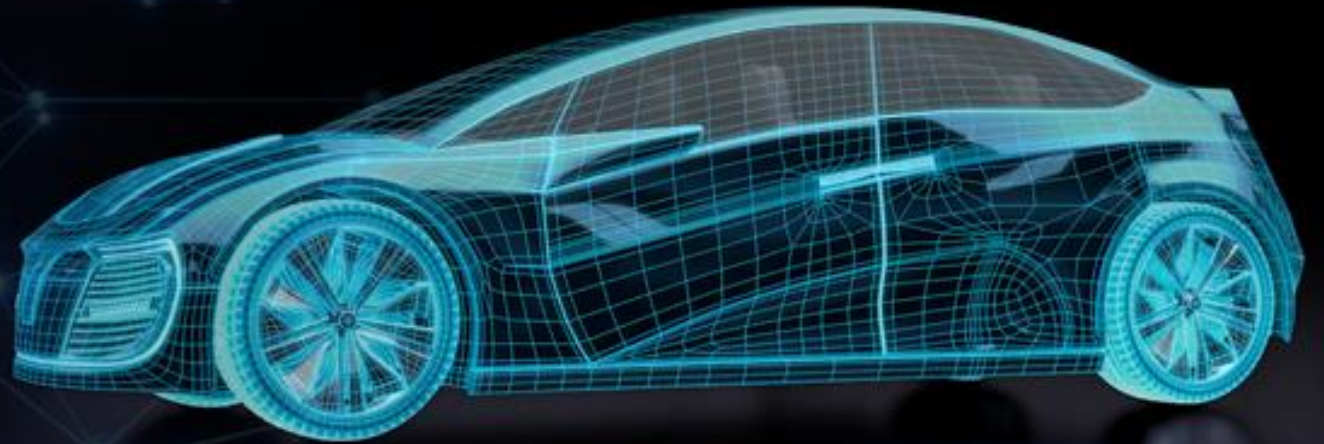




BUILDING THE NEXT WA MANGANESE OPERATION

PRESENTATION – DECEMBER 2021



DISCLAIMER

- ◆ This presentation contains summary information about Firebird Metals Limited (Firebird) (ABN 24 610 035 535) and is current as of 1 December 2021. The information in this presentation is of a general background and does not purport to be complete. This presentation is not investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision.
- ◆ The information contained in this presentation has been prepared without taking into account the objectives, financial situation or needs of individuals. Investors should obtain their own advice before making any investment decision. Firebird has prepared this document based on information available to it at the time of preparation. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information, opinions and conclusions contained in this presentation.
- ◆ This presentation contains certain “forward-looking statements”. Forward looking statements can generally be identified by the use of forward looking words such as, “expect”, “should”, “could”, “may”, “predict”, “plan”, “will”, “believe”, “forecast”, “estimate”, “target” and other similar expressions. Indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements. Forward-looking statements, opinions and estimates provided in this presentation are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance.
- ◆ This presentation contains statements that are subject to risk factors associated with Firebird and the mining exploration industry. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially. Firebird disclaim any intent or obligation to publicly update any forward looking statements, whether as a result of new information, future events or results or otherwise. To the maximum extent permitted by law, Firebird, their related bodies corporate (as that term is defined in the Corporations Act 2001 (Cth)) and the officers, directors, employees, advisers and agents of those entities do not accept any responsibility or liability including, without limitation, any liability arising from fault or negligence on the part of any person, for any loss arising from the use of the presentation or its contents or otherwise arising in connection with it.

COMPETENT PERSONS STATEMENT

The information in this Report that relates to Mineral Resources of the Company is based on, and fairly represents, information and supporting documentation that has been reviewed and prepared by Robert Wason, who is a Senior Consultant - Geology at Mining Insights Pty Ltd and is a member of AusIMM.

Mr. Wason has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which they are undertaking to qualify as an Expert and Competent Person as defined under the VALMIN Code and in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (“JORC Code 2012”). Mr. Wason consents to the inclusion in this announcement of the matters based on the information in the form and context in which they appears.

The information in this report that relates to the Hill 616 Mineral Resources is based on information compiled by Mr Mark Pudovskis and Mr Aaron Meakin. Mr Mark Pudovskis is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Mark Pudovskis and Mr Aaron Meakin have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Mark Pudovskis and Mr Aaron Meakin consent to the disclosure of the information in this report in the form and context in which it appears. Mr Mark Pudovskis assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1, while Mr Aaron Meakin assumes responsibility for matters related to Section 3 of JORC Table 1.

Dr Parry has sufficient experience of the ore sorting test work under consideration to be aware of problems that could affect the reliability of the data and to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Parry consents to the inclusion in this report of the matters based on information in the form and context in which they appear.

EMERGING WA MANGANESE DEVELOPER

- ◆ Focused on building a DSO/ Simple Beneficiation Low CAPEX Project
- ◆ Significant total Inferred Mineral Resources to 121mt over two projects:
 - Oakover Project
 - Inferred JORC 2012 Mineral Resource estimate of 64 Mt @ 10% Mn*
 - Hill 616 Project
 - Inferred JORC 2012 Mineral Resource estimate of 57.5 Mt @ 12.2% Mn*
- ◆ Targeting initial production through DSO / simple processing potential
 - ◆ to deliver early production and cash-flow
 - ◆ DSO potential from Supergene zone
 - ◆ Ore sorting and DMS
- ◆ Long term strategy to evaluate potential to supply growing Manganese Sulphate for Li-Ion Batteries market
- ◆ Led by a proven and experienced management and board, with strong manganese credentials



OAKOVER RAPID DEVELOPMENT PROGRAM STRATEGY



- ◆ Evaluate low capital, fast start up potential of Oakover
- ◆ Core workstreams progressing as planned:
 - ◆ Completion of RC Drill program
 - ◆ 233 holes for ~ 10,000m, assays pending
 - ◆ Combination of infill and extensional RC drilling
 - ◆ Program developed to improve and grow existing 64Mt Inferred Mineral Resource estimate
 - ◆ Bulk samples to be used for metallurgical testing
 - ◆ Sixty Sixer Bulk Sample taken
 - ◆ Karen Bulk Sample planned for December 2021
 - ◆ Beneficiation study focusing on both DMS and/or ore sorting
 - ◆ Initial Hydrometallurgy test work
 - ◆ Haulage and Port Infrastructure Study
- ◆ Program to provide key inputs for expected commencement of PFS in Q4 2021

CORPORATE OVERVIEW



EVAN CRANSTON

Chairperson

Mr Cranston is an experienced mining executive with a background in corporate and mining law.



