



*Sourcing the  
raw materials  
of the future*

May 2017  
ASX: SYA

# Investor Presentation

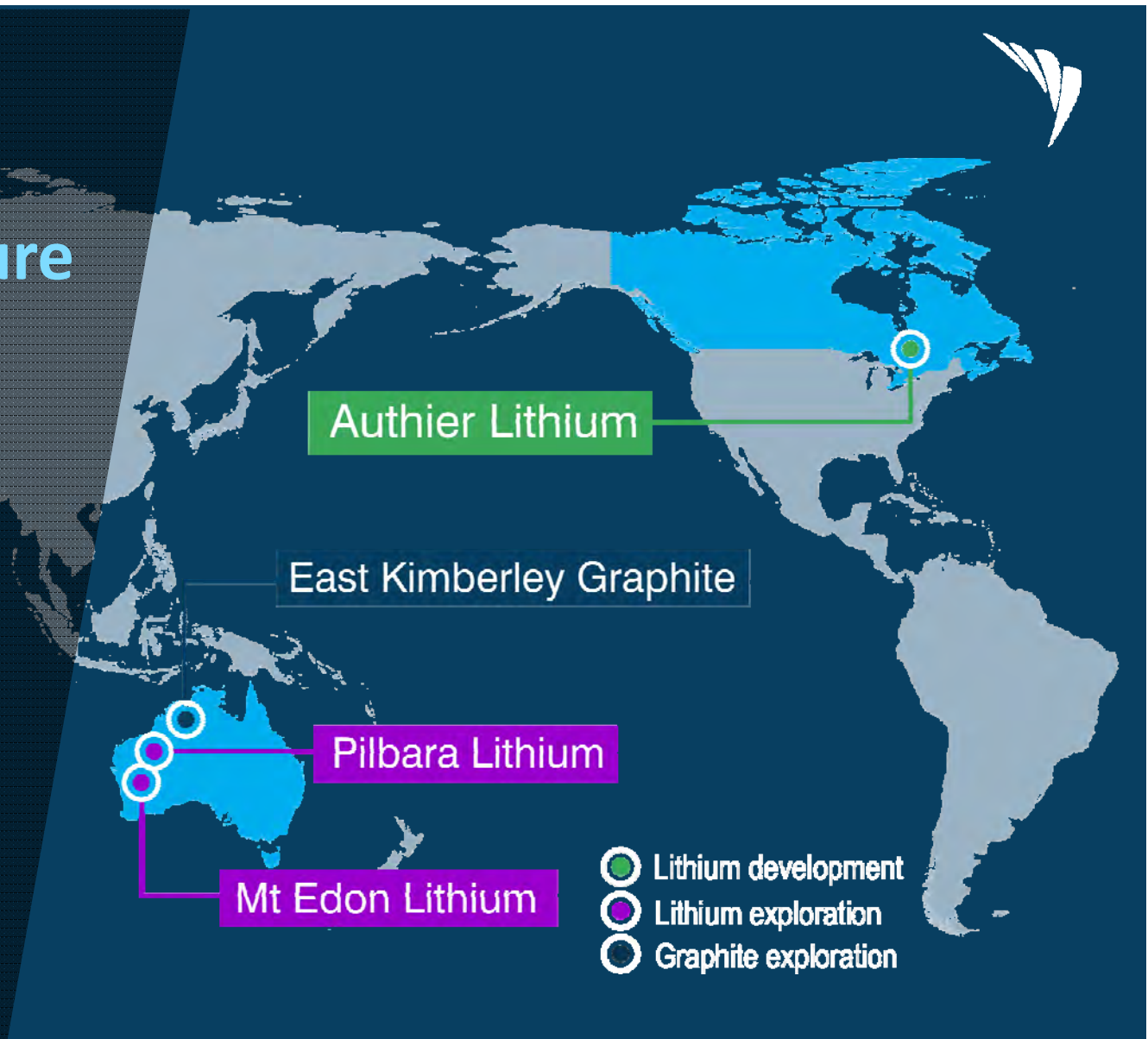
Developing an advanced lithium project  
with JORC Ore Reserves and a completed  
Pre-Feasibility Study

Sayona Mining's  
strategy is to

**power the future**

by sourcing and  
developing the  
raw materials  
essential for

**lithium-ion  
battery  
production**





# Sayona Value Proposition



**Authier is an advanced, de-risked project.** Pre-Feasibility Study and Ore Reserve completed



Executing a plan to get into **production and generate cash flow** – low capital hurdle & competitive operating costs



Located in a **first world country** with **access to world-class, low-cost infrastructure**



