



# Neometals

## The Evolution of Lithium®

Investor Presentation  
August 2017

# Disclaimer

**Summary information:** This document has been prepared by Neometals Ltd (“Neometals” or “the Company”) to provide summary information about the Company and its associated entities and their activities current as at the date of this document. The information contained in this document is of general background and does not purport to be complete. It should be read in conjunction with Neometals’ other periodic and continuous disclosure announcements lodged with the Australian Securities Exchange, which are available at [www.asx.com.au](http://www.asx.com.au).

**Forward-looking information:** This document contains opinions, projections, forecasts and other statements which are inherently subject to significant uncertainties and contingencies. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results included in this document. Recipients of this document are cautioned that forward-looking statements are not guarantees of future performance.

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**Mount Marion Project:** This document contains certain historical and forecast financial and production information regarding the Mount Marion Project and Reed Industrial Minerals Pty Ltd, the owner of the Project (Neometals: 13.8% shareholding). Neometals was not involved in preparing this information, which is taken from a 16 August 2017 announcement by Mineral Resources Limited, the operator of the Project (via its wholly owned subsidiary, Process Minerals International Pty Ltd). However, Neometals is not aware of any reason why that information is incorrect as released by Mineral Resources Limited.

**Financial data:** All figures in this document are in Australian dollars (AUD) unless stated otherwise.

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**Investment risk:** An investment in securities in Neometals is subject to investment and other known and unknown risks, some of which are beyond the control of Neometals. The Company does not guarantee any particular rate of return or the performance of Neometals. Investors should have regard to the risk factors outlined in this document.

**Competent Persons Statement:**

The information in this document that relates to “Barrambie Mineral Resource Estimates”, “Barrambie Pre Feasibility Study Results”, “Mt Marion Mineral Resource Estimates” and “Lithium Battery Recycling – Scoping Study Results” are extracted from ASX Releases set out below. The Company confirms that it is not aware of any new information or data that materially affects the information included in the ASX Releases set out below, and in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates in those ASX Releases continue to apply and have not materially changed.

6/12/2013	Barrambie - Amended JORC 2012 Mineral Resource Estimate
25/08/2015	Barrambie Pre Feasibility Study Results
27/10/2016	Mt Marion Mineral Resource Upgrade
22/02/2017	Lithium Battery Recycling – Scoping Study Results

The Company confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production targets in the Barrambie Pre-feasibility Study and Lithium Battery Recycling – Scoping Study continue to apply and have not materially changed.

All the right elements

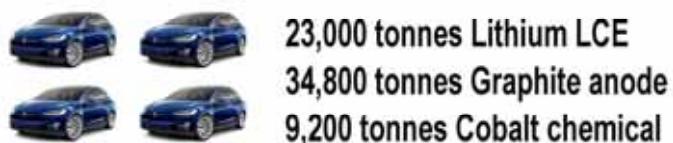


# Investment Thematic – Conservative Exposure to Energy Storage Revolution



## New Pure EVs Capacity

### 2016: 29GWh Megafactory Capacity



### 2020: 234GWh Megafactory Capacity



8X  
Growth



Needs  
+3X  
Lithium

Source: Benchmark 2017

# Focus on Li-Ion Battery Commodities



Element	Ti	Li	Co
Feedstock(s) Source	Barrambie (100%) 47Mt @ 22% TiO <sub>2</sub>	Mt Marion (13.8%) 77.8Mt @ 1.37%Li <sub>2</sub> O	Lithium Battery Producers Consumer Electronics Electric Vehicles
Upstream Product	+ 40% TiO <sub>2</sub> Concentrate	6% Li <sub>2</sub> O Concentrate	Lithium Ion Batteries ≤ 20% Co
Downstream Product/Process	<u>Neomet Process (25%)</u> Titanium Hydroxide Ti (OH) <sub>4</sub>	<u>ELi™ Process (70%)</u> Lithium Hydroxide LiOH	<u>Unnamed Process (50%)</u> Cobalt Sulfate CoSO <sub>4</sub> + Li <sub>2</sub> CO <sub>3</sub> Lithium Carbonate
Target Applications	Titanium Pigment Titanate Adsorbent Lithium Titanate Titanium Metal	Lithium Battery Cathode Materials	Lithium Battery Cathode Materials

Anode (-)  
LTO - Lithium Titanate



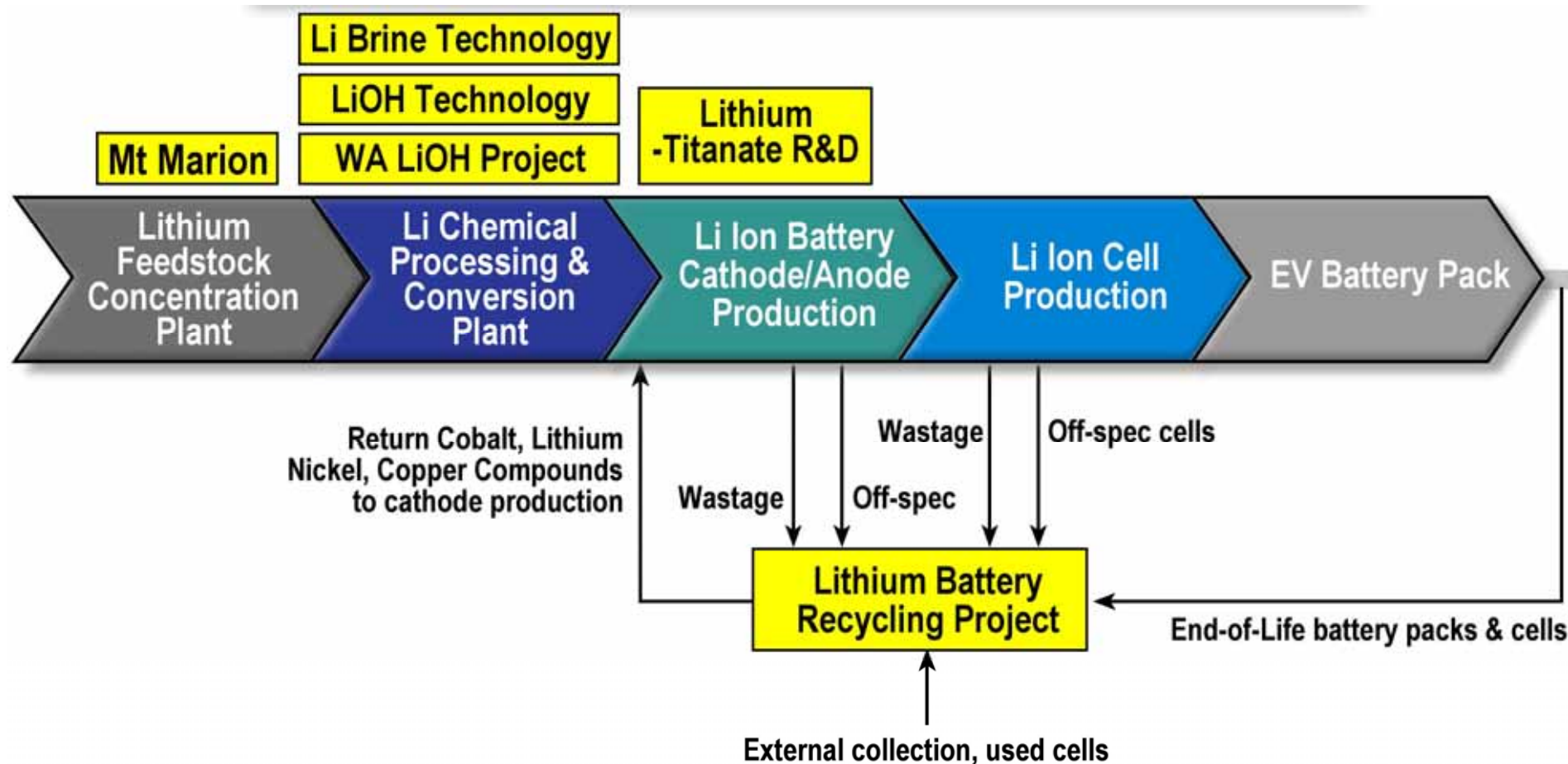
Cathode (-)  
LCO - Lithium Cobalt  
NCM - Lithium Nickel  
Cobalt Manganese  
NCA - Lithium Nickel Cobalt  
Aluminium

All the right elements





# Our Positions in the Supply Chain



# Downstream processing adds value



Spodumene  
Production



\$1

Lithium Hydroxide  
Production



\$3

Lithium Titanate  
Anode Production



\$8

Lithium Battery  
Production



X



# Mt Marion Lithium Operation

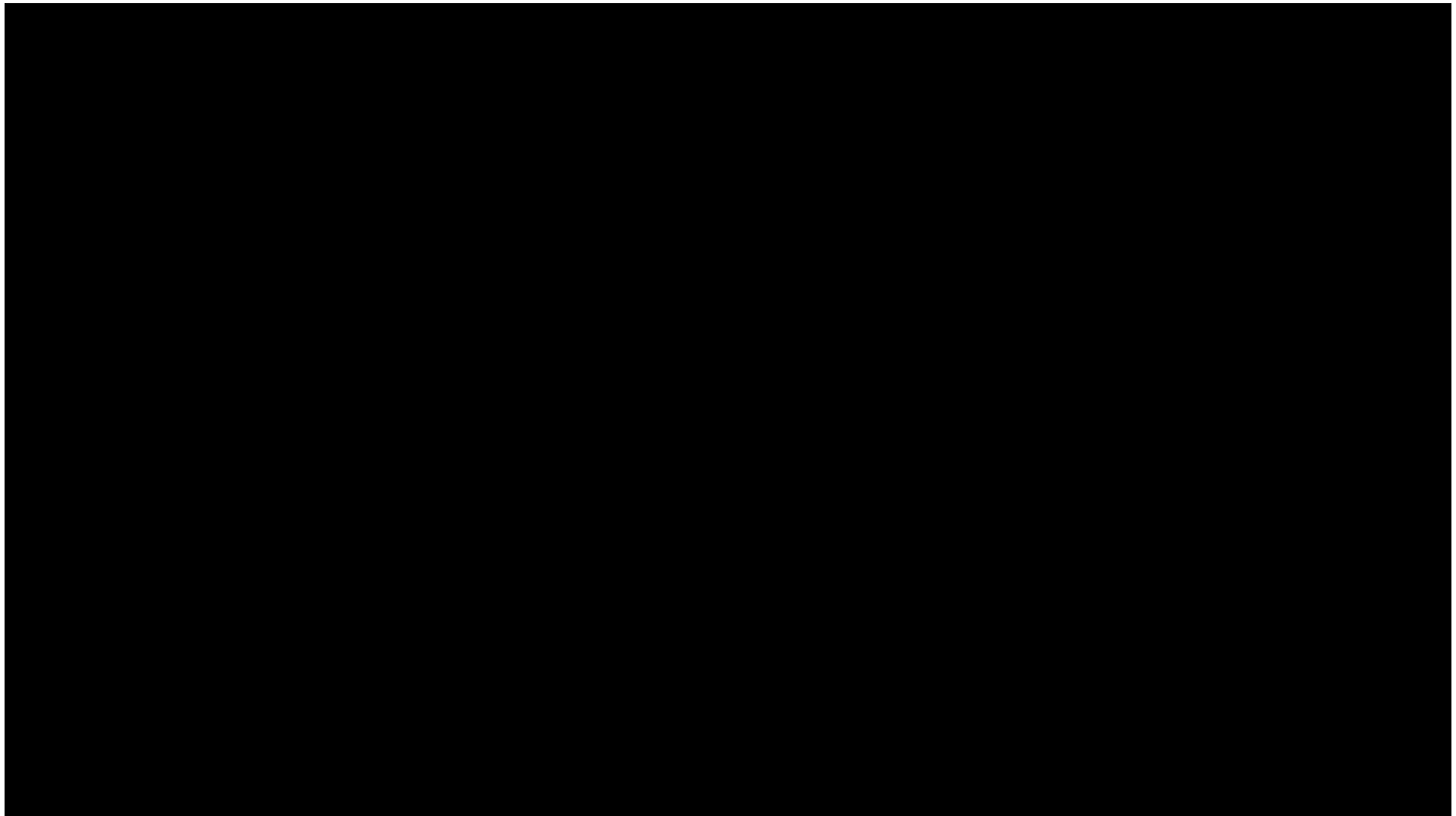


Neometals 13.8%  
through Reed Industrial Minerals Pty Ltd

**Neometals**



# World's largest lithium concentrator



**Neometals**



# Globally Significant Operation – 400kt concentrates pa (~50kt LCE)



- ✓ JORC Resource 77.8Mt @ 1.37%  $\text{Li}_2\text{O}^*$
- ✓ 2HFY17 Shipments 116,000 dmt

- ✓ 1HFY18 EBITDA A\$72M\*\* (100% basis)
- ✓ C1 costs A\$369/t CIF (~US\$290/t)
- ✓ Total costs A\$460/t CIF (~US\$360/t)