PETER ALLEN

Managing Director

Mr Allen is a mining executive with more than 20 years experience in marketing of manganese, lithium and a range of other commodities.



WEI LI

Finance Director

Mr Li is a Chartered Accountant with extensive professional experience in the resource industry, international trade, capital markets, project managing initial public offers and spin-outs and financial accounting.



ASHLEY PATTISON

Non-executive Director

Mr Pattison has over 20 years' experience in the resources sector from both a corporate finance and operational perspective. Qualified as chartered accountant, he has extensive experience in operations, finance, strategy and corporate finance.

Shareholders (31-8-21)

Tolga Kumova	10.4%
Mining Equities	6.67%
Board & management	4.35%
Top 20 shareholders	47%

ASX code

FRB

Share price (26-11-21)

\$0.415

Shares on issue

54.575m

Market capitalisation

\$23.0m

Options

18m

Performance rights

3.3m

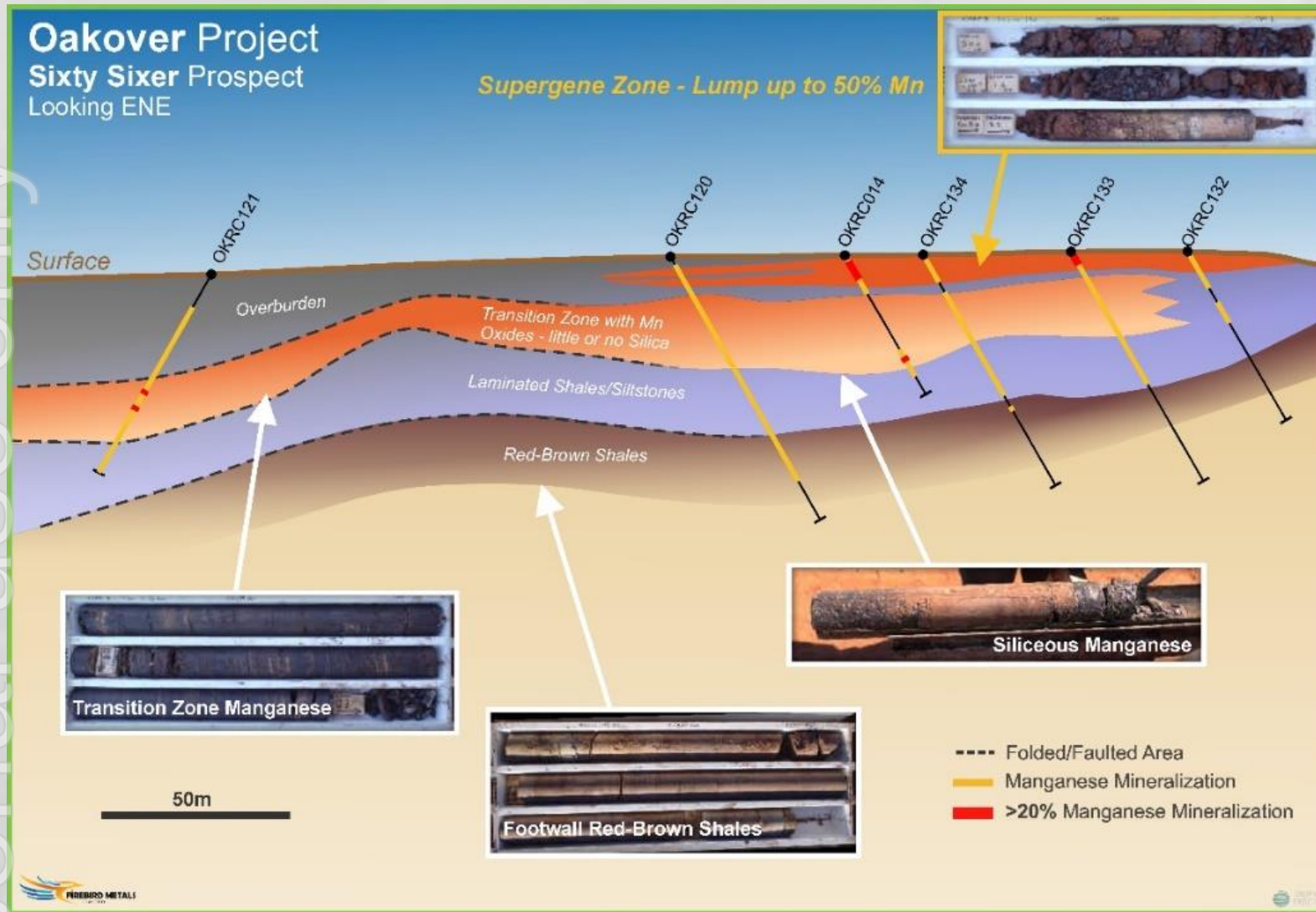
Cash (30-9-21)

