



Neometals

The Evolution of Lithium™

AMEC Presentation

8 June 2017

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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.

Corporate

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Human & Financial Resources

Nm

ASX CODE: NMT	OTC:RDRUY	
Last close (31-5-2017)	A\$	0.25
Shares on issue	M	560
Market capitalisation	A\$M	140
Net Cash (at 31-3-2017)	A\$M	53.5
Receivables/Investments	A\$M	16.5

DIRECTORS/MANAGEMENT	
Steven Cole	Non-Executive Chairman
Chris Reed	Managing Director & CEO
David Reed	Non-Executive Director
Natalia Streltsova	Non-Executive Director
Doug Ritchie	Non-Executive Director
Michael Tamlin	COO
Jason Carone	CFO & Company Sec.

18 MONTH SHARE PRICE



MAJOR SHAREHOLDERS

David Reed	10.9%
Kilkenny Limited	4.3%
Top 20 (10-5-2017)	38.2%

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Li + Ti = Nm

All the right elements

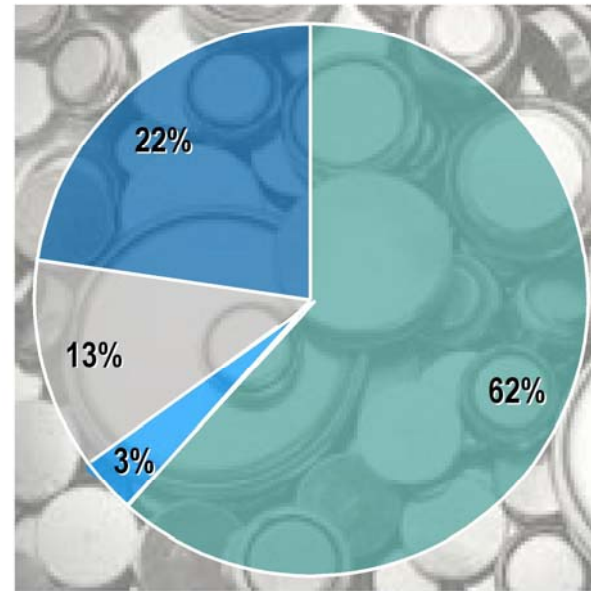
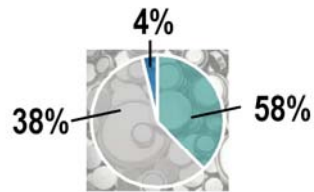


Investment Thematic – Conservative Exposure to Energy Storage Revolution



**Global Lithium-Ion Battery Capacity - 2016
(27.9 GWh)**

**Global Lithium-Ion Battery Capacity - 2020
(173.5 GWh)**



**6X
Growth**

- China
- Poland
- Korea
- United States

Source: estimates on battery capacity courtesy of Benchmark Mineral Intelligence

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
A\$5M/5% on market buyback

Focus on Li-Ion Battery Commodities

Nm

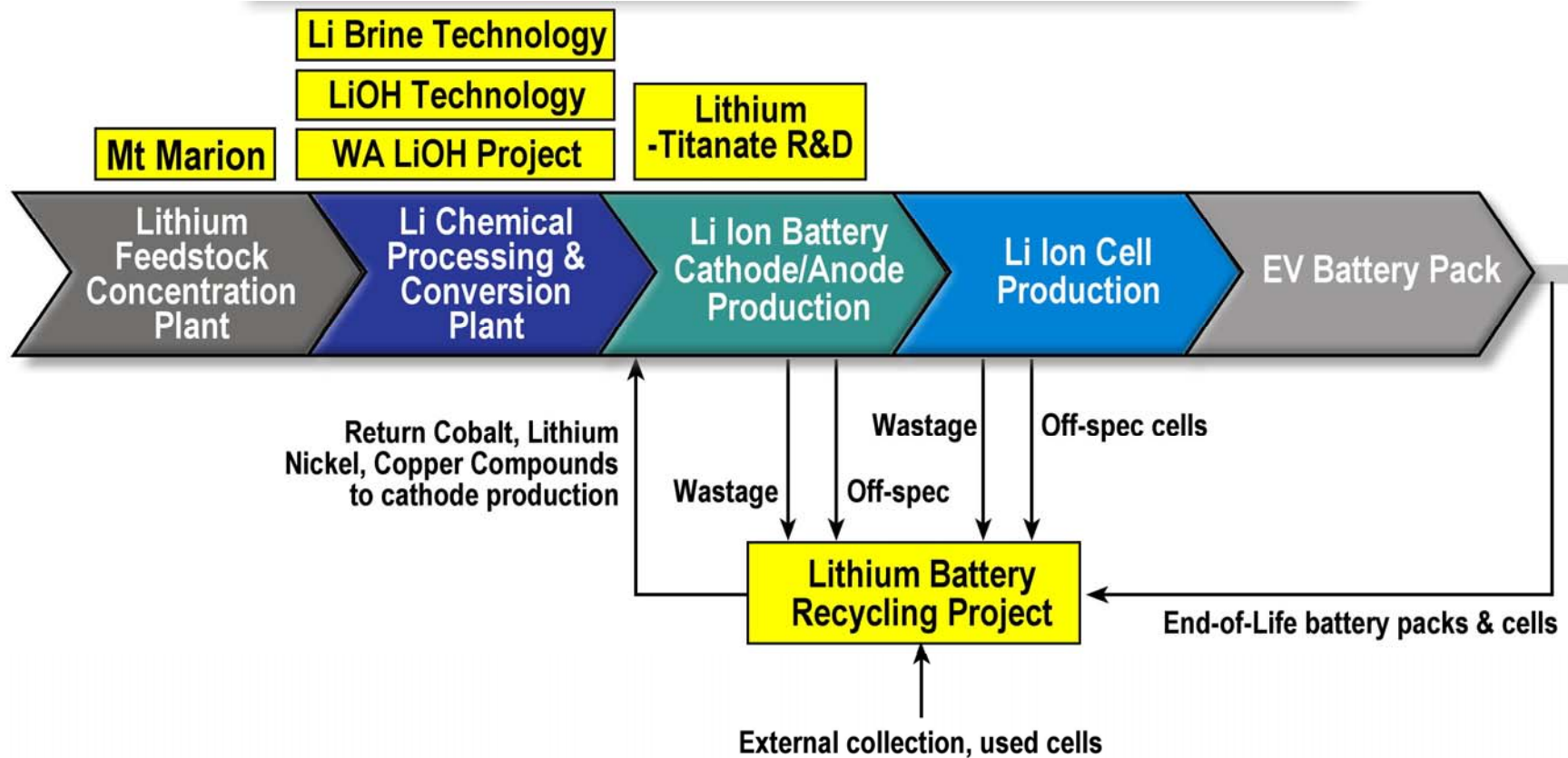
Element	Ti	Li	Co
Feedstock(s) Source	Barrambie (100%) 47Mt @ 22% TiO ₂	Mt Marion (13.8%) 77.8Mt @ 1.37%Li ₂ O	Lithium Battery Producers Consumer Electronics Electric Vehicles
Upstream Product	+ 40% TiO ₂ Concentrate	6% Li ₂ O Concentrate	Lithium Ion Batteries ≤ 20% Co
Downstream Product/Process	<u>Neomet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

