

TIRUPATI GRAPHITE PLC



GRAPHITE

Building an ESG Focused Graphite Operation for
transitioning Materials & Technologies to a Green Economy



Listed in the Main Board of London Stock Exchange

DISCLAIMER

The information contained in this document (the “Presentation”) has been prepared by Tirupati Graphite plc (the “Company”) solely for informational purposes. It has not been fully verified and is subject to material updating, completion, revision, verification and further amendment without notice.

While the information contained herein has been prepared in good faith, neither the Company nor any of its directors, officers, agents, employees or advisers give, have given or have authority to give, any representations or warranties (express or implied) as to, or in relation to, the accuracy, reliability or completeness of the information in this Presentation, or any revision thereof and liability therefore is expressly disclaimed.

Information contained herein does not purport to be complete and is subject to certain qualifications and assumptions and should not be relied upon for the purposes of making an investment in the Company’s securities or entering into any transaction. The information and opinions contained in this Presentation are provided as at the date of this Presentation and are subject to change without notice and, in furnishing the Presentation, the Company does not undertake or agree to any obligation to update or correct this Presentation.

This Presentation has not been approved by an authorised person in accordance with Section 21 of the Financial Services and Markets Act 2000, as amended (“FSMA”). This Presentation does not constitute, or form part of, an offer or invitation to issue, sell or acquire, or the solicitation of an offer to subscribe or purchase, any securities in the Company.

The Company’s securities mentioned herein have not been and will not be, registered under the U.S. Securities Act of 1933, as amended (the “Securities Act”), or under any U.S. State securities laws, and may not be offered or sold in the United States of America or its territories or possessions (the “United States”) unless they are registered under the Securities Act or pursuant to an exemption from or in a transaction not subject to the registration requirements of the Securities Act. Neither this Presentation nor any copy of it may be taken or transmitted into the United States, or distributed, directly or indirectly, in the United States, or to any "US person" as defined in Regulation S under the Securities Act of 1933, including US resident corporations or other entities organised under the laws of the United States or any state thereof or non-U.S. branches or agencies of such corporations or entities. This Presentation is not being made available to persons in Australia, Canada, Japan, the Republic of South Africa or any other jurisdiction in which it may be unlawful to do so and it should not be delivered or distributed, directly or indirectly, into or within any such jurisdictions. Any failure to comply with these restrictions may constitute a violation of the laws of the relevant jurisdiction.

Certain of the information contained in this Presentation has been obtained from published sources prepared by other parties. Certain other information has been extracted from unpublished sources prepared by other parties which have been made available to the Company. The Company has not carried out an independent investigation to verify the accuracy and completeness of such third party information.

This Presentation may contain certain "forward looking statements". Forward looking statements often use words such as "believe", "expect", "estimate", "intend", "anticipate" and words of a similar meaning. There are important factors, risks and uncertainties that could cause actual outcomes and results to be materially different. Except as required by law, the Company undertakes no obligation to publicly update or revise any forward looking statements, whether as a result of new information, future events or otherwise. No statement in this Presentation is intended as a profit forecast or profit estimate (unless otherwise stated).

MISSION & VISION

Mission

We shall be the benchmark in Natural Flake Graphite industry worldwide, with global multi-location resource and operations, setting up state of the art facilities to make tailor made products for conventional and new applications, developing technologies & expertise through design, engineering, research & development, and with special emphasis on application in Green Energy and Energy Storage, Composites, Graphene etc., securing the world's needs of this critical & wonder material and maximising values for all connected.

Near-Term Target

Produce flake graphite to serve 8% of the increased global flake graphite demand by 2030



KEY DIFFERENTIATORS

Multi Asset - Multi Jurisdiction - Sustainable Producer - Experience and Expertise



Quality Assets & Resources

Large Flake Deposits, based in Madagascar. Preferable for multiple applications, producing



Advanced Technologies

Automated processes, customised for graphite processing, in-house developed



Proven Team & technologies

Strong management with decades of experience and expertise in flake graphite



Serving Across the Value Chain

Mining & Processing flake graphite in Madagascar, Primary Project in Mozambique



High Quality Standards, Consistency

Ability to manufacture standard & customised, meet packing requirements. Quality Control standards implemented at each step of processing



Organic Development to be Industry Leader

Phased growth plans, organic development in sync with markets, highly feasible projects, understanding market dynamics