\$3.0 m

Project Portfolio



FLAGSHIP OAKOVER PROJECT



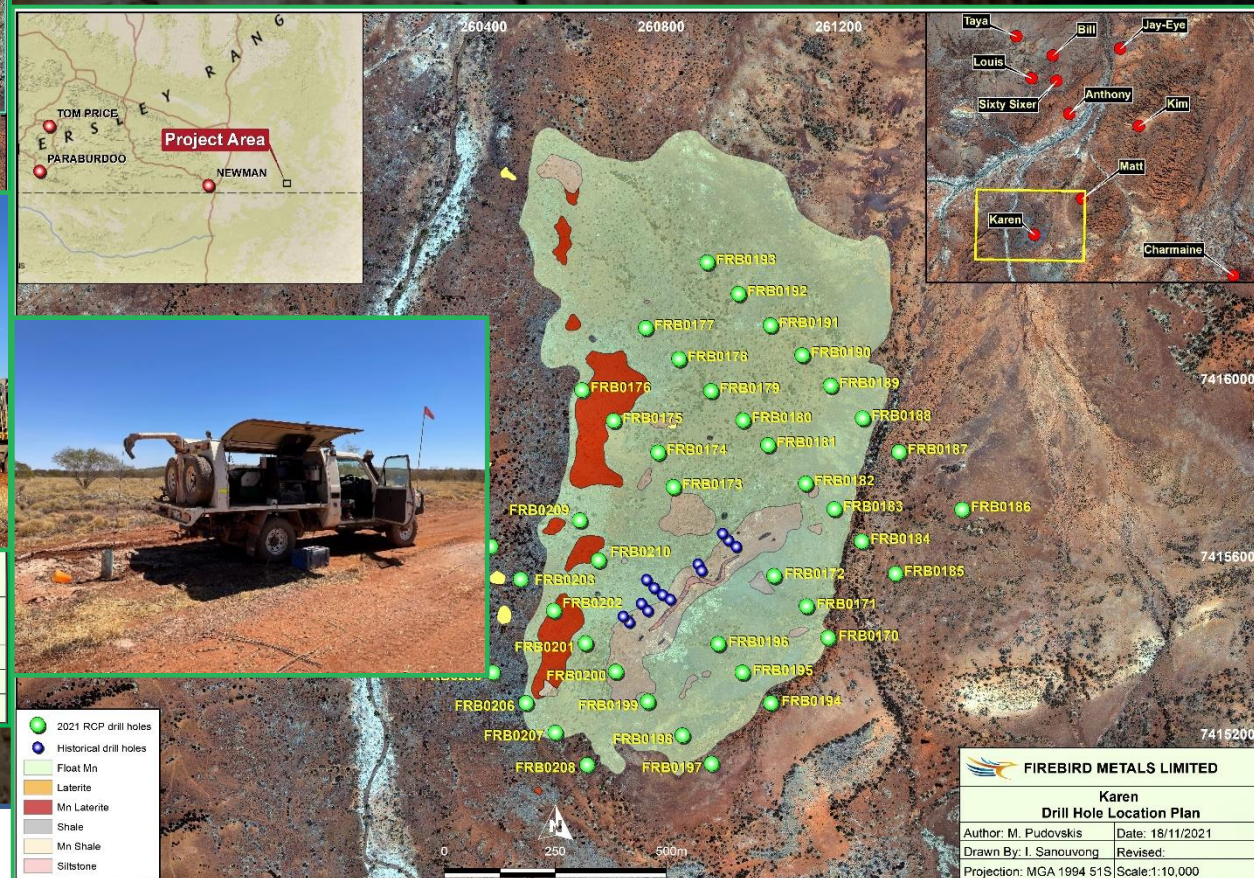
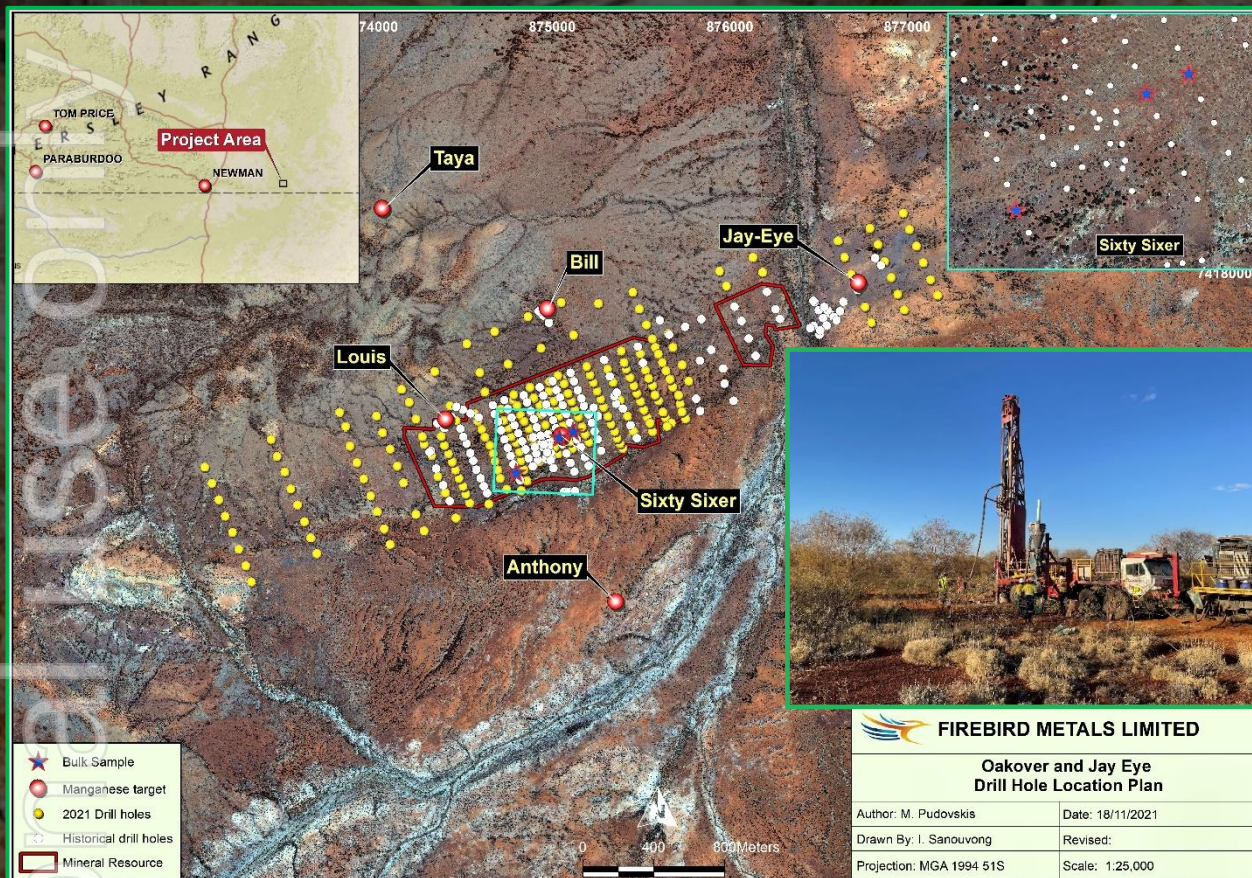
- ◆ Located in premier mining jurisdiction
- ◆ Near surface / shallow order body
- ◆ Existing JORC 2012 Inferred Resource of 64Mt at 10% Mn*

