

ASX:EV1

For personal use only

**EVOLUTION**  
ENERGY MINERALS

**SUSTAINABLE  
GRAPHITE PRODUCTS  
FOR THE GLOBAL  
GREEN ECONOMY**

May 2022



# DISCLAIMER

This presentation (the "Presentation") has been prepared by Evolution Energy Minerals Limited ("Evolution"). No party other than Evolution has authorised or caused the issue of this document, or takes responsibility for, or makes any statements, representations or undertakings in this Presentation. This Presentation does not constitute an offer, invitation or recommendation to subscribe for or purchase any securities and neither this Presentation nor anything contained in it shall form the basis of any contract or commitment.

This Presentation contains summary information about Evolution and its activities, which is current as at the date of this Presentation. The information in this Presentation is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor may require in evaluating a possible investment in Evolution that would be required in a prospectus or product disclosure statement prepared in accordance with the requirements of the Corporations Act 2001 (Cth).

This Presentation is not a prospectus, product disclosure statement or other offering document under Australian law (and will not be lodged with the Australian Securities and Investment Commission) or any other law.

This presentation includes certain "forward-looking statements". Forward-looking statements and forward-looking information are frequently characterised by words such as "plan," "expect," "project," "intend," "believe," "anticipate," "estimate" and other similar words, or statements that certain events or conditions "may", "will" or "could" occur. All statements other than statements of historical fact included in this presentation are forward-looking statements or constitute forward-looking information. Although the Company believes the expectations expressed in such statements and information are based on reasonable assumptions, there can be no assurance that such information or statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such information. Important factors that could cause actual results to differ materially from those in forward-looking statements include the market price of graphite, exploitation and exploration successes, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, as well as those factors disclosed in the Company's filed documents. Accordingly, readers should not place undue reliance on "forward-looking information". There can be no assurance that a transaction for offtake and finance will be concluded, or that development of the Chilalo Graphite Project will proceed as planned or that the resources at Chilalo can be economically exploited.

This Presentation has been prepared in good faith, but no representation or warranty, express or implied, is made as to the fairness, accuracy, completeness, correctness, reliability or adequacy of any statements, estimates, opinions or other information, or to the reasonableness of any assumption or other statement, contained in the Presentation (any of which may change without notice). To the maximum extent permitted by law, Evolution and its professional advisers and their related bodies corporate, affiliates and each of their respective directors, officers, partners, employees, advisers and agents and any other person involved in the preparation of the Presentation disclaim all liability and responsibility (including, without limitation, any liability arising from fault or negligence) for any direct or indirect loss or damage which may arise or be suffered through use of or reliance on anything contained in, or omitted from, this Presentation.

## Mineral Resources

The Chilalo Mineral Resource estimate was reported by Evolution in the prospectus dated 28 September 2021, as supplemented by a supplementary prospectus dated 6 October 2021 (collectively, the Prospectus). Evolution confirms that it is not aware of any new information or data that materially affects the Chilalo Mineral Resource estimate included in the Prospectus and that all material assumptions and technical parameters underpinning the Chilalo Mineral Resource estimate in the Prospectus continue to apply and have not materially changed.

## Forecast Financial Information

The forecast financial information (and the production target on which such forecast financial information is based) in this Presentation was reported by Evolution in the prospectus dated 28 September 2021, as supplemented by a supplementary prospectus dated 6 October 2021 (collectively, the Prospectus). Evolution confirms that it is not aware of any new information or data that materially affects the forecast financial information included in the Prospectus and that all material assumptions underpinning the forecast financial information (and the production target on which such forecast financial information is based) continue to apply and have not materially changed.

## Acknowledgments

In accessing, receiving or reviewing this document, each recipient acknowledges and agrees to the foregoing terms and conditions. Any failure to comply with such terms and conditions may constitute a violation of applicable securities laws.

# SUSTAINABLE GRAPHITE PRODUCTS FOR GLOBAL GREEN ECONOMY

## Project Status



Development-ready Chilalo  
Graphite Project in Tanzania

**58% > 80 Mesh**

World leading flake size  
= highest margins



Excellent DFS economics – NPV<sub>g</sub>  
of US\$323M from capex of US\$87M

## Graphite Market



Once-in-a-generation  
graphite demand opportunity



Coarse flake offtake and  
downstream collaboration  
with industry leader (YXGC)



Differentiated and sustainable battery  
anode material program underway

## Corporate



Goal to become world's first  
net zero carbon graphite mine



Framework agreement  
to provide certainty

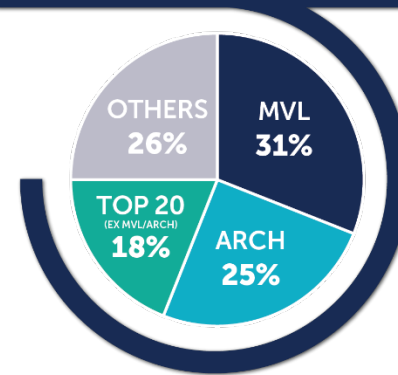


Strategic cornerstone  
investor  
to drive project financing

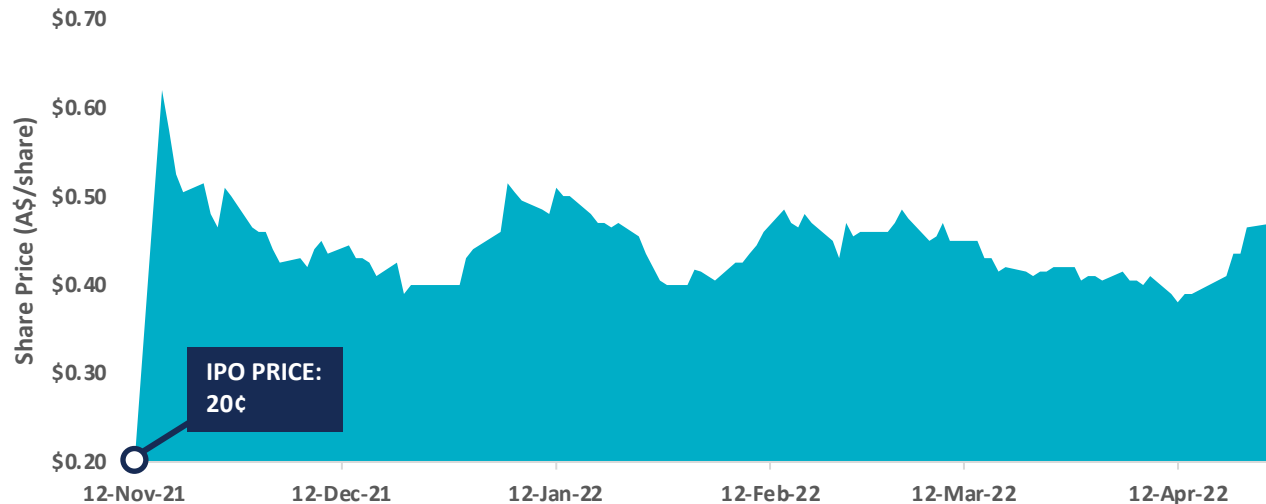
## CORPORATE OVERVIEW

EV1  
ASX Code\$77.7M  
Market Cap  
(at \$0.48 per share)\$7.5M  
Cash  
(as at 31 Mar '22)\$70.2M  
Enterprise Value42.1M  
Unlisted Options  
(\$0.25 exercise)161.9M  
Shares on Issue

## MAJOR SHAREHOLDERS



## SHARE PRICE SINCE IPO



## BOARD

Phil Hoskins  
MANAGING DIRECTOR

Phil is the Executive responsible for the development of Chilalo since 2014. Eight years' graphite experience.

Trevor Benson  
NON-EXECUTIVE CHAIRMAN

Trevor was the Executive Chairman for Tanzanian graphite company, Walkabout Resources Ltd and has 6 years' graphite market experience.

