

# Emerging Global Lithium Company

Investor Presentation  
March 2016

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## Competent Person Statement

The metallurgical information in this presentation is based on and fairly represents information and supporting documentation compiled by Gary Johnson, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Johnson has sufficient experience relevant to the activity being 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. Johnson is Managing Director of Strategic Metallurgy Pty Ltd, who is a shareholder of Lepidico. This report is issued with Mr. Johnson’s consent as to the form and context in which the results appear.

The information in this report that relates to Exploration Results is based on information compiled by Mr Tom Dukovcic, who is an employee of Platypus 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.

# Platypus Minerals - Summary

- Platypus Minerals (ASX:PLP) is a Perth-based exploration company focusing on commodities in demand by the market and which can deliver corporate growth and returns to shareholders
- Late 2015: Strategic decision to investigate a move into the lithium sector
- Aim: seek out quality opportunities with proven mineralisation and a clear path to growth and business development → Lepidico



# Lepidico - Summary

- Unlisted public company with lithium exploration assets and proprietary metallurgical processing technology
- Respected and experienced management and owners
- Exploration:
  - Lemare Project, James Bay, Quebec, Canada
  - Euriowie Project, Broken Hill, NSW
  - Brazil-wide MOU with Crusader Resources (ASX:CAS)
- Technology (patents under application):
  - L-Max® - extraction of lithium from Li-mica (lepidolite, zinnwaldite)
  - Lithium-phosphate process: lithium from Li-rich amblygonite, montebrasite



# An Emerging Global Lithium Company

- On 16<sup>th</sup> March 2016, Platypus and Lepidico executed a binding term sheet for the acquisition by Platypus of 100% of Lepidico
- The acquisition of Lepidico will position Platypus as an emerging lithium player with a global presence and an important point of difference:

## *An Integrated Lithium Business*

- *Traditional lithium exploration:*
  - spodumene, Lemare project
- *Non-conventional lithium exploration:*
  - amblygonite, Euriowie; zinnwaldite, Manga
- *L-Max<sup>®</sup>:*
  - royalty stream from licensing of proprietary technology
  - use in own and JV projects

# Executive Team



**Mr. Gary Johnson**  
MAusIMM, MAICD  
**Exec Chairman, Lepidico**

Gary has over 30 years experience in the mining industry as a metallurgist, manager, owner, director and managing director possessing broad technical and practical experience of the workings and strategies required by successful mining companies.

Gary is the managing director of the consulting business, Strategic Metallurgy Pty Ltd, and Antipa Minerals Ltd. Mr. Johnson is a member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Company Directors.



**Mr. Tom Dukovcic**  
BSc (Hons), MAIG, MAICD  
**Managing Director, Platypus**

Tom is a Mr Dukovcic is a geologist with over 25 years experience in exploration and development. He has worked in diverse regions throughout Australia, including the Yilgarn, Kimberley, central Australia and northeast Queensland.

Internationally he has worked in southeast Asia and Brazil. During this time he has been directly involved with the management of gold discoveries in Australia and Brazil.

Tom is a Member of the Australian Institute of Geoscientists and a Member of the Australian Institute of Company Directors.



**Mr. Gavin Becker**  
ARSM, BSc (Eng), MBA,  
FAusIMM, CP(Met), GAICD  
**Managing Director, Lepidico**

Gavin is a metallurgist with 40 years industry experience. During that time he has worked in senior operational, R&D, feasibility study and consulting roles on lead/zinc, gold, uranium, copper and nickel/cobalt/scandium mines and/or projects.

He holds a Bachelor of Science (Eng) degree from the University of London and completed his MBA at Bond University. Mr Becker is a Fellow of the Australasian Institute of Mining and Metallurgy and is an Associate of the Royal School of Mines (UK).

