

Developing Mount Peake: The right partners, the right metals, the right time
Diggers & Dealers, August 2016 – Paul Burton, Managing Director



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COMPETENT PERSON'S STATEMENTS

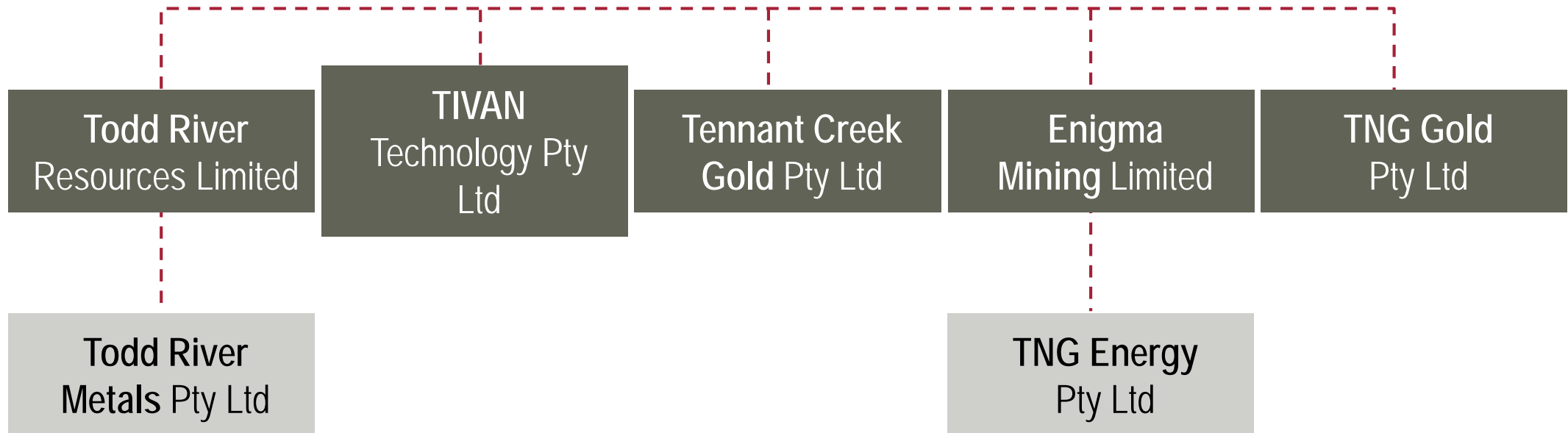
- ▶ The information in this report that relates to the Mount Peake Mineral Resource estimates is extracted from an ASX Announcement dated 26 March 2013, (see ASX Announcement – 26 March 2013, "Additional Information on the Mount Peake Resource", www.tngltd.com.au and www.asx.com.au), and was completed 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 and 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 and 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.
- ▶ The information in this report that relates to Exploration Results for Mount Peake and Mt Hardy projects are based on information compiled by Exploration Manager Mr Kim Grey B.Sc. and M. Econ. Geol. Mr Grey is also a member of the Australian Institute of Geoscientists and a full time employee of TNG Limited. Mr Grey 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 Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Grey consents to the inclusion in the report of the matters based on his information in the form and context in which it appear.

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 31 July 2015, (see ASX Announcement – 31 July 2015, "Mount Peake Feasibility Study Confirms a World-Class Project", www.tngltd.com.au and 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 31 July 2015 continue to apply and have not materially changed.



TNG Limited



Key Corporate and Financial Data

ASX code:	TNG
Market capitalisation (at 15c):	\$107M
Shares on issue:	714M
Cash (at 30 June 2016):	\$7.1M

Auditors: KPMG
Lawyers: Clifford Chance

Board of Directors

Paul Burton	Managing Director
Stuart Crow	Non-executive Director
Rex Turkington	Non-executive Director

Major Shareholders

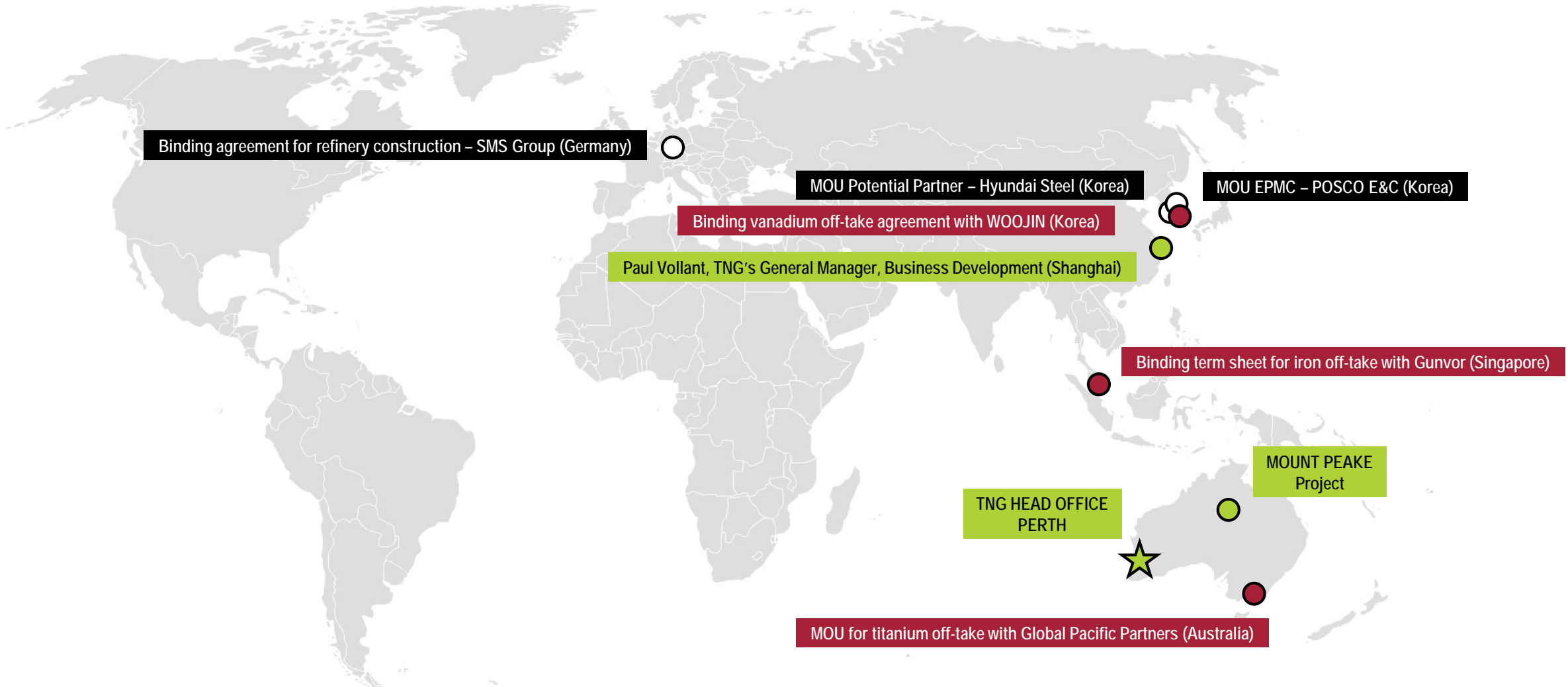
WWB Investments P/L	11.11%
Aosu Investment & Development Co	7.88%
Ao-Zhong International Mineral Resources	5.73%
SMS Investments SA	1.86%

(Directors and their related companies hold approximately 4% of issued capital)

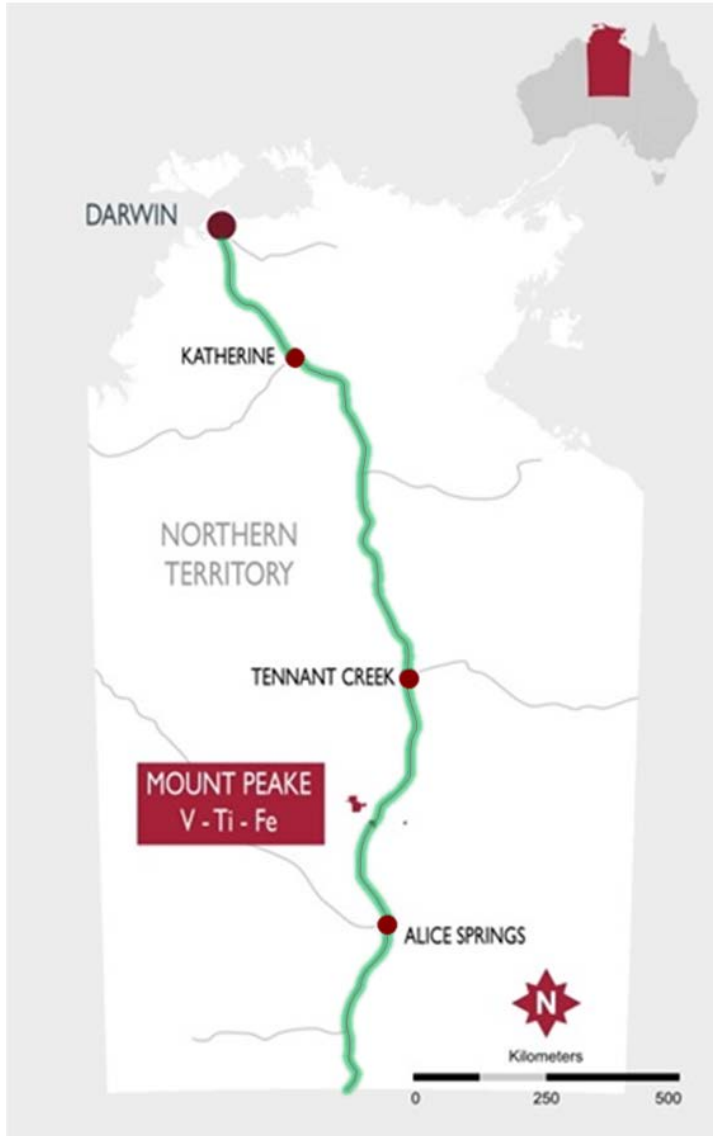
12-month share price – as at 26 July 2016