Michael Bourguignon  
EXECUTIVE DIRECTOR

Michael was the Project Manager for the construction of Syrah Resources' Balama graphite project in Mozambique.

Amanda van Dyke  
NON-EXECUTIVE DIRECTOR

Amanda is the MD of the ARCH Sustainable Resources Fund.

## KEY ADVISOR

Chris Whiteley  
INTERNATIONAL SALES & MARKETING CONSULTANT

Chris has been actively involved in all aspects of graphite marketing and product development for more than 25 years.

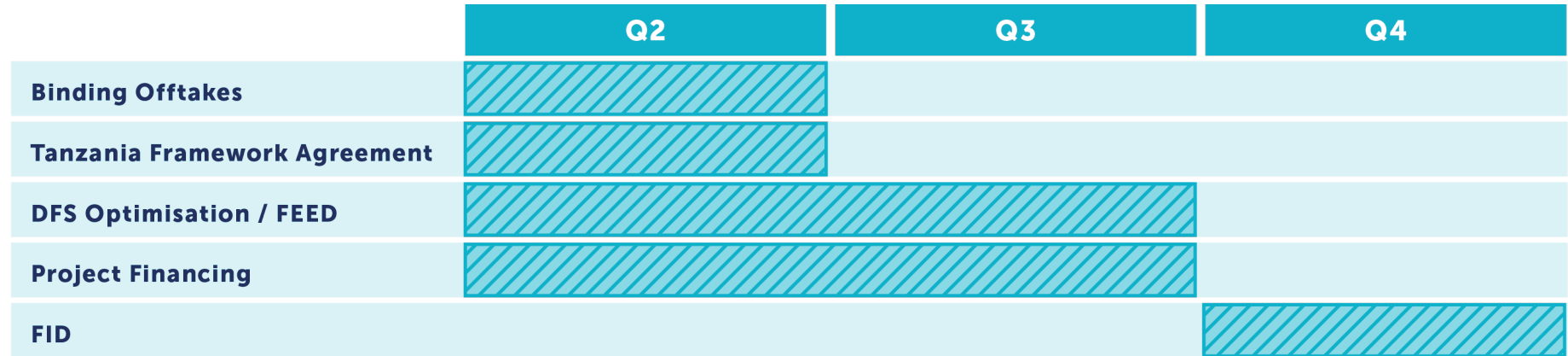
# DELIVERING ON THE MAJOR MILESTONES

Targeting Chilalo FID by H2 2022



## Chilalo Project

Executing & Optimising DFS



## Diversified downstream strategies

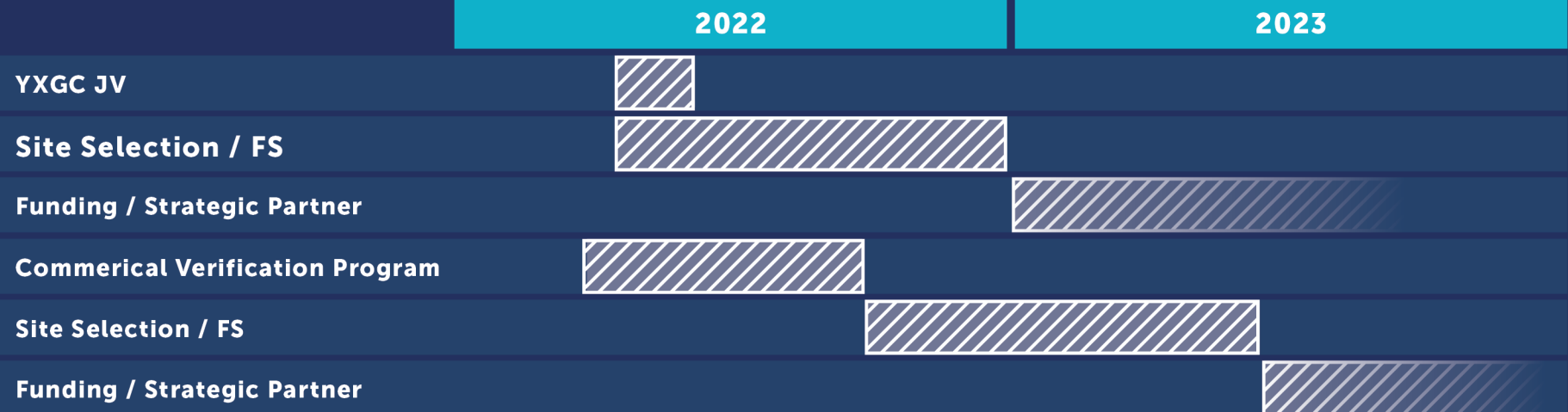
Sustainable Value-add



COARSE  
EG + Foil



FINE  
Batteries



# CHILALO PROJECT

Premium graphite for high-value applications

## Development ready

DFS, Mining Licence and Environmental Approvals

## High margins

~US\$750/t concentrate margin driven by globally significant flake size

## Value-added margins through vertical integration

Diversified downstream strategies using proven technology

## Sustainability focus

Pursuit of net zero carbon mine among ESG commitments

## Potential for multi-decade mine life expansion

18-year DFS, drilling planned to grow mineral resource

## Evolution Product Flake Size

### Flake Size Price Premium

| 10%<br>+32<br>mesh | 21%<br>+50<br>mesh | 27%<br>+80<br>mesh | 6%<br>+100<br>mesh | 36%<br>-100<br>mesh |
|--------------------|--------------------|--------------------|--------------------|---------------------|
| US\$3,500/t        |                    |                    |                    | US\$700/t           |



# LARGE HIGH GRADE MINERAL RESOURCE

Potential for multi-decade mine life

## Chilalo Mineral Resource

20Mt at 9.9% TGC over 2km strike

## Long life

Existing 18 year mine life based on existing Ore Reserves

## Geophysics indicates upside

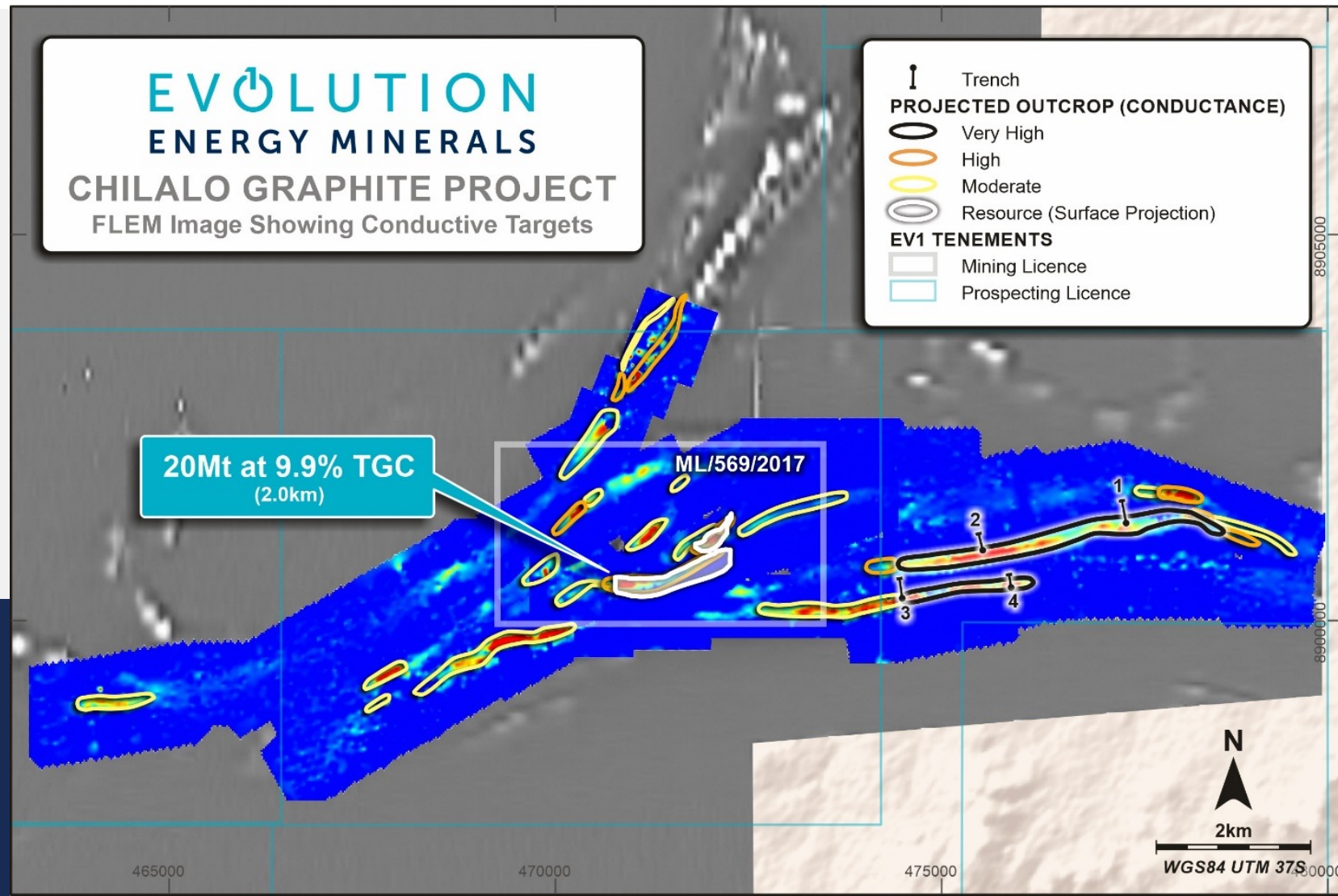
33km of conductors with same or higher conductivity (= high grade, thick deposits, near surface)

