



## **Company Update**

18 August 2022

**ASX:BEM** 





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#### FORWARD LOOKING STATEMENTS

Certain statements contained in this presentation, including information as to the future financial or operating performance of BlackEarth Minerals NL ("the Company") and its projects, are forward-looking statements. Such forward-looking statements are necessarily based on a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies, involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimates, and may include, among other things, statements regarding targets, estimates and assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates and are, or may be, based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. The Company disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words 'believe', 'expect', 'indicate', 'contemplate', 'traget', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and other, similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of tuture performance and, accordingly, investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein. Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements. Such factors include, but are not limited to: competition; mineral prices; ability to meet additional

Some of the information contained in this presentation has been derived from previously released information to the ASX refer: 27/12/2018 "Maniry Graphite Project resource increases by over 80%", 17/1/20 "Fast Tracking the Maniry Graphite Project", 29/4/20 "Quarterly Activities Report – 31 March 2020", 31/7/20 "Quarterly Activities Report – 30 June 2020", 21/7/22 "Downstream Graphite Processing JV set to Commence in India".

#### COMPETENT PERSONS STATEMENT

The information in this Report that relates to in situ Mineral Resources for both Razafy and Razafy NW was prepared, and fairly reflects information compiled, by Mr Grant Louw and Dr Andrew Scogings, each of whom have 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 Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Mr Louw is an employee of Snowden Optiro and is a Member of both the Australian Institute of Geoscientists and the Geological Society of South Africa and is a Registered Professional Geoscientist (RP Geo. Industrial Minerals). Mr Louw and Dr Scogings consent to the inclusion of information in the Mineral Resource report that is attributable to each of them, and to the inclusion of the information in the release in the form and context in which they appear.

#### **CAUTIONARY STATEMENT**

The Exploration Targets reported herein are not JORC compliant Mineral Resources. The potential quantity and grade of the Exploration Targets are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in the determination of a Mineral Resource.

### **Corporate Overview**



#### **CAPITAL STRUCTURE**

BEM

A\$5.8M

Cash at 30 Jun 22

\$27.1M

Market Cap (at \$0.10 per share)

271m Shares on Issue

\$21.3m Enterprise Value Or \$USD15m

#### **BOARD OF DIRECTORS & MANAGEMENT**

**George Bauk** Non-Executive Chairman

- Over 30 years' experience in the resources industry including 14 years' experience as a listed resources company director
- Has held global operational and corporate roles with WMC Resources and Western Metals, and most recently was MD of Northern Minerals

**Tom Revy**Managing
Director

- Qualified metallurgist with extensive experience in project development and EPCM services
- More than 30 years' experience within the resources industry
- Held senior operational and corporate positions at GRD Minproc, WorleyParsons, Ferrum Crescent and Empire Resources

**David Round**Finance Director

- Extensive M&A, Business Development and Corporate Advisory experience within the Resource sector in critical commodities
- Was recently CFO and Head of Sales of an Australian listed Graphite production company with mine operations in Madagascar.

**Heather Zampatti**Non-Executive
Director

- Head of Wealth Management at Bell Potter Securities and has over 35 years in Stockbroking, Finance, Investment policy, strategy and funds management
- Extensive board experience including on the Federal Government Remuneration Tribunal and Takeovers Panel ,the Australian Institute of Management (WA), and ASIC Financial Services Consultative Committee.

