

Element 25 Limited Investor Update



Building a World-Class Battery Grade Manganese business

June 2023 – Clarkson’s Battery Value Chain Webinar

ASX:E25

This presentation contains only a brief overview of Element 25 Limited and its associated entities ("Element 25") and their respective activities and operations. The contents of this presentation, including matters relating to the geology of Element 25's projects, may rely on various assumptions and subjective interpretations which it is not possible to detail in this presentation and which have not been subject to any independent verification.

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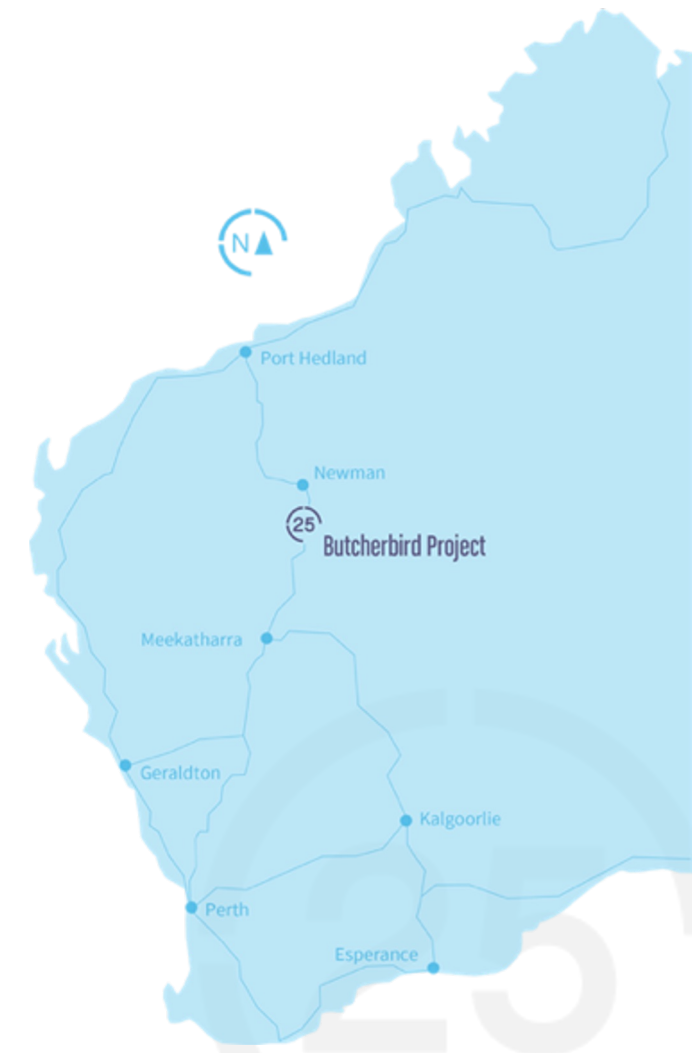
Financial Information	
ASX Ticker	E25
Shares on Issue	190M
Share Price	\$0.60
Debt	Nil



Reference: www.asx.com.au

Introduction

Developing the world class
Butcherbird Manganese Project
 in Western Australia to produce
 high quality **manganese
 concentrate** and **battery grade
 High Purity Manganese Sulphate
 Monohydrate (HPMSM)**
 products for traditional and new
 energy markets.



Experienced Owners Team

BOARD OF DIRECTORS



Seamus Cornelius
Chairman
Lawyer



Justin Brown
Managing Director
Geologist



John Ribbons
Non-Executive Director
CPA



Fanie van Jaarsveld
Non-Executive Director
Analytical Chemist



Sam Lancuba
Non-Executive Director
Chemical Engineer

Recent board additions strengthens depth of industry & operational experience for both mining and chemical processing divisions.