Our Positions in the Supply Chain



All the right elements



Li

Mt Marion Lithium Operation

Sale process underway for
remaining 13.8% equity



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World's largest lithium concentrator

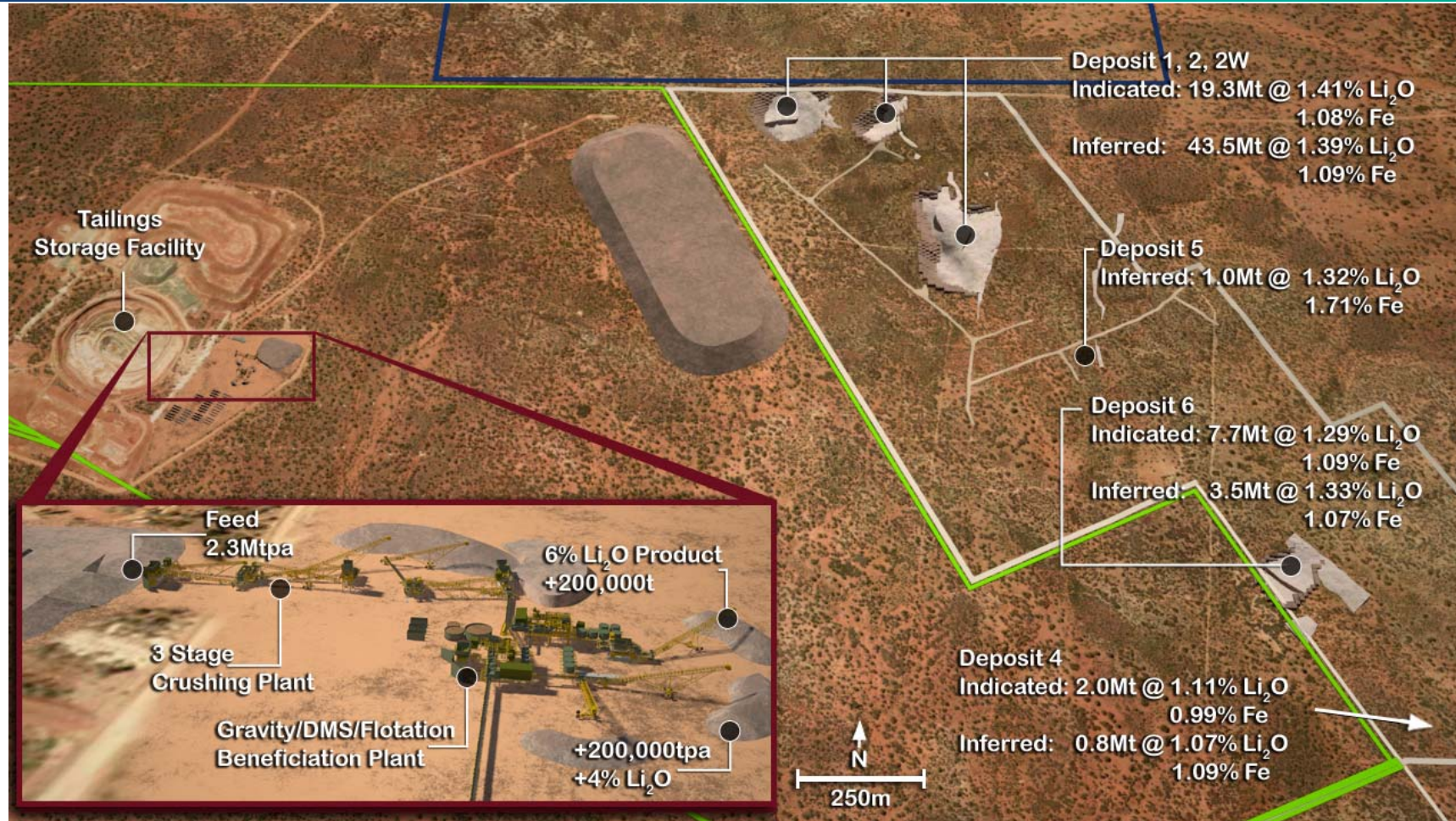
Li



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



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Li + Ti = Nm

Outstanding Offtake Agreement

Li



- ✓ 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
- ✓ Letter of Credit (100% payment on invoice)
- ✓ Neometals Option to take min 12.37% Offtake of production from 2020 onwards.

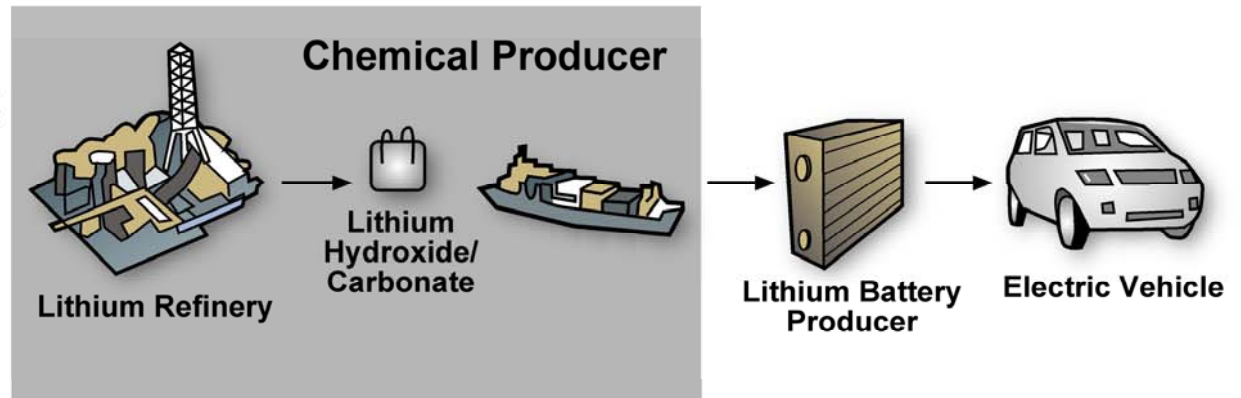
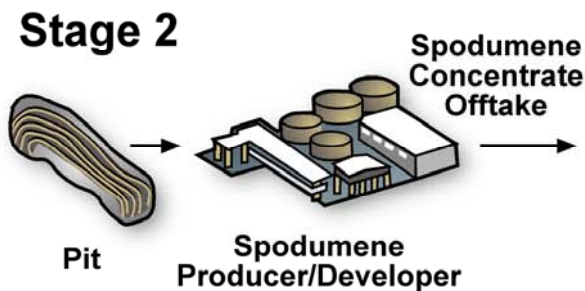
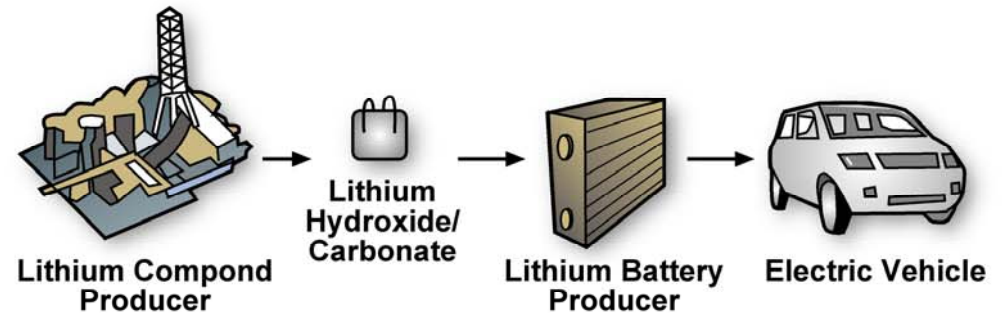
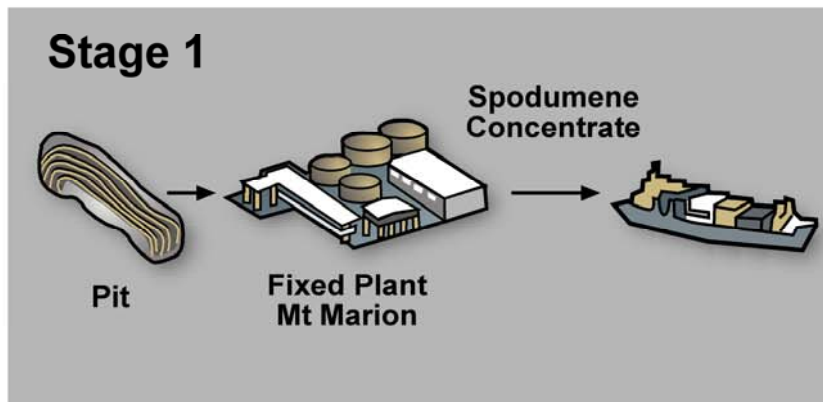
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Downstream processing WA-based LiOH Project

