

## **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

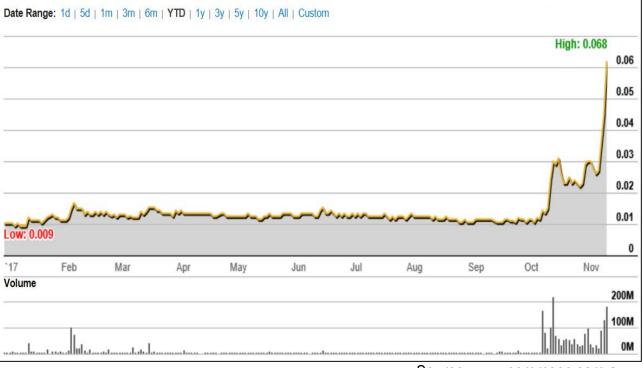
#### Lepidico Ltd (ASX:LPD) Board of Directors

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

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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 Galaxy Resources JP Morgan Noms Aust Bacchus Capital Advisers Lycopodium Minerals Top 5 Top 20	12.29% 11.91% 3.59% 2.13% 1.84% 31.76% 46.50%					

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



Source: www.commsec.com.au



### **Asset Overview**

Alvarrões Lepidolite
Mine
Resource pending
Ore offtake
agreement with
Grupo Mota



Separation Rapids lithium deposit 9.6Mt @ 1.31% Li<sub>2</sub>0 Lepidolite offtake LOI with owner Avalon Advanced Materials



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



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



Moriarty JV LPD 75% Farmin Lepidolite Target Exploration



## 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<sup>®</sup> 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





## The L-Max® Advantage

- ✓ The Australian Patent Office declared L-Max<sup>®</sup> 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<sup>®</sup> 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