PROJECT DEVELOPMENT TEAM



Michael Jordon
Chief Financial Officer
CPA



Doug Flanagan
COO (HPMSM)
Engineer



Ian Huitson
Study Manager
Mining Engineer

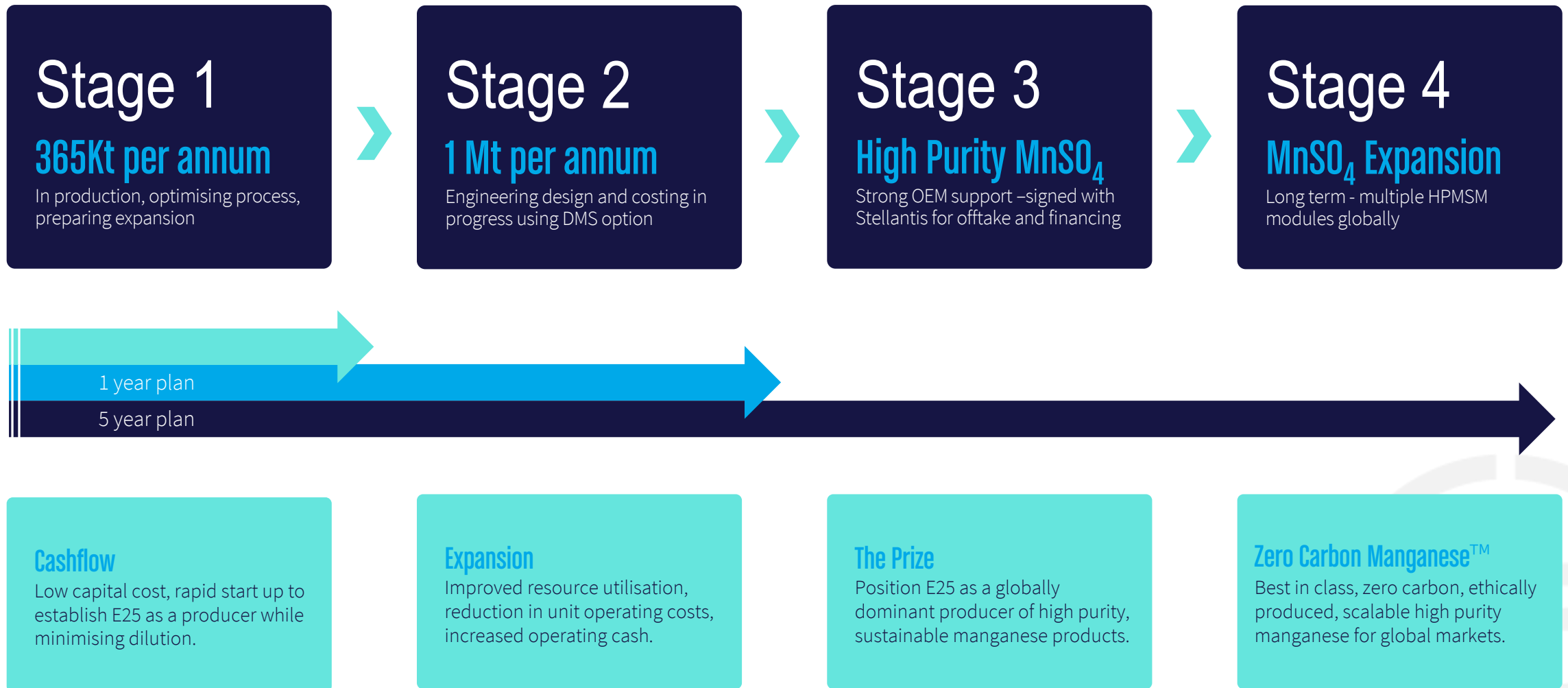


Sias Jordaan
Marketing Manager
Accountant



Neil Graham
Development Manager
Chemical Engineer

Our Strategic Vision...



Not all manganese is created equal



Serving the Established...

- Manganese (Mn) is the fourth most used metal on earth in terms of tonnage.
- Used in steel, specialty alloys and aluminium products.
- Traditionally the market has been dominated by the steel and alkaline battery industries.
- There is no substitute for manganese in steel.
- **E25 manganese concentrate and EMM feed this market.**

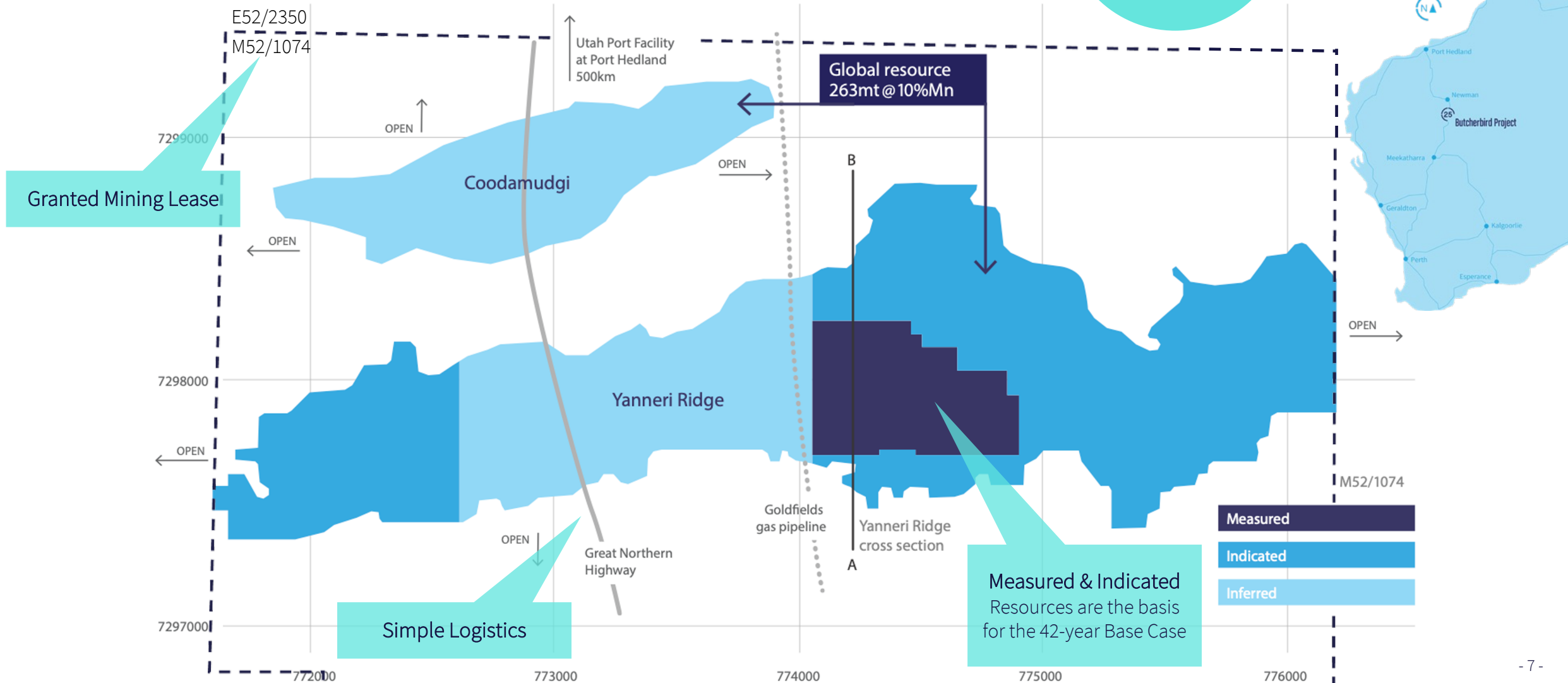
And the Emerging...

- The electrification of the global vehicle fleet requires vast amounts of cathode materials.
- Nickel and cobalt supplies cannot meet projected demand for new energy vehicle (NEV) growth.
- Batteries are trending toward higher manganese content for safer, more cost-effective solutions.
- **E25 high purity manganese will feed these markets.**