# The Transaction

- Acquisition of 100% of Lepidico issued capital by issue of 750,000,000 Platypus shares
- Underwritten 3 for 5 rights issue at 1.0c to raise \$3.5M (GTT Ventures as underwriter)
- General meeting to approve the Acquisition

Description	Amount
Current Platypus Shares on issue	584,350,921
Shares issued to Lepidico shareholders	750,000,000
3:5 rights issue	350,610,553
Pro forma total shares on issue post Transaction and rights issue	1,684,961,474
Pro forma consolidated cash balance	~\$4.5 million
Current Cash (PLP: \$0.8M; LEP: \$0.2M)	\$1.0M

Prospective suite of exploration assets  
Industry-disruptive technology  
Robust balance sheet to fuel exploration and growth



# The Timetable

Date <sup>1</sup>	Event
16 March 2016	Announcement of Term Sheet to acquire Lepidico
<b>General Meeting</b>	
11 April 2016	Dispatch of Notice of Meeting to Shareholders
9 May 2016	Snapshot date for eligibility to vote at Meeting
<b>11 May 2016</b>	<b>Meeting to approve Acquisition</b>
18 May 2016	Settlement of Acquisition; issue of PLP shares to LEP shareholders

Date <sup>1</sup>	Event
<b>Rights Issue</b>	
11 May 2016	Rights Issue announced, 3B, Offer Document, Cleansing Notice
11 May 2016	Securityholders notified
16 May 2016	Ex Date (trading without right to participate)
<b>18 May 2016</b>	<b>Record Date</b>
23 May 2016	Rights Issue Opens; Offer Document dispatched to Shareholders
<b>2 June 2016</b>	<b>Closing Date</b>
3 June 2016	Deferred Settlement
7 June 2016	ASX notified of Shortfall
9 June 2016	Issue Date
13 June 2016	Holding Statements Dispatched
15 June 2016	Issue of Shortfall Shares to Underwriter

<sup>1</sup>Dates are indicative only and may be varied by Platypus as matters progress



# Investment Highlights

## Global Exploration Portfolio

- Portfolio of quality lithium assets on three continents; additional opportunities under review
- Lithium mineralisation established – “drill-ready” target at Lemare
- Favourable mining jurisdictions in Canada, Australia and Brazil

## Industry Disruptive Technology

- L-Max® provides access to new sources of lithium from unconventional ore types, lithium mica minerals such as lepidolite and zinnwaldite; lithium carbonate produced from lithium-bearing micas during mini-plant run
- Complementary process developed targeting lithium extraction from lithium-phosphate minerals (up to 10% Li<sub>2</sub>O)

## Positioned for Growth

- Rights issue will provide a robust balance sheet to fuel growth initiatives
- L-Max® opens doors to additional acquisitions and “Crusader” style joint ventures
- Lepidico is in active discussions with a number of groups regarding opportunities in the lithium sector