TNG: A Global Network for Funding, Development and Off-take

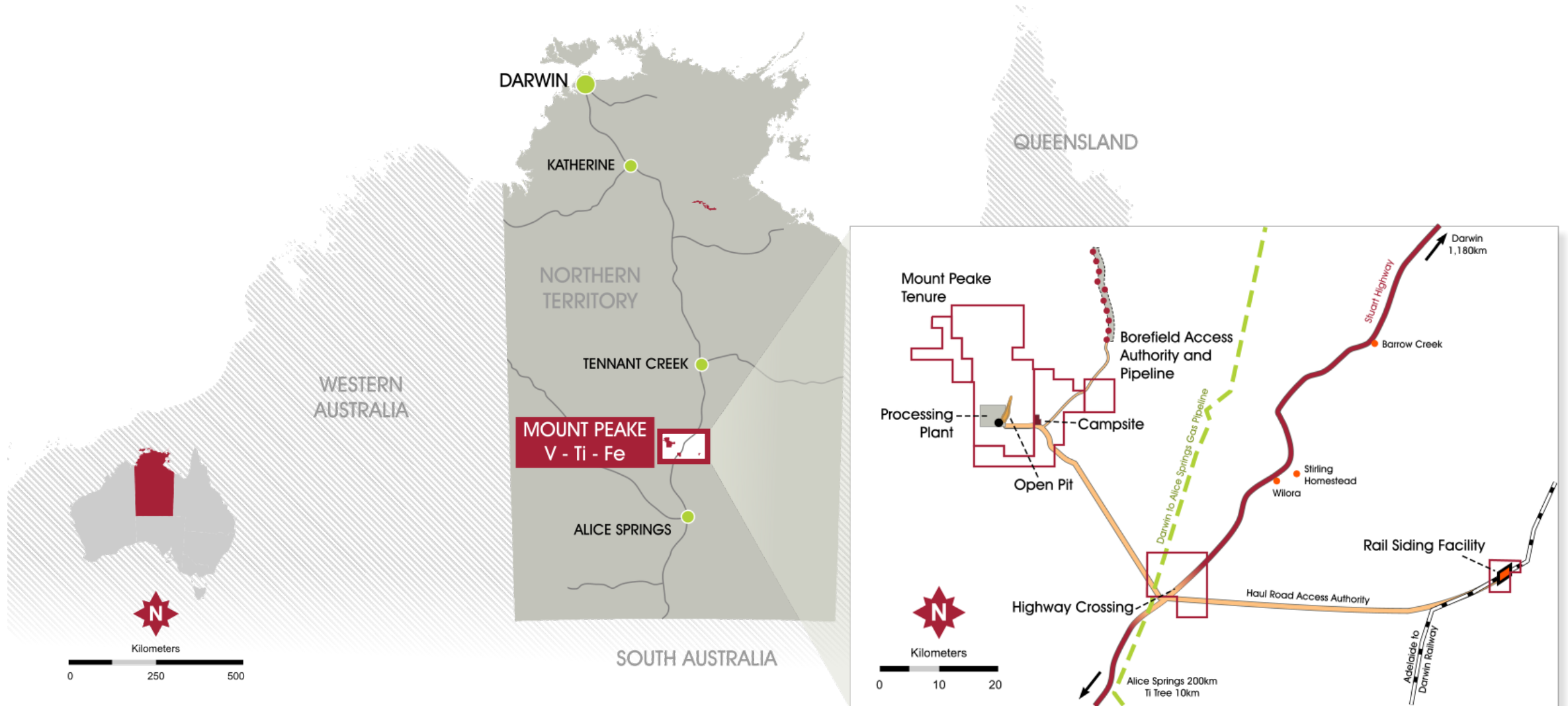


Mount Peake: Located in Australia's Fast-Growing North

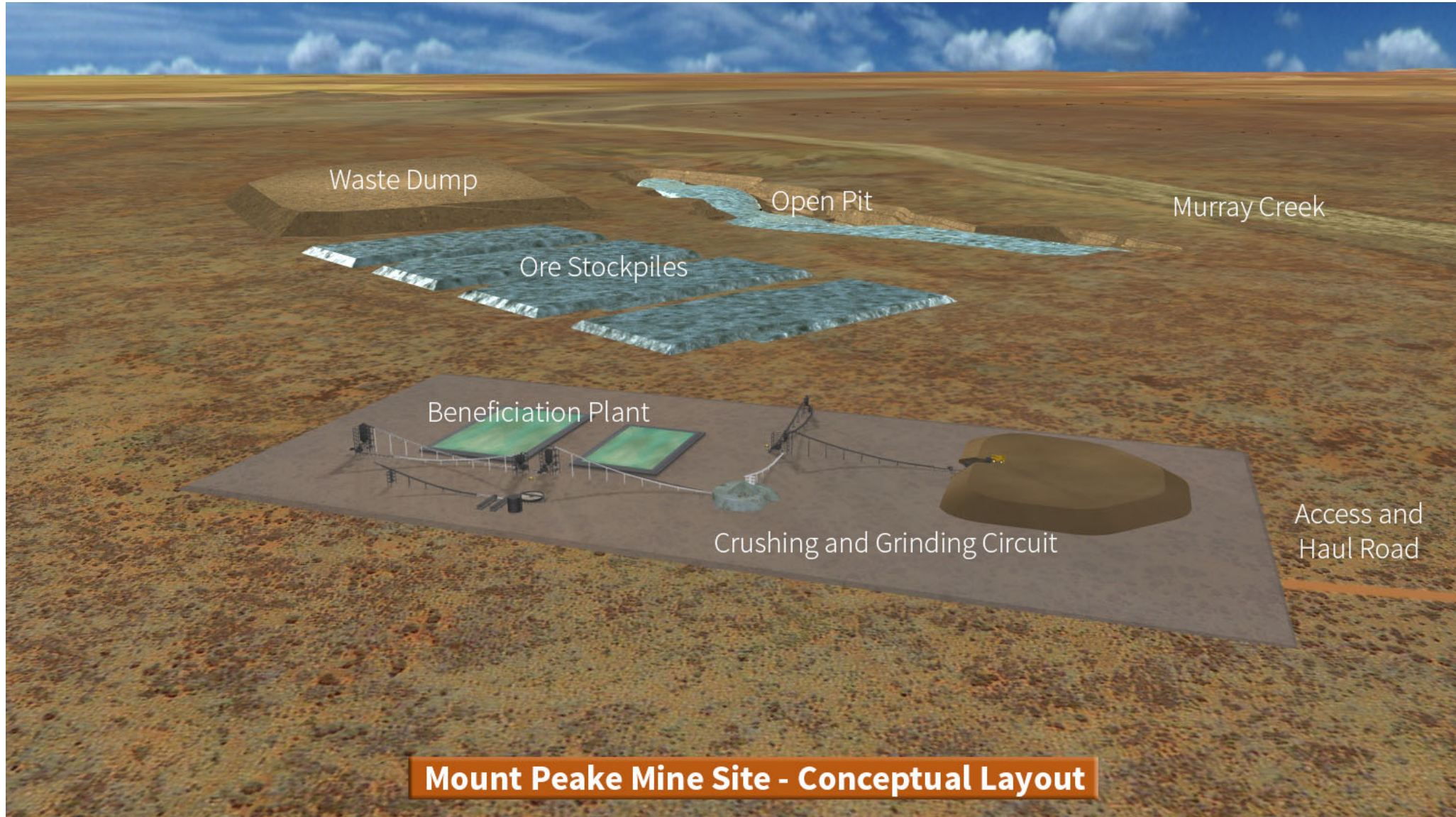


- ▶ Located 235km north-west of Alice Springs
- ▶ Close to key transport and power infrastructure:
 - ▶ *Alice Springs-Darwin Railway, Stuart Highway, gas pipeline*
- ▶ One of the largest undeveloped vanadium projects in the world
- ▶ Awarded Major Project status by the NT Government
- ▶ Highly successful DFS completed in 2015
- ▶ World-scale project with 17-year mine life
 - ▶ *Total forecast life-of-mine revenue: A\$27.3 billion*
- ▶ Forecast annual production: 17,560t V₂O₅, 236,000t TiO₂ pigment, 637,000t pig iron
- ▶ Robust economics: A\$4.9 billion NPV, 41% IRR
- ▶ Pre-production capital estimate: A\$970 million
- ▶ Ready for development: final environmental approvals expected 2H2016

Mount Peake: Project Layout



Mount Peake: Concept Mine Layout



Key Consultants

Feasibility Study Leaders:	Snowden Mining Group
Advisors: Feasibility; metallurgical; plant design:	SMS Group
Metallurgical testwork and flowsheet design:	CSIRO (Perth), METS, ALS Ammtec, SMS
Environmental, hydrology, Environmental Impact Statement:	GHD
Engineering, mine plant design:	Como Engineers
Mine and Infrastructure:	Snowden, McMahon Services