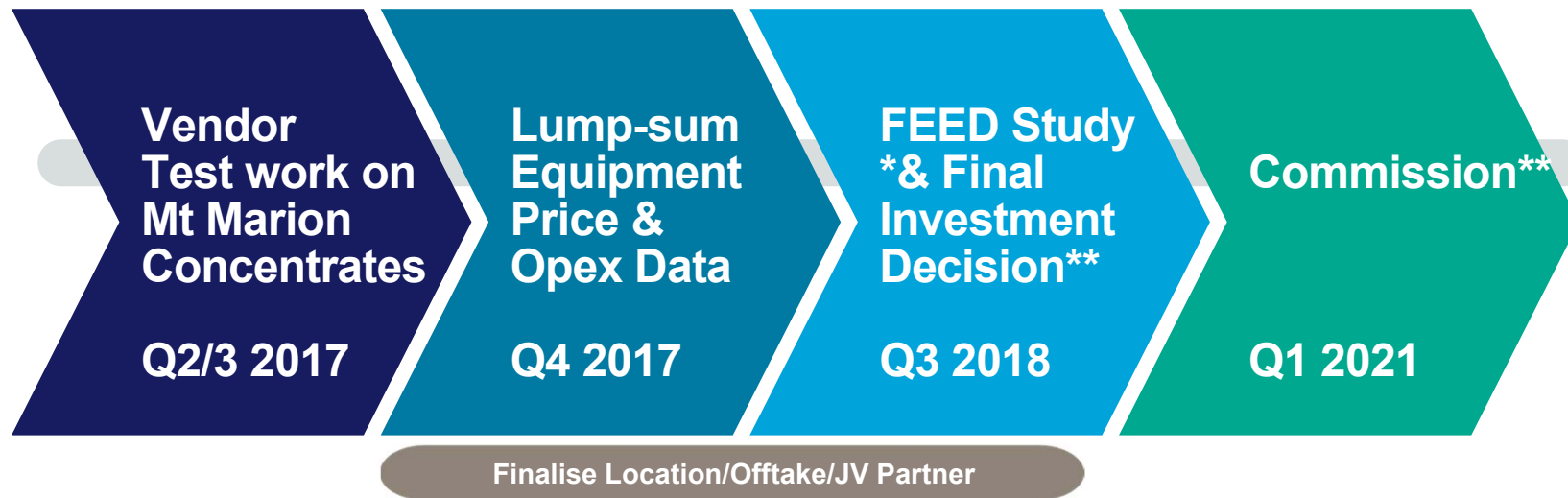
Lithium users want LiOH/Li₂CO₃ from spodumene converted outside China



Commercialisation Plan

Li

- Locate plant in WA to minimise transport, 7t spodumene concentrate needed for 1t of Lithium Hydroxide
- Utilise local spodumene (Share of Mt Marion or Third Party), natural gas, reagents and staff
- Use Sulfate/Caustic Flowsheet from leading Lithium equipment supplier
- Remove technology risk – speed to market



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(*) Subject to NMT Board Approval (**) Subject to FID





Downstream processing

Direct Extraction from Brine

100% Neometals

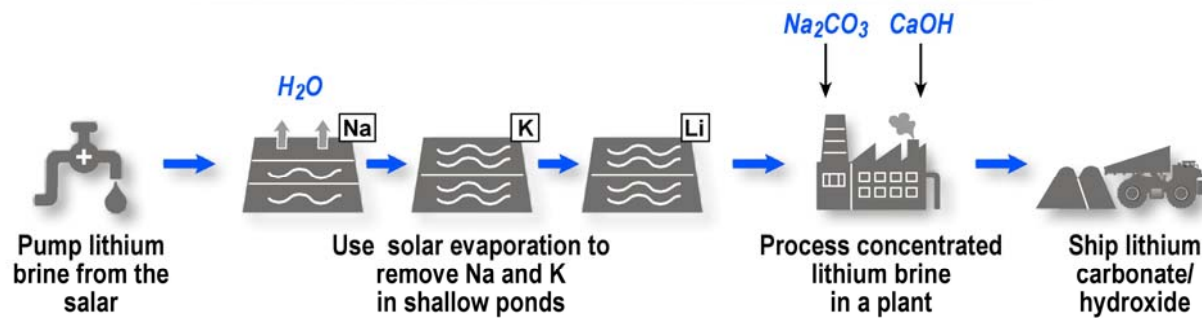
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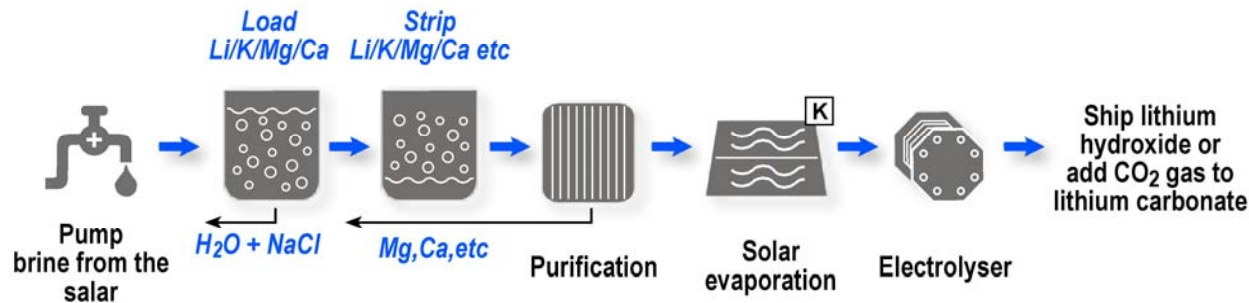
Selective LiCl Extraction from Brine