# Vision: To become a material, vertically integrated global graphite business



#### **MANIRY GRAPHITE PROJECT**

- Proven location Madagascar
- Quality Resource & large Exploration Target
- Product tested and samples qualified by tier 1 users
- Plan to complete the DFS by Oct 2022
- Plant commissioning planned in 2024

#### **STAGE 1 DOWNSTREAM (INDIA)**

- Expandable graphite (2000-2500tpa) facility
- Significant uplift in revenue / profit
- JV with proven producer Metachem
- Binding offtake with Tier 1 European buyer in place
- DFS completed; plan to commission plant by Q1 2023

#### **GRAPHITE MARKET CONDITIONS**

- End-users becoming increasing concerned about security of supply....looming deficit 2023(?)
- Significant natural graphite price increases experienced over the last 12 months
- Increasing EV demand combined with growing ESG thematic provide strong tailwinds



### **The Market Graphite Supply Deficit**



"Natural graphite is forecast to move into a structural deficit as soon as 2023-24",

EIT InnoEnergy and European Battery Alliance Policy Manager Ilka von Dalwigk t S&P Global Commodity Insights. May 2022

Growth in demand for selected minerals from clean energy technologies by scenario, 2020 relative to 2040, will see increases of graphite 8x to 25x

International Energy Agency (IEA)

With electric vehicle sales expected to reach up to 11 million units in 2022, there could be a deficit of around 40,000 tonnes of graphite this year

George Miller - Benchmark Mineral Intelligence April 2022



### **Madagascar Gepolitics**

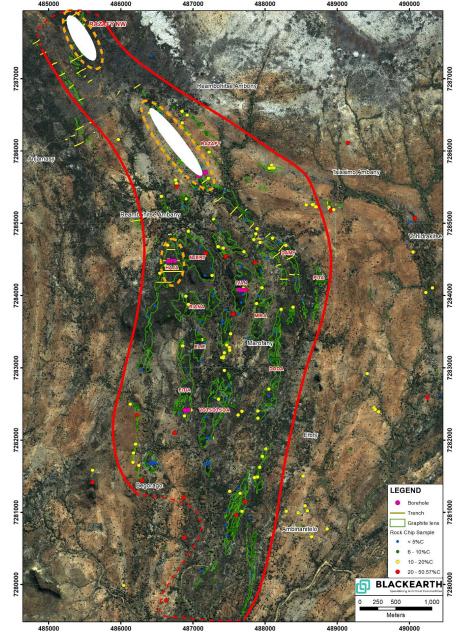


### MADAGASCAR KEY POINTS

- ► +100 years graphite production history
- Largest supplier of graphite into China
- Second largest supplier of graphite into India
- Top 5 supplier of graphite into the USA
- Attractive fiscal regime including no "freecarried" interests

### INVESTMENT RISK INDEX FOR GRAPHITE PRODUCING COUNTRIES<sup>1</sup>





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### **Maniry Project Overview**

- Rapidly developing South Madagascar graphite corridor
- Adjacent to Next Sources' Molo Project with infrastructure development well under way.
- Only 10-15% of the total tenement position has been systematically explored to date
- Large Mineral Resource contained within an Exploration Target of 260-380Mt at 6-8%TGC\*
- 40 year Mining Lease granted over the majority of the current Mineral Resources

Ongoing exploration has the potential to increase both NPV and IRR for the Project

### **Maniry DFS Update**



- Definitive Feasibility Study being prepared as a financing document to a standard that will meet project debt financiers' requirements
- BEM have appointed the following key contractors / consultants:
  - ► CPC Engineers: DFS engineering Capex and Opex, incl assist on metallurgy, Study Report
  - **BGRIMM:** Graphite technical / metallurgical experts
  - ► **Golder:** geotechnical, water supply, surface water management, TSF and waste geochemistry
  - Snowden: resource development and modelling
  - ▶ **GSC:** ESIA in partnership with Malagasy specialist
  - ▶ **Mining Focus:** mining study and production schedule
  - Orezone: Infill drilling at Razafy
- Schedule: complete target Oct 2022



