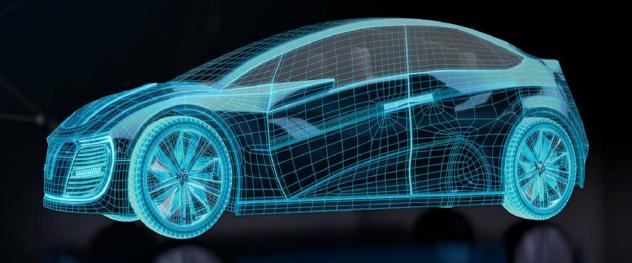


INVESTOR PRESENTATION 2022 **EMERGING MANGANESE DEVELOPER** 





#### **DISCLAIMER**

This presentation contains summary information about Firebird Metals Limited (Firebird) (ABN 24 610 035 535) and is current as of 31 March 2022. 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 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.

### **INVESTMENT HIGHLIGHTS**

FRB listed on ASX in March 2021 with 64Mt inferred resources. Within the first 12 months of listing, the company has achieved:

Total of 229Mt in Resources
58.7Mt @10.4% Mn Indicated
Resource & growing<sup>1</sup>

80.7Mt Resource Defined as Massive & Supergene

Dual Process Development Strategies

Strong Manganese Experienced Board

ESG, New Economy
Commodity in the Best
Location

Key Aspects of Studies - Well Advanced

#### **CORPORATE SNAPSHOT**



EVAN CRANSTON Chairperson

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

Mr Allen is a mining

executive with more than

20 years experience in

lithium and a range of

other commodities.

marketing of manganese,



ASHLEY PATTISON

Non-executive Director





BRETT GROSVENOR Non-executive Director

Mr Grosvenor is an experienced mining executive with over 25 years' experience in the Mining and Power industry. Holding a dual tertiary qualification in Engineering and a Master in Business.



PETER ALLEN

Managing Director



WEI LI Finance Director

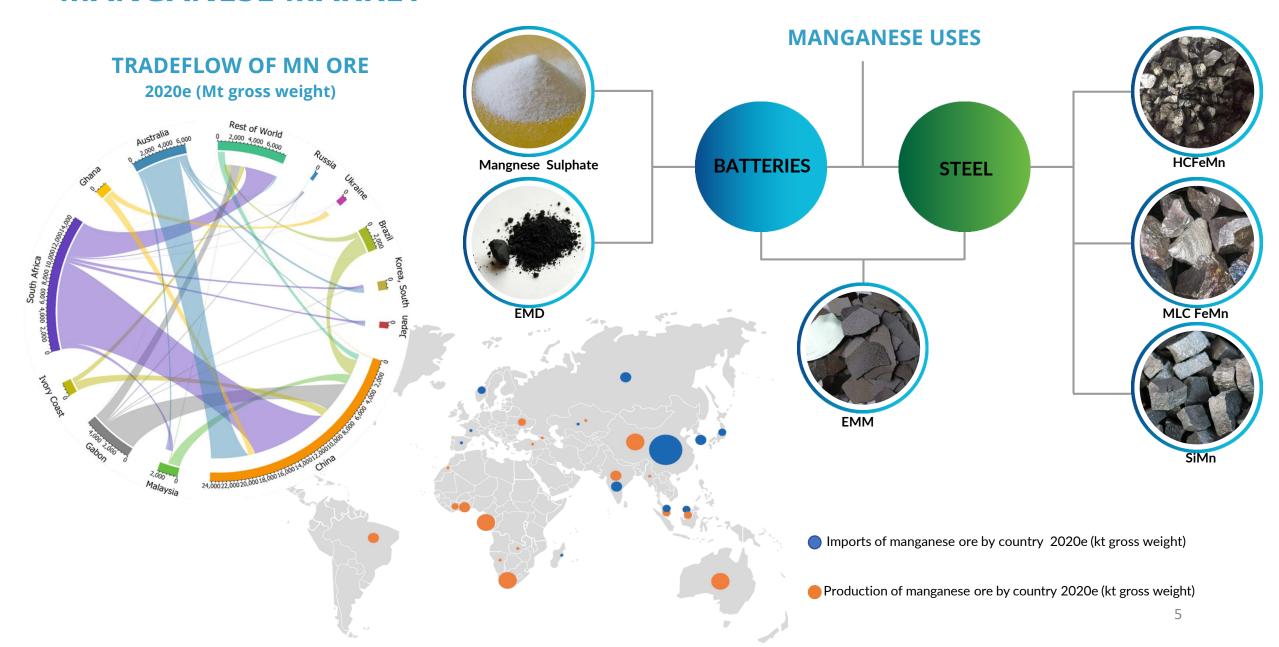
Mr Li a Chartered Accountant with extensive experience in the resource industry. Mr Li managed a private base metal exploration company in the Northern Territory and assisted in commissioning a A\$150 million Electrolytic Manganese Dioxide (EMD) plant in Hunan China.