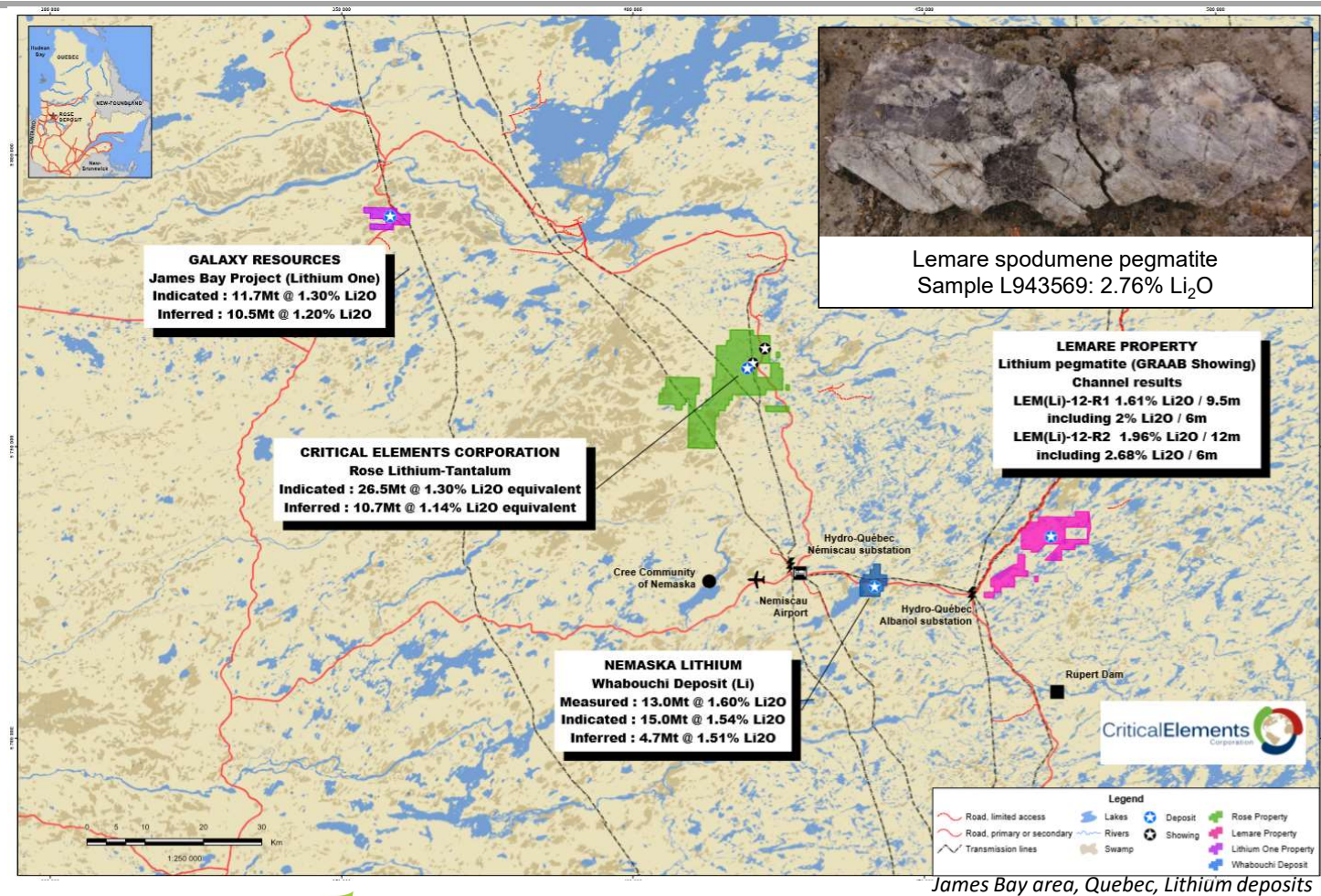
## Highly Experienced Team

- Combined executive team with extensive listed-company experience in geology & exploration, metallurgy, project development and operation, technology development and corporate management

## Strong Lithium Fundamentals

- Forecast growth in battery manufacturing and consumption is fuelling current and future lithium demand
- Spot price of lithium carbonate and lithium hydroxide at all time highs (~US\$20,000/t)
- Long term contract prices on the increase (US\$7,500/t, US\$9,000/t and rising)

# Lemare Overview

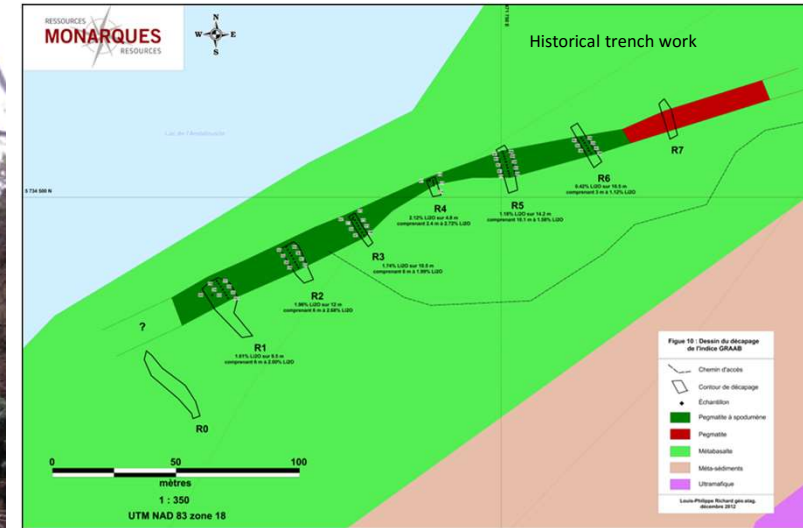


- Entered into option agreement with TSX-listed Critical Elements Corporation (TSX:CRE) to acquire the Lemare project
  - CRE is focussed on the development of its nearby Rose Li-Ta project, hence the deal is positive for both companies
- Significant landholding in a proven lithium district
  - Neighbouring projects include Whabouchi, Rose and James Bay
- Option to acquire Lemare for \$70k cash, \$500k in scrip and future milestone payments



