

Developing new sources of commercial lithium supply

Low Emission and Technology Minerals Conference

Hyatt Regency Hotel, Perth WA

14-15 November 2017



LEPIDICO

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Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Tom Dukovcic, who is an employee of the Company and a member of the Australian Institute of Geoscientists and who has sufficient experience relevant to the styles of mineralisation and the types of deposit under consideration, and to the activity that has been undertaken, 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 Dukovcic consents to the inclusion in this report of information compiled by him in the form and context in which it appears.

About Lepidico

- Lepidico (ASX: LPD) is an ASX-listed lithium exploration and development company with a **management team experienced in project and business development**
- Lepidico's strategic objective is to become a **fully integrated lithium business** from mine to battery grade lithium chemical
- **Lepidico is differentiated by its clean-tech L-Max[®] process technology** that extracts lithium and recovers valuable by-products from the less contested lithium-mica minerals
- Phase 1 Plant Project located in Eastern Canada; currently in Full Feasibility Study – **first production target late 2019**
- Quality lithium-mica mine feed to be sourced from Canada & Portugal
- Well funded with proforma cash at 31 October 2017 A\$8.3M and no debt



Corporate Snapshot – close of market 14/11/2017

Lepidico Ltd (ASX:LPD) Board of Directors

Gary Johnson	Chairman, Non-executive	Metallurgist
Joe Walsh	Managing Director	Mining Engineer
Tom Dukovcic	Director Exploration	Geologist
Mark Rodda	Non-Executive Director	Lawyer

Capital Structure

Market Capitalisation	\$180 M (@ 6.3 c; 14/11/2017)	
Shares on issue	2,857,520,897	
Options (unlisted)	124 M, 1.0c – 2.5c	
Major Shareholders	Strategic Metallurgy	12.29%
	Galaxy Resources	11.91%
	JP Morgan Noms Aust	3.59%
	Bacchus Capital Advisers	2.13%
	Lycopodium Minerals	1.84%
	Top 5	31.76%
	Top 20	46.50%

LPD year-to-date share price as at 14 November 2017



Source: www.commsec.com.au

The L-Max[®] Advantage

- ✓ The Australian Patent Office declared L-Max[®] to be “novel, inventive, industry applicable and patentable”
- ✓ L-Max[®] leaches lithium from non-conventional and relatively uncontested mineral sources; lithium micas and phosphates
- ✓ L-Max[®] reagents and operation have straightforward health, safety and environmental characteristics
- ✓ L-Max[®] utilises common use, inexpensive reagents & is energy efficient
- ✓ L-Max[®] utilises conventional equipment and straightforward processes at atmospheric pressure and modest temperature
- ✓ By-products include potassium sulphate fertiliser (SOP), sodium silicate; potentially gypsum, caesium & rubidium formates (& Ta, Sn, W conc's)
- ✓ Fast leach kinetics, high recoveries and moderate process cost estimates make for compelling economics



