

**EVOLUTION**  
ENERGY MINERALS

# Corporate Presentation

ASX:EV1

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





# Disclaimer

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).

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## Mineral Resources

The information in this presentation that relates to the Mineral Resource estimate for the Chilalo Graphite Project is extracted from the report titled “Prospectus” released to the ASX on 12 November 2021 and available to view at <https://evolutionenergyminerals.com.au/>.

Evolution confirms that it is not aware of any new information or data that materially affects the information included in the original report and that all material assumptions and technical parameters underpinning the Mineral Resource estimate for the Chilalo Graphite Project continue to apply and have not materially changed.

Evolution confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original report and that the Competent Person’s consent remains in place for subsequent releases by Evolution of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report or accompanying consent.

## Ore Reserve Estimate

The information in this presentation that relates to the Ore Reserve estimate for the Chilalo Project is based on information compiled by Andrew Hutson, a Competent Person, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Andrew Hutson is employed by Resolve Mining Solutions. Mr Hutson has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the JORC Code 2012 Edition. Mr Hutson consents to the inclusion of such information in this presentation in the form and context in which it appears.

## Production Target and Forecast Financial Information

In relation to the results of the Updated Definitive Feasibility Study (Updated DFS) announced on 20 March 2023 that are included in this presentation, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in the original market announcement continue to apply and have not materially changed. The results reported in the Updated DFS are reported on a 100% ownership basis. On completion of the Framework Agreement and Shareholders’ Agreement with the Government of Tanzania, as announced on 18 April 2023, the Company holds an 84% interest in the Chilalo Project, the remaining 16% interest being held by the Government of Tanzania.

## Risks Associated with BTR Transactions

The arrangements between Evolution and BTR are subject to a variety of conditions precedent. The conditions precedent to the Offtake Agreement include (amongst others) the parties executing a downstream cooperation agreement before 31 March 2024, the necessary finance for the construction of the Chilalo Project having been obtained, and construction commenced, in each case on or before 31 March 2024. The downstream collaboration is a non-binding MOU, with detailed terms yet to be negotiated or agreed.

Accordingly, investors are cautioned that there is no certainty that these transactions with BTR will be finalised, either on the currently agreed terms or at all. Please refer to the ASX announcement dated 16 August 2023 and 30 October 2023 for further information.



# Evolution Energy Minerals Snapshot



Development-ready coarse flake graphite project in Tanzania (NPV US\$338M, IRR 32%)



Binding offtake agreements covering 90% of production



Targeting Decision to Mine by Q1 2025



Strategic partnership with global #1 battery anode producer (BTR)



Progress downstream strategy targeting battery anode production in US



# Value Proposition



## Structural Shift in Graphite Industry

Chinese export controls  
+ US / EU regulations  
= Need for ex-China flake and anode production



## Exceptional Offtake

Offtake over 90% of production with the global #1 in both expandable graphite and battery anodes



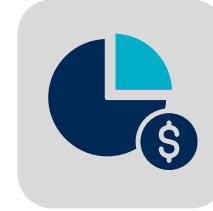
## World-class flake size

Coarse flake qualified with the global #1 (YXGC)



## Finance-ready

EV1 has received strong interest in debt financing from commercial banks



## High margin operation

Chilalo's flake size drives higher revenue ensuring a high-margin operation, even at today's prices



## Downstream Collaboration

Exposure to potential value addition via unique downstream collaboration with BTR



# Corporate Overview

**261.2M**

Shares on Issue

**\$0.105**

Share Price

**\$27.4M**

Market Cap

**48.9M<sup>1</sup>**

Unlisted Options

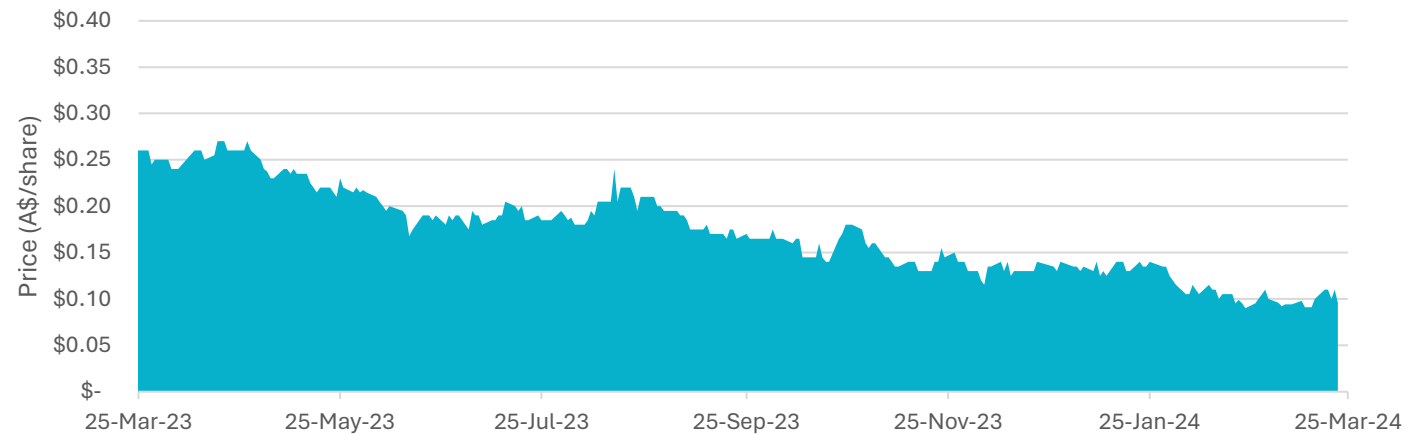
**\$3.6M<sup>2</sup>**

Cash

**\$23.8M**

Enterprise Value

## Share Price (12 months)



1. 42.1M options at \$0.25 exercise price, 6.8M options at nil exercise price, subject to performance-related vesting criteria
2. March 2024 estimate.

## Major Shareholders

ARCH Sustainable Resources Fund	<b>22.26%</b>
Marvel Gold Limited	<b>19.14%</b>
BTR New Materials Group	<b>9.90%</b>
Amati Strategic Metals Fund	<b>3.80%</b>
Barolo EV1 CT Pty Ltd	<b>2.78%</b>
Auramet Capital Partners	<b>2.73%</b>

# Board & Management

## BOARD OF DIRECTORS



**Phil Hoskins**  
MANAGING DIRECTOR

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



**Mike Spreadborough**  
NON-EXECUTIVE CHAIRMAN

Mike has over 30 years of experience in mining across a range of different commodities.



**Cameron Dowling**  
NON-EXECUTIVE DIRECTOR

Cameron is the nominee director of the ARCH Sustainable Resources Fund, an ESG-focused investment fund based in London.



**Stephen Dennis**  
NON-EXECUTIVE DIRECTOR

Stephen has been in the mining industry for over 30 years, across numerous Australian resources companies.



**Henk Ludik**  
NON-EXECUTIVE DIRECTOR

Henk is a mining engineer with a career spanning over 20 years in mining with expertise in engineering, feasibility, mine optimisation, ESG and corporate finance.

## MANAGEMENT TEAM



**Grant Dyker**  
CHIEF FINANCIAL OFFICER

Over two decades in senior executive roles, previously serving as CFO for multiple ASX-listed resources companies.



**Heavenlight Kavishe**  
COUNTRY MANAGER

Experienced government advisor, with the Chilalo project since 2014.



**John Nolan**  
CHIEF OPERATING OFFICER

Mining professional with 36 years' experience across Africa, South America and Asia in a variety of roles.



**Stacy Newstead**  
CEO – EVOLUTION  
ENERGY SOLUTIONS LLC

US-based Stacy is responsible for overseeing the US downstream strategy.



**Jay Stephenson**  
COMPANY SECRETARY

Over 35 years of experience in business development and company secretarial duties.



**Eileen Hao**  
BUSINESS DEVELOPMENT MANAGER  
CHINA CEO AND CHIEF REPRESENTATIVE

27 years experience on industrials, graphite, battery minerals & metals, senior roles with IMERYS, Syrah and facilitating Neometals / Gangfeng transactions.