- ✓ Leading BOO Provider
- ✓ Complete Mine-to-Port Operator

- ✓ Leading Lithium Converter
- ✓ LOM Take or Pay Contract\*



# Downstream processing WA-based LiOH Project

Neometals 100%

Offtake Option for ~50kt spodumene concentrates

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**Neometals**

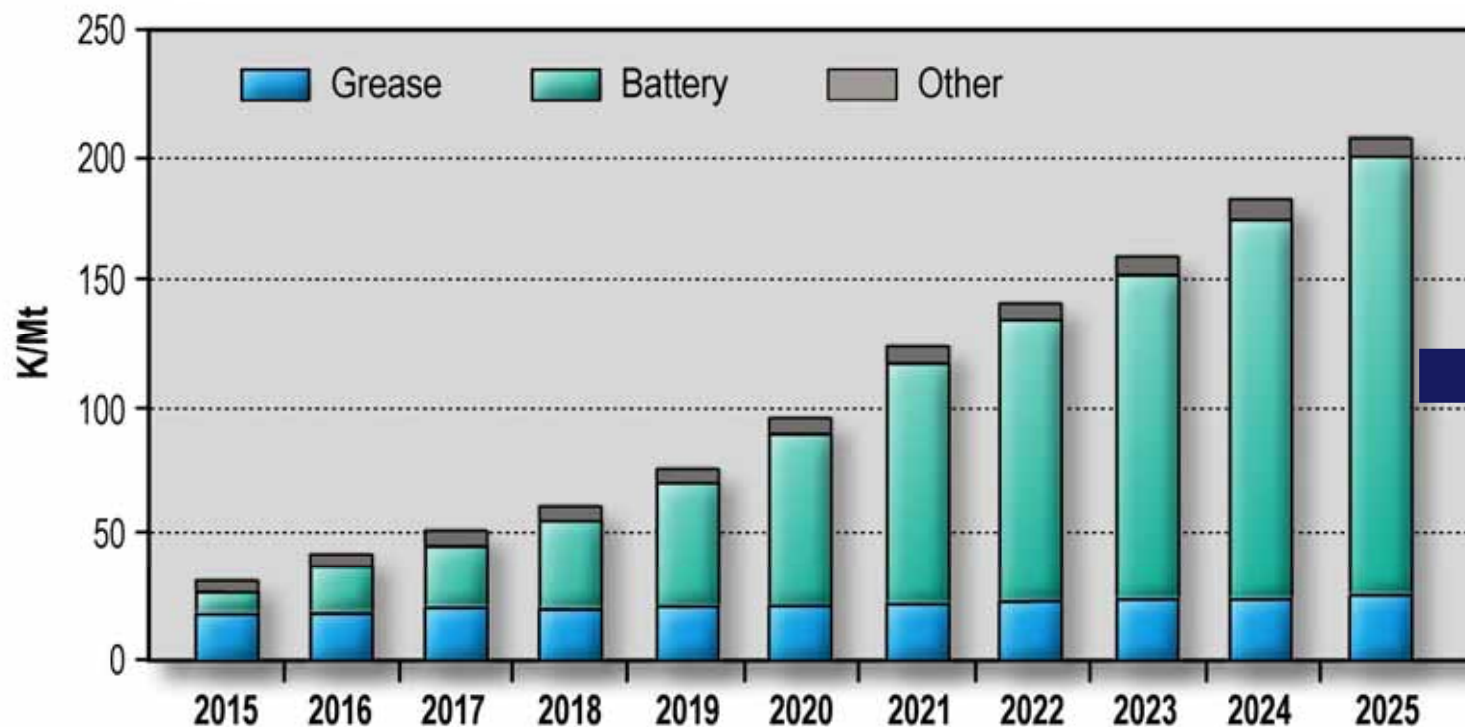


# Secure LiOH supply for the West



Battery makers users want LiOH from spodumene converted outside China

**Lithium Hydroxide Volume per Application 2015-2025**



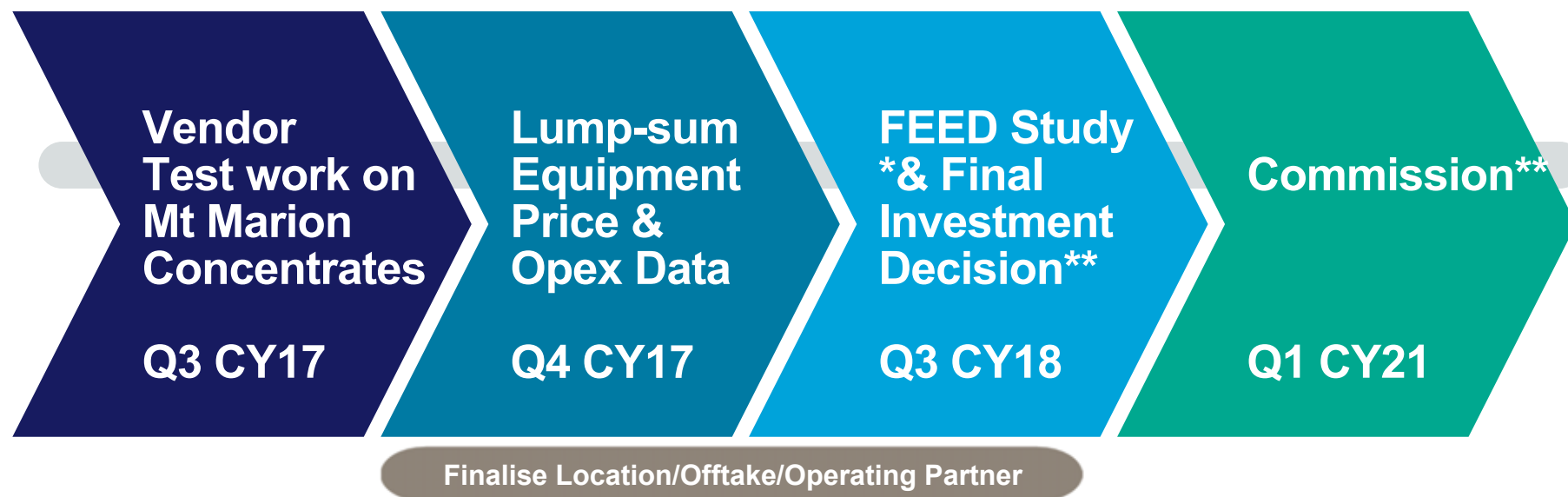
**8X  
Growth**

Source: Global Lithium, NLGI, BMU

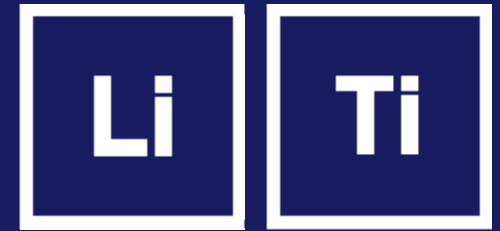
# Commercialisation Plan



- Local plant to minimise transport from Mt Marion  
7t spodumene concentrate needed for 1t of LiOH
- Utilise local natural gas, sulfuric acid and workforce
- Conventional flowsheet -Remove technology risk – speed to market







# Downstream processing

## Lithium Titanate R&D

Neometals 100%

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**Neometals**



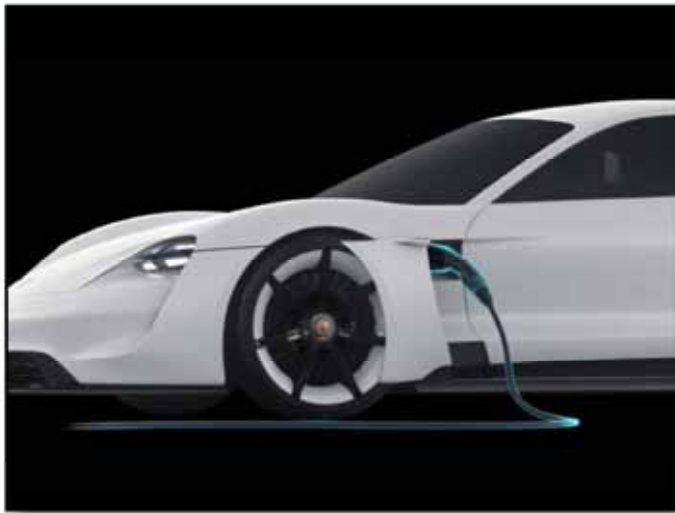
# Superior Anode Material for EV



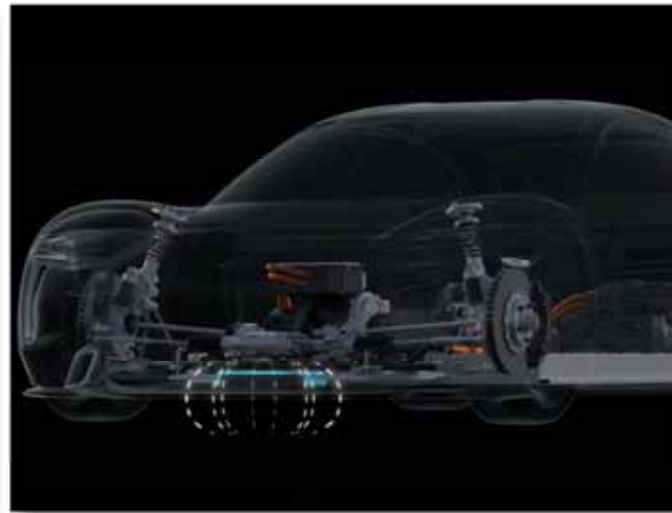
**Super Fast Charging**  
80% < 15 mins

**Wireless Charging**  
Induction Pad

**Unparalled Life**  
**Extremely Safe**



*Source: Porsche*



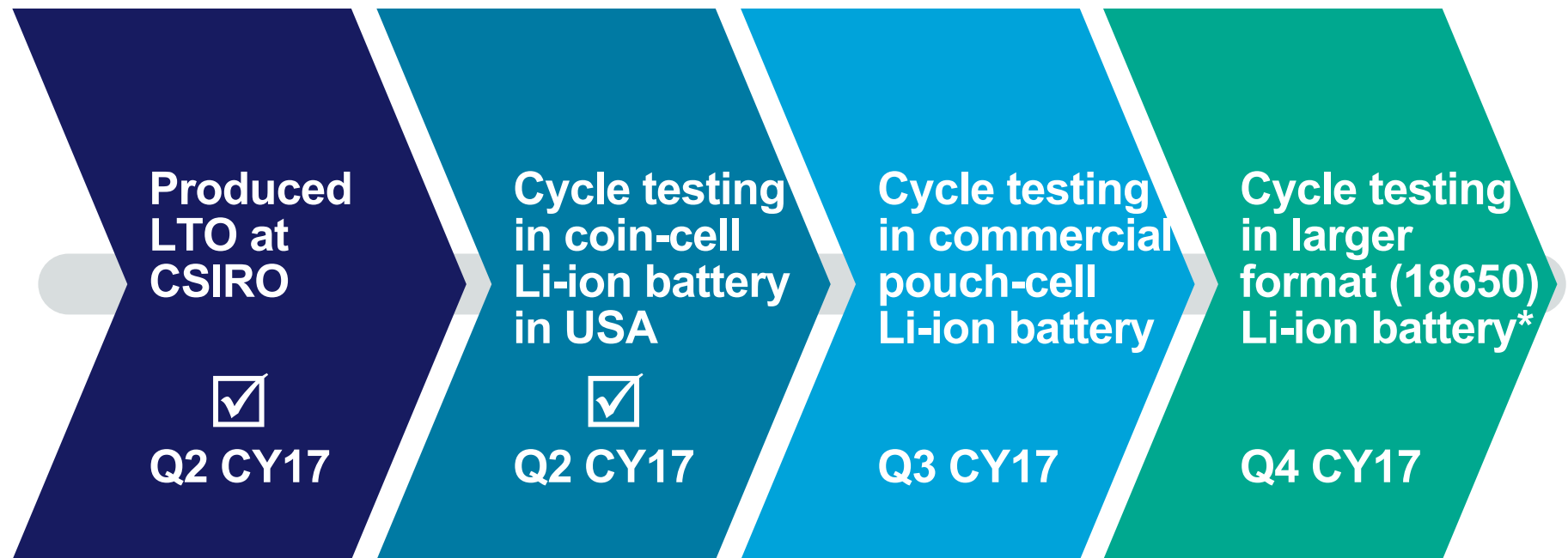
*Source: Johnson Controls*

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## Neometals



# Research & Development Plan



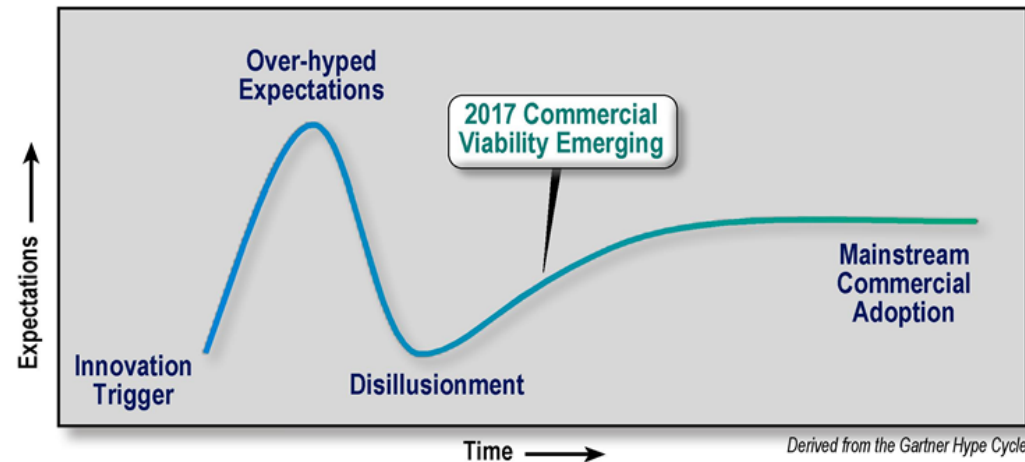
(\*) Subject to Board Approval

# Intellectual Property Portfolio

# Our Approach

- R&D Projects must :
  - address real market opportunity,
  - create a sustainable competitive advantage
  - Have strong business case
- Conduct Engineering Cost Studies asap to not waste time/money

## Neometals and the Technology Hype Cycle



Source: Nixor.co.uk



# Downstream processing

## Direct Extraction from Brine

100% Neometals

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# Replace Evaporation with faster, friendlier LiCl recovery process



**Neometals**



# Direct Extraction via Adsorption



2009 HARD ROCK LITHIUM PRODUCTION	2010-2011 LITHIUM CARBONATE FROM HARD ROCK (SULPHATION)	2010-2011 LITHIUM HYDROXIDE FROM LITHIUM CARBONATE (CAUSTICATION)
2016 LITHIUM CHLORIDE RECOVERY FROM BRINE	2015 LITHIUM HYDROXIDE FROM BRINE VIA ELECTROLYSIS	2012-2014 LITHIUM HYDROXIDE FROM HARD ROCK VIA ELECTROLYSIS (CHLORINATION)
2016 LITHIUM CHLORIDE PURIFICATION	2016 RECYCLING OF LCO BATTERIES (CONSUMER ELECTRONICS) (SULPHATION)	2016 RECYCLING OF NCM/NCA (EV & STATIONARY BATTERIES) (CHLORINATION)

- Pat pending **Titanate** adsorbent
- Quick load/strip cycle – 30mins
- Complete rejection of sodium
- High recovery of Lithium 53-79%
- Returns water to salar, no evaporation
- Next Step - Proof of Scale