Conventional Lithium Carbonate Hydroxide Process



Direct Extraction Process



- 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

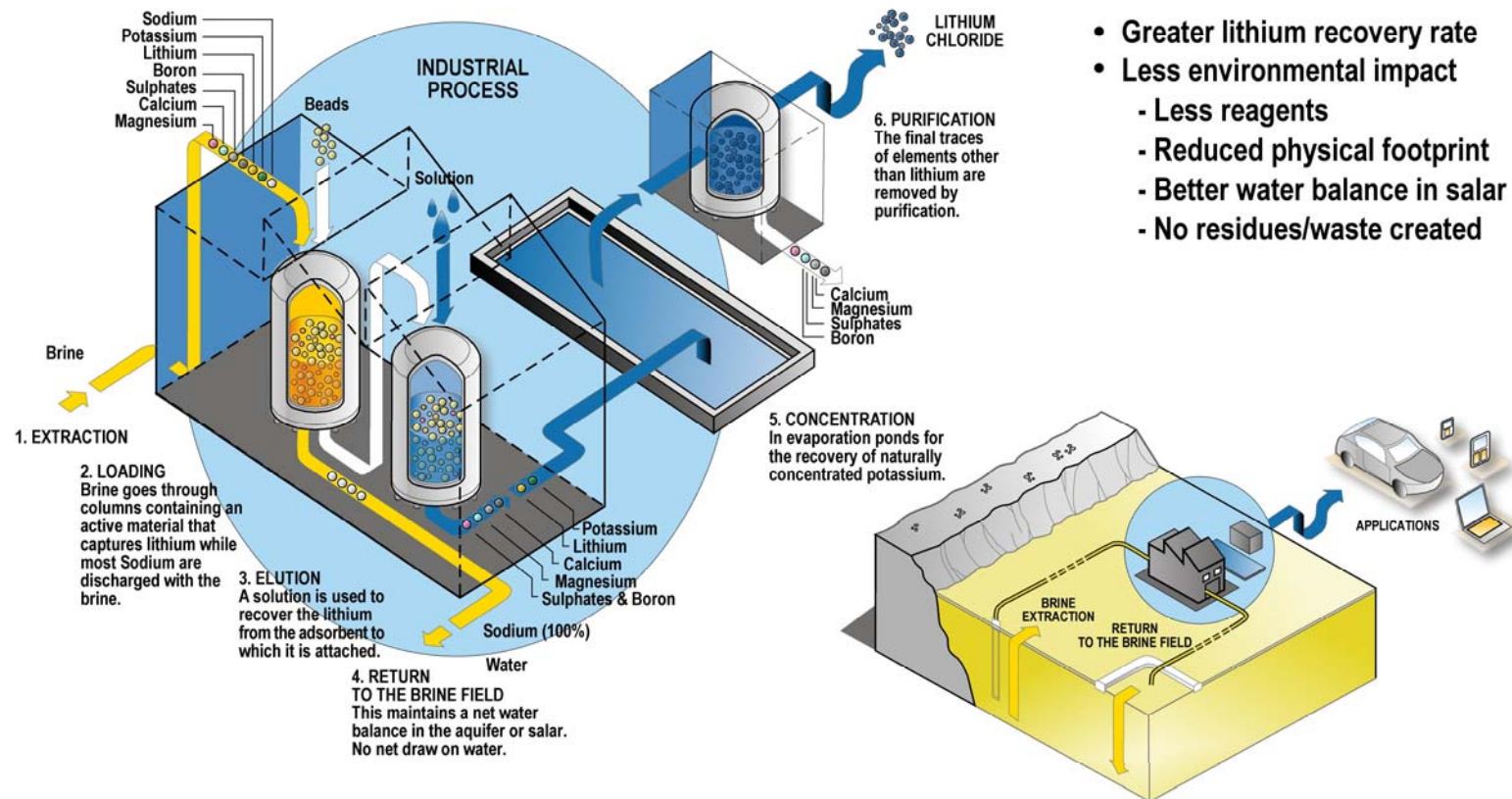
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Direct Extraction via Adsorption



Direct Extraction Process is simple, efficient, 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%

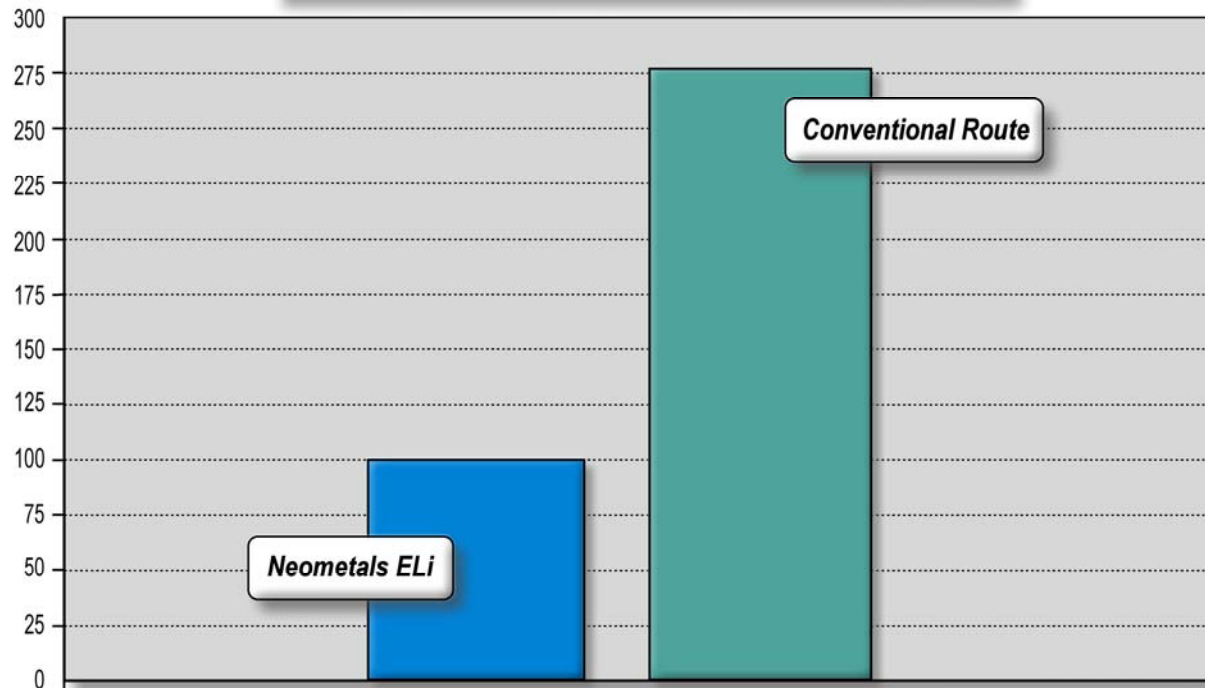
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Patented Process for Conversion of LiCl > LiOH is a potential gamechanger



Relative LiOH Conversion Costs from LiCl Brine
(US\$ per tonne LiOH.H₂O) - 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, Exclusive licence