## Drilling planned

Program planned to commence in July

## MINERAL RESOURCE GROWTH RESULTS IN:

- Lower mining costs
- Extension of mine life
- Facilitates production expansion
- Increase in project value (NPV, IRR)



## DFS OPTIMISATION UNDERWAY

Strong economics to a bankable standard<sup>1</sup>

| PHYSICALS  | UNIT  | 2020 DFS |
|--|-------|----------|
| Mine life  | years | 18       |
| Total plant feed   | Mt    | 8.9      |
| Annual plant feed  | ktpa  | 500      |
| Average head grade   | %TGC  | 10.1%    |
| Average graphite concentrate production                              | ktpa  | 50       |
| Steady state expandable graphite sales                               | ktpa  | 12       |
| Steady state micronised graphite sales                               | ktpa  | 8        |
| PROJECT FINANCIALS   | UNIT  | 2020 DFS |
| NPV (Post-tax)   | US\$M | 323      |
| IRR (Post-tax)   | %     | 34%      |
| Post-tax payback period  | years | 3.4      |
| Pre-production capital cost<br>(incl. 10% contingency and pre-strip) | US\$M | 87       |
| Average annual EBITDA  | US\$M | 73       |

## FEED

Appointment of FEED  
engineer – May 2022

Update capex to +/- 10%

## FOCUS OF OPTIMISATION

Revised mining schedule (expected  
to reduce operating costs)Hybrid solar/diesel power solution  
(expected to reduce operating costs  
and carbon footprint)Investigation of dry  
stacking of tailingsDFS optimisation / FEED to be  
completed by September 2022

1. Graphex ASX Announcement – 29 January 2020 "DFS confirms Chilalo as high-margin graphite project." Financial outcomes restated per Evolution prospectus

## TANZANIA

Re-emerging as a favourable investment destination



**Her Excellency Samia Suluhu Hassan appointed as President in March 2021** (following death of the Late His Excellency John Magufuli)



**Speech on 5 April 2021 by Her Excellency**

- Directed the Tanzania Revenue Authority to stop frustrating businesses
- Ordered a review of regulations and taxes with the objective of encouraging foreign investment
- Urged Government officials to "work hard to regain the trust of international business"



**Subsequently, a noticeable change has taken place in Tanzania**

- Several ASX listed companies have obtained required licences and finalised framework agreements with the Tanzanian Government (Strandline Resources, OreCorp, Black Rock Mining)
- BHP invested \$50M in Kabanga Nickel and Barrick acquired \$60M of licences – significant vote of confidence in Tanzania

A teal-colored map of Tanzania is positioned on the right side of the slide. Overlaid on the map is a semi-transparent teal circle containing white text.

Evolution has commenced discussions with Tanzanian Government about a Framework Agreement and Shareholders Agreement to ensure fiscal certainty

“We forecast battery sector demand for raw material graphite to rise by more than 1,400% between 2020 and 2050. By the end of the forecast period, total graphite demand could be three times the 2021 supply level.”

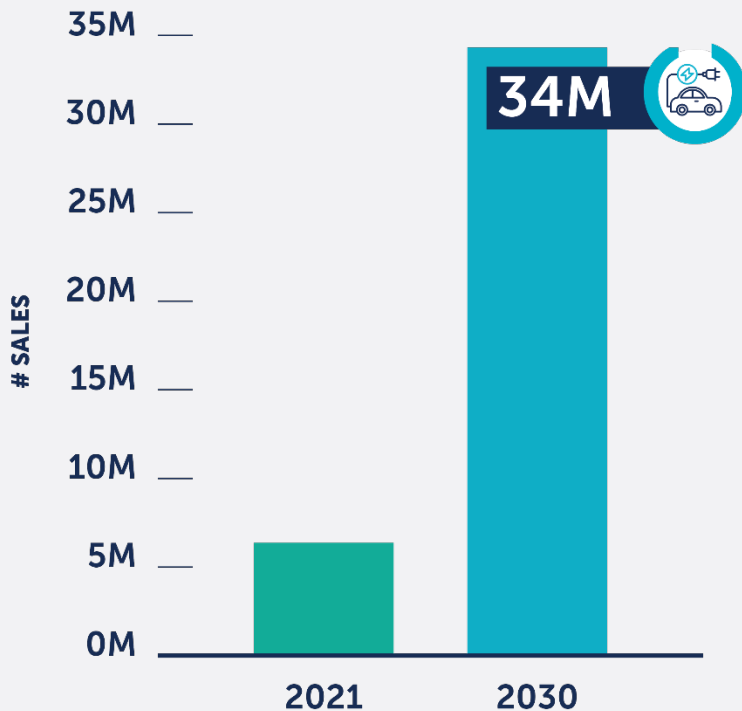
– Wood Mackenzie Graphite Market 2021 Outlook to 2050



## UNPRECEDENTED DEMAND OPPORTUNITY

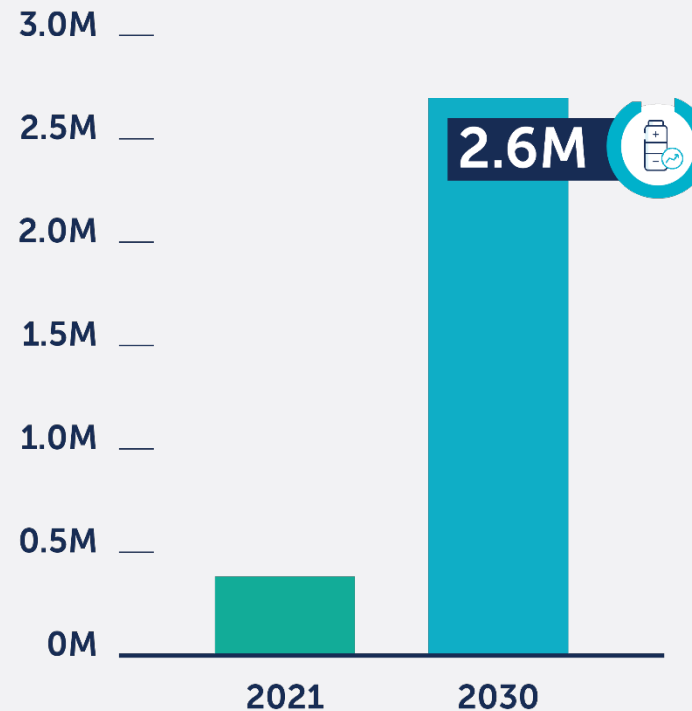
EV sales outperforming forecasts as China / EU reaches inflection point