(8% Mn cut-off applied), reported in accordance with the JORC Code 2012 (H&SC Consultants, August 2012)

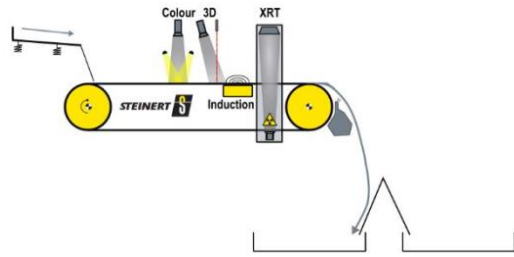
Source: Brumby Resources AGM presentation November 2011

OAKOVER - RC Drill Program Complete

- Completion of 233 holes for ~ 10,000m, assays pending
- Combination of infill and extensional RC drilling
- Down hole geophysics
- Bulk sampling at Sixty Sixer



OAKOVER - Diamond Core Metallurgical Test Work / Ore Sorting



- Successful early-stage Ore Sorting test work completed by STEINERT *
- Process takes measurements from all four sensors simultaneously:
 - Colour camera, 3D laser, Induction & X-ray transmission (XRT)
- Primary objective to identify and selectively sort the massive manganese from waste
- Stage two ore sorting processing underway
- Further test work planned on larger bulk test samples

Refer ASX release "Very Positive initial Ore sorting results, Oakover Drilling" dated 11/10/21

OAKOVER - Diamond Core Metallurgical Test Work / Ore Sorting



OAKOVER RAPID DEVELOPEMNT PROGRAM SCORE CARD

CSA technical review	Complete	✓
Heritage surveys	Complete	✓
~10,000m RC drilling program	Complete	✓
Down hole geophysics	Complete	✓
Diamond core – recovered, logged & assayed	Complete	✓
Initial ore sorting test work	Complete	✓
Crush, screening & scrubbing test work	Complete	✓
Bulk Sample – Sixty Sixer	Complete	✓
Stage 2 ore sorting test work	Underway	
Bulk Sample – Karen	Planned for December 21	
Logistics Study – haulage and port	Consultant engaged and underway	
RC drill assay results	All samples at lab, awaiting results, approx. 30% received	
Revised Resource statement	CSA engaged, awaiting assay results,	
Heavy media separation test work	Contracted - awaiting product from Stage 2 ore sorting	
Commencement of PFS	Planned Q4 2021	
Stage 3 Ore sorting Test work – Bulk Sample	Planned Q1 2022	



OTHER PROJECTS

HILL 616 – Building the manganese pipeline



- ◆ Located 85km southeast of Newman
- ◆ Technical Review of Hill 616 prospect completed by CSA Global
- ◆ Mineralisation was found to be shallow (mostly within 20 metres of the surface), gently dipping and laterally extensive across target area
- ◆ Historical drilling of more than 4,900m over a strike of 2.2 km
- ◆ Hill 616 exhibits many of the geological characteristics of flagship Oakover Project
- ◆ Large number of Significant Manganese intercepts, including:
 - 13m @ 15.1% Mn from Surface
 - 12m @ 15.9 % Mn from 4m
 - 12m @ 15.2 % Mn from 3m
 - 10m @ 15.8 % Mn from 2m

Zone	Mineral Resource Classification	Tonnes (Mt)	Mn (%)	Fe(%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	LOI (%)
Manganiferous shale	Inferred	49.3	11.4	17.3	40.0	8.5	0.13	7.6
Supergene manganese	Inferred	8.1	17.4	16.8	30.1	9.4	0.09	9.9
Grand Total	Inferred	57.5	12.2	17.2	38.6	8.6	0.13	8.0