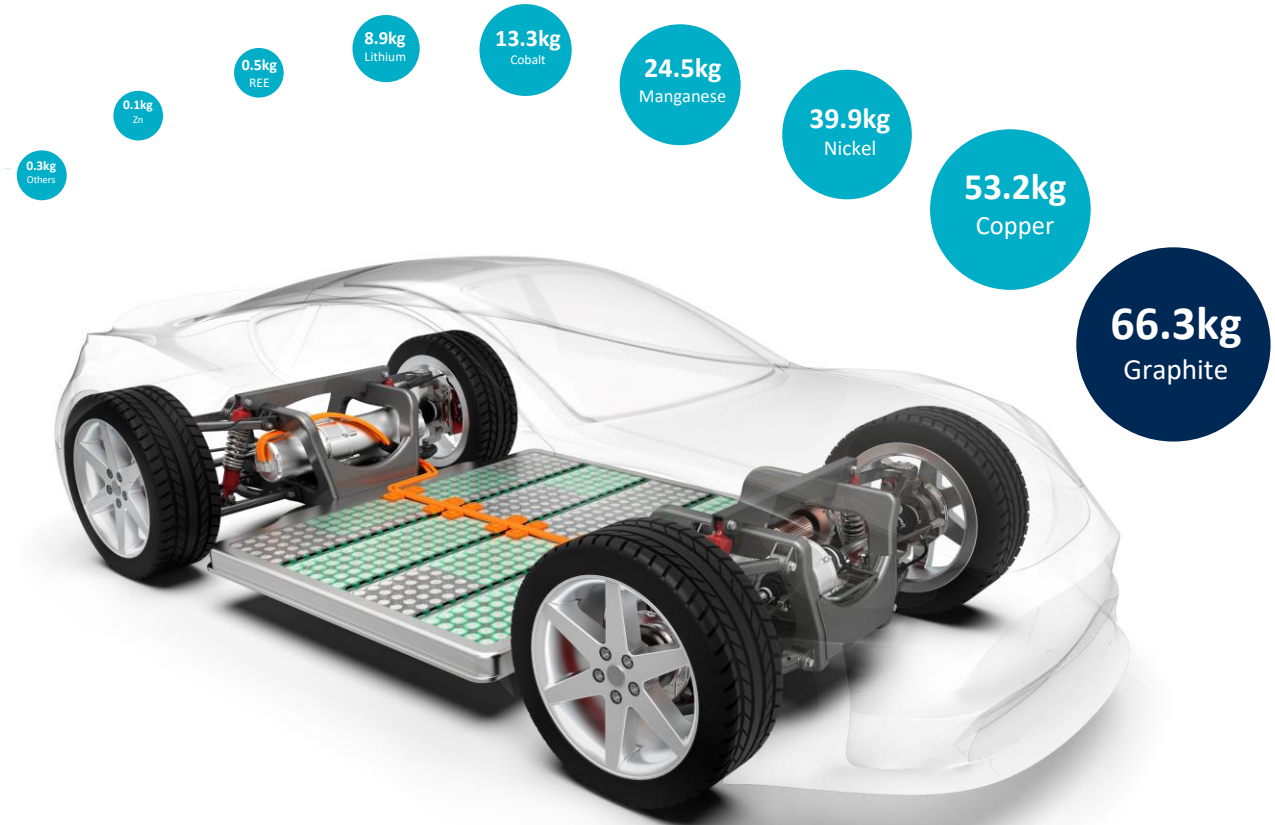
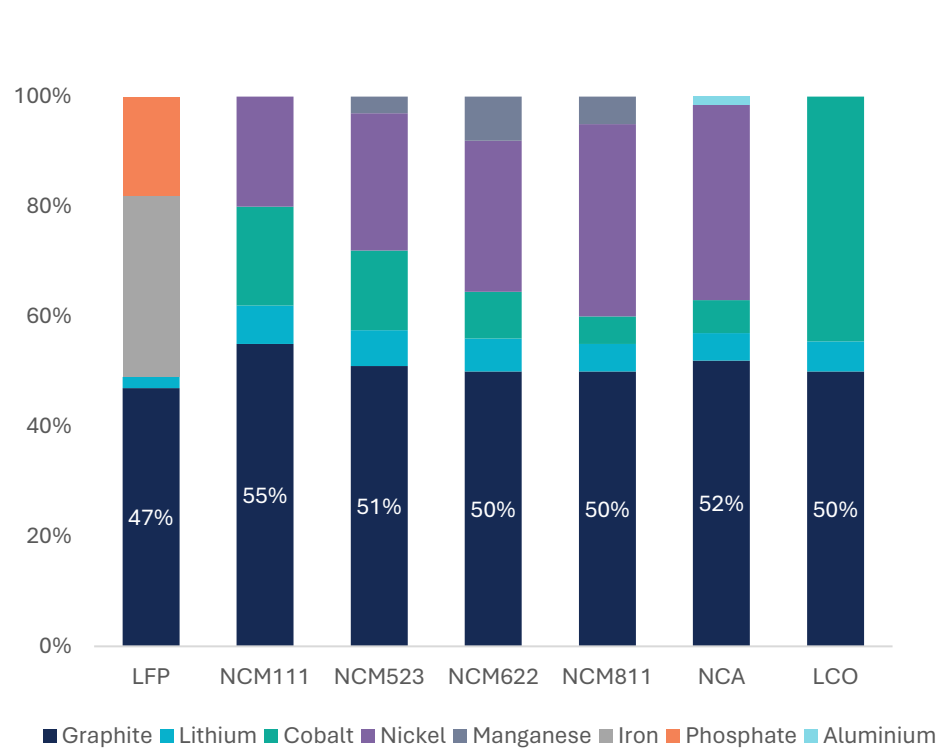


# Graphite Market Analysis



# Graphite - The Dominant Battery Mineral

Graphite is the dominant material across all commercial battery technologies



Source: Fastmarkets  
Percentages represent the proportion of cathode and anode material in each battery respectively.

Source: <https://www.iea.org/data-and-statistics/charts/minerals-used-in-electric-cars-compared-to-conventional-cars>



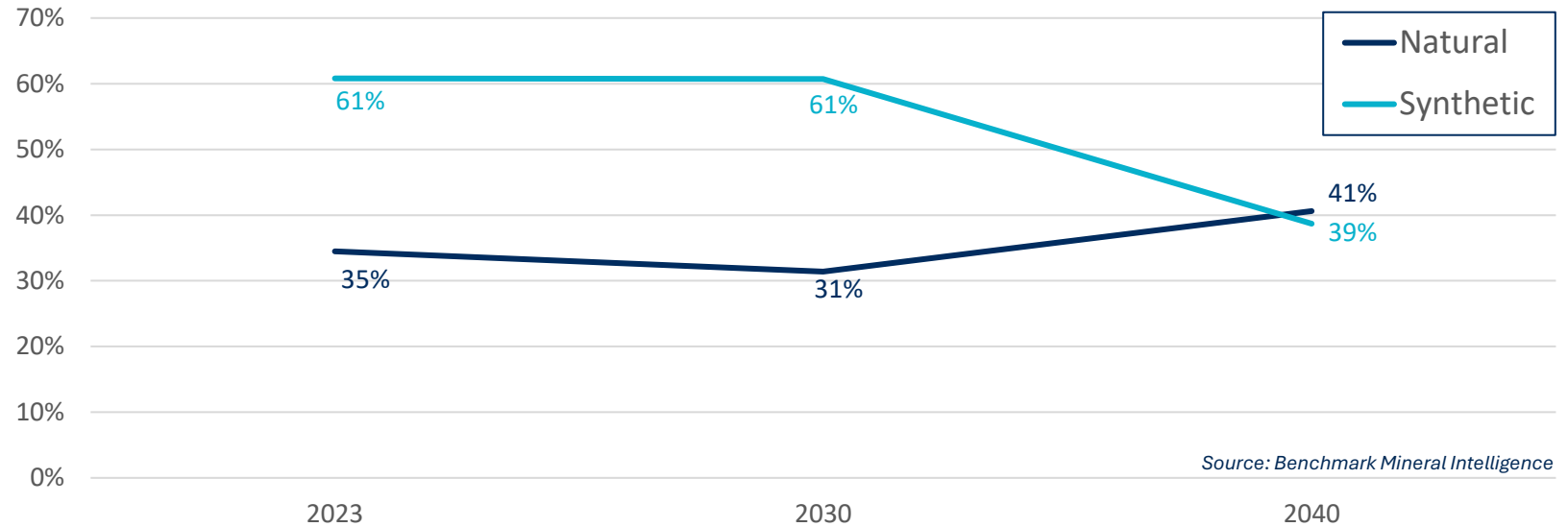


# Synthetic vs Natural

## Is synthetic a long-term threat?

Synthetic graphite and natural graphite bring different performance characteristics to the anode and are often blended – neither is expected to replace the other long term

Synthetic vs Natural (2023 – 2040)