**Base case pre-tax NPV of A\$140 million** and **low enterprise value** compared to industry peers



Board and management team have **track record of delivering projects**

# Corporate Summary



## TRADING EXCHANGE

ASX: **SYA**

## SHARES

**963** million shares

## SHAREHOLDERS

**30%** Directors

**62%** Top 20

## CAPITALISATION

Price

As at 25 MAY 2017

**1.7¢**

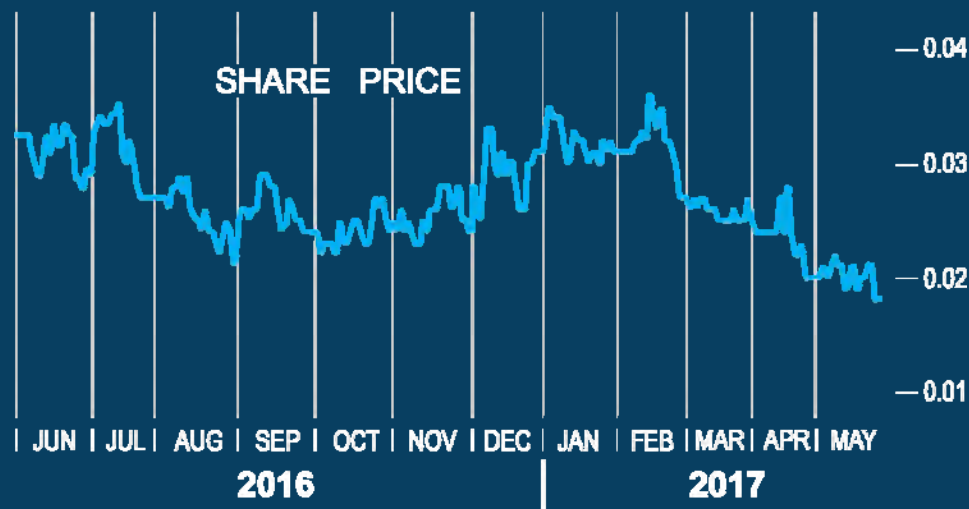
Market cap

**\$16M**

Cash

As at 25 MAY 2017

**\$1.5M**





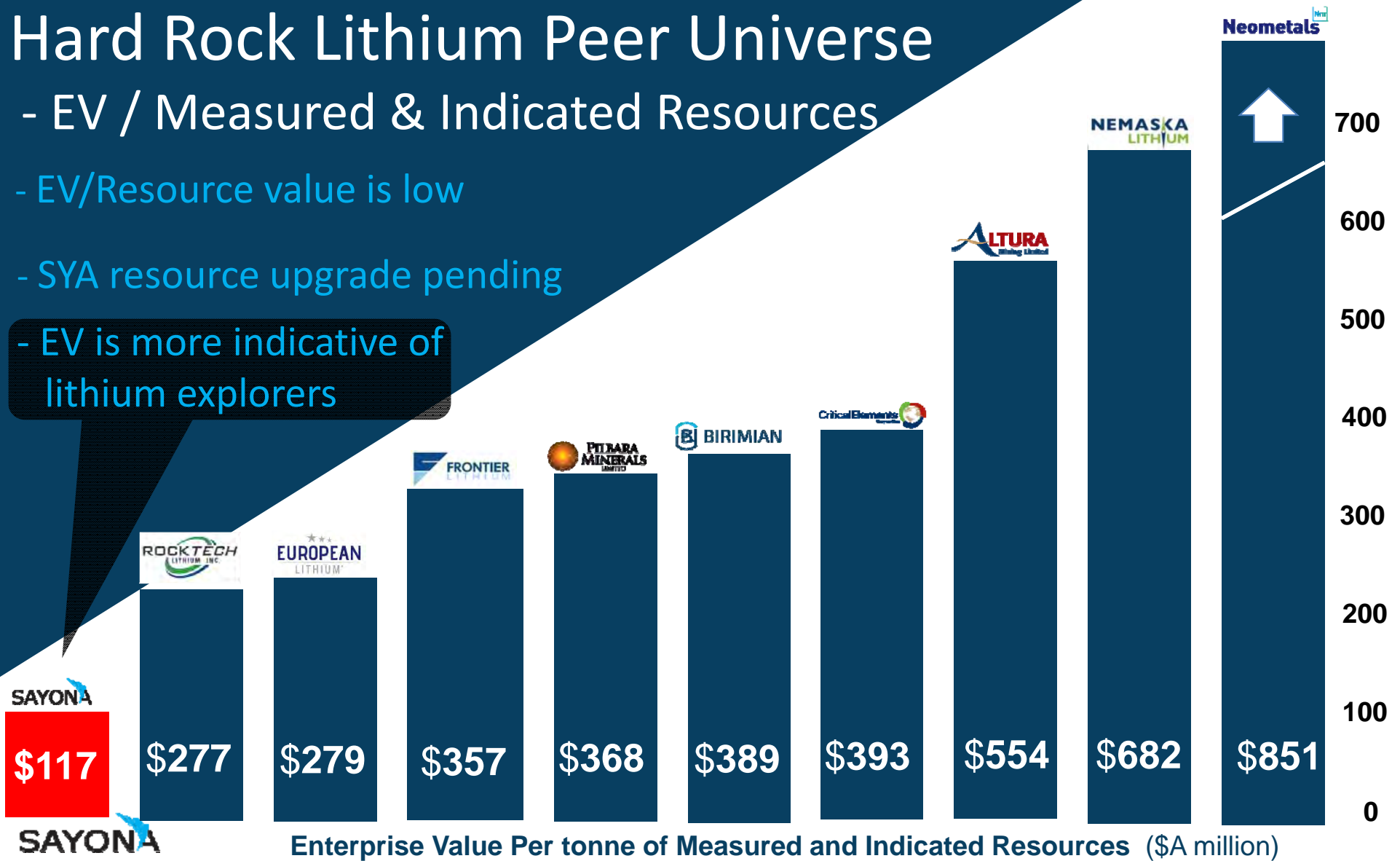
# Hard Rock Lithium Peer Universe

- EV / Measured & Indicated Resources

- EV/Resource value is low

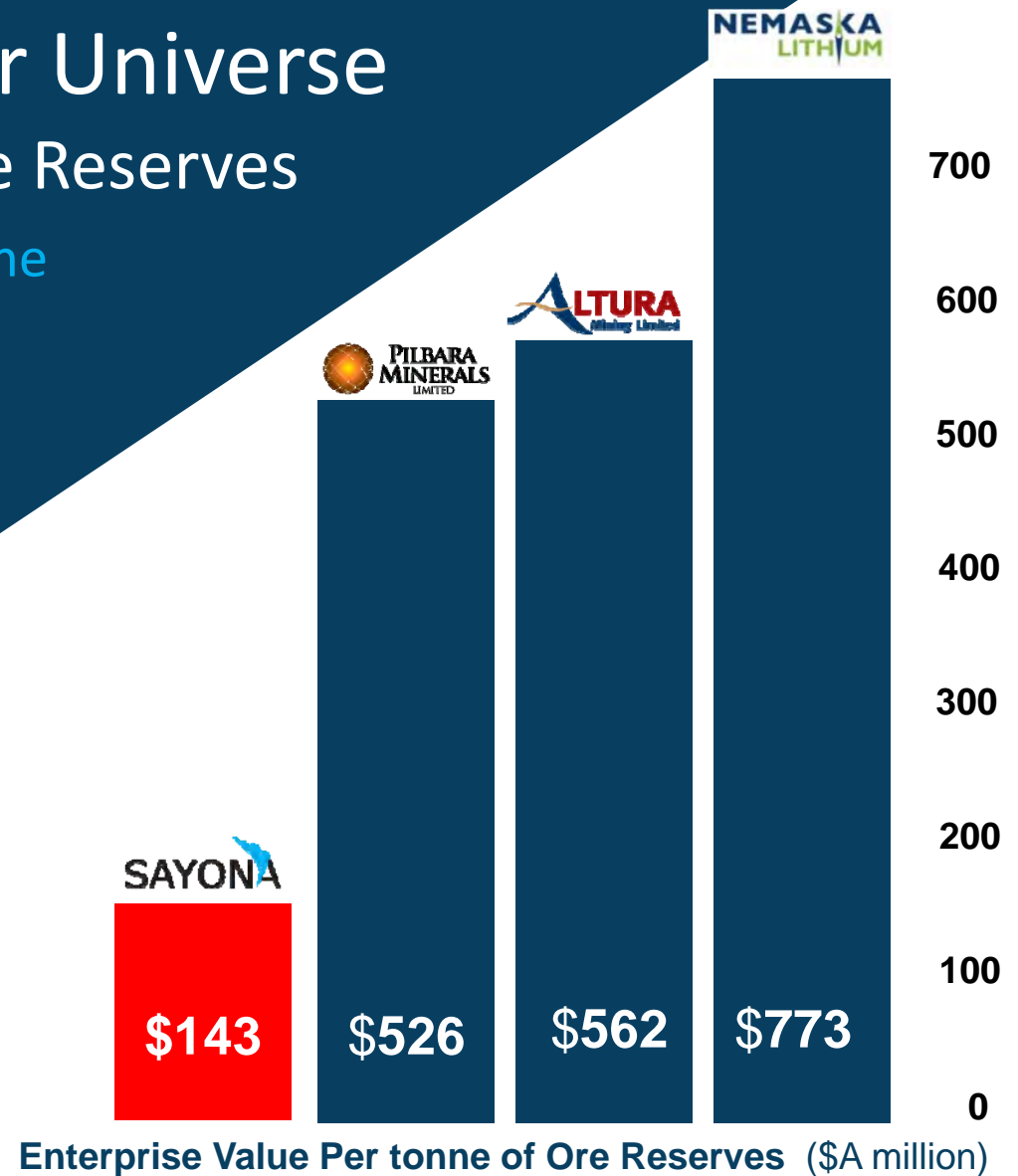
- SYA resource upgrade pending

- EV is more indicative of lithium explorers

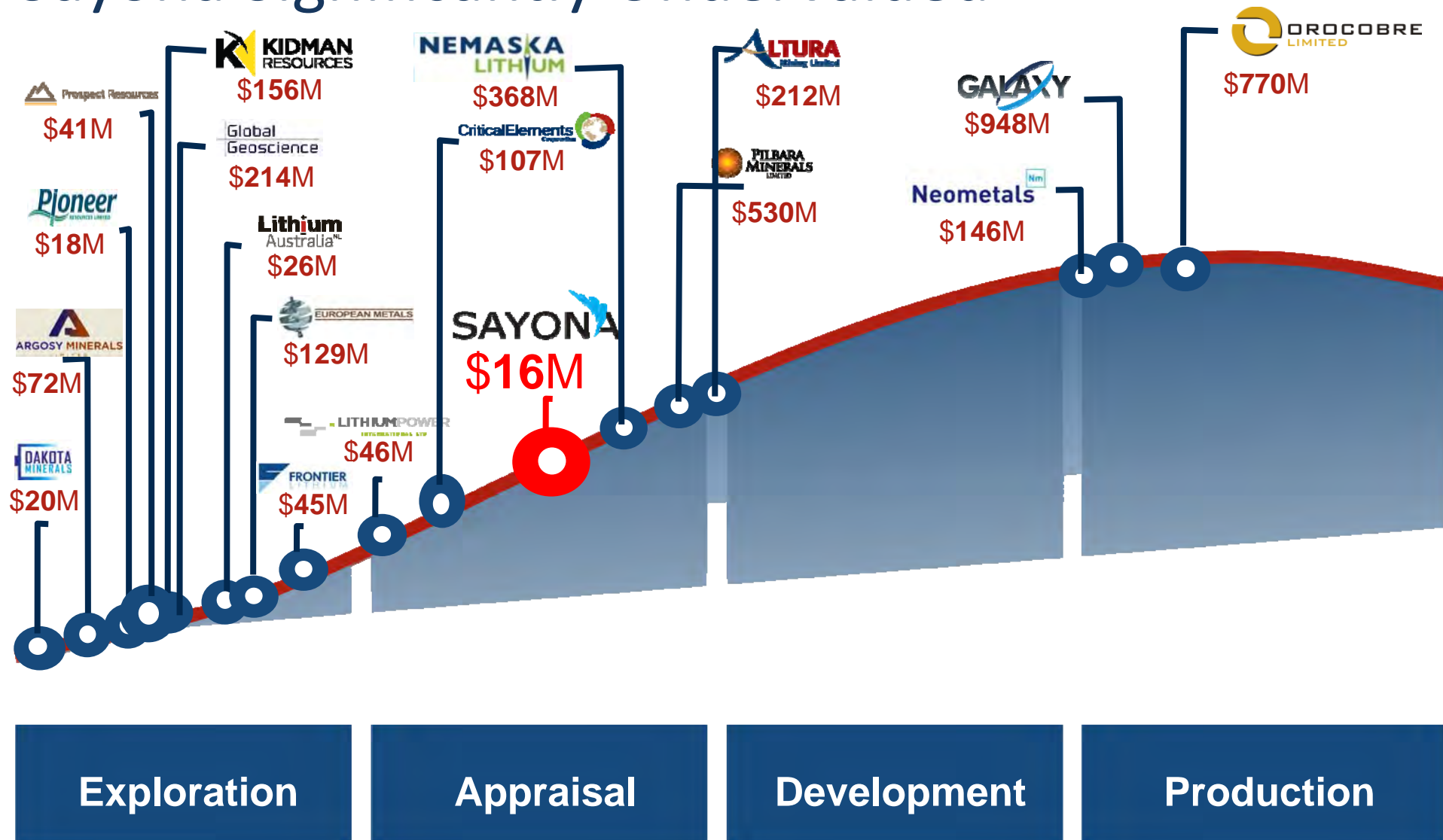


# Hard Rock Lithium Peer Universe

- EV / Proven & Probable Ore Reserves
- Few hard-rock lithium projects in the world have defined Ore Reserves
- Targeting **increasing Ore Reserves** as part of an Updated Pre-Feasibility Study



# Sayona Significantly Undervalued





# Directors with Strong Track Record of Success



## Dan O'Neill

- Geologist with 35 years experience in technical and corporate roles