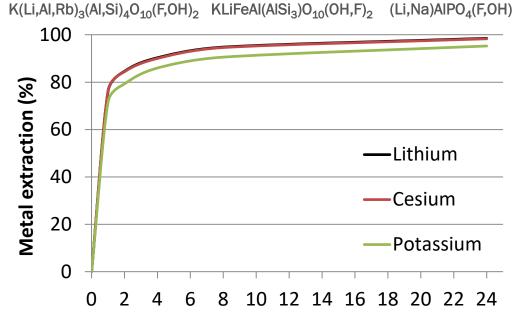




Lepidolite

Zinnwaldite

**Amblygonite** 

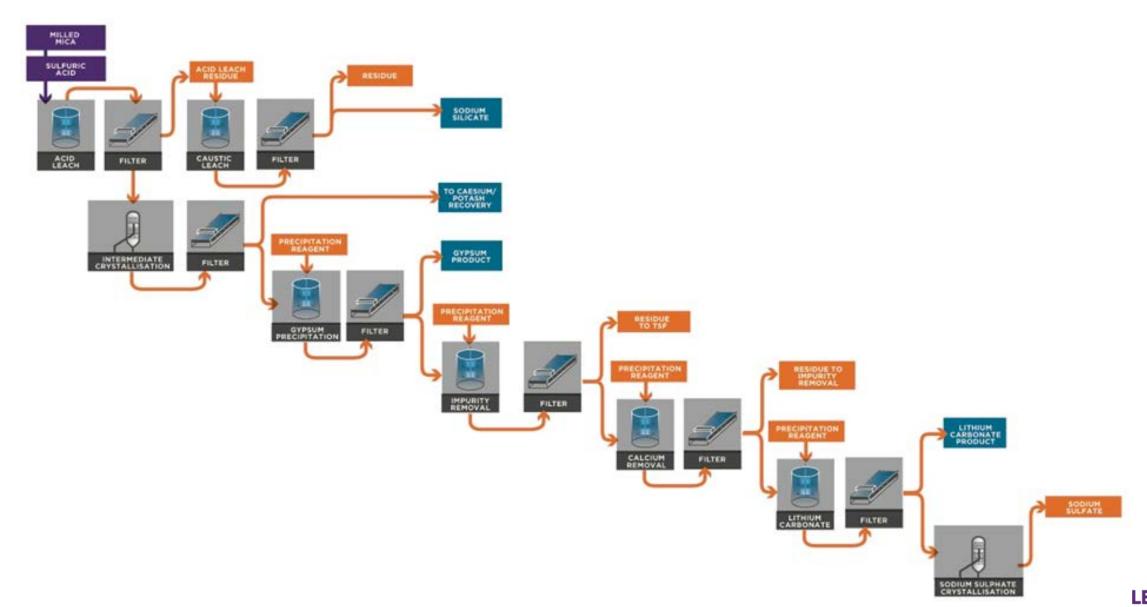


Time (hrs)