Firebird Metals Limited	ASX:FRB
Share price per 31/3/22	\$0.33
Shares on issue	54.6 M
Market capitalisation	\$18.0 M
Options @ \$0.30	8 M
Options @ \$1	10 M
Performance rights	3.3 M
Cash	\$1.2 M



### **MANGANESE MARKET**

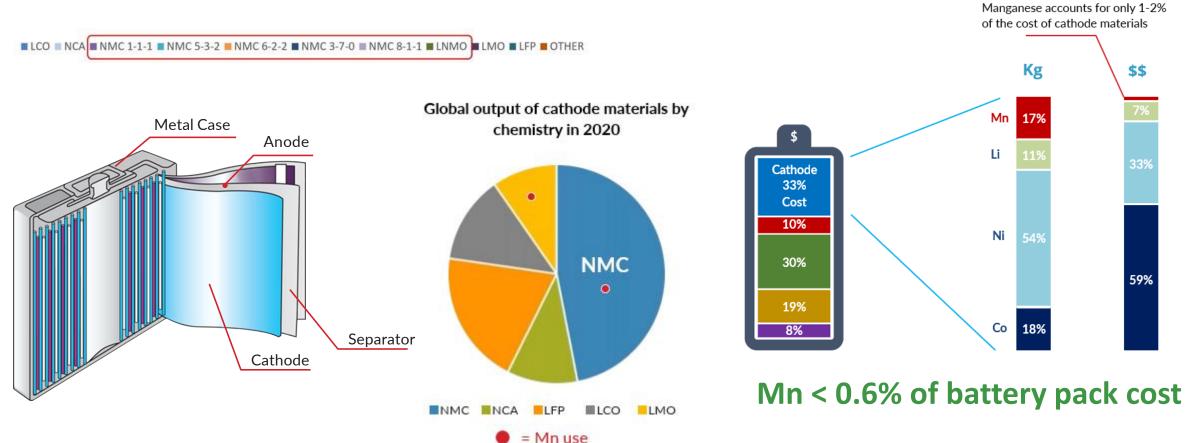






# LI-IONBATTERIES UNDERSTANDING THE MANGANESE POTENTIAL

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

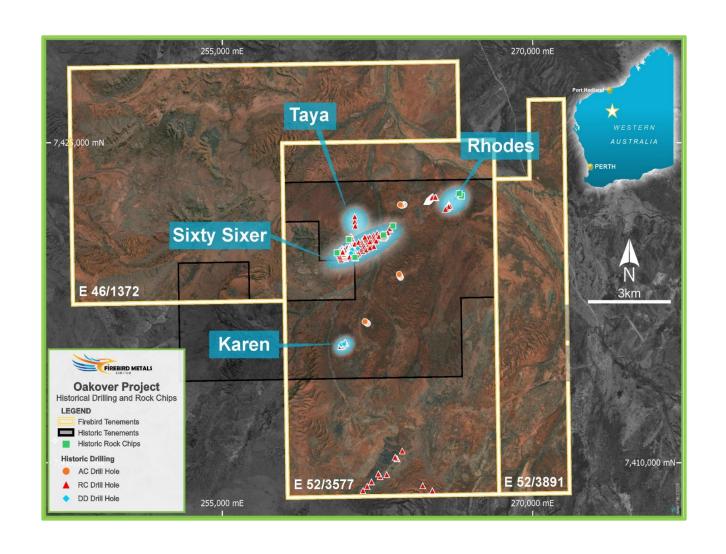


Source: CPM Group, Cairn ERA, American Manganese Inc., Bloomberg, CPM Price assumptions: Li \$17/kg; Co \$36/lb; Ni \$14,700/mt; Mn 2.03/kg [EMM 99.7%]



## **OAKOVER PROJECT**

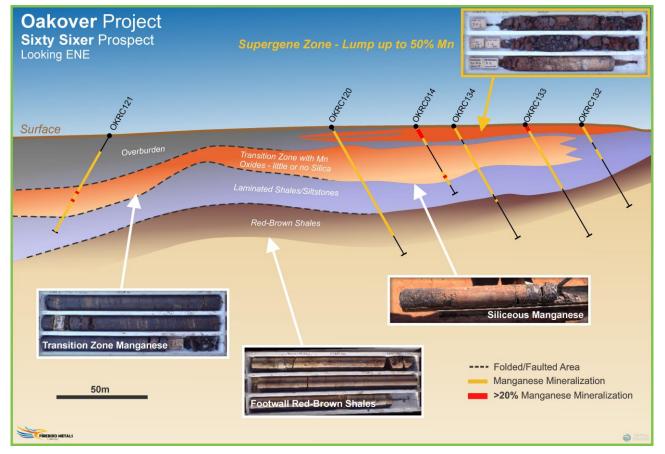
- ✓ Located 85km East of Newman
- ✓ Near surface / shallow mineralisation
- ✓ Total exploration to date of 400 drill holes for 20,090 m
- ✓ Significant 108 Mt increase to 172 Mt at 9.9% Mn, representing 170% increase from historical resource
- ✓ 58.7Mt @10.4% Mn Indicated Resource
- ✓ Significant metallurgical test work undertaken
- ✓ Large number of exploration prospects remain within tenement



<sup>\*</sup> Refer ASX announcement "Game Changing Resource Upgrade at Oakover" dated 10/3/2022