# Downstream processing

## Direct Conversion to LiOH

Neometals 70%

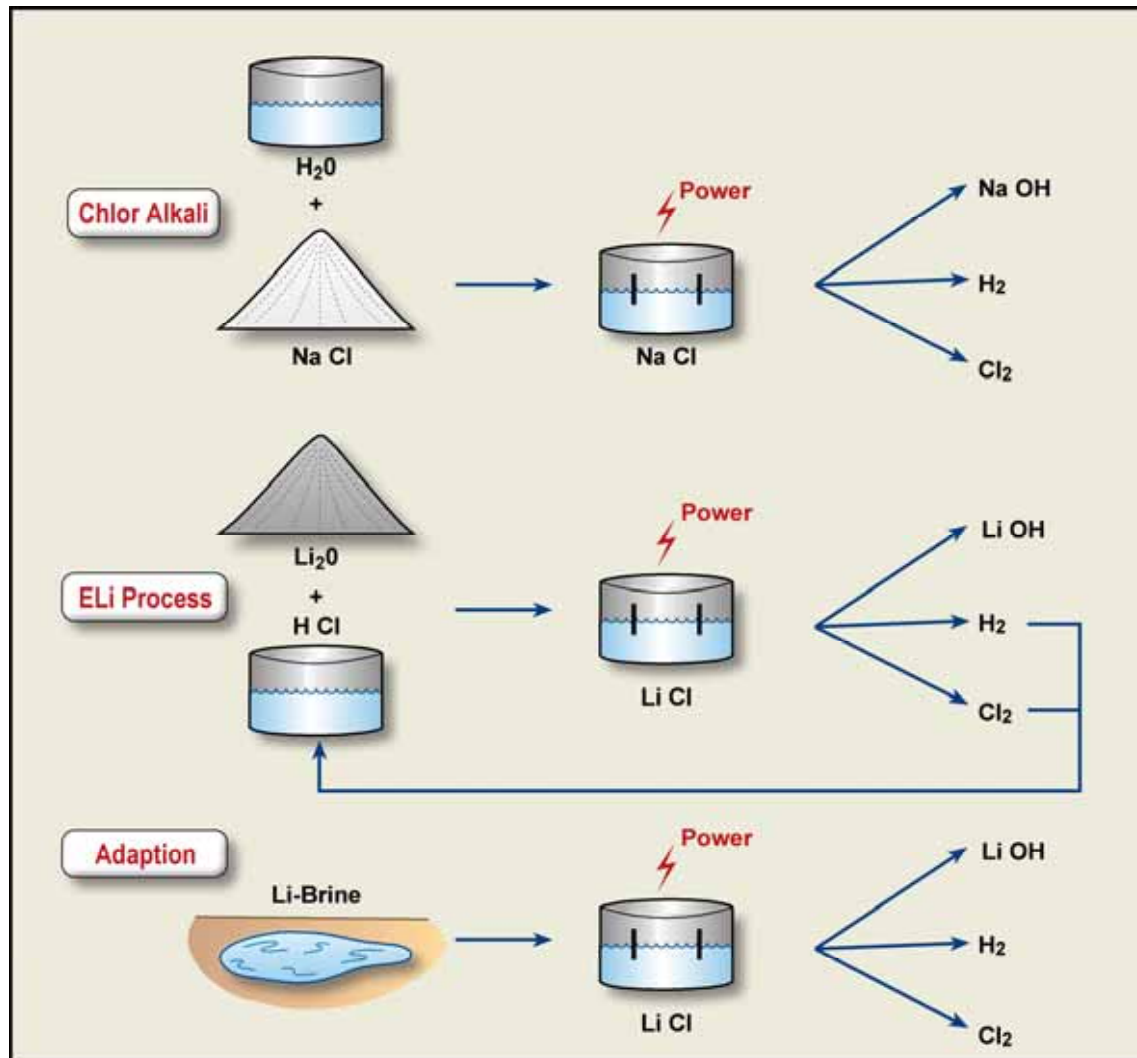
Mineral Resources Ltd 30%

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**Neometals**



# Patented ELi Process - conversion of LiCl to LiOH from any source



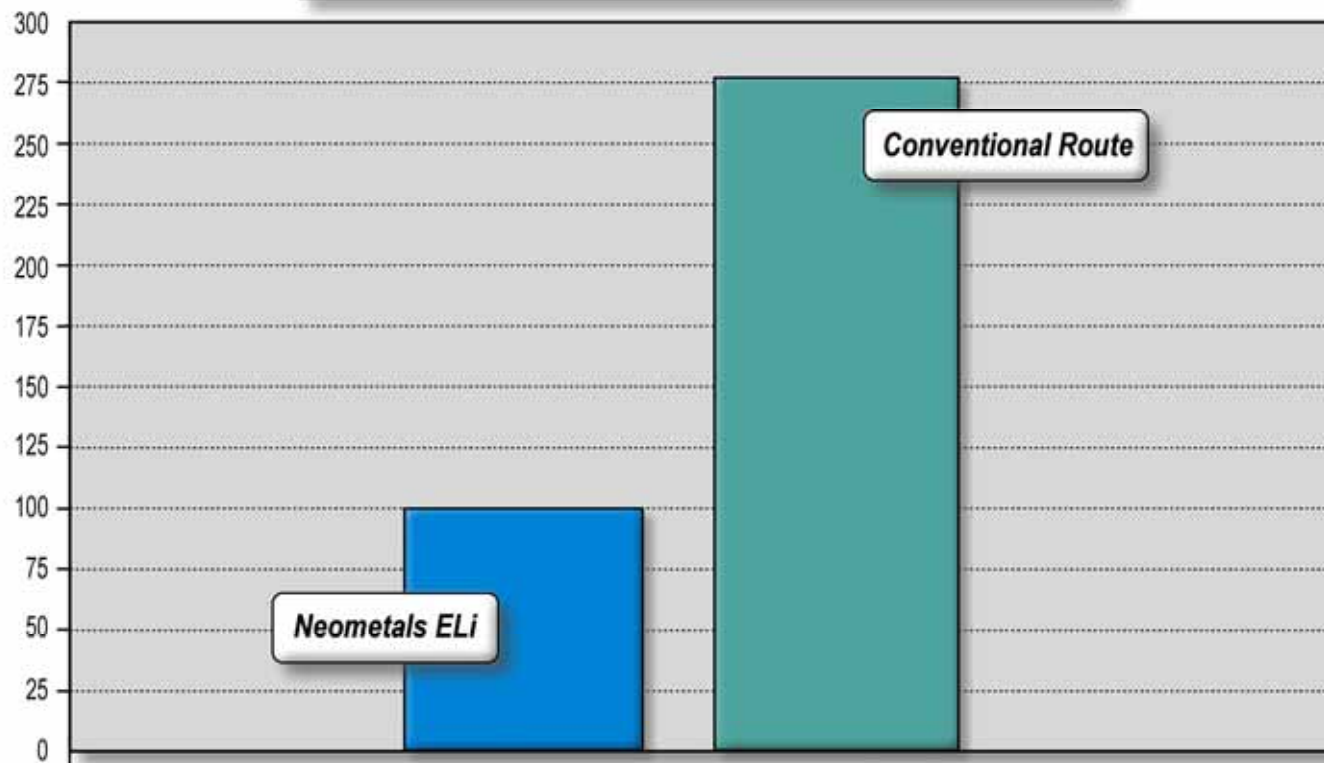
## IP

- 1 Granted patents (AU)
- 18 Pats pending

# Gamechanger for LiOH from brine production



**Relative LiOH Conversion Costs from LiCl Brine**  
(US\$ per tonne LiOH.H<sub>2</sub>O) - Argentina basis  
ELi Process = Base 100

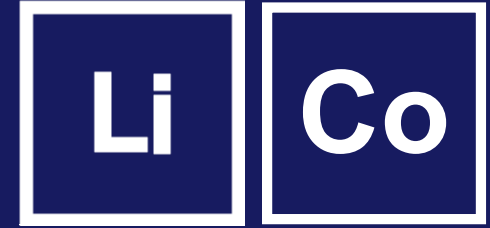


Business model is to licence to existing brine producers in return for royalty stream:

- De-risks ELi for own use later
- Quicker cashflow
- Higher P/E multiple

\*Source: Global Engineering Group (2016) (Identity not for publication)





# Downstream processing

## Lithium Battery Recycling

Neometals 50% of IP (3 US Prov. Pats)  
Exclusive licence to commercialise

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**Neometals**

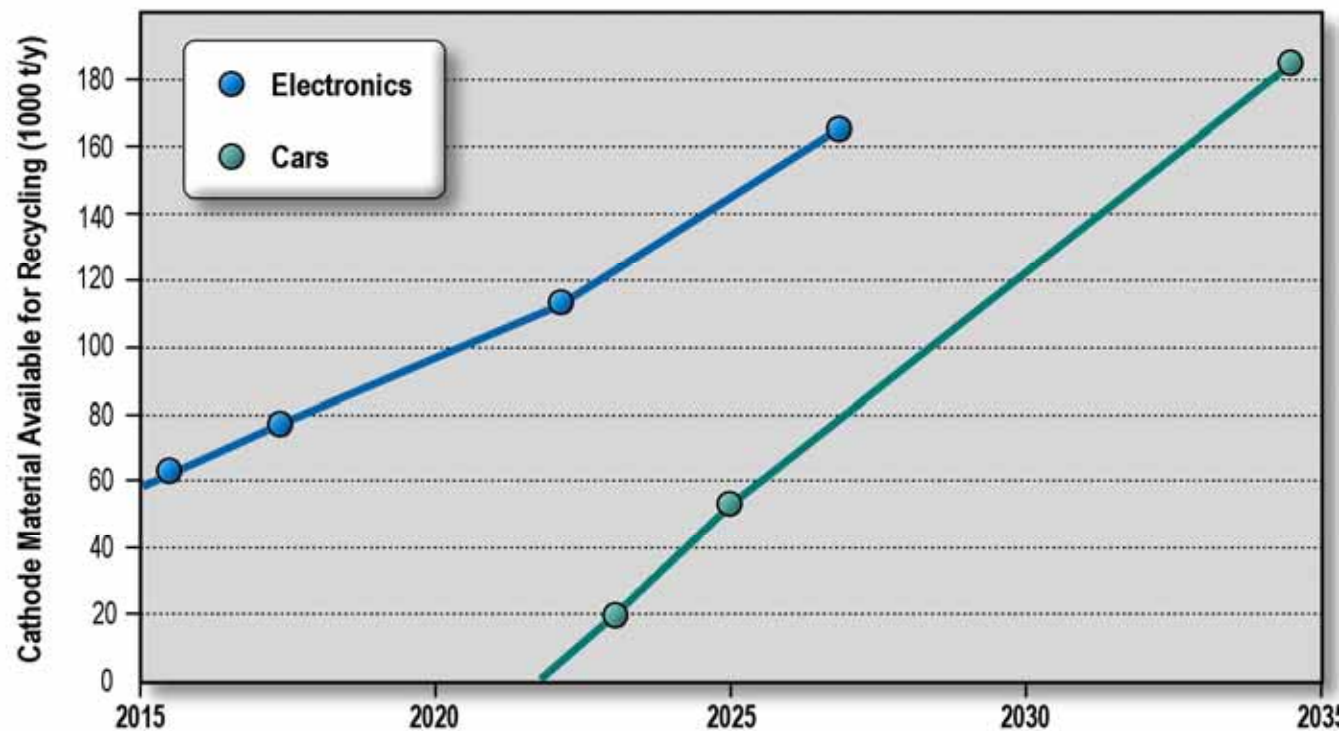




# Li Battery Recycling Rationale

Li

Co



Source: Argonne National Laboratory - 2016

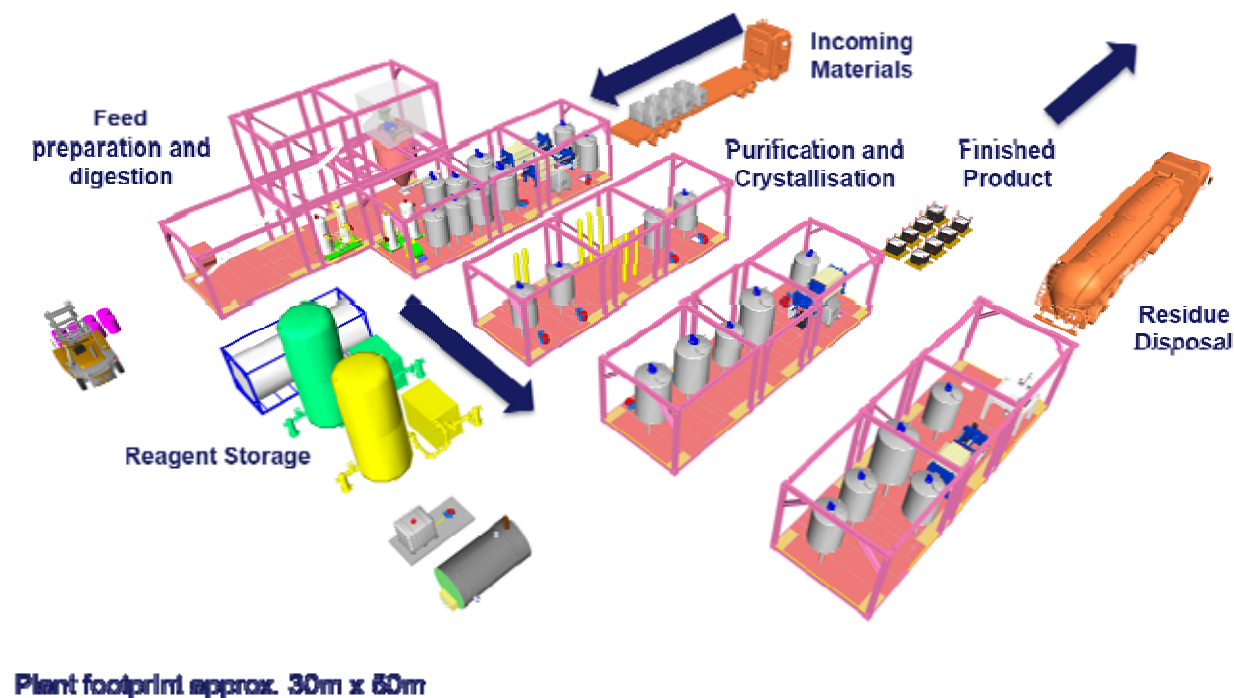
Estimated  
< 5%  
Recycled

Consumer  
Electronics  
LCO cathode  
= 20% Co

**Neometals**



# Plant Schematic and Study Results



## Scoping Study Results

(± 30% accuracy)

- Operating Costs  
US\$4.45/lb Co (US\$10k/t)
- Spot price  
US\$25/lb Co (US\$55k/t)
- Capex US\$4.5M
- Pilot Plant under construction, testwork October 2017
- Can be constructed and commissioned in 42 weeks

# Barrambie Titanium Project

100% Neometals

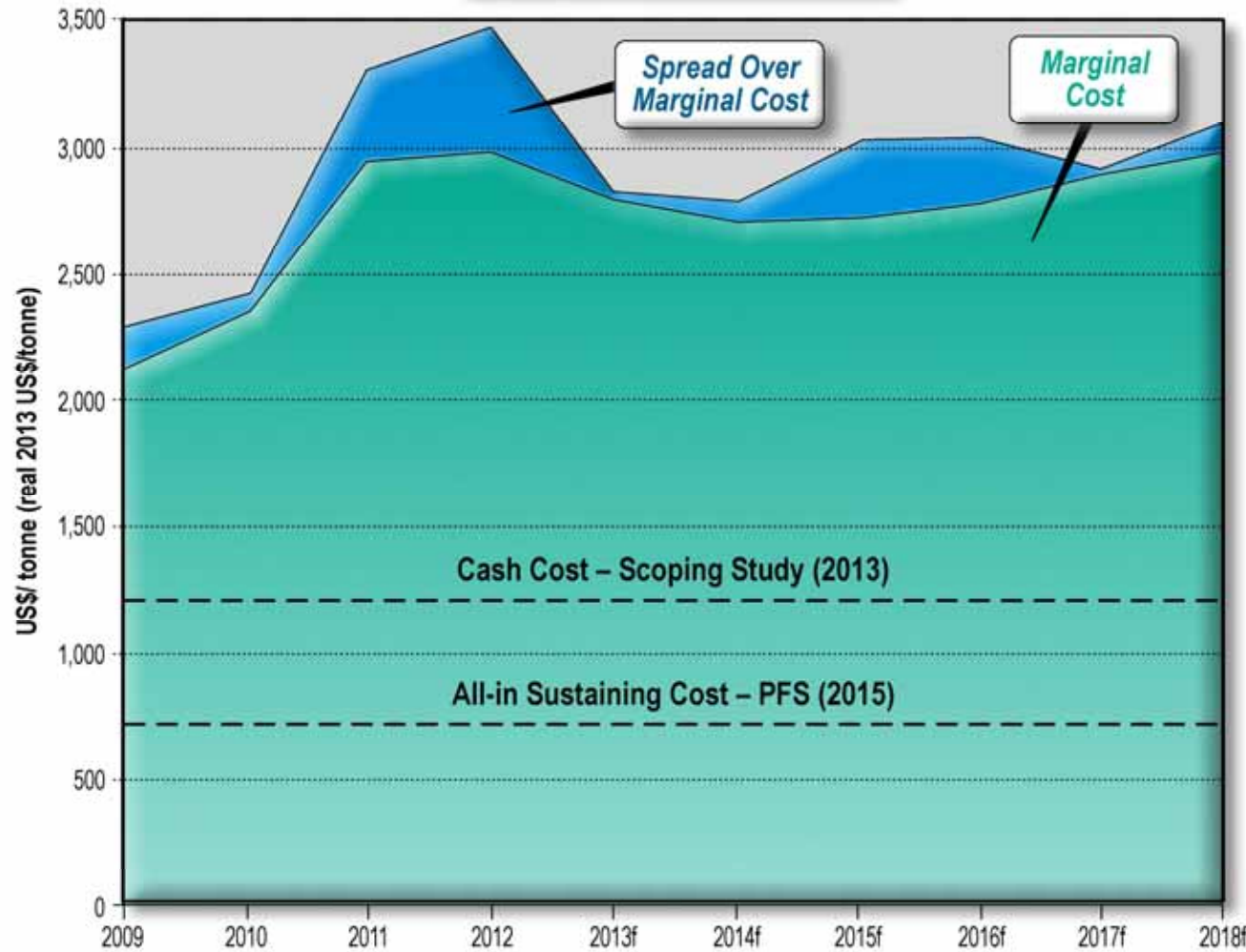


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# Problem: Poor Industry Profitability