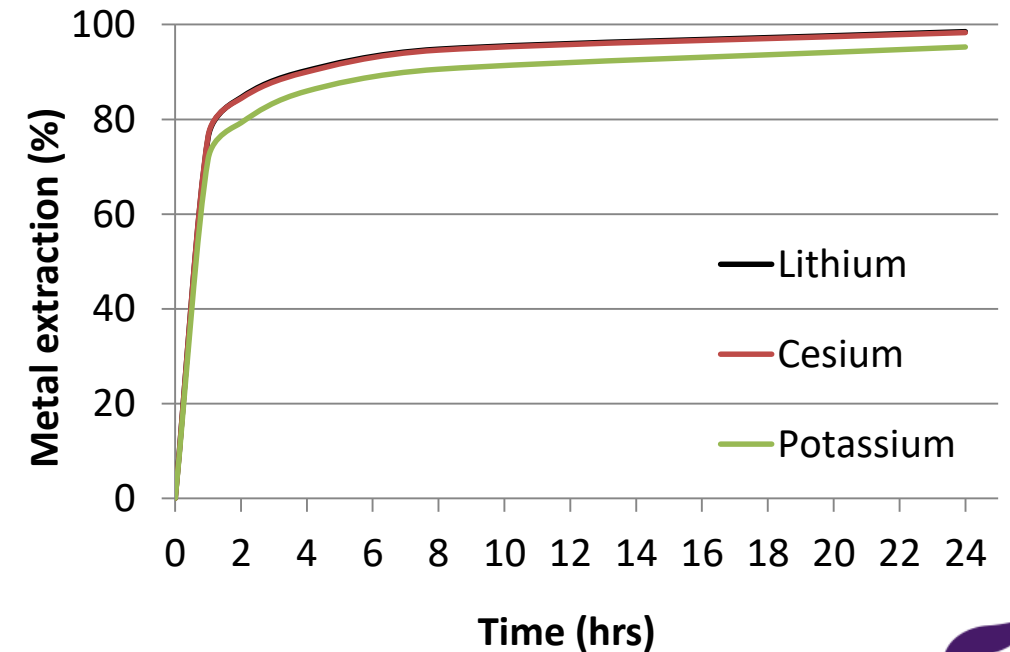
Lepidolite



Zinnwaldite

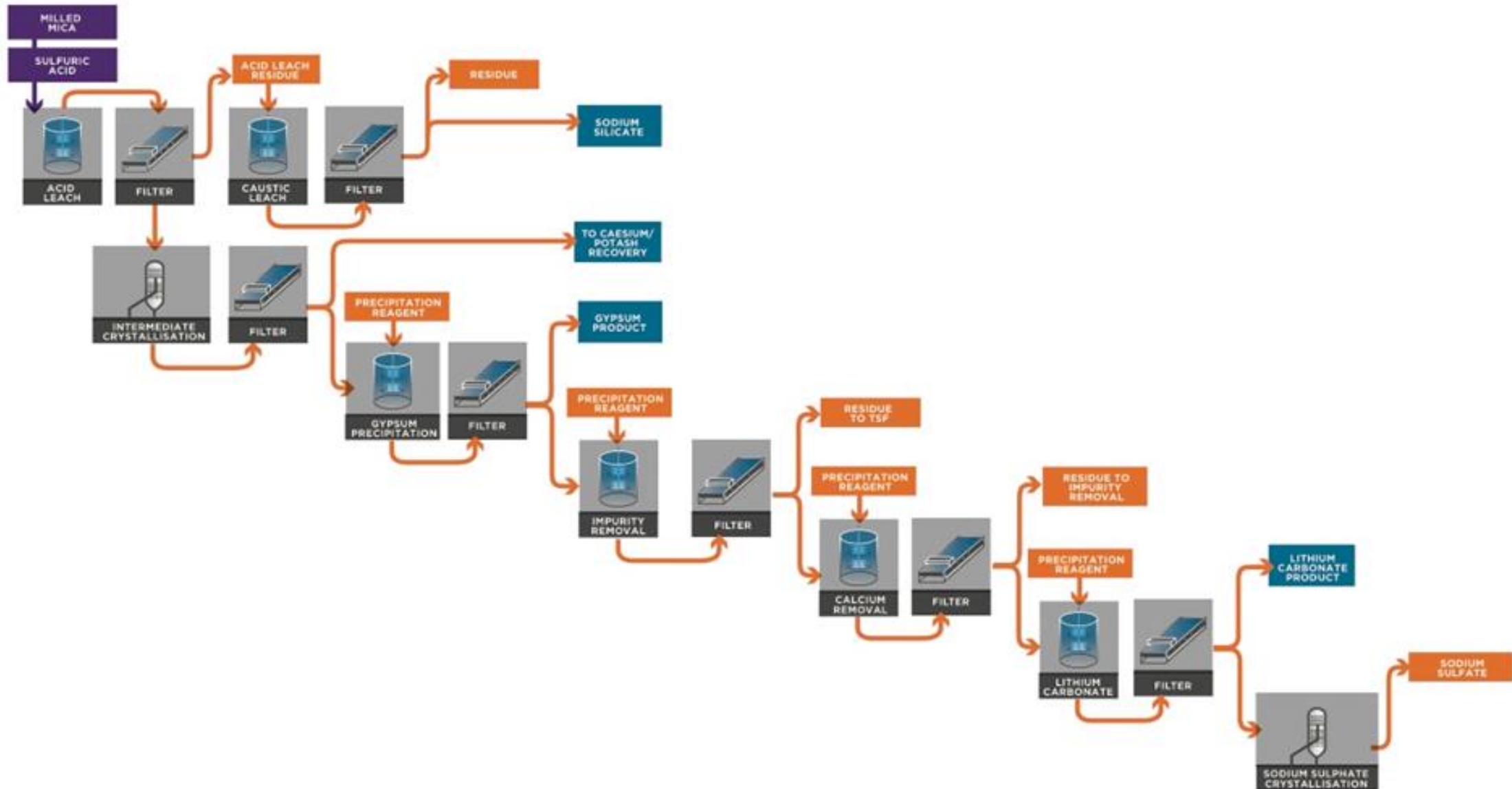


Amblygonite



Element leach curves under L-Max[®] - PFS sample

L-Max® - 100% Owned by Lepidico



Galaxy Resources strategic alliance

- Galaxy Resources Limited (ASX:GXY) is a leading S&P/ASX 200 Index pure play lithium concentrate producer, with a diverse project portfolio and an extensive network of downstream participants in global lithium markets
- Galaxy Resources took a 12% strategic shareholding in Lepidico in October 2017
- Of the c. 140 publicly listed lithium companies globally only a select few have gained support from a strategic investor
- Strategic rationale for alliance
 - Leverage Galaxy's industry position and relationships to secure off-take and funding support for the Phase 1 L-Max[®] Plant Project
 - Evaluation of potential synergies with the Mt Cattlin mine and James Bay project
 - Evaluation of regional lithium mica opportunities in Western Australia and internationally



Asset Overview

Alvarrões Lepidolite Mine
Resource pending
Ore offtake agreement with Grupo Mota



Separation Rapids lithium deposit 9.6Mt @ 1.31% Li_2O
Lepidolite offtake LOI with owner Avalon Advanced Materials



Phase 1 L-Max® Plant
Great Lakes Region -Canada,
In Feasibility Study



Strategic Alliance
Mt Cattlin & L-Max®
Synergy Initiative

Pioneer Dome JV
LPD 75% Earn-in on Peg 9,
Lepidolite rich pegmatite
Permitting to drill