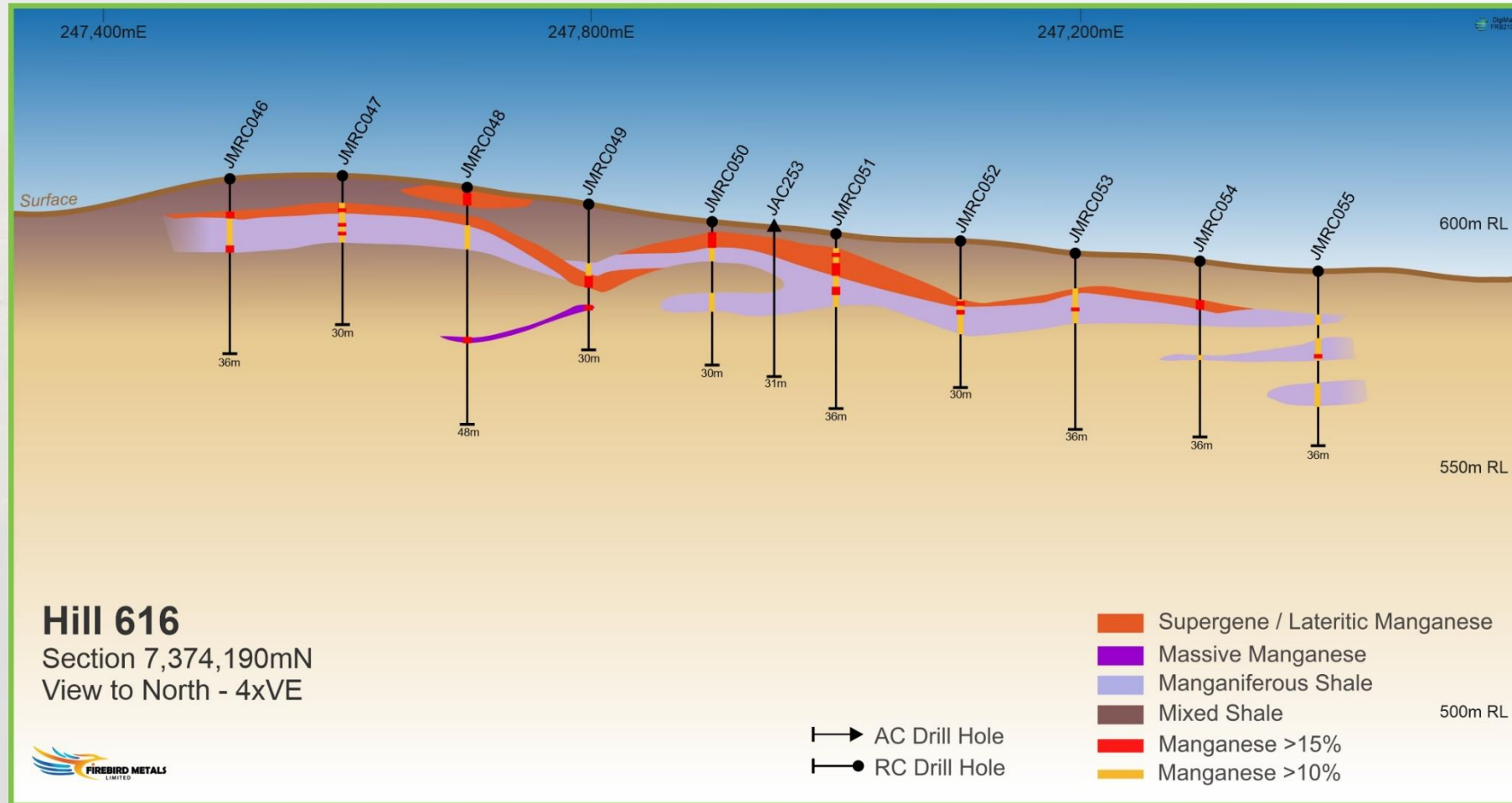
Historical Drill Summary 2009 to 2011

Drill Type	Drill Holes	Year	No. Drill Holes	Metres	Drill spacing
AC	JAC236 – JAC260	2009	25	578	Variable
Diamond Core	JDDH01 – JDDH16	2011	16	408.4	Variable
RCP	JMRC015 – JMRC169	2011	121	3,991	200m by 100m

Source: Firebird ASX announcement dated 11/11/21 and 1/12/21 ** Drilling completed by previous owner Errawarra Pty Ltd

OTHER PROJECTS

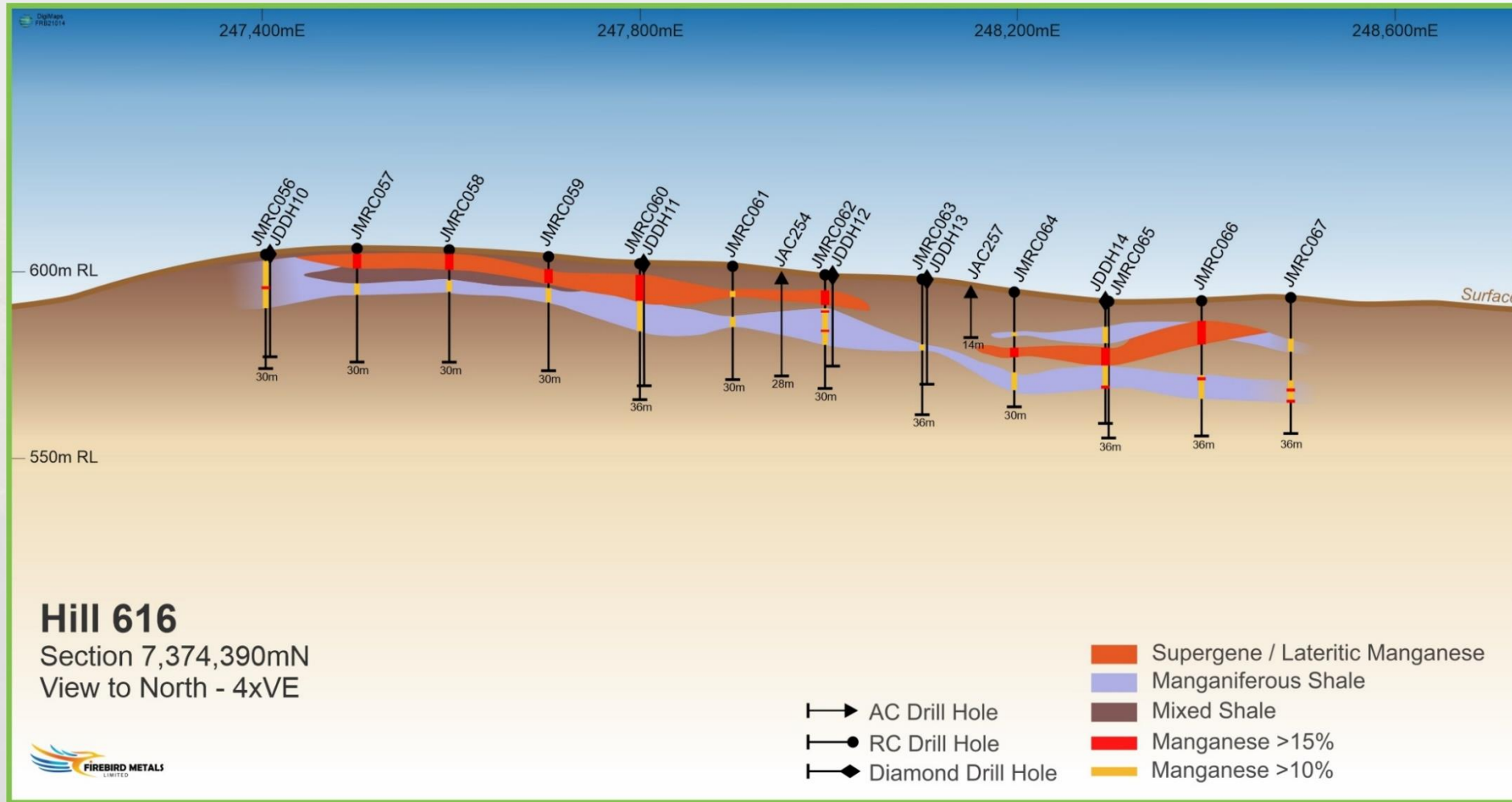
HILL 616 – Building the manganese pipeline