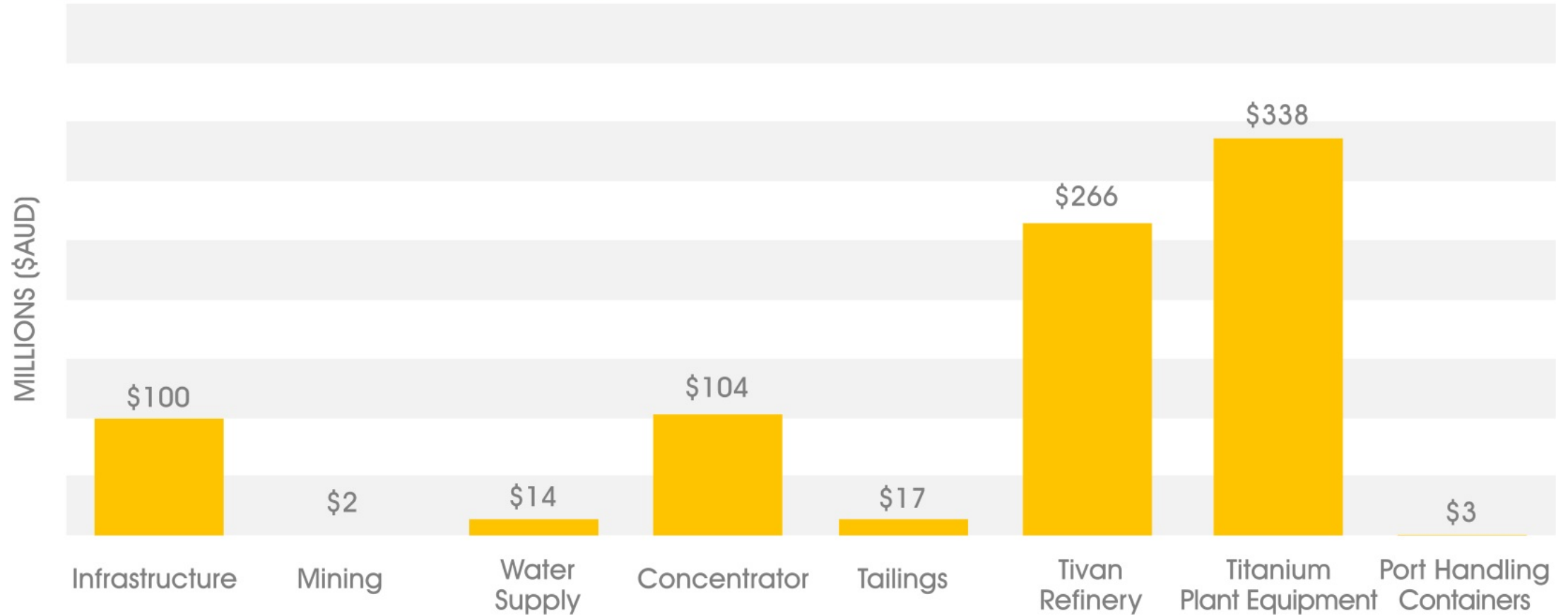
Mount Peake Feasibility Study: Key Metrics

Project life	17 years
Mining rate	3Mtpa (Stage 1) expanding to 6Mtpa (Stage 2) after 4 years
Pre-production capital estimate (including all infrastructure)	A\$970 million (Stage 2 expected to be covered from revenue)
Total operating costs (including mining, processing, transport & royalties)	A\$167 per tonne
Total revenue (life-of-mine)	A\$27.3 billion
Operating cash flow (life-of-mine)	A\$13.6 billion
Net cash flow (life-of-mine)	A\$11.6 billion
Payback period	4 years
Net annual operating cash flow	A\$780M
IRR pre-tax	41%
NPV (at 8% discounted)	A\$4.9 billion

Refer ASX announcement 31 July 2015.

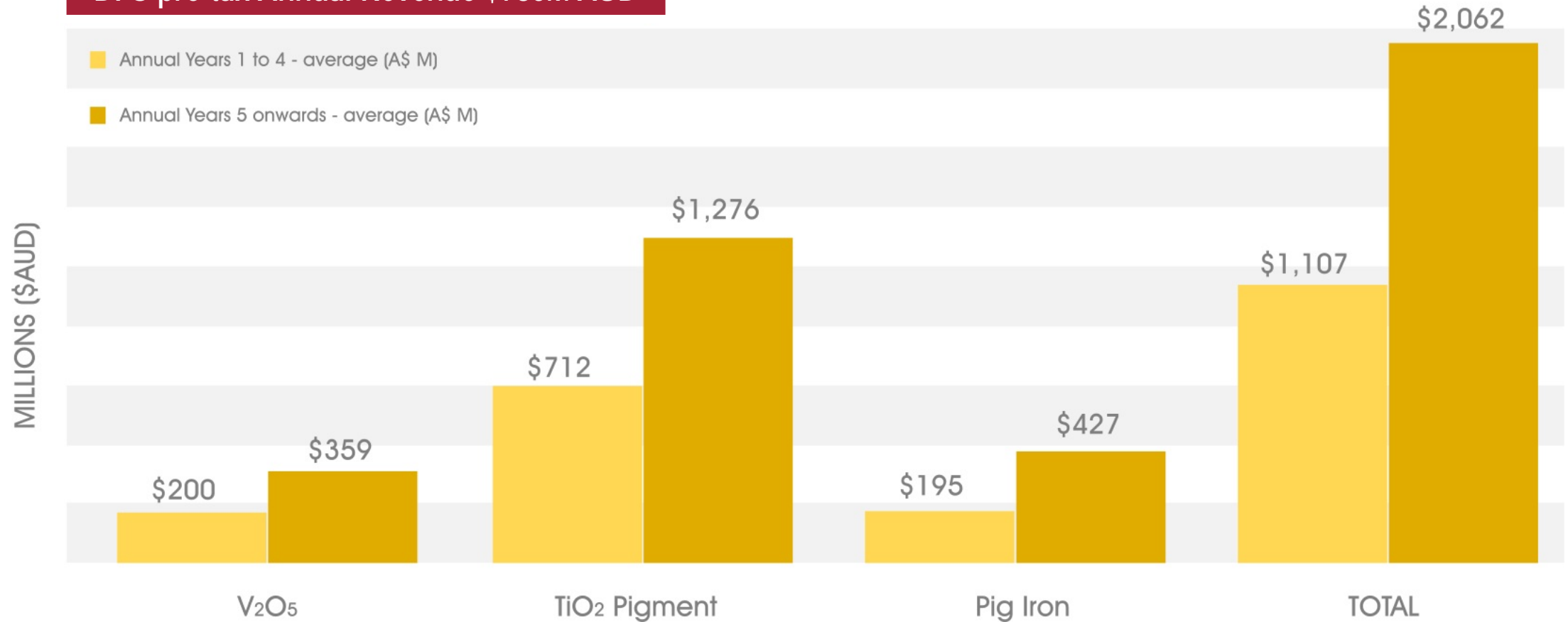
Definitive Feasibility Study: CAPEX Breakdown

CAPEX – Stage 1 – Total \$970M AUD



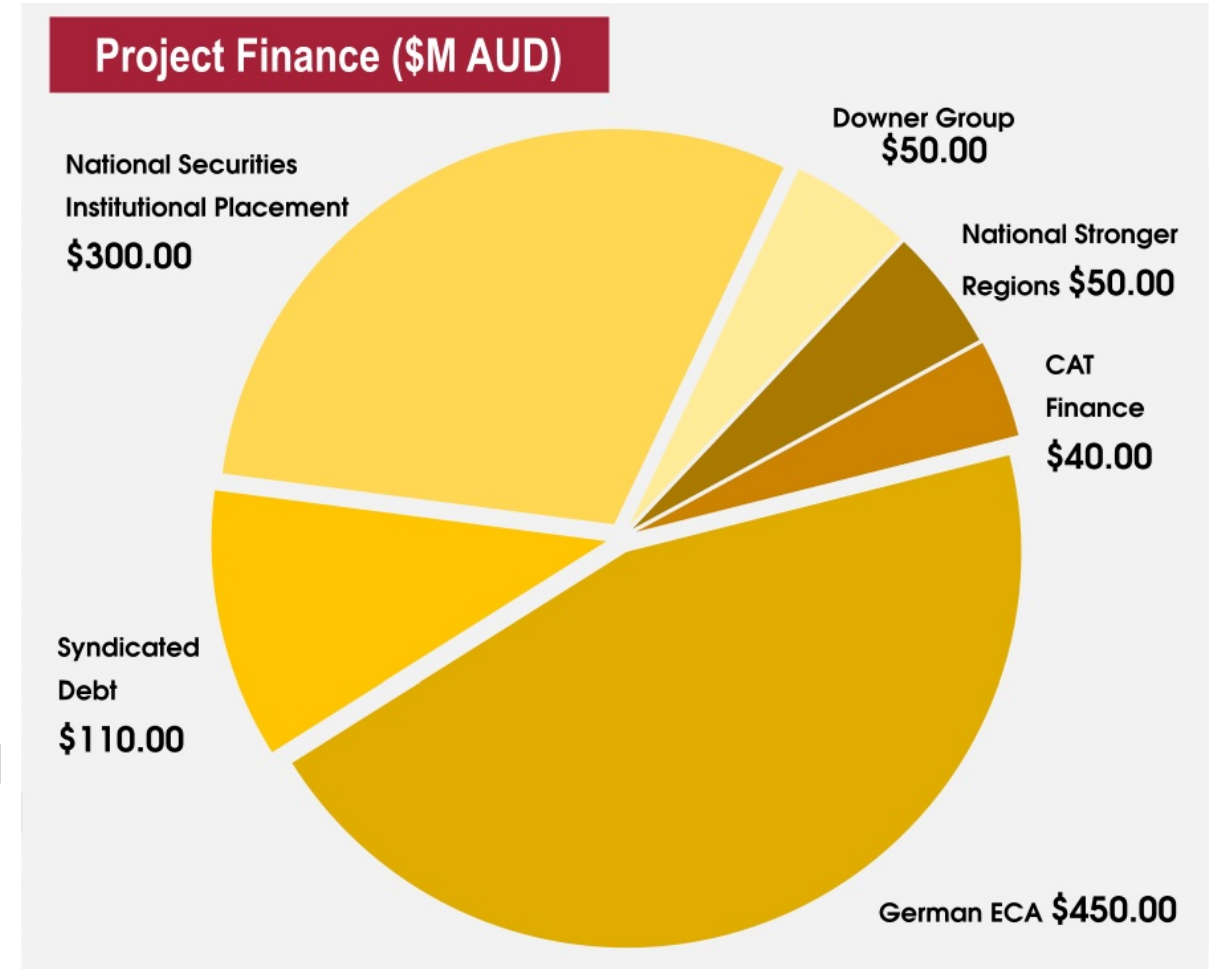
Definitive Feasibility Study: Revenue per Commodity