# Lemare - Previous Work

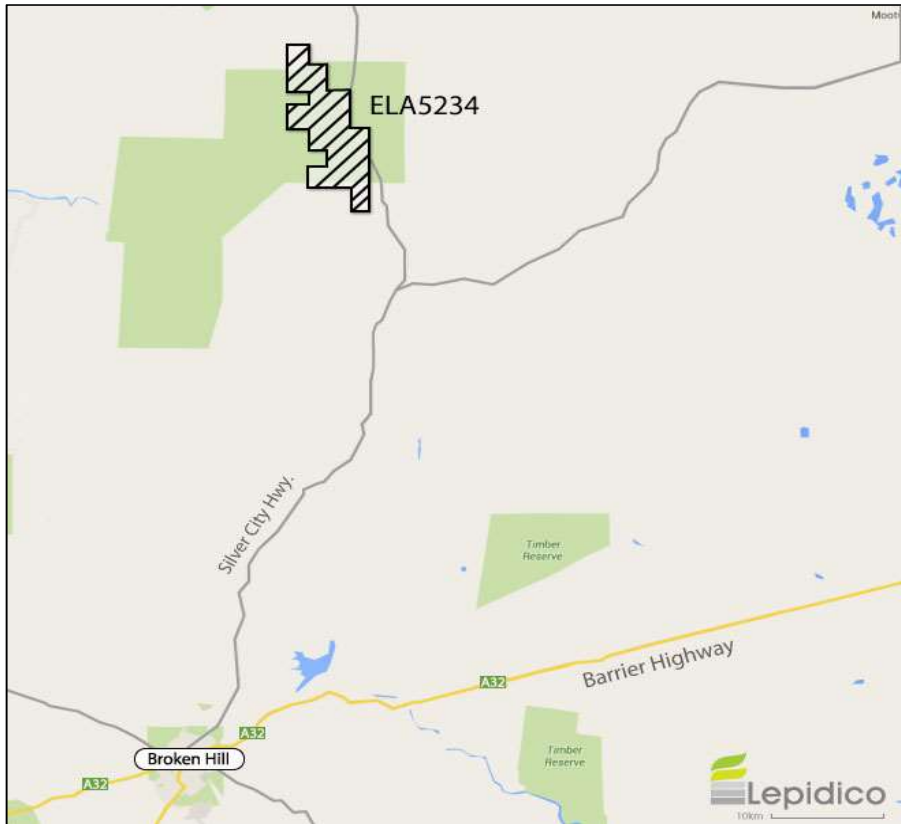
- In 2012 Monarques Resources defined a 200 m long pegmatite (open in both directions) containing spodumene
- Identified in 6 transverse channels; average: 10 m @ 1.44% Li<sub>2</sub>O
- Expectation of other pegmatites on the property (typical occurrence in 'swarms')
- Despite weather, ground is accessible all year round
- Platypus and Lepidico expect to undertake a site visit in April 2016



Channel	Grade Li <sub>2</sub> O %	Length (metres)
LEM(Li)-12-R1	1.61%	9.5 m
including	2.00%	6.0 m
LEM(Li)-12-R2	1.96%	12.0 m
including	2.68%	6.0 m
LEM(Li)-12-R3	1.74%	10.5 m
LEM(Li)-12-R4	2.12%	4.8 m
LEM(Li)-12-R5	1.18%	14.2 m
including	1.58%	10.1 m
LEM(Li)-12-R6	0.42%	10.5 m
including	1.12%	3.0 m
AVERAGE	1.44%	10.25 m

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# Euriowie Overview



*Euriowie, Broken Hill*

- Historical exploration focus has been for tin
- Known lithium mineralisation (amblygonite) on site
- Platypus site visit confirms amblygonite pegmatites grading up to 4.45%  $\text{Li}_2\text{O}$
- Lepidico applied for exploration licence covering historical workings, expected to be granted April 2016
- Lepidico has submitted an application for a provisional patent for an extraction process for amblygonite
- Amblygonite is a Li-rich phosphate mineral that can contain up to 10%  $\text{Li}_2\text{O}$

# Euriowie - Exploration by Platypus

- As part of its due diligence on Lepidico, Platypus conducted a site visit to Euriowie
- Samples taken from three identified amblygonite pegmatites; up to 4.45% Li<sub>2</sub>O
- All three returned positive results, warranting work immediately upon grant