## **OAKOVER PROJECT - RESOURCE**

- √ 80.7Mt of Massive and Supergene Resource
- ✓ Potential to increase resource further
- ✓ Simple near surface gently dipping geology





#### **OAKOVER RESOURCE TABLE**

	Mineral								
	Resource		Tonnes	Mn	Fe	SiO2	Al203	P	LOI
Area	Classification	Domain	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)
<b>Sixty Sixer</b>	Indicated		58.7	10.4	9.2	40.2	10.1	0.1	13.2
Sixty Sixer	Inferred		50.7	9.6	8.5	38.9	9.9	0.11	15
Jay Eye	Inferred		22	9.5	8.5	40	9.8	0.11	14.2
Karen	Inferred		40.9	9.5	9.3	42.7	10.5	0.11	12
Oakover	Indicated		58.7	10.4	9.2	40.2	10.1	0.1	13.2
Oakover	Inferred		113.6	9.6	8.8	40.4	10.1	0.11	13.8
Oakover	<b>Grand Total</b>		172.3	9.9	8.9	40.4	10.1	0.11	13.6
OAKOVER MASSIVE & SUPERGENE RESOURCE									
Jay Eye	Inferred	2	9.3	10.9	9.5	40.9	9.9	0.13	11.5
Jay Eye	Inferred	5	-	-	_	-	-	-	-
Karen	Inferred	2	18	10.6	10	43.9	10.6	0.1	10.1
Karen	Inferred	5	0.5	14.1	11.8	44	9.6	0.07	8.2
Sixty Sixer	Indicated	2	31.6	11.6	10.2	41.9	10.6	0.11	10.5
Sixty Sixer	Inferred	2	19.3	11	9.7	40.6	10.2	0.12	12
Sixty Sixer	Indicated	5	1.3	14.7	12.9	<i>37</i>	10.4	0.06	9.9
Sixty Sixer	Inferred	5	0.7	13.4	12	36.8	12.7	0.05	9.6
Oakover	<b>Grand Total</b>		80.7						