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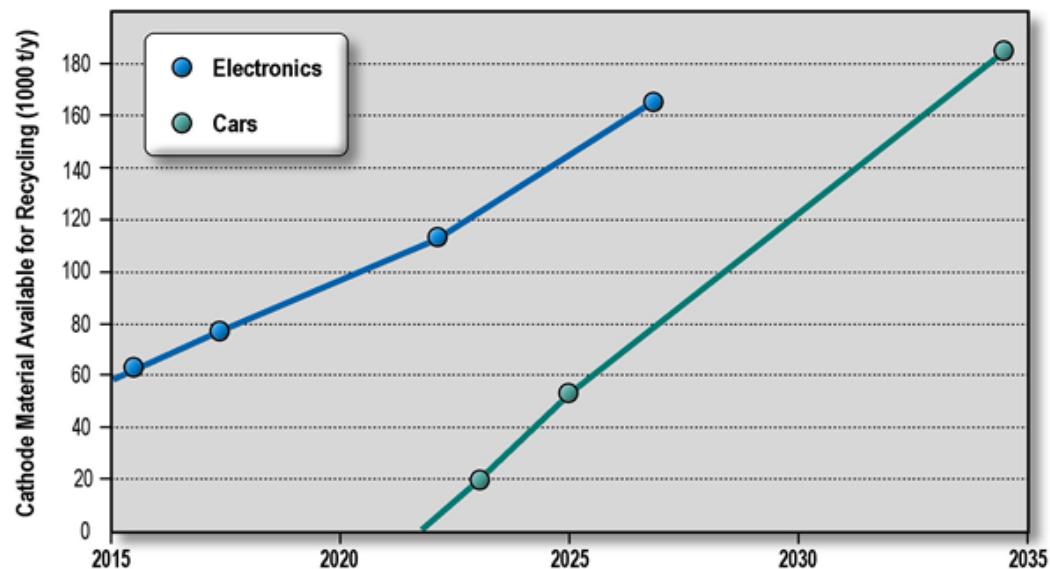


Lithium Battery Recycling Strategy

Co

Exploiting cost advantage in recovery of Cobalt from Lithium Cobalt Batteries in Consumer Electronics to develop a low-risk, long-life, high-margin operation with strong partners.

Electronic Batteries Will Come Back Much Sooner



Source: Argonne National Laboratory - 2016

Estimated
< 5%
Recycled

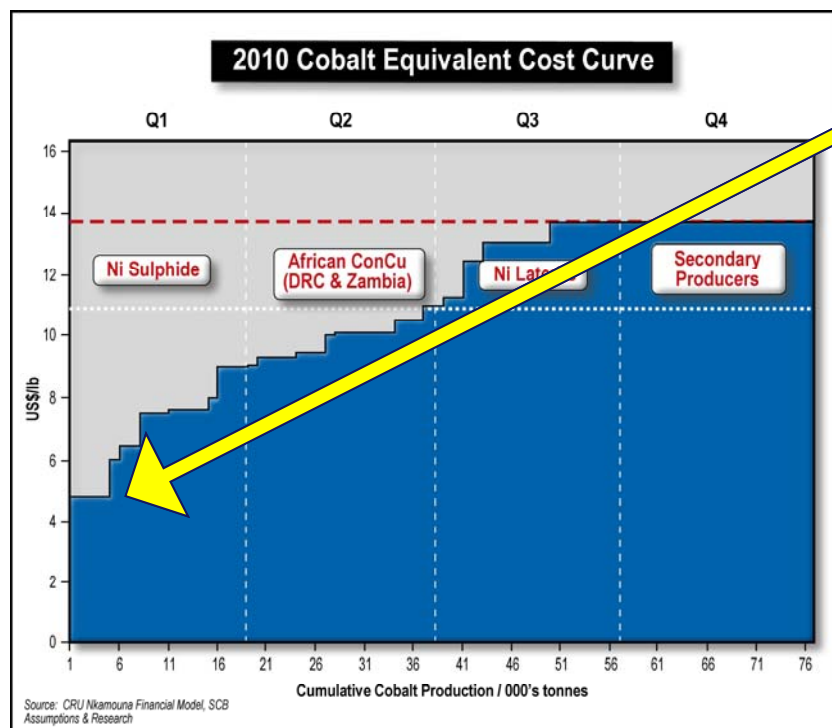
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Scoping Study Results



(± 30% accuracy)



Operating Costs **US\$4.45/lb Co** (US\$10k/t)

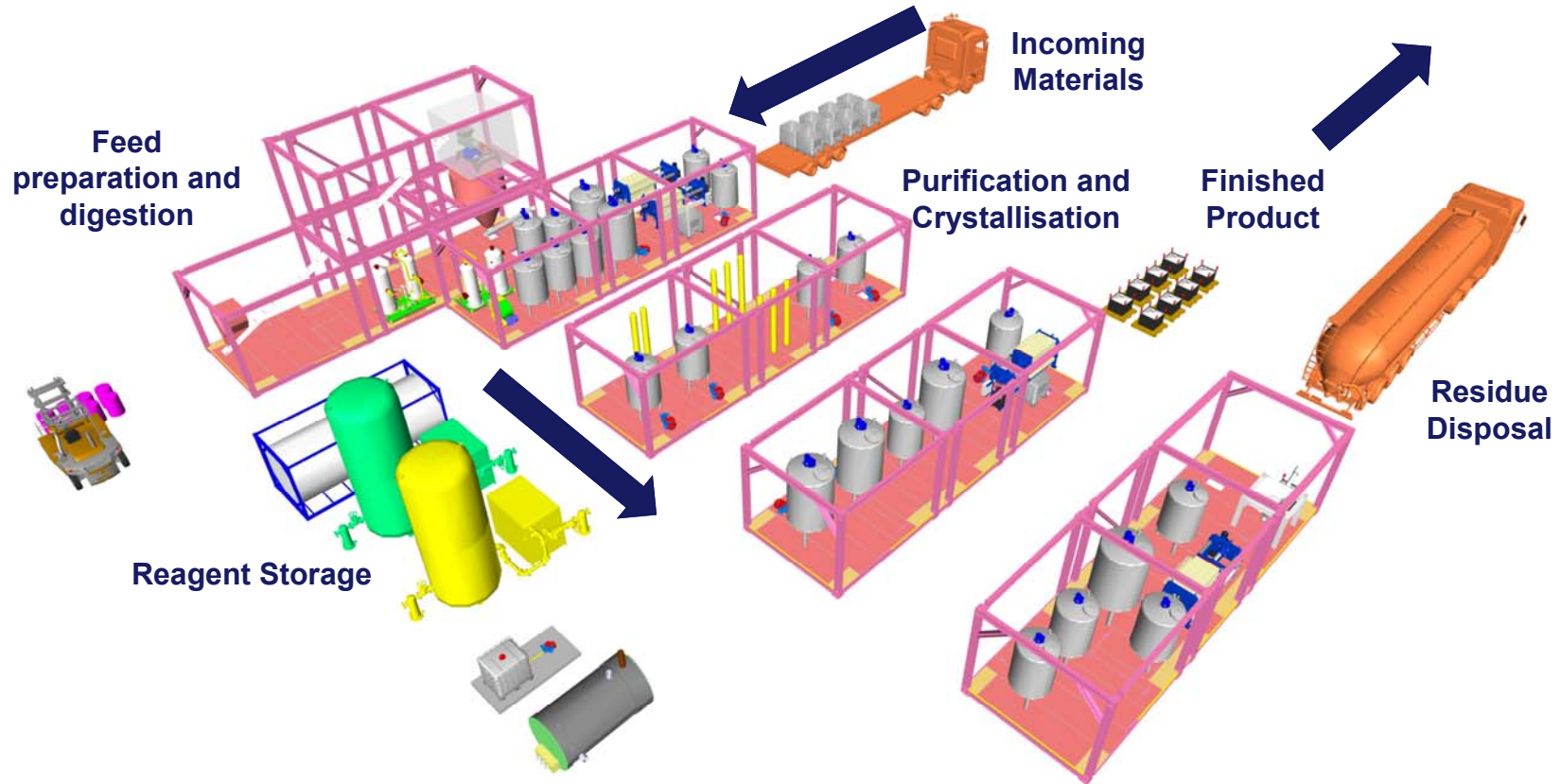
Spot price **US\$25/lb Co** (US\$55k/t)