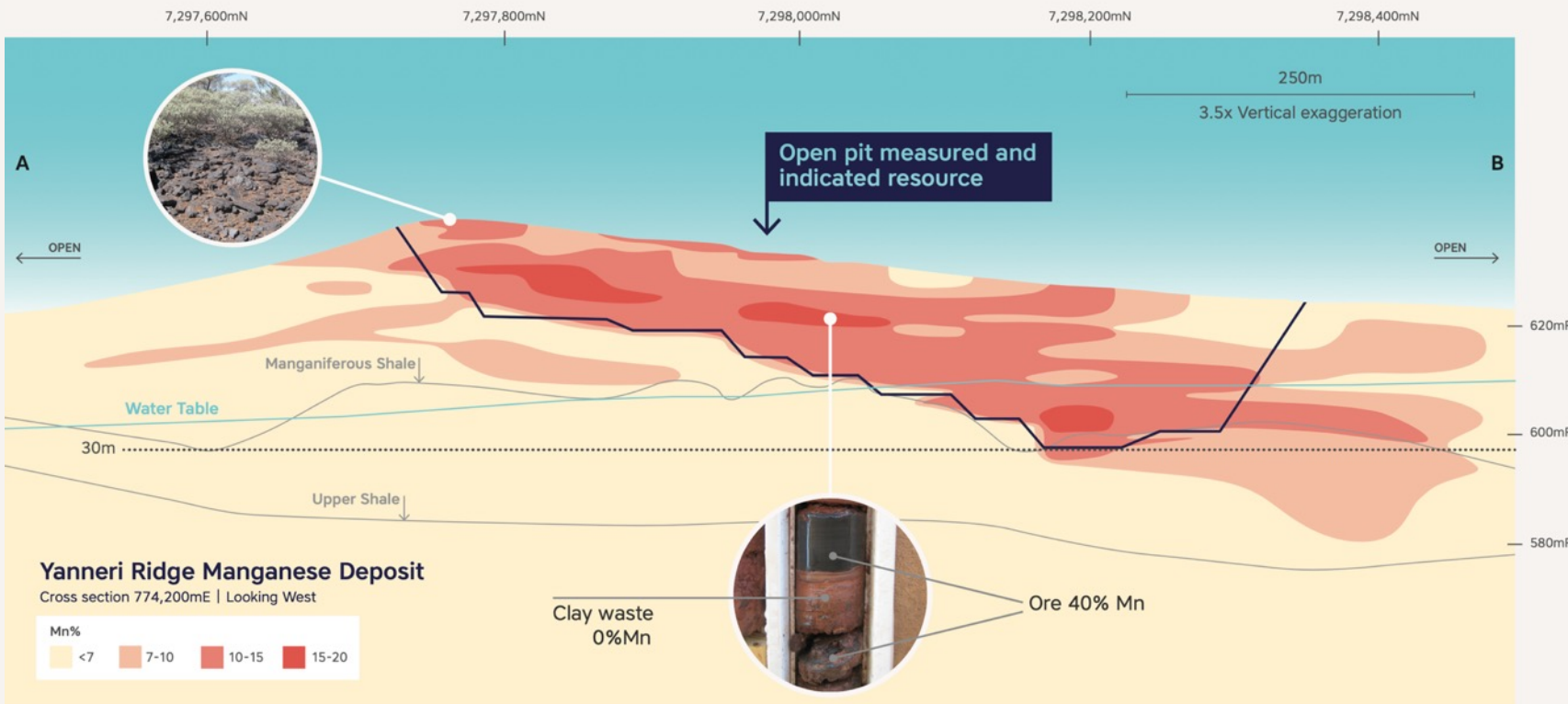
Great infrastructure endowment, fully permitted

100% E25 owned, long term tenure.



Very simple geology equals low-cost, low impact manganese units

Classification	Tonnes (Mt)	Mn (%)	Contained Mn (Mt)
Resource	263	10.0	20.8
Reserve	50.6	10.3	5.22



RESOURCE GROWTH POTENTIAL

- Enough resource base for multi-decade long expansion pathway.
- Can produce concentrate, battery grade HPMSM and EMM without resource limitation.

ENVIRONMENTALLY BENIGN OPERATION

- Ore from surface
- No explosives required
- No waste water
- One reagent – water
- Extremely low levels of contaminants

Stage 1: Project Delivery Complete – Engineering Optimisation Progressing



ROM Stocks

Process Water Storage

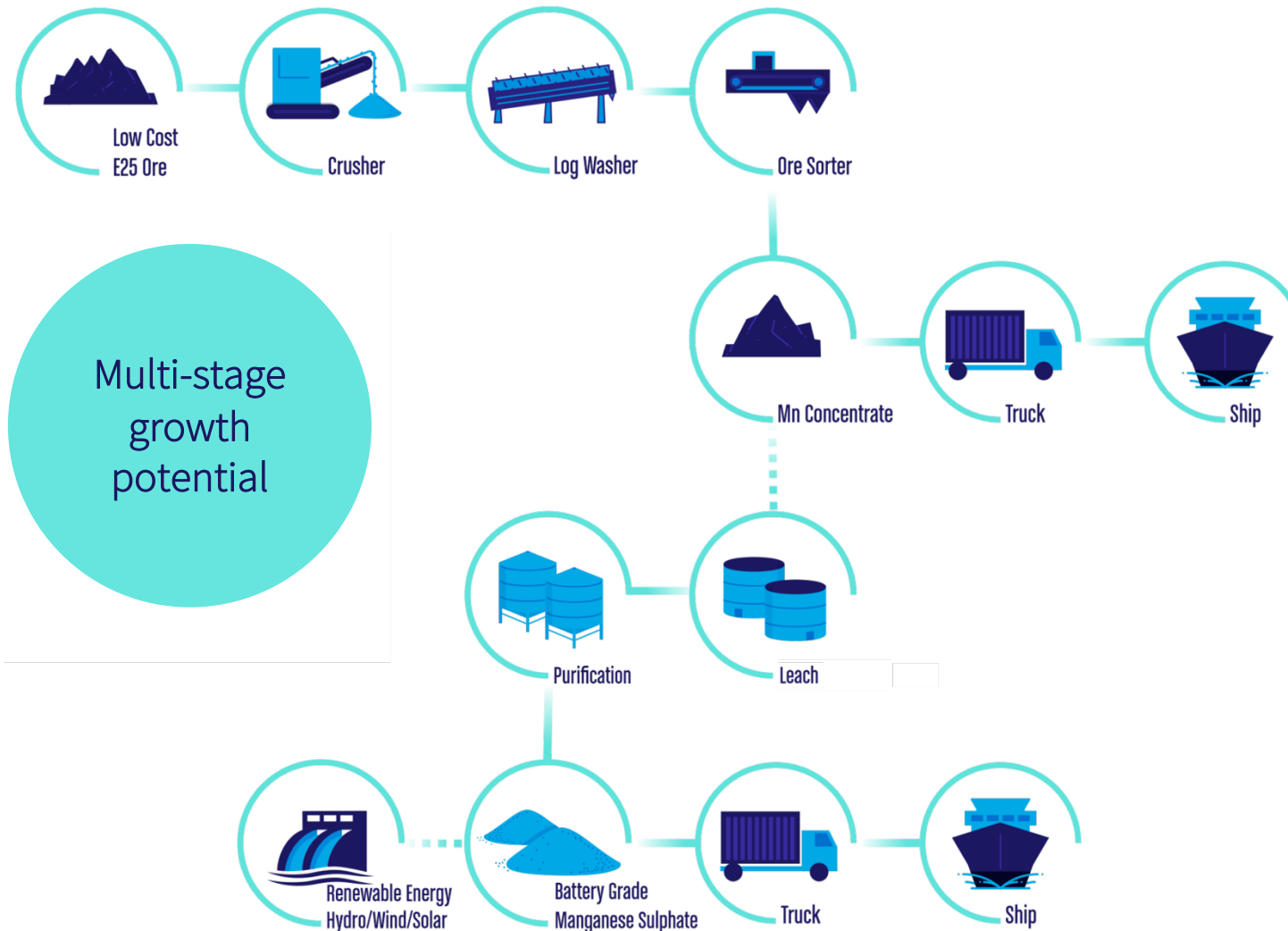
Tails Storage

Main Access Road

Processing Plant

Ore Stockpiles Feedstock for HPMSM conversion

Our Goal - Zero Carbon High Purity Manganese...