Green Technologies & Social Upliftment

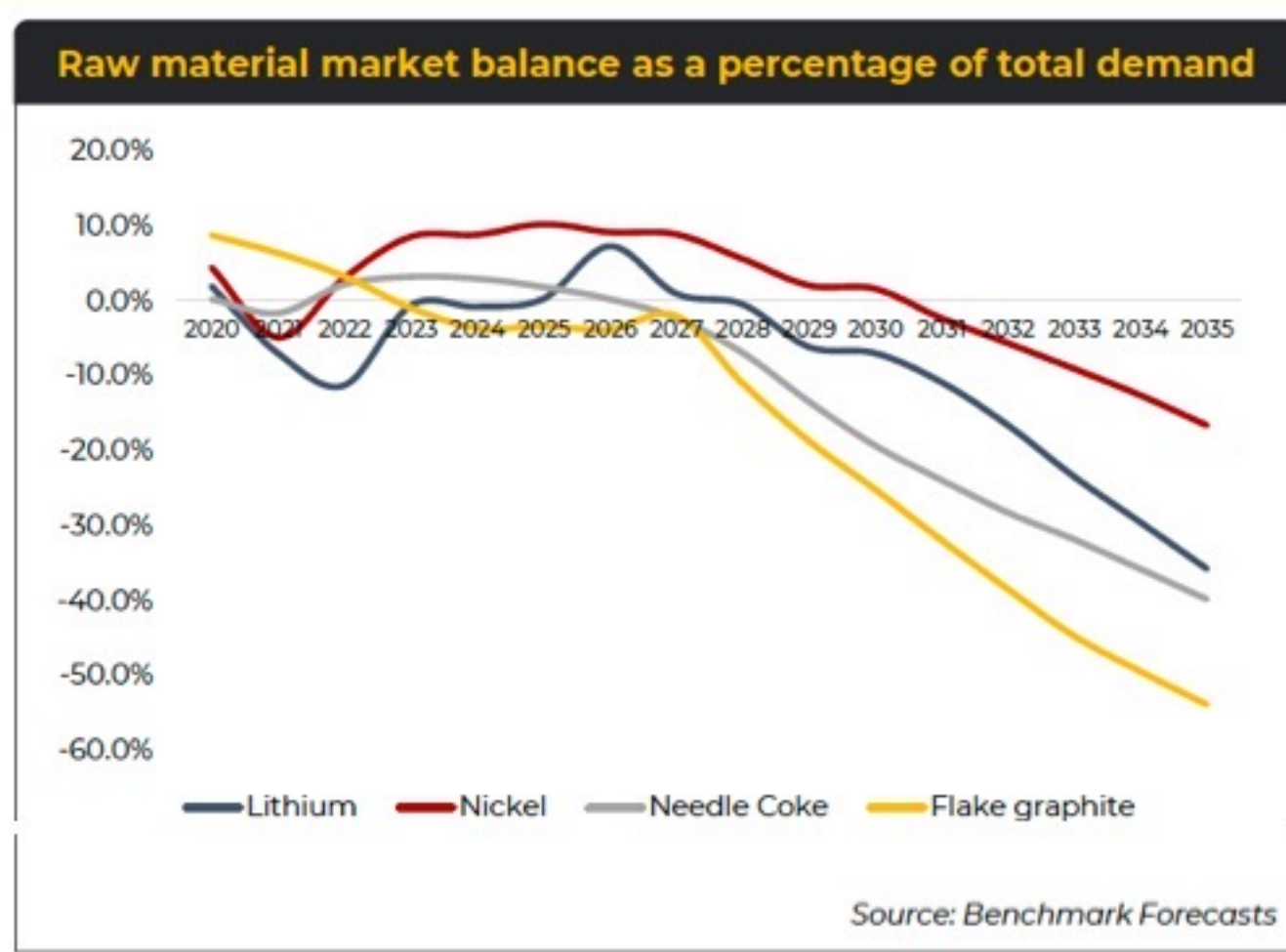
Developed, Implementing and spearheading green technologies, materials & improving lives

R&D and Product Development

Over 150 years of cumulative experience with deep understanding of the product and its applications. World class R&D facilities

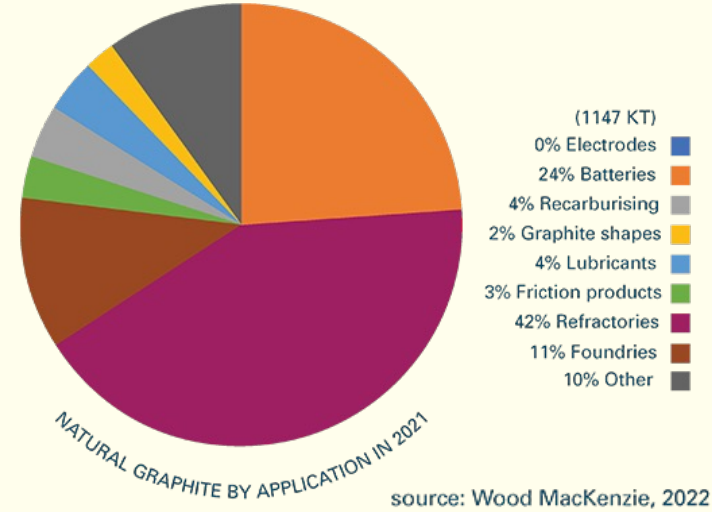
TG aims to be a one-stop solution for natural flake graphite and its derivative, being a global leader, spearheading green technologies and materials with bespoke production and R&D facilities - catering to the entire basket of applications & industries

“GRAPHITE POISED TO DO A LITHIUM”



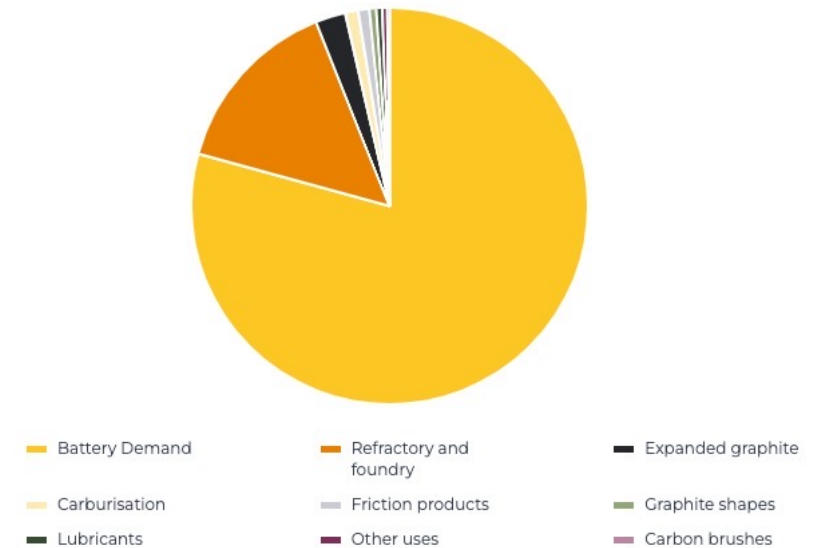
TGR aims to meet 8% of global graphite demand by 2030 from its primary operations

Natural Graphite by Application 2021



Graphite demand by end use in 2030

By 2030, the lithium ion battery market is the largest source of demand for anodes, reaching 79%.