### ELECTRIC VEHICLES



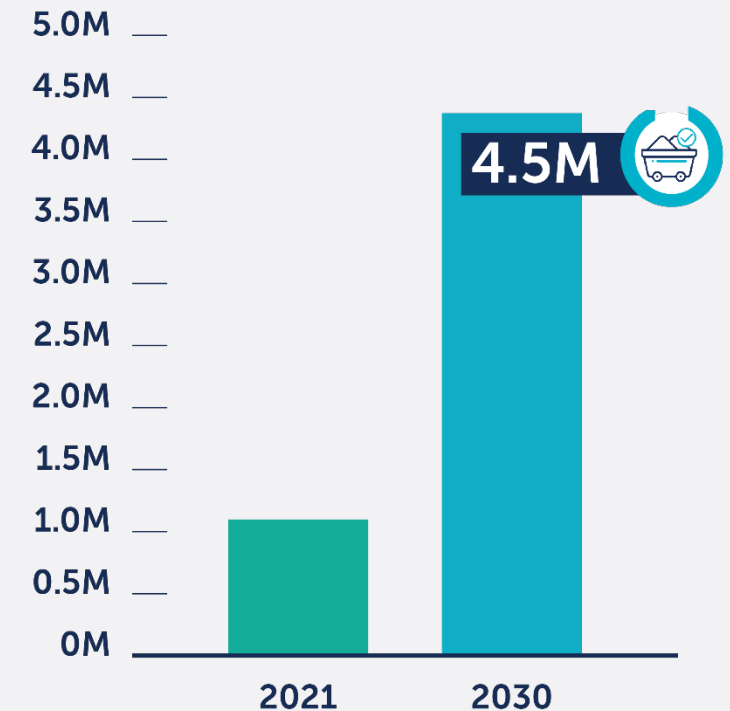
In 2021, EVs represented 15% and 20% of all vehicles sold in China and Europe respectively. *Source: Bloomberg NEF*

### LI-ION BATTERY DEMAND (MWh)



*Source: Benchmark Mineral Intelligence – Q4 2021 Flake Graphite Forecast*

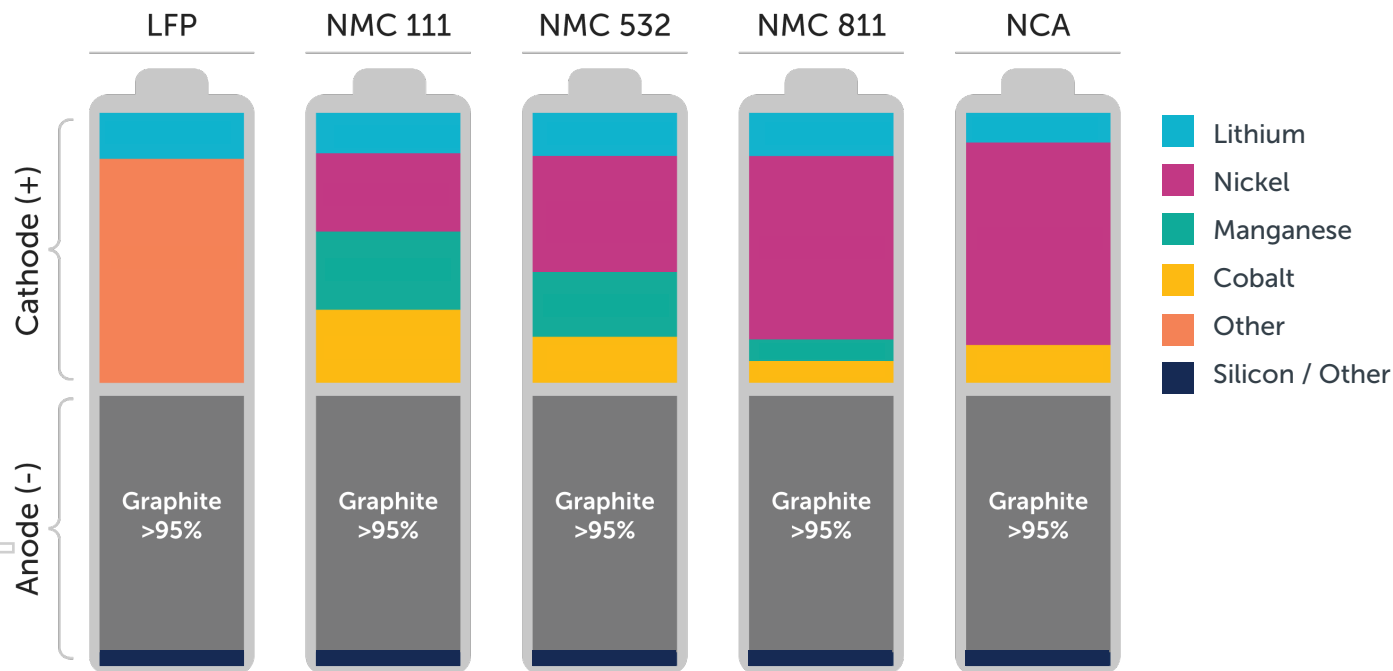
### GRAPHITE DEMAND IN BATTERIES (Mt)



# GRAPHITE IN LITHIUM-ION BATTERIES

High costs and CO<sub>2</sub> footprint shifting demand from synthetic towards natural graphite

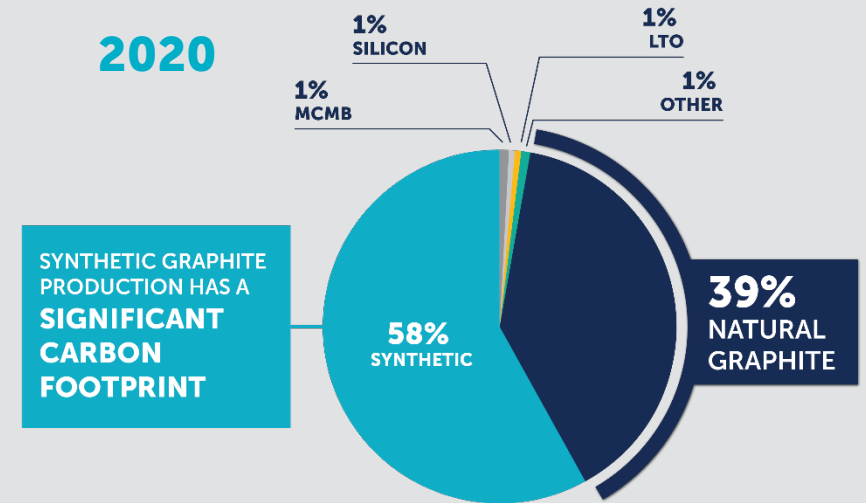
Graphite is the dominant material across all commercial battery technologies