Stage 1

First production of manganese concentrate to sell to manganese alloy manufacturers

Stage 2

Expansion of the concentrate production to produce manganese feedstock to convert to $MnSO_4$

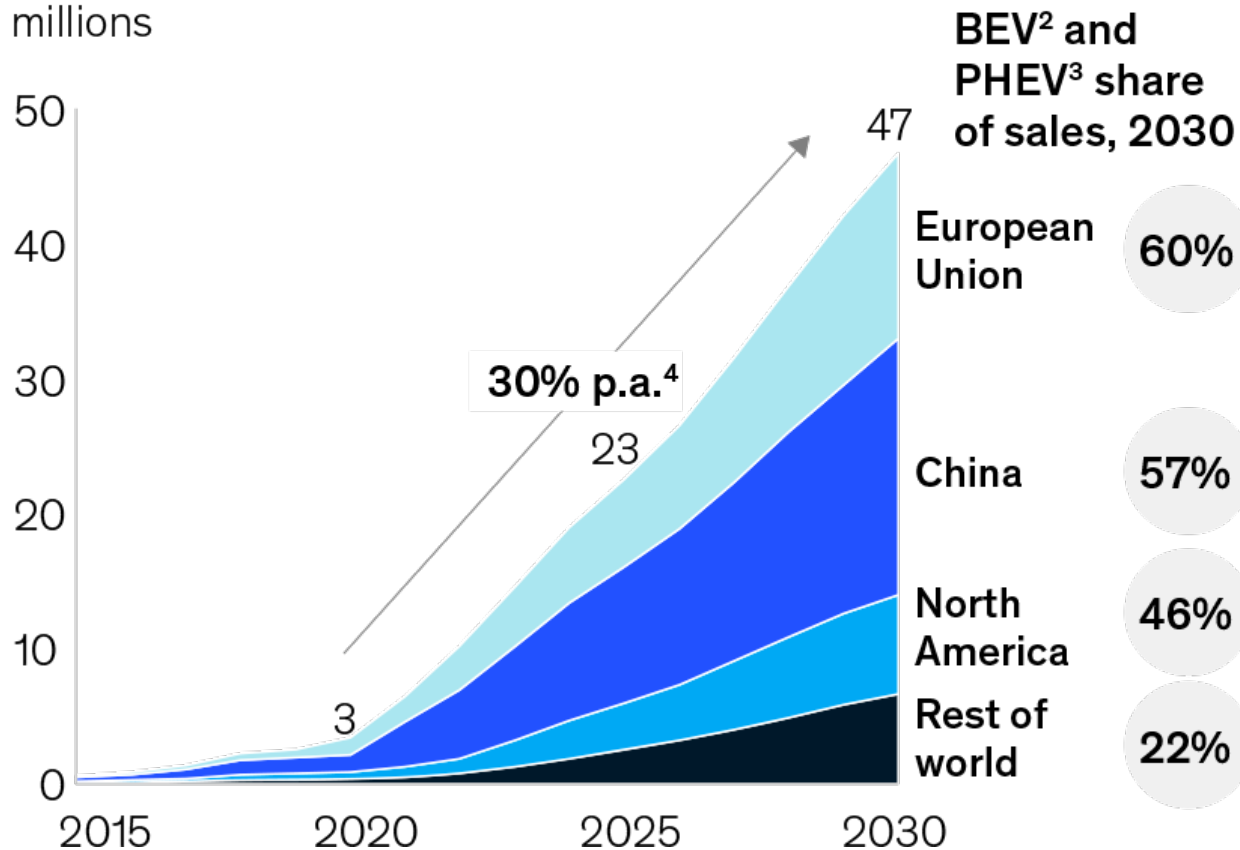
Stage 3

Establishing a conversion facility to convert the concentrate to battery grade HPMSM with renewable energy

New Energy Vehicle (NEV) Demand Growing Strongly

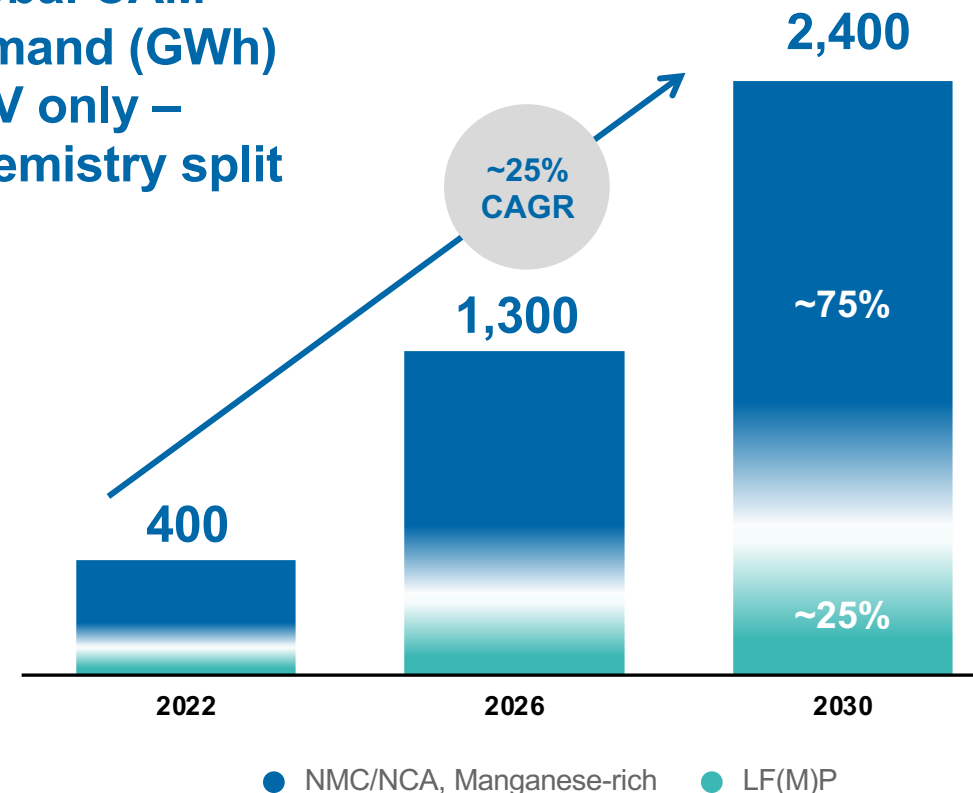
Global EV¹ market growth is strong and accelerating.