Prospect	Sample No	Li (%)	Li <sub>2</sub> O (%)	Sample Type
Trident	PLPEUR001	1.419	<b>3.05</b>	Amblygonite-rich rock from trench
Trident	PLPEUR002	0.997	<b>2.15</b>	Amblygonite-rich mullock
Trident	PLPEUR004	1.804	<b>3.88</b>	Amblygonite-rich mullock
Sceptre	PLPEUR005	0.723	<b>1.56</b>	Amblygonite-rich mullock
Lady Don	PLPEUR006	2.069	<b>4.45</b>	Amblygonite-rich mullock



*Lady Don historical amblygonite workings*



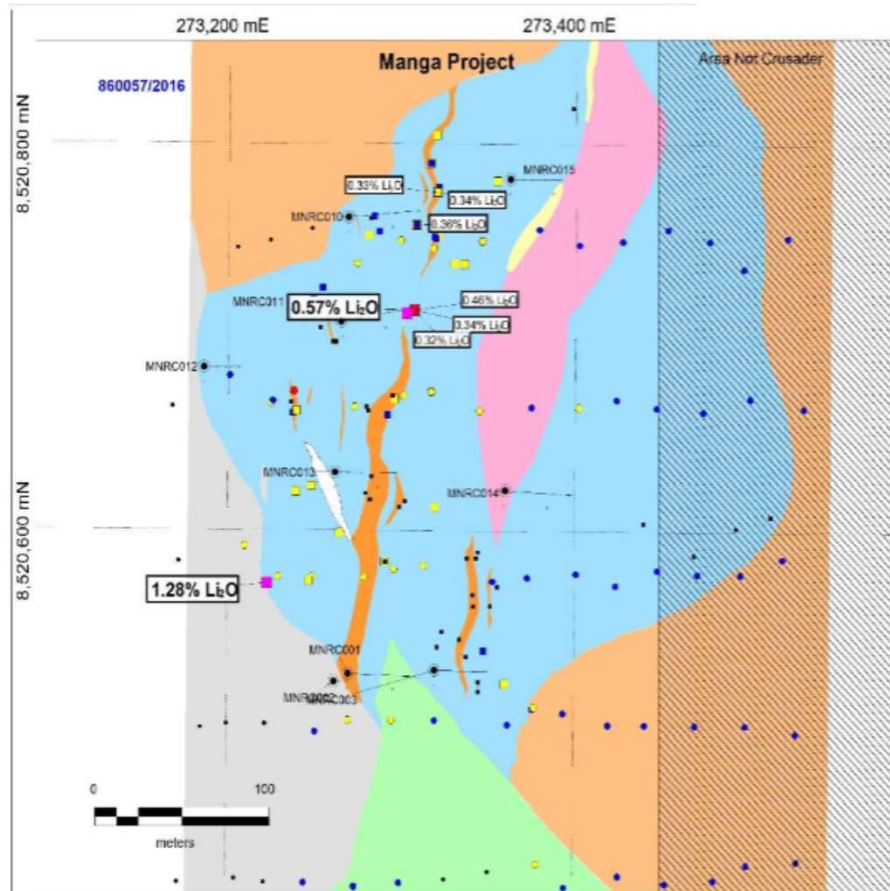
# Brazil Strategy - Manga



RC Drilling at Manga

- 50/50 JV with Crusader Resources in Brazil
  - Crusader contributes Manga project
  - Lepidico grants license to L-Max® technology
- Crusader and Lepidico will jointly explore Manga and other opportunities in Brazil
- Lepidico will leverage off Crusader's strong and established presence in Brazil
- Ideal model of how L-Max® can “open doors” and potentially unlock value in projects where lithium bearing micas have historically been ***overlooked as a primary source of lithium***

# Manga Overview



Manga project, historical sampling targeted tin



Historically explored for tin and indium

Crusader identified strong potential for lithium mineralisation in the form of ***zinnwaldite*** (Li-rich mica amenable to L-Max®)

Rock chip samples which targeted tin and indium returned lithium assays of up to 1.8% Li<sub>2</sub>O

Academic papers of zinnwaldite at Manga returned assays of up to 3.6% Li<sub>2</sub>O