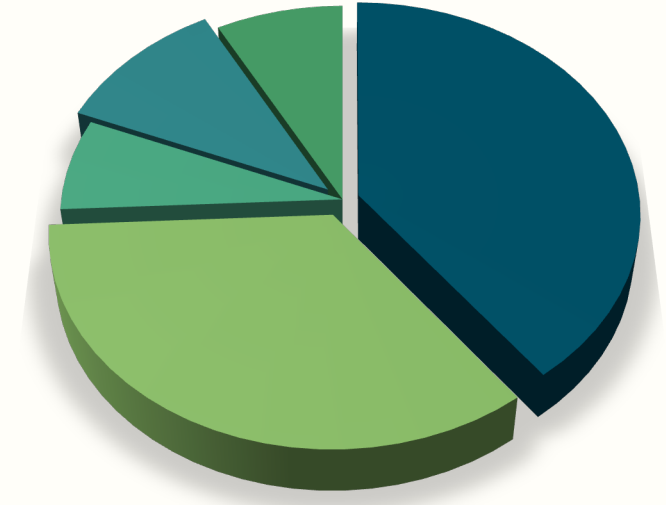
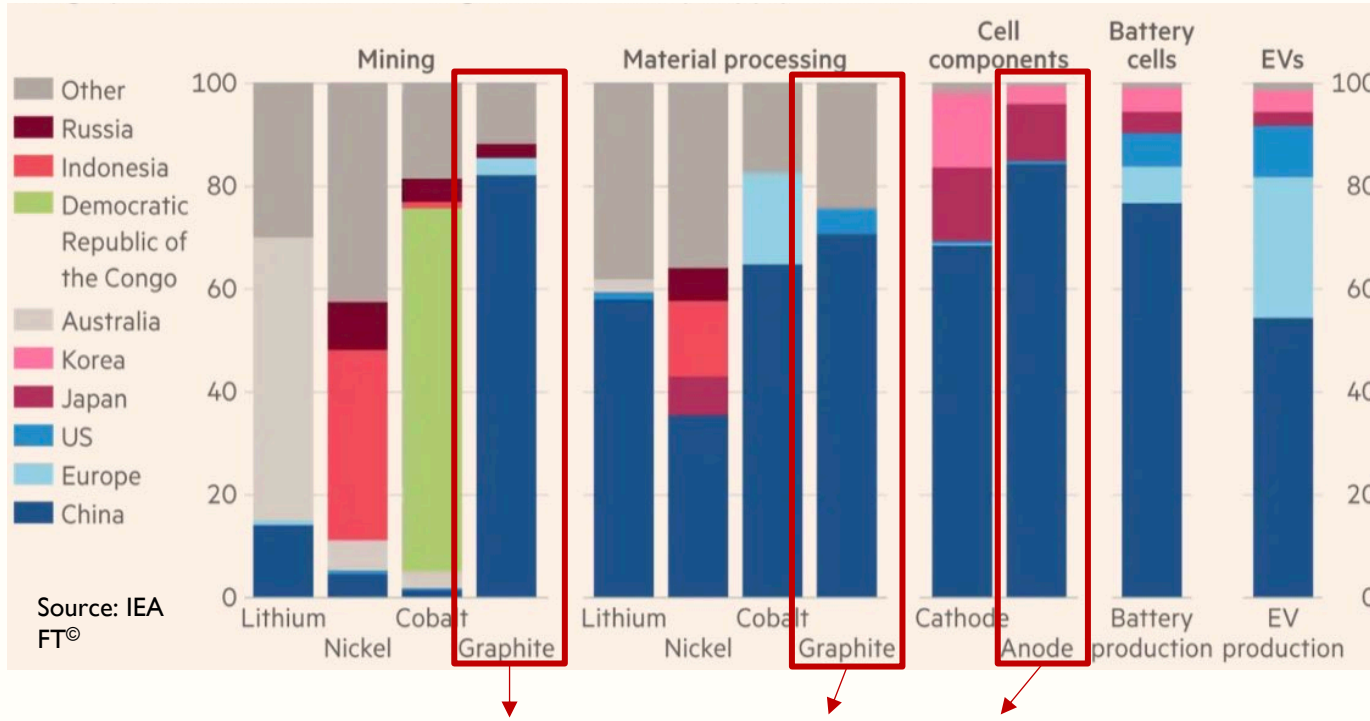


SOURCE: BENCHMARK FLAKE GRAPHITE FORECAST.

MARKET DEMAND & OPPORTUNITY

The natural graphite demand is largely growing for use as anode in Li-Battery segment with expected multi-folds rise by 2030. The graphite supply chain for this application can be traced as below:

The **Expandable Graphite** market is also growing with changing fire safety standards globally as well as demand from thermal management applications including batteries.



- Graphite foils
- Foundary
- Others
- Flame Retardants
- Thermal Management

Current Supply Chain for Li-ion Batteries:

- China dominates the entire downstream processing value chain for battery minerals to the EV production, with 100% of downstream processing concentrated in China & East Asia
- **Strikingly, for the anode, China controls the entire supply chain from mine to anode. Graphite is the only mineral which is fully dominated and controlled by 1 single nation**
- **Expansion and diversification is necessary.**

- The global expandable graphite market growth is CAGR of 7% (Roskill)
- The use of expandable graphite as a flame retardant, in gaskets as well as PCM material for Li-ion batteries is growing rapidly.
- >90% production is concentrated in China