Capex **US\$4.5M**

Proceeding to pilot plant – Q3 '17

Can be constructed and commissioned in 42 weeks

Commercial Plant Schematic

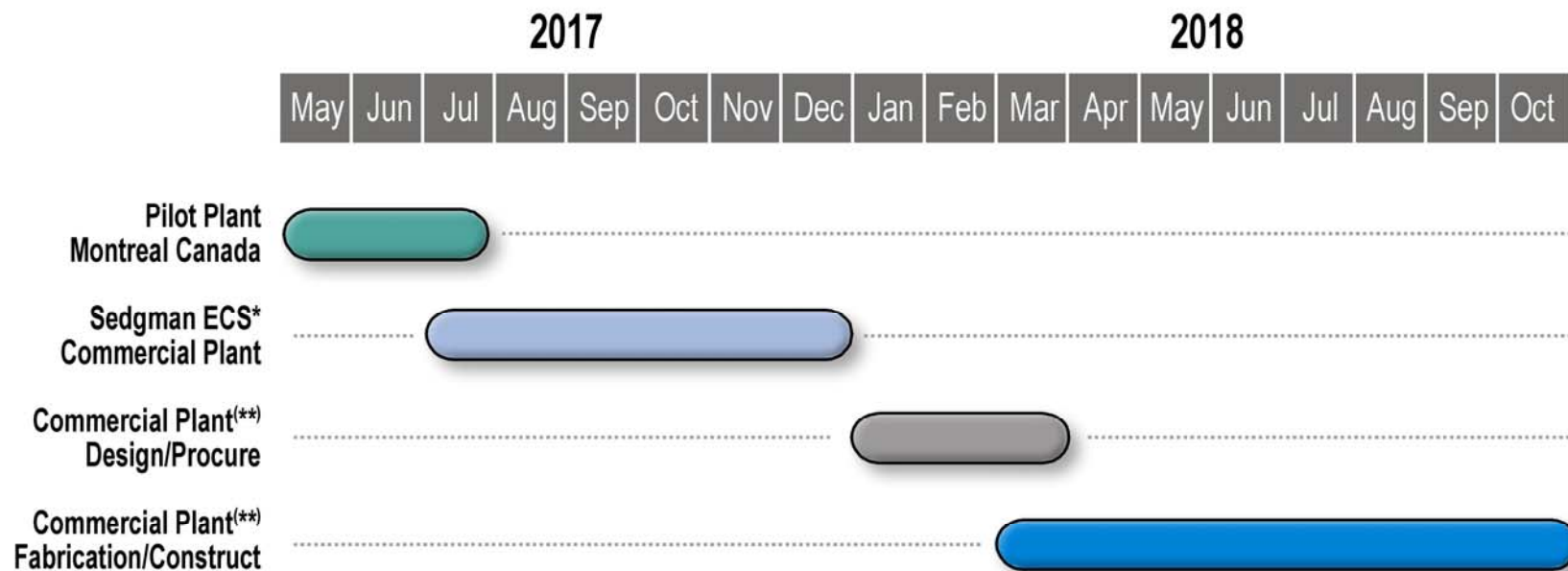


Plant footprint approx. 30m x 50m

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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

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Ti

Barrambie Titanium Project

100% Neometals



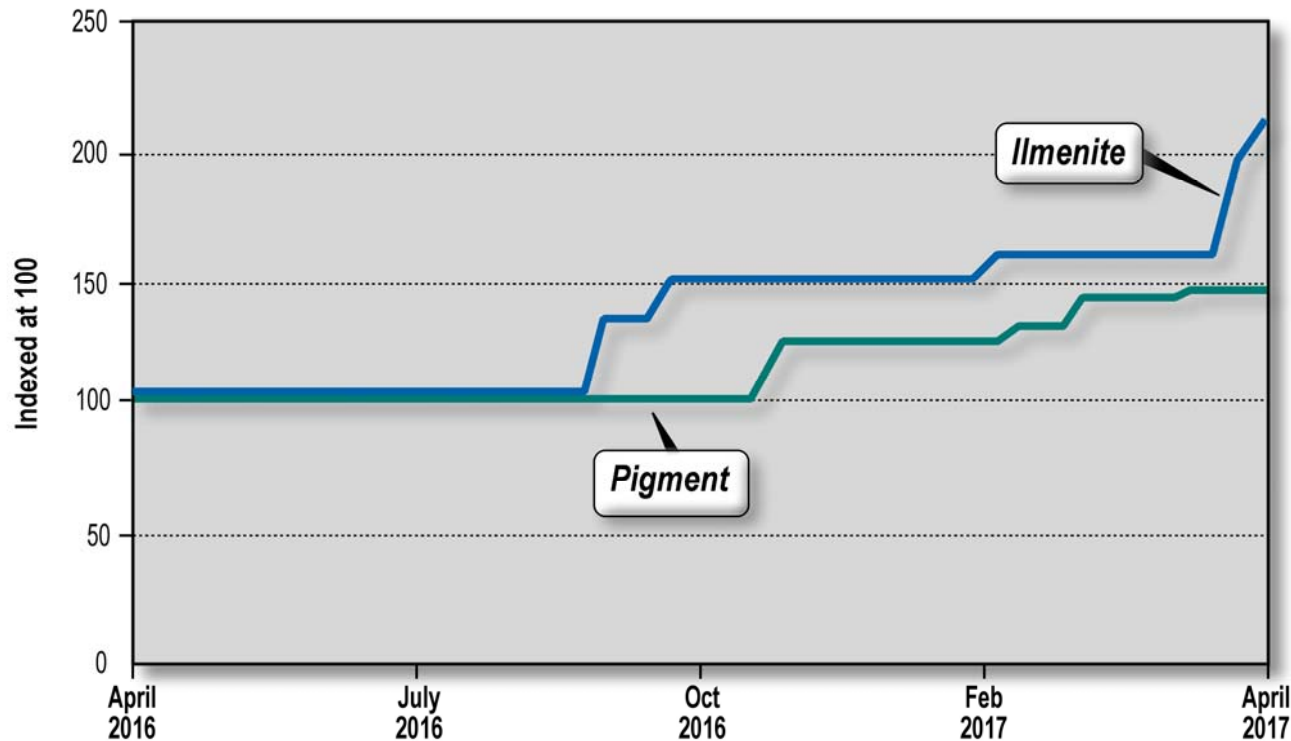
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Strong demand/supply fundamentals