# L-Max<sup>®</sup> – a valuable exploration key

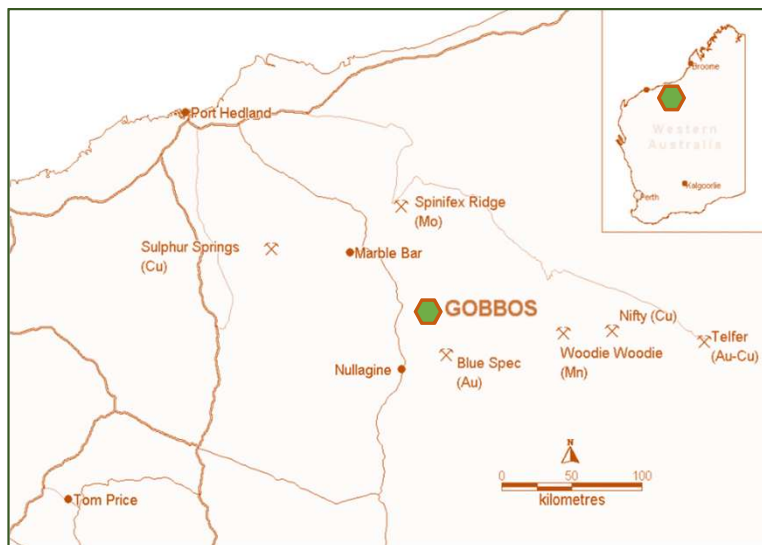


L-Max<sup>®</sup> mini plant run

- 100% owned proprietary process (patent applied for) to extract lithium from lithium bearing micas (lepidolite, zinnwaldite)
- 3 licences already sold to Lithium Australia (ASX:LIT) and in ongoing discussions for additional licence sales
- Completed mini plant run to successfully produce lithium carbonate using ore provided by Lithium Australia
- Battery grade lithium carbonate produced in batch-tests (purity >99.5%  $\text{Li}_2\text{CO}_3$ )
- Extraction of lithium from micas has potential cost advantages against traditional spodumene processing
  - No roasting of ores required (high cost exercise)
  - Value added from by-products derived from feedstock (Potash, Sodium Silicate and Aluminium Fluoride)

*Technology opens up new exploration opportunities*

# Gobbos Copper Project, WA



- Outstanding opportunity
- Undrilled copper targets
- Fieldwork and heritage survey in April
- Drilling at Bridget and Pearl Bar in May

## Gobbos (Cu-Mo-W):

Archaean Cu-porphyry target

*Platypus discovery Dec 2014:*  
**29 m @ 0.22% Cu, 0.03% W**

## Cyclops (Ni-Cu):

Four airborne EM anomalies within  
ultramafic rocks

→ massive Ni-sulphide targets

**Undrilled**

## Bridget (Cu-Au-Ag):

200 m long gossan, up to 19.25% Cu  
400m x 200m geochemical footprint

**Undrilled...Priority target**

## Pearl Bar (Cu-Ag):

outcropping Cu-bearing granite:  
**42 m @ 2.44% Cu and 91 g/t Ag**  
(continuous rock chip samples);  
>150 m strike

**Undrilled**

# Growth Strategy

## Organic Growth

- Fundraising used to fund exploration programs at Lemare (if acquired), Euriowie and Manga
- Fast-track to delineating maiden JORC resource

## Brownfields Targets

- Target joint ventures / licence sales at existing mining projects that have lithium-bearing ores sitting in waste dumps
- Lithium bearing micas can be effectively separated from waste dumps and concentrated by floatation, and then subsequently treated by L-Max®
- L-Max® - creating value out of “waste”