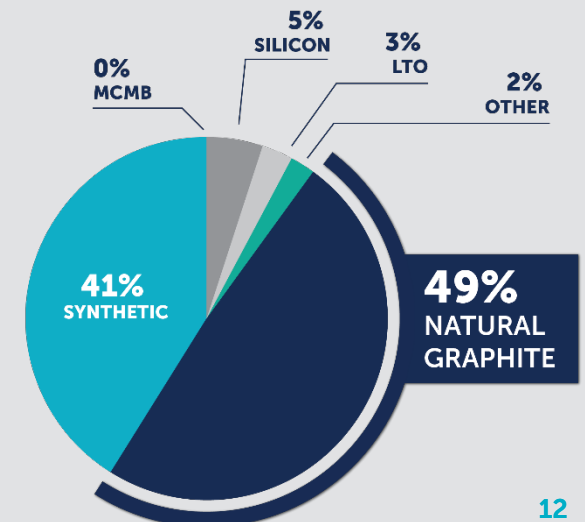
Source: Pallinghurst-Traxys battery analysis. %s represent the proportions of cathode and anode in each battery respectively/ NCA batteries contain 2% aluminium (not shown)

## NATURAL GRAPHITE DEMAND FOR BATTERIES

2020



2030



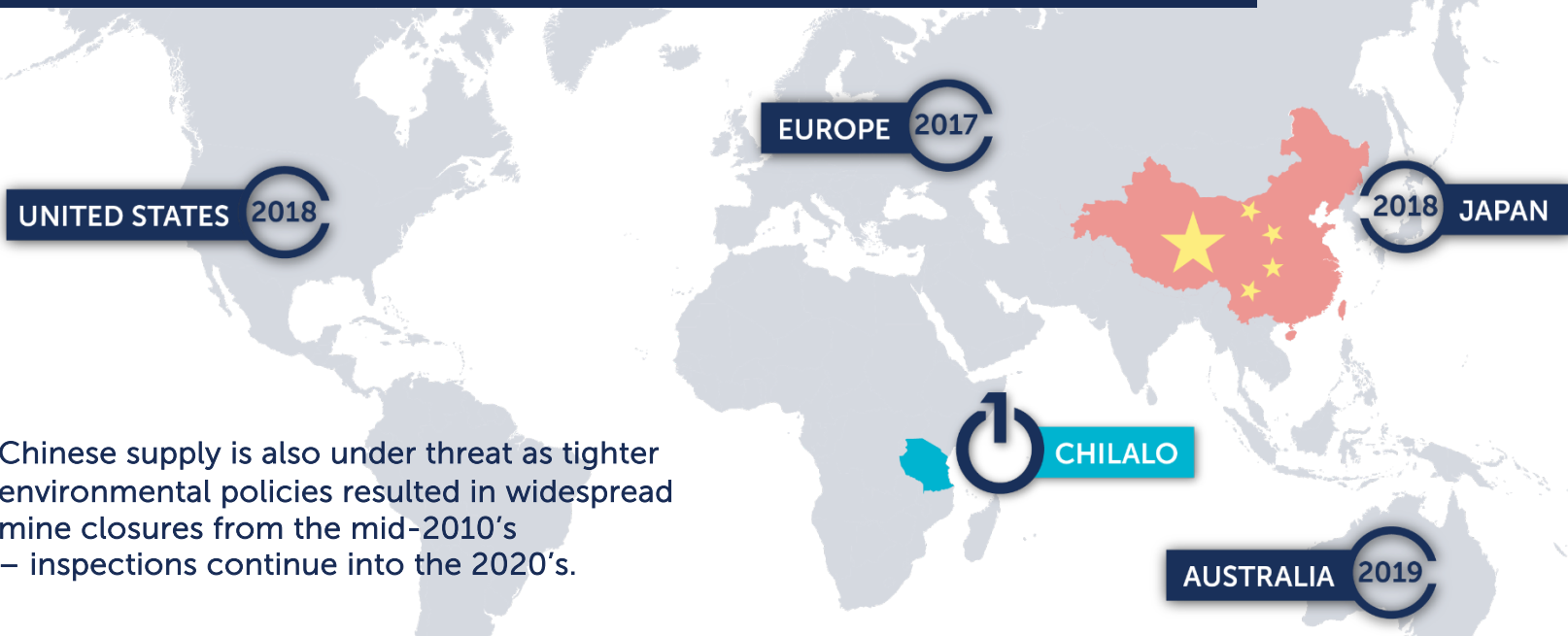
Source: Benchmark Mineral Intelligence – Q4 2021 Flake Graphite Forecast

## CRITICALITY OF GRAPHITE SUPPLY

Graphite listed as a strategic critical mineral in US, EU, Japan and Australia

### WHY?

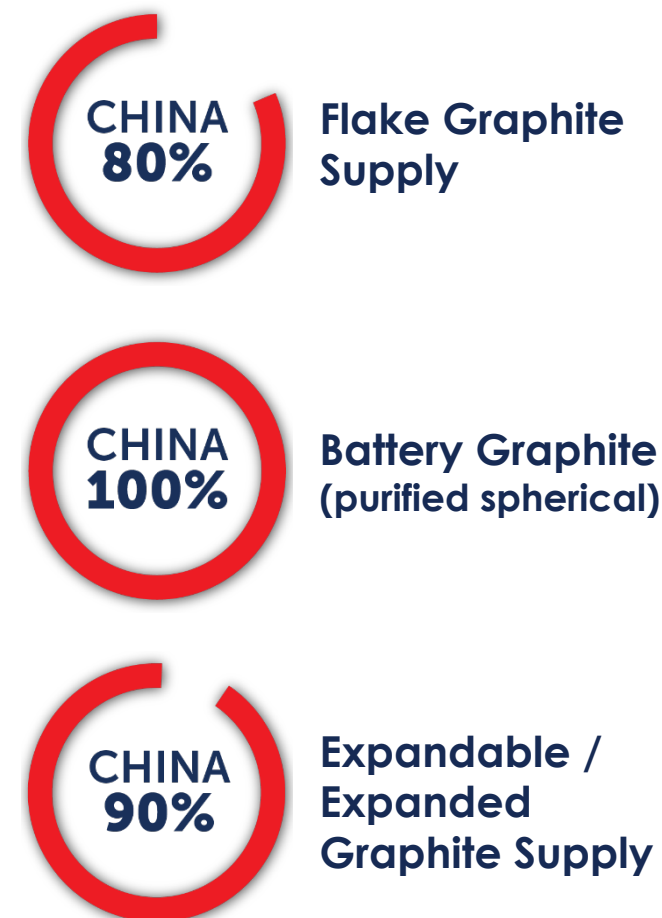
- 1 Due to high concentration of production in one country (China), graphite is recognized as a strategic critical mineral in:



Chinese supply is also under threat as tighter environmental policies resulted in widespread mine closures from the mid-2010's – inspections continue into the 2020's.

- 2 The global decarbonisation requires more graphite than lithium and cobalt combined<sup>1</sup>.

