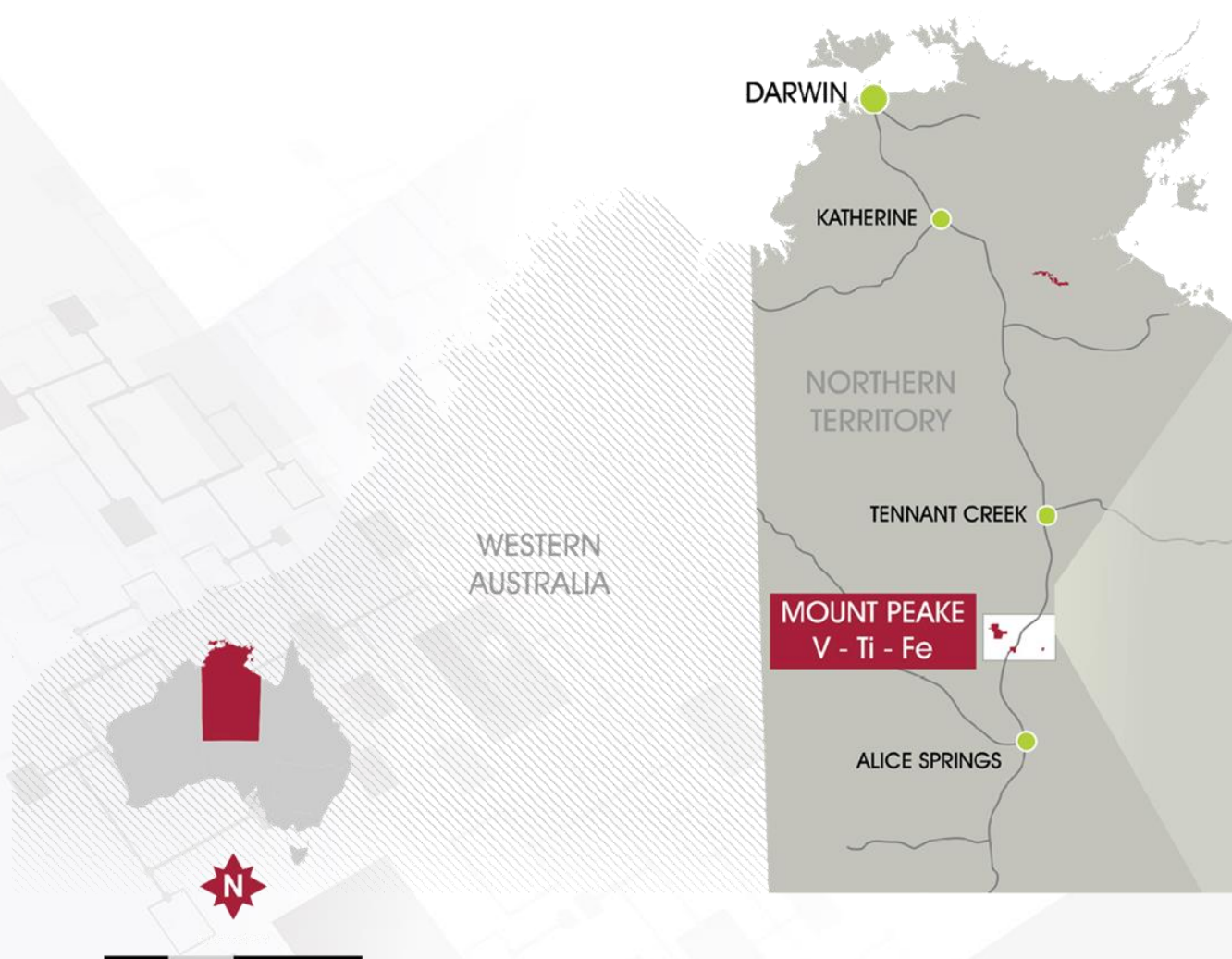
# VERTICAL INTEGRATION

## FROM PRODUCTION TO MARKET

- ▼ We own our own feedstock
- ▼ Processing plant in low risk location
- ▼ Game changing TIVAN® technology enabling breakthrough in high-purity product development
- ▼ Partnerships with Tier 1 development partners
- ▼ Uniquely positioned to capitalise on global vanadium demand
- ▼ Off-take agreements in place
- ▼ Alternative opportunity to grow VRFB market
- ▼ Strong management and technical team



# LOCATED IN EXCELLENT JURISDICTION AND NEAR ALL KEY INFRASTRUCTURE



## FINANCIALLY ROBUST

### Operational Metrics

Mine life	19 years
Stage 1 feed (Y1 to Y4)	3mtpa
Stage 2 feed (Y5 to Y17)	6mtpa
Scheduled mined material (LoM)	81mt
Operating cost per tonne processed	A\$185
Magnetite concentrate produced (LoM)	24.3mt
V <sub>2</sub> O <sub>5</sub> produced (LoM)	0.24mt
Titanium pigment produced (LoM)	3.5mt
Fe <sub>2</sub> O <sub>3</sub> produced (LoM)	10.6mt

### Financial Metrics

Pre-tax NPV <sub>8%</sub>	A\$4.7 b
IRR pre-tax	44%
Payback period	3 years
Net annual operating cash flow	A\$738 million
Stage 1 pre-production capital	A\$853 million
Stage 2 capital (funded from cashflow)	A\$969 million
Revenue (LoM)	A\$29.2 billion
Operating cash flow (LoM)	A\$13.5 billion
Net cash flow (LoM)	A\$11.7 billion
Pre-tax NPV <sub>10%</sub>	A\$3.8 billion
Pre-tax NPV <sub>12%</sub>	A\$3.1 billion



# **CORPORATE STRUCTURE**

**TNG** LIMITED

An Australian resources company progressing towards development of our 100% owned world class Mount Peake Vanadium-Titanium-Iron Project in the Northern Territory, Australia.

BOARD OF DIRECTORS	
<b>John Elkington</b>	<b>Non-Executive Chairman</b> Experienced Chairman; Mining Professional, development experience
<b>Paul Burton</b>	<b>Managing Director and CEO</b> Exploration and Mining Executive; Project Developer, Geologist
<b>John Davidson</b>	<b>Non-Executive Director</b> Resources, Energy & Tech Executive
<b>Greg Durack</b>	<b>Non-Executive Director</b> Mining Executive; Project Development, Delivery & Operations

TOP SHAREHOLDERS	
<b>VIMSON GROUP</b> – Indian iron ore mining conglomerate	<b>10.34%</b>
<b>WWB INVESTMENTS P/L</b> – Private investor	<b>7.47%</b>
<b>SPARTA AG</b> – German Investment Fund	<b>6.07%</b>
<b>AOSU INVESTMENT &amp; DEVELOPMENT CO</b> – Chinese Private Company	<b>5.25%</b>
<b>DELPHI UNTERNEHMENSBERATUNG AG\ C</b> – German Investment Fund	<b>3.97%</b>
<b>SMS INVESTMENTS SA</b> – Mount Peake development partner	<b>1.31%</b>

CORPORATE DATA	
ASX code	<b>TNG</b>
Cash	<b>\$20.0 million</b>
Shares on issue	<b>1.1 billion</b>
Market capitalisation (at 11c)	<b>\$117.8 million</b>

## GROWING LIST OF STRATEGIC SHAREHOLDERS

### ▼ VIMSON Group:

Over 70-year old Indian Mining Conglomerate, family owned, based in Goa, India  
Integrated business supply chain; exploration, mining, processing, shipping  
Significant experience in the Iron Ore business with major clients in Japan and China



### ▼ Deutsche Balaton

German investment company listed at the German Stock Exchange for more than 20 years  
250 million EUR of equity (IFRS) and around 500 million EUR of total assets under management  
Delphi is the major shareholder of Deutsche Balaton and Sparta AG is a subsidiary of Deutsche Balaton



### ▼ AOSU:

Subsidiary of Chinese private engineering and supply company, Wanlong Group  
Listed on Shanghai Exchange