DFS pre-tax Annual Revenue \$780M AUD



Project Finance: Finance Model Scenario and Conceptual Breakdown

- ▶ Project assumed 70:30 debt / equity
- ▶ Debt
 - ▶ German ECA's/SMS Group – \$450M
 - ▶ Caterpillar Finance – \$40M
 - ▶ NAIF – \$50M
 - ▶ Syndicated Debt (BNP, Soc. Gen)
- ▶ Equity
 - ▶ Institutional Placement / (CEF Holdings HK) – \$110M
 - ▶ Downer Group – \$50M



Mount Peake: Binding Off-take Agreements

Binding LOM Off-take Agreements

- ▶ **Vanadium Products:**
 - Binding Life-of-Mine (LOM) Off-take Agreement and Technology Transfer agreement with WOOJIN Metals
 - WOOJIN's proprietary technology currently has the world's highest vanadium recovery rate and is expected to significantly enhance the Mount Peake Project's profitability
- ▶ **Iron Products:**
 - Binding Term Sheet for LOM Off-take Agreement with major global commodity trader Gunvor (Singapore) for iron products



Project development agreements

- ▶ **European-based global engineering giant**
 - ▶ Binding agreement for engineering, design and construction of the TIVAN™ refinery in Darwin
 - ▶ MOU for joint commercial exploitation of TIVAN™ technology
 - ▶ Assisting TNG to obtain funding for refinery construction through Export Credit Agencies or other structured finance
 - ▶ *SMS is one of the most significant writers of new business for Germany's Export Credit Agencies, which provide finance on competitive terms to new projects or industries which could benefit German industry*
- ▶ **Global engineering and services provider**
 - ▶ Pre-Mine development, operations and investment agreement for total project delivery
 - ▶ *Downer is a leading service provider in markets including mining, minerals and metals processing, transport services, technology and communication services, utilities services, engineering, construction and maintenance (EC&M) and rail, employing around 20,000 people worldwide*

SMS  **group**

Downer 
Relationships creating success

TIVAN'S Products: Vanadium Pentoxide

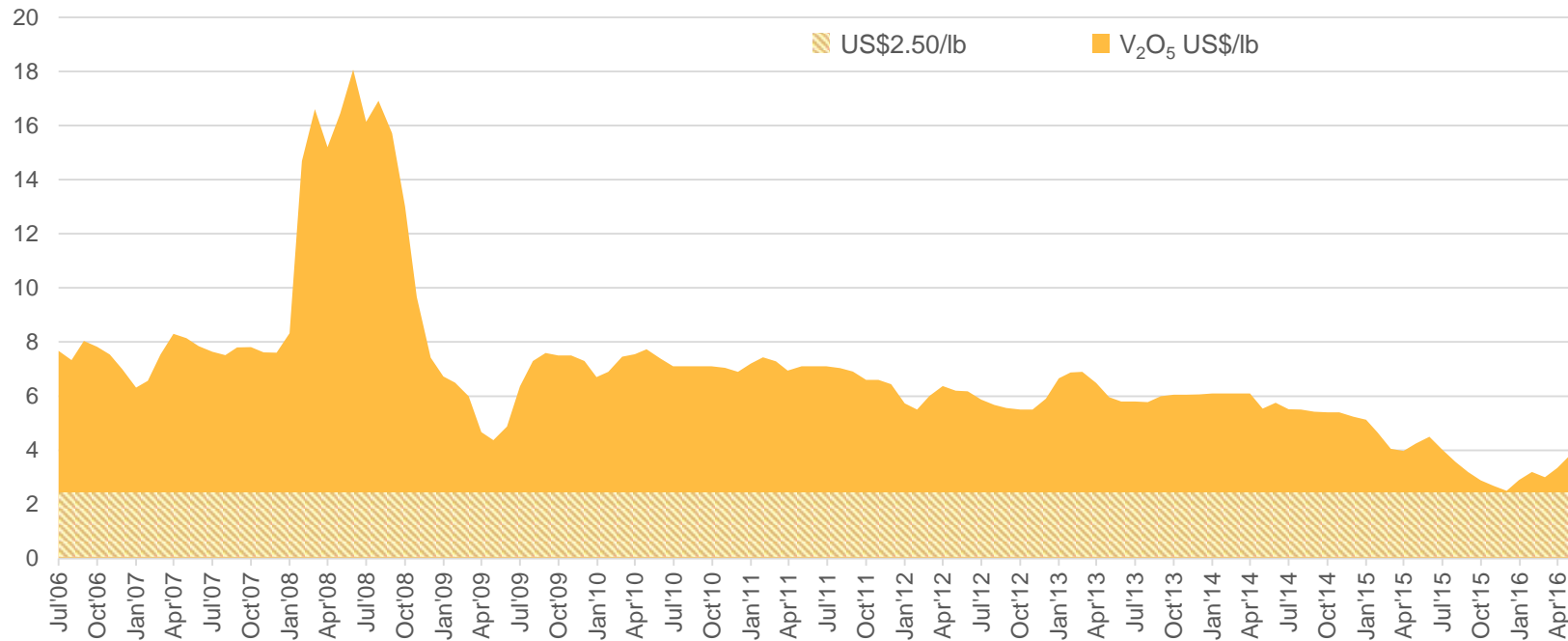
Vanadium Pentoxide (V₂O₅)

World demand: 140,000tpa

TNG's Phase 1 production: 17,560tpa (12.5% of world demand)

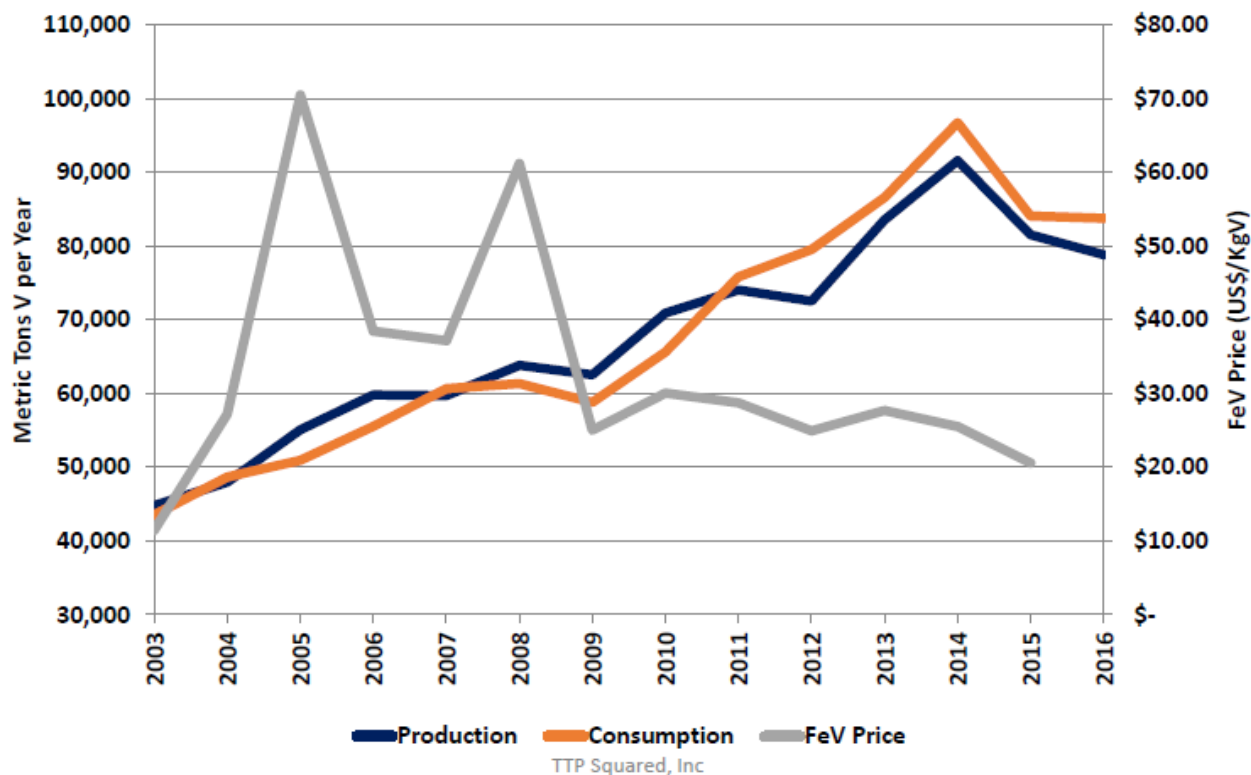
Main usage: Steel, non-ferrous alloys, chemicals, catalysts and energy storage (VRB)

TNG's cost of production: Approx US\$2.50/lb (shaded line below)