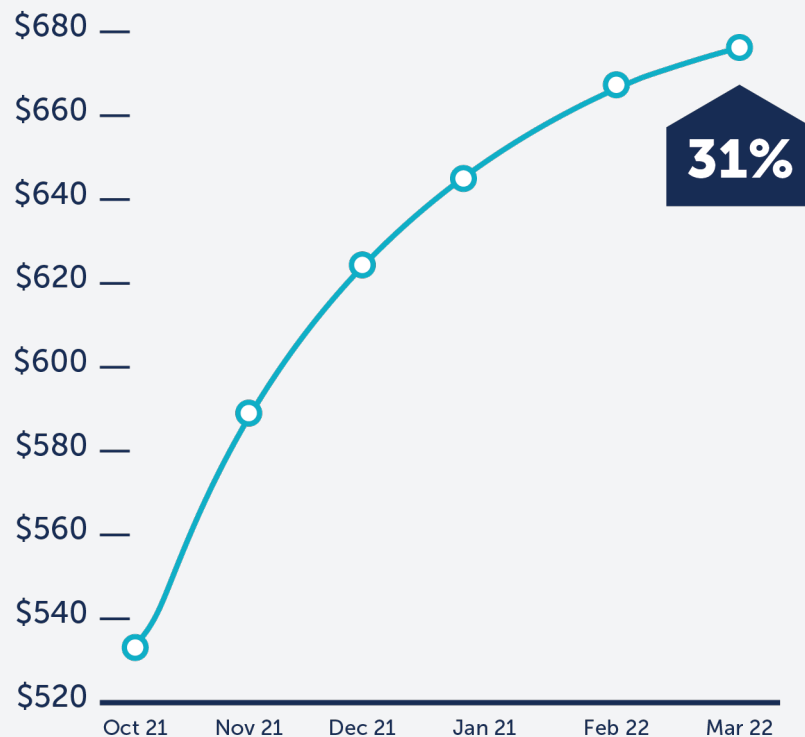
### CHINA DOMINATES GRAPHITE MARKET



## SUPPLY SHORTFALL AND RISING PRICES

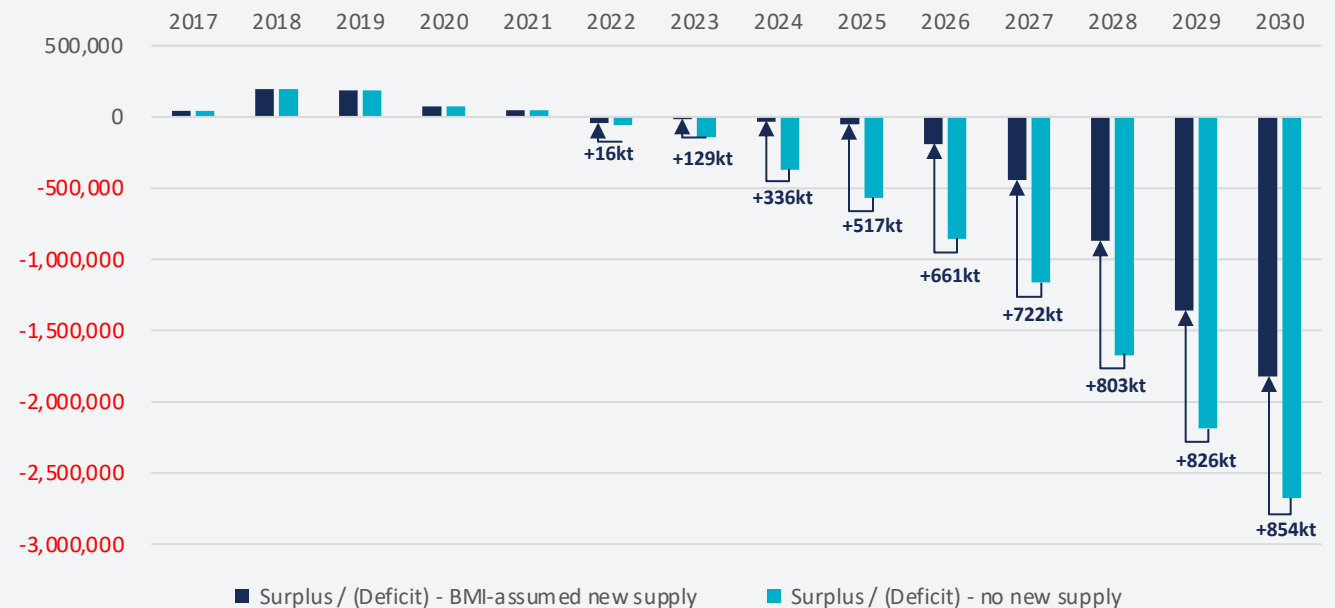
Power shortages and environmental shutdowns cause  
31% increase in fines price since October 2021

### FINE FLAKE (-100 MESH / -150 MICRON) GRAPHITE PRICES (OCT 2021–MAR 2022)



Source: Benchmark Mineral Intelligence Mar 2022

### DEFICIT IN NATURAL GRAPHITE HAS BEGUN



Source: Benchmark Mineral Intelligence Q1 2022

“Demand growth will be such that we have assumed space for four new projects to come online by 2025 in addition to the ramp-up of existing projects and expansions”

Source: Wood Mackenzie Graphite market 2021 outlook to 2050

# OFFTAKE PARTNERSHIP AND DOWNSTREAM COLLABORATION

Sales commitment supports financing

## Principal offtake partner announced

Yichang Xincheng Graphite Co Ltd (YXGC) selected following years of dialogue

## Dual focus MoU

MoU covers coarse flake offtake and high-value downstream collaboration

## Global Leader

YXGC is the global leader in expandable graphite (EG) and graphite foil, supplying global electronics companies

## Key terms

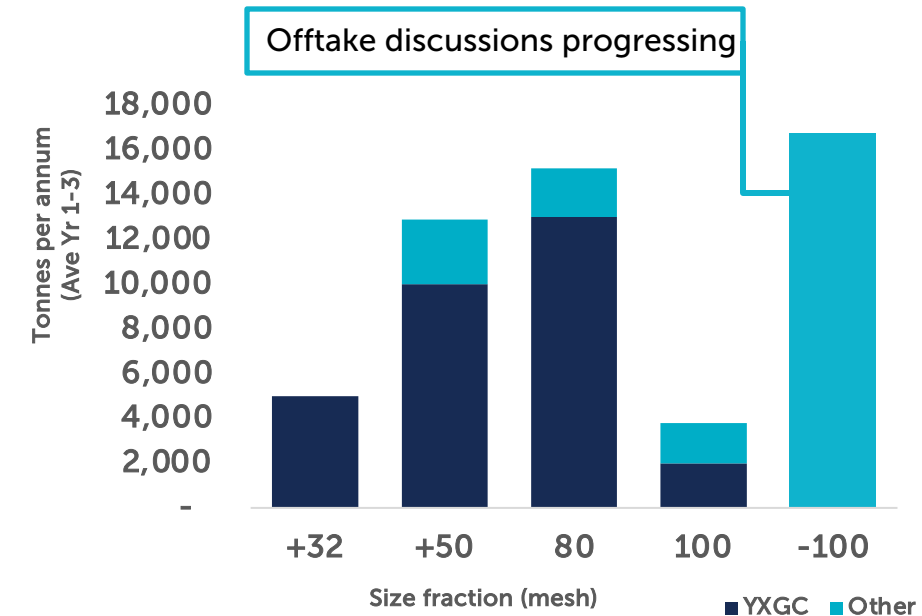
Initial 3-year term

30,000tpa of coarse flake graphite (+32, +50, +80, +100 mesh)