### ▼ SMS investments:

Part of the German based SMS group: Leading global supplier of metallurgical plants  
US\$5 billion per annum turnover  
A leading user of ECA finance





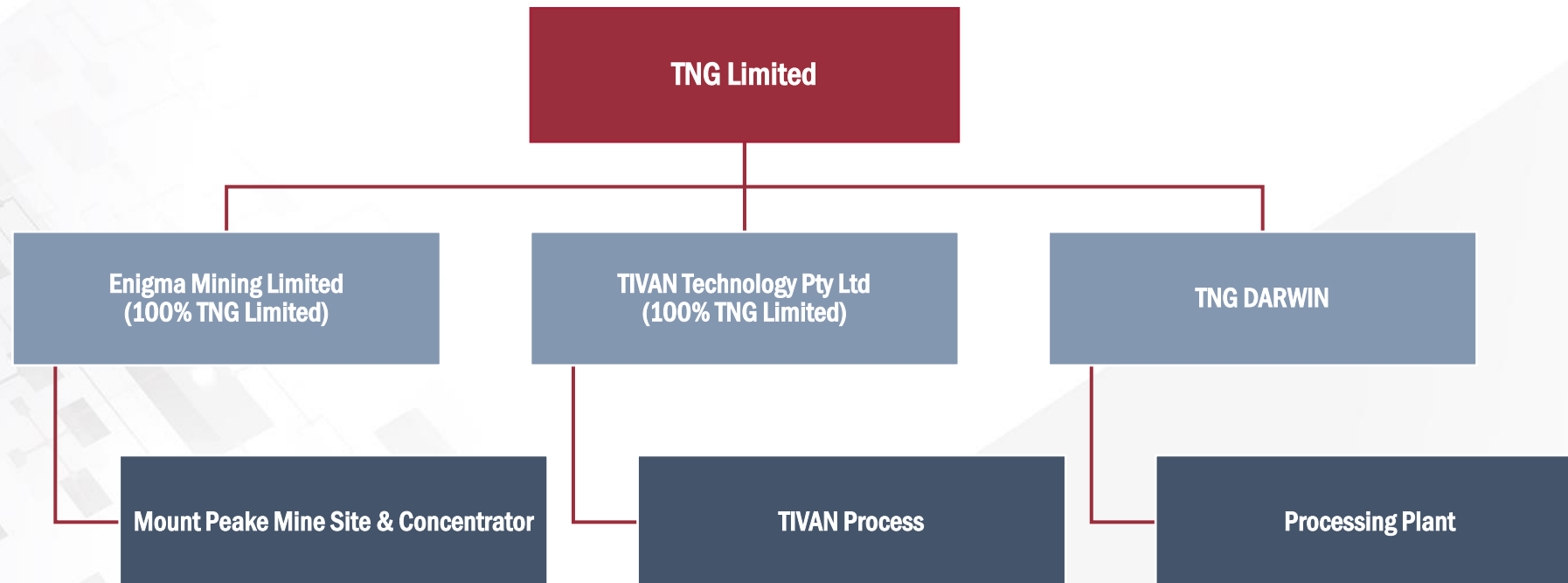
# TNG Limited

## OWNERSHIP



▼ TNG owns all Mining, Exploration and ancillary licences 100%

▼ TNG owns TIVAN Process and Patents 100%



# Key Milestones Completed

## MOUNT PEAKE PATH TO DEVELOPMENT



Evaluation	<ul style="list-style-type: none"> <li>• Proven Mineral Resources and Reserves</li> <li>• Definitive Feasibility Study completed</li> <li>• Robust financial metrics from three business model</li> </ul>
Approvals	<ul style="list-style-type: none"> <li>• Awarded Major Project Status by Northern Territory Government</li> <li>• Federal Government Environmental approval</li> <li>• Native Title Mining Agreement executed</li> <li>• Mining Licences granted</li> </ul>
Planning	<ul style="list-style-type: none"> <li>• Experienced development Partner undertaking FEED - SMS group with Como Engineers, Ti-Cons</li> <li>• Project Management –TNG plus advisors</li> <li>• Non-Process Infrastructure (NPI)– McMahon</li> </ul>
Technical	<ul style="list-style-type: none"> <li>• Fully-optimised TIVAN® flowsheet</li> <li>• Concentrator Process Flowsheet Finalised</li> </ul>
Financing	<ul style="list-style-type: none"> <li>• Leading Global resources BANK – KfW IPEX</li> <li>• Discussions underway with other debt and equity providers</li> <li>• Secondary listing potential</li> </ul>

**SNOWDEN**



**SMS group**

**Ti-Cons**



**KfW IPEX-Bank**

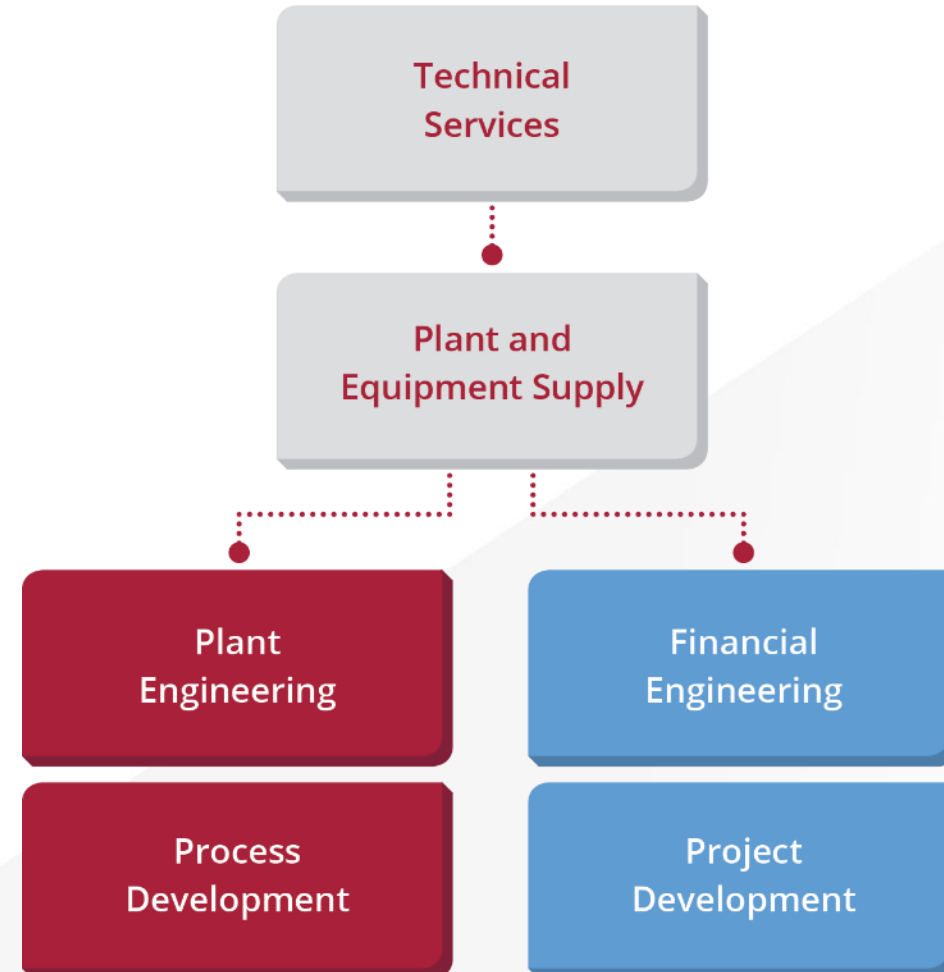
# Experienced Global Development Partner

## SMS GROUP



- ▼ German company
- ▼ Leading global supplier of metallurgical plants
- ▼ US\$5 billion per annum turnover
- ▼ 13,000 employees
- ▼ A leading user of ECA finance