Moriarty JV
LPD 75% Farm-in Lepidolite
Target Exploration



Mineral Resource Development

Alvarrões Lepidolite Mine*

- **Ore access agreement with Grupo Mota** over the operating Alvarrões lepidolite mine, Portugal (lepidolite for ceramics industry)
- **Multiple stacked lepidolite mineralised pegmatite sills 1m to 4m thick exposed over a strike of more than 1km in two open pits**
- **Drilling has confirmed mineralised pegmatites extending 500m ‘down dip’ (flat-lying).**
- **25-hole diamond drilling program commenced May 2017; inaugural Mineral Resource estimate due late November 2017; mineralized system open down dip and along strike**
- **Targeting 10 years’ lepidolite concentrate feed for Phase 1 L-Max® Plant**
- **Current mining operation produces lepidolite-rich material grading ~1.8% Li_2O for use in the ceramics industry**
- **Mining rates may be increased materially to 50,000 tonne to 75,000 tonne per annum sufficient to feed the planned Phase 1 L-Max® Plant in Sudbury, Canada**

*Reference: ASX Announcement, Alvarrões Lepidolite Mine Ore Access Agreement, 9 March 2017



Mineral Resource Development

Separation Rapids*

- Separation Rapids is a **large petalite-lepidolite lithium pegmatite deposit**, owned 100% by TSX-V listed Avalon Advanced Materials Inc.
- NI43-101 PEA completed on the Petalite Mineral Resource (opposite)
- L-Max® testwork on lepidolite concentrate gave excellent recoveries and high-specification, **99.88% battery grade lithium carbonate**
- L-Max® to **maximize lithium Mineral Resource potential** (inc. by-products)
- **Outcropping lepidolite rich zone provides early potential for a discrete lithium mica feed source**
- Letter of Intent between Lepidico and Avalon Advanced Materials Inc. (TSX: AVL and OTCQX: AVLNF) for an **integrated lepidolite mining and lithium carbonate production partnership** in Canada

*Reference: ASX Announcement, Lithium Alliance with Avalon Advanced Materials Inc, 6 February 2017

Note: Li₂O is total lithium oxide without distinction between contributions by petalite, Li-mica or lepidolite



Class	Tonnes	Li ₂ O#	Ta ₂ O ₅	Cs ₂ O	Rb ₂ O
	(Mt)	(%)	(ppm)	(%)	(%)
Measured	4.03	1.32	60	0.017	0.343
Indicated	3.97	1.26	70	0.025	0.362
Measured plus Indicated	8.00	1.29	60	0.021	0.352
Inferred	1.63	1.42	80	0.016	0.360
TOTAL	9.63	1.31	63	0.020	0.353

Positive Phase 1 L-Max® Plant PFS Results*

- **PFS highlights** economic potential to construct a strategically located Phase 1 L-Max® process facility in Ontario, Canada due to:
 - Close proximity to abundant, low-cost sources of bulk consumables (eg, sulphuric acid)
 - Location adjacent to markets for bulk by-products (particularly SOP and sodium silicate)
 - Established infrastructure (particularly road, rail and power)
 - Close proximity to a skilled labour force with competitive labour rates
- **Feasibility Study** and Mineral Resource delineation program commenced April 2017
- Funded to completion of FS; A\$7 million raised in Oct/Nov via placement and pro-rata non-renounceable Rights Issue

*Refer to ASX Announcement, Positive Phase 1 L-Max® Plant Pre-Feasibility Study”” dated 27 February 2017 for further details

Product Recoveries

Element	L-Max® Feed Grade	Recovery to Product
Lithium	2.10%	94%
Potassium	6.77%	85%
Silicon	23.10%	85%
Caesium	0.05%	81%
Tantalum	0.03%	70%

Expected Construction Costs

Item	US\$M
Feasibility Study and 2017 Owners Costs	5.0
L-Max® plant direct costs	16.2
L-Max® plant services	4.6
Infrastructure	2.6
Indirect costs	6.7
Contingency at 20%	6.0
Total	41.1



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Phase 1 L-Max[®] Plant Project Feasibility Study

- Key metrics for the Feasibility Study scope* will be:
 - Plant throughput rate 3.6tph of lithium-mica concentrate (annualised rate of 29,000tpa – 91.4% operating time)
 - Battery grade lithium carbonate equivalent (LCE) production of c. 3,000tpa
 - Average C1 Costs nil to negative after by-products
 - Average C3 Costs of US\$1,000-2,000/t after by-product credits including amortisation of development capital
 - Capex of US\$40-45M (incl. 20% contingency and US\$5M for DFS costs)
 - Valuable suite of by-products including sulphate of potash (SOP), caesium, tantalum concentrate and sodium silicate

*The assumptions set out above and elsewhere in this announcement contain reference to broad indicative plant operating parameters (Parameters) for the purpose of the DFS which have been developed through scoping level work and subsequent PFS work. For the avoidance of doubt, investors are advised that the Parameters expected to be adopted for the DFS do not constitute a production forecast or target in relation to mineral resources associated with any project owned by the Company. The Company wishes to expressly clarify that any references in this announcement or the PFS to annual production rates relate to scoping and planning parameters and are not a production target. The Company cautions investors against using any statements made in either this announcement or the PFS which may indicate or amount to the reporting of a production target or forecast financial information, as a basis for making any investment decisions about shares in the Company. The primary purpose of disclosing the DFS Parameters is to inform on the scope of work for the study and provide an estimate of the intended scale of a potential future Phase 1 Plant.