## Greenfields Targets

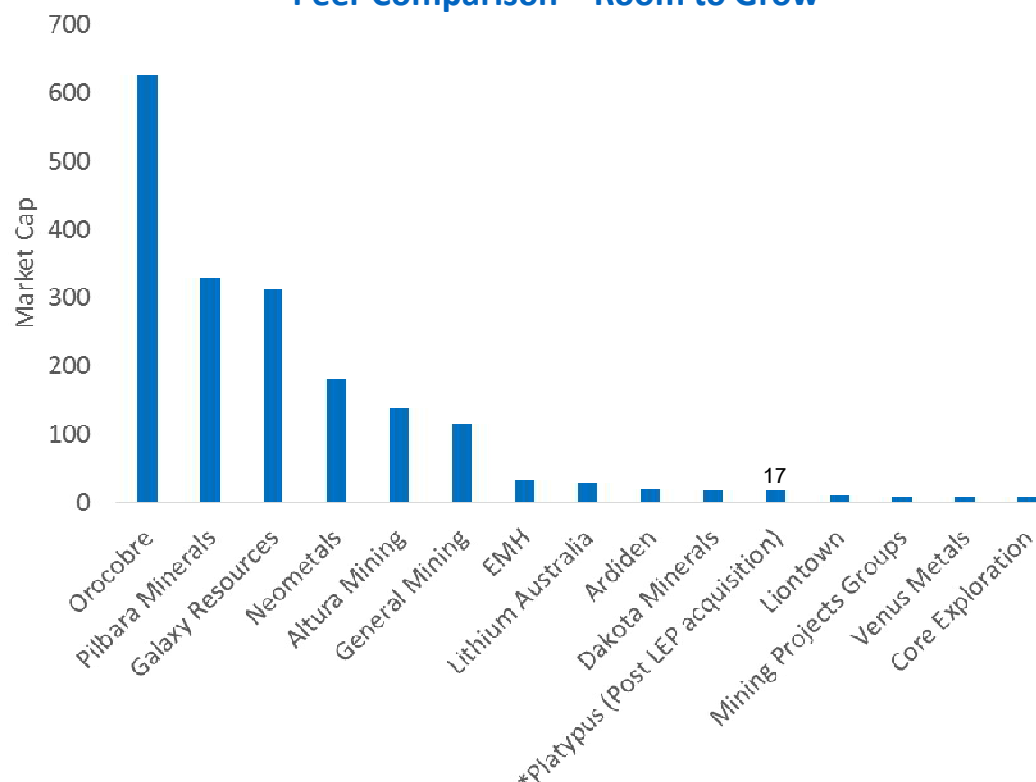
- Historical lithium exploration has been focussed on spodumene and brine targets
- Lithium bearing micas and lithium-phosphate minerals have typically been ignored and considered untreatable in a commercial manner
- L-Max® can unlock value and unearth new lithium deposits consisting of unconventional ore types

## Joint Venture Deals

- Targeting “Crusader-style” transactions where Lepidico contributes technology and acquires a share of land-holding
- Allows Lepidico to capitalise on in-country experience, relationships and networks of its partners
- Lepidico is targeting a portfolio of joint ventures – risk diversification and greater chance of moving towards production

# Growth Potential – Newsflow

Peer Comparison – Room to Grow



Activities and Newsflow

Activities and Newsflow		
April	Gobbos	Bridget fieldwork; Heritage survey
April	Lemare	Due Diligence site visit
May	GM	Shareholders to approve Acquisition
May	Gobbos	RC Drilling at Bridget and Pearl Bar
June	Rights Issue	3:5; 1.0c; Underwritten; \$3.5M
June	Euriowie	Mapping, Geochem, Geophysics
July	Brazil	Li-specific exploration at Manga
July-Aug	Lemare	Initial drilling of spodumene pegmatite
August	Euriowie	Initial drilling of amblygonite pegmatites
October	Lemare	Follow up/extension drilling
Ongoing	Project Eval'n	Review of new acquisitions, JVs

# Lithium

## What is lithium?

- Lithium is used in the manufacture of computers, communication devices and consumer electronics. Its other uses include medical applications, ceramics, glass, lubricants, fuel cells, and nuclear technology.
- Most importantly, it is the key component of long life lithium-ion batteries.
- Lithium-ion batteries are lighter and can store three times more energy than nickel-hydride and lead-acid batteries.
- The growing application for lithium batteries is as the long life power source for electric vehicles, and rechargeable household storage batteries to better utilise solar power.



# Lithium Market

## Supply:

- Global lithium carbonate production in 2014 was 180,000 tpa (only 30% at battery grade).
- Only a small number of suppliers.
- Very few “pure” lithium plays.
- **Brines** restricted by **high capital costs**, long lead time and government imposed production sanctions.
- **Spodumene** deposits restricted by resource scarcity and **high operating cost**.