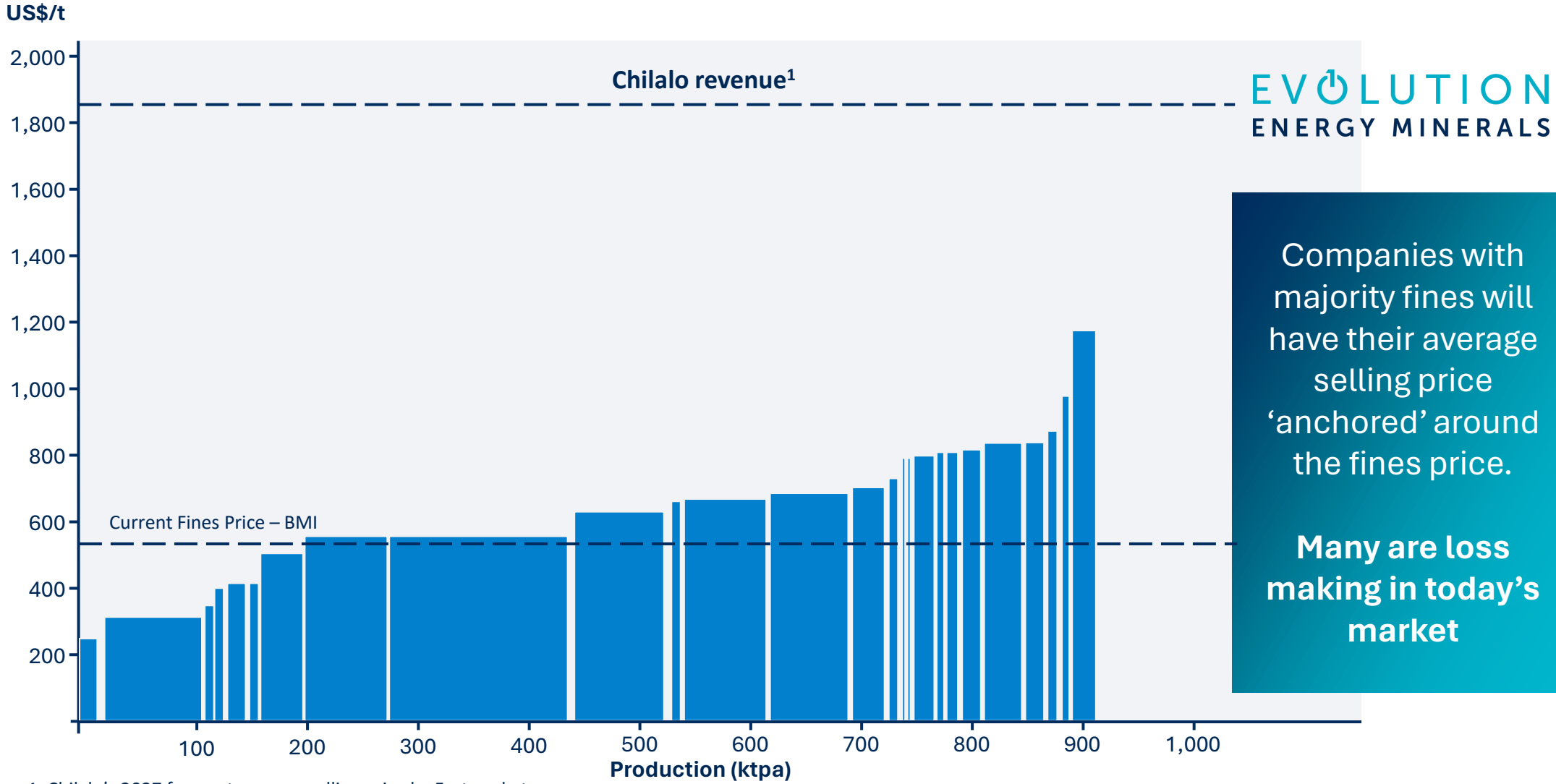


Characteristic	Technical			ESG	Economic	
	Energy Density	Cycle Life	Impurities, Uniformity	Carbon Footprint	Production Cost	Price
Natural	✓	—	—	✓	✓	✓
Synthetic	—	✓	✓	—	—	—



# Graphite operations uneconomic without coarse flake

Flake Graphite Production Cost Curve – source Benchmark Mineral Intelligence (BMI)



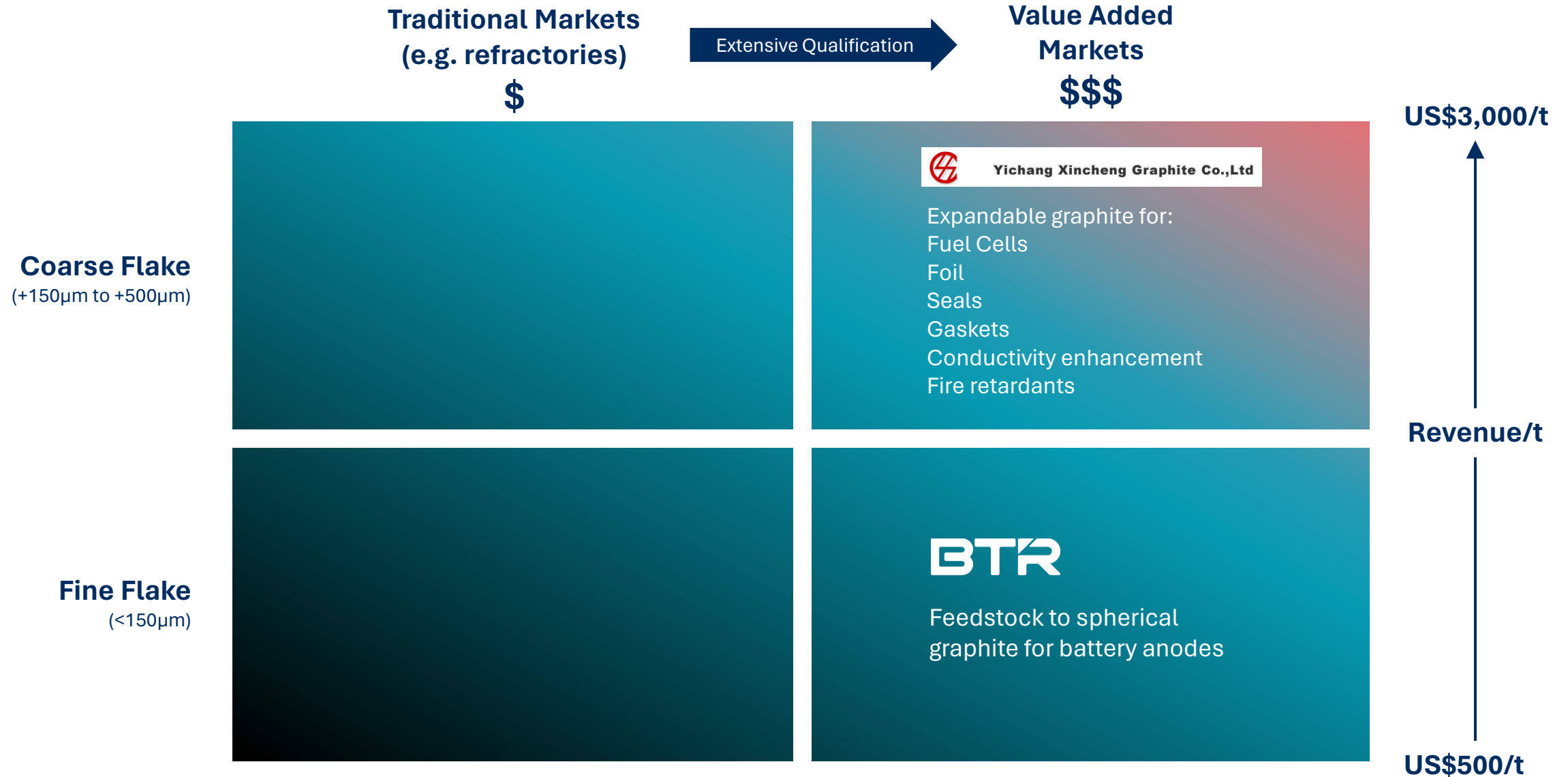
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Companies with majority fines will have their average selling price 'anchored' around the fines price.  
**Many are loss making in today's market**

1. Chilalo's 2027 forecast average selling price by Fastmarkets



# Qualification into value added products is critical





**Chilalo  
Graphite  
Project**



# DFS Outcomes

## Definitive Feasibility Study Outcomes

**US\$338M**

NPV<sub>8</sub> (Post-tax)

**32%**

IRR (Post-tax)

**17 Yrs**

Mine Life

**3.3 Yrs**

Post-tax payback period

**US\$120M**

Pre-production capital cost  
(incl. 10% contingency and pre-strip)