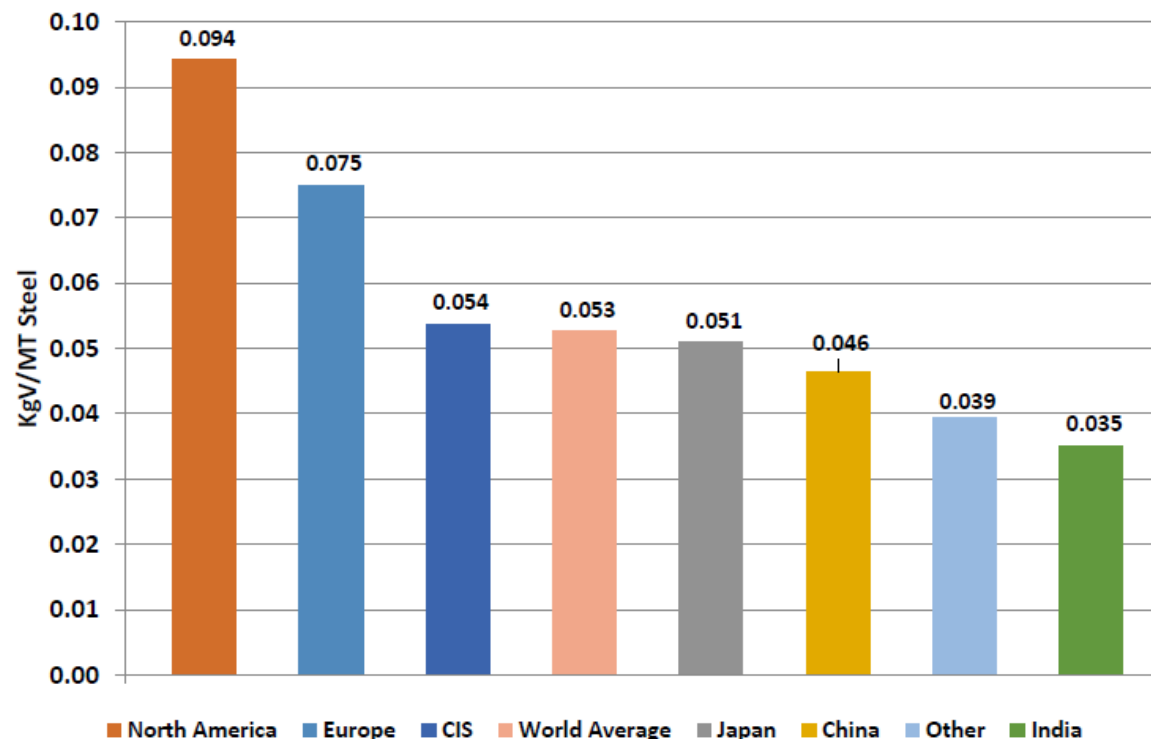


Vanadium Pentoxide: Market Overview

Vanadium production, consumption and price



Specific Vanadium Consumption Rates 2015



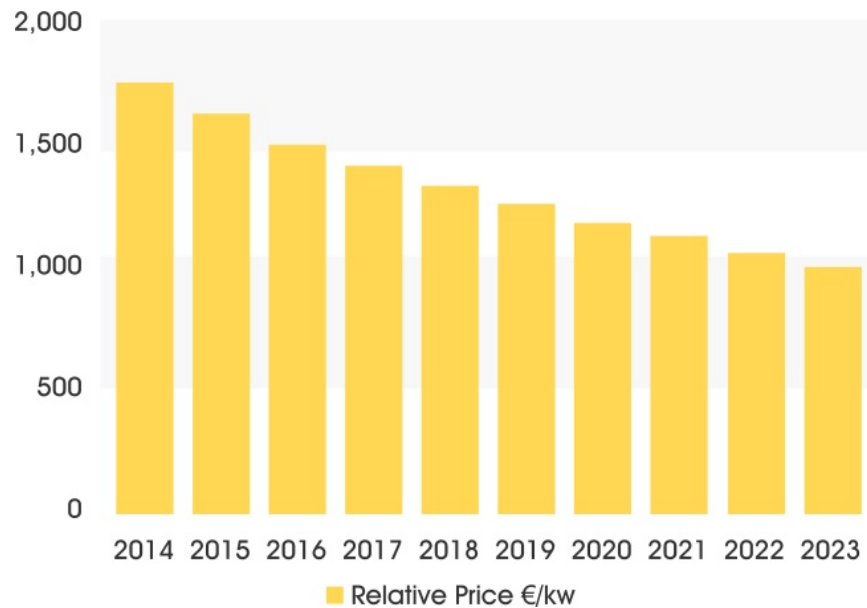
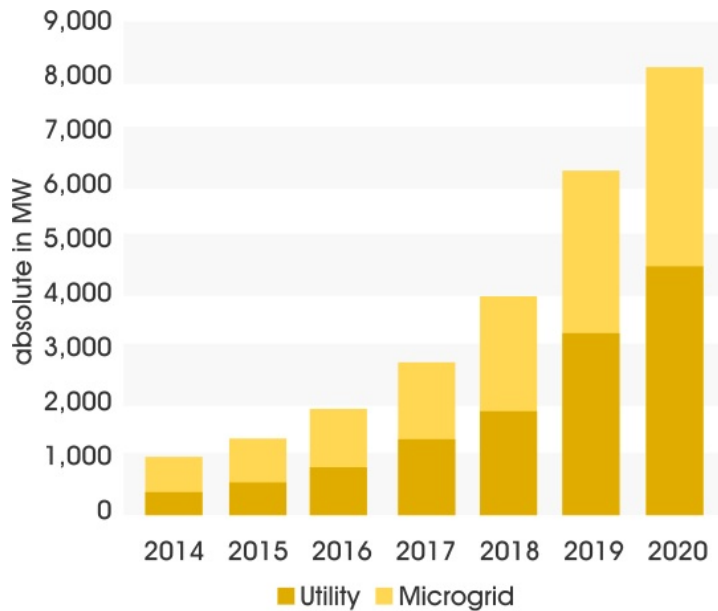
“Roskill expects demand to increase to about 131,000tpa of vanadium by 2025, a CAGR of 3.1% from 2014.”

Source: TTP Squared, Inc and Roskill

Vanadium Redox Flow Batteries: The future concept for 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 billion market opportunity in 2020

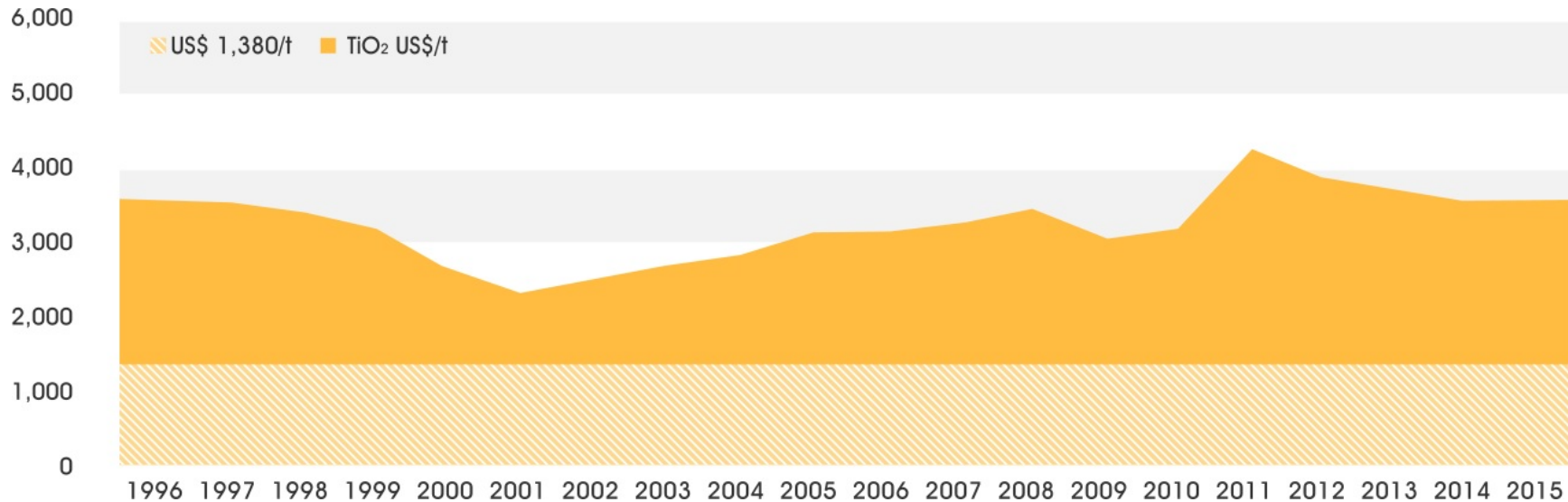


Sources: Gildemeister, Pike Research, Navigant Research, Lux Research, Roland Berger, IHS, SNL Power

TIVAN'S Products: Titanium Dioxide

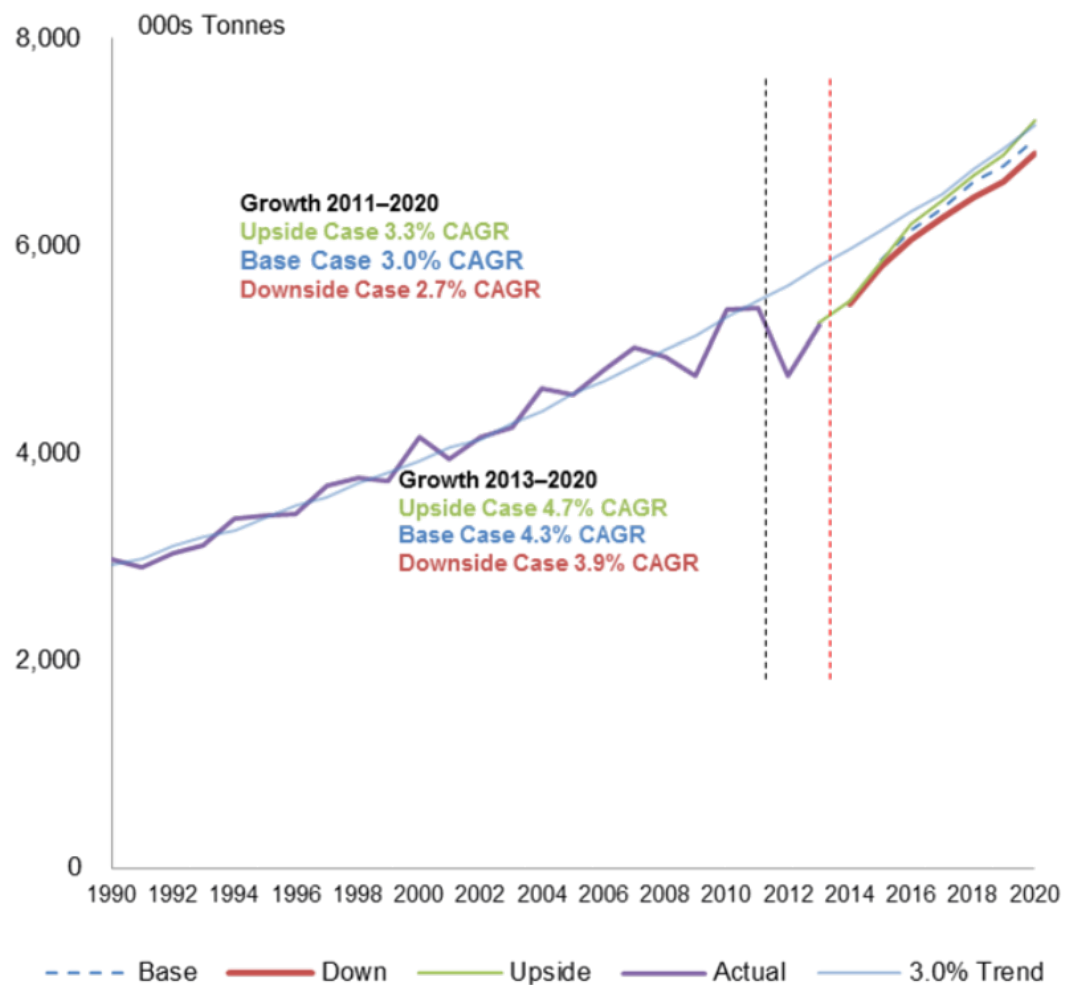
Titanium dioxide pigment (TiO₂)