NATURAL GRAPHITE UPCOMING DEMAND

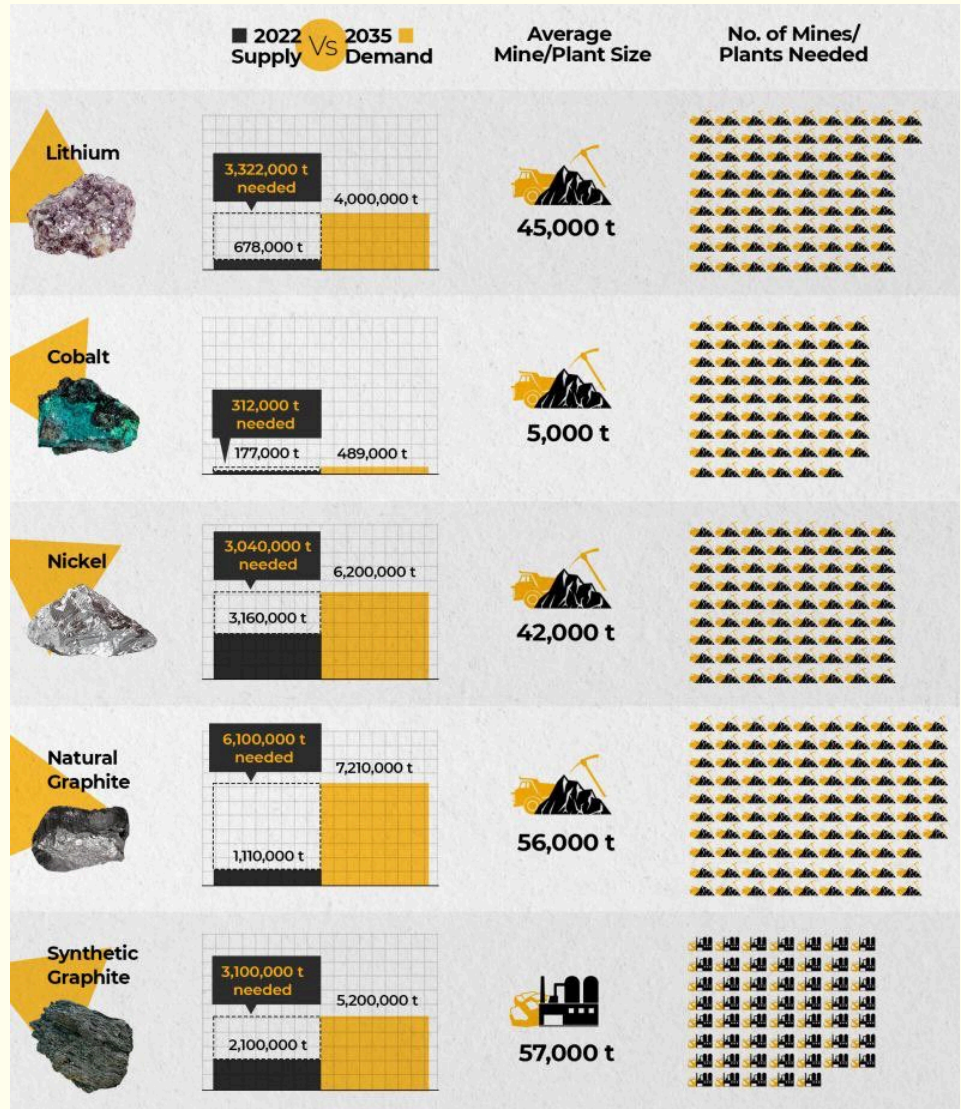
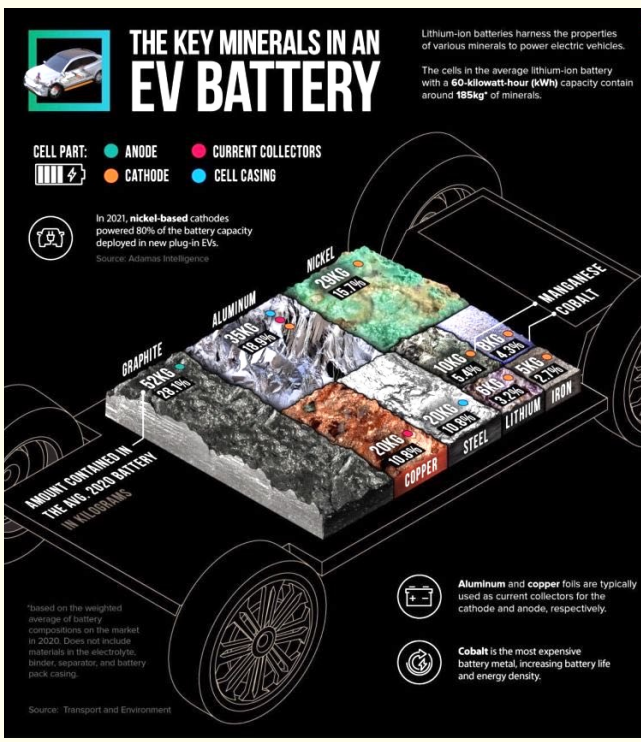
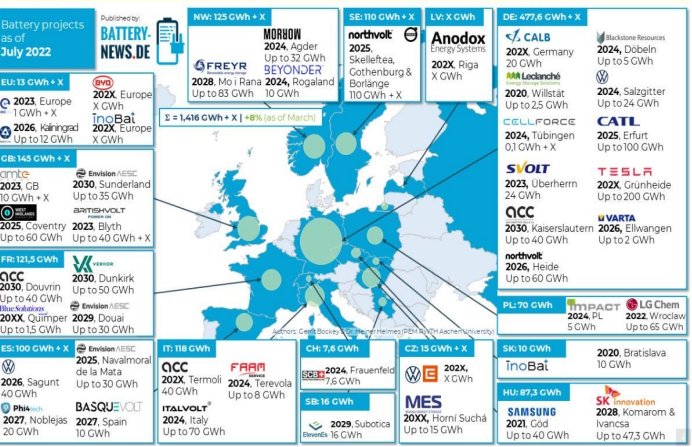
USA & Europe:
Upcoming Battery Capacity is >800 GWh by 2030 each

Graphite is the largest quantitative mineral in a Li-ion Battery

No Natural Flake Graphite Production, it is a Classified Critical Resource

Primary Process Demand of Battery Minerals by 2035:

Largest growth of primary processing units required in Natural Graphite of all battery minerals from current production.