**US\$82M**

Average annual  
EBITDA





# Chilalo's Competitive Advantage

Product quality drives economics and strategic interest

01

Coarse flake sales  
**drive margins**

02

Product performance  
– offtake with **global  
industry leaders**

03

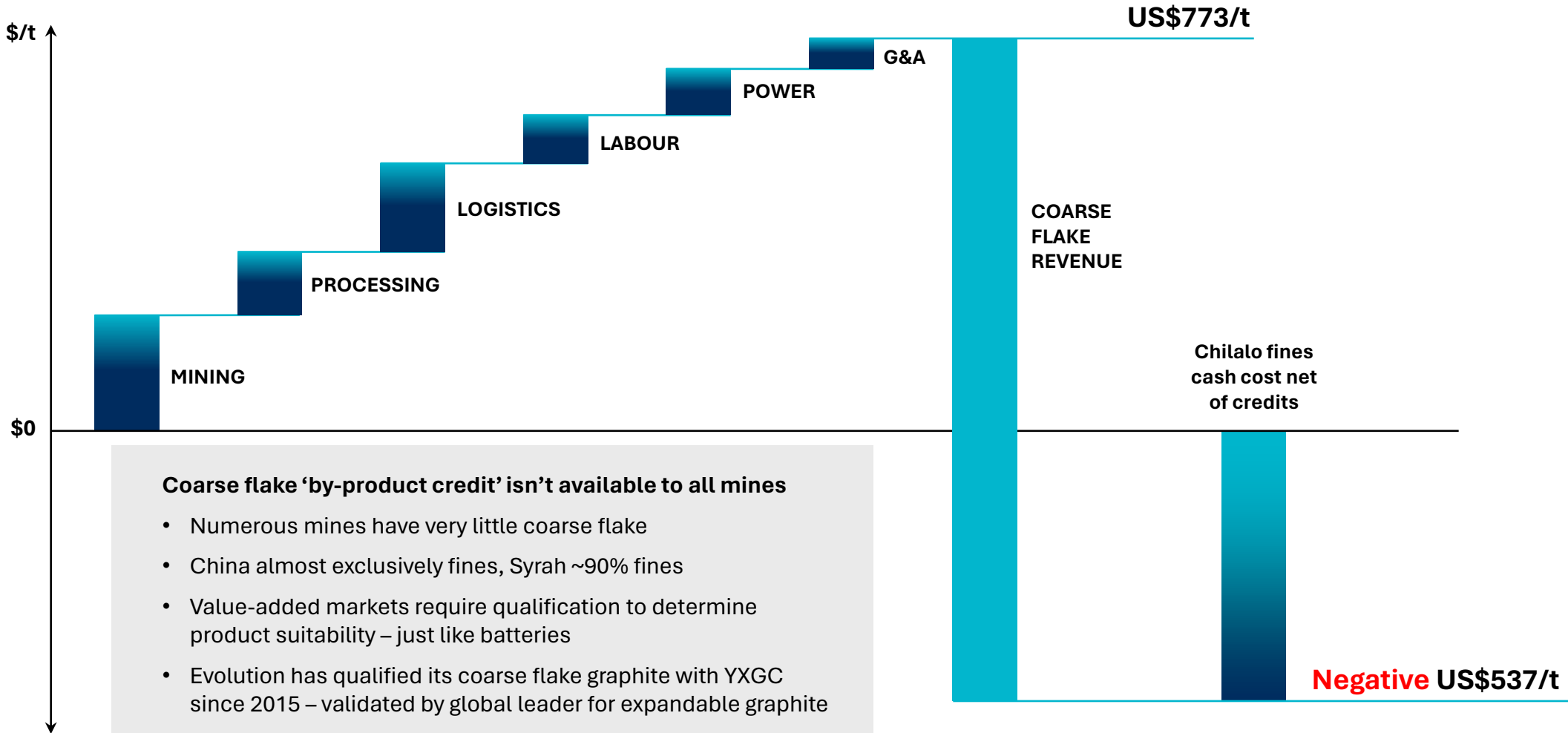
**World-class battery  
anode company (BTR)**  
validates Chilalo graphite  
battery performance





# Battery Graphite at Negative Cash Cost

Coarse flake 'by-product credits' the key

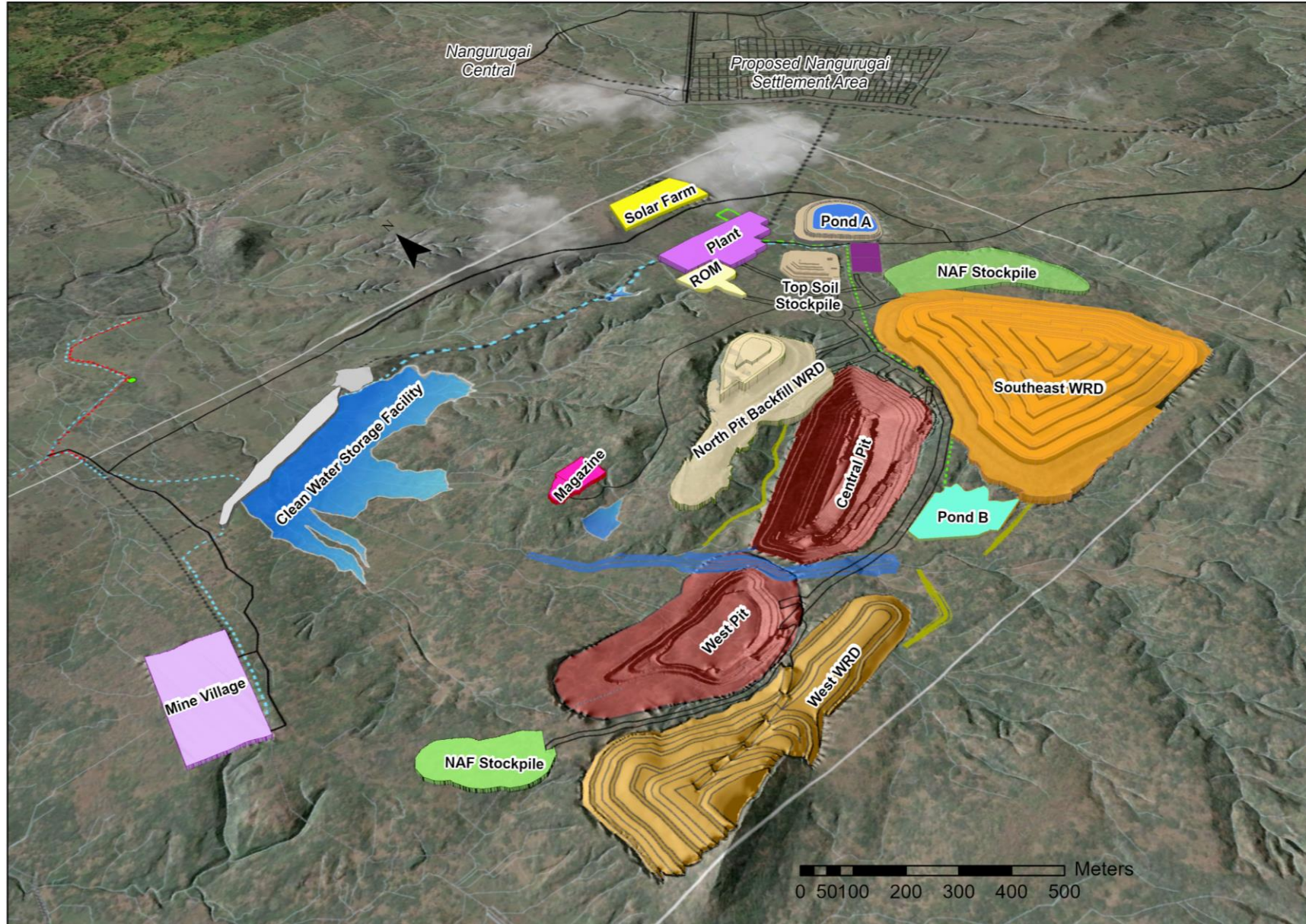


**Coarse flake 'by-product credit' isn't available to all mines**

- Numerous mines have very little coarse flake
- China almost exclusively fines, Syrah ~90% fines
- Value-added markets require qualification to determine product suitability – just like batteries
- Evolution has qualified its coarse flake graphite with YXGC since 2015 – validated by global leader for expandable graphite



# Proposed Chilalo Site Layout





# Status of Project Financing

## Why do the banks like Chilalo?

- ✓ **Low Capex**  
Important to commercial banks in the process
- ✓ **High Margin**  
Coarse flake provides buffer to weaker fines prices
- ✓ **Product Quality**  
Validation by offtakes with global leaders for batteries and expandables
- ✓ **Quality Partners**  
Global #1 offtakers for coarse + fines
- ✓ **Experienced to Execute**  
Experienced team de-risks execution/delivery