Element leach curves under L-Max® - PFS sample



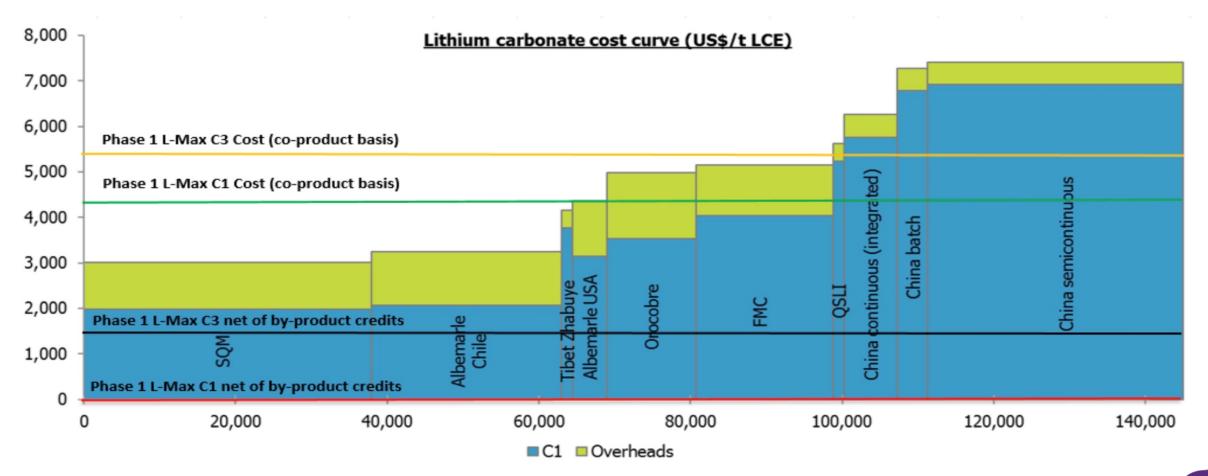
## L-Max® - 100% Owned by Lepidico





## **Peer Analysis**

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



<sup>\*</sup>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

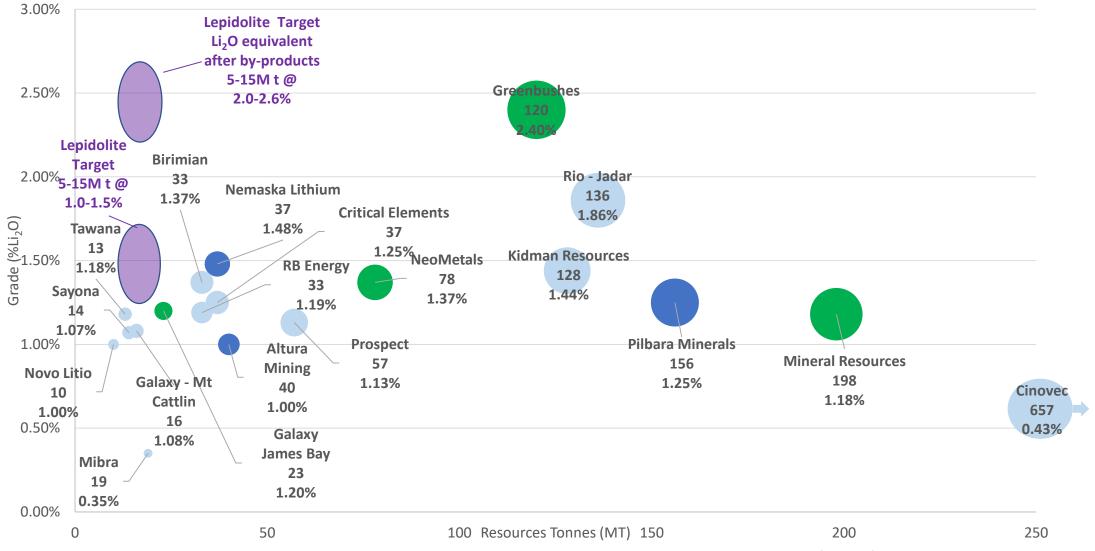


## Mini-plant trial Li<sub>2</sub>CO<sub>3</sub> specification

Product	Producer				
	Lepidico	SQM	FMC Lithium	Rockwood Lithium	Sichuan Tianqi
Li <sub>2</sub> CO <sub>3</sub> (% min)	99.9	99.2	99.5	99.8	99.5
Impurities					
SO4 (ppm)	134	300	1000	500	800
Na (ppm)	13	600	500	650	250
K (ppm)	14	50	10	7 / 5	10
CaCO₃ (ppm)	140	250	1000	400	125
Fe (ppm)	9		5	1 to 1	20