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

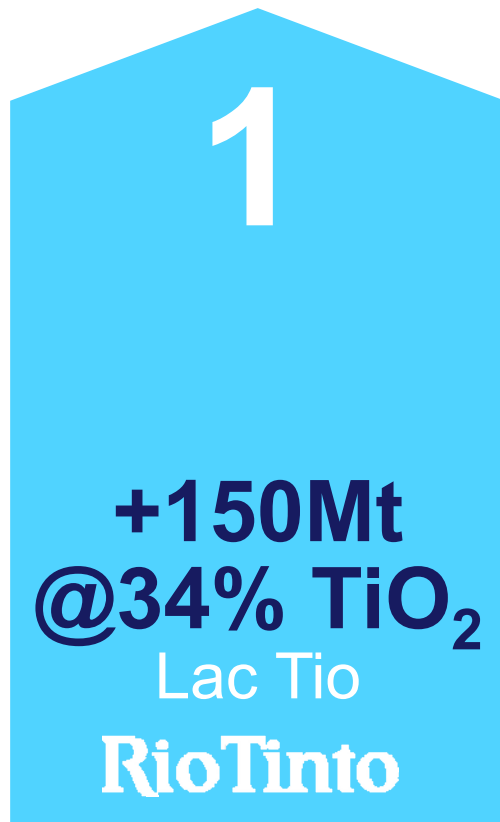
Cost push price inflation

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High Quality Resource

Ti



* Mineral Resource Estimate
(JORC2012) on page 29

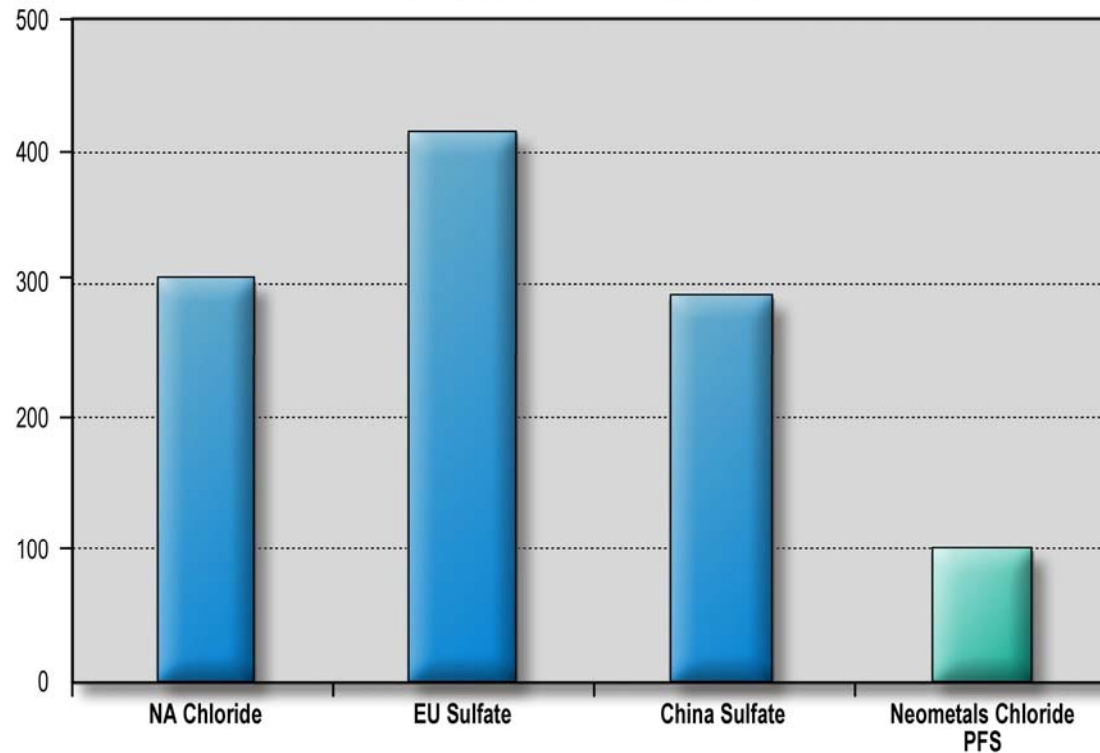
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PFS indicated very low Opex using the licenced Neomet Process

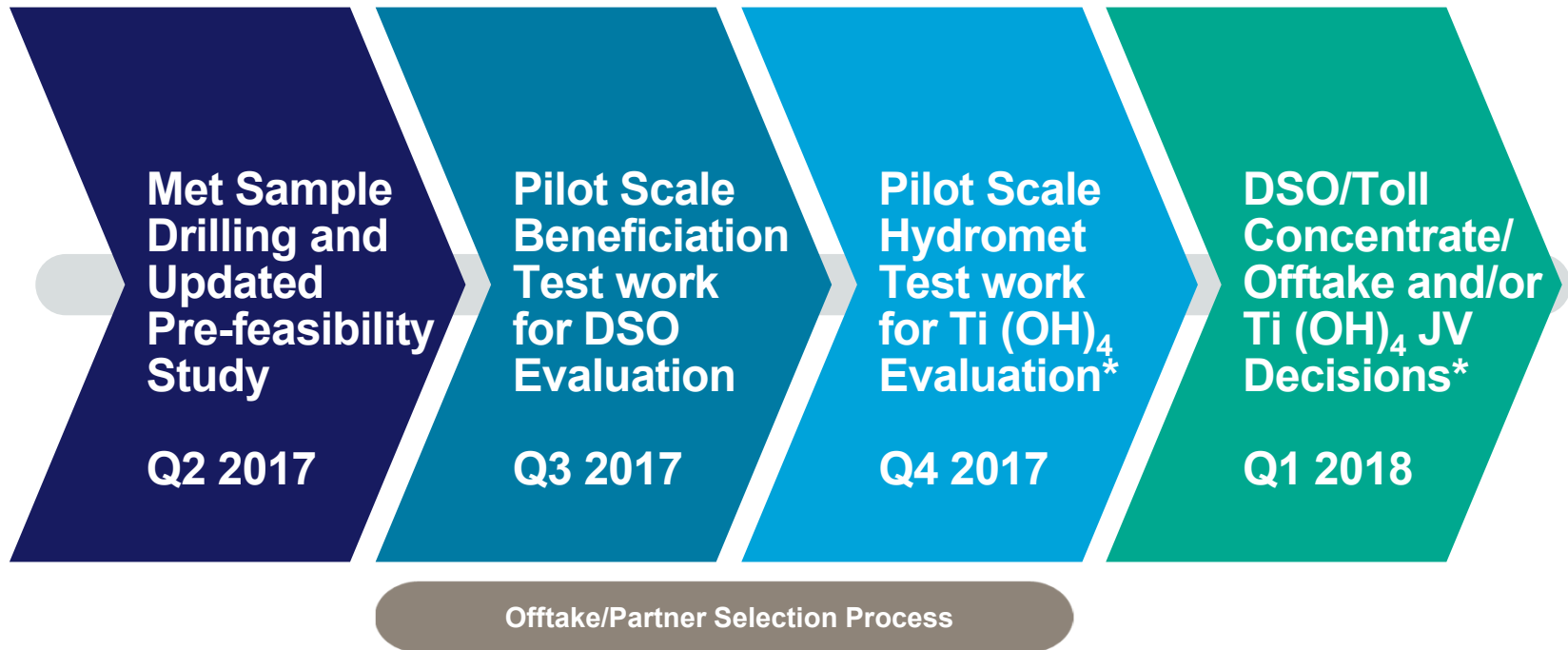


Relative Standard-Plant Cash Operating Costs
(US\$ per tonne TiO₂ delivered basis)
Neometals PFS = Base 100