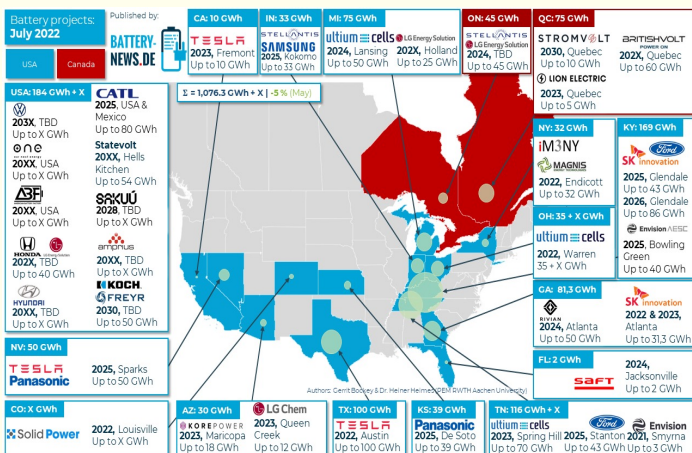
Resource & Processed mineral availability is the biggest risk

Availability & Diversification from DRC + ESG concerns are the risks

Risk is lower compared to other minerals, however capacity expansions required

Resource & Processed mineral availability is a major risk. Both mining & downstream dominated by China, making it an even bigger risk for ROW

Precursor availability is a challenge, not an eco-friendly material & process



PRIMARY MINING & PROCESSING

MADAGASCAR

TG has immense expertise in graphite processing technologies

The mined ore is processed using physical beneficiation technologies to produce flake graphite of different purities and sizes



Vatomina Project

In Production

Sahamamy Project

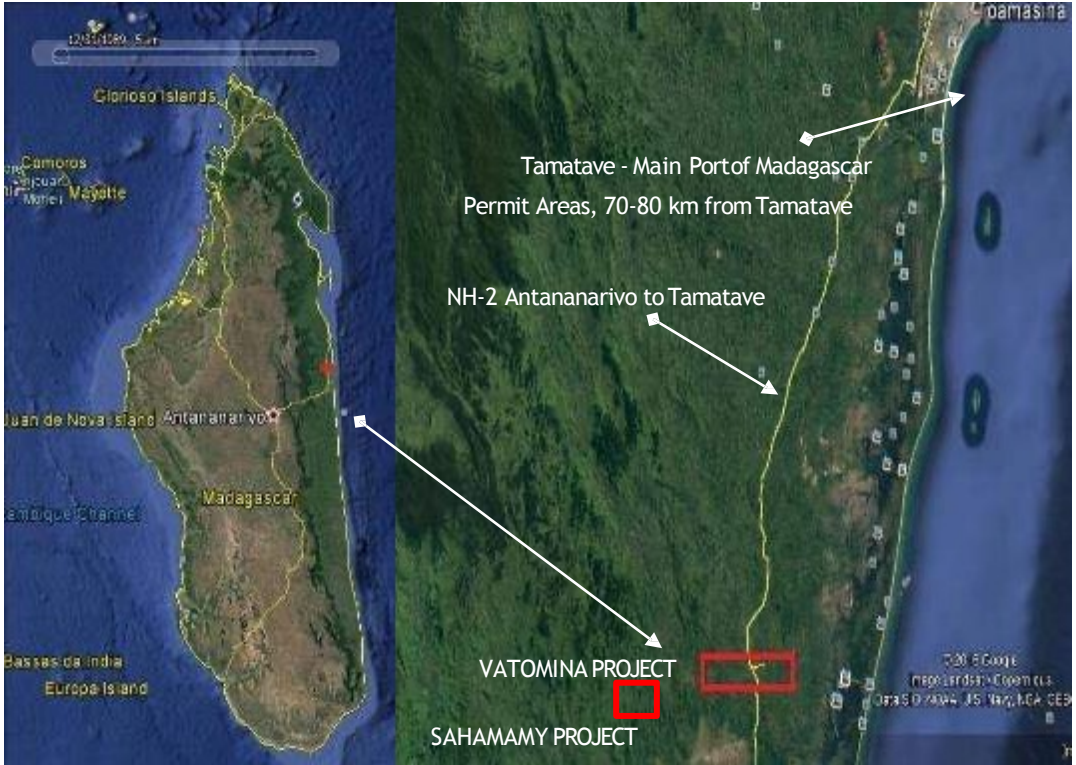
In production



TG FLAKE GRAPHITE - MADAGASCAR

Sahamamy Project 8km² mining permit

Vatomina Project 25km² mining permit



Madagascar is historically known for its quality of flake graphite deposits

Resource Quality

- High quality, large flake, free dig mining saprolite deposit
- Madagascar recognised as a world lead quality resource
- Producing for over 100 years

Permits & Clearances

- 40 year renewable Mining Permit covers 33km²
- Environment clearance granted
- Favourable mining law

Vatomina JORC 2012 Resource c. 30% area explored

- Indicated - 03.2 million tons @ 4.3% GC
- Inferred - 15.2 million tons @ 4.7% GC
- Exploration target - 8 to 10 million tons @ 3-4% GC

Sahamamy JORC 2012 Resource c. 25% area explored

- Indicated - 1.4 million tons @ 4.1% GC
- Inferred - 5.7 million tons @ 4.2% GC
- Exploration target - 5 to 7 million tons @ 3-4% GC

- 14 years mine life established in Stage 1 of exploration, only 25-30% of the mineralised zone explored to a depth of 50m
- Stage 2 of exploration commissioned at both projects for resource addition and upgradation

Logistics

- 70 km from Toamasina deep sea port, connected by NH2, warehouse at port. Direct road connecting the 2 projects recently completed

Team

- Expert geology mining and processing management team in-country
- Local component of total employment over 95%

MADAGASCAR PROJECTS DEVELOPMENT

- 30,000 tons per annum current capacity, expanding to 84,000 tons by 2024
- Industry lowest CAPEX intensity, lowest quartile operating costs
- Stage two exploration expected to establish additional resources – new discoveries made across the two projects
- Established in country operations capability stage set for the final push to capitalise on market opportunities.
- First small hydro power plant installed and final studies for the second underway.
- Market penetration across continents and sectors and developing relationships in the EV sector.