- Founding director of Orocobre Ltd. Director of Altura Mining

## Allan Buckler

- 40 years experience building mining operations in Australia and Indonesia. Former Director and Chief Operations Officer for New Hope Corporation
- Director of Altura Mining

## Paul Crawford

- CPA with 35 years public company experience
- Previously Company Secretary of companies including, Orocobre Ltd (founding director), Elementos and ActivEx

## James Brown

- 35 years experience including, 22 years with New Hope Corporation. Extensive mine development & operational experience
- Managing Director of Altura Mining - \$220m market cap.

# Experienced Executive Team



**Corey Nolan**

Chief Executive Officer

- 23 years experience in exploration, development, operations and corporate finance
- Started and managed a number of resource companies with projects in a range of commodities and countries



**Jonathan Gagne**

Canadian Country Manager

- Mining Engineer with MBA and more than 10 years experience in operations and mine planning
- Joined from Glencore Zinc's open-cut mine planning division



**Simon Atwell**

WA Exploration Manager

- Geologist with 29 years mineral exploration experience
- Director of Australian Tantalum, which owned the Pilgangoora leases and was subsequently acquired by Altura Mining





# Authier Lithium Project



# Authier Project Highlights



**Simple geology, extensively drilled** - 22,000 metres



**Low-cost, truck and shovel** mining operation



**Proven process** for recovery of **spodumene** into a saleable concentrate – **no technology risk**



**World-class development infrastructure**



**High valuation** based on a **lithium price - US\$515/t** - **well below** current traded market price for concentrates



**Low capital** hurdle and **competitive operating costs**

# JORC Mineral Resource

	Tonnes (Mt)	Grades (Li <sub>2</sub> O)	Contained (Li <sub>2</sub> O)
	4.72	1.03%	48,519
	7.13	1.10%	78,280
	1.90	1.05%	19,901
TOTAL	13.74	1.07%	146,700

The resource has been estimated and reported in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012) at a 0.5% Li<sub>2</sub>O cut-off grade.