Project Planning Key Metrics

Key Parameter	Key Metric
Lithium Carbonate (>99.5%) Production	3,000 tpa
SOP (>95% K ₂ SO ₄) Production	3,000-4,000 tpa
Sodium Silicate (40wt% solution at SiO ₂ :Na ₂ O ratio of 2.0) Production	40,000-50,000 tpa
Caesium (as metal contained in formate) Production	10-100 tpa
Tantalite Con (30% Ta ₂ O ₅) Production	20-25 tpa
Li-Carbonate C1 cost after by-products credits	<=US\$0/t
Li-Carbonate C3 cost after by-product credits	US\$1,000-2,000/t

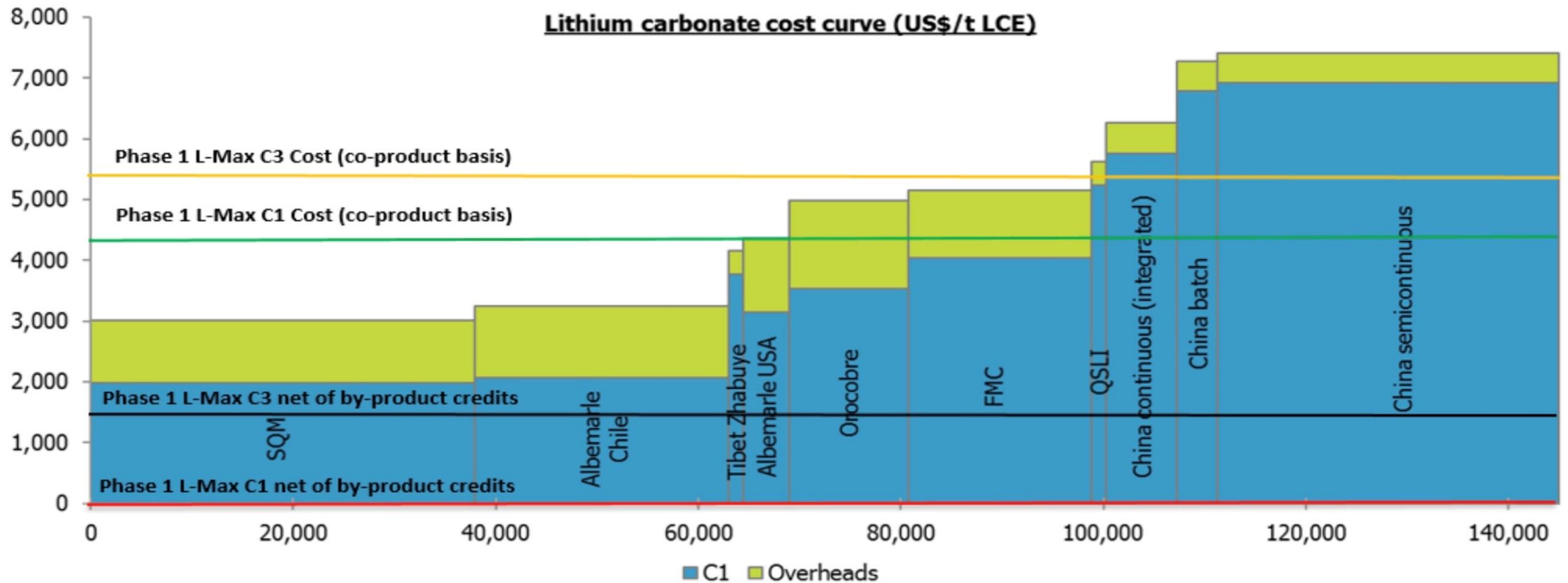
Expected Operating Costs

Item	US\$/t of Concentrate Processed (current prices)
Concentrate purchase	350
Concentrate transport	4
Inbound consumables logistics	144
Consumables FOB	286
Processing costs other	186
Sales, marketing, and outbound logistics	55
General and administration	104
Total Unit Cost	1,130