Global BEV² and PHEV³ light-vehicle production, millions



More vehicles equals more batteries!

Global CAM demand (GWh) LDV only – Chemistry split



The Battery Industry is Looking to Manganese



“High-manganese represents the **optimum cost-benefit ratio.**”

Volkswagen, March 2021

Li-Mn-rich technology shown as “**cost**” solution in electrification roadmap.

BMW, November 2021

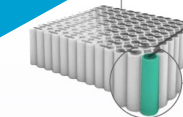
Tesla is working on new manganese battery cell.

Tesla, March 2022



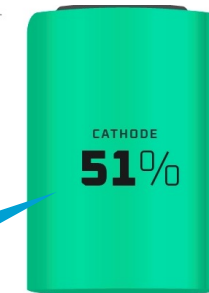
Battery Chemistries are Adapting to Supply Constraints

Manganese in cathodes:
17% of material but only 2% of cost (NMC 622)

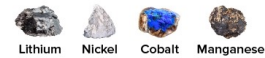


A battery pack consists of multiple interconnected modules, and each module is made up of hundreds of individual cells.

\$101/kWh
Avg. Cell Cost In 2021



The cathode material determines the capacity and power of a battery, typically composed of lithium and other battery metals.



The largest EV battery manufacturers are all headquartered in Asia.

80% of all cell manufacturing occurs in China.



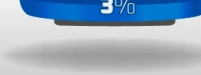
The anode is the negatively-charged electrode, typically made of graphite.



Separators prevent electric contact between the cathode and the anode.



The electrolyte is the medium that transports lithium ions from the cathode to the anode.



Battery housings are cases that contain and protect battery packs, usually made of steel or aluminum.

Manganese, the battery raw material supply chain solution?

PDAC 2023 Keynote Speaker

“...manganese (is) the single most critical mineral for batteries right now,” he said.

“How many companies outside of China make manganese commercially for a battery right now? Which is the hottest metal for batteries? How many? None, not one,” Hoffman said, adding “and there’s where the opportunity is — unbelievable.”

“...manganese is the single most critical mineral for batteries right now...”

Ken Hoffman, co-head of the EV battery materials research group and senior expert at McKinsey & Company



Low cost, efficient HPMSM process - significant improvements...

Problems with Current Technologies

- Large volumes of waste residues
- Toxic Reagents
- Inefficient
- Higher Cost
- Outdated processing technology

The Element 25 Process makes significant changes & improvements...



Reagents/Cost



Carbon Emissions



Waste Residue

Element 25 Process

- More efficient (fast kinetics, reduced energy)
- Minimises reagent requirements
- Reduced carbon intensity
- Lower volumes of waste residues
- Non-toxic residues may be able to be repurposed.