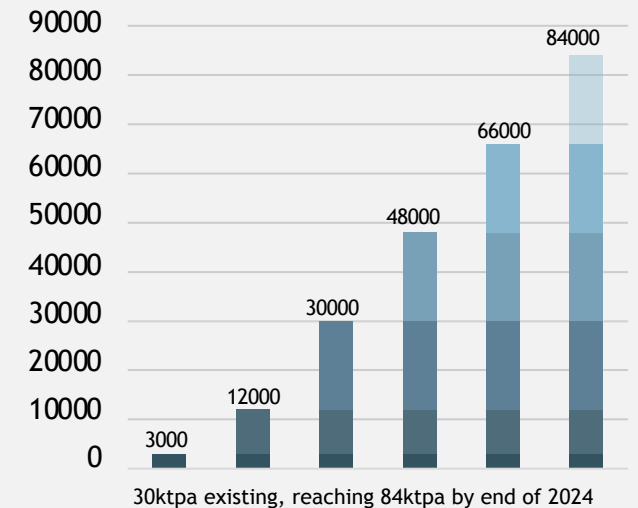


Glimpses of Mining Operations & processing plant and



Used directly in conventional industrial applications

Vatomina & Sahamamy Project



84ktpa flake graphite by 2024

NEW ACQUISITION ADDS 12X RESOURCE - MOZAMBIQUE

Project	Deposit	Group Total JORC (2012) Mineral Resources		
		Tonnes	TGC	Cont. Graphite
		Mt	%	kt
Montepuez	Elephant	76.9	7.3	5,620
	Buffalo	42.6	9.5	4,050
Balama Central	Lenox	21.9	10.2	2,230
	Byron	11.0	10.2	1,120
Total		152.5	8.5	13,030

TG acquires 100% of Mozambique assets, IP and shareholder loans from Battery Minerals (“BAT”)

Adding additional resource of proven >150million tons of flake graphite. Shareholders’ approval completed, in-country approvals ongoing for acquisition completion.

Two world-class graphite deposits in established graphite producing region

Adding mineral Resources of **152MT @ 8.5% TGC, Reserves of 62MT @ 10.1% TGC**

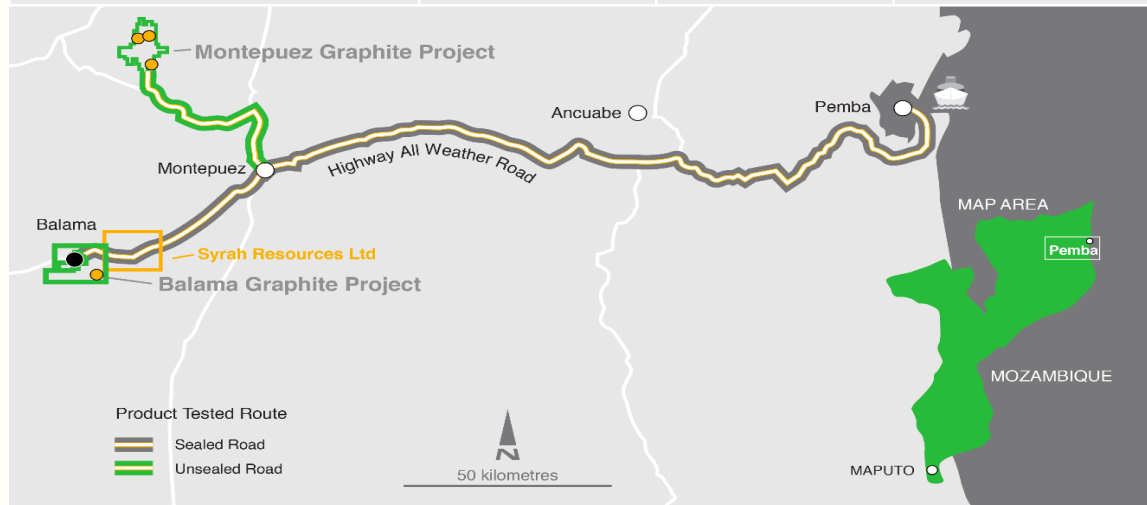
Group JORC (2012) Probable Ore Reserves			
Project	Tonnes	TGC	Cont. Graphite
	Mt	%	Mt
Montepuez	19.66	11.06	2.17
Balama Central	42.19	9.27	3.91
Total	61.90	10.10	6.08

Complements TG’s graphite product basket with mix of 60-70% small flakes

Complementing Tirupati's existing mix of jumbo and large flake from Madagascar

Lays the foundation for TG to capitalise on the visible market opportunities

E-mobility and energy storage, fire safety, thermal management, advanced materials and composites



Provides extensive resource to meet long-term customer requirements for EVs

Establishes working relationship between TG & BAT

Expands global networks, distribution channels and opens an investor base in Australia

Projects permitted for 150,000 tons graphite production with potential to expand

TG FIVE YEARS IN NUMBERS

Since inception in April 2017, the total capital raised by the company including equity issued for acquisitions, and their deployment is summarised in the table below

Sources of Funds	Amount
Equity Capital raised	£23,772,599
Less Cost of equity raised	(£1,623,774)
Net proceeds of equity raised	£22,148,825
Convertible Debt	£1,009,000
Interest on CLN	(£335,000)
Total	£22,822,825
Deployment of Funds	
Capex at Madagascar projects	£11,007,426
Resource Exploration Costs (acquisition cost less book value)	£3,571,196
Working Capital and cash	£3,185,900
Admin and Corporate cost	£5,058,303
Total	£22,822,825

TG FIVE YEARS IN NUMBERS



Since inception in April 2017, the total investments in CAPEX and the assets created are as below