Source: Firebird ASX announcement dated 11/11/21 and 1/12/21

OTHER PROJECTS

HILL 616 – Building the manganese pipeline



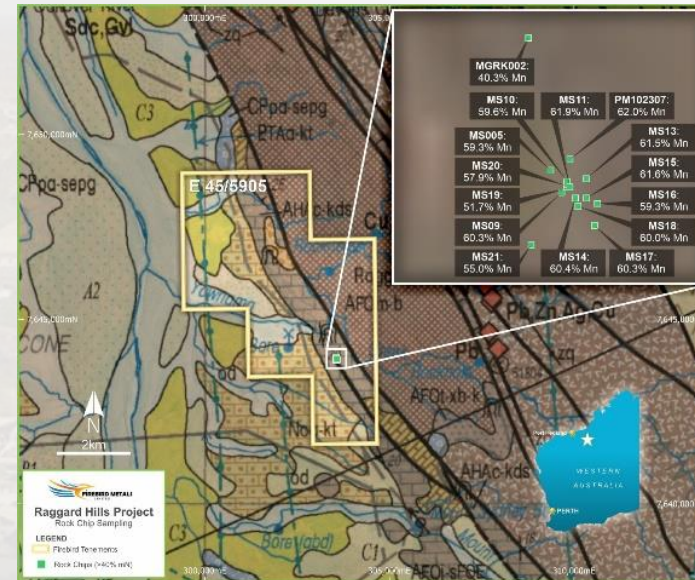
Source: Firebird ASX announcement dated 11/11/21 and 1/12/21

DISRAELI



- ◆ Previous exploration suggests Manganese in this area is responsive to geophysics techniques
- ◆ Multiple high grade rock chips of up to 51.1% Mn
- ◆ Exploration strategy to focus on DSO type mineralisation
- ◆ Plans to use modern geophysics techniques along with geological mapping & rock chip sampling to identify further drilling targets

RAGGED HILLS



- ◆ Successful direct licence application
- ◆ 15 of 19 rock chip samples above 40% Mn, with majority over 50% Mn
- ◆ Limited drilling conducted on prospect, with only a single RC hole drilled outside of high-grade area
- ◆ Located 33km NNE of the high-grade Woodie Woodie Manganese Mine
- ◆ Project to complement Firebird's high-grade DSO strategy

Refer ASX release dated 15/6/21

Source: Firebird Prospectus dated 27/1/2021, section 5.2.2 (a)

Manganese Markets



GROWING THEMATIC & STRATEGIC ADVANTAGE

- ◆ Systematic shift in global manganese markets over past decade
 - ◆ Declining number of high quality, global manganese deposits
 - ◆ Chinese domestic ore production declining, combined with lower production grade
 - ◆ South Africa, the largest exporter of Manganese globally, continues to face challenges with logistics, labour and fiscal regime
- ◆ Growing push to source 'ethical' manganese from jurisdictions with low sovereign risk
- ◆ Government infrastructure investment providing a strong platform for future steel demand
 - ◆ No substitute for manganese in steel production
- ◆ Manganese importance as a critical battery mineral growing rapidly, leveraging forecast growth in EVs and battery storage
- ◆ EV demand driving Li-ion utilisation has significantly enhanced investor understanding on the importance of manganese
 - ◆ Volkswagen, Tesla and Stellantis Group all have announced over last 12 months a future move to higher manganese content cathodes for EV's, typically for the volume segment production



