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ASX Announcement

5 February 2024

Investor Presentation – 121 Mining Investment Conference

Attached is a copy of the Investor Presentation that will be presented by Globe at the 121 Mining Investment Conference being held on 5 and 6 February 2024 in Cape Town, South Africa.

This announcement was authorised for release by Paul Hardie, Company Secretary.

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Globe
Metals & Mining

An emerging vertically-integrated niobium producer.

121 Investor Conference - February 2024

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Chief Executive Officer

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Chief Financial Officer

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Chief Operating Officer

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Such factors include, but are not limited to, general economic, market and business conditions, market prices for niobium and tantalum, demand for niobium and tantalum, niobium and tantalum supply, obtaining additional debt and equity funding (as required), concluding of off-take agreements, obtaining of all necessary permits for development and production as and when required, estimation of resources and reserves, development and production costs, processing recoveries transportation delays and costs, risks and uncertainties related to construction and commissioning, delays in construction of the mining and processing operations, accidents, equipment breakdowns, title matters, labour disputes, environmental issues and local community issues involving relocation of project affected people or other unanticipated difficulties with, or interruptions in, development or production, exchange rate fluctuations, and risks and uncertainties associated with doing business in Africa.

In addition, there may be information herein that is information about prospective results of operations, financial position or cash flows and which is provided only to assist in an evaluation of the Kanyika Niobium Project outlined herein but are not to be relied upon as accurate representations of future results and may not be appropriate for any other purpose.

This Presentation contains certain forward-looking statements and comments about future matters. Forward-looking statements can generally be identified using forward-looking words such as, "expect", "anticipate", "likely", "intend", "should", "could", "may", "predict", "plan", "propose", "will", "believe", "forecast", "estimate", "target" "outlook", "continue", "guidance" and other similar expressions. The forward-looking statements including statements regarding our intent, belief or current expectations with respect to Kanyika Niobium Project's performance, market, political, social and environmental conditions, additional feasibility work, improvements and updates, project configuration, construction and commissioning costs and timelines, and general risks and uncertainties. Readers are cautioned not to place reliance on these forward-looking statements. While due care has been used in the preparation of forecast information, actual results may vary in a materially positive or negative manner.

Any such statements, targets, opinions and estimates in this Presentation speak only as of the date hereof and are based on assumptions and contingencies subject to significant uncertainties or change without notice. Forecasts and hypothetical examples are subject to uncertainty and contingencies often outside Globe's control. The information in this presentation is current as at the date of the publication of this presentation.

There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. Except as required by law or regulation (including the ASX Listing Rules), Globe undertakes no obligation to supplement, revise or update forward-looking statements in the future, regardless of whether new information, future events or results or other factors affect the information contained in this Presentation.

Investment Highlights

This bottom quartile cost project has been designed to ensure the production of "green Niobium" in that its Scope 1 and Scope 2 carbon emissions will be of the lowest in the world, with hydroelectric and solar power dominating its power sources. The very low carbon footprint is also supported by a unique closed-cycle Chlorination refining process, which is transformative for the industry.