## Solution: Patented Neomet Process



Source: TZMI

- Increasing Confidence
- Lowering Costs

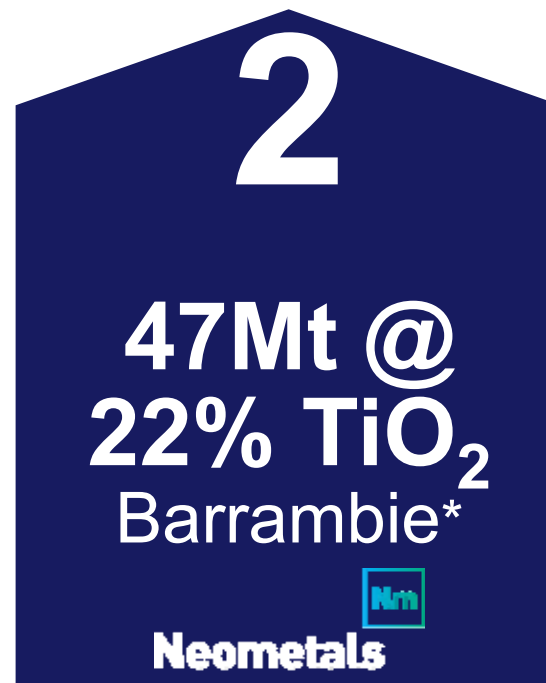
**Neometals**



# Globally Significant Ti Resource

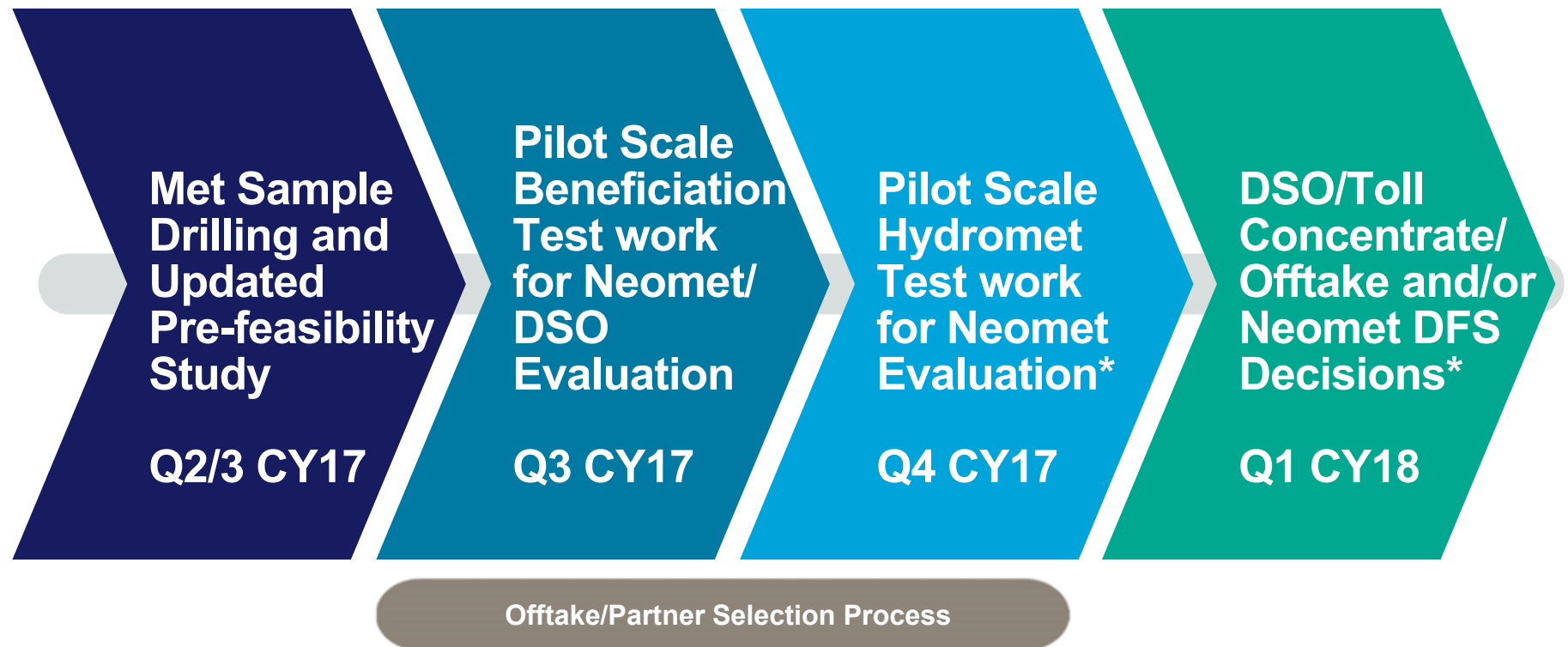


1,000 RC/Diamond holes to 60 vertical depth, Open all directions



\* Mineral Resource Estimate  
(JORC2012) on page 29

# Commercialisation Plan



(\*) Subject to Board Approval



# Corporate

# Snapshot

Nm

## Cash at Bank

- A\$46.5M \*  
30 June 2017

## Receivables

- A\$8.5M

## Investments

- A\$8M

## Capital Management

- A\$11.5M dividend in FY17
- 5% Share buyback in progress

## Market Cap

- A\$150M @ 27c

\* Includes \$4M of restricted access term deposits

# Executives and Consultants



**Chris Reed**  
*CEO*

Chris started in the mining industry in 1990 and co-founded Reed Resources in 2001. Chris holds a Bachelor of Commerce from the University of Notre Dame and a Graduate Certificate in Mineral Economics from WA School of Mines. He is a Member of the AusIMM and immediate past Vice-President of the Association of Mining & Exploration Companies.



**Mike Tamlin**  
*COO*

Mike has over 35 years experience, including over 20 years in the lithium industry and was responsible for developing the spodumene trade between Australia and China. Former positions include GM China Galaxy Resources, VP Commercial Enirgi Group, GM Marketing Windimurra Vanadium and GM Marketing Sons of Gwalia. He has a degree in Metallurgy and is also currently a director of Frontier Lithium.



**Jason Carone**  
*CFO & Company Secretary*

Jason holds a Bachelor of Commerce in Accounting and Business Law from Curtin University and is a member of the Institute of Chartered Accountants, and Chartered Secretaries. He has over 20 years' experience in accounting, company administration in Australia and South East Asia across a broad range of industries. Jason has been with Neometals 10 years.



**Yatendra Sharma**  
*Project Manager*

Yatendra holds a PhD in chemical technology with over 42 years of experience at top management including general management position at Galaxy Resources Limited (2009-2012) etc where he successfully managed construction of then the world's largest lithium carbonate plant. Yatendra is a member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and Royal Australian Chemical Institute (CChem MRACI).

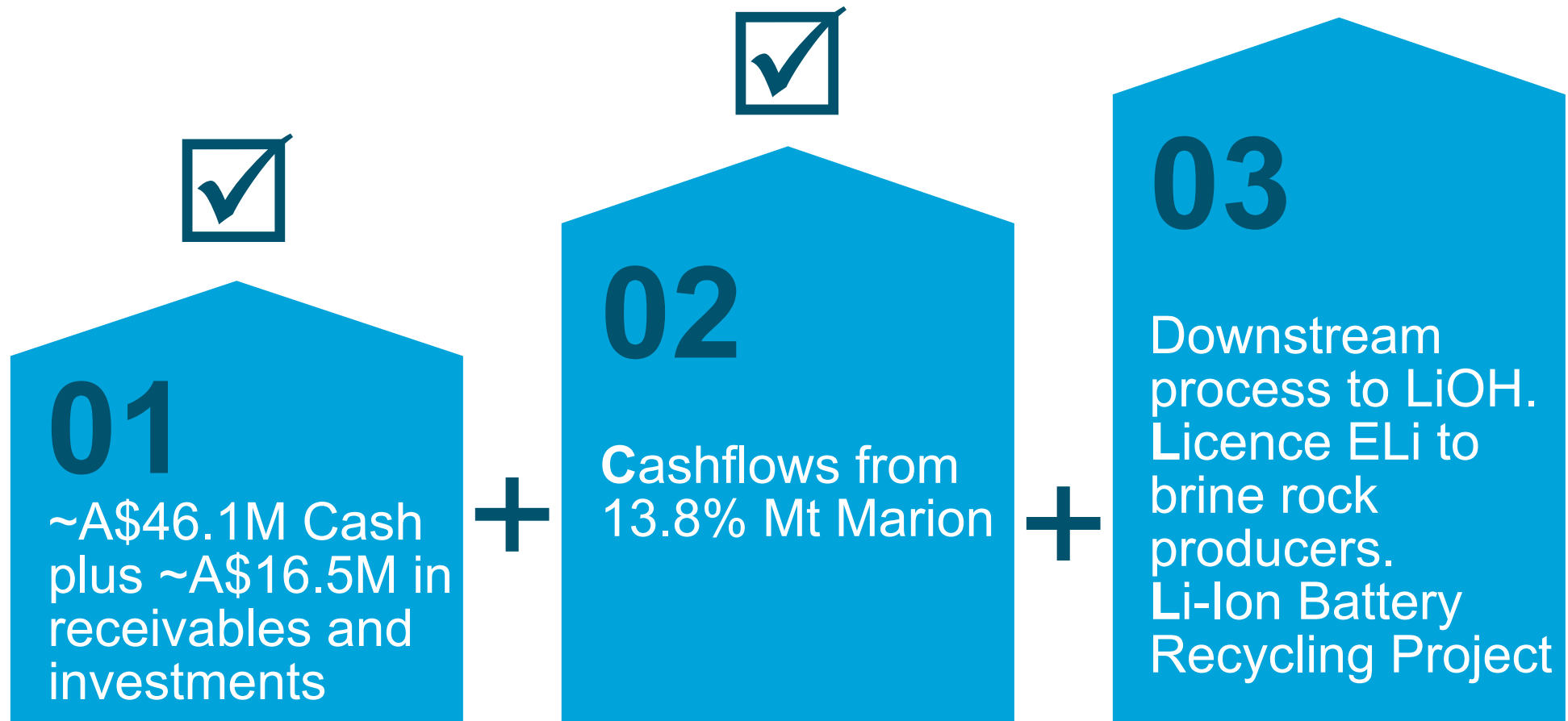


**Mike Spratt**  
*Project Manager*

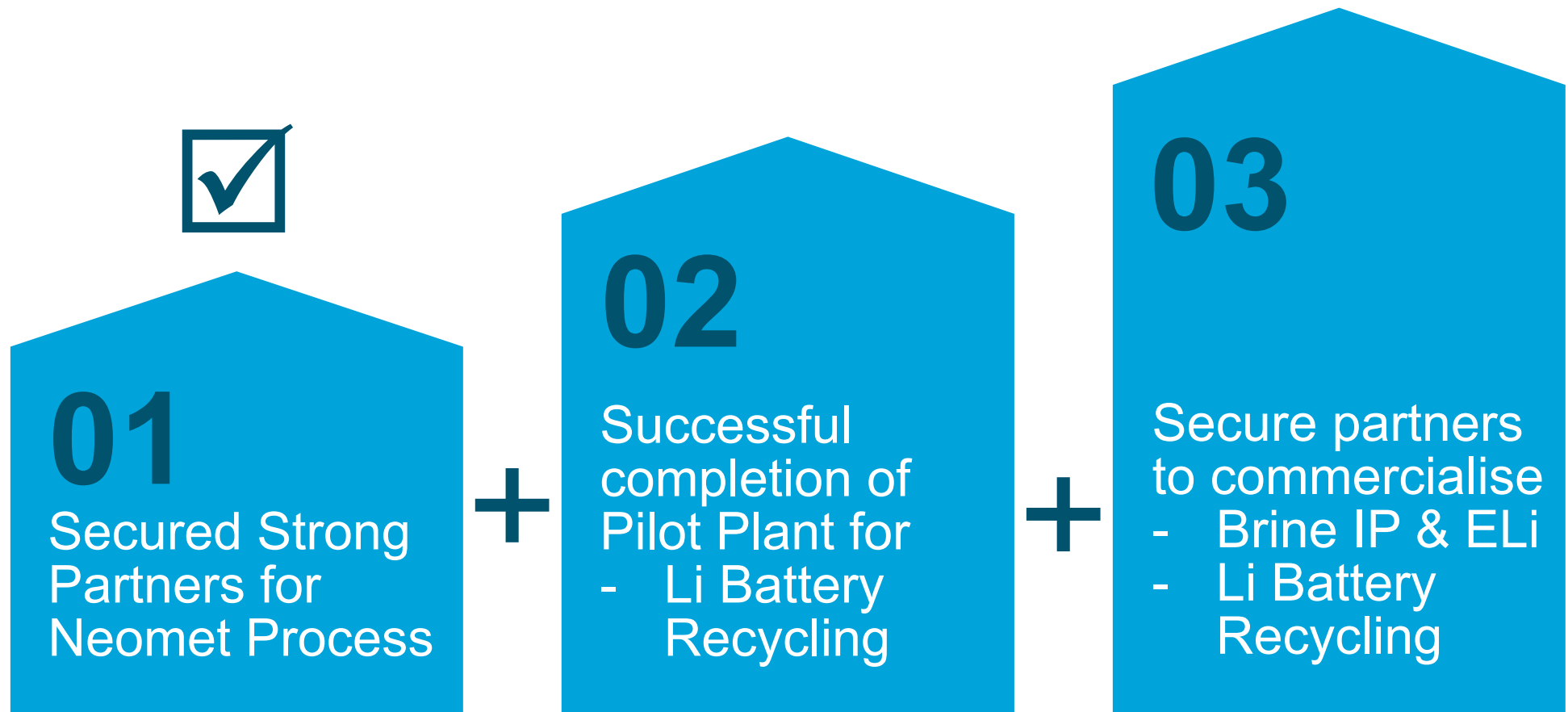
Michael is a Metallurgist with over 50 years of experience in mining, mineral processing, engineering and construction both in Australia and overseas. Michael has held senior general management positions such as Managing Director of Thailand Smelting and Refining Company and Simcoa, GM Operations at Robe River Iron Ore, Operations Director of Minproc and Kaiser Engineers.

# Investment Proposition

# Lithium : Cash, cashflow & growth options



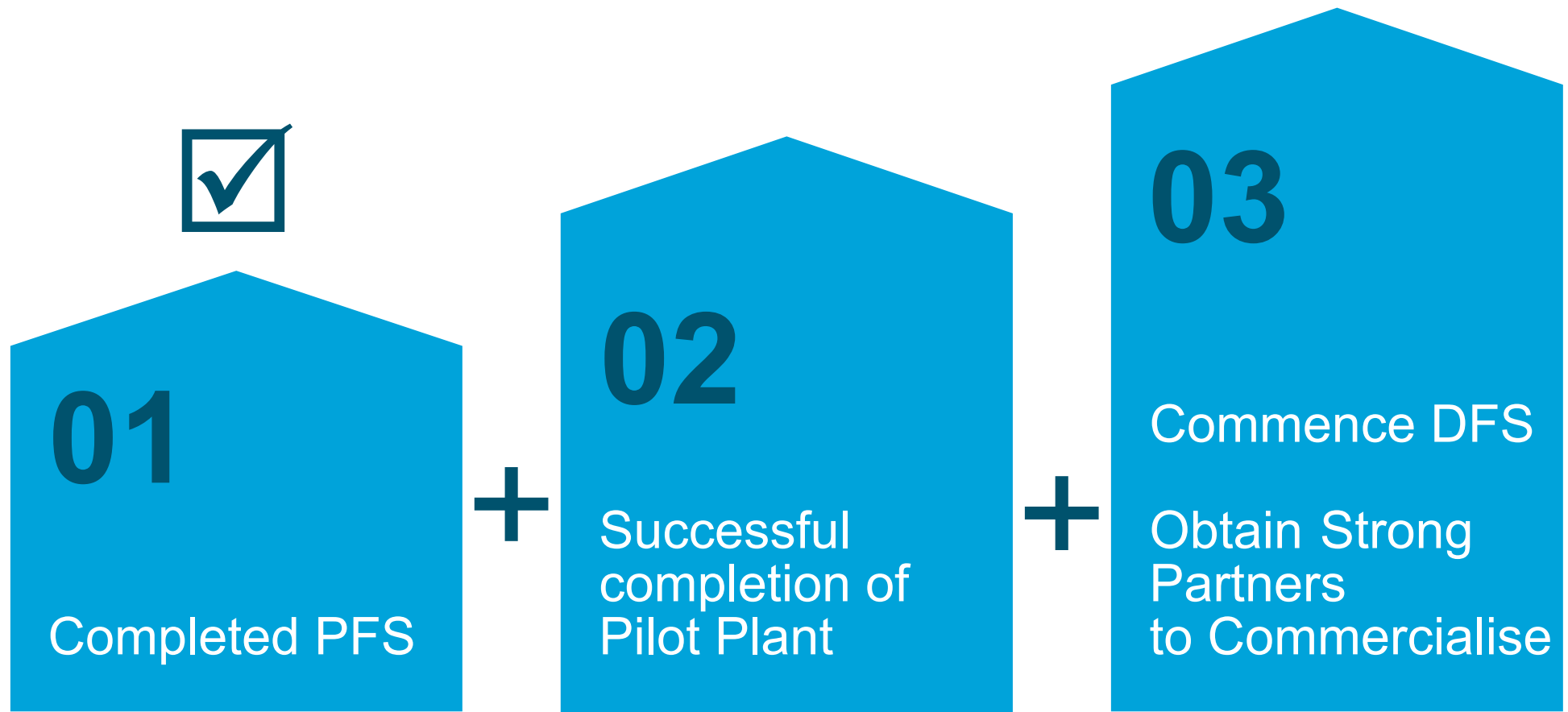
# Technology : developing a diversified portfolio



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# Titanium : the big one



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# Thank you

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



# Neometals

SUPPORTING INFORMATION

# Corporate

# Experienced Board



**Steven Cole**  
*Chairman*

Steven has 35 years of professional, corporate and business experience through senior legal consultancy, as well as a range of executive management and non executive appointments. His extensive boardroom and board sub-committee experience includes ASX listed, statutory, proprietary and NFP organisations covering the industrial, financial, educational, professional services, health and resources sectors.



**Chris Reed**  
*Managing Director*

Chris started in the mining industry in 1990 and co-founded Reed Resources in 2001. Chris holds a Bachelor of Commerce from the University of Notre Dame and a Graduate Certificate in Mineral Economics from WA School of Mines. He is a Member of the AusIMM and immediate past Vice-President of the Association of Mining & Exploration Companies.



**David Reed**  
*Non-Executive Director*

David was a director and Chairman of CIBC Australia Limited. David has been a prospector, former secretary of the Amalgamated Prospectors and Leaseholders Association and private mine owner. In 1984 David founded Mt. Martin Gold Mines NL, which with partner Newmont Australia developed the million ounce New Celebration Gold Mine. In recognition of his service to the community he was awarded the Order of Australia Medal in 2002.



**Natalia Streltsova**  
*Non-Executive Director*

Natalia Streltsova is a PhD qualified chemical engineer with over 25 years experience in the minerals industry, including over 10 years in senior technical and corporate roles with mining majors - WMC, BHP and Vale. Dr Streltsova has considerable international experience covering project development and acquisitions in South America, Africa and the Former Soviet Union. She is currently a Non-Executive Director of Western Areas Limited and Parkway Minerals NL.