Particulars of Investment	Up to March 2020	During FY 2020-21	During FY 2021-22	As at March 2022	Assets created and under completion in FY 2022-23
Drilling & Earthmoving Equipment	£568,535	£275,973	£1,870,600	£2,715,108	Drilling and Mining fleet with 6 hydraulic excavators, 2 bulldozers, 4 articulated dump trucks, 14 tippers, 3 backhoes, 1 area grader, 1 track mounted and 1 skid mounted drill rig.
Processing Plant	£688,727	£498,979	£2,374,730	£3,562,436	Graphite processing plants with a total ore processing capacity of 2400 tons per hour = +1.8 million tons per annum with all ancillary facilities including power generation, engineering workshop, well equipped lab etc.
Infra & Admin Assets	£92,469	£37,771	£201,175	£331,415	Network of internal roads, accommodation for management team community centre.
Exploration Evaluation & Engineering	£902,532	£435,169	£468,603	£1,806,304	>7000m diamond core drilling further in progress, first MRE by SRK Consulting c. 25 million tons update ongoing, design and engineering of all facilities above said
Advances for Capex	-	-	£2,592,163	£2,592,163	Mostly for processing plant equipment for 18,000 tons per annum facility in creation
Total	£2,252,263	£1,247,892	£7,507,271	£11,007,426	

A further c. 2.5 million CAPEX was estimated to be deployed across 2022 to completion of 30ktpa production capacity by Q4, fully funded.

TG FIVE YEARS IN NUMBERS



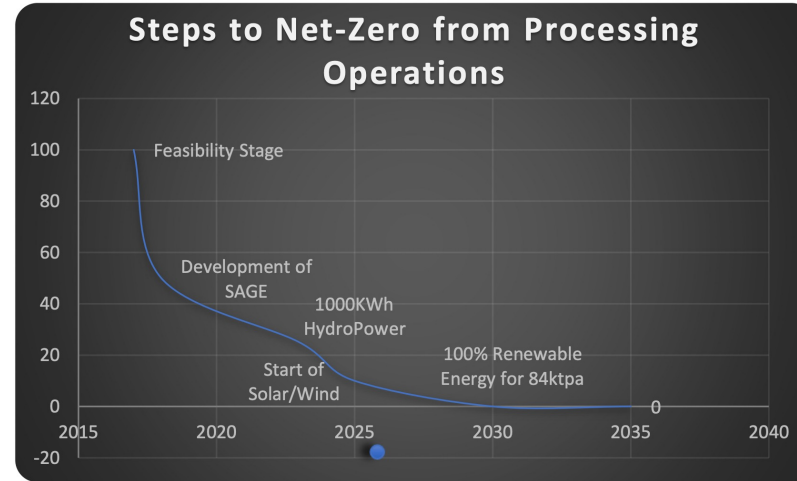
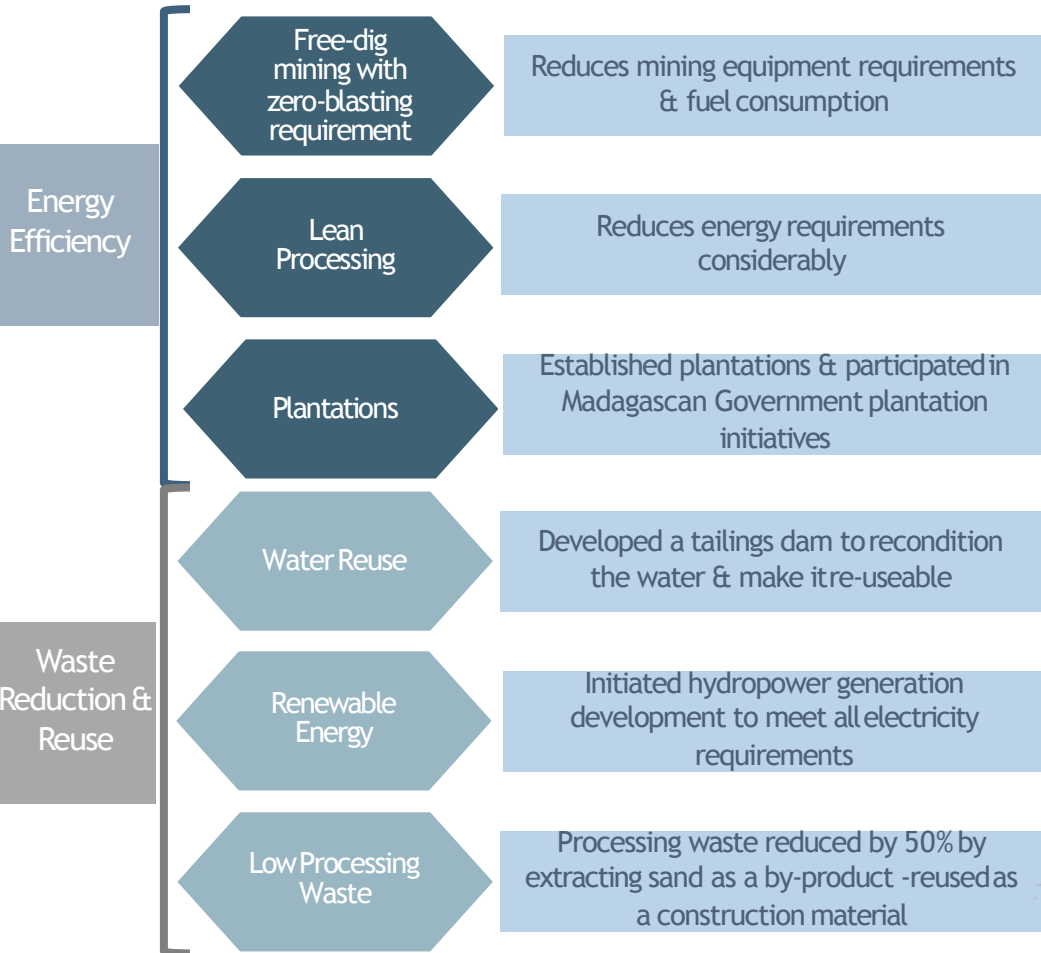
Operating results for first facilities created at the company's two projects since inception