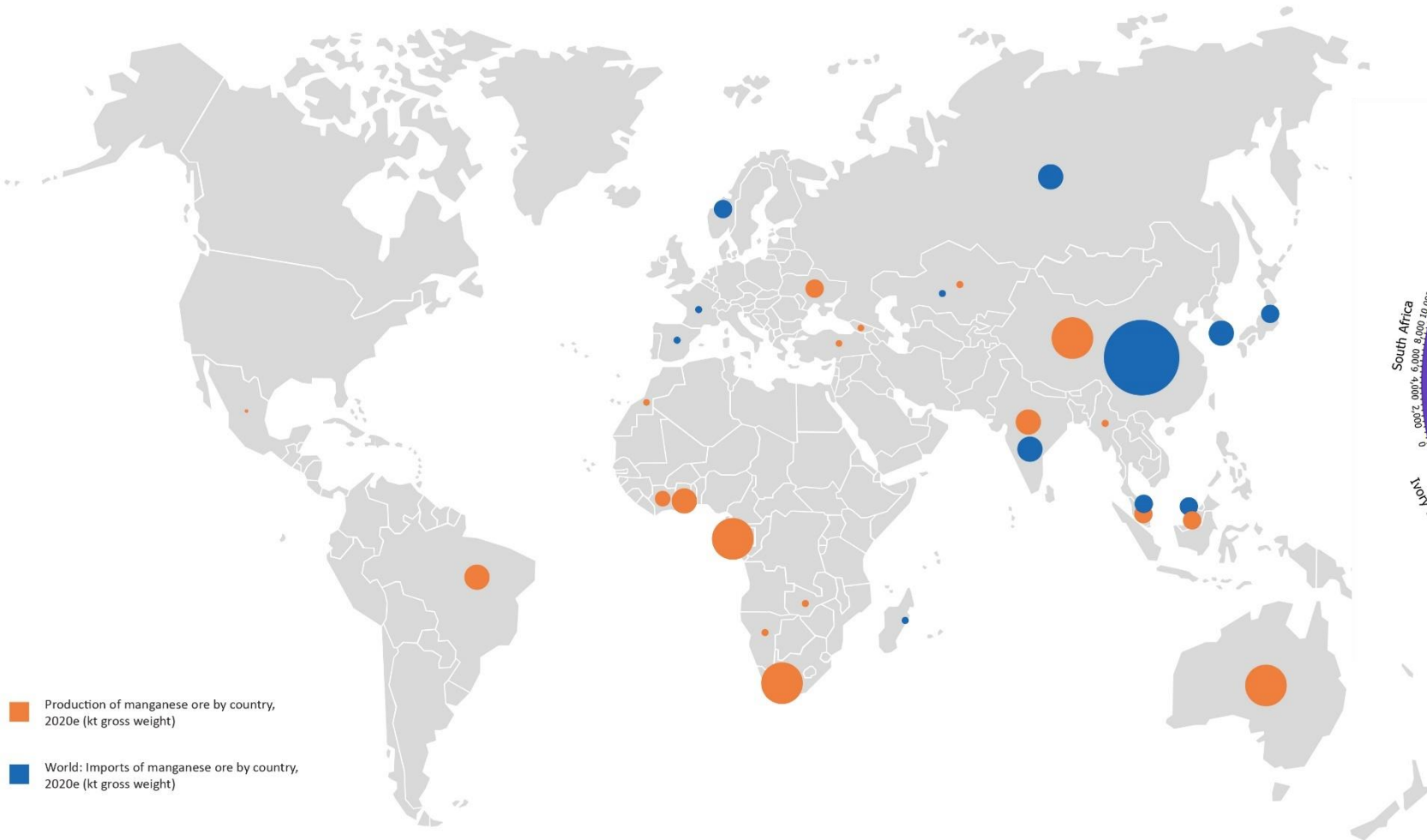
MANGANESE MARKET

- ◆ No substitute for manganese in steel production

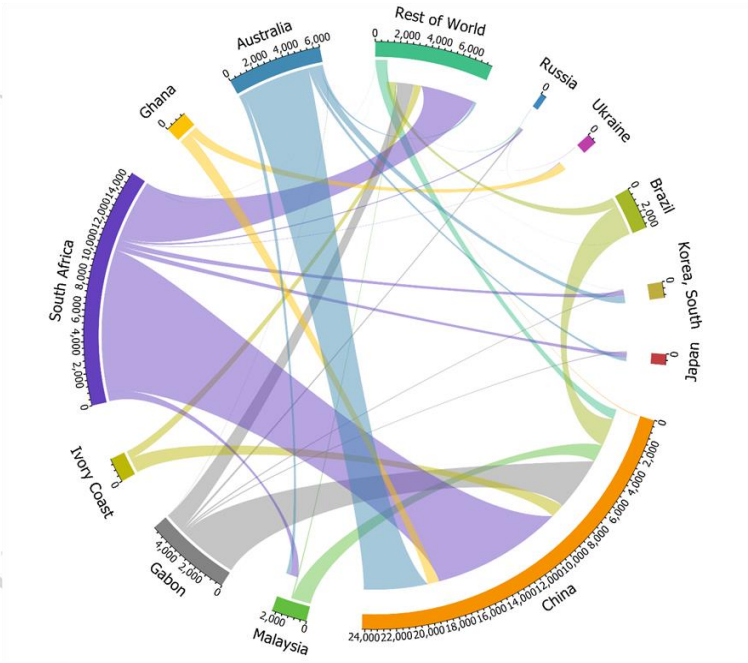


2nd LARGEST CONSUMPTION IS IN BATTERIES

MANGANESE SEABORNE TRADE



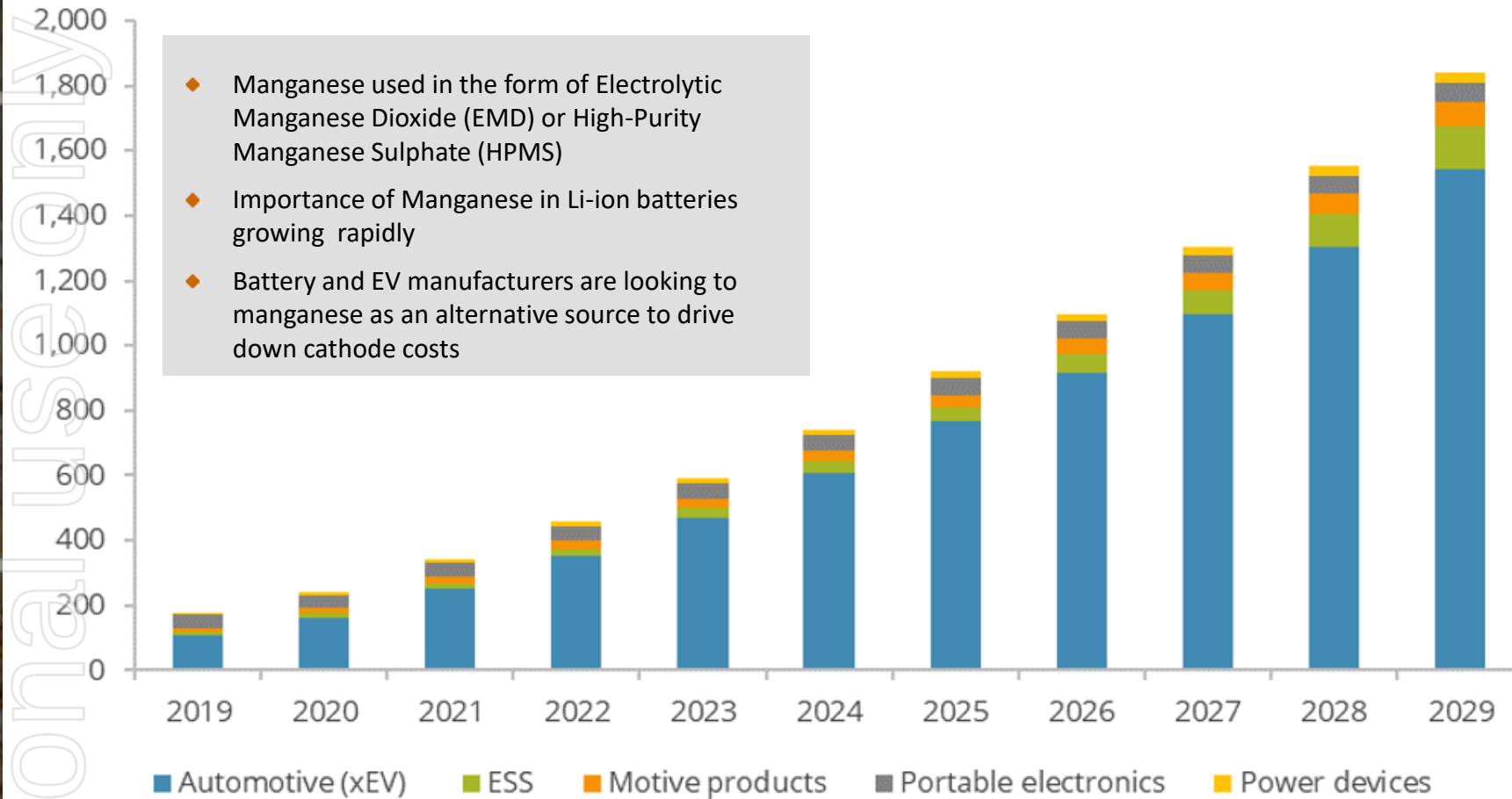
Trade flow for manganese ore, 2020e (Mt gross weight)