Peer Analysis

Phase 1 L-Max[®] Plant is Favourably Placed on the Global Cost Curve*

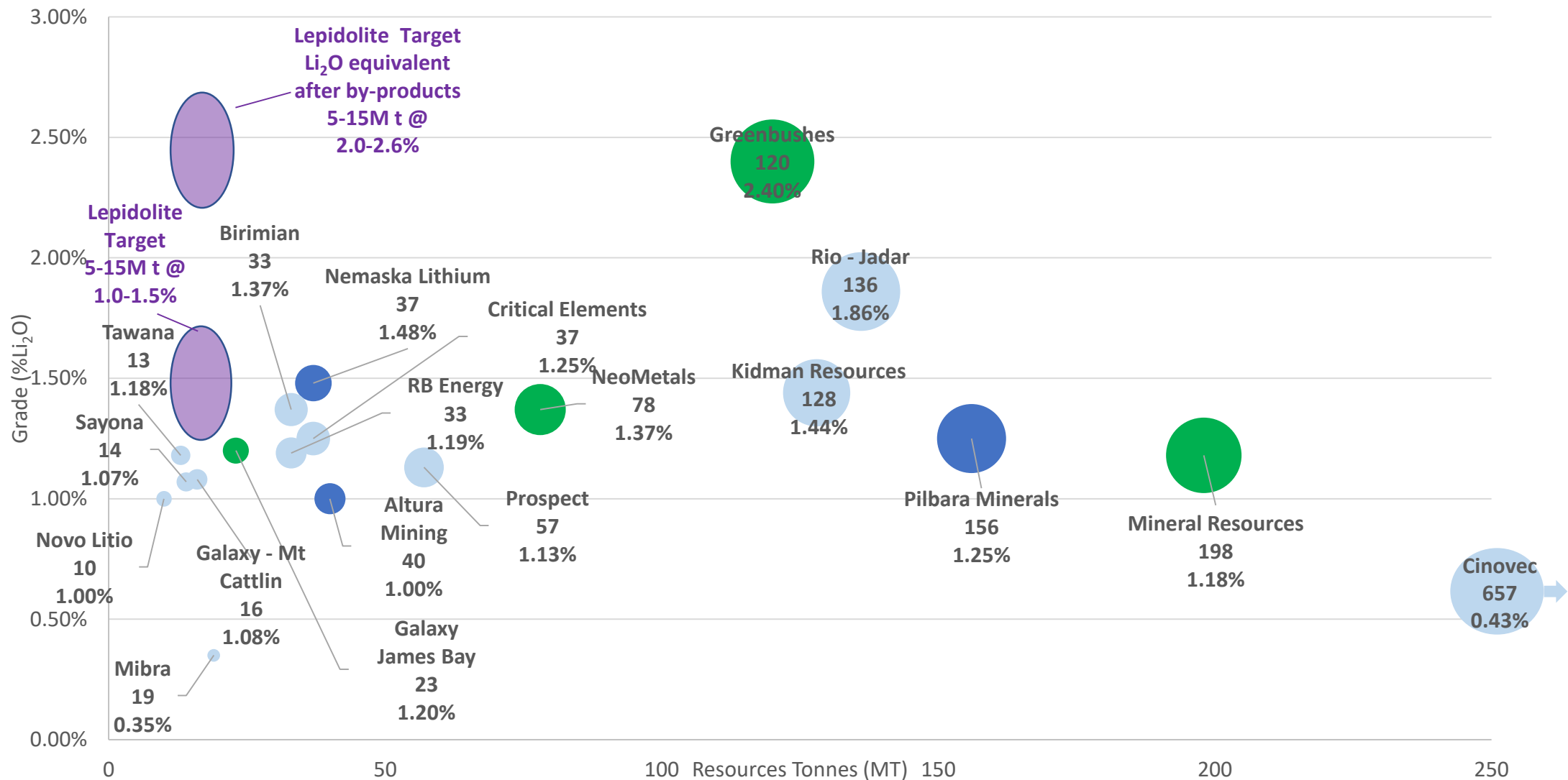


*Lithium Carbonate Cost Curve 2016 co-product basis (Source: Roskill). Ref: ASX Announcement "Positive Phase 1 L-Max[®] Plant Pre-Feasibility Study", 27 February 2017