**SMS**  **group**



SMS VALUE CHAIN



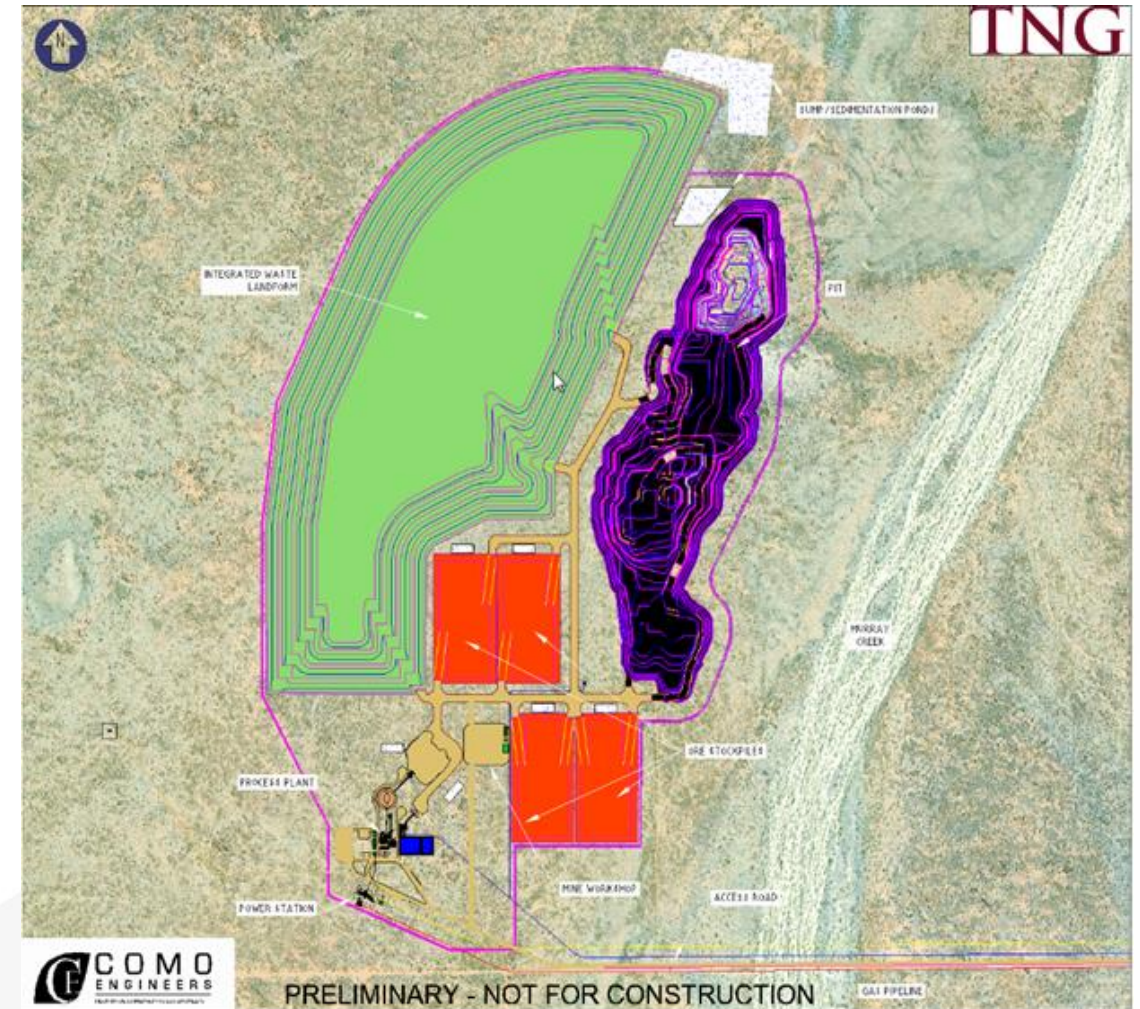
# **MINING, BENEFICIATION AND DOWNSTREAM PROCESSING**

**TNG** LIMITED

# Mine Plan

## PLANNED CONVENTIONAL OPEN PIT OPERATION

- ▼ Mining will be undertaken via a conventional open pit operation (drill and blast, and load and haul with excavators and haul trucks)
- ▼ Mine schedule includes the Probable Reserve (Y1 to Y8), and Measured Resource (34mt) and Indicated Resource (6mt) Y9 to Y17
- ▼ LoM plant feed material is estimated to be 81mt at an average grade of 0.37% V2O<sub>5</sub>, 6.87% TiO<sub>2</sub> and 26.38% Fe
- ▼ The strip ratio is 0.9:1 (waste: ore)
- ▼ The large size of the orebody (circa 2,000m x 350m x 100m) and gradual grade boundaries allows for a low dilution factor to be applied



Proposed mining layout including open pit, ROM pad, waste dump and ore stockpiles

# Beneficiation

## MAGNETITE CONCENTRATOR

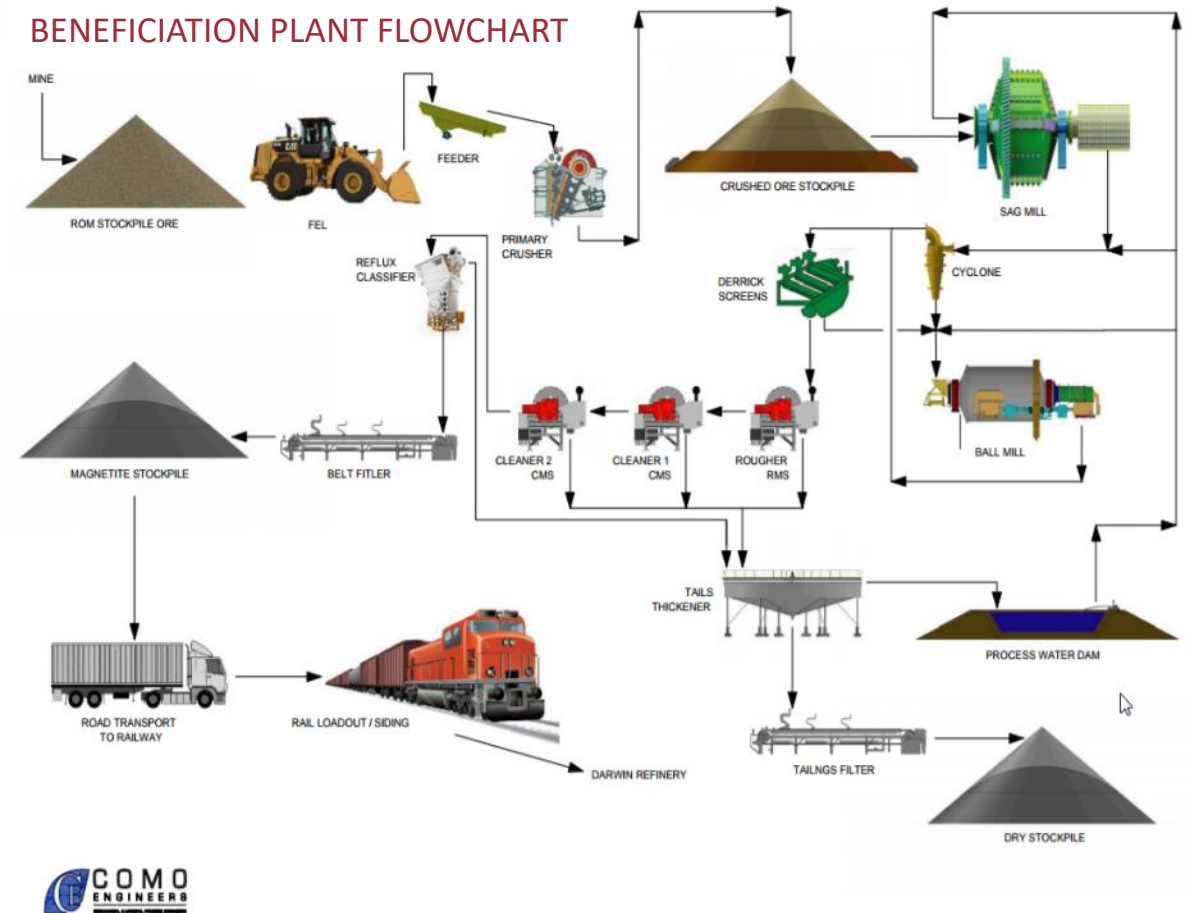
### Ore concentration

- ▼ Mine site concentrator to produce a magnetite concentrate
- ▼ To utilise equipment that is proven in the application and provides flexibility in design to allow for plant expansion
- ▼ Extensive metallurgical testwork has been completed to optimise the flowsheet and ensure the magnetite concentrate meets the specifications of the downstream refinery