**Doug Ritchie**  
*Non-Executive Director*

Doug Ritchie is a senior resources industry executive with over 35 years experience, including over 28 years working with Rio Tinto. Mr Ritchie has considerable international corporate experience, including in China. He has been a director of various ASX and HKSE listed companies as well as research and commercialisation organisations

# Long-term Strategy

Nm

Combining innovative cost advantages and strong partners



to develop a portfolio of globally significant mineral resources



into lower-risk, long-life, high-margin operations to optimise stakeholder returns



2 cent unfranked div – April '16  
2 cent unfranked div – Aug '16  
5% on market buyback

**Neometals**

$$\boxed{\text{Li}} + \boxed{\text{Ti}} = \boxed{\text{Nm}}$$

# Tactical Plan – FY18

Nm

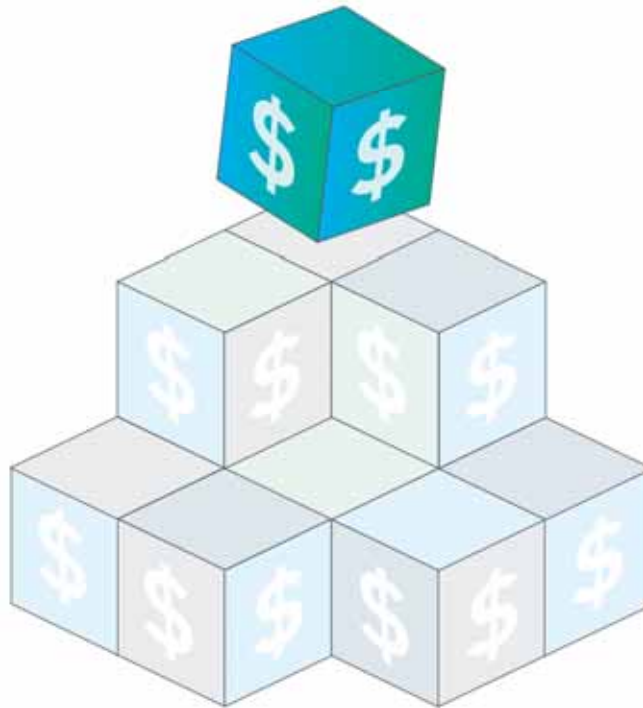
Grow market cap from maximising returns from existing operations, increasing margins via higher value (downstream) products and developing growth options.

Mine, process, sell globally relevant minerals with strong market fundamentals

Commercialise proprietary processing Technologies

Build strong Human and Financial Capability

Leverage Project Acquisition and Development Capacity



- Negotiate new MSA to improve offtake quality and revenues
- Advance local LiOH project with vendor testwork, offtake and partner selection processes.
- Licence Dexter and/or ELi to brine producer for royalties
- Fast-track evaluation of recycling process pending Mini-Max Test work.
- Fast-track evaluation of Barrambie pending Mini-Max Test work and partner selection outcomes
- Build royalty portfolio from Neomet Process with Sedgman and Andritz

**Neometals**



# Significant Financial Resources

Nm

## ASX CODE: NMT

## OTC:RDRUY

Last close (7-8-2017)	A\$	0.29
Shares on issue	M	544
Market capitalisation	A\$M	157
Net Cash (at 30-6-2017)	A\$M	<b>46.1</b>
Receivables/Investments	A\$M	<b>16.5</b>

## MAJOR SHAREHOLDERS

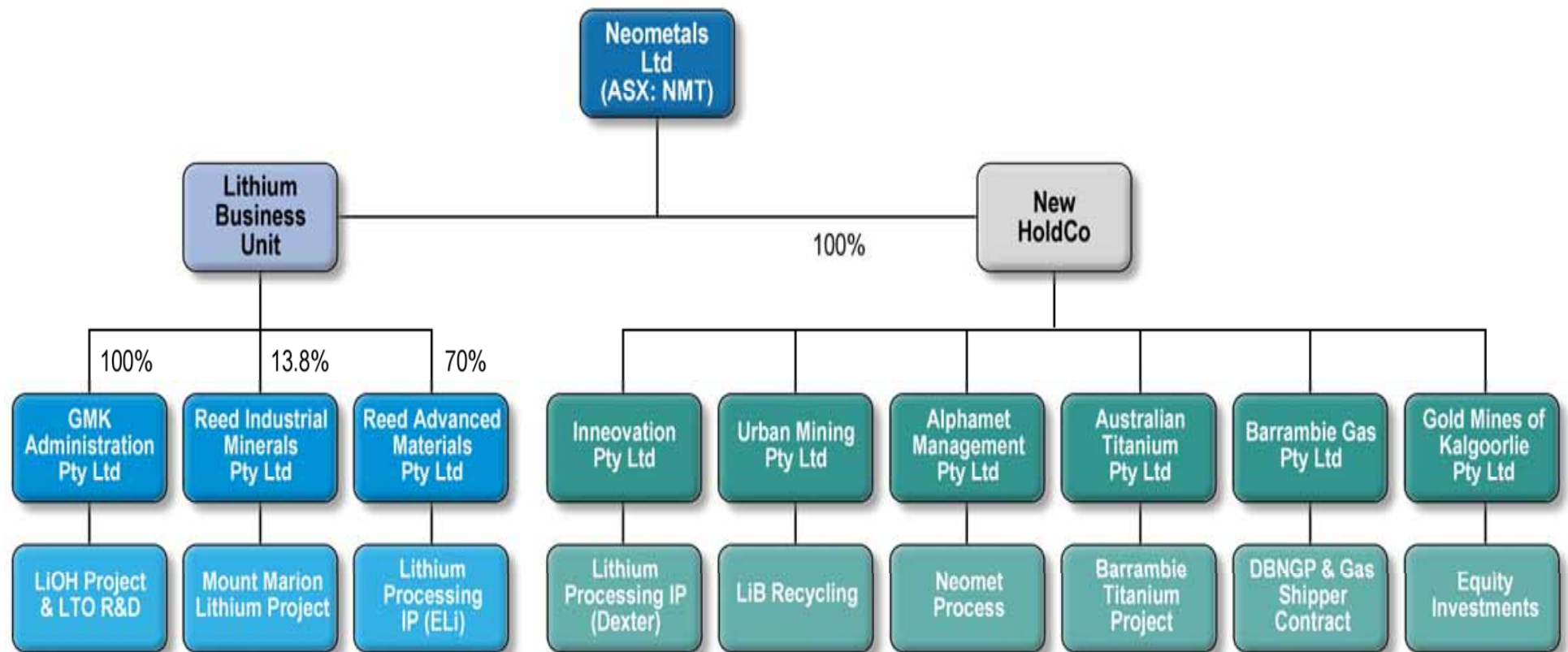
David Reed	10.9%
Kilkenny Limited	4.3%
Top 20 (7-8-2017)	37.1%

## 18 MONTH SHARE PRICE

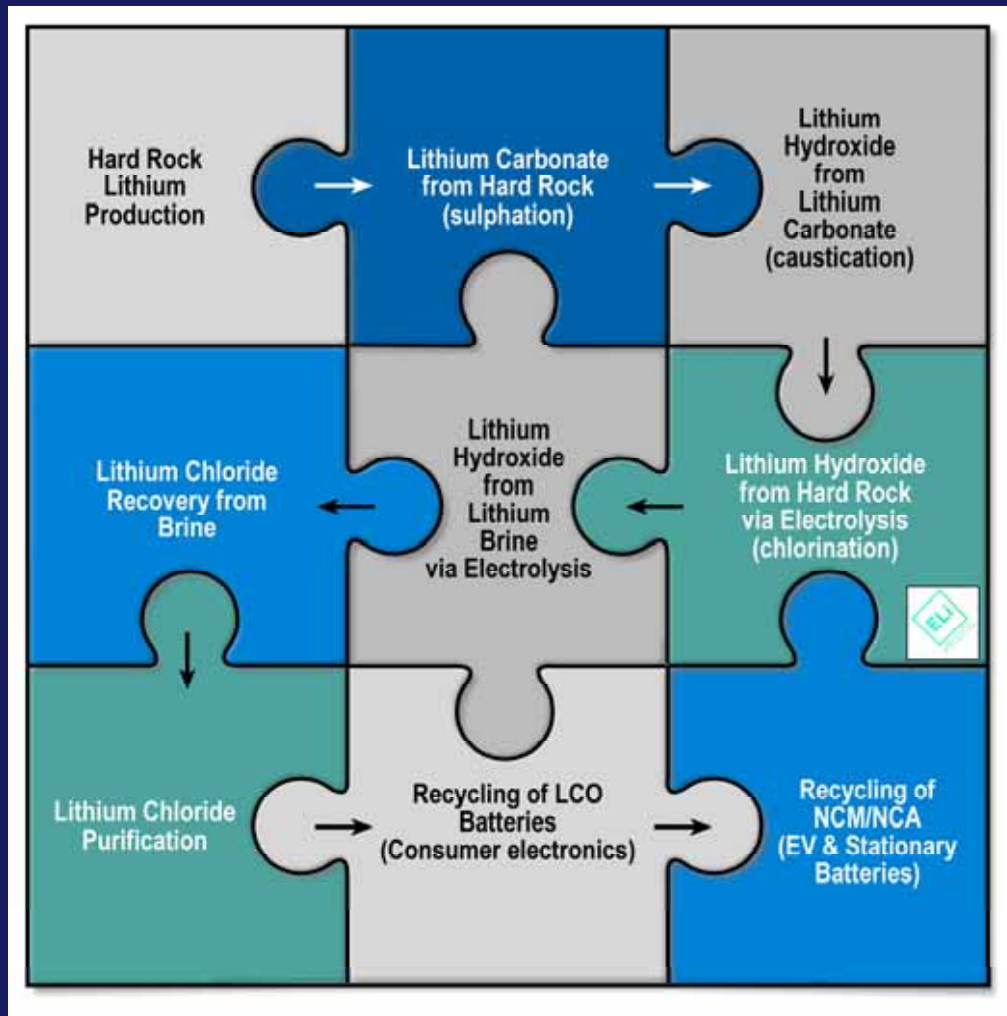




# Operating Structure



# Evolution of our Lithium Business



- Commercialise Mt Marion ✓
- Evaluating local Conventional Downstream Processing ✓
- Co-developed, Evaluated, Patented New ELi® Process ✓
- Co-developed, Evaluated, Patent Pending ELi ® for brines ✓
- Testing and Evaluating Lithium-Ion Battery Recycling ✓

# Mt Marion Lithium Operation



Neometals 13.8%  
through Reed Industrial Minerals Pty Ltd

**Neometals**



# Strong Operating Partner



- ✓ Australia's largest contract minerals processor
- ✓ Operate mine-to-port on BOO basis
- ✓ No upfront capital cost to NMT
- ✓ Minimum production levels (~50ktpa LCE)
- ✓ Fixed rate mining and processing costs

# Mine Production/Guidance\*



Mt Marion Project		2H FY17 (Actual)	1H FY18 (Forecast)
6% Tonnes exported	000 WMT	50	100
4% Tonnes exported	000 WMT	66	100
Total Tonnes exported (100%)	000 WMT	116	200
Revenue	A\$/WMT	782.9	823.0
C1 costs	A\$/WMT	570.9	368.5
Total expenses	A\$/WMT	658.0	460.0
EBITDA	A\$/WMT	124.9	363.0

Notes:

- Costs include arms length mining infrastructure service agreements with MRL
- RIM went into commercial production on 1 March 2017. The production costs net of sales receipts of 37Kt of spodumene produced pre 1 March 2017 were capitalised in line with accounting standards. Accordingly, unit revenues and costs set out above for 2H FY17 are derived on 79Kt of spodumene produced post commercial production

\* Information taken from ASX:MIN announcement 16/8/2017.

# Outstanding Offtake Agreement



- ✓ China's largest, most diverse lithium producer
- ✓ Life-of-Mine, Take-or-pay Offtake Agreement
- ✓ From 1 July moving to transparent Lithium Carbonate/Lithium Hydroxide linked formula, with floor price protection – US\$841/t CIF for SepQ
- ✓ Letter of Credit (100% payment on invoice)
- ✓ Neometals Option to take min 12.37% Offtake of production from 2020 onwards.

**Neometals**



# Mineral Resource Estimate

Mt Marion Lithium deposit, as at October 2016, for a block cut-off grade of 0.5% Li<sub>2</sub>O



Classification	Deposit	Tonnes (Mt)	Li <sub>2</sub> O %	Fe %
<b>Indicated</b>	Area 1,2,2W	19.3	1.41	1.08
	Area 4	2.0	1.11	0.99
	Area 6	7.7	1.29	1.04
<b>Indicated Total</b>		<b>28.9</b>	<b>1.35</b>	<b>1.06</b>
<b>Inferred</b>	Area 1,2,2W	43.5	1.39	1.09
	Area 4	0.8	1.07	1.09
	Area 5	1.0	1.32	1.71
	Area 6	3.5	1.33	1.07
<b>Inferred Total</b>		<b>48.9</b>	<b>1.38</b>	<b>1.10</b>
	<b>Grand Total</b>	<b>77.8</b>	<b>1.37</b>	<b>1.09</b>





# Downstream processing

## Direct Extraction from Brine

100% Neometals

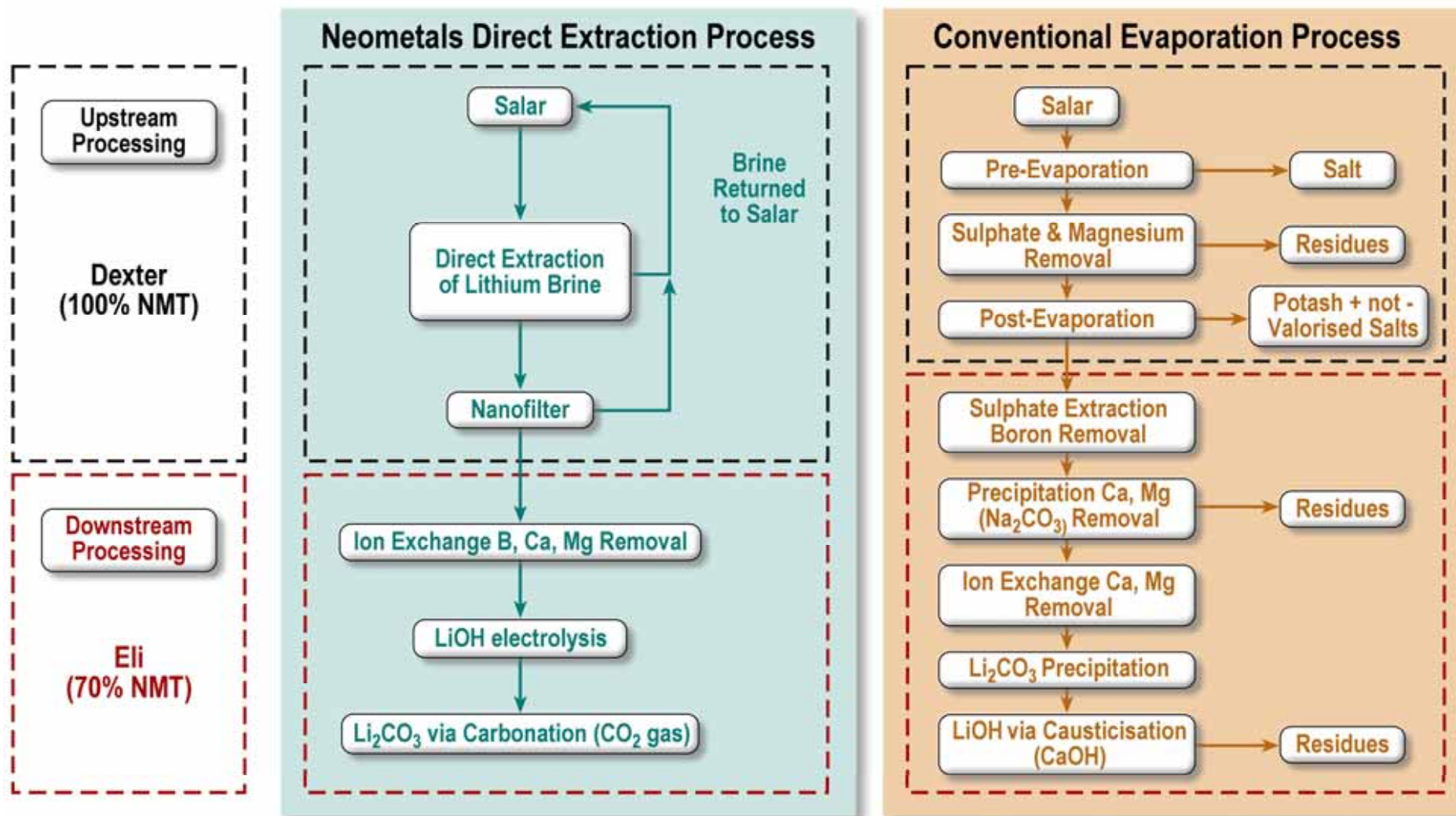
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**Neometals**