Particulars	Units	FY 2021-22	FY 2020-21	FY 2019-20
Total Production	MT	2,996	1,718	1,318
Mining & Processing costs	£	935,604	304,975	277,644
Human Resources costs	£	378,671	228,731	161,480
Logistics utilities & plant admin costs	£	308,278	52,784	65,601
(Increase) / Decrease in inventory of inputs	£	(485,357)	(98,407)	(92,726)
Total Costs of Production (Excl. Depreciation)	£	1,137,196	488,083	411,899
Cost per MT of Production	£	380	284	313
Total Sales Volume	MT	2,662	1,857	1,206
Total Revenues	£	1,645,308	1,123,426	793,577
Average Selling price per MT of Production	US\$ / £ per MT	841 / 618	801 / 605	835 / 658
Gross Profit before Depreciation	£	508,112	635,343	381,678
Gross Margin on Sales	%	31%	57%	48%

ENVIRONMENT & SUSTAINABILITY

MOVING TO NET-ZERO EMISSIONS & ZERO-WASTE BY 2025

MADAGASCAR



Energy Efficiency & Emissions Reduction



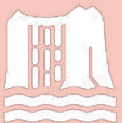
Waste Reduction & Reuse



RENEWABLE PUSH & PRE-CONCENTRATE UNITS

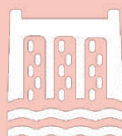
Strategy to use green technologies to meet 100% of the power requirements for the Madagascan projects

Sahamamy



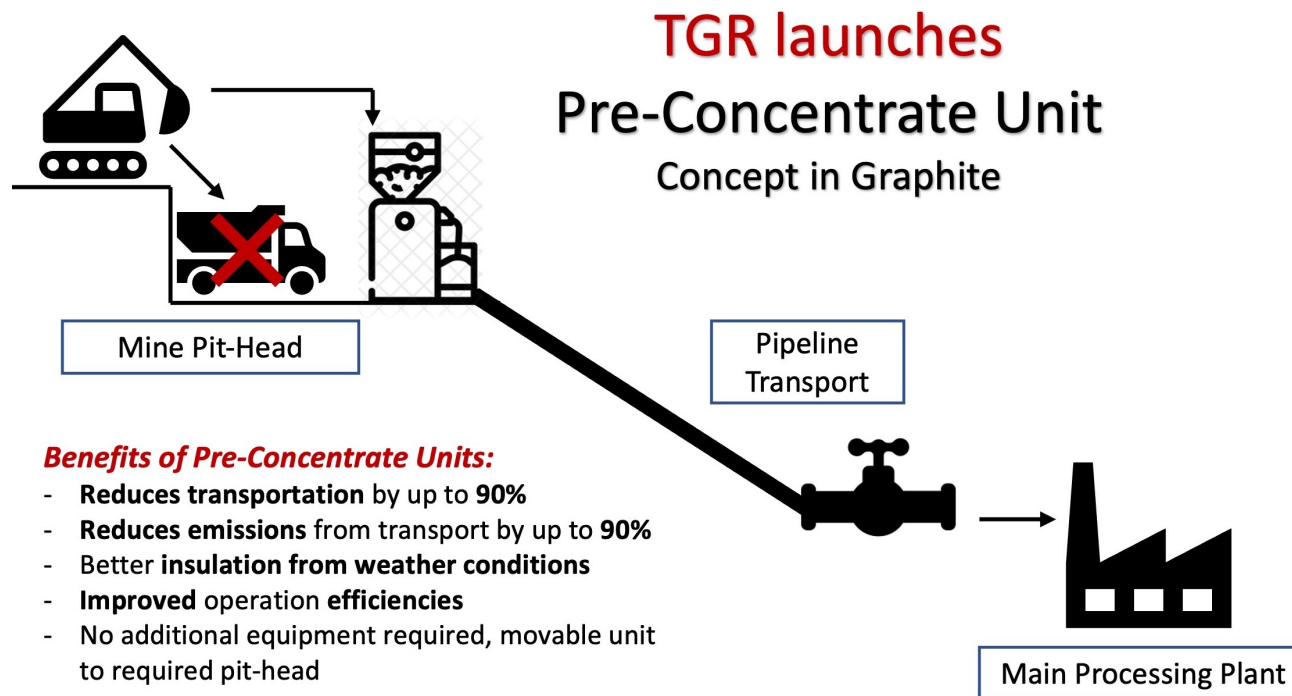
- Initial 100Kw hydropower facility under commissioning
- Planning additional 400 Kw hydropower capacity following earlier conducted prefeasibility studies

Vatomina



- PFS Prospects Feasibility underway for additional hydropower capabilities

- Ongoing saving of c. 10% in the operating cost per tonne of output
- Circa 50% reduction in carbon emissions from processing



Circa 90% reduction in carbon emissions from mining

“Net-Zero carbon at use is just part of the story; there is a need to look holistically at the processes along the whole supply chain.” - Shishir Poddar

ENGAGING WITH COMMUNITIES

'SHAKUNTALAM' OR MOTHERHOOD

Employment
&
Infrastructure



Health,
hygiene
&
safety



Education
&
Sports



Vocational
training &
skill
development

KEY STRENGTHS

MULTI ASSET/ JURISDICTION, LONG CHAIN OF VALUE CREATION & SUCCESS DEMONSTRATED



**Substantially
De-Risked**
Producing & revenue
generating



**Booming
Sector**
Multiple high growth consuming
markets



**Proven Team &
Technologies**
Strong management with
significant sector expertise



**Quality Assets &
Resources**
Large flake, saprolite
deposits



**Defined
Development**
Phased growth plans, organic
development



**Low
CAPEX & OPEX**
Established - Low investment high
earning potential



**Integrated in the
Value Chain**
Natural & specialty graphite &
graphene company



**Environmental &
Social Uplift**
Spearheading green technologies,
materials & improving lives

Expediting growth in response to emerging market dynamics across EV & fire protection sectors

CONTACT

For Enquiries
admin@tirupatigraphite.co.uk
020 3984 9894

Investor Relations
FTI CONSULTING
Tirupati@fticonsulting.com

Financial Advisors:
Optiva Securities Limited
020 3137 1904

 @TirupatiUK

 www.tirupatigraphite.co.uk



GRAPHITE