## Debt Process on Track

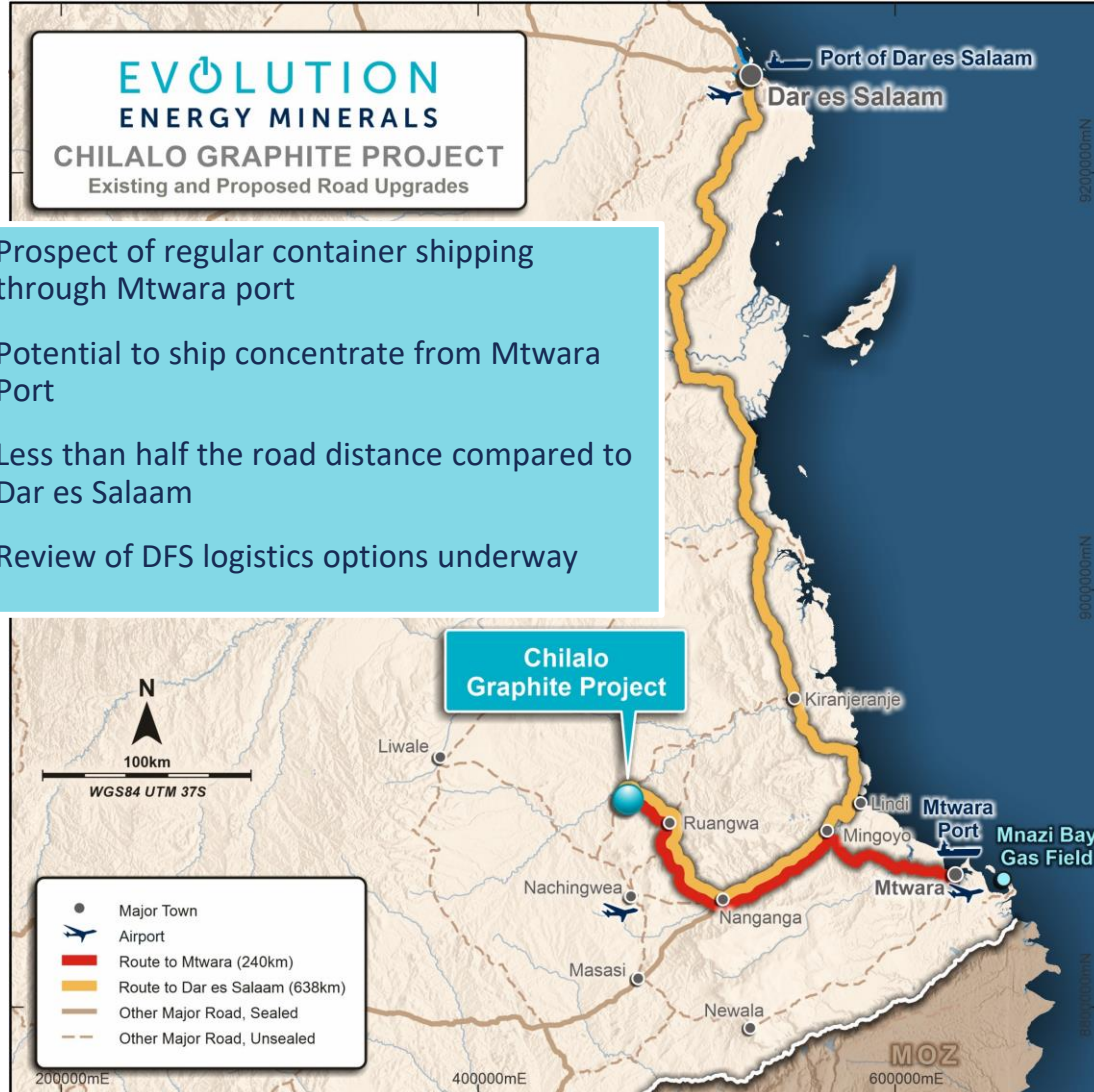
- ✓ **DFS and Tanzanian Framework Agreement**
- ✓ **EOI's from multiple financial institutions**
- ✓ **Completion of ITE and IESC reports**
- **Mandate lead arranging financier/s**
- **Project finance term sheets**

ITE = Independent Technical Engineers (Palaris)  
IESC = Independent Environment and Social Consultant (Prime)



# Project Cost Optimisations

## Reduced logistics costs



## Reduced power costs

- Current model based on 20% solar / 80% thermal/LPG
- Tanzanian Government implementing transmission line construction projects
- Potential to access grid power to replace diesel - reducing power costs





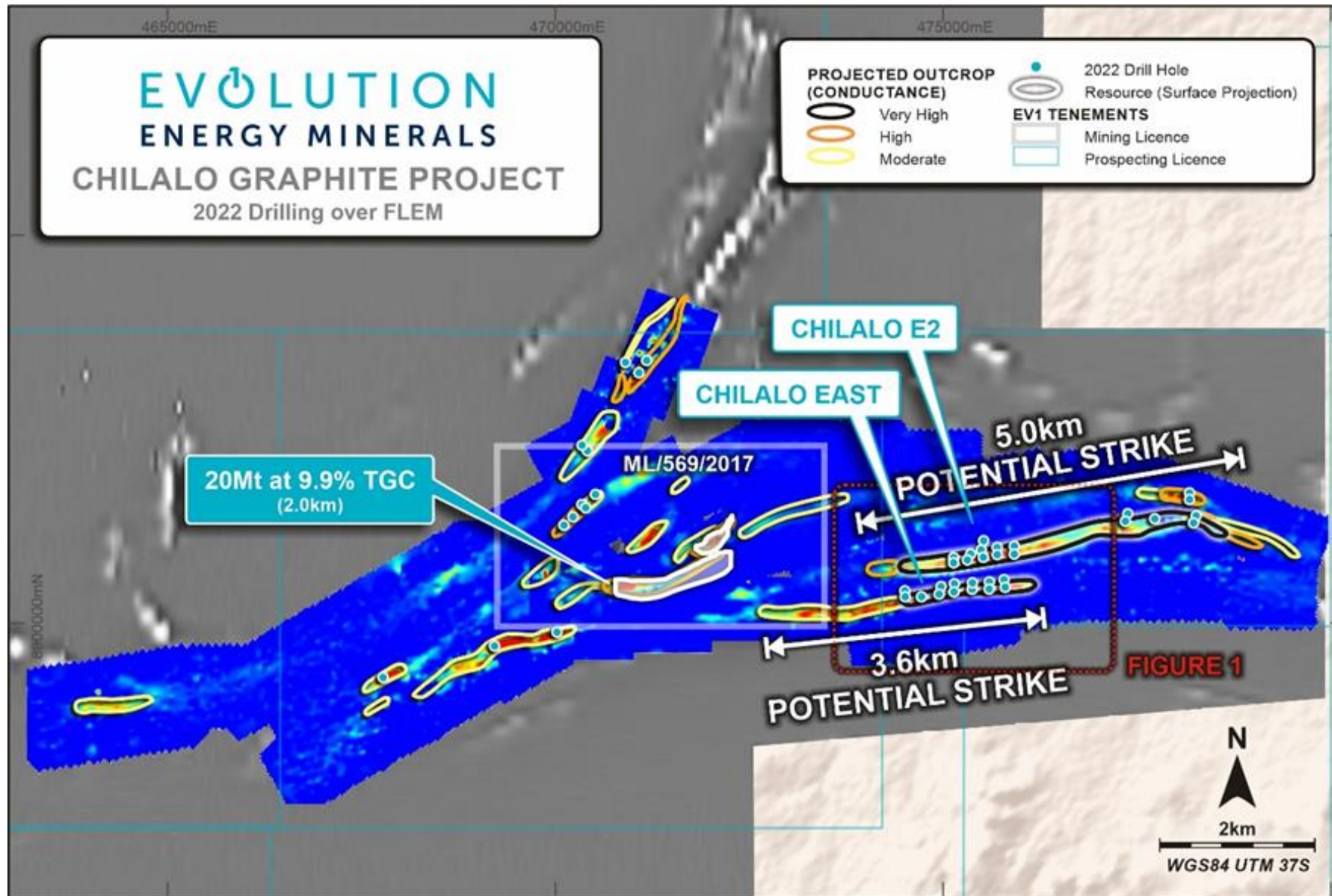
# Project Expansion Opportunity

## Exploration Upside

- Reduced mining costs and expansion potential
- Additional mineralised zones identified but not in mine plan
- Over 8km of mineralised EM conductors to follow up