### Concentrate Logistics

- ▼ 900kt of concentrate planned to be produced per annum (Y1 to Y4), eventually expanding to 1,800ktpa (Y5 to Y17) under the stage 2 upgrade
- ▼ The magnetite concentrate to be trucked on a haul road to a purpose built rail siding and loading facility on the Alice Springs-Darwin Railway
- ▼ The concentrate then to be sent by rail 1,400km north to the project's proposed Darwin based refinery
- ▼ A purpose built rail siding and unloading facility to be used to unload and stockpile concentrate at the refinery, ready for further processing

### BENEFICIATION PLANT FLOWCHART



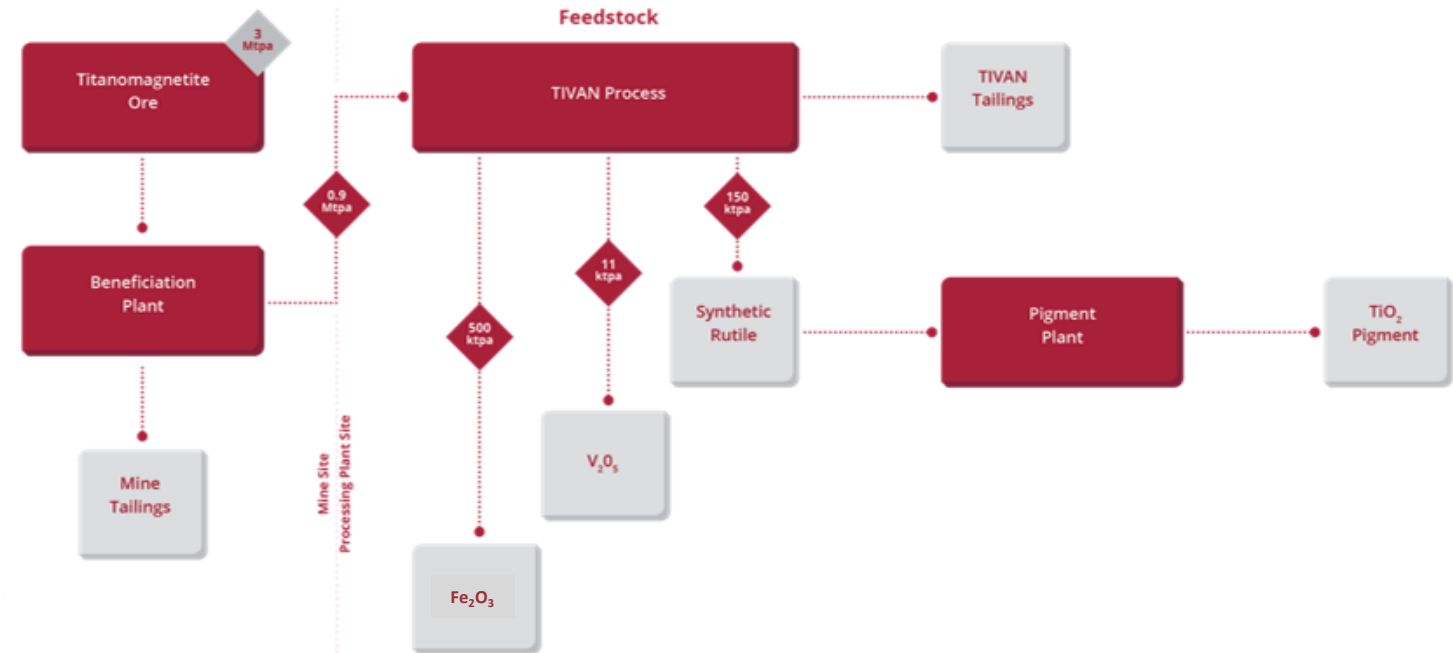


# Downstream Processing: Allows TNG to become lowest cost producer

## TIVAN® PROCESS

TNG developed and patented processing technology.

- ▼ Conventional means of extracting vanadium from titanomagnetite ore is through a salt roasting, energy intensive, pyrometallurgical process
- ▼ A combination of pyro and hydrometallurgical processes already in use in mining operations, to extract vanadium as  $V_2O_5$ , and commercially recover titanium dioxide and iron oxide.
- ▼ SMS group to provide a process and product guarantee following the FEED



Production forecasts (in tpa)

$V_2O_5$	$TiO_2$	$Fe_2O_3$
Up to 11,000	Up to 150,000	Up to 500,000

## TIVAN® Patent Status

<b>A Method for Extraction and Recovery of Vanadium</b>	
Australia	REGISTERED
Russian Federation	REGISTERED
United States of America	REGISTERED
Canada	REGISTERED
China	FILED - IN PROGRESS
European Patent Federation	FILED - IN PROGRESS
Vietnam	REGISTERED
<b>A Method for Preparing a Leach Feed Material</b>	
Australia	FILED - IN PROGRESS
<b>Titanium Dioxide Pigment Production Method</b>	
Australia	IN PREPARATION

## TIVAN™ Trade Mark Status

Registered in the following regions:

Australia  
Canada  
China  
European Union  
Madrid Protocol  
Russian Federation  
South Africa  
United States of America