# Pre-Feasibility Study Outcomes\*

## Financial Outcomes

Pre-tax NPV	C\$140m
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Pre-tax IRR	39%
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Capital Pay-back	2.2 years
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Ave Annual EBITDA	C\$31m
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\*Subsequent to the completion of the PFS, SYA drilled an additional 4,000 metres and commenced a number of optimisation programs aimed at enhancing the project value

## Key Assumptions

Start-up Capex	C\$66m
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Life-of-mine Capex	C\$113m
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Concentrate Price	US\$515/t
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Operating Costs	US\$280/t
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Ore Throughput	700,000 tpa
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Concentrate Production	98,000 tpa
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US\$/C\$ Exchange Rate	0.76
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Life-of-mine Strip Ratio	6:1
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# Maiden JORC Ore Reserve

	Tonnes (Mt)	Grades (Li <sub>2</sub> O)	Contained (Li <sub>2</sub> O)
	4.9	0.97%	47,821
	5.3	1.06%	55,904
TOTAL	10.2	1.02%	102,725

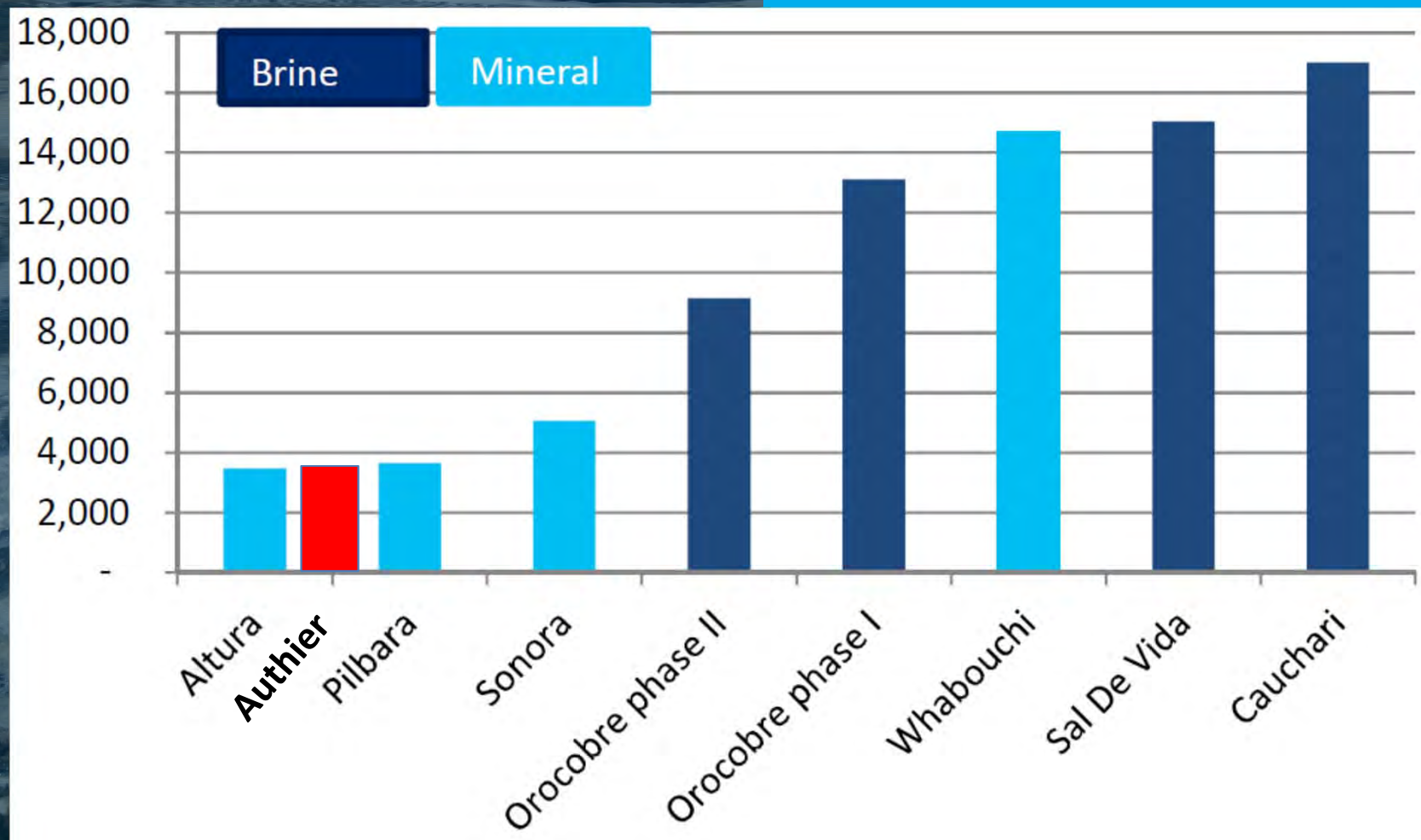
The Ore Reserve has been estimated and reported in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). 0.45% Li<sub>2</sub>O cut-off grade.

PROVEN

PROBABLE



# Capital Intensity of New Projects\*



\*Source: Citibank.





# Beyond the PFS – Enhancing the Value

## Work Program

## Objective

**Phase 2 drilling**

Resource and Ore Reserve expansion

**Geotechnical Study**

Steeper pit walls – lower waste movement

**Dilution Study**

Increase the Ore Reserve grade

**Metallurgical Testing**

Improving recoveries and costs

**Hydrometallurgical Testing**

Potential to produce high-value Li<sub>2</sub>O products

**Off-take Agreements**

Underwrite the project development capital



# Simple, Open-Cut Mining Operation



Simple Mining Method –  
**Truck and shovel** operation

Competitive Mining Costs -  
**\$2.90/tonne** average LOM

Low Capex –  
Mining Fleet **Leased**

Very conservative geotechnical  
assumptions –  
**45°** pit slope on the hanging wall