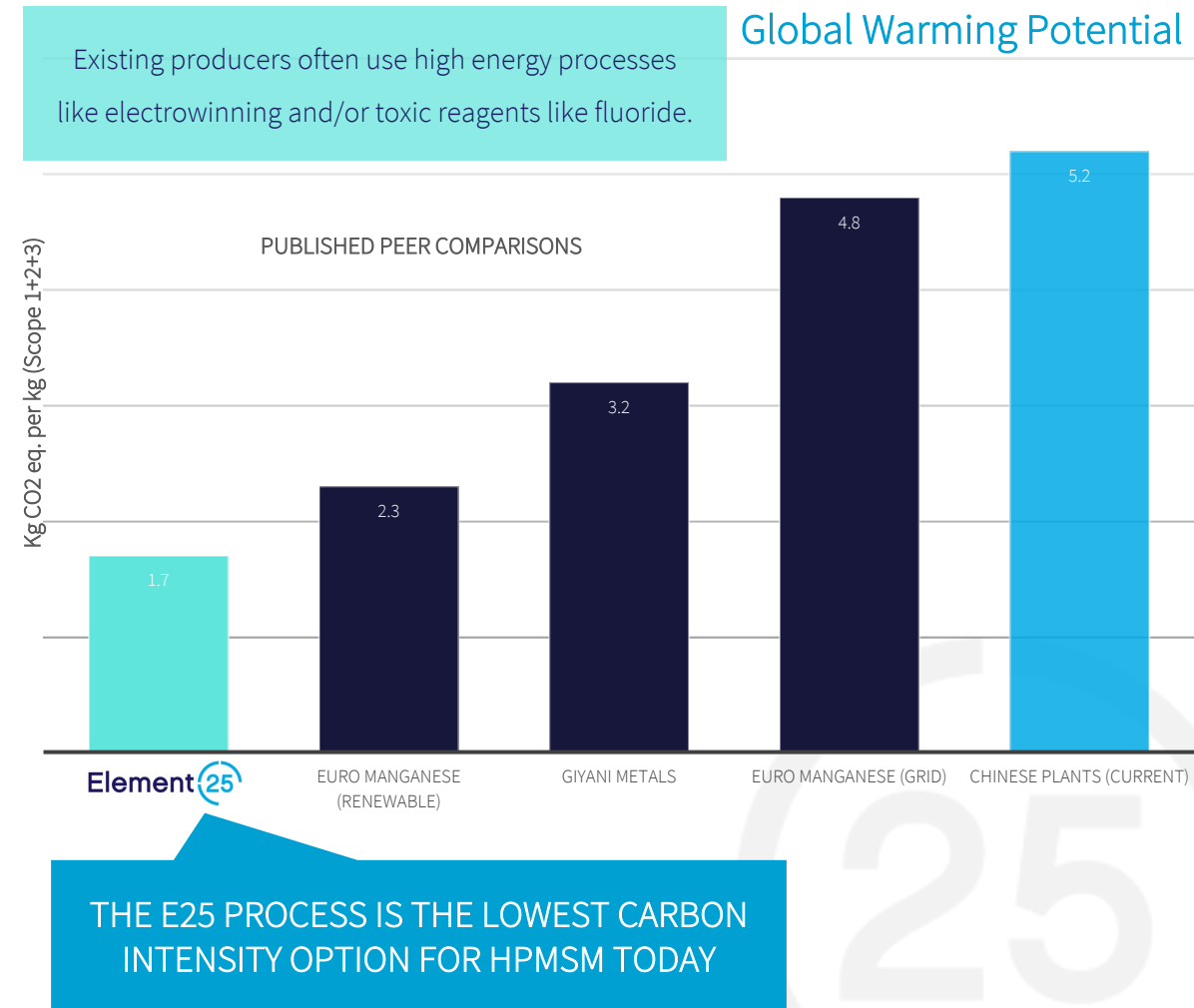
99.9%
MnSO₄

Targeting Zero Carbon Manganese - ESG is integral to our thinking

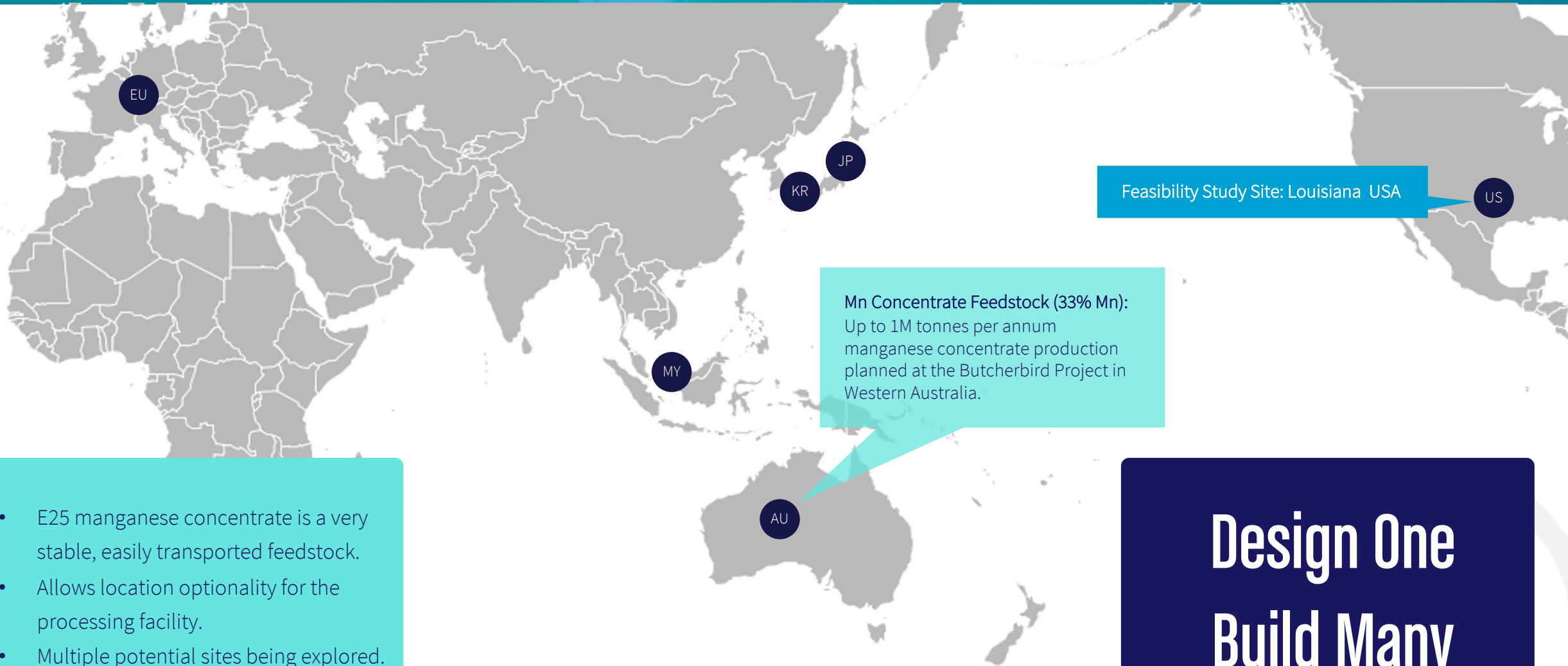
- LCA covers Scope 1,2 and 3 emissions from mining through to the proposed USA-based HPMSM processing plant.
- E25 HPMSM to produce ~1.7kg of CO₂ for every 1kg of HPMSM:
 - ~67% lower than competitors in China.
 - up to 47% lower than competitors outside China.
 - ~26% lower than next lowest project's optimised case.
- E25 process is not yet fully optimised for carbon reduction.
- E25 to explore renewable energy and other potential carbon reduction strategies to further reduce CO₂.



Supply chain transparency and traceability partner.



Stage 3 Expansion of Conversion Capacity - Multiple Plants Planned



- E25 manganese concentrate is a very stable, easily transported feedstock.
- Allows location optionality for the processing facility.
- Multiple potential sites being explored.