#### Notes:

- Mineral Resources reported at a cut-off grade of 7% Mn.
- P2O5 converted to P% using a factor of 0.4364 calculated from atomic mass and molecular weight.
- Due to the effects of rounding, the total may not represent the sum of all components.
- Refer to ASX announcement "Game Changing Resource Upgrade at Oakover" dated 10/3/2022

## **OAKOVER PROJECT - METALLURGICAL TEST WORK**



## Successful proof-of-concept ore sorting trials and preliminary heavy liquid test work from <u>diamond</u> cores

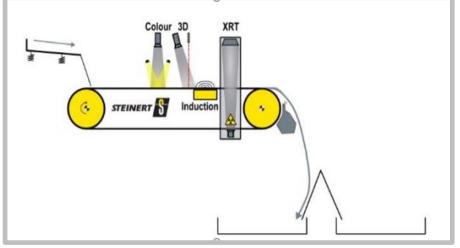
- ✓ Excellent **ore sorting** results with beneficiated product grades up to 31% Mn (11.4% Mn feed)
- ✓ Preliminary heavy liquid beneficiation test work on -8+1 mm material, delivering excellent beneficiated grades up to 32.8% Mn
- ✓ Results provide a high-level of confidence that a commercial end product is possible

#### **Further work underway**

- ✓ Bulk-sampling of near surface at the Karen and Sixty Sixer deposits completed with a larger scale bulk metallurgical test work program commenced
- ✓ Product feeding into Hydrometallurgy test work



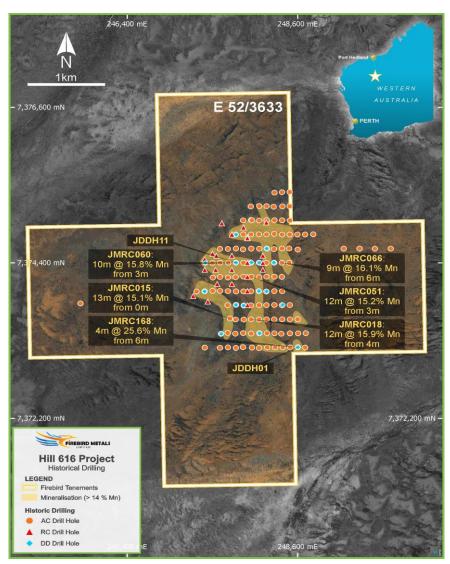






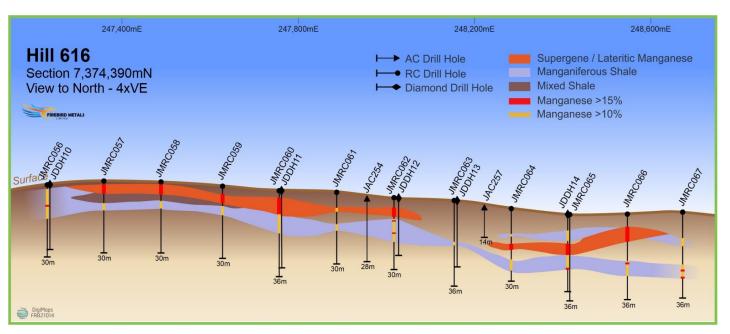
## **HILL 616 PROJECT**





Source: Firebird ASX announcement "Hill 616 Technical Review Complete, CSA Global engaged for Resource Work" dated 11/11/21 and "Maiden Resource at Hill 616" dated 1/12/21