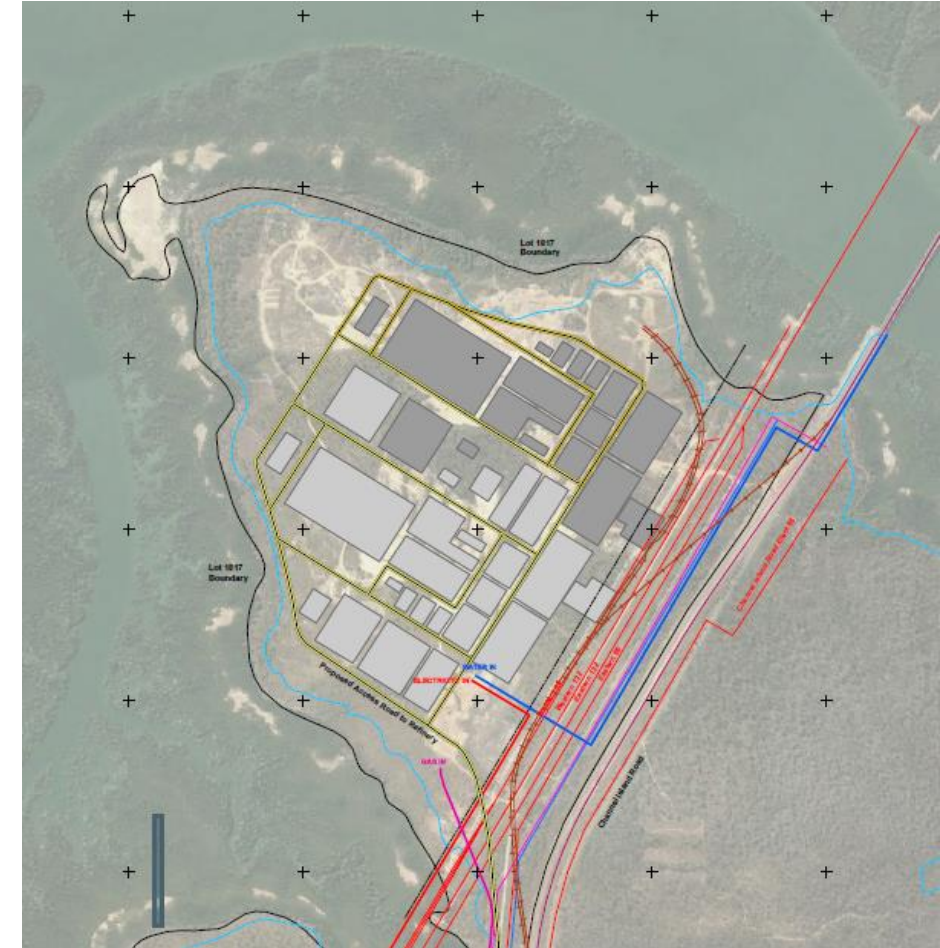
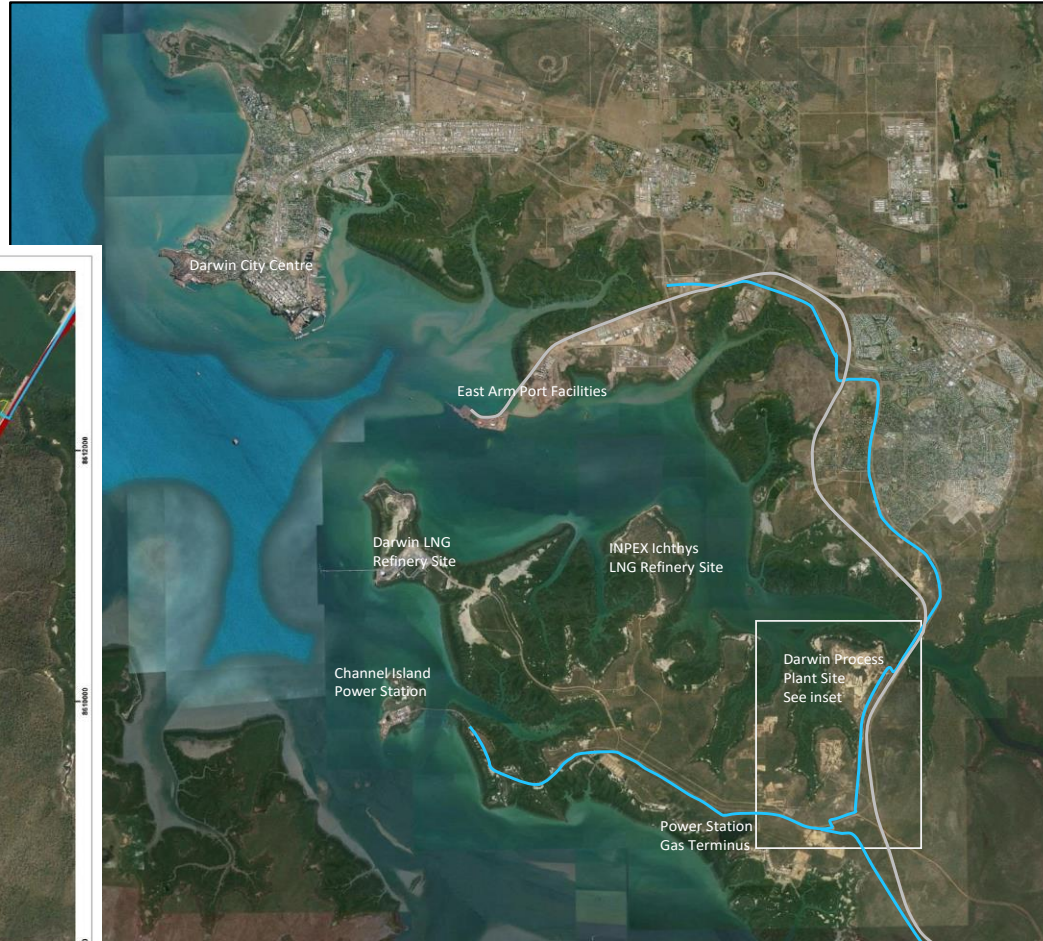
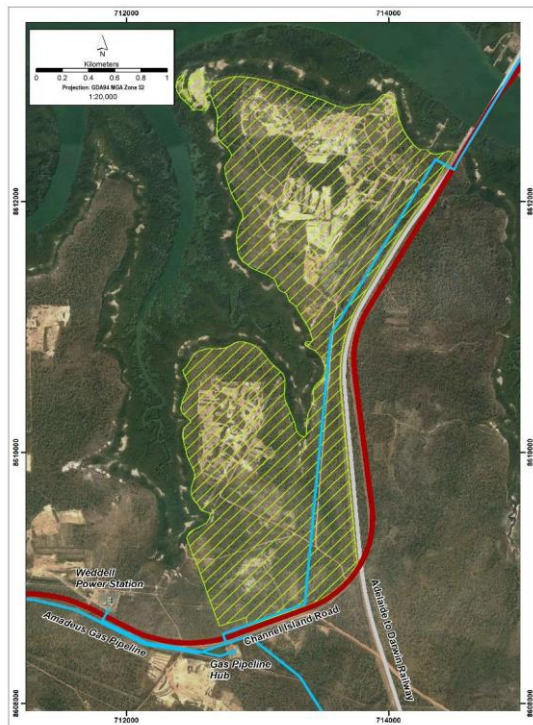
# Processing off-site

## FACILITY LOCATION IN DARWIN, NT

### Legend

- Railway line
- Amadeus Gas Pipeline

### Darwin Process Plant Site





# TNG PRODUCTS

**Markets and Commercial Agreements Overview**

**TNG** LIMITED

# Mount Peake TIVAN Products

## POLYMETALLIC MIX FROM SINGLE RESOURCE

### Titanium dioxide pigment (TiO<sub>2</sub>)

World demand	6,700,000tpa
TNG's production	Up to 150,000tpa (2.2% of world demand)
Main usage	Paint, plastics, paper and inks

### Vanadium Pentoxide (V<sub>2</sub>O<sub>5</sub>)

World demand	160,000tpa (equivalent of 90,000tpa V units)
TNG's production	Up to 11,000tpa (6.9% of world demand)
Main usage	Steel, superalloys, chemicals, catalysts and energy storage (VRB)

### Iron oxide pellets (Fe<sub>2</sub>O<sub>3</sub>)

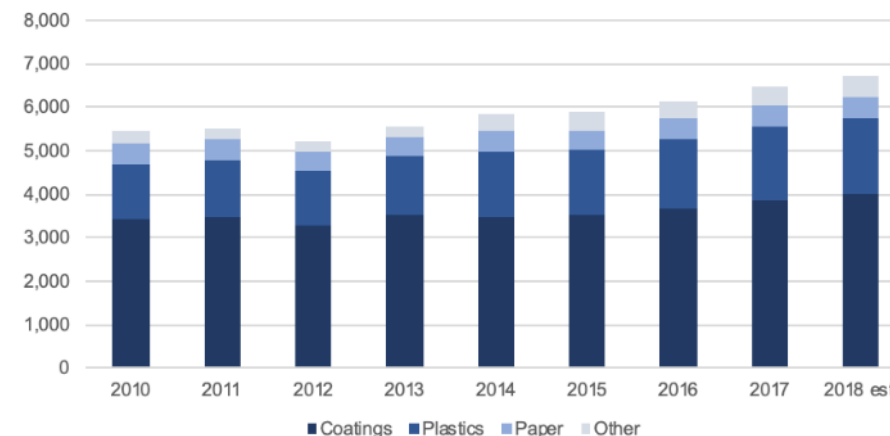
World demand	104 million tpa (seaborne pellet market)
TNG's production	Up to 500,000tpa (0.5% of world demand)
Main usage	Steelmaking

# Titanium Dioxide Pigment

## OVERVIEW

- ▼ Titanium dioxide ( $\text{TiO}_2$ ) is the most used white pigment globally;
- ▼ The most important properties of  $\text{TiO}_2$  pigment are optical such as opacity, brightness, gloss, weather resistance and durability;
- ▼ Historically not much vertical integration within the industry – producers are usually either upstream (feedstock) or downstream (pigment);
- ▼  $\text{TiO}_2$  pigment is non-toxic and environmentally friendly;
- ▼ Titanium dioxide market was worth around US\$20bn in 2018;
- ▼ About 60% of the titanium dioxide is used in coatings market (paints, coatings, inks and enamels);
- ▼ During the 2015-2025 period, global demand is forecast to grow at 4.1% CAGR to 8.825m tones in 2025.