- ▶ World demand: 6,600,000tpa
- ▶ TNG's Phase 1 production: 236,000tpa (3.5% of world demand)
- ▶ Main usage: Paint, plastics, paper and inks
- ▶ TNG's cost of production: Approx US\$1,380/tonne (shaded line below)



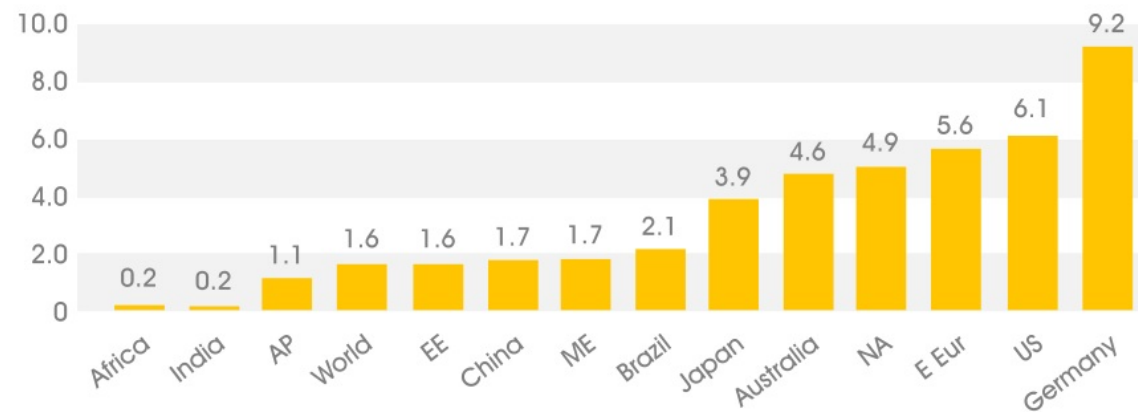
Titanium Dioxide: Market Overview

Demand Closely Correlated to Global GDP Growth



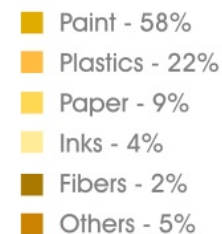
Source: TiPMC Solutions

2010 TiO₂ Per Capita



Source: Global Insight GDP data, IBMA TiO₂ demand data, Millennium Chemicals, Ti - Insights

Titanium Pigment Consumption by End-use Sector



Source: Kenmare Estimates

TIVAN'S Products: Pig Iron

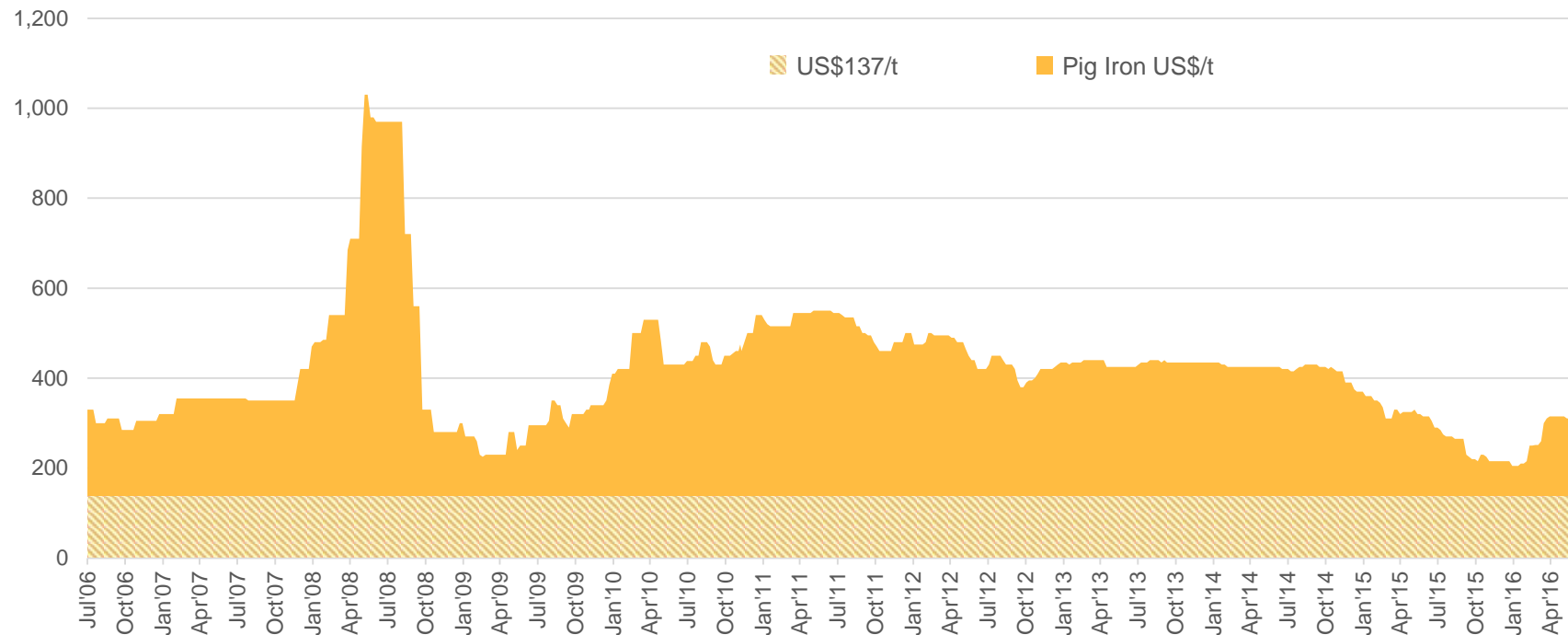
Pig Iron

World demand: 1.2 billion tpa

TNG's Phase 1 production: 637,000tpa (0.05% of world demand)

Main usage: Steel making

TNG's cost of production: Approx US\$137/t (shaded line below)



NT Government is Pro-Resource development

- ▶ Major Project Status awarded to Mount Peake in 2012
- ▶ Excellent geological and infrastructure support
- ▶ Darwin – North Australia's development hub
- ▶ Rapidly developing region



TNG's Corporate aim is to be a leader in indigenous involvement in NT

- ▶ Demonstrated commitment to working with employing Traditional Owners
- ▶ Long-standing relationships developed from decades of successful exploration on indigenous land
- ▶ Positive support for Mount Peake project development
- ▶ Clearance obtained for mine and infrastructure