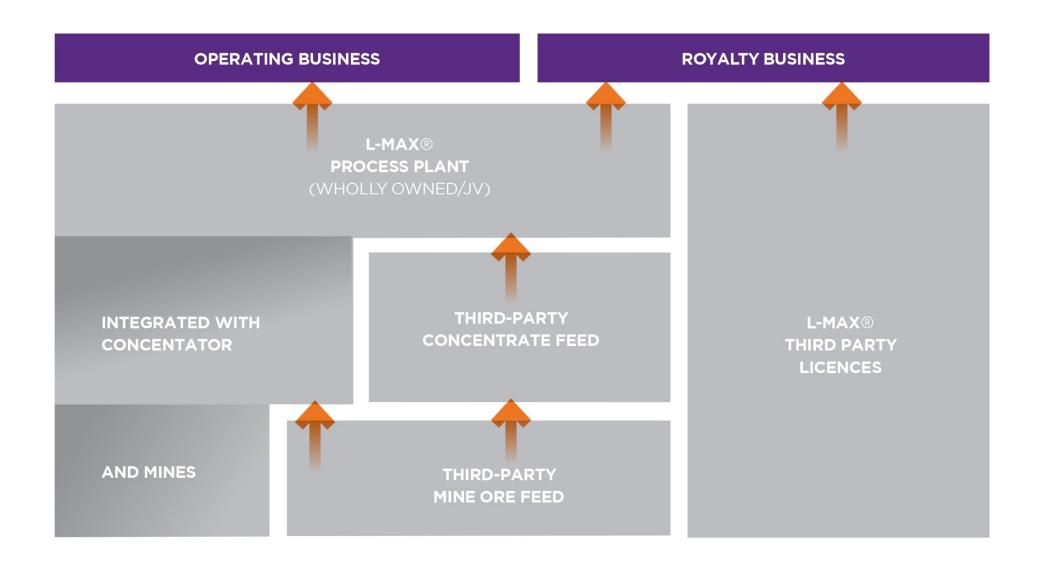


### **Mineral Resource Context**





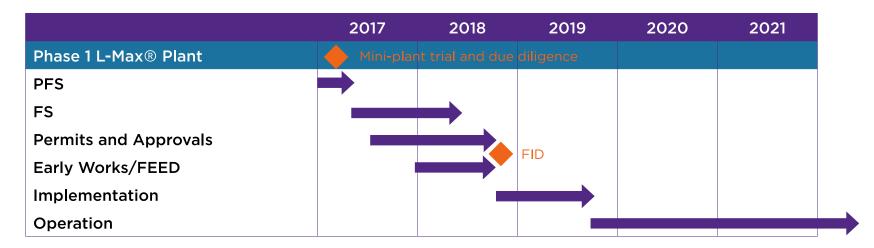
### **Business Model**



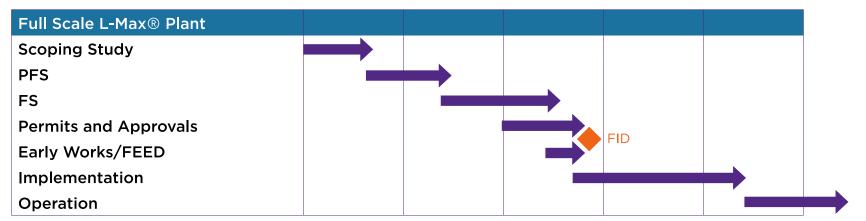


## **Opportunities**

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



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

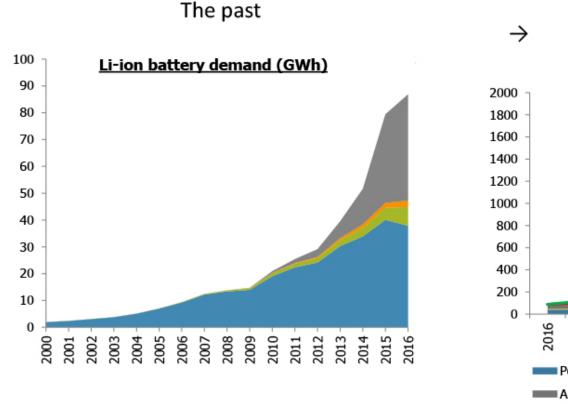


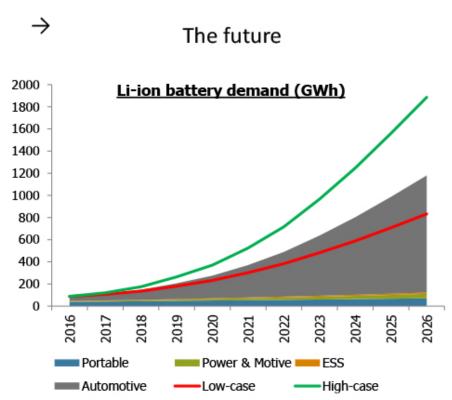
Full Scale L-Max® Plant
@ c. 20,000t pa LCE
H<sub>2</sub>SO<sub>4</sub> ~400,000 tpa
Studies ~US\$10M
Construction ~\$Pending



### 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

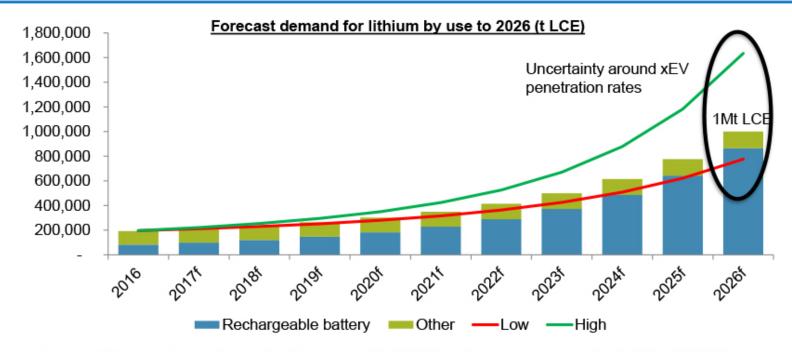




Source: Roskill



# 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



# 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.



## Important Notice

This presentation has been prepared by the management of Lepidico Ltd (the 'Company') for the benefit of brokers, analysts and investors and not as specific advice to any particular party or person.

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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.