Mini-plant trial Li₂CO₃ specification

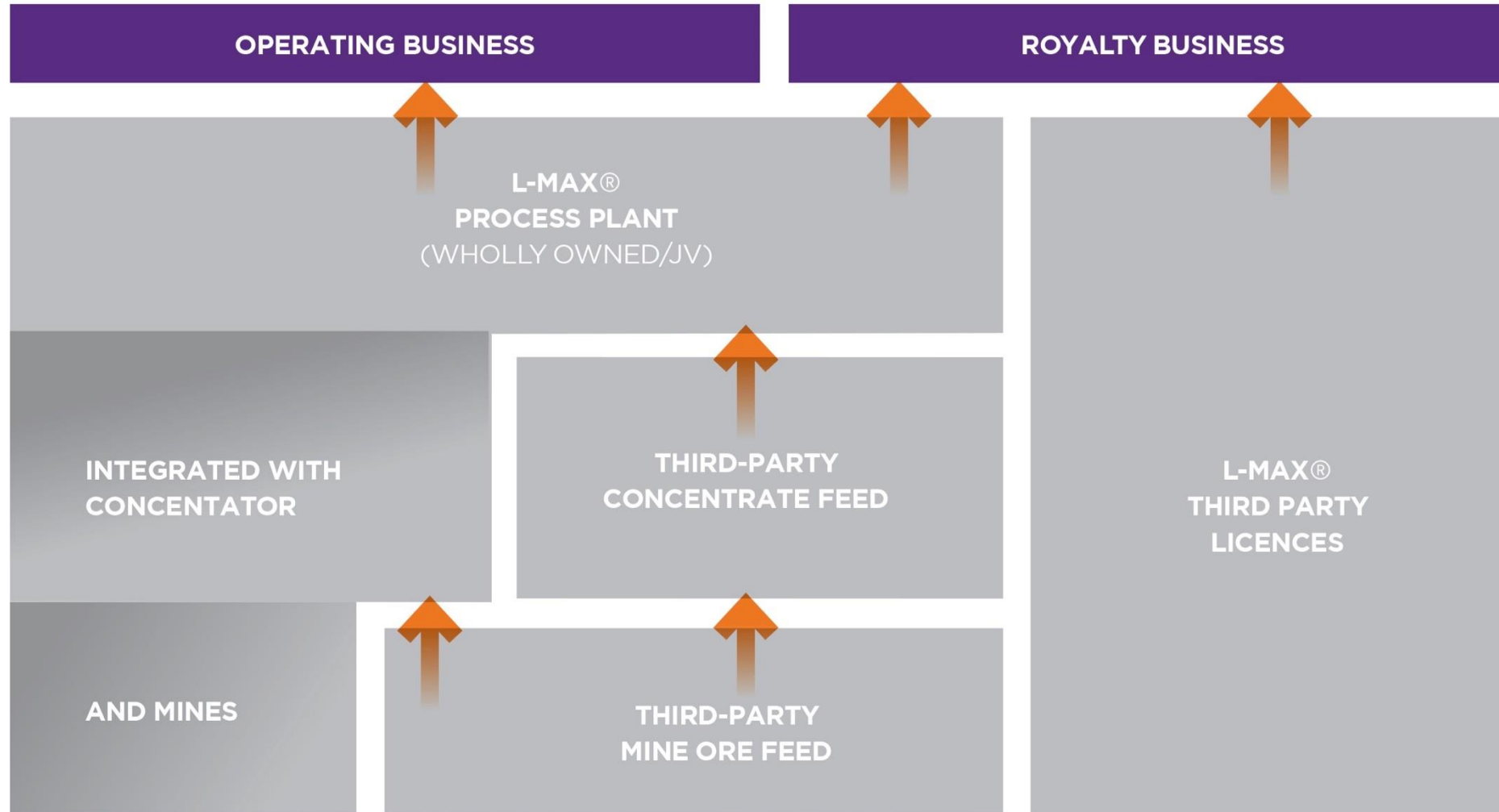
Product	Producer				
	Lepidico	SQM	FMC Lithium	Rockwood Lithium	Sichuan Tianqi
Li ₂ CO ₃ (% min)	99.9	99.2	99.5	99.8	99.5
Impurities					
SO ₄ (ppm)	134	300	1000	500	800
Na (ppm)	13	600	500	650	250
K (ppm)	14	50	10	-	10
CaCO ₃ (ppm)	140	250	1000	400	125
Fe (ppm)	9	-	5	-	20