**Design One
Build Many**

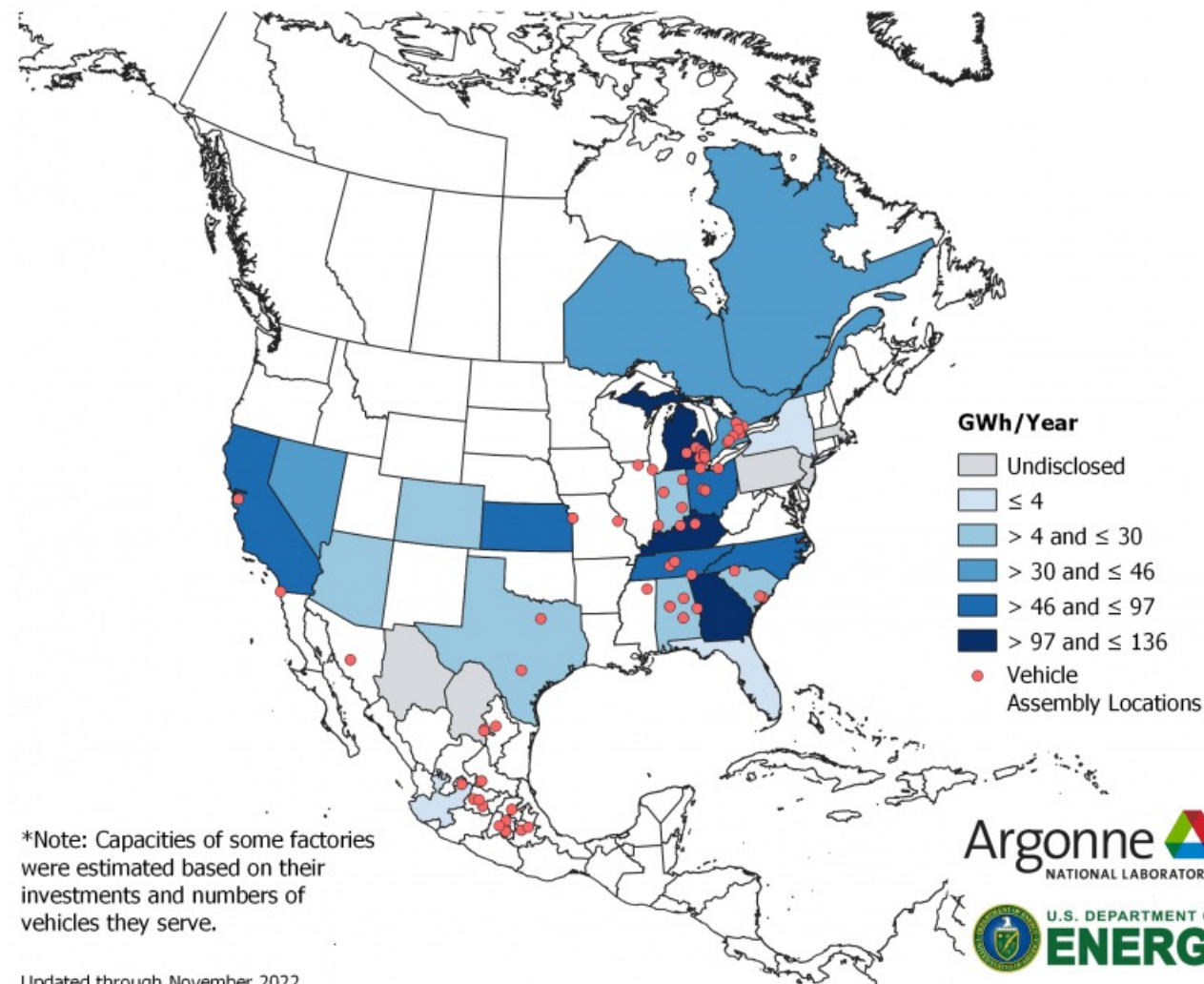
Summary of Impacts on Battery Supply Chains

- Regulations effective from January 1, 2025.
- Requirement for **40% of battery materials** to be sourced from north American or allied countries from 2024.
- Increasing to **80% by 2026**.
- Allied countries include Australia, manganese is a qualifying critical mineral.

What does this mean for E25?

- E25 HPMSM can meet all the stated requirements of the new regulations.
- E25 resource size can supply conversion requirements for USA customers to meet their consumption needs for **decades**.
- Potential built in north America to ensure customers’ HPMSM requirements meet regulatory and strategic goals.
- After calendar year 2024, the incentives will not be available for EVs that contain critical minerals that were “extracted, processed, or recycled by a foreign entity of concern”.

Planned Battery Plant Capacity in North America by 2030



Geopolitical Challenges are Influencing Investment Trends

Supply Chain Diversification

- Current battery raw material supply is dominated by China.
- Single source supply threatens supply security.
- Supply chain diversity increasingly important to OEMs.

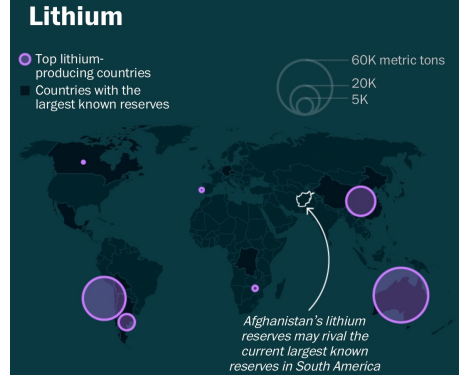
ESG

- OEM commitments to zero carbon require low carbon supply.
- E25 process provides the lowest carbon intensity HPMSM available.

Transparency & Traceability

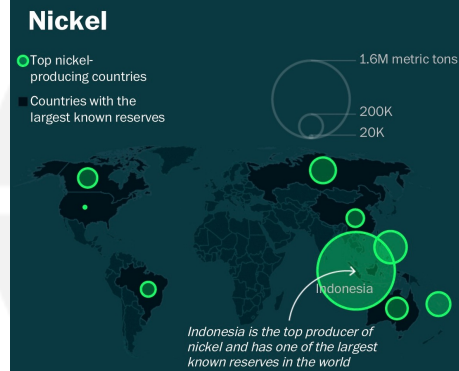
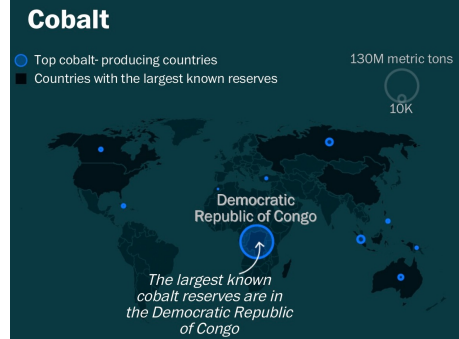
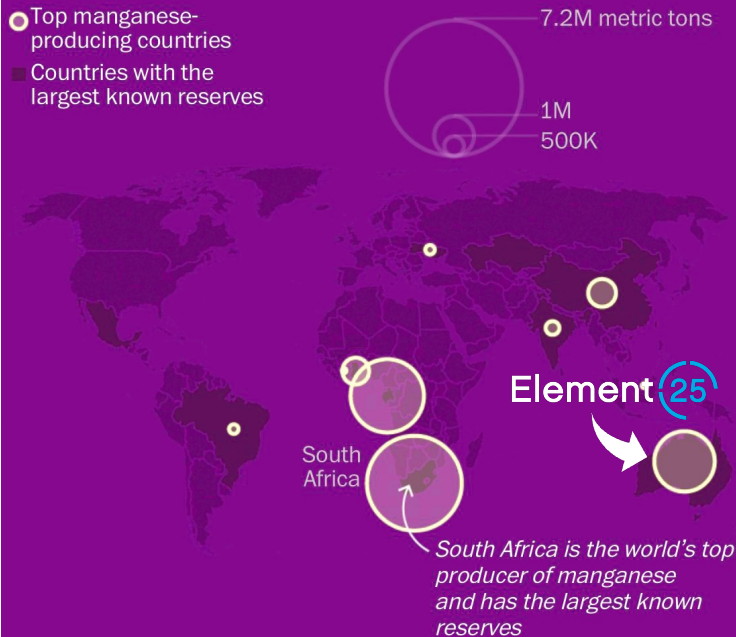
- ESG considerations are increasingly influencing supply decisions.
- Carbon Zero commitments by vehicle makers requires clarity on supply chain carbon intensity.
- Single source Australian manganese processed in a vertically integrated USA facility for OEM customers can solve this challenge.