# Selective LiCl Extraction from Brine

Li



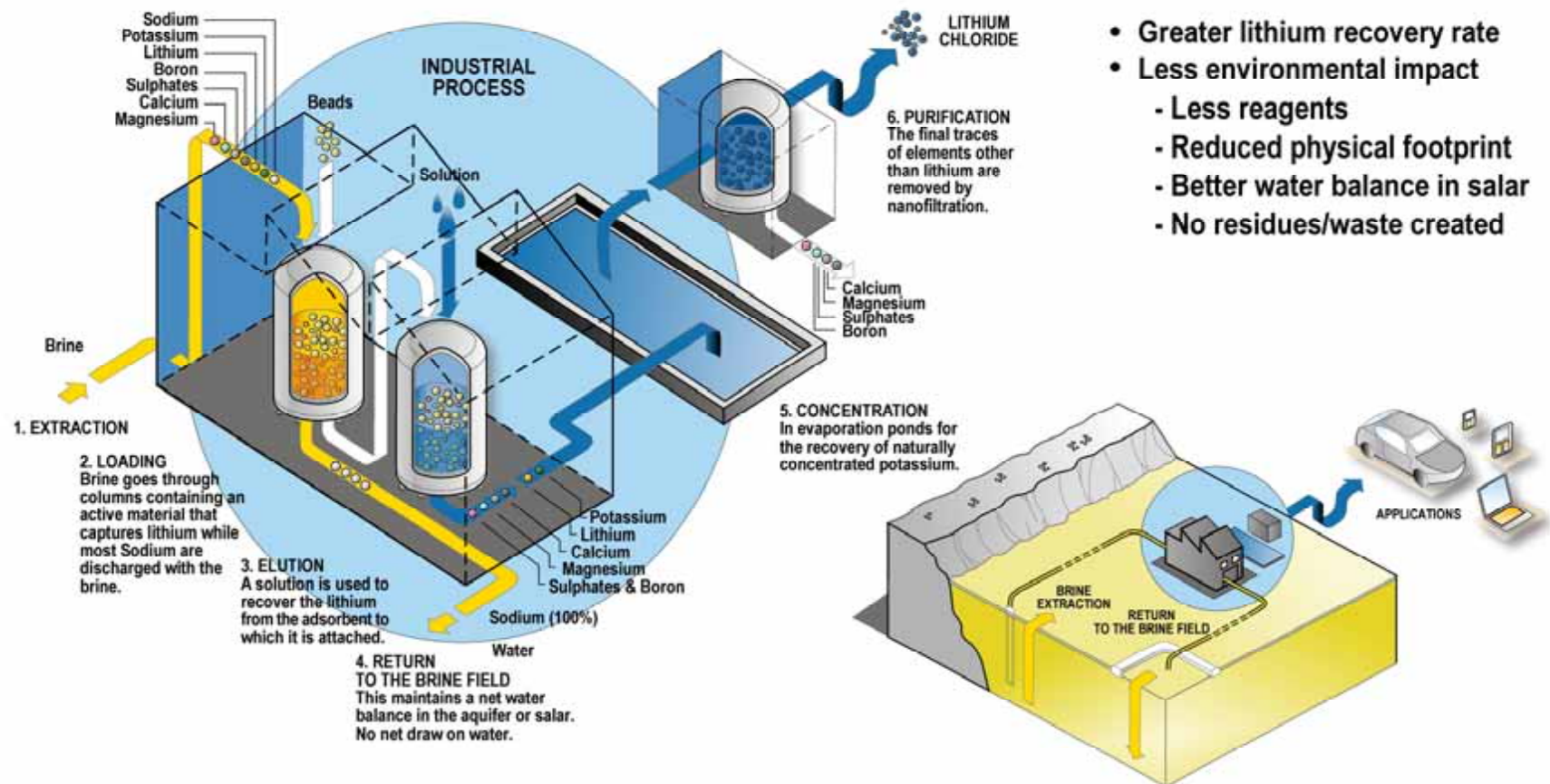
Neometals

$$\text{Li} + \text{Ti} = \text{Nm}$$

# Selective LiCl Extraction from Brine



Direct Extraction Process is simple, efficient, low-cost and more environmentally friendly than conventional evaporation process



- Greater lithium recovery rate
- Less environmental impact
  - Less reagents
  - Reduced physical footprint
  - Better water balance in salar
  - No residues/waste created



# Downstream processing

## ELi Process™

Neometals 70%

Mineral Resources Ltd 30%

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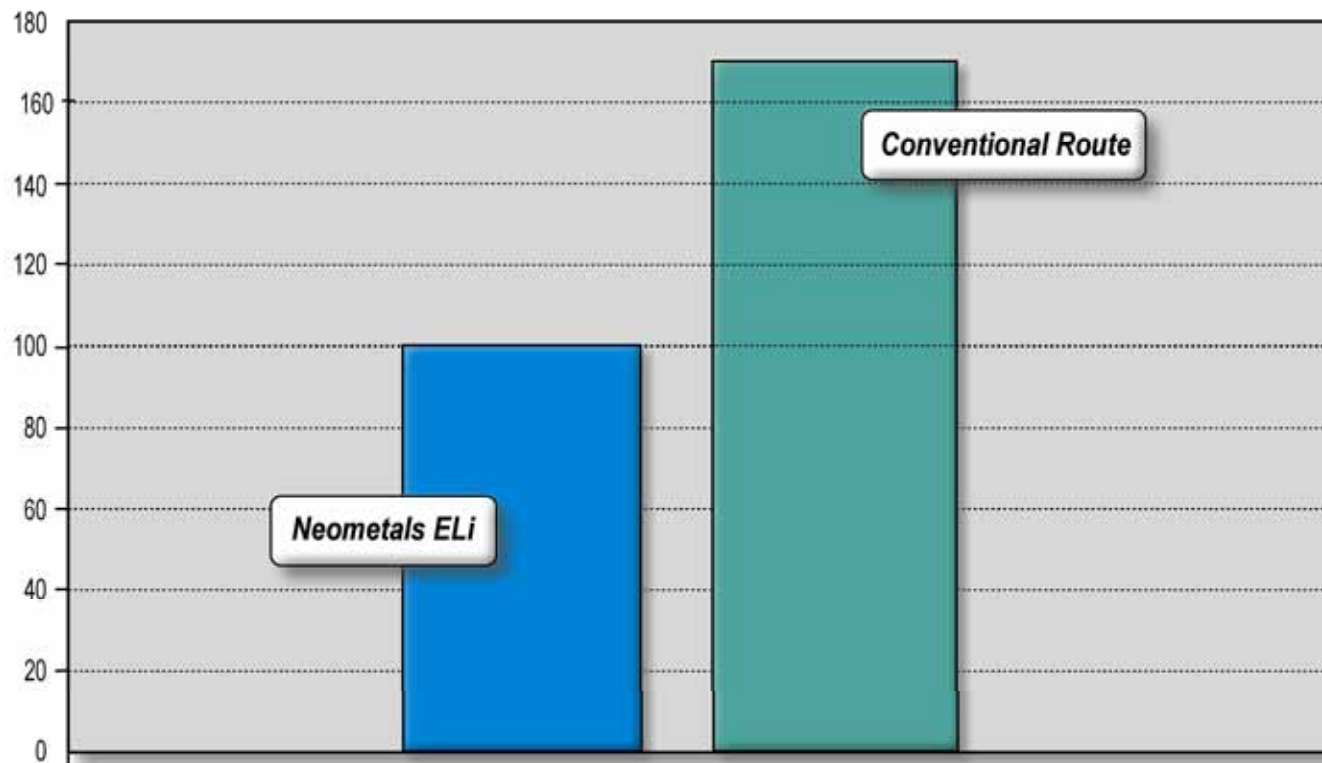
**Neometals**



# ELi potentially levels playing field for western hard rock developers



**Relative LiOH Conversion Costs from Spodumene Leach Solution**  
(US\$ per tonne LiOH.H<sub>2</sub>O) - Malaysia basis)  
ELi Process = Base 100



Business model is to deploy/co-invest in partnership with and/or licence to integrated hard-rock developers in return for equity/royalty stream.

\*Source: Global Engineering Group (2016) (Identity not for publication)



# Feasibility Study - Financial Metrics



FS

Life of Plant (LOP)	20 years
<b>Pre-production Capital cost</b>	<b>US\$ 158 million**</b>
<b>Average Annual Pre-tax Net Cashflow</b>	<b>US\$ 82 million</b>
<b>Pre-tax Internal Rate of Return</b>	<b>51%</b>
<b>Pre-tax NPV (12% real discount rate)</b>	<b>US\$ 481 million</b>
Payback of capital costs	2.6 years
Average Annual Production	14,000t LiOH 5,600t Li <sub>2</sub> CO <sub>3</sub>
Average Cost per tonne of LiOH	US\$ 4,630/t
Average Cost per tonne of Li <sub>2</sub> CO <sub>3</sub>	US\$ 5,345/t

\*\* Capital costs valid at June 2016. Estimated to accuracy of  $\pm 15\%$ , **Including** EPCM and Contingency  
Assumptions: 2016 Spodumene feedstock US\$440/t CIF (6% Li<sub>2</sub>O); LiOH/Li<sub>2</sub>CO<sub>3</sub> selling price US\$11k/10k/t CIF respectively



# Downstream processing

## Lithium Battery Recycling

Neometals 50% of IP (3 US Prov. Pats)  
Exclusive licence to commercialise

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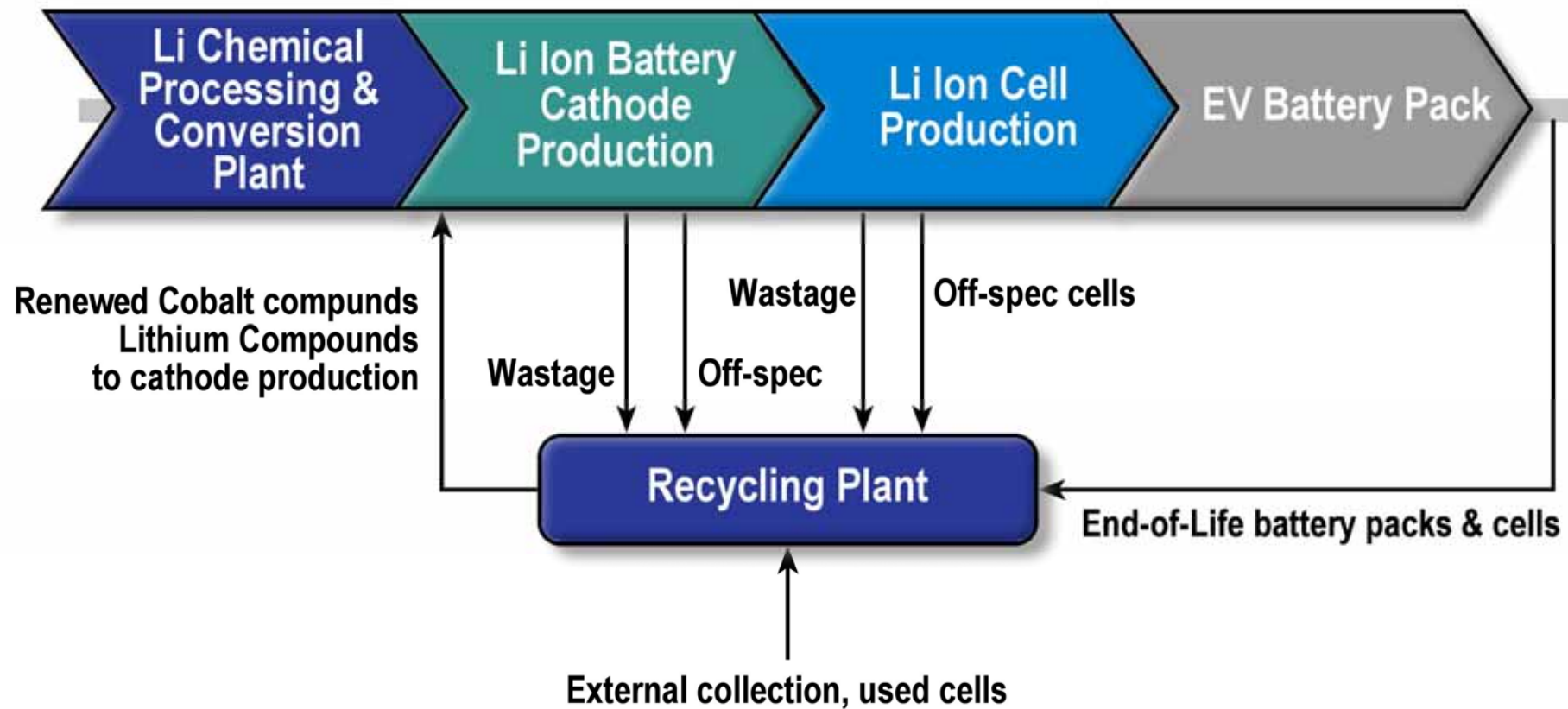
**Neometals**





# Closing the loop: Recycle and re-use

Co



# Pilot Plant in Construction

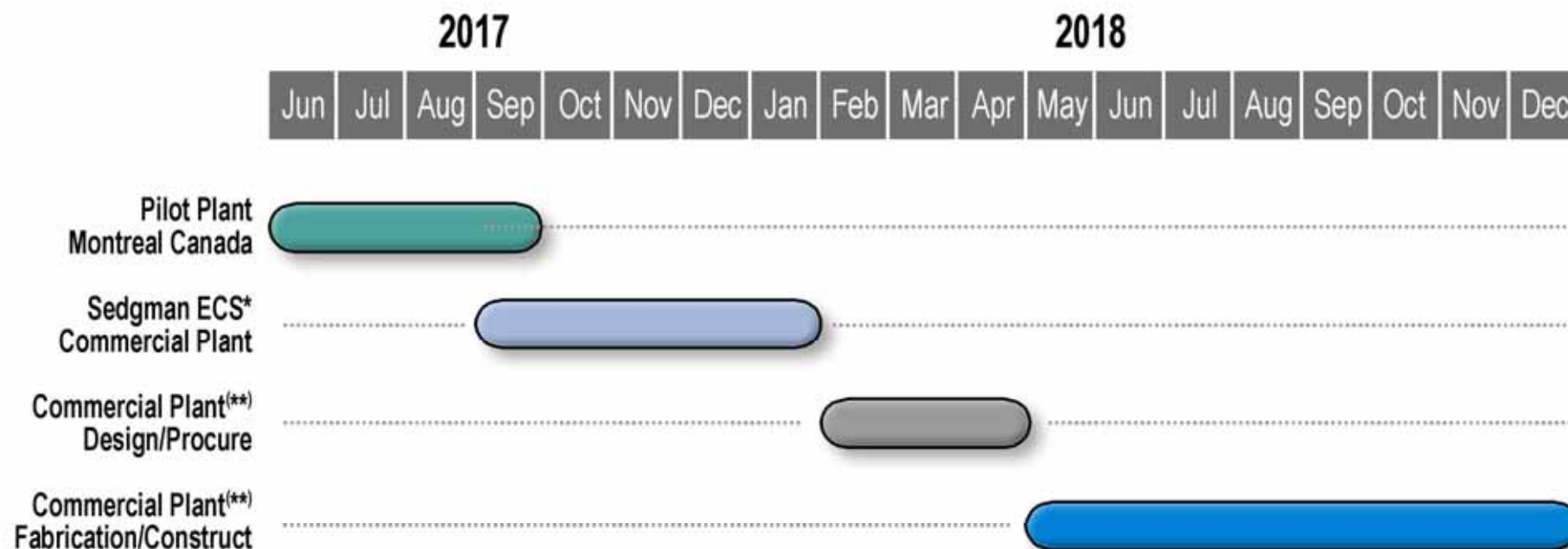
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**Neometals**



# Commercialisation Plan



Source: Neometals 2017

\*Subject to Board Approval

\*Subject to FID

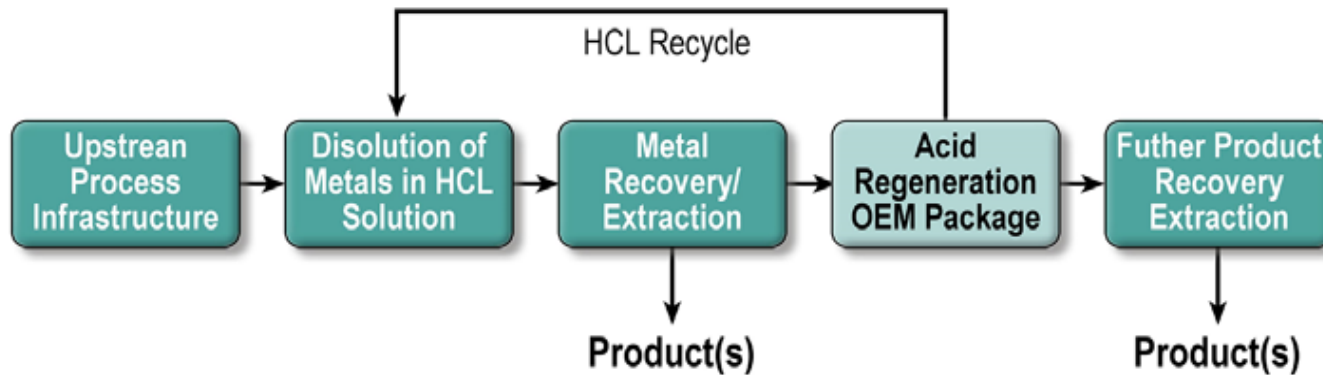
**Running Partner/Site Selection Processes in parallel with test work and engineering programs**

# Technology Licensing

## Neomet Process

Neometals - 25% of sub-licencing royalties

# Patented Neomet Process



**Commodity agnostic** – developed in Canada for Ni-laterites, in use commercially for treating refractory copper-gold concentrates.