Represents 56% of planned production and over 70% of DFS concentrate revenue

## BINDING OFFTAKE AGREEMENT TO BE ANNOUNCED WITHIN WEEKS

## Chilalo production committed to YXGC



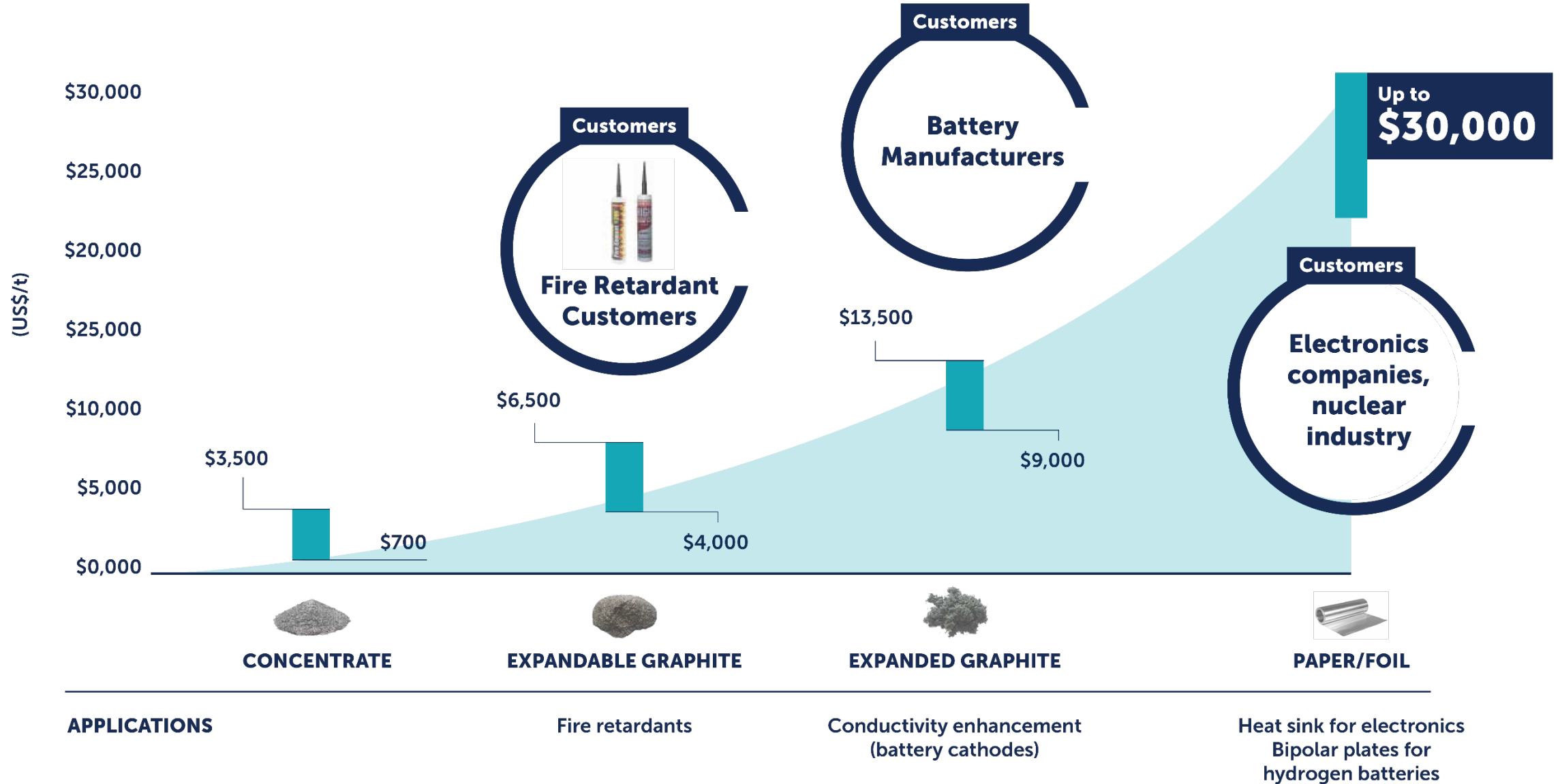
## UNIQUE COLLABORATION TO PRODUCE HIGH-VALUE EG AND GRAPHITE FOIL

Industry-first downstream collaboration to:

- Toll treat Chilalo graphite into EG
- Jointly develop downstream facilities in Europe to produce EG and graphite foil

Binding agreement being negotiated – site selection and feasibility studies to be announced in due course

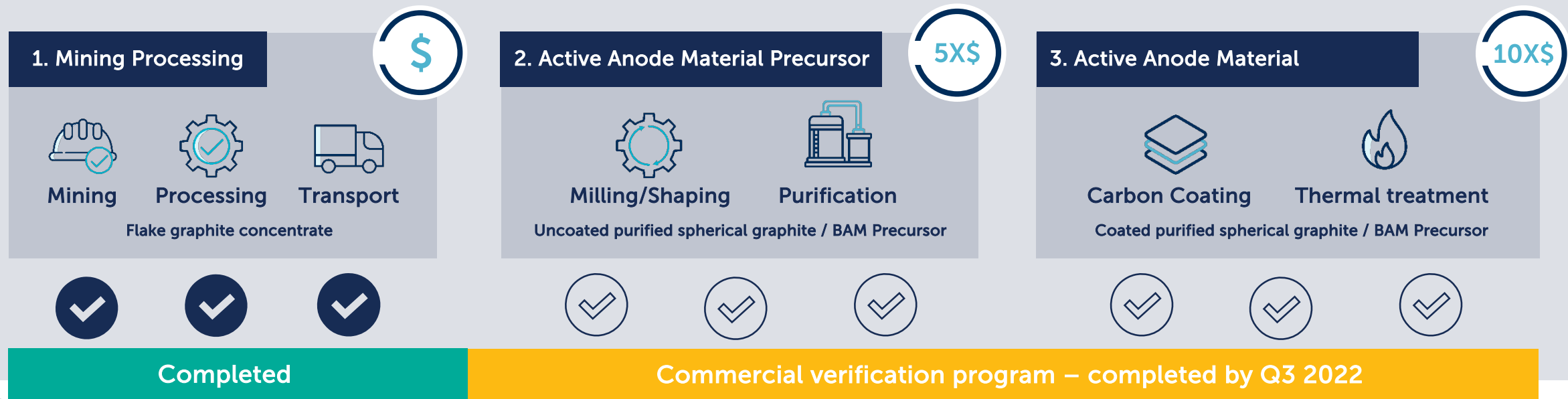
# VALUE ADDITION JOURNEY FOR PREMIUM QUALITY COARSE FLAKE GRAPHITE



# SUSTAINABLE BATTERY ANODE MATERIALS

Commercial verification program to avoid toxic chemicals

## EV1 INTENDS TO USE COMMERCIALLY PROVEN THERMAL PURIFICATION AND PROPRIETARY COATING TECHNOLOGY



### Challenges Facing Battery Makers

### How EV1's Strategy Addresses These

- |  |   |
|--|---|
| 1. Sustainability of a supply chain that uses HF + other toxic chemicals | EV1 pursuing thermal purification   |
| 2. Carbon footprint declaration of supply chain                          | EV1 pursuing net zero carbon mine + cheap/renewable power sources for BAM processing            |
| 3. Traceability  | Targeting chain of custody from mine site to battery (access to proprietary coating technology) |

# REGULATION DRIVING DEMAND

EU initiatives leading the way & forcing a change

## KEY INITIATIVES



### RESPONSIBLE SOURCING

New mandatory procedures to ensure sustainable and ethical sourcing of raw materials such as graphite.



### CO<sub>2</sub> FOOTPRINT

All batteries sold in Europe must declare their carbon footprint. Batteries with the highest carbon footprint will be banned in Europe.



### TRACEABILITY

All raw material used in batteries to be produced according to OECD recognized guidelines for sustainable sourcing. Thanks to blockchain technology, each battery will have a digital passport tracking all components upstream.

Supported by



Initiative for Responsible Mining Assurance



EU list of Critical Raw Materials & European Raw Materials Alliance



EIB new energy lending policy supporting projects relating to the supply of critical raw materials



European Battery Alliance

## THE EUROPEAN COMMISSION IS GOING TO REQUIRE THAT:

**FROM 1 JULY 2024:** EV batteries must have a "carbon footprint declaration"

**FROM 2026:** EV batteries will have to bear a "carbon intensity performance class label"

**FROM 2027:** EV batteries must comply with "maximum carbon footprint thresholds"

## PUBLIC SUSTAINABILITY COMMITMENTS



## MERCEDES-BENZ

“ We have made CO<sub>2</sub> neutral cell production a key requirement for all of our battery cell partners.<sup>1</sup> ”



## BMW

“ The BMW Group is the first automobile company worldwide to become a member of the Initiative for Responsible Mining Assurance (IRMA). The aim is to systematically promote the sustainability of mined materials and adherence to the highest supply chain standards.<sup>2</sup> ”



## EUROPEAN COMMISSION

“ The Commission puts forward a new future-proof regulatory framework on batteries to ensure that only the greenest, best performing and safest batteries make it onto the EU market. This ambitious framework on transparent and ethical sourcing of raw materials, carbon-footprint of batteries, and recycling is an essential element to achieve open strategic autonomy in this critical sector and accelerate our work under the European Battery Alliance.<sup>3</sup> ”