01
Second vertically integrated niobium oxide player in the world.

02
Major low-cost resource of Niobium in a conflict free zone

03
Rapidly growing global demand for high purity Niobium Oxide

04
Attractive Project - IRR of 47% and NPV of US$1 billion

05
De-risked and phased project start-up.

06
Worldwide exclusivity on environmentally friendly refining process.

07
Niobium is number 3 on the US critical metal list.

08
Fully permitted, advanced staged project.

Corporate snapshot
ASX GBE

Share price
$A0.037

2 February 2024
52 week high $0.11, low $0.033

Market capitalisation
A$25m

2 February 2024

Debt
A$ Nil

31 January 2024

Shares on issue
675.9m

31 January 2024

Cash
A$3.4m

31 December 2023

Various options
22m

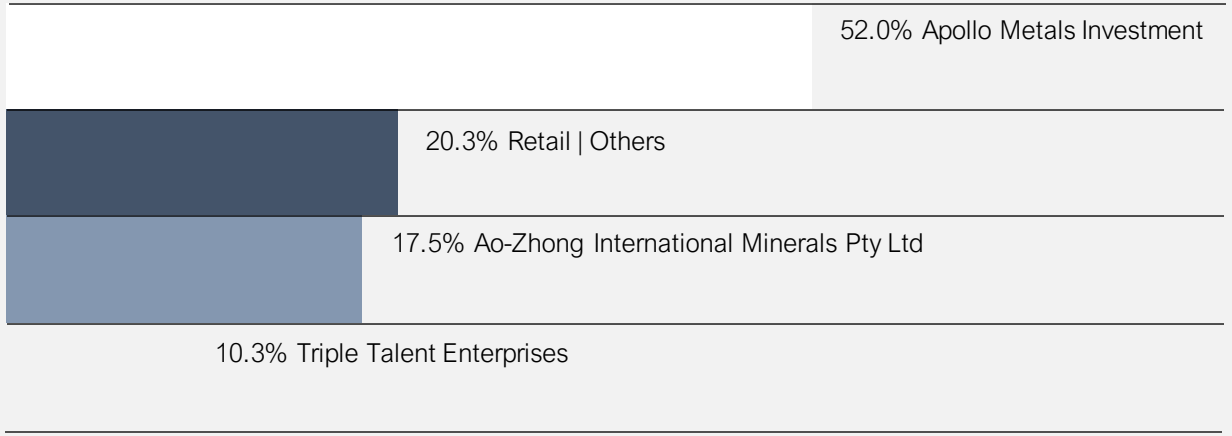
31 January 2024

ASX Share price performance ($A)

12 months to 31 January 2024

Share register

Figures shown are approximate as at 31 January 2024



Kanyika Niobium Project
Malawi, Africa

Malawi is a conflict free, democratic country underpinned by its 2022-2027 mining strategic plan where mining will be the main contributor to the sustainable socio-economic growth and development of the country.

Figure 1. Signing ceremony for the Mining Development Agreement between the Globe and Malawi Government: 29 March 2023

Figure 2: Production, processing and refining in Malawi.

Shovel-ready, fully permitted, advanced staged project covered by a Mining Development Agreement, Mining Licence, and all environmental and land approvals required to immediately start construction.

Large resource base and long mine life

Potentially, the first globally significant niobium mine in 50 years.

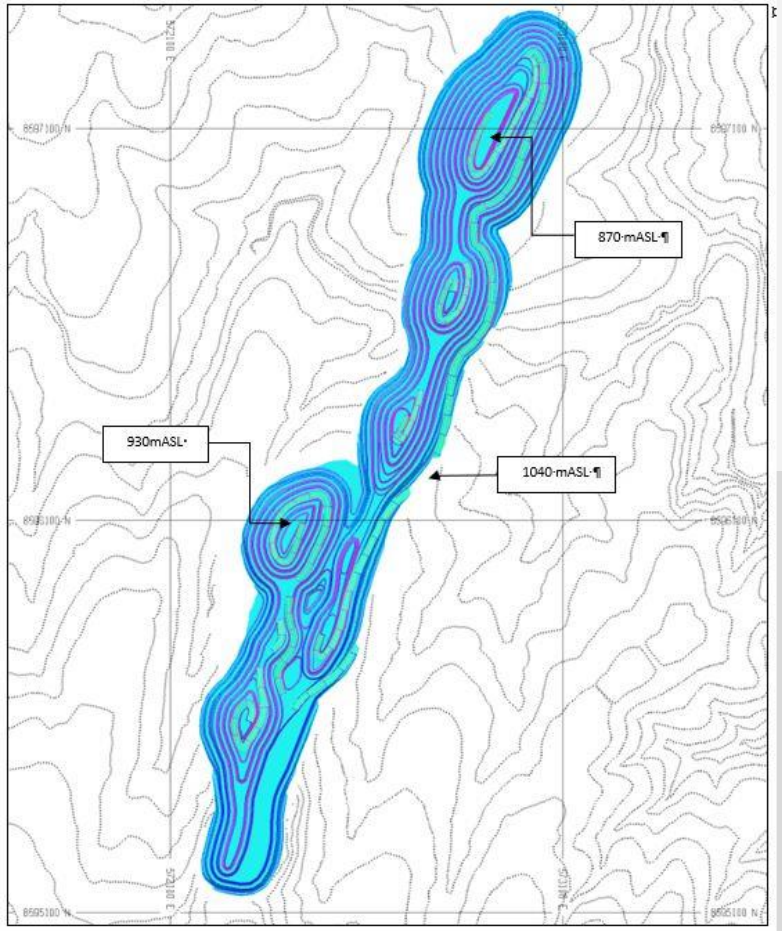
Mineral Resources

Measured	Indicated	Inferred	Total
5.3Mt	**47Mt**	**16Mt**	**68.3Mt**
3,770ppm Nb_2O_5 19,981t Contained Nb_2O_5	2,860ppm Nb_2O_5 134,420t Contained Nb_2O_5	2,430ppm Nb_2O_5 38,880t Contained Nb_2O_5	2,830ppm Nb_2O_5 193,281t Contained Nb_2O_5
180ppm Ta_2O_5 954t Contained Ta_2O_5	135ppm Ta_2O_5 6,345t Contained Ta_2O_5	120ppm Ta_2O_5 1,920t Contained Ta_2O_5	135ppm Ta_2O_5 9,219t Contained Ta_2O_5