LOW-COST PROJECT EXPANSION OPPORTUNITIES TO BE CONSIDERED IN 2025





# EV1 Offtake Strategy



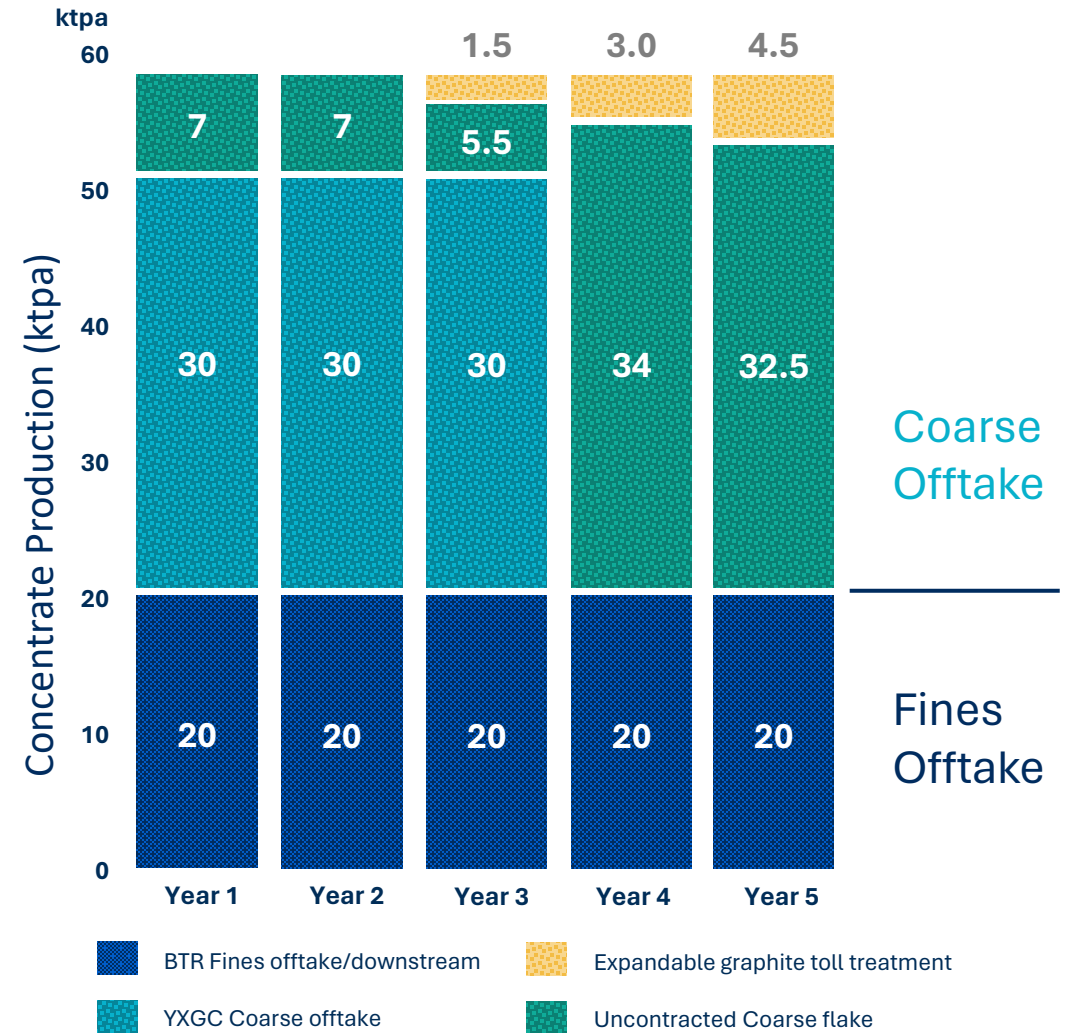
## Coarse Flake Offtake

- 30,000tpa for 3 years
- 70% of concentrate revenue
- YXGC are the global leader for expandable graphite (EG) and foil
- Electronics, fuel cells, seals, gaskets, flame retardants
- Conditional on:
  - YXGC toll treating some graphite into EG
  - Reaching FID (condition date being updated)



## Fines Flake Offtake

- 100% of fines for 3 years (+3 yr option)
- Mechanism to assign to joint downstream entity
- Market prices agreed bi-laterally
- Conditional on downstream agreement and FID (date being updated)







# BTR Profile

Listed on the Beijing Stock Exchange (market cap US\$3.4 billion)

26% overall anode market share, 60% natural graphite anode market share

Within China, BTR have 5 natural graphite production bases, 9 synthetic graphite production bases, 2 silicon anode production bases and 3 graphene production bases

80,000tpa anode plant under construction in Indonesia

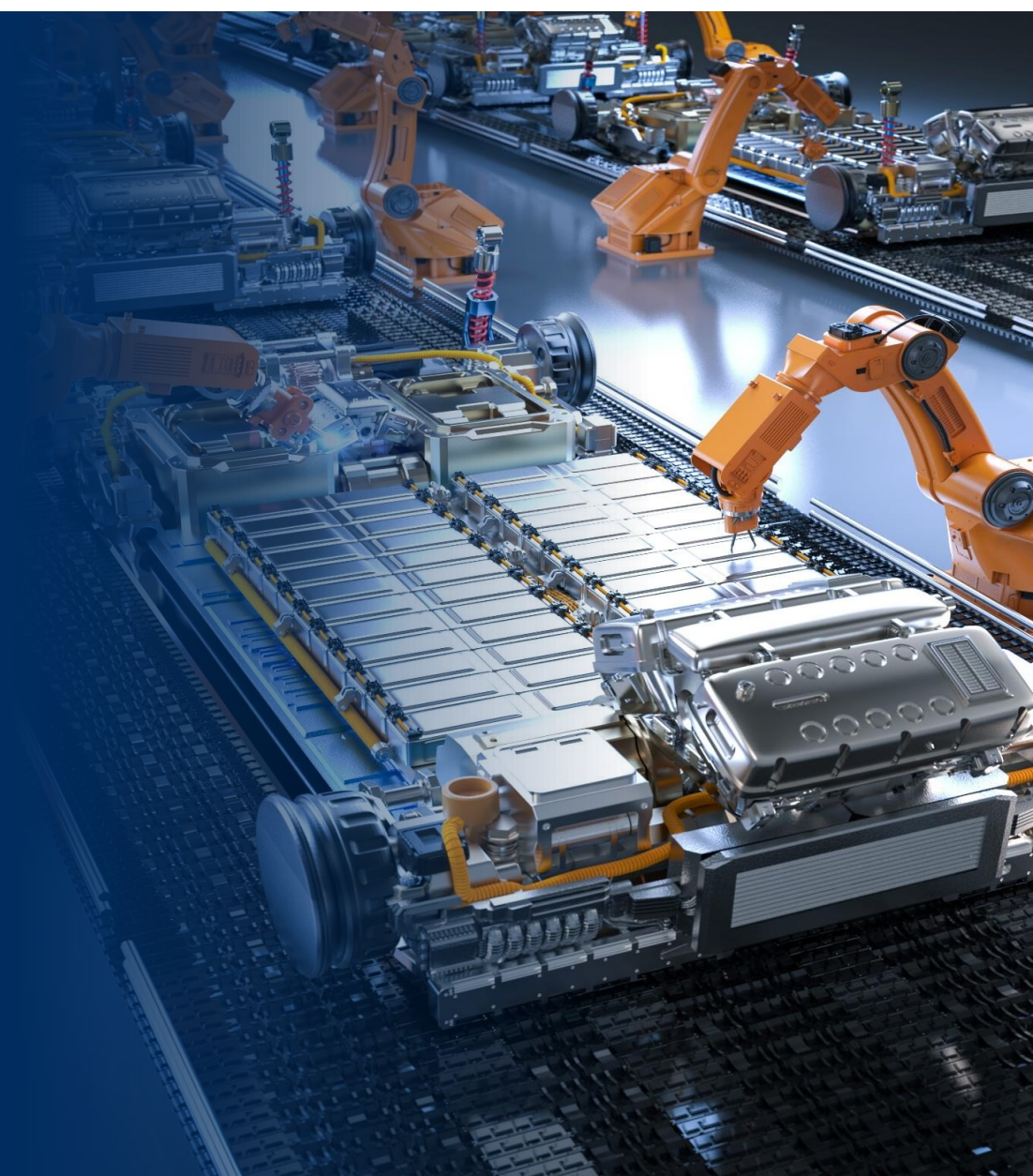
Tier 1 customer base:



Panasonic

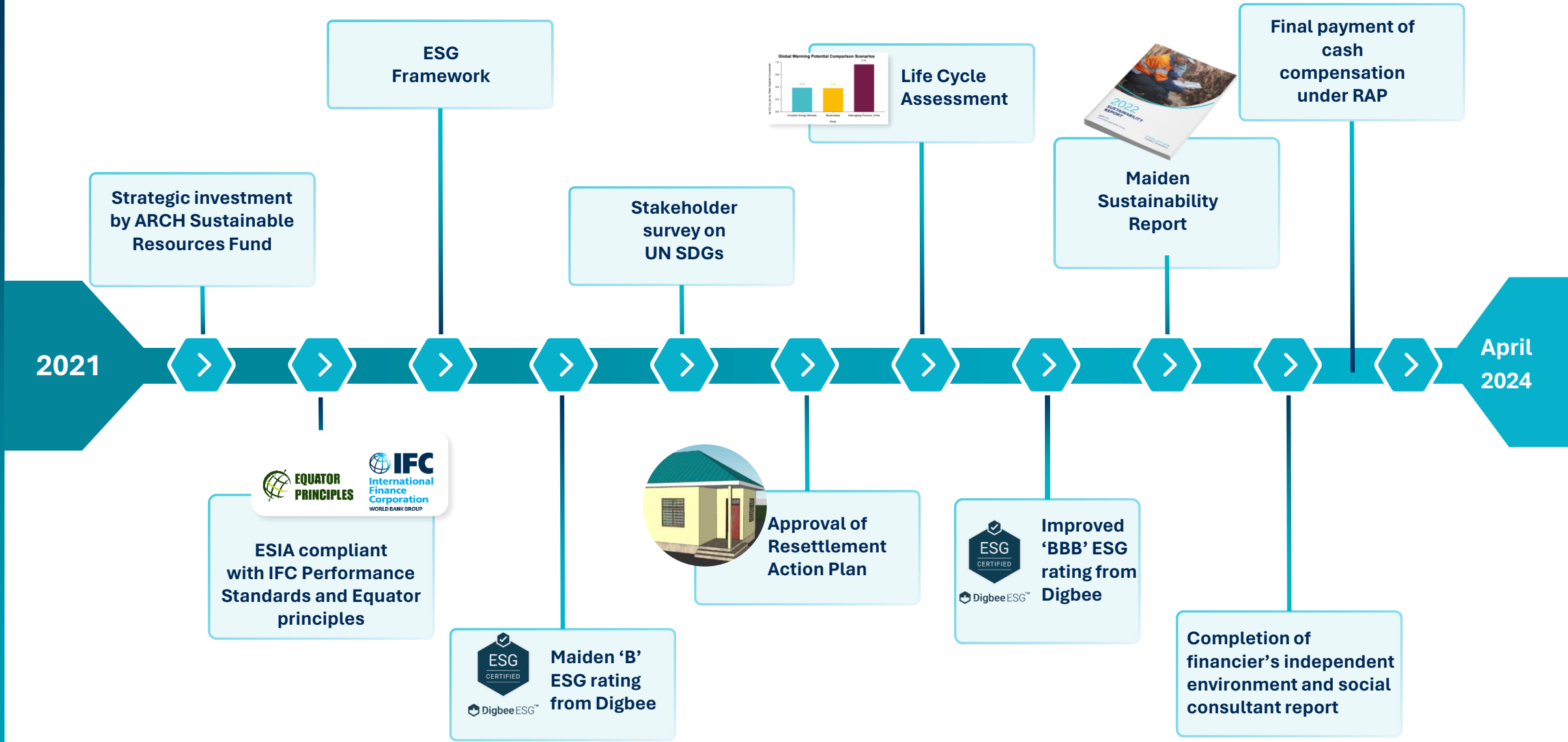


CATL






# Evolution's ESG Commitment






# Tanzania

## Key milestones achieved in 2023

-  Framework and Shareholders Agreement signed
-  Mining licence, prospecting licence and environmental permits all refreshed
-  Kudu Graphite JV with Tanzanian Government established

## What's next in 2024?

-  Tanzanian Government infrastructure commitments:
  - Bitumen road to site by 2025
  - Grid power connections



Managing Director Phil Hoskins pictured at the signing ceremony in Tanzania before the President of Tanzania, Her Excellency Samia Suluhu Hassan, April 2023



**KUDU**  
**GRAPHITE**





# Chilalo – Community Focused Development



## CONSERVATION AGRICULTURE

Supply of materials, training and ongoing coaching and mentoring to promote the development of sustainable sesame, maize and legume agriculture among the local communities.



## TREE NURSERIES

Supply of materials, training and ongoing coaching and mentoring to promote the development of sustainable sesame, maize and legume agriculture among the local communities.



## VEGETABLE PROGRAM

Supply of materials, training and ongoing coaching and mentoring to promote the development of sustainable sesame, maize and legume agriculture among the local communities.



## YOUTH SKILLS TRAINING PROGRAM

Supply of materials, training and ongoing coaching and mentoring to promote the development of sustainable sesame, maize and legume agriculture among the local communities.



## LIVELIHOOD RESTORATION CENTRE (LRC)

Supply of materials, training and ongoing coaching and mentoring to promote the development of sustainable sesame, maize and legume agriculture among the local communities.



# Vertically Integrated Strategy

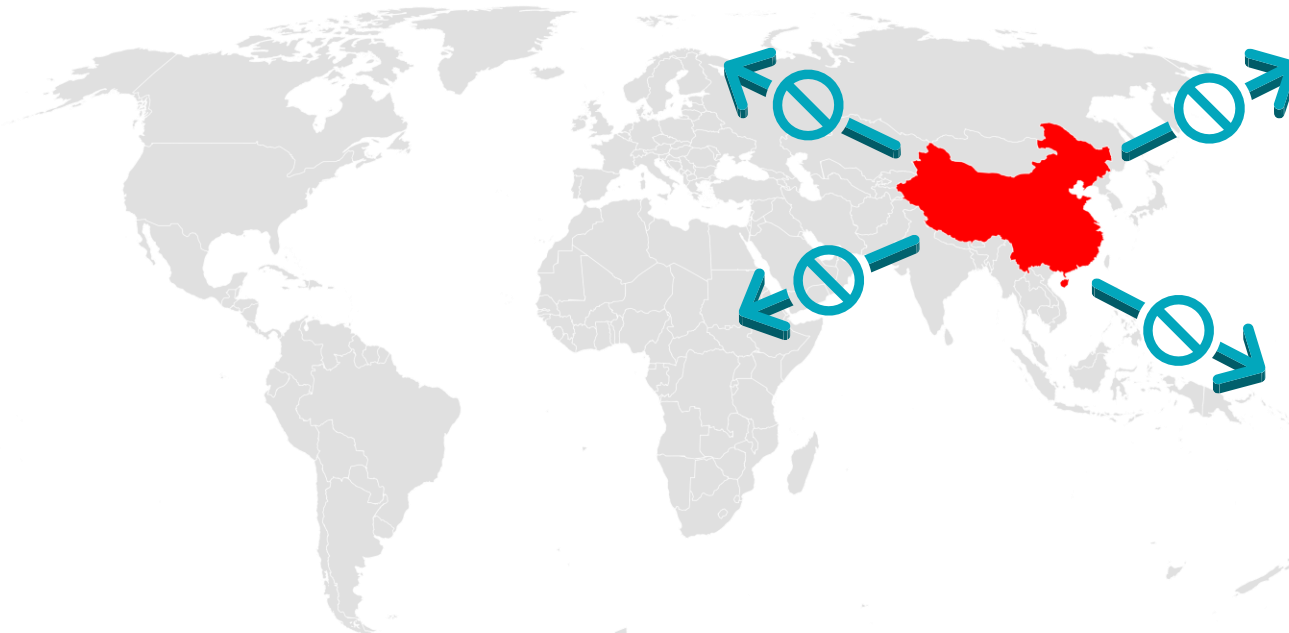


# China's export controls positive for Ex-China graphite

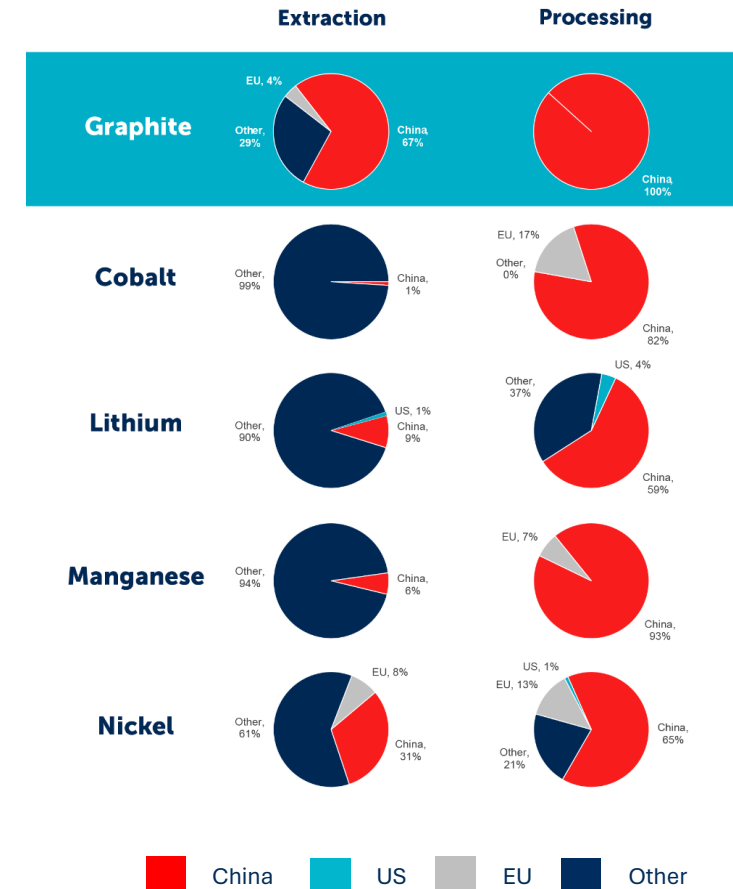
- China controls graphite and anode markets
- China export controls in place from 1 December 2023
- Heightens the urgency to develop ex-China sources of:
  - Flake graphite mining
  - Anode processing capacity

	Flake Graphite Exports (tons)	Spherical Graphite Exports (tons)
November 2023	23,343	12,187
December 2023	1,428	949
<b>Variance</b>	<b>(94%)</b>	<b>(92%)</b>

Source: 1. Customs General Administration, P. R. China, 2. Wisdom Intelligence Technology



## Li-ion battery raw materials supply chain by country







# US Downstream Opportunity

## US by the numbers:

- 2030 battery demand<sup>1</sup> – 1,180GWh
- 2030 anode materials<sup>1</sup> – 1,298ktpa
- ~US\$47B Inflation Reduction Act (IRA) Production and EV tax credits
- US\$40B via DoE Advanced Technology Vehicles Manufacturing Loan Program EV loan program
- US\$7B via DoE Battery Materials Processing grants

## Select US Gigafactories



1. Benchmark Mineral Intelligence



# Impact of the IRA on OEM anode sourcing

## What is IRA compliance?

1. Extracts, processes or recycles critical minerals in the US or FTA country	
2. Not deemed a Foreign Entity of Concern (FEOC)	

Note 1. US Government guidance allows up to 25% Chinese ownership provided effective control is not given contractually.