Life-of-Mine –  
**13** years

Large, thick tabular body –  
LOM waste to ore ratio **6:1**



# Conventional Process Flow-Sheet



Conventional process  
flow-sheet – crush, grind  
and flotation

Ave Cash Operating Costs –  
\$20 / tonne life-of-mine

80% recovery to a  
5.75% Li<sub>2</sub>O concentrate

700,000 tpa processing capacity  
to produce

98 Kt/yr Li<sub>2</sub>O concentrate

**Dry Tailings** simplifies approvals and  
lowers capital costs







# Targeting Further PFS Cost Reductions

- Authier operating costs – US\$4,450/t LCE\*
- Optimisation program underway to improve costs
- Targeting improvements, including:

- **HIGHER** concentrate grades
- **HIGHER** ore reserve grades
- **HIGHER** processing recoveries
- **LOWER** processing costs
- **LOWER** stripping ratio

## New Project Cost Curve



Source: Citibank. \*Assumes US\$2500/t for conversion of concentrate to LCE

# World-class Infrastructure



5km

Low cost **hydro power**  
and **gas**

5km

Sealed **road access**

20km

**Rail** access to export port

Experienced **local mining**  
**workforce**

**Major new hub of lithium**  
**carbonate production**

Electricity **5¢ kWh**

Gas < **\$3 /GJ**



# PFS Pricing Conservative – US\$515/t conc.



## DEMAND



## SUPPLY



**Renewable**  
grid storage **>30%**  
**CAGR**

**Transportation** **20-30%**  
electric and **CAGR**  
hybrid vehicles

Consumer **8-10%**  
**electronics** **CAGR**

- **Slow ramp-up** of new hard-rock projects
- **Funding constraints – capex typically higher than market cap** for most new entrants
- **Environmental & permitting constraints**
- **New technology** – typically longer-lead times and higher capex than scoping/PFS studies forecast. High-risk, difficult to fund

Lithium Pricing  
has Remained  
Robust Reflecting  
Positive Outlook –  
**current pricing**  
**between US\$750-**  
**US\$905/t in 2017**  
**and US\$880/t for**  
**2018**