Manganese is increasingly important as an EV battery cathode material. OEMs are seeking ethical, cost competitive, low carbon supply. Australian HPMSM can solve these challenges.



Manganese

- Top manganese-producing countries (yellow circles)
- Countries with the largest known reserves (black squares)



Strong financial results underpinned by competitive capital and operating cost estimate



Cashflow

US\$155M

pre-tax average cashflow p.a. at full production (2 trains)



NPV

US\$1,662M

pre-tax (real) at full production
Discount Rate 8%



IRR

29%

pre-tax at full production



Capital

US\$289M

for train 1 with an additional US\$187M required for train 2



HPMSM

65,000 t/a

expanding to 130ktpa with a second train

Production Plant - Location Optionality



PACKAGING & PRODUCT STORAGE

PURIFICATION & CRYSTALLISATION

PROVISION FOR EXPANSION STAGE (2X PRODUCTION)

Element 25

ORE STORAGE & COMMINATION

REDUCTANT STORAGE

Element 25

Element 25

Note: artist's impression - subject to final design

- E25 and Stellantis sign definitive agreements for the supply of battery-grade high-purity manganese sulphate (HPMSM) for Stellantis' EV battery requirements.
- Key commercial terms include:
 - E25 to supply HPMSM for a minimum of five years, with opportunities to extend.
 - E25 to supply up to 10,000tpa HPMSM for five years with provisions to increase volumes.
 - Stellantis to part-fund development of E25's HPMSM processing facility with US\$30M investment in two tranches.
- Offtake represents ~15% of total planned production volumes.
- Funding commitment represents ~15% of total anticipated capital cost.
- Arrangement includes commitments from E25 with respect to ESG and IRA compliant supply chains (Australian ore processed in USA).



Stellantis is a leading global automaker and mobility provider that offers clean, connected, affordable and safe mobility solutions. Our Company's strength lies in the breadth of our iconic brand portfolio, the diversity and passion of our people, and our deep roots in the communities in which we operate.

Our ambitious electrification and software strategies and the creation of an innovative ecosystem of strategic, game-changing partnerships are driving our transformation to a sustainable mobility tech company.



CHRYSLER



CITROËN

DODGE



DS AUTOMOBILES

FIAT

Jeep



Maserati



OPEL



RAM



VAUXHALL

Our Strategic Vision...



Thank you

Element 

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admin@e25.com.au

www.element25.com.au

ASX:E25

Our Strategic Vision...

Resource scale of the Butcherbird Project underpins long-term growth.

Company Growth Stages

Industry Segments

Opportunity

CURRENT FOCUS

Manganese Ore

Ethical Clean Manganese Supply

Long term ethical supply of manganese units for downstream processing

All Manganese Industries

Manganese is the world's fourth largest metal market and is used in many products from steel to batteries, glass, ceramics and more.

Reliable Long Term Supply

Demand for high quality, ethically sourced manganese units remains strong. Australia is close to market and geopolitically stable.

Manganese Sulphate

Powering the EV Revolution

Providing ethical, low carbon battery materials to enable the EV transition

Lithium Ion Battery Cathodes

Manganese offers advantages including increased safety, lower costs and ethical supply. High Mn cathodes are in focus.

Electrification of Global Vehicle Fleet

A macro trend that will dominate the car industry for decades. Demand for high quality ethical HPMSM to grow for many years.

FUTURE FOCUS

Manganese Metal

Future R&D Pathway

Applying the E25 technology to other manganese products including EMM.

Steel and Specialty Alloys

Supply chain issues not limited to batteries. Traditional consumers are also desperate for ethical, low carbon supply of EMM.

Supply Chain Diversity

Strong interest from steel makers to access alternative, ethically sourced, low carbon steel inputs.

Reserves and Resources

Maiden Ore Reserve¹

Category	Tonnes (Mt)	Mn (%)	Contained Mn (Mt)
Proved	14.4	11.5	1.65
Probable	36.2	9.8	3.56
Total	50.6	10.3	5.22

Global Mineral Resource²

Category	Tonnes (Mt)	Mn (%)	Si (%)	Fe (%)	Al (%)
Measured	16	11.6	20.6	11.7	5.7
Indicated	41	10.0	20.9	11.0	5.8
Inferred	206	9.8	20.8	11.4	5.9
Total	263	10.0	20.8	11.4	5.9

- 89% conversion of measured and indicated resources to reserve.
- Maiden Reserve only exploits approximately 20% of global mineral resource.
- Excellent potential for future expansion.
- More drilling has potential to add to global resource.

¹Reference: Element 25 Limited ASX release dated 30 September 2022.

²Reference: Element 25 Limited ASX releases dated 17 April 2019.

Competent Person's Statement

The information in this presentation that relates to Exploration Results is based on information compiled by Mr Justin Brown who is a full-time employee of the Company and is a member of the Australasian Institute of Mining and Metallurgy. Justin Brown has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'. Justin Brown consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All references to Mineral Resources pertain to the ASX release dated 17 April 2019. The Company confirms that all material assumptions, underpinning the estimations continue to apply and have not materially changed.

All references to Mineral Reserves pertain to the ASX release dated 30 September 2022. The Company confirms that all material assumptions, underpinning the estimations continue to apply and have not materially changed.

For further information on Element 25 Limited and its Projects please visit its website at www.element25.com.au which contains copies of all continuous disclosure documents to ASX, Competent Persons' Statements and Corporate Governance Statement and Policies.

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