## Demand:

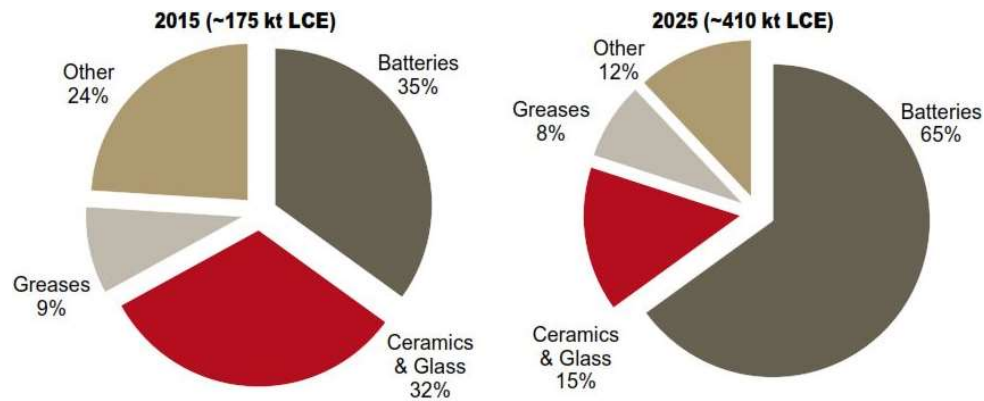
- Roskill and Signumbox both predict demand to grow by 11% pa between 2011 and 2017, largely due to global growth in electric vehicles.
- This is expected to create a **demand surplus from 2016 onwards** that will need to be filled

Brines	Hard Rock
50% of current supply.	50% of current supply.
Producers include FMC, SQM Group, Albemarle and Orocobre.	Producers include Talison, Quebec Li (not producing) and Galaxy Ltd (not producing).
High capital costs, lower operating costs.	High grade - low tonnage deposits.
Production thresholds on key resources.	Lower capital - high operating costs.
Long lead time for production.	Limited number of deposits worldwide.

L-Max<sup>®</sup> has the potential to be disruptive to the lithium industry by introducing a third major supply source of lithium to the market

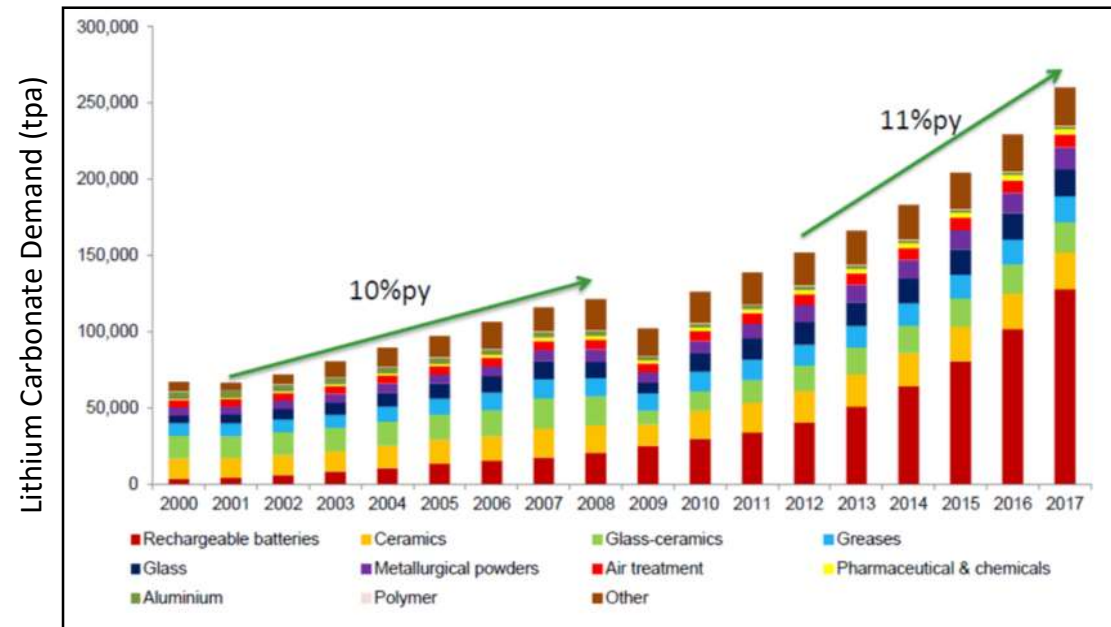


# Lithium Market – Supply/Demand



Growing battery demand for electric vehicles and household storage will dominate lithium use.

Source : USGS,, signumBox, Cormark Securities



Source : Orocobre Presentation 2014, Roskill



# Contact

For more information, please feel free to contact:

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