# Assessing Value Adding Opportunities



## Lower-value Concentrates



Sell **lower-value concentrates** to battery converters in Canada or China

Concentrate sell at **>US\$750/t**

## Benefits from value-adding concentrates

Reduces transport costs

Hydroxide key feed-stock to new revolution lithium-ion batteries

Low processing technology risk

Significant price premium paid for value-added products

## Value-Added Lithium



Sell **value-added lithium** products to battery manufacturers across the world

**Lithium hydroxide sells for >US\$20,000/t**

## Quebec location advantages

Leverages low-cost energy

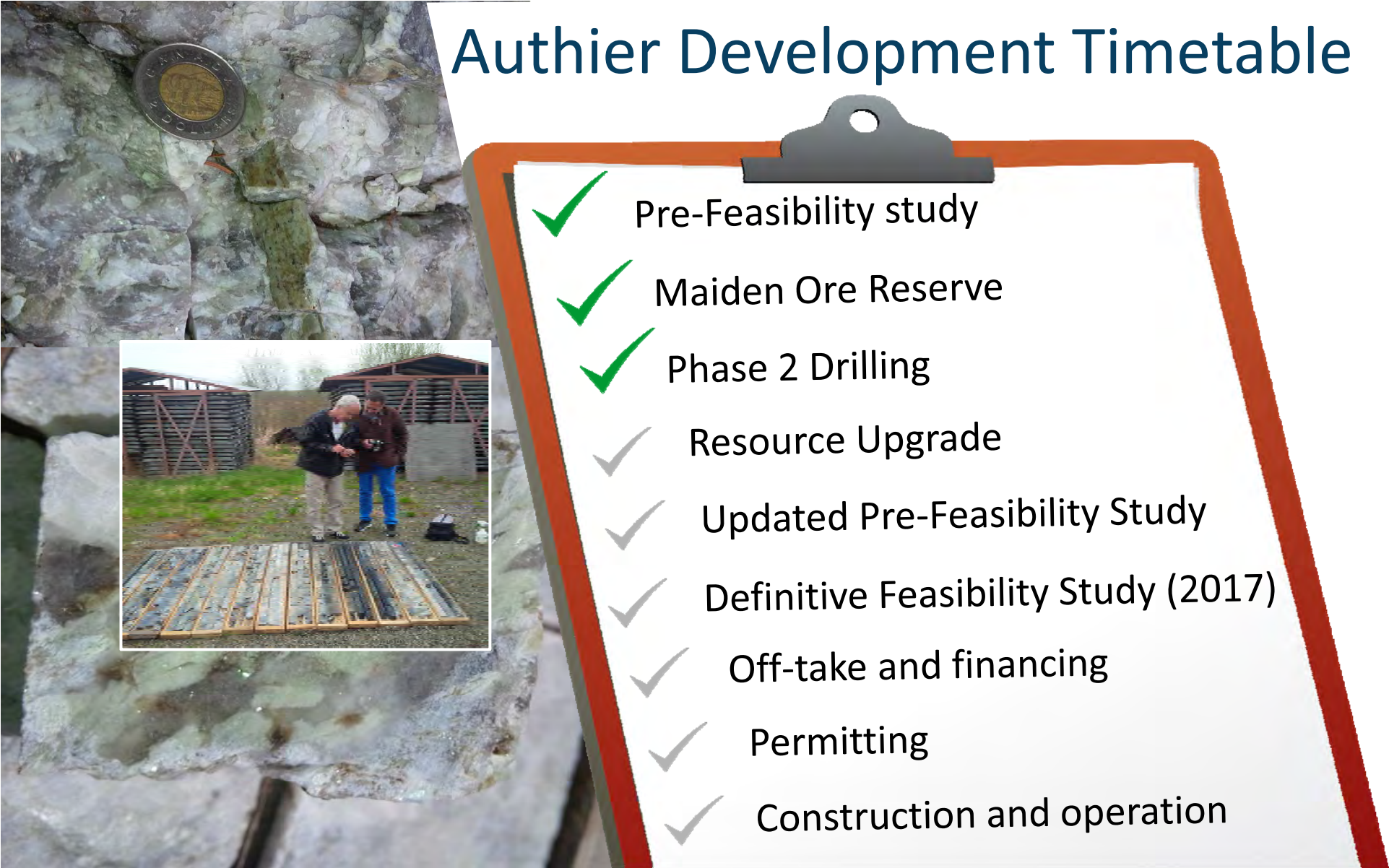
Skilled low-cost, workforce

Close to the US battery markets

Favourable taxation regime

Acid for processing readily available

# Authier Development Timetable

- 
- ✓ Pre-Feasibility study
  - ✓ Maiden Ore Reserve
  - ✓ Phase 2 Drilling
  - ✓ Resource Upgrade
  - ✓ Updated Pre-Feasibility Study
  - ✓ Definitive Feasibility Study (2017)
  - ✓ Off-take and financing
  - ✓ Permitting
  - ✓ Construction and operation



A man, Simon Attwell, is standing in a dry, open landscape under a clear blue sky. He is wearing a light-colored long-sleeved shirt, dark trousers, and a wide-brimmed hat. He has a green bag slung over his shoulder and is holding a small object in his right hand. The background shows rolling hills with sparse vegetation and a few birds in the sky.

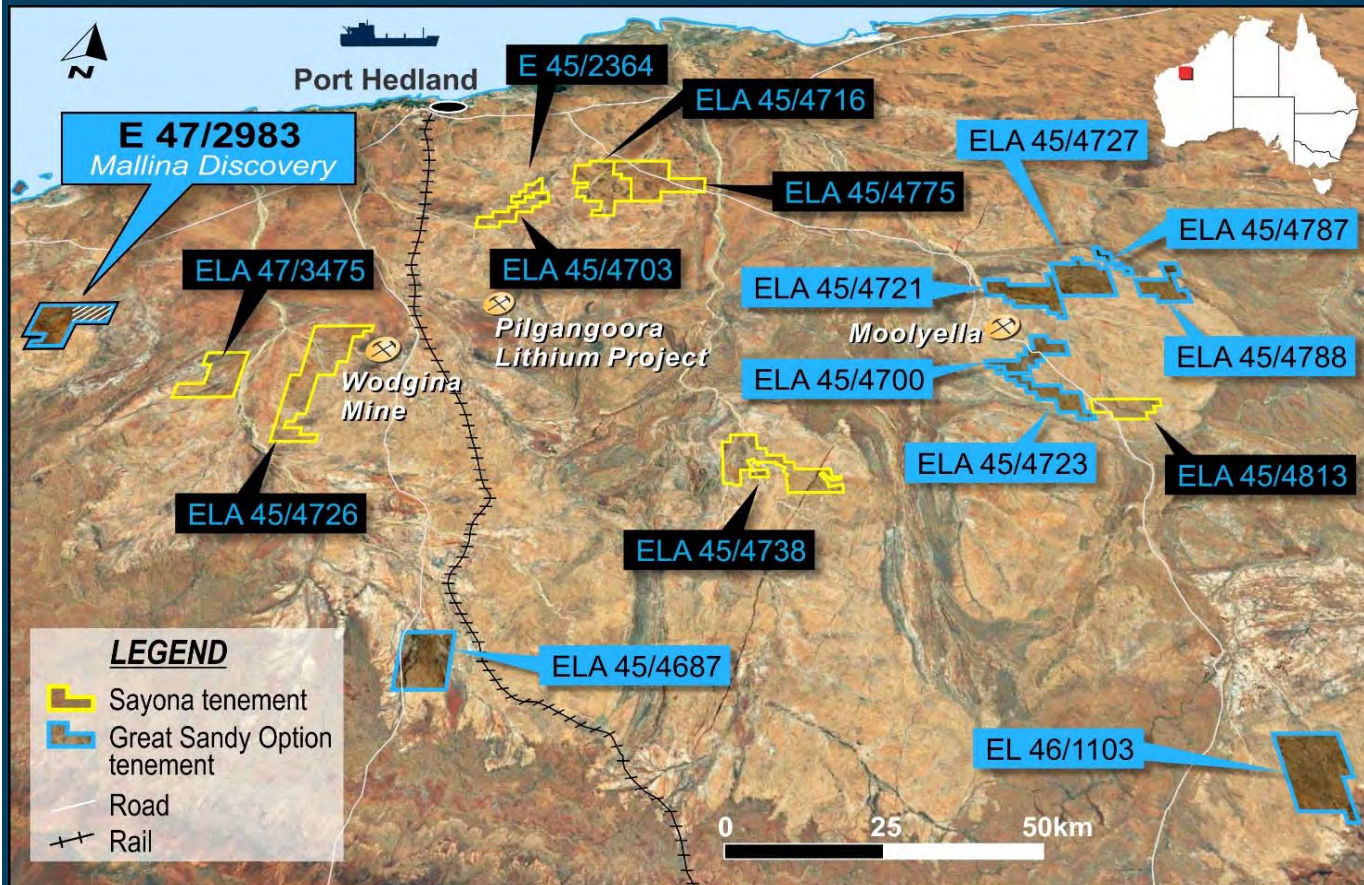
Simon Attwell – Exploration Manager with 29-years experience including exploring for lithium and tantalum in Pilgangoora district of Western Australia