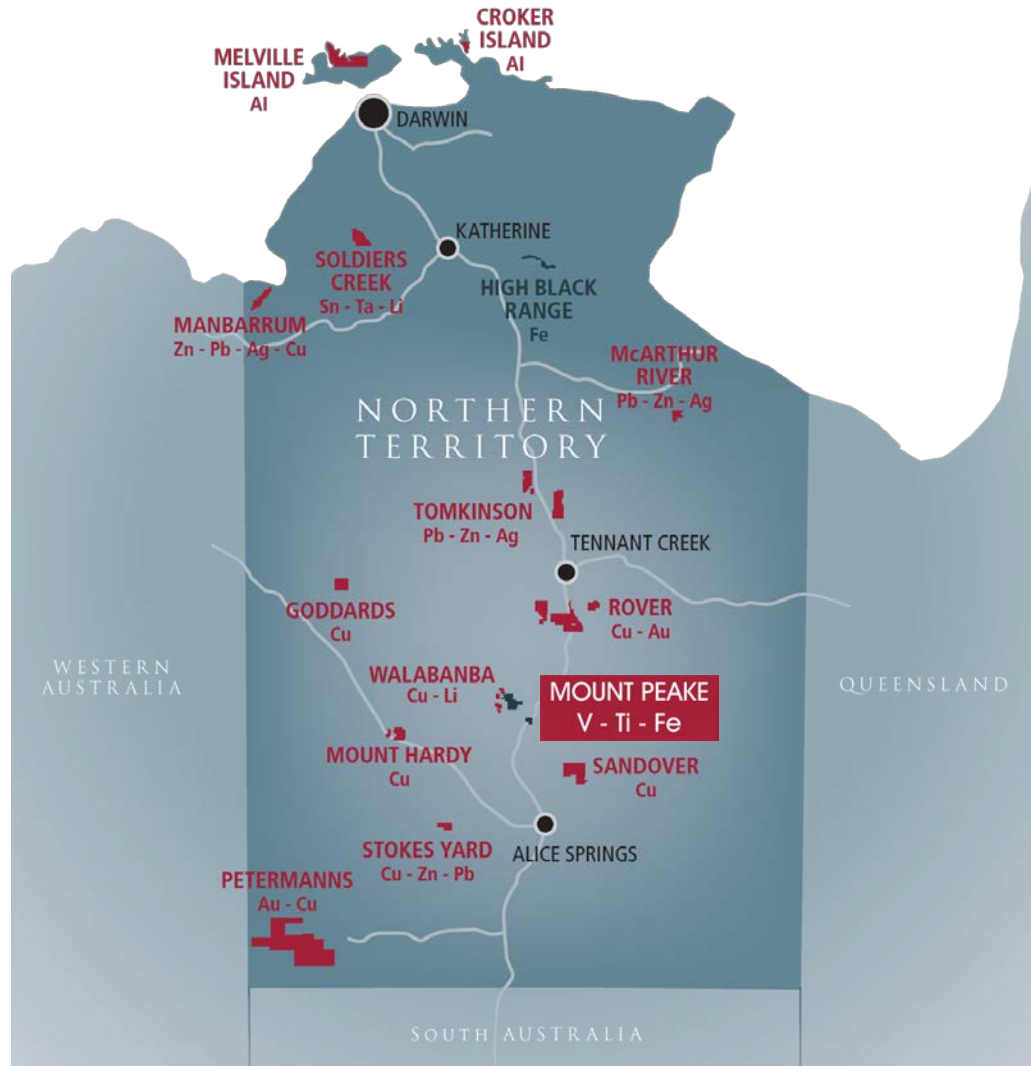


Mount Peake: Development Pathway



TNG Corporate: Non-Core Projects Demerger Proposal

TNG pre-demerger



TNG post-demerger

100% Mount Peake, TIVAN®



▶ Todd River Resources Limited

- ▶ Largest base metal coverage in NT
- ▶ Advanced to grassroots projects:
- ▶ Timetable to be advised

▶ Manbarrum

>45Mt of combined Zn-Pb-Ag in 2 JORC resources

▶ Mount Hardy

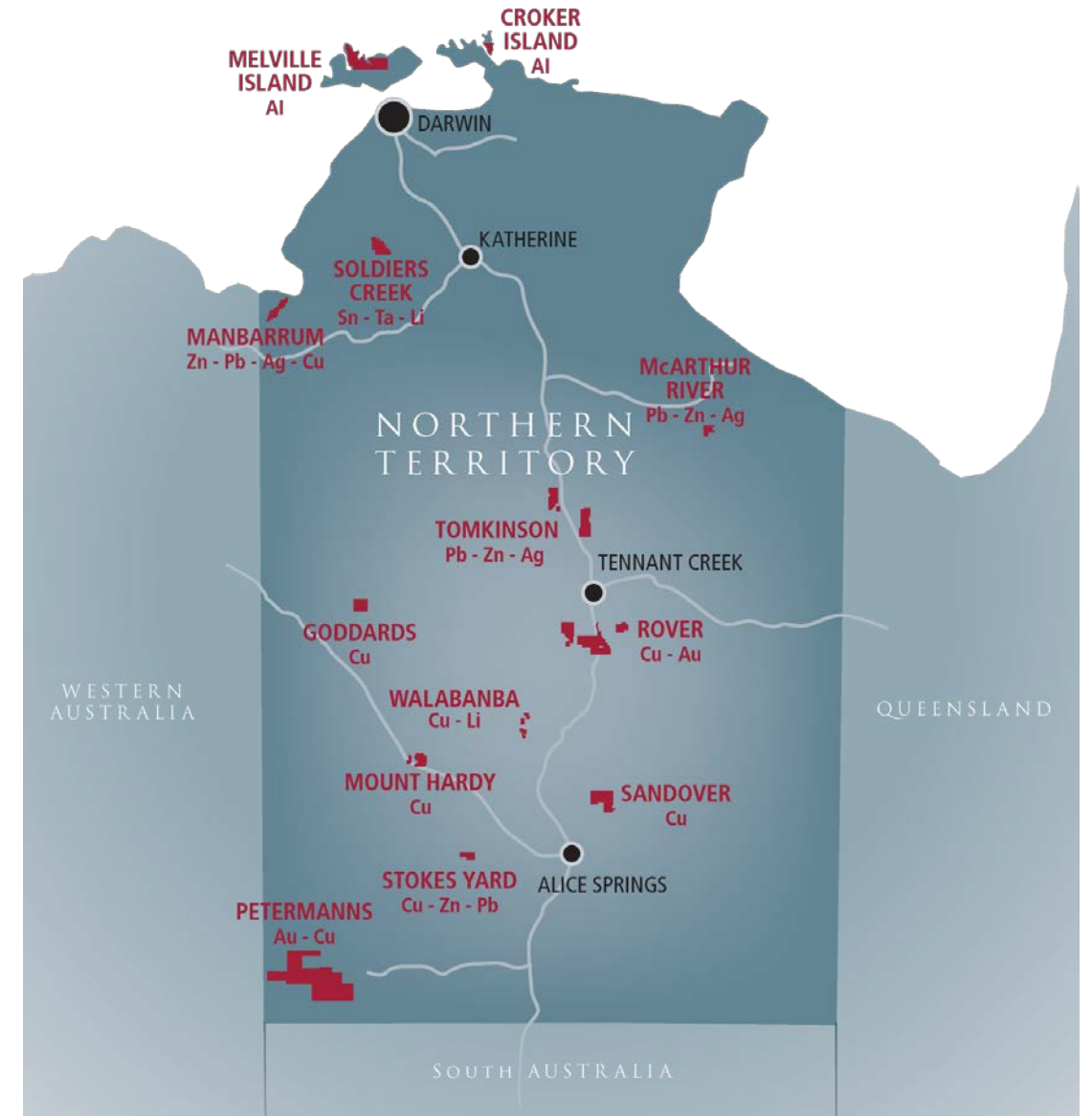
2 large intersections of Cu (5%) and Au (7g/t)

▶ McArthur

9km Cu-Zn zone; Surface grades up to 20% Cu

▶ Walabanba

Sn / W / Au



SMS group

The logo for SMS group, featuring a stylized circular emblem with concentric rings in red and blue, and a central black dot.



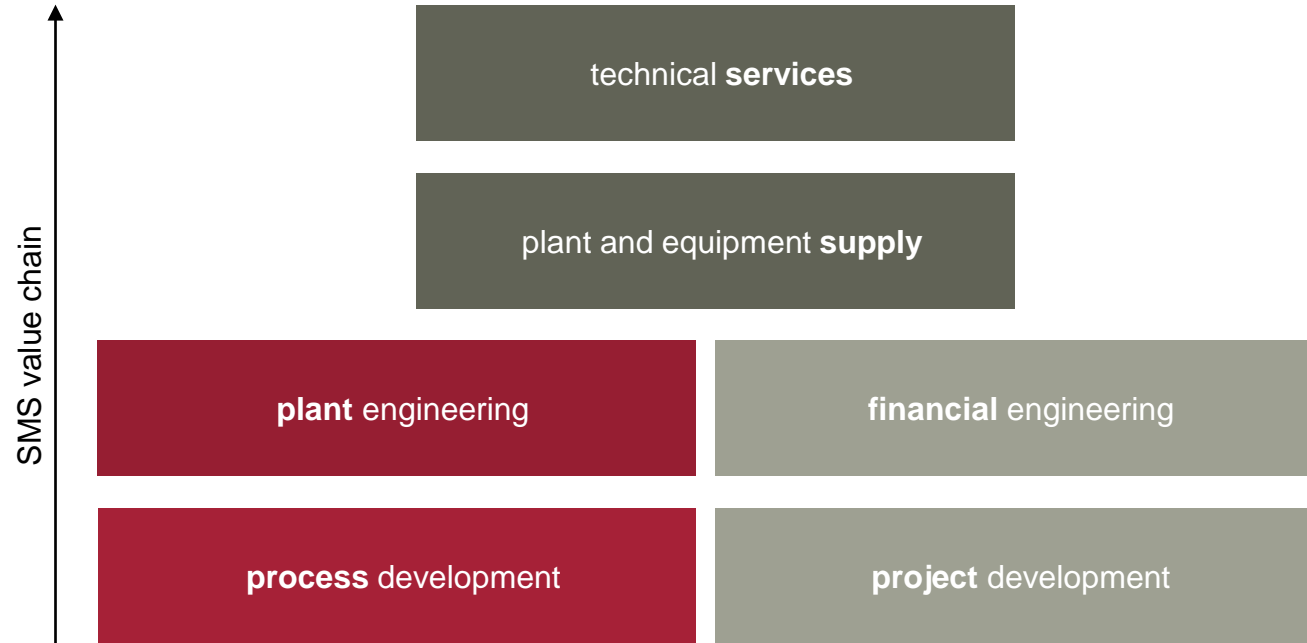
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FAQ: Who is SMS Group?

- 1 leading, **global** supplier of metallurgical plants
- 2 turn over: **5B AUD** p.a.
- 3 **13.000** employees
- 4 **150** years old
- 5 **family** owned
- 6 one of Germany's leading users of **ECA**-finance



FAQ: What is TIVAN all about?



1

processing **polymetallic** ores

- use of **abundant and low cost raw material** : titanomagnetite
- extraction of **three target metals** : Fe, V and Ti

2

utilization of **well proven technology**

- TIVAN is based on an innovative **reconfiguration of proven components**
- individual process steps have been **successfully demonstrated at industrial scale**

3

small environmental footprint

- hydrometallurgical process
- no smelters involved

4

highly economic process

- multiple revenue streams from products, which **sequentially** drop out of **one common processing train**
- low operating cost

- 1 abundant**
many known, accessible and easy to mine deposits
- 2 Ilmenite shortage**
high grade Ilmenites, suitable for **synthetic rutile** production are getting **scarce**
- 3 Growing Vanadium demand**
urbanization in fast growing emerging markets calls for the construction of **high risers**, requiring large quantities of **V-reinforced rebar**
- 4 Potential for additional products**
The hydrometallurgical processing of Titanomagnetite also allows the extraction of other valuable fractions

FAQ: What about beneficiation efficiency?