**Titanium dioxide demand by end-use**  
y-axis: '000 tonnes

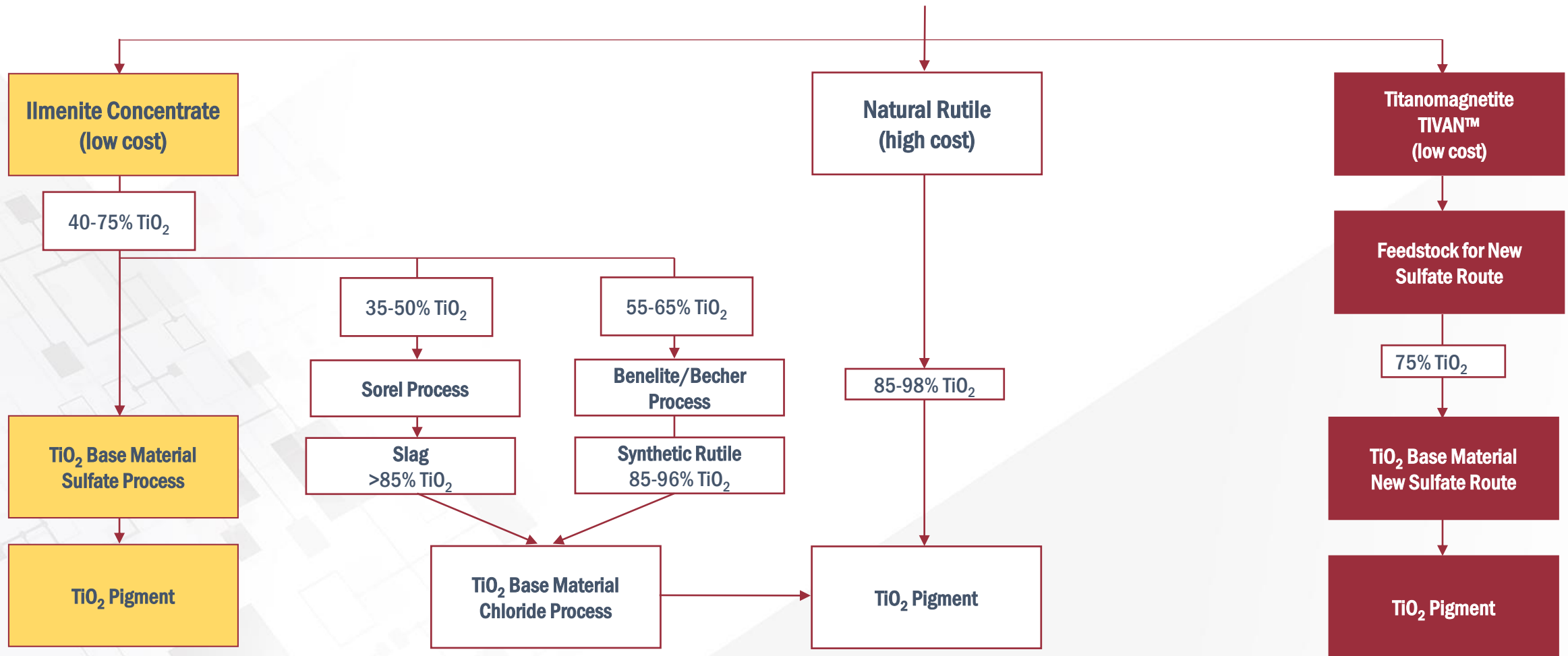


# TNGs Advantage: $\text{TiO}_2$ Process and Raw Material

TNG'S IS A BEST PRACTICE PROCESS



MINERAL SAND OR HARD ROCK



TNG produces a  $\text{TiO}_2$  pigment from Titanomagnetite ore and not from Ilmenite or Rutile through an evolved Sulfate route



# TiO<sub>2</sub> Feedstocks: TNG's process allows a NEW Feedstock to TiO<sub>2</sub> Industry

TNG'S UNIQUE FEEDSTOCK: VERY LOW IRON



Oxide	Ilmenite 44%	TiO <sub>2</sub> Slag 80%	Tivan
TiO <sub>2</sub>	44.0	79.4	74.20
Fe <sub>Total</sub>	35.5	9.40	2.34
SiO <sub>2</sub>	3.3	4.30	18.39
Cr <sub>2</sub> O <sub>3</sub>	0.09	0.13	0.03
Al <sub>2</sub> O <sub>3</sub>	0.7	1.80	2.43
MgO	4.5	5.70	0.42
CaO	0.35	0.66	0.91
V <sub>2</sub> O <sub>5</sub>	0.20	0.35	0.24

The TIVAN® feedstock has fewer residual impurities (e.g. Fe<sub>Total</sub> and Cr<sub>2</sub>O<sub>3</sub>) and TNG can expect to produce a TiO<sub>2</sub> Base Material from SP similar to CP

(e.g. FeO and Cr<sub>2</sub>O<sub>3</sub> giving a yellowish tone with Sulfate Process)

# TNG Product: TiO<sub>2</sub> Pigment

## TNG WILL BE A FULLY INTEGRATED PRODUCER FROM MINE TO FINISHED PRODUCT



- ▼ Global demand is estimated at 6.7mtpa. TNG's production of up to 150,000tpa will represent up to 2.2% of world demand
- ▼ Technology provided by Ti-Cons (Bergisch-Gladbach, Germany), a leader in TiO<sub>2</sub> technology
- ▼ A sustainable and environmentally friendly process using its own feedstock and patented TIVAN® process
- ▼ First TiO<sub>2</sub> pigment grade targeting the Paint & Coatings industry with a high-durable grade for outdoor applications and Industrial market will then be followed by a pigment for plastics application
- ▼ Binding Life-of-Mine (LOM) Off-take Agreement with global leader DKSH (Switzerland), a leading commodities and FMCG distribution company with a turnover of CHF11bn
- ▼ Relationship with global leading end-users already established (PPG, BASF, etc.)



**TNG LIMITED**

**TNG 360**

Versatile and high-durable white pigment

### PRELIMINARY TECHNICAL DATASHEET

TNG 360 titanium dioxide pigment meets the highest standards of durability with excellent optical properties such as whiteness and opacity for the coatings industry.

#### Product Applications

Coatings industry for architectural (indoor and outdoor), industrial paints (water-borne and solvent), coil coating and powder coatings applications.

#### Product Properties

Easy to disperse with good lightening power and opacity, TNG 360 has:

- outstanding weather resistance
- high hiding power and tinting strength
- maximum brightness and a neutral tone in white coatings
- brilliant tints in colored coatings

#### Product Specifications

- |                                      |  |
|--------------------------------------|--|
| • Surface treatment                  | aluminium, zirconium and organic compounds |
| • TiO <sub>2</sub> content (ISO 591) | ≥ 94.0 %                                   |
| • Standard classification (ISO 591)  | R2   |
| • Rutile content (R %)               | ≥ 99.0 %                                   |
| • Density (ISO 787, Part 10)         | 4.1  |
| • Oil absorption (ISO 787, Part 5)   | 17 - 21 g/100g                             |
| • Packaging                          | 1mt big bags or 25kg paper bags on pallet  |

#### Main Characteristics

Compliance with the below characteristics is confirmed before the release of the finished product:

- |  |              |
|--|--------------|
| • Brightness (DFC L*) <sup>1</sup>                 | 97.1 - 97.7  |
| • Tone, white (DFC b*) <sup>2</sup>                | 0.9 - 1.7    |
| • Relative scattering power (MAB HTS) <sup>3</sup> | 99.0 - 106.0 |
| • Tone, grey (MAB HSC) <sup>4</sup>                | 5.2 - 6.2    |