**Western Australian Lithium Portfolio**



# Western Australia Lithium Portfolio

A globally significant region for production of Lithium



Low-cost entry with

**1,997** km<sup>2</sup>

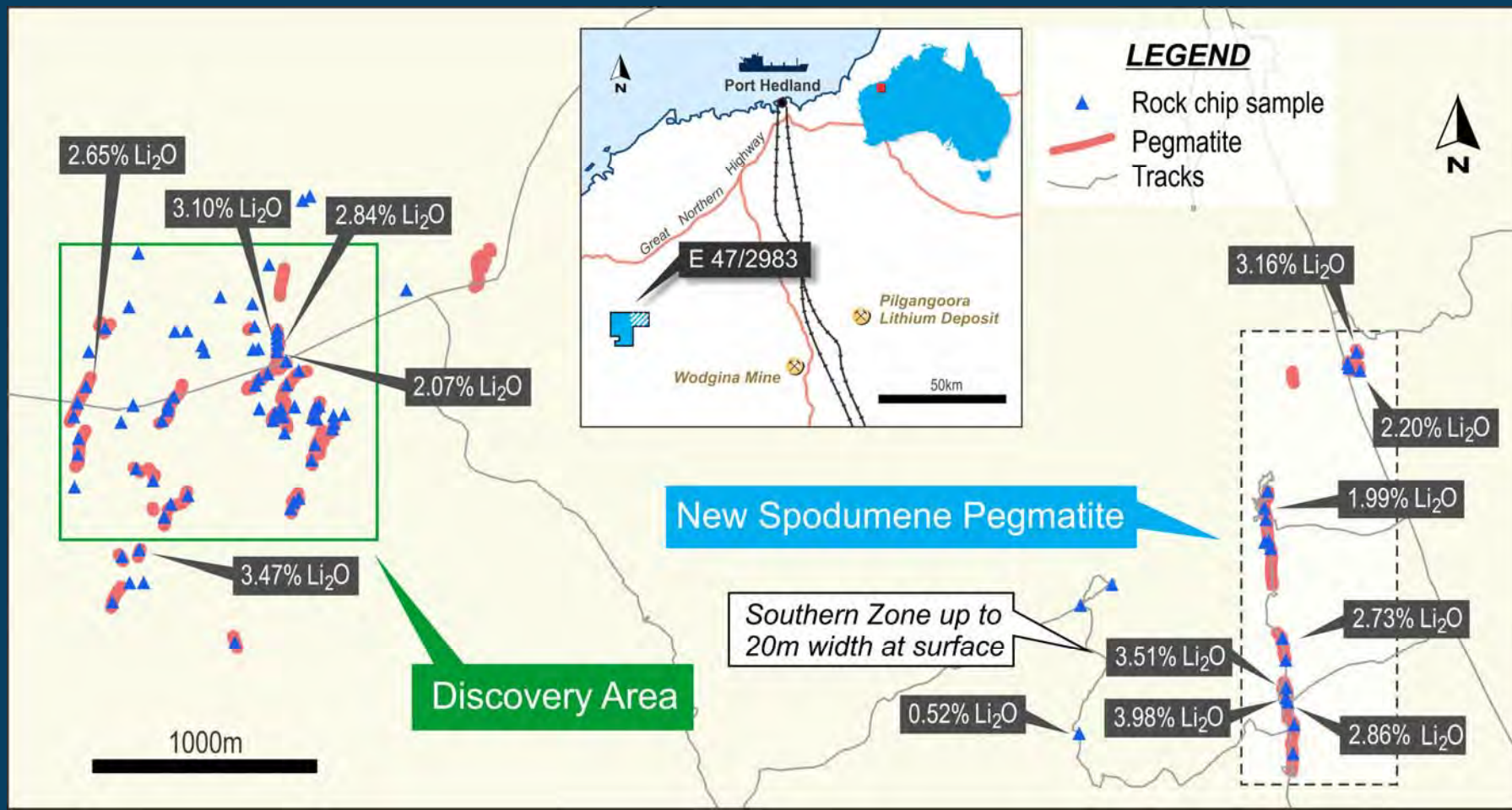
tenement holding,  
including granted  
tenure

**Western  
Australia**

a dominant global  
producer of Lithium  
from  
high-grade, hard-rock  
**PEGMATITES**

# Mallina Project Demonstrating Potential

## Work programs aimed at defining drill targets





# Disclaimer



## **FORWARD LOOKING STATEMENTS**

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## **Reference to Previous ASX Releases**

This presentation refers to the following previous ASX releases:

- Authier JORC Resource Expanded , 23 November 2016
- Authier Maiden JORC Ore Reserve, 17 February 2017
- Authier PFS, 17 February 2017
- High Grade Lithium Mineralisation at Mallina, 8 February 2017

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.





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