Ore Reserves

Proved	Probable	Total
5.3Mt	**28.5Mt**	**33.8Mt**
3,680ppm Nb_2O_5 19,504t Contained Nb_2O_5	2,930ppm Nb_2O_5 83,505t Contained Nb_2O_5	3,048ppm Nb_2O_5 103,009t Contained Nb_2O_5
171ppm Ta_2O_5 906t Contained Ta_2O_5	136ppm Ta_2O_5 3,876t Contained Ta_2O_5	141ppm Ta_2O_5 4,782t Contained Ta_2O_5

- Contains pyrochlore and zircon mineralisation in disseminated zones
- Niobium and tantalum mineralisation occurs within the mineral pyrochlore
- High-grade mineralisation features pyrochlore bands associated with zircon



Kanyika Project - Development plan update

Metallurgical Test-work

Q1 2024
Confirmation of product specification.

- Refining test-work on Kanyika concentrate
- Confirm extraction and recovery of high purity Nb and Ta oxides
- Define Pilot Plant design criteria
- Undertake pilot plan design modelling high-purity

Pilot plant

Q2 2024
Pilot plant construction & operation

- Construct and operate Pilot Plant
- Product samples to potential off-takers (Nb and Ta)
- Establish design and operating parameters for large-scale chlorination refinery

DFS update & FEED

Capital Raise 1: FEED
US$5m*

Q3 2024

- Update feasibility study to include the phased development of operations and the chlorination refining technology;
- Confirm offtake agreements for niobium oxide and tantalum oxide plus minor metals

Project Phase 1

Capital Raise 2 for Phase One
U$30m*

Q4 2024
Execution Phase 1
(First production expected Q4 2025)

Mine concentrate
2,000tpa

Refined Niobium oxide
313tpa

Project Phase 2

Capital Raise 3 for Phase Two
US$250m

2027
Execution Phase 2

Mine concentrate
18,000tpa

Refined Niobium oxide
3,155tpa

Kanyika Project – Optimisation results relative to the 2021 DFS

Change in refining technology to the Chlorination process, which is more environmentally sustainable, cost-effective and produces high purity products, attracting premium prices.

01

Optimisation of the milling and concentration circuits:

Replacement of SAG mill with the EDS horizontal multi-shaft mill

1) Redesign of the two-stage flotation circuit to a single stage, and the reduction of flotation reagents to 4 from 12 reagents.
2) Optimisation of mass pull and recovery of concentrator
3) Dry tailings disposal and co-deposition with mine strip waste material

02

The use of chlorination technology in Malawi for the refining of high-purity metal oxides rather than the HF Acid process in the UAE:

The high-purity Niobium oxide products will be sold into the speciality metals markets, realising premium prices over the ferro-niobium market.

1) Covering all Oxide markets from standard grade to high quality grade with a focus on Optical grade (99.99%).
2) Facilitates selling prices in excess of US$50 per kg.

03

Financial impact:

1) Robust NPV and IRR retained. Pre-tax NPV US$1.004Bn and IRR of 47.1%.
2) Life of mine extended by 4 years due to smaller Phase 1 start.
3) Total unit cost gross profit margin increases by 5% to 71%.
4) A realistic tax rate was assumed for Malawi (a UAE-based effective tax rate of 3% was deemed unreasonable).
5) Realised a 15% improvement in total unit cash operating cost (per Kg Nb2O5)

Refer to Slide 27 for a detailed Financial analysis.

Kanyika Project – Optimisation results Phase 1 and Phase 2

Phase 1 operation is c. 6% of Phase 2 in respect of ROM Ore production and 10% in respect of Nb205 production.

01

Phase 1:

1) Robust NPV and IRR retained. Pre-tax NPV US$20m and IRR of 32.5%.
2) Planned 3-year Phase 1 with an annual turnover estimated at US$20m
3) Low risk and low capital (estimated total capital cost of US$29m) cost phase 1 mine and concentrator
4) Mine capacity of 86 ktpa ROM, and 1760 tpa of concentrate, for shipment to the planned Lilongwe refinery (subject to finalisation of financial incentives with the Government of Malawi).