Method of determination:

- |                      |   |
|----------------------|---|
| <sup>1</sup> DFC L*  | Dry Film Color test - brightness in white air-drying paint (CIELAB L*)                            |
| <sup>2</sup> DFC b*  | Dry Film Color test - tone in white air-drying paint (CIELAB L*)                                  |
| <sup>3</sup> MAB HTS | Modified Alkyd Black test - relative scattering power according to DIN 53 165 (grey paste method) |
| <sup>4</sup> MAB HSC | Modified Alkyd Black test - tone in grey tints (absolute value of CIELAB b*)                      |

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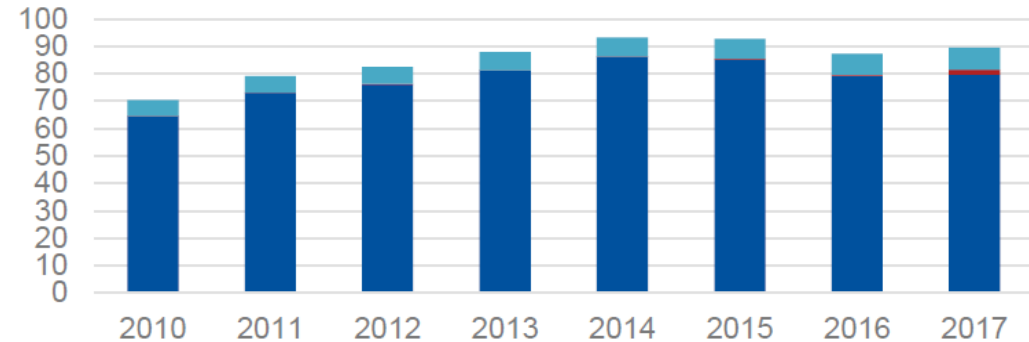
# Vanadium Pentoxide

## OVERVIEW

- ▼ Vanadium is mainly mined in China, Russia, South Africa and Brazil;
- ▼ Over 90% of vanadium is used in the steel industry (strengthening agent). Recent regulations in China have been the main driver for a surge in demand;
- ▼ Demand in new markets such as super alloys and flow batteries is still small but set to grow rapidly;
- ▼ Global demand is estimated to be 90,000tpa V or 160,000tpa  $V_2O_5$  equivalent. TNG's production of 11,000tpa  $V_2O_5$  will represent 6.9% of the world's demand.

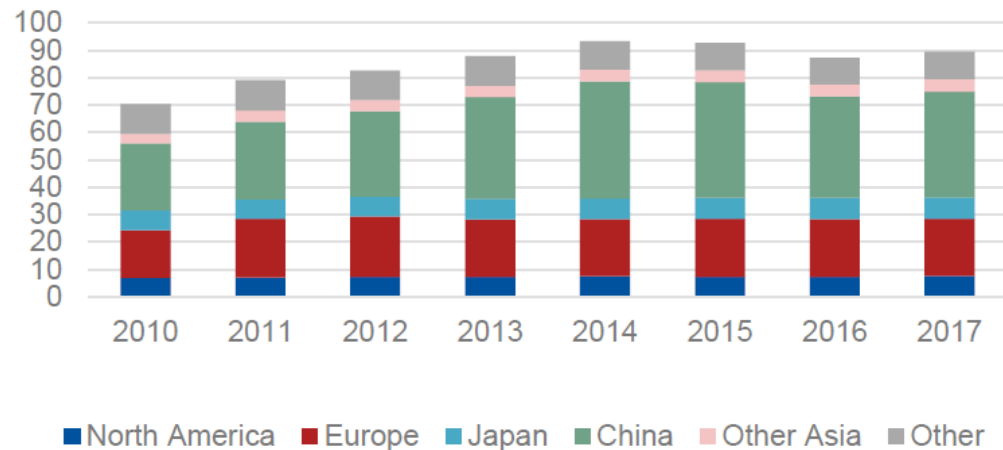
### Vanadium demand by end-use

y-axis: '000 tonnes



### Vanadium demand by region

y-axis: '000 tonnes

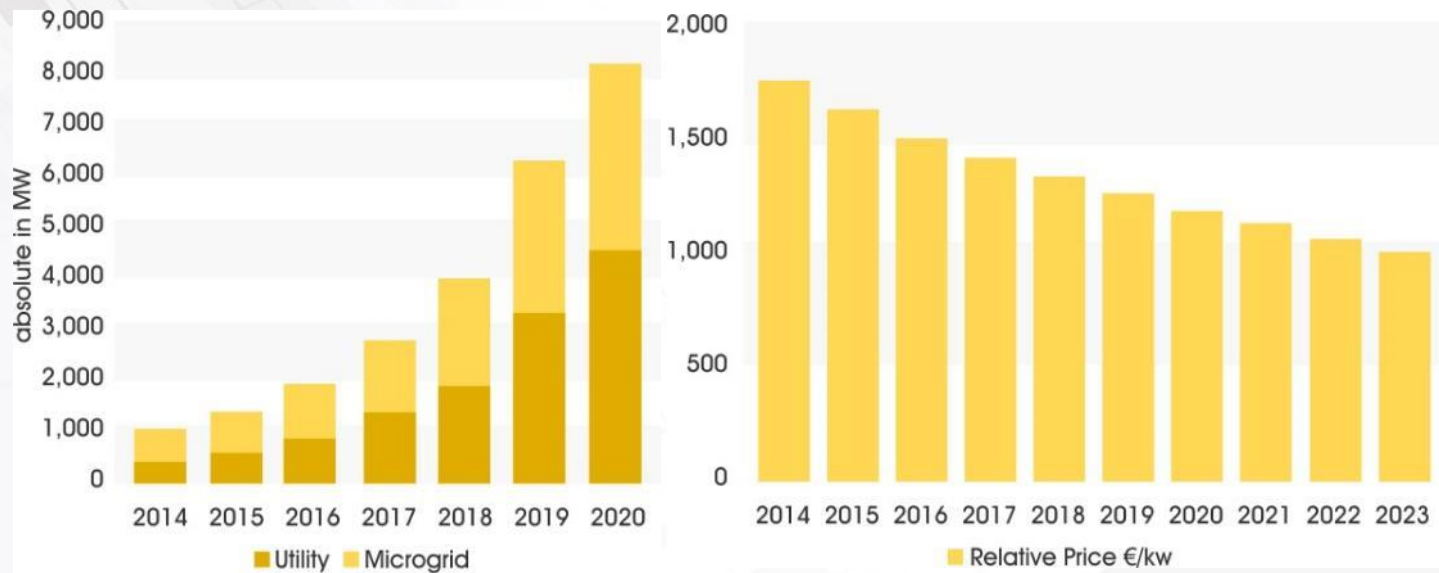


# Vanadium Redox Flow Batteries

## THE FUTURE OF ENERGY STORAGE

### MARKET FORECAST – DEVELOPMENT OF POWER ON THE ENERGY STORAGE MARKET

- ▶ Industry CAGR 2015-2020: 30.8%
- ▶ Stronger growth in utility scale from 2018 onwards - US\$6 b market opportunity in 2020
- ▶ TNG has successfully produced high purity, commercial-grade, Vanadium Electrolyte from Mount Peake's  $V_2O_5$  and is ideally placed to supply global VRB manufacturers





# TNG Product - V<sub>2</sub>O<sub>5</sub>

## TNG WILL BE A FULLY INTEGRATED PRODUCER FROM MINE TO FINISHED PRODUCT



- ▼ Very high purity V<sub>2</sub>O<sub>5</sub> will enable TNG to supply the steel industry as well as higher value niche markets such as Vanadium Redox Flow Batteries
- ▼ The vanadium industry is currently at a high point in its cycle and expected to remain very strong for the coming years. TNG's timing to market is ideal
- ▼ Binding Life-of-Mine (LOM) Off-take Agreement with Woojin (Korea) for a minimum of 60% of TNG's production. Woojin is the second largest Ferro-Vanadium exporter in Asia with a V<sub>2</sub>O<sub>5</sub> processing capacity of 22,000tpa and has a market share of 80%+ in its home market Korea. Recent US tariffs imposed on Korea have restricted Woojin's business in North America which they seek to regain with TNG's product.
- ▼ Technology Transfer agreement with Woojin for V<sub>2</sub>O<sub>5</sub> to FeV conversion plant
- ▼ Negotiations underway for up to 40% offtake with leading vanadium buyers and distributors.