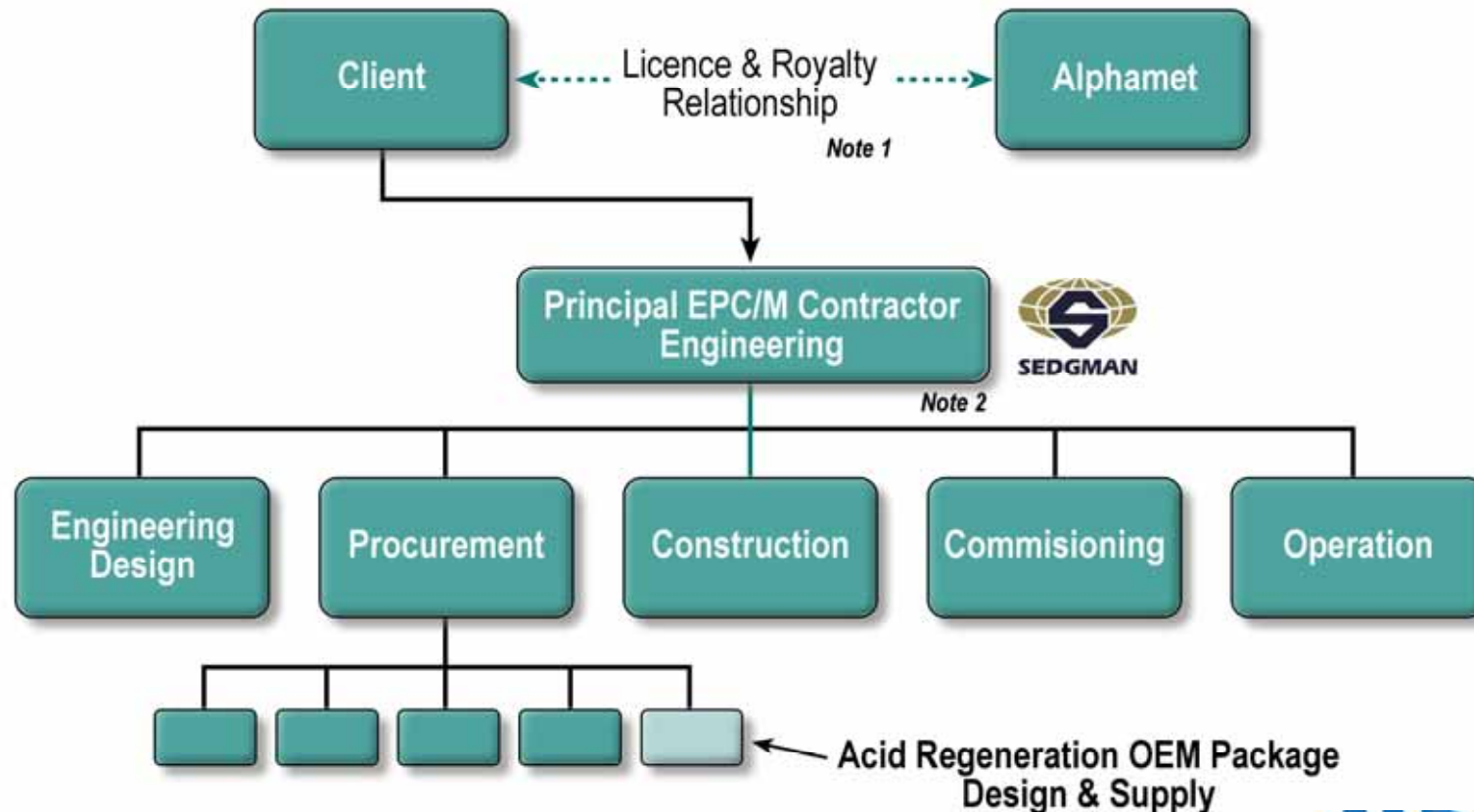
**Neometals Laboratory in Montreal**

**Neometals**





# Commercialising technology with leading industry partners



**Note 1:** The licence and royalty relationship may be managed through the EPC Contractor pending project and Client requirements

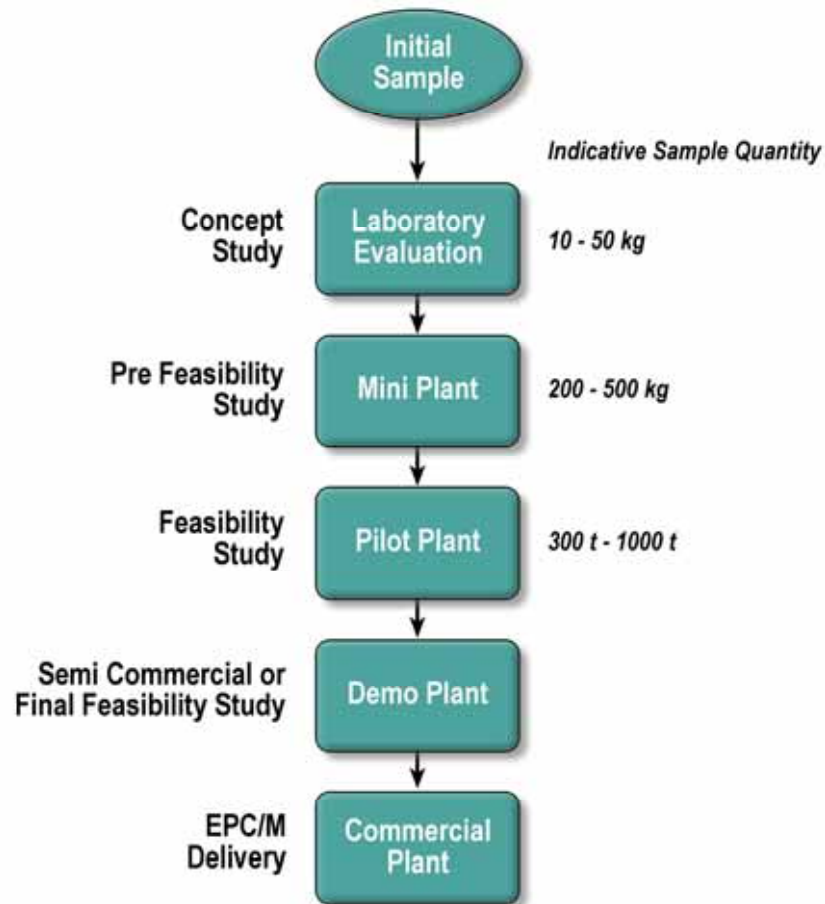
**Note 2:** The Principal Contractor will interface with the client directly and manage all delivery functions relating to the project (eg engineering, procurement and construction)

**ANDRITZ**

# Project Development Phasing



## Project Development Phasing



Laboratory scale set up (above) Pilot scale up (below)





# Barrambie Titanium Project

100% Neometals



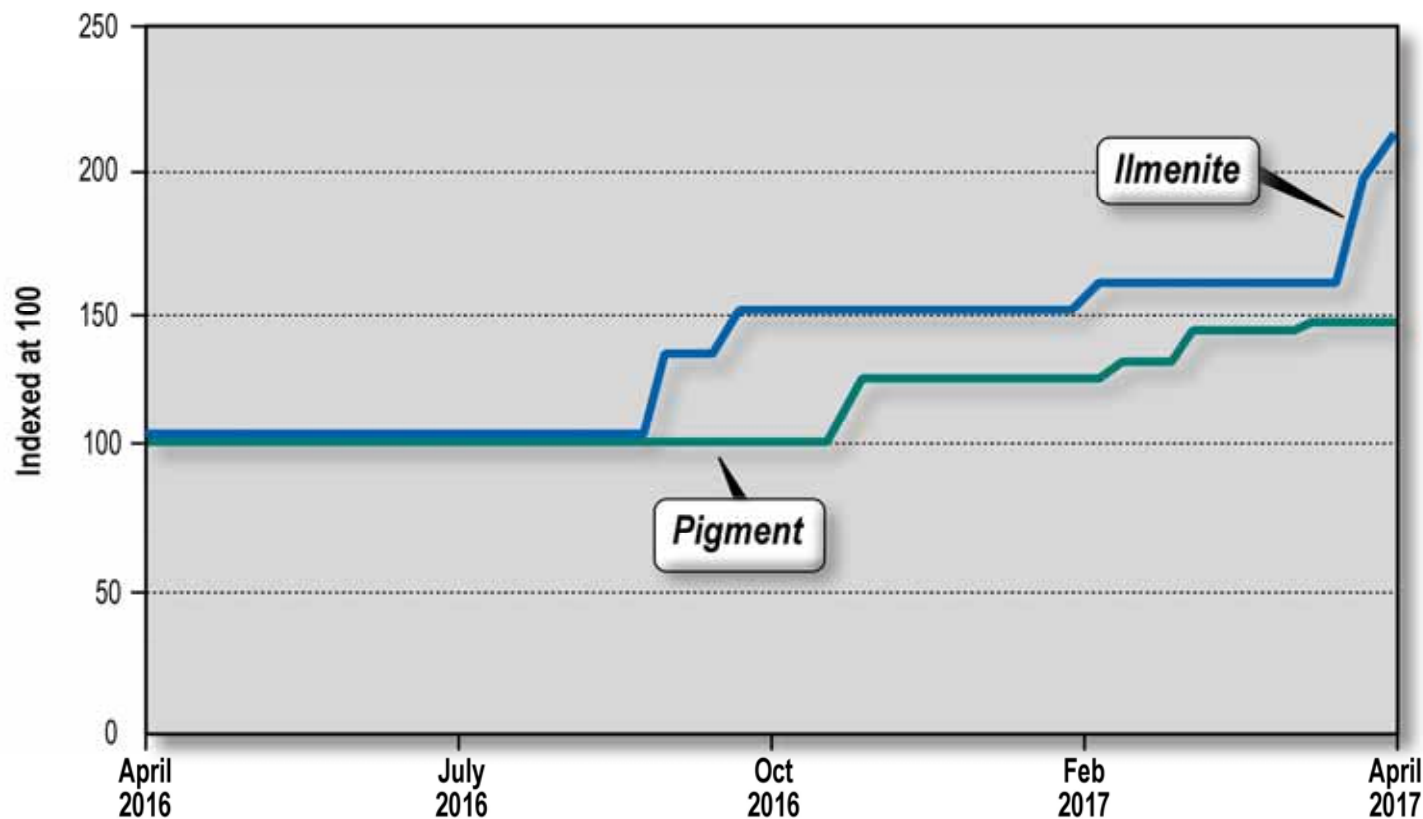
Neometals



# Strong demand/supply fundamentals

Ti

## Relative Ilmenite and Pigment Prices



Source: Metal Bulletin - 2017

The titanium pigment industry is 10x as large as the lithium compound industry.

Growth = GDP

Globally declining grades and quality

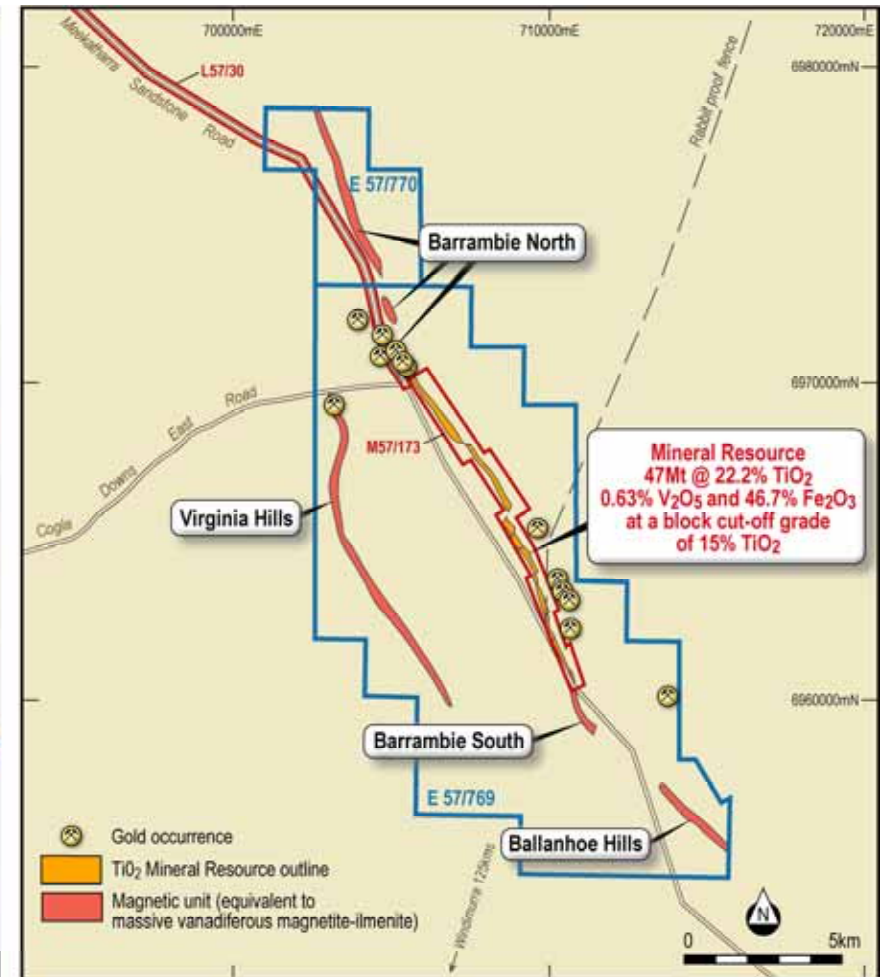
Cost push price inflation

Neometals



# Globally Significant Ti Resource

Ti



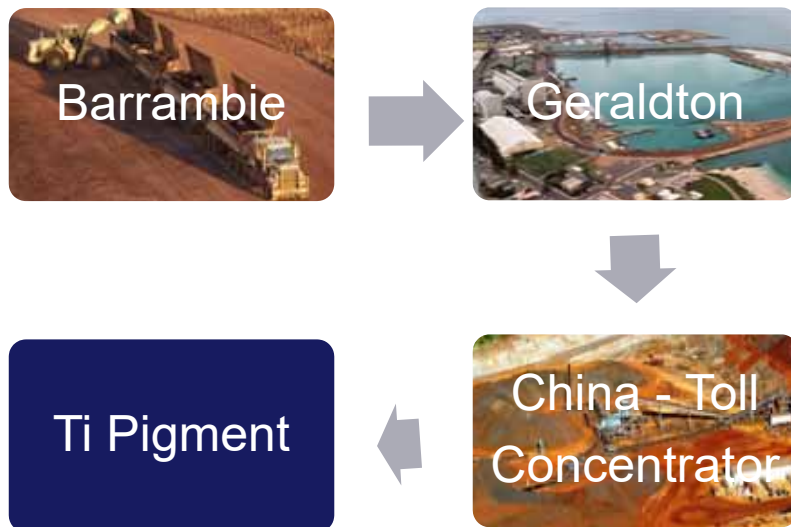
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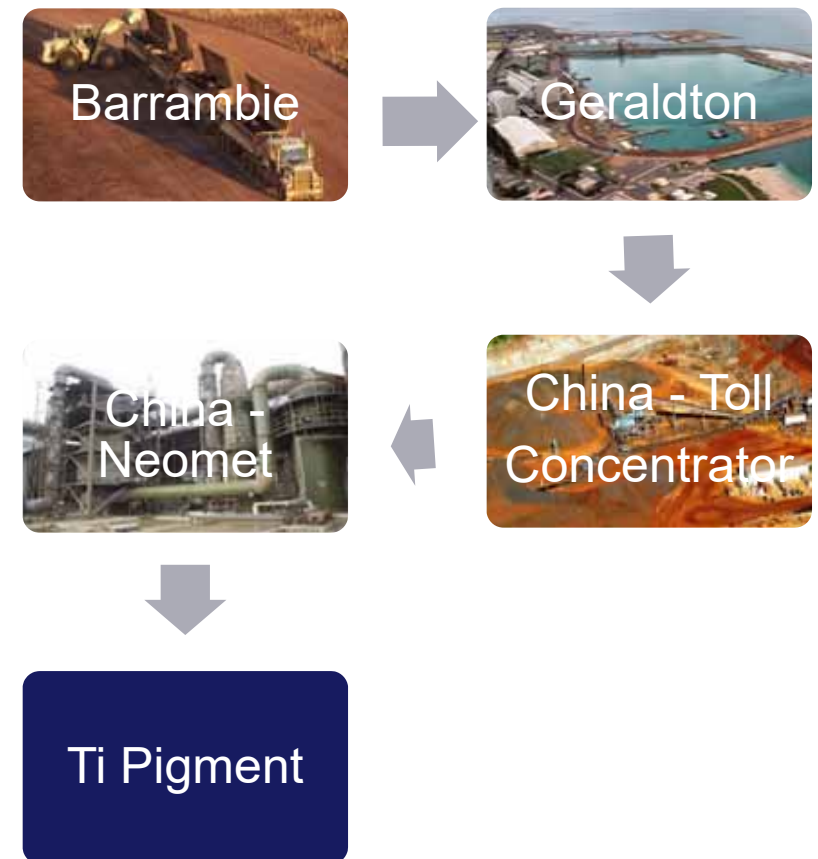
# Dual Track Evaluations