Ore

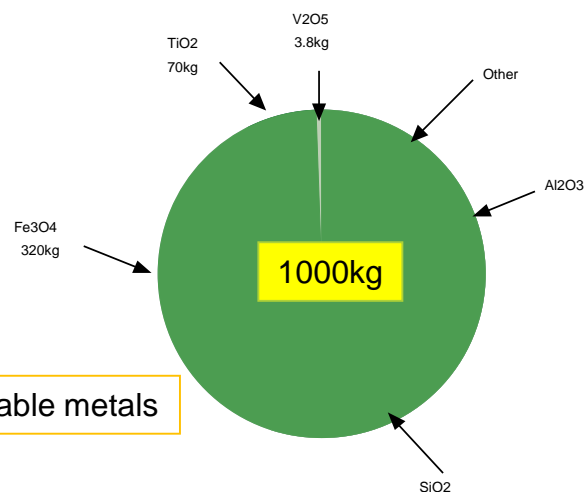
Material
Tailings

Concentrate

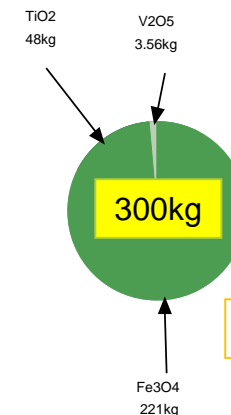
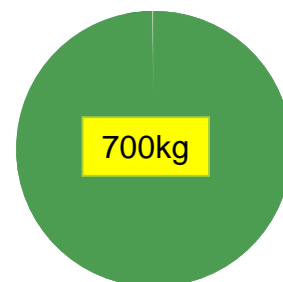
Mt. Peake material amendable to effective mechanical beneficiation

95% of non-payables can be removed

72% payable metal recovery



44% payable metals



92% payable metals

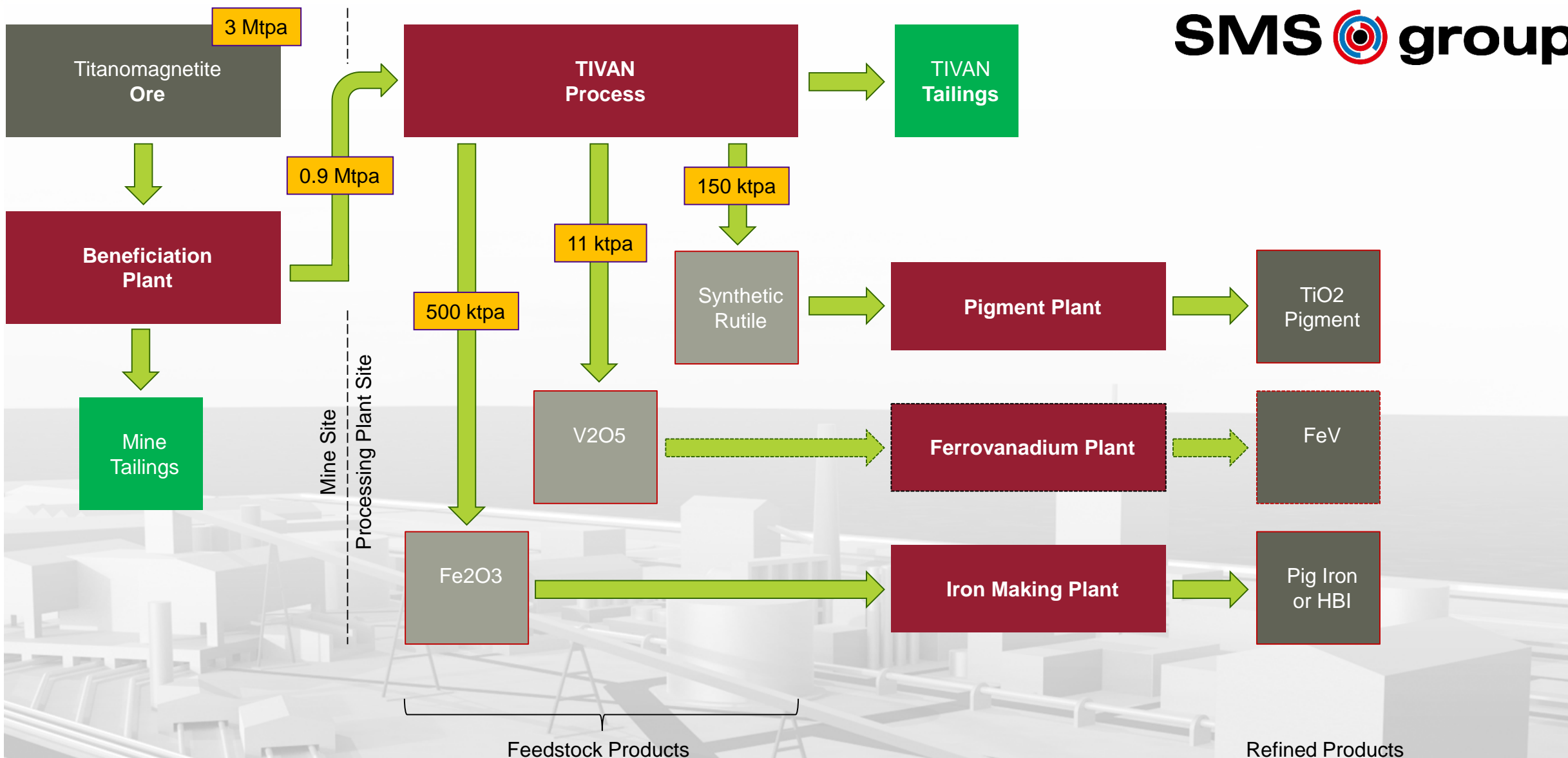
TiO ₂ (Pigment)	249 USD
Pig Iron	61 USD
V ₂ O ₅	51 USD
Value per ton ROM	361 USD/t

-78 USD
-17 USD
-4 USD
-99 USD/t

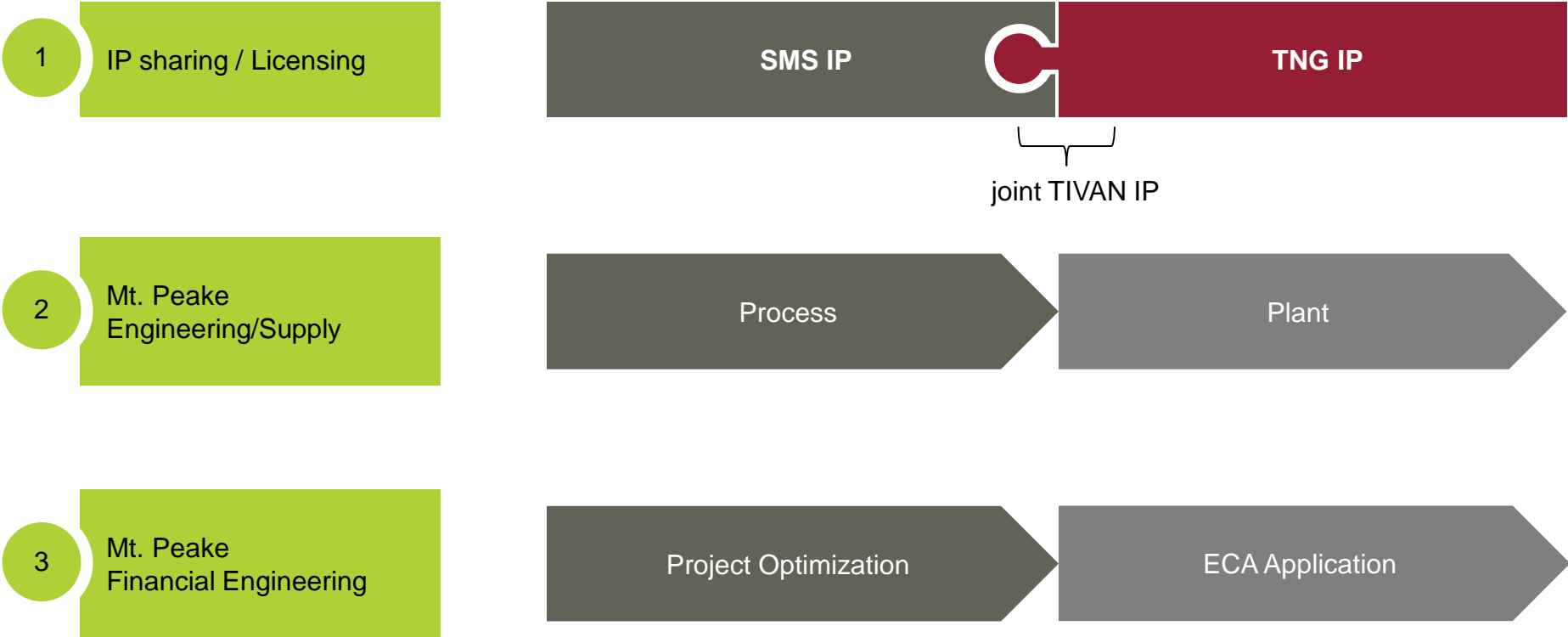
171 USD
44 USD
47 USD
262 USD/t

Assumption: Pig Iron: 400 USD/d, TiO₂ Pigment: 3.570 USD/t, V₂O₅: 13.500 USD/t

FAQ: How does TIVAN work? (Mt Peake phase 1 case)



FAQ: How are SMS and TNG collaborating?



TNG: Investment Summary

- ▶ Developing a Tier-1 strategic metals project
- ▶ Outstanding location and infrastructure
- ▶ Robust Feasibility Study completed
- ▶ Further optimization underway
- ▶ Diversified, high-quality range of products
- ▶ Strong long-term demand outlook
- ▶ Binding off-take agreements in place
- ▶ Strong global network of development, off-take partners
- ▶ Financing discussions well advanced
- ▶ Spin-off of non-core base metal assets underway



THANK YOU!

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