Source: Roskill & UN Comtrade

MANGANESE MARKET – Batteries

World Li-ion battery use by market, 2019-2029 (GWh)



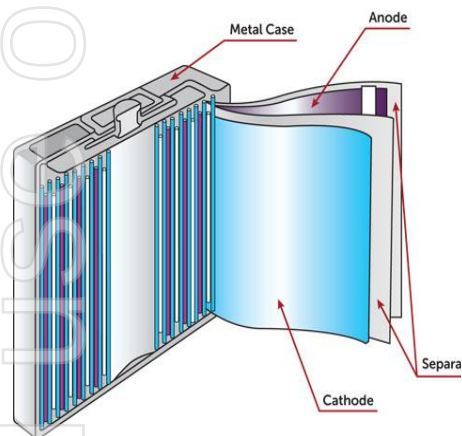
“Manganese consumption in lithium-ion batteries is expected to skyrocket in the coming 10 years, because of the enormous rise of lithium-ion battery demand.... Roskill has upgraded its forecast, which now see Mn demand in lithium-ion growing at 23%py between 2020-2030.

Demand is set to reach nearly 380,000 mt by 2030, from 48,000mt in 2020”

International Manganese Institute

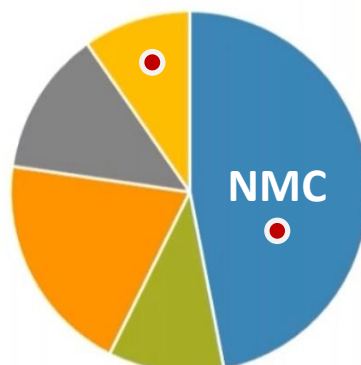
MANGANESE MARKET – Li-Ion Batteries - Understanding The Manganese Potential

NMC (Nickel, Manganese & Cobalt) is the dominant EV Li-ion battery cathode chemistry todayand will continue to be so for at least the next two decades



Source: enovix.com

Global output of cathode materials by chemistry in 2020

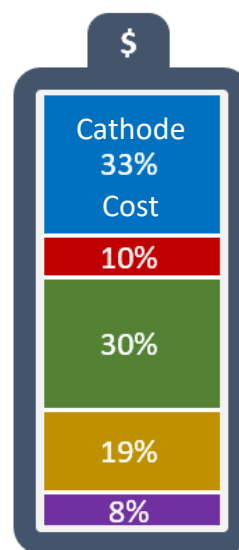


■ NCM ■ NCA ■ LFP ■ LCO ■ LMO

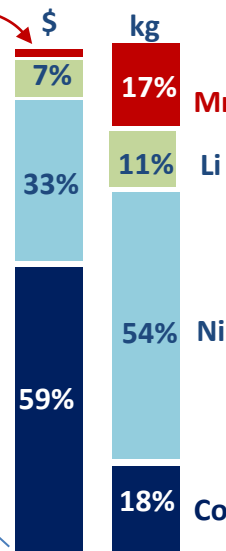
● = Mn use

■ LCO ■ NCA ■ NMC 1-1-1 ■ NMC 5-3-2 ■ NMC 6-2-2 ■ NMC 3-7-0 ■ NMC 8-1-1 ■ LNMO ■ LMO ■ LFP ■ OTHER

Manganese accounts for only 1-2% of the cost of cathode materials



NMC-622



By weight **Manganese is as important as Cobalt** in a modern Li-ion EV battery... **but it is considerable cheaper!**

Mn < 0.6% of battery pack cost

Source: Cairn ERA, American Manganese Inc., Bloomberg, CPM
Price assumptions: Li \$17/kg; Co \$36/lb; Ni \$14,700/mt; Mn 2.03/kg [EMM 99.7%]



LOOKING AHEAD

Personal use only



BUILDING A FUTURE MANGANESE PRODUCER

- ◆ Exciting project portfolio led by advanced, flagship Oakover Project
- ◆ Significant total Inferred Mineral Resources to 121mt over two projects:
 - Oakover Project – Inferred JORC 2012 Mineral Resource estimate of 64 Mt @ 10% Mn*
 - Hill 616 Project - Inferred JORC 2012 Mineral Resource estimate of 57.5 Mt @ 12.2% Mn*
- ◆ Speed-to-market strategy, targeting DSO via simple beneficiation production and early cash generation
- ◆ Excellent progression of Rapid Development Program to assess low capital, fast start up potential at Oakover
 - ◆ 233 holes for ~ 10,000m RC drill program complete
 - ◆ Ore Sorting and Met testing well underway
 - ◆ Program to provide key inputs for the expected commencement of PFS in Q4 2021
- ◆ Building a pipeline of Manganese Projects
- ◆ Rising importance of Manganese in Li-ion batteries
- ◆ No substitute for manganese in steel production



CONTACT

Peter Allen

e-mail: admin@firebirdmetals.com.au