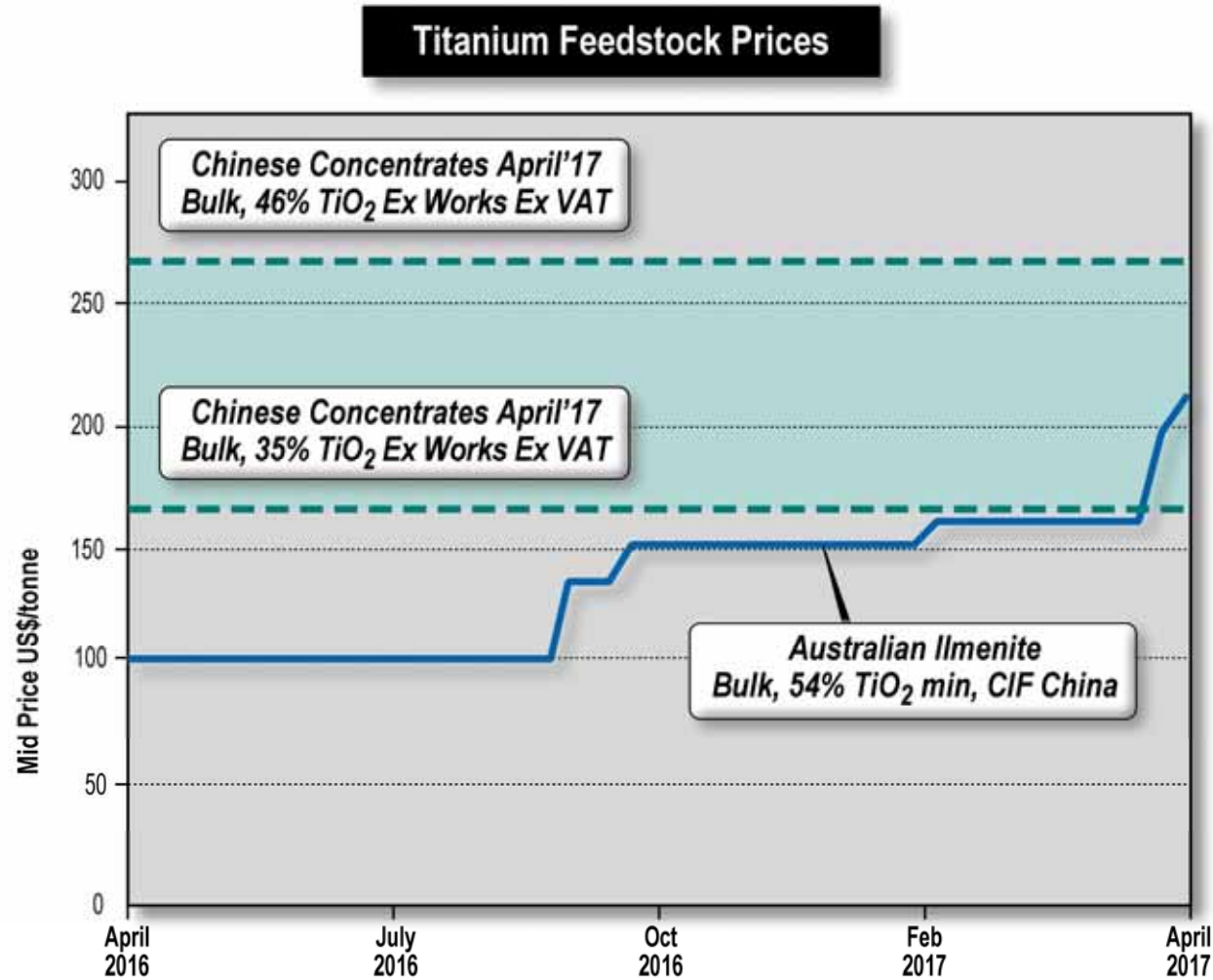
## Direct Ship



## Concentrate



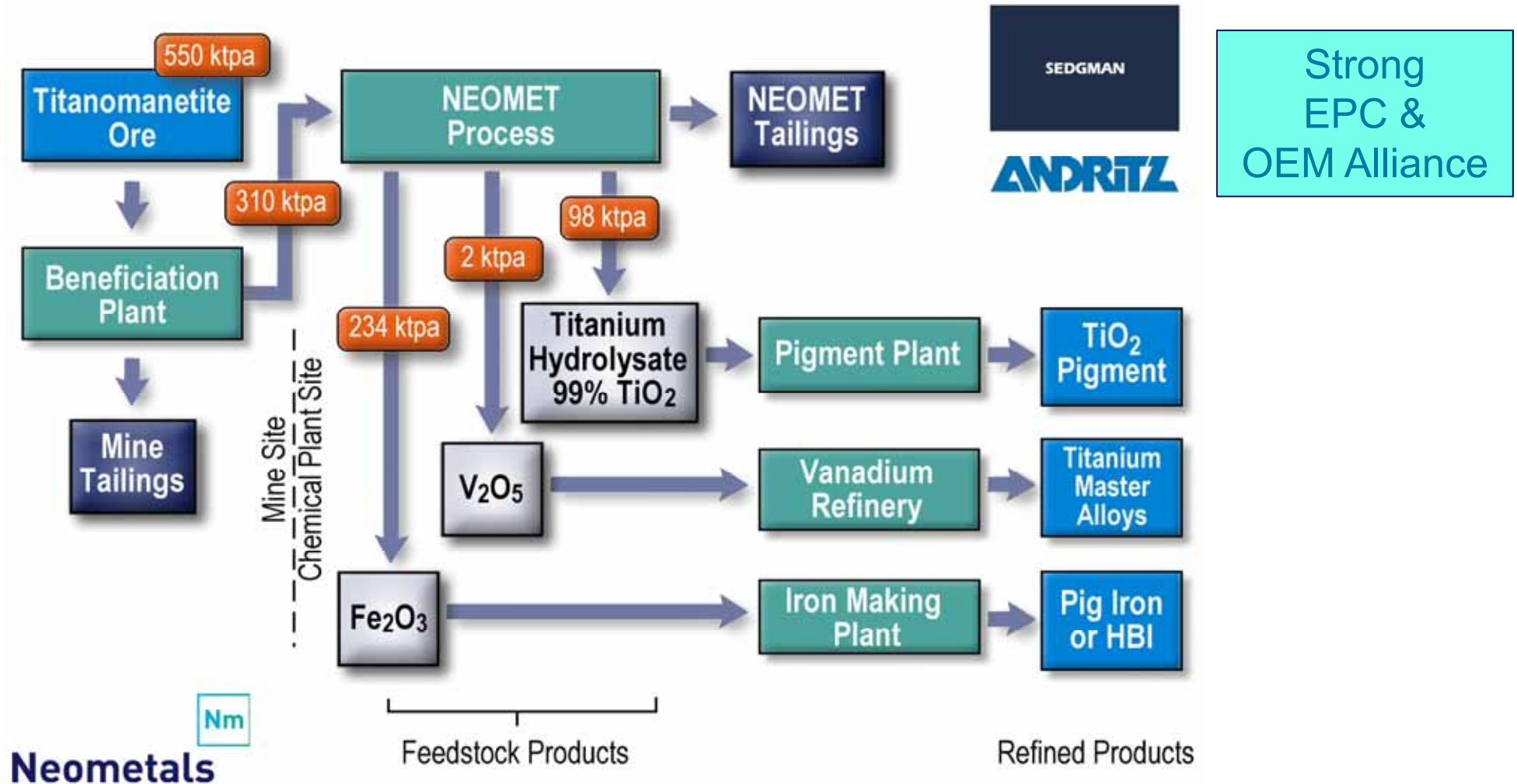
# Evaluating potential for Direct Shipping Ore and Toll-concentration in China



Source: Metal Bulletin, Waelen and Neometals Management



# Neomet Process: 3 Product Efficiency



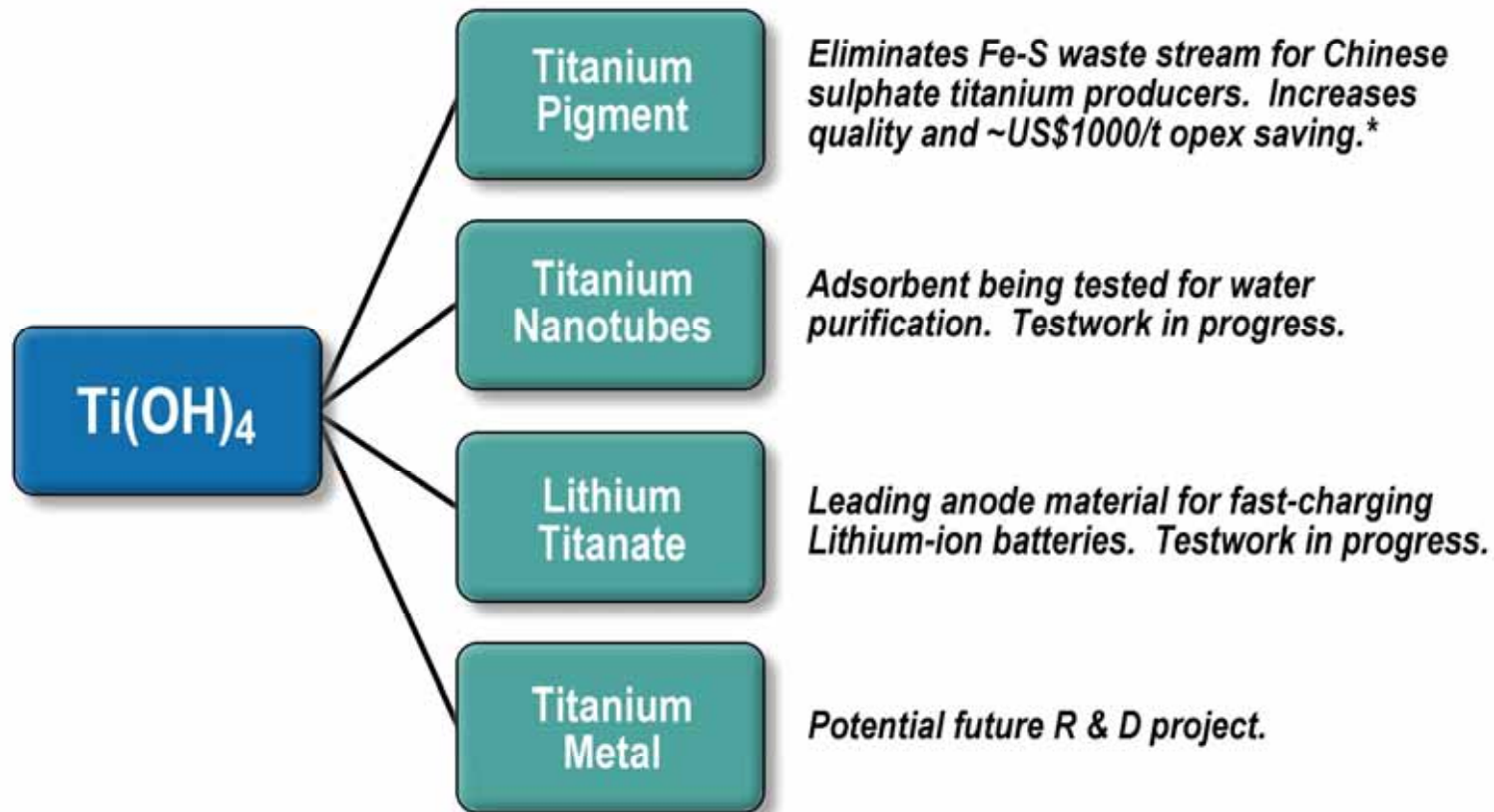
Neometals



# Why Titanium Hydrolysate?



## Premium Feedstock for broad application



\* Source: Neometals/Sedgman PFS August 2015



# Mineral Resource Estimate

Barrambie Ti-V deposit, as at September 2015, for a block cut-off grade of 15% TiO<sub>2</sub>



Classification	Zone	Oxidation	MTonnes	Density (t/m <sup>3</sup> )	TiO <sub>2</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	SiO <sub>2</sub> (%)
Indicated	Eastern	Oxide	18.7	2.82	23.29	0.59	42.93	10.70	16.36
		Transition	8.7	3.52	23.11	0.61	50.80	7.34	12.99
		Fresh	2.4	3.85	21.77	0.56	52.90	5.99	12.84
		Sub-total	29.8	3.10	23.11	0.60	46.02	9.35	15.10
	Central	Oxide	3.5	2.95	16.84	0.92	49.82	11.06	14.91
		Transition	1.3	3.50	17.39	0.89	54.76	8.49	12.15
		Fresh	0.1	4.04	15.59	0.88	59.93	7.22	10.96
		Sub-total	4.9	3.12	16.95	0.91	51.40	10.28	14.08
		Total	34.7	3.11	22.25	0.64	46.77	9.48	14.95
Inferred	Eastern	Oxide	2.6	2.71	20.88	0.48	40.00	12.20	19.42
		Transition	3.3	3.29	23.04	0.59	47.51	8.62	14.45
		Fresh	5.5	3.71	22.82	0.57	47.50	8.39	14.57
		Sub-total	11.4	3.36	22.44	0.55	45.78	9.33	15.65
	Central	Oxide	0.1	3.07	16.64	0.98	53.63	9.96	13.33
		Transition	0.4	3.47	18.36	0.86	54.15	8.79	12.43
		Fresh	0.7	3.86	17.30	0.91	53.48	9.44	13.17
		Sub-total	1.2	3.64	17.55	0.90	53.71	9.30	12.96
		Total	12.5	3.38	21.99	0.58	46.51	9.32	15.40
		<b>Grand Total</b>	<b>47.2</b>	<b>3.18</b>	<b>22.18</b>	<b>0.63</b>	<b>46.70</b>	<b>9.44</b>	<b>15.07</b>

**Neometals**



# Pre-feasibility Study - Financial Metrics (\*)

Life of Mine (LOM)	19.6 years
Pre-production Capital cost (excluding EPCM and Contingency)	A\$ 549 million
Average Annual Pre-tax Net Cashflow	A\$ 123 million
Pre-tax Internal Rate of Return	21%
<b>Pre-tax NPV (12% real discount rate)</b>	<b>A\$ 355 million</b>
Payback of capital costs	3.9 years
Average Annual Production	98,000t TiO <sub>2</sub> 2,000t V <sub>2</sub> O <sub>5</sub> 234,000t Fe <sub>2</sub> O <sub>3</sub>
<b>Cash Operating Cost per tonne of paid TiO<sub>2</sub> net of co-product credit</b>	<b>US\$ 572/t</b>

(\*) Estimated to accuracy of  $\pm 25\%$

Assumptions: US\$1,838/t TiO<sub>2</sub>; US\$14,873/t V<sub>2</sub>O<sub>5</sub>, US\$520/t Fe<sub>2</sub>O<sub>3</sub> Pigment, A\$/US\$0.75, Royalties (State/Technology) 10% Gross