- √35km south of Oakover
- ✓ Shallow gently dipping geology, similar to Oakover
- ✓ Historical drilling of more than 4,900m over a strike of 2.2 km
- √57.5 Mt @12.2% Mn Inferred Mineral Resource



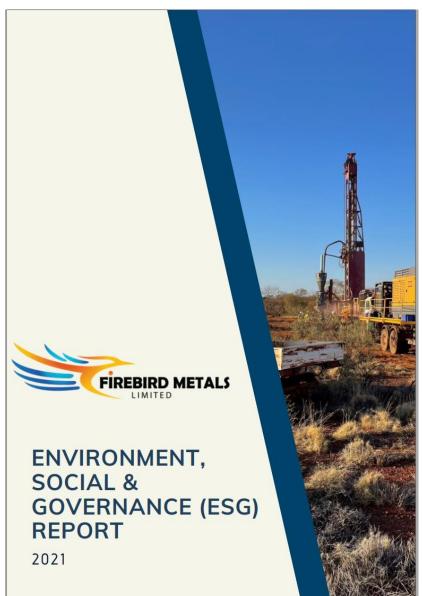
Zone	Mineral Resource Classification	Tonnes (Mt)	Mn (%)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%)
Manganiferous shale	Inferred	49.3	11.4	17.3	40	8.5	0.13
Supergene manganese	Inferred	8.1	17.4	16.8	30.1	9.4	0.09
Grand Total	Inferred	57.5	12.2	17.2	38.6	8.6	0.13



FIREBIRD METALS

- ✓ Local band
- ✓ Local school
- ✓ Weather station
- ✓ Regular ESG reporting
- ✓ Utilising community services where possible









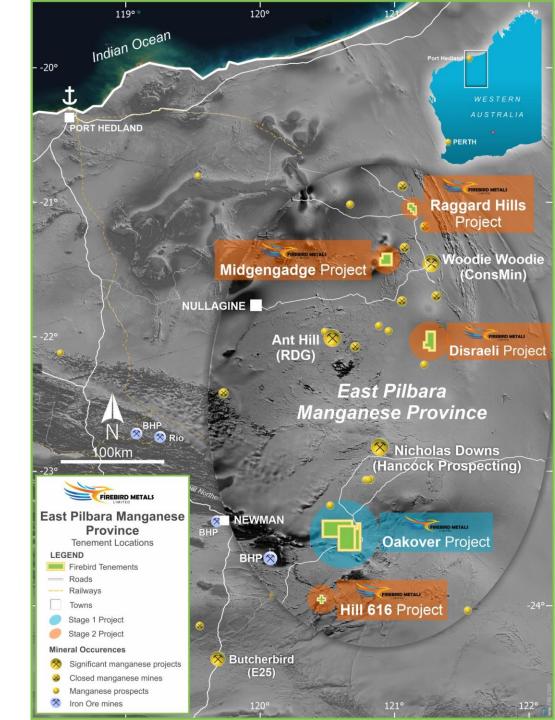
#### **SUMMARY AND LOOKING AHEAD**

#### **Since listing in March 2021**

- ✓ 350% increase in Total Mineral Resources to 229 Mt
- ✓ Indicated resource is at 58.7Mt @ 10.4% Mn
- √ 80.7Mt Resource defined as Massive & Supergene
- ✓ Metallurgical testwork advanced
- ✓ Other components of studies progressing well
- ✓ ESG & Community engagement

#### **Looking ahead**

- ✓ Scoping Study to be completed in June 2022 quarter
- ✓ Offtake customers discussion on going
- ✓ Mining lease application
- ✓ Environmental permitting
- ✓ Reconnaissance exploration & further resource upgrade





## HAVE QUESTIONS?

## GET IN TOUCH WITH FIREBIRD METALS

Suite 20, 513 Hay Street Subiaco WA 6008 +61 (08) 6245 9818

www.firebirdmetals.com