### **Maniry Mineral Resource Inventory**



#### **Total Mineral Resources**

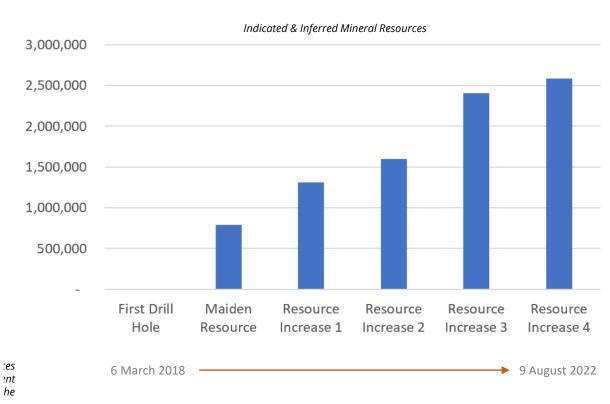
Area	Classification	Tonnes (Mt)	Total Graphitic Carbon (%TGC)	Contained Graphite (tonnes)
Razafy*	Indicated	13.6Mt	6.5%	890,000
	Inferred	12.1Mt	5.9%	720,000
Razafy NW*	Indicated	3.1Mt	8.6%	266,000
	Inferred	2.2Mt	8.5%	186,000
Haja**	Indicated	-	-	-
	Inferred	9.0Mt	5.8%	522,000
TOTAL	Indicated	16.7Mt	6.9%	1,156,000
	Inferred	23.3Mt	6.1%	1,428,000

\*3% TGC cut-off grade

\*\*5% TGC cut-off grade

Reported at the cut off grades above; figures in the table above have been rounded, reported to the appropriate significant figures with graphite tonnages rounded to the nearest thousand, in accordance with the 2012 JORC Code

#### **Total Contained Graphite (Tonnes)**

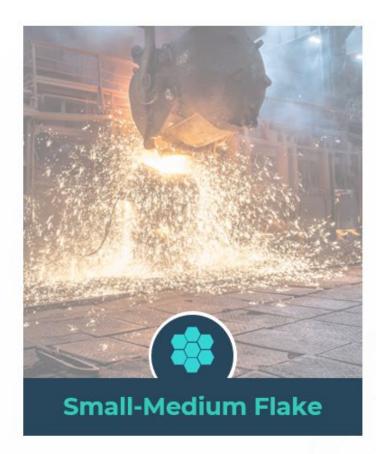


### **High Value High Demand Products**

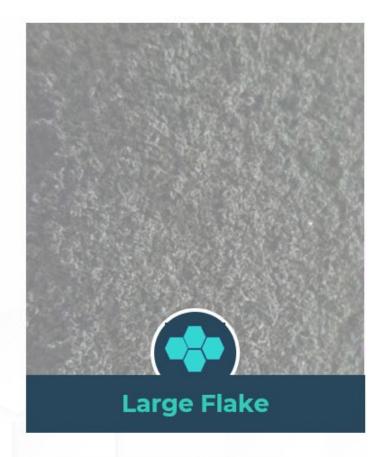




- Significant growth projected to 2040
- Demand outlook linked to Li-ion Batteries
- Est Current demand: 400+ktpa
- Est. projected growth to 2040 = 25%+pa



- · Largest consumer of natural graphite
- Demand linked to Global growth
- Est Current demand: 500-600ktpa
- Est. projected growth to 2032 = 1-3%pa



- Substantial demand projected for expandable graphite related materials
- Est Current demand: 70-90ktpa
- Est. projected growth to 2040 = 7%+pa

### **Project ESG Highlights**

Maniry Graphite Project has been designed to meet Equator Principles

As part of the DFS, Golder has found no environmental or social related Fatal Flaws associated with the proposed mining project or associated infrastructure as part of their Project assessment

Solar/diesel hybrid power supply incorporated into the design

Potential impacts of Climate Change within the Project area have been incorporated into the DFS

The Company continues to assist in training Malagasy personnel both incountry and in Australia

Positive site rehabilitation audit by "Office National pour l'Environnement" (ONE) for work carried out on site to date







**ESG** 

**CERTIFIED** 

**Digbee** ESG<sup>™</sup>

### **Expandable Graphite Strategy**





Low risk / CAPEX entry into the downstream market, providing shareholders with a higher revenue stream and Company cash flow expeditiously

"The (Maniry) flake graphite flotation concentrate ALS 19212 is well suitable for the preparation of expandable graphite. We could not find any restriction which would limit the application of this kind of flake graphite."