## OEM dilemma given China dominate graphite / anode production



Recent OEM activity indicates the IRA tax credit wins out		
Syrah		Offtake
Nouveau Monde		Offtake + US\$175M investment
Novonix		Offtake



# EV1 vertical integration strategy



**EV1 is assessing the battery anode opportunity in North America to complete a vertically integrated ‘mine to battery’ strategy**



**BTR’s proven technology, IRA compliant – solving the OEM dilemma**



**Access to Tier 1 customers**

## NEXT STEPS

EV1 is advancing site selection and economic analysis for a proposed anode production facility. Discussions on technology licensing and strategic partnering continue with a Scoping Study due for completion in H2 2024.





# Key Catalysts

**1** Delivering on project optimisations to improve economics

**2** Introducing strategic investors / partners

**3** Chilalo project financing

**4** Downstream scoping study, site selection & partnerships

# EVOLUTION

## ENERGY MINERALS

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Managing Director

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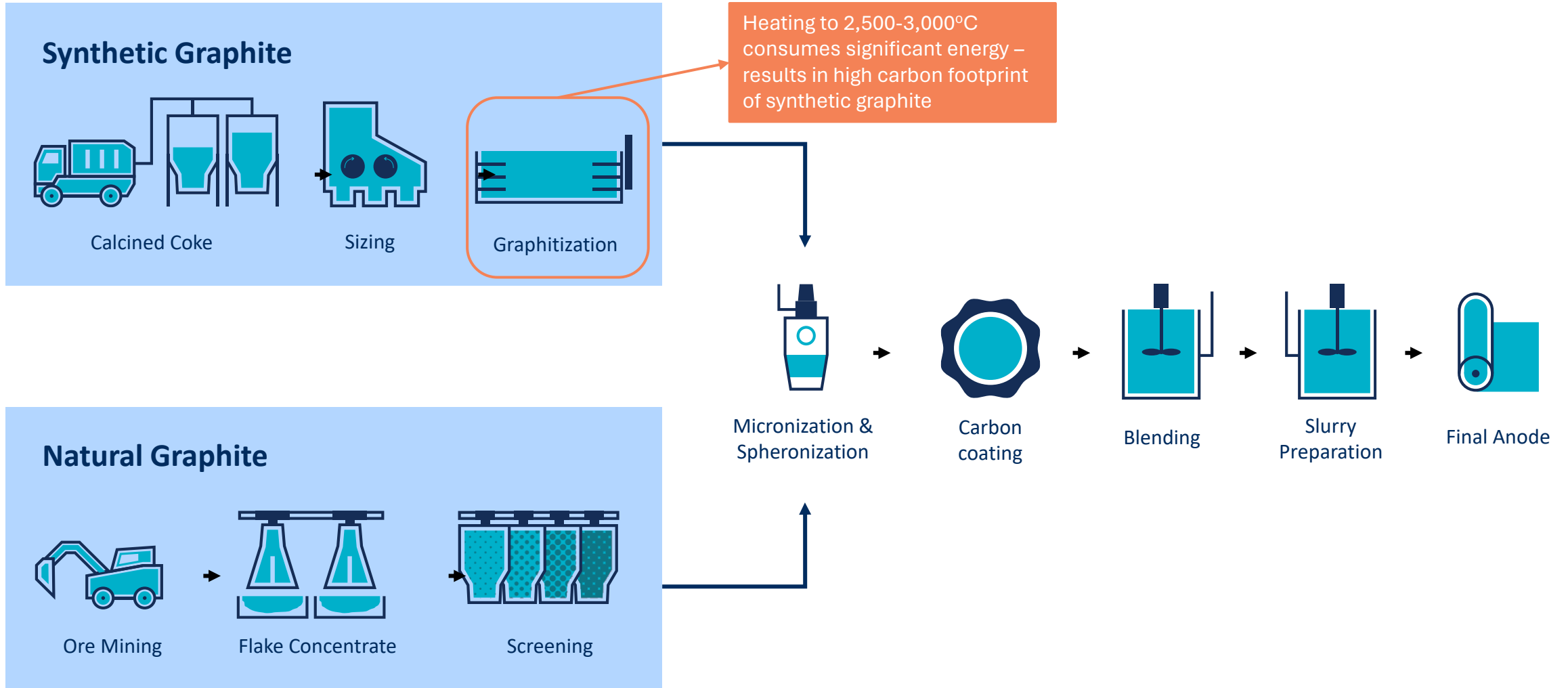


# Appendix





# The Making of an Anode





# Localisation of Anode Supply Chain

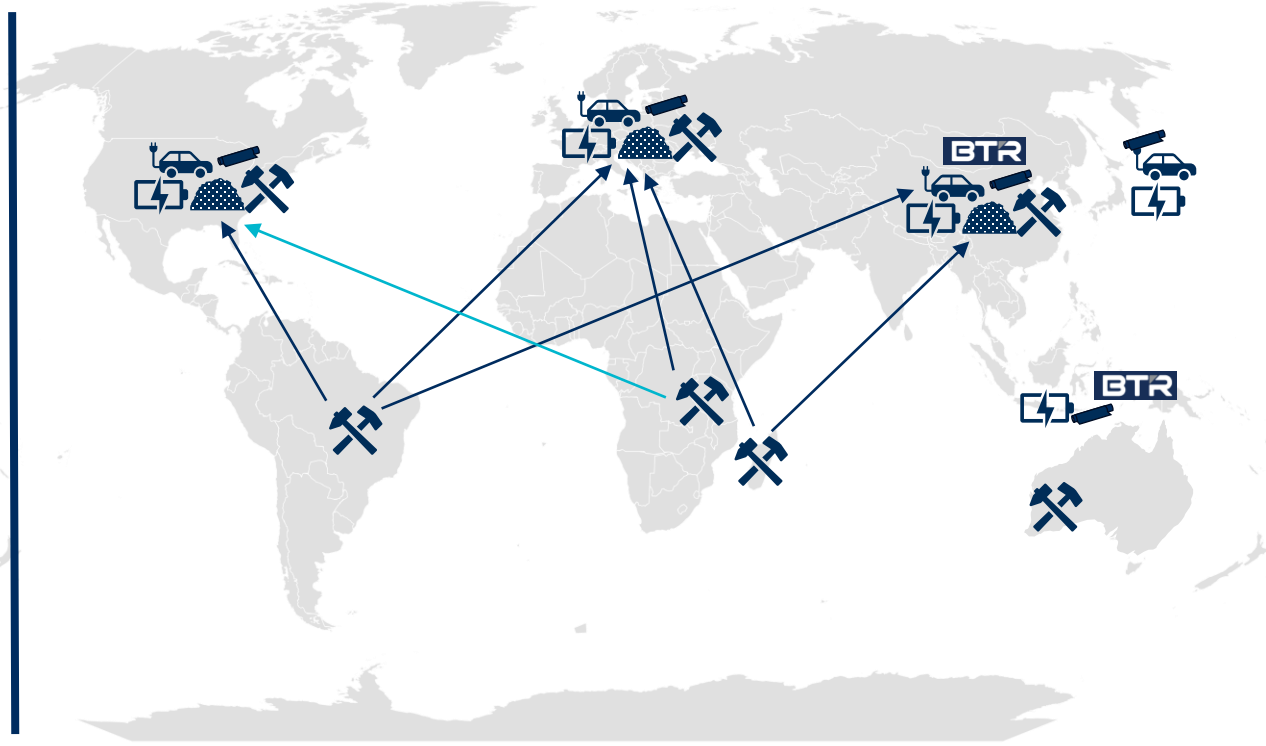
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Current



2035



Graphite Mine



Coke



Anode



Battery Cell



Electric Car