Mineral Resource Context



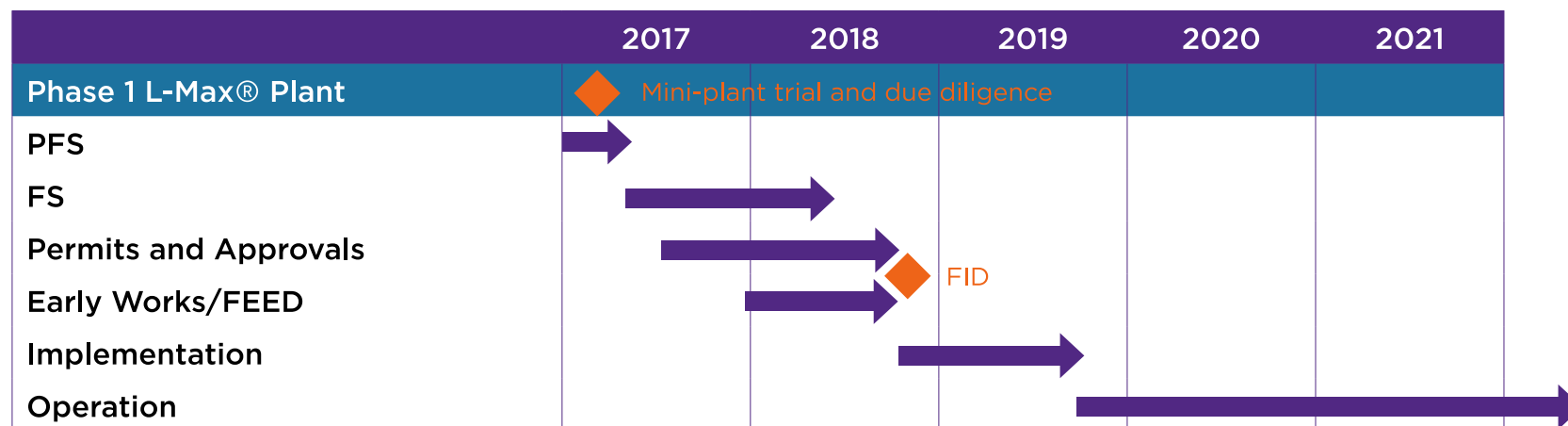
Source: Company data, Lepidico targets

Business Model

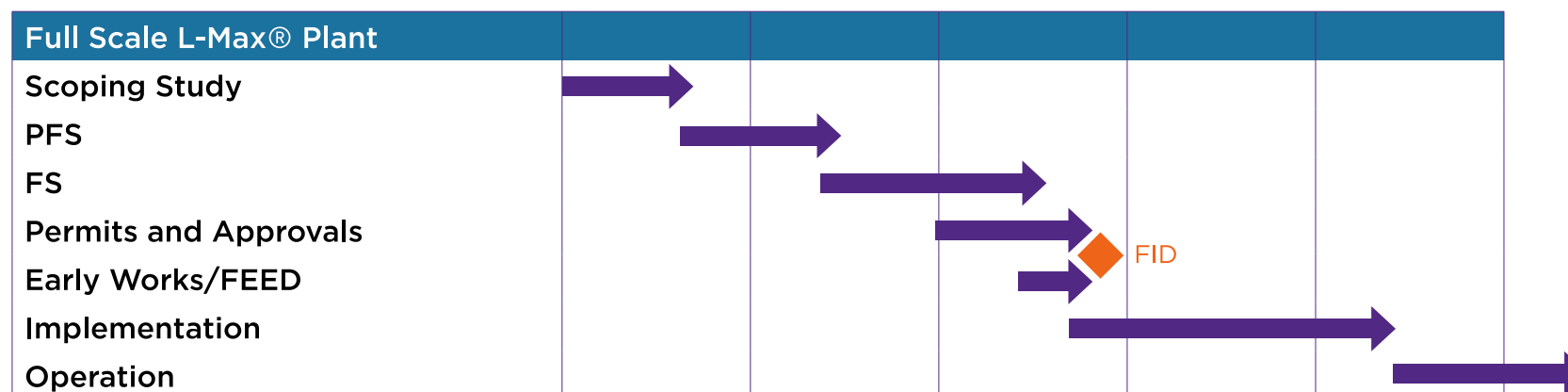


Opportunities

First production projected for late 2019, subsequent developments may be up-scaled



Phase 1 L-Max® Plant
 c.3,000t pa LCE
 H_2SO_4 ~50,000 tpa
 DFS ~US\$5M
 Development ~US\$40M

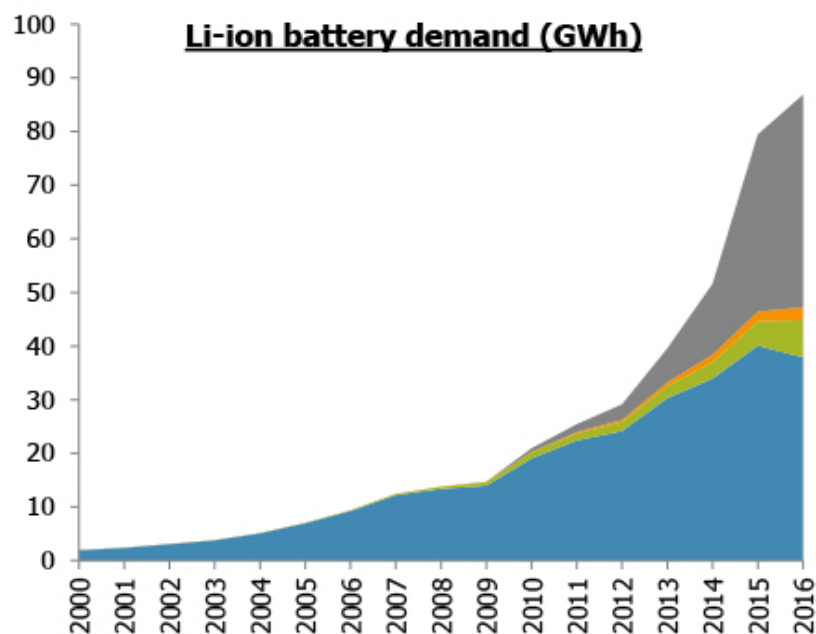


Full Scale L-Max® Plant
 @ c. 20,000t pa LCE
 H_2SO_4 ~400,000 tpa
 Studies ~US\$10M
 Construction ~\$Pending

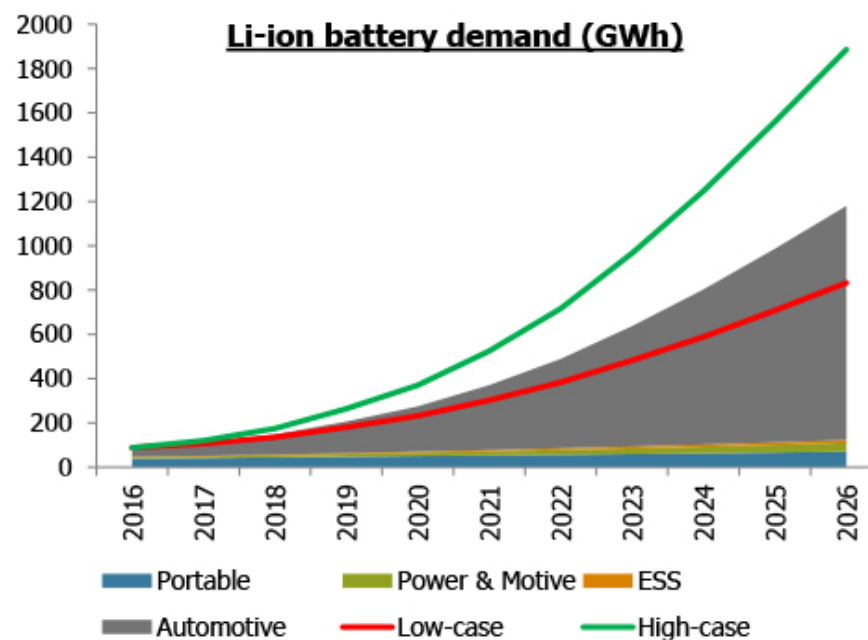
10GWh to 100GWh in 10 years... 100GWh to 1TWh in another 10/15 years?