02

Phase 2:

1) Robust NPV and IRR retained. Pre-tax NPV US$984m and IRR of 47.1%.
2) Planned ramp up after 3 years of Phase 1 with an annual turnover estimated at US$205m
3) 28% improvement due to scale of total mine and refinery operating costs
4) Mine capacity development to 1.5mtpa and 17.7 ktpa of concentrate for shipment to the planned Lilongwe refinery (subject to finalisation of financial incentives with the Government of Malawi).

Refer to Slide 28 for a detailed Financial analysis.

Kanyika Mine: Phase One
Scaleable start-up operations

Average of 380,000t of mined material including 140,000t of waste mined per annum at minimum 10tph.

Open pit mining
"Free dig" mining
Load and haul

Crushing
Primary jaw and secondary cone

Milling
EDS mill
Ball mill

Flotation
Single stage: Rougher, scavenger and cleaners

Drying
Locally produced biomass as fuel

Concentrate
Contains radioactive nuclides

Sale and trucking
Bulk bags loaded onto flat bed trucks

Our chlorination technology offers superior overall ESG potential.

- Positive metallurgical test work results with an extraction of 99.9%
- Confident overall recovery across the refinery will be 99% comparing favorably to Globe's August 2021 feasibility study of 95% based on the HF process.
- Enables production of high-grade oxides for all markets

Benefits of Chlorination

- Dry process – offering a substantial (CAPEX, OPEX, environmental) advantage over the previously considered (HF/H2SO4) process in eliminating wastewater and effluent monitoring and treatment.
- Revenue generating co-products limit the effects of downturns in commodity price cycles.
- Energy – exothermic upfront extraction process providing a substantial amount of energy for re-utilisation in other process areas or for on-site power generation.
- The carbochlorination process involves reacting a mixture of charcoal and concentrate with gaseous chlorine. The metal oxides in the ore convert to chlorides some of which have boiling points below the 900oC reactor temperature. These chlorides leave the reactor and the gas is systematically cooled down allowing for the removal of separate metal chlorides. The separated metal chlorides are then oxidised to yield high-purity metal oxides.
- Low waste and tailings potential reducing the burden of environmental bonds, remediation, and closure liabilities.
- Facilitating stakeholder buy-in and attracting appropriate investment and like-minded suppliers, service providers, clients and end users.
- On-site reagent generation and recycling substantially reduces input logistics, costs, and overall carbon footprint.

Malawi refinery: Phase One- 313t of Niobium Oxide per annum

Salt (NaCl):
Electrolysis of salt to produce chlorine

>

Concentrate and chlorine gas:
Chlorine is recycled from oxidation and reduction

>

Chlorination reactor:
Metals converted to gaseous chlorides at high temperature

Selective cooling gives primary separation of metal chlorides

>

Distillation and purification:
Very high purity >99% achievable in batch distillation

>

High grade niobium (and other) metal oxides and powders:
Regenerated chlorine is recycled back to the chlorinator

Niobium has many applications in the New Economy

In addition to ferroniobium's (65% niobium) use in in the production of High Strength Low Alloy (HSLA) steel.

Aerospace

Niobium alloys NiNb and Vacuum Grade, are used in aerospace and defense industries, due to their high strength, low density, and resistance to high temperatures.

CAGR 8.6%

Source: Aerospace market: Precision Business Insight (2022-2028)

MRI

Niobium oxide is used for ophthalmic lenses having high refractive indices, because it combines the advantages of high refractive index and relatively low value of specific gravity for a glass.

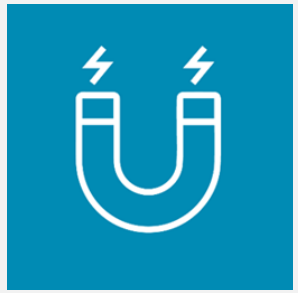
CAGR 6.8%

Optical Glass

Niobium oxide is used for ophthalmic lenses having high refractive indices, because it combines the advantages of high refractive index and relatively low value of specific gravity for a glass.

CAGR 11.1%

Source: MRI , Optical & Glasses plus Thermo Power market : Grand View Research (2023 – 2030)

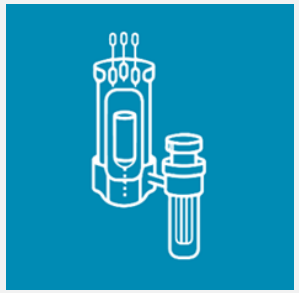


Super Conductor

Niobium metal can be used as superconductors in particle accelerators, like the CERN in Switzerland.

CAGR 10.0%

Source: Allied market research (2022 – 2032)



Nuclear (SMR)

Niobium is used in the Nuclear industry due to their high-temperature strength and resistance to corrosion, used in