**NGS Trading & Consulting GmbH** 



Coarse Flake Maniry Graphite

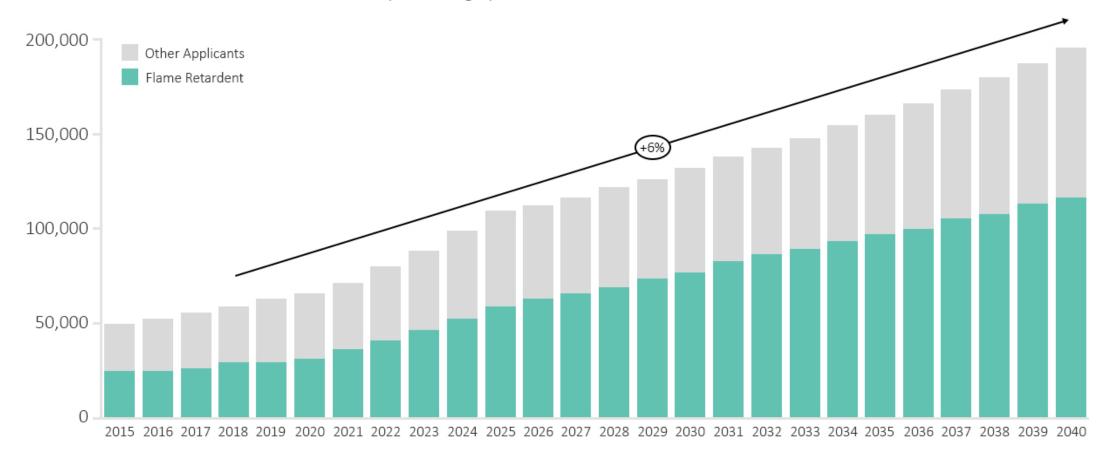


### **Expandable Graphite Growth Projections**



#### **Demand for Expandable Graphite Growth – Flame Retardant Projections**

Expandable graphite demand forecast, 2015-2040

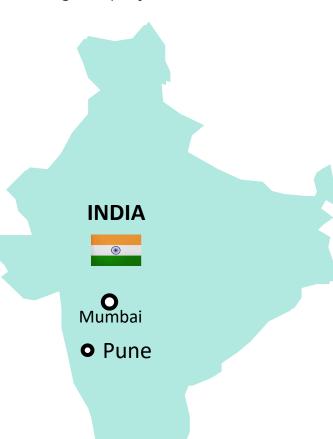


### **Panthera Graphite Update**

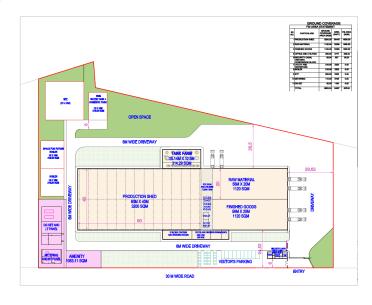


50/50 JV BlackEarth Minerals NL & Metachem Manufacturing Company Pvt. Ltd

- Initial supply agreement
- Offtake agreement for up to 100% of product
- Feasibility Study
- Land acquisition within Special Economic Zone (Pune)
- Engineering ongoing
- Survey works commenced
- Site construction planned to commence October 2022
- Commissioning planned for Q1 2023













Completion of Maniry Graphite Project DFS



Construction commences – JV Expandable Graphite Facility



Binding Offtakes for Maniry Graphite Concentrate



Commissioning – JV Expandable Graphite Facility



Ongoing ESG & Exploration updates



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