- The battery market grew rapidly over the last decade, boosted by smartphone, tablet and more recently xEV demand
- The future should not surprise us, 1TWh is only 10 million Tesla Model S

The past

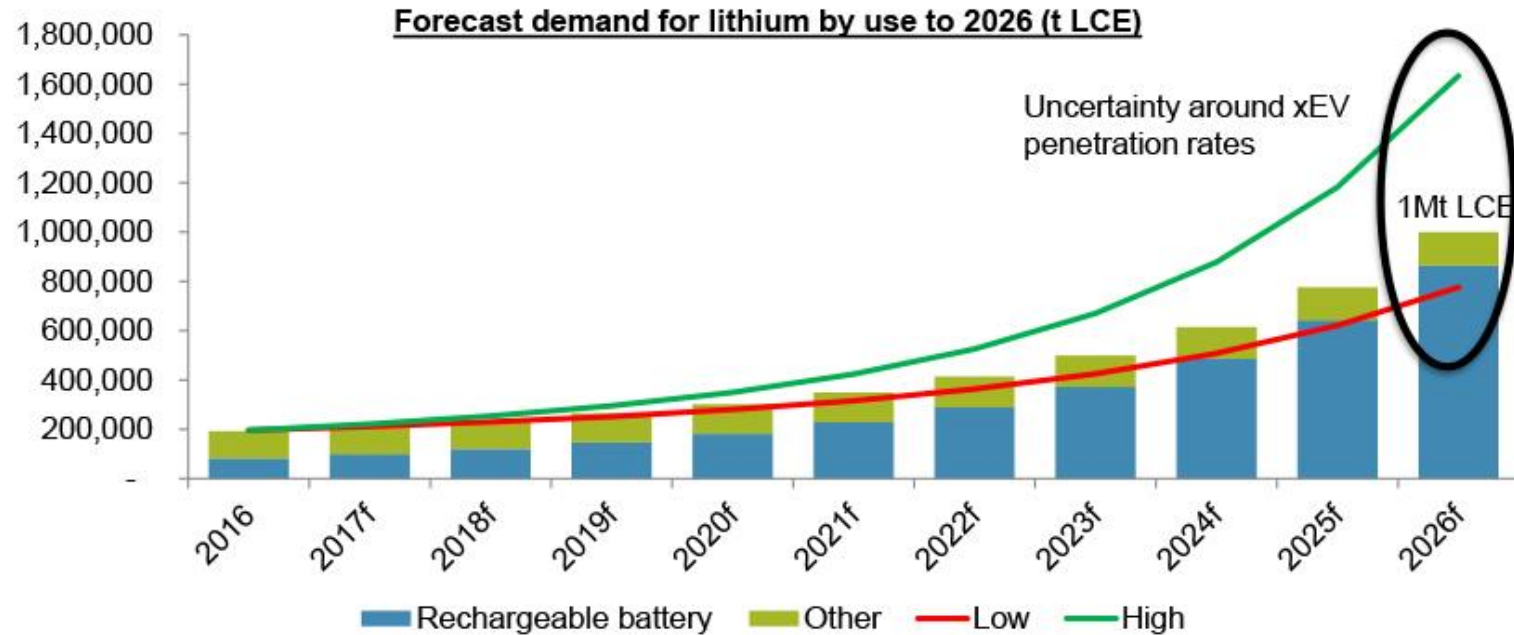


The future



Source: Roskill

China and Tesla actions are the short-term focus, impact will then spread to other areas towards/in 2020s, with growth accelerating



- Forecast demand growth revised upwards to 9.0%py high-case scenario in late 2016 from 6.4%py base-case in multi-client report, new 2017 projections suggest 17.7%py through 2026
- Reason: Larger than expected rise in EV sales during 2015 and 2016, as well as more robust government and automaker plans for near/long-term.
- Rechargeable batteries to account for 50% of total lithium demand in 2018, and 85% in 2025

Source: Roskill

Automotive batteries are starting to become the major application for lithium. Is it time for end users to get involved with lithium supply?

- Automotive batteries represent a huge potential market for lithium. In Roskill's baseline forecast, demand will likely increase to over 1Mt LCE in the mid-2020s, but the theoretical market potential is considerably larger than that long-term.
- Short-term (to 2021), demand growth will be met by existing, expanded and some new capacity
- Mid-term (to 2026), more investment is required to boost capacity; the CAPEX to achieve 1Mt LCE looks high versus the value of the lithium market today, but not in comparison to CAPEX downstream or other raw materials
- Long-term (to and beyond 2031), much more extensive resource development is required, new technologies may be needed
- If left to capital markets, investment will be too slow, therefore users may be required to step-in and assist with development costs

Summary - Lepidico's strategy

- to provide a new supply solution for the dramatic projected demand growth in lithium chemicals
- to develop a fully integrated lithium business through the value chain from mine to battery grade lithium chemical
- leveraging its proprietary L-Max[®] technology to process concentrates from high-quality lithium mica Resources
- maintain focus on high-return, strategically located developments in low risk jurisdictions.



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