**TNG LIMITED**

**TNG V<sub>2</sub>O<sub>5</sub>**  
High-purity Vanadium Pentoxide

### PRELIMINARY TECHNICAL DATASHEET

#### Product Description

TNG V<sub>2</sub>O<sub>5</sub> is a high purity Vanadium Pentoxide produced under an ISO 9001:2000-certified Quality Management System from the Tivan® process at the TNG company plant in Darwin, Australia.

TNG V<sub>2</sub>O<sub>5</sub> is suitable for all applications, including vanadium electrolyte for redox flow battery.

#### Product Specifications

• V <sub>2</sub> O <sub>5</sub>	≥ 99.8 %
• Fe	≤ 0.1 %
• Al <sub>2</sub> O <sub>3</sub>	≤ 0.1 %
• CaO	≤ 0.01 %
• SiO <sub>2</sub>	≤ 0.01 %

#### Product Characteristics

Size:	Diameter:	55mm x 55mm (maximum)
	Thickness:	5mm (maximum)
Form:		silvery flakes
Packing:		1mt big bags

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DS V205/001

# TNG Product: Fe<sub>2</sub>O<sub>3</sub>

## TNG WILL BE A FULLY INTEGRATED FINES PRODUCER FROM MINE TO FINISHED PRODUCT



- ▼ Global demand for iron ore is estimated at 2btpa, almost entirely for the steel industry. TNG's production of 518,000tpa will represent 0.024% of the world's demand;
- ▼ High purity hematite with Fe content over 64.4% will command a strong premium over the benchmark 62% grade;
- ▼ TNG's ability to pelletise its product also has the potential to further the improve the margin for its iron product (current premium of US\$50+ /t);
- ▼ Significant and fast growing demand in neighbouring Malaysia and Indonesia should easily absorb TNG's production and reduce logistical costs;
- ▼ Binding Term Sheet for LOM Off-take Agreement with major global commodity trader Gunvor (Singapore) for iron products. Gunvor is one of the largest commodity trading company worldwide with a turnover of US\$63bn in 2017;
- ▼ Further negotiations for offtake underway with leading iron ore buyers and distributors.



**TNG** LIMITED

**TNG Fe<sub>2</sub>O<sub>3</sub>**  
Hematite – Iron oxide

### PRELIMINARY TECHNICAL DATASHEET

#### Product Description

TNG Fe<sub>2</sub>O<sub>3</sub> is a high-quality hematite produced under an ISO 9001:2000-certified Quality Management System from the Tivan® process at the TNG company plant in Darwin, Australia

#### Product Specifications

• Fe <sub>2</sub> O <sub>3</sub>	≥ 92.0 %
• Fe	≥ 64.4 %
• Al <sub>2</sub> O <sub>3</sub>	≤ 2.9 %
• MgO	≤ 2.0 %
• NaCl	≤ 0.8 %
• TiO <sub>2</sub>	≤ 0.5 %
• Cl	≤ 0.3 %
• FeCl <sub>3</sub>	≤ 0.2 %
• P	≤ 0.05 %
• S	≤ 0.05 %
• SiO <sub>2</sub>	traces
• V <sub>2</sub> O <sub>5</sub>	traces
• Mn	traces

#### Product Characteristics

Size:	9-16mm (90% minimum)
Form:	green pellets
Binder:	water
LOI:	≤ 1 %
Bull density:	1.625 t/m <sup>3</sup> (sintered) 0.927 t/m <sup>3</sup> (green)
UCS:	450-550 N (sintered) 6-13 (green)
Packing:	bulk

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# PERMITTING, APPROVALS AND FINANCE

**TNG** LIMITED

# Mount Peake

## STATUS OF APPROVALS

### MOUNT PEAKE MINE SITE

- ▼ Environmental approval received (State & Federal) ✓
- ▼ Native Title Agreement executed with traditional owners ✓
- ▼ Mineral Leases granted ✓
- ▼ Mining Management Plan **UNDERWAY**

### MOUNT PEAKE TIVAN PROCESSING PLANT

- ▼ Regulatory entities for processing plant environmental and operational approvals **UNDERWAY**
- ▼ Consultant engaged to progress EIS and approvals process **UNDERWAY**

### MOUNT PEAKE FEED

- ▼ Encompassing total plant equipment - mine and downstream processing **UNDERWAY**



# Mount Peake: Project Financing

## DEBT AND EQUITY FUNDING STRATEGY



### DEBT FUNDING MANDATE – **AWARDED**

**KfW IPEX-BANK** mandated to raise up to US\$600m (AU\$850m) as part of the total finance package.

**Specialist Financier**

**Extensive expertise in Metals & Mining**

### EQUITY FUNDING

A range of funding options are available to TNG to raise the required project equity.



# Equity Funding Strategy

A RANGE OF OPTIONS ARE AVAILABLE

ASX INVESTORS	<ul style="list-style-type: none"><li>▶ Existing ASX shareholders</li><li>▶ Australian institutional investors</li></ul>
LONDON LSE/AIM LISTING	<ul style="list-style-type: none"><li>▶ Considering London AIM listing</li><li>▶ Investor engagement program commenced</li></ul>
STRATEGIC INVESTORS	<ul style="list-style-type: none"><li>▶ Existing strategic shareholders</li><li>▶ New strategic investors</li></ul>
INTERNATIONAL INVESTORS	<ul style="list-style-type: none"><li>▶ Institutional investors</li></ul>
OFF-TAKE PARTNERS	<ul style="list-style-type: none"><li>▶ Existing off-take partners</li><li>▶ New off-take partners</li></ul>
DEVELOPMENT PARTNERS	<ul style="list-style-type: none"><li>▶ Project development partners</li><li>▶ Mining services groups</li></ul>

# Mount Peake Project

## KEY DEVELOPMENT MILESTONES AND ESTIMATED SCHEDULE

### DEVELOPMENT PATHWAY

	2014	2015	2016	2017	2018	2019	2020	2021	2022
MAJOR PROJECT STATUS									
TIVAN PILOT STUDY COMPLETION									
DISCOVERY OF LOM WATER AQUIFER									
DFS COMPLETION									
VANADIUM OFF-TAKE AGREEMENT – WOJIN METAL									
IRON OFF-TAKE AGREEMENT – GUNVOR									
PROJECT DELIVERY AGREEMENT – DOWNER									
TITANIUM OFF-TAKE AGREEMENT – DKSH									
MINE SITE EIS COMPLETION (AUSTRALIA)									
MINE SITE EIS APPROVAL (AUSTRALIA)									
MINING AGREEMENT – TRADITIONAL OWNERS									
MINING LICENCE APPROVAL									
PROCESSING PLANT EIS (UNDERWAY)									
FEED - SMS GROUP (UNDERWAY)									
EQUITY & DEBT FINANCING, FID									
EPC									
PRODUCTION									



# Mount Peake: The Path Ahead

## EXPECTED NEXT STEPS

- ▼ Full permitting for TIVAN® processing site
- ▼ Appointment of equity advisors
- ▼ Completion of final mine design and FEED for all process plants, leading to EPC tender process
- ▼ Equipment tender process
- ▼ Appointment of EPC contractor
- ▼ Establish full Project Development team
- ▼ TNG Board FID
- ▼ Commencement of development





**THANK YOU**



# BUILDING A GLOBAL STRATEGIC METALS COMPANY

ASX: **TNG**

**PAUL BURTON – MANAGING DIRECTOR & CEO**

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