<sup>1</sup> <https://group.mercedes-benz.com/sustainability/climate/ambition-2039-our-path-to-co2-neutrality.html>

<sup>2</sup> <https://www.bmwgroup.com/en/news/general/2020/responsible-mining.html>

<sup>3</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_2312](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2312)

# ESG AND SUSTAINABILITY

Evolution's commitment to sustainable graphite supply



**EVOLUTION**  
ENERGY MINERALS

## DIGBEE ENDORSED BY NUMEROUS FINANCIERS

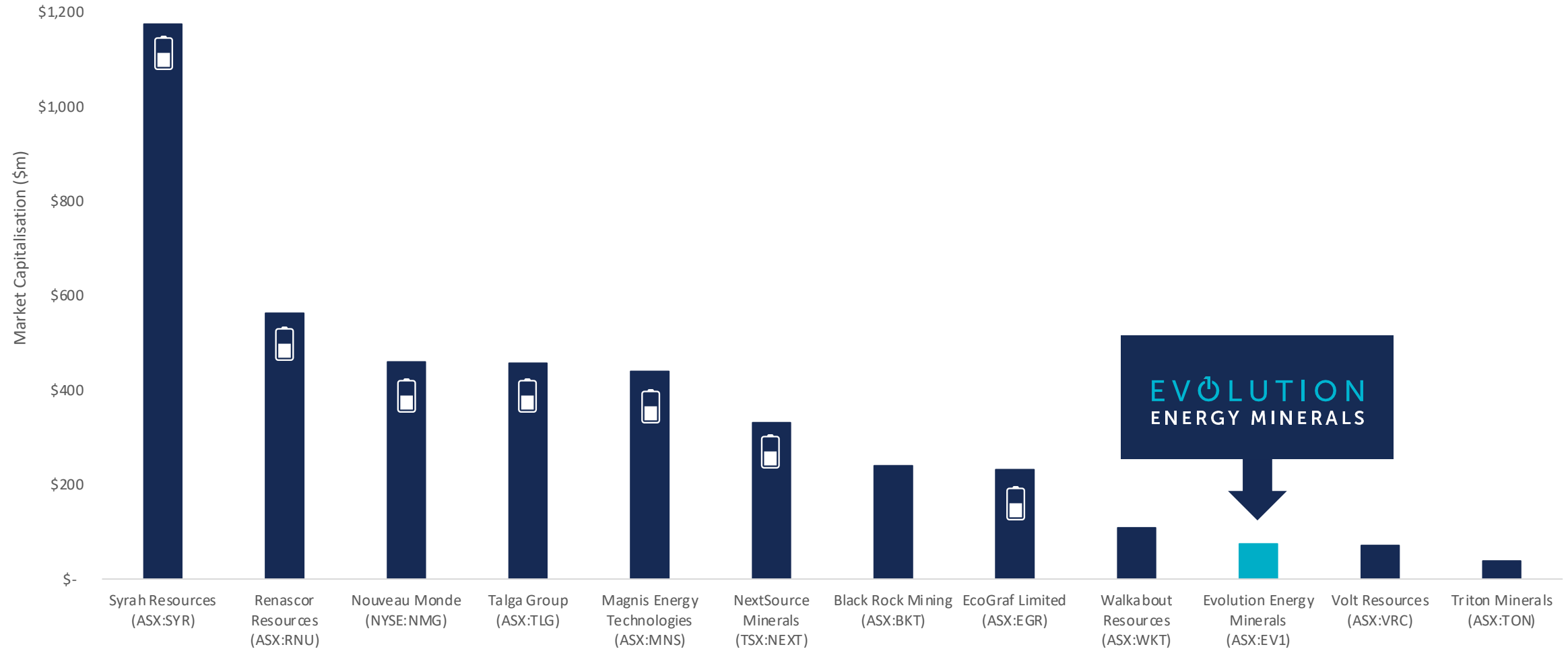


## DIGBEE FRAMEWORK COVERS ALL GLOBAL STANDARDS



## GRAPHITE PEER COMPARISON

Significant discount to graphite peers



Integrated battery anode material strategy

As at 27 April 2022 – refer to slide 24 for supporting information

## VALUE PROPOSITION

High-quality, advanced project with global customer validation

### Development-ready

High-margin  
graphite project

### ESG commitments

to drive interest from  
investors and customers

### Ongoing support from strategic cornerstone investor

underwrites project financing

### Internationally recognised offtake partner

Inclusive of downstream partnership

### Commercial battery anode program

with no HF or toxic chemicals

For personal use only

ASX:EV1

EVOLUTION  
ENERGY MINERALS

For personal use only

APPENDIX

[ev1minerals.com.au](http://ev1minerals.com.au)

# APPENDIX

## Detailed graphite peer comparison analysis and references

| Ticker                           | EV1.ASX   | MNS.ASX                                  | EGR.ASX                         | RNU.ASX                              | WKT.ASX               | BKT.ASX               | VRC.ASX                          | TON.ASX                     | NEXT.TSX                                   |
|----------------------------------|---|--|---------------------------------|--------------------------------------|-----------------------|-----------------------|----------------------------------|-----------------------------|--|
| Market Cap (A\$M)                | 75  | 439                                      | 232                             | 563                                  | 109                   | 240                   | 71                               | 39                          | 331  |
| Resource (Mt contained graphite) | 2.0   | 9.4                                      | 3.0                             | 6.6                                  | 4.5                   | 16.6                  | 22.6                             | 3.0                         | 8.7  |
| Resource (Mt)                    | 20  | 174                                      | 31                              | 87                                   | 42                    | 213                   | 461                              | 46                          | 141.3                                      |
| Resource (% Measured)            | -   | 36%                                      | 26%                             | 18%                                  | 16%                   | 15%                   | 4%                               | -                           | 17%  |
| Resource (% Indicated)           | 51%   | 35%                                      | 42%                             | 46%                                  | 20%                   | 40%                   | 34%                              | 67%                         | 54%  |
| Resource (% Inferred)            | 49%   | 29%                                      | 32%                             | 36%                                  | 64%                   | 45%                   | 62%                              | 33%                         | 29%  |
| Resource Grade (TGC%)            | 9.9%  | 5.4%                                     | 9.9%                            | 7.5%                                 | 10.8%                 | 7.8%                  | 4.9%                             | 6.6%                        | 6.13%                                      |
| Reserve (Mt contained graphite)  | 0.9   | 3.6                                      | 1.0                             | 3.6                                  | 1.0                   | 6.0                   | 5.6                              | 1.5                         | 1.6  |
| Reserve Grade (TGC%)             | 9.9%  | 4.8%                                     | 8.3%                            | 7.9%                                 | 17.9%                 | 8.5%                  | 4.4%                             | 6.2%                        | 7.02%                                      |
| Stage of graphite development    | DFS + fully permitted   | DFS + fully permitted                    | DFS + fully permitted           | DFS + fully permitted                | DFS + fully permitted | DFS + fully permitted | DFS + fully permitted            | DFS + fully permitted       | Development                                |
| Downstream graphite business     | Expandable and micronised graphite DFS, anode testwork underway | JV ownership of 2 planned battery plants | Battery Anode Materials DFS     | Battery Anode Materials DFS          | N/A                   | N/A                   | Battery Anode Materials testwork | N/A                         | Technical Study for Battery Anode Facility |
| Source                           | Internal  | Website                                  | ASX announcement - 31 July 2017 | ASX announcement 4/3/21 and 11/11/19 | Website               | Website               | Website                          | Presentation - 22 June 2020 | Website                                    |

For personal use only

ASX:EV1

EVOLUTION  
ENERGY MINERALS

**Phil Hoskins**  
Managing Director

E: [info@ev1minerals.com.au](mailto:info@ev1minerals.com.au)

P: +61 8 9200 3426

[ev1minerals.com.au](http://ev1minerals.com.au)