Disclaimer: The TZMI costs (NA, EU, China) are for standard plant models in each location. They are not specific costs, neither are they averages of the costs for a location. Q4 2014. TZMI information and Neometals scoping and pre-feasibility studies performed separately and may not be like-for-like analysis.

Commercialisation Plan



(*) Subject to Board Approval

Investment Proposition

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Lithium: Cash, cashflow & growth options



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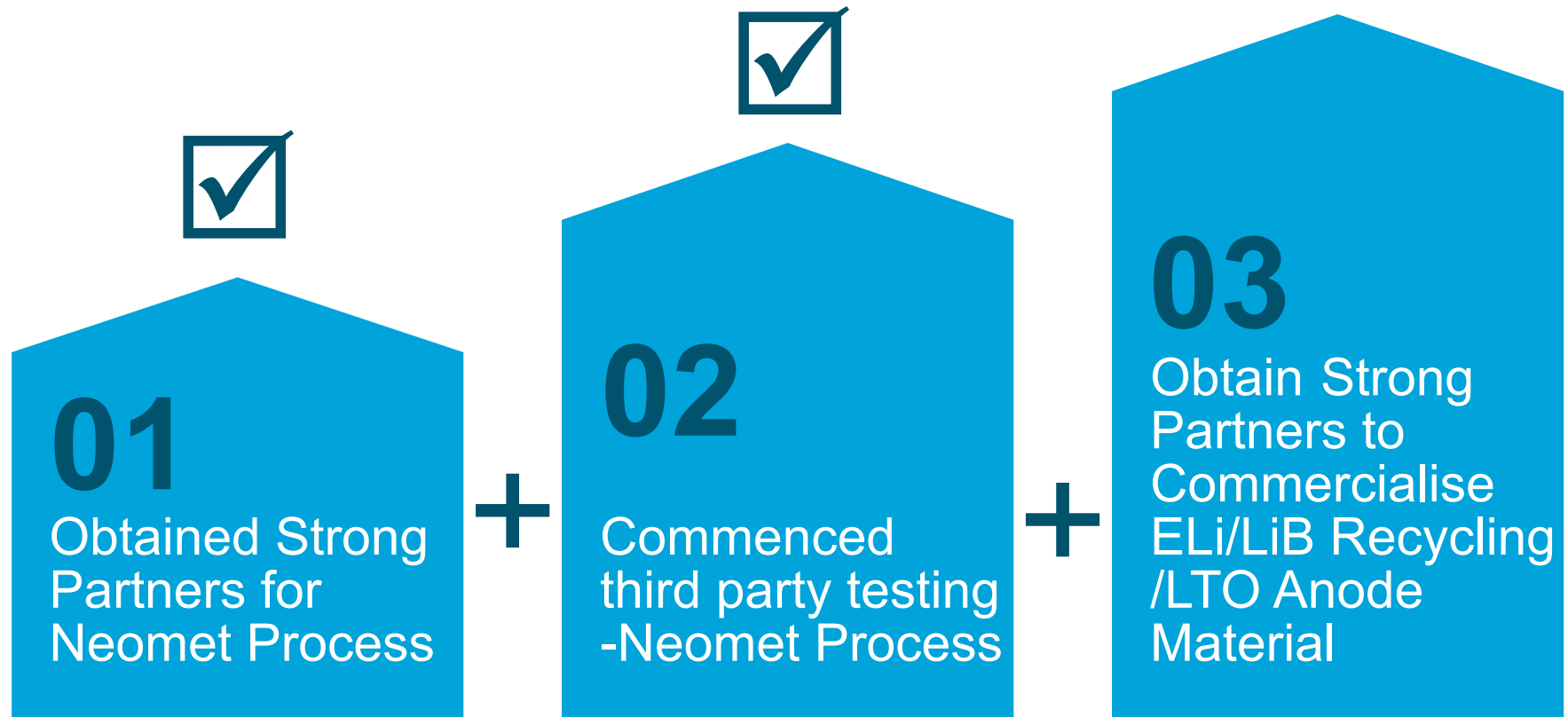
Titanium : A growth story for 2018



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Technology : developing a diversified portfolio



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Thank you

www.neometals.com.au

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Mineral Resource Estimate

Mt Marion Lithium deposit, as at October 2016, for a block cut-off grade of 0.5% Li₂O



Classification	Deposit	Tonnes (Mt)	Li ₂ O %	Fe %
Indicated	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
Indicated Total		28.9	1.35	1.06
Inferred	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
	Inferred Total		48.9	1.38
Grand Total		77.8	1.37	1.09

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Feasibility Study - Financial Metrics



FS

Life of Plant (LOP)	20 years
Pre-production Capital cost	US\$ 158 million**
Average Annual Pre-tax Net Cashflow	US\$ 82 million
Pre-tax Internal Rate of Return	51%
Pre-tax NPV (12% real discount rate)	US\$ 481 million
Payback of capital costs	2.6 years
Average Annual Production	14,000t LiOH 5,600t Li ₂ CO ₃
Average Cost per tonne of LiOH	US\$ 4,630/t
Average Cost per tonne of Li ₂ CO ₃	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% Li₂O); LiOH/Li₂CO₃ selling price US\$11k/10k/t CIF respectively

Mineral Resource Estimate

Barrambie Ti-V deposit, as at September 2015, for a block cut-off grade of 15% TiO₂



Classification	Zone	Oxidation	MTonnes	Density (t/m ³)	TiO ₂ (%)	V ₂ O ₅ (%)	Fe ₂ O ₃ (%)	Al ₂ O ₃ (%)	SiO ₂ (%)
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
Grand Total			47.2	3.18	22.18	0.63	46.70	9.44	15.07

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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%
Pre-tax NPV (12% real discount rate)	A\$ 355 million
Payback of capital costs	3.9 years
Average Annual Production	98,000t TiO ₂ 2,000t V ₂ O ₅ 234,000t Fe ₂ O ₃
Cash Operating Cost per tonne of paid TiO₂ net of co-product credit	US\$ 572/t

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

Assumptions: US\$1,838/t TiO₂; US\$14,873/t V₂O₅, US\$520/t Fe₂O₃ Pigment, A\$/US\$0.75, Royalties (State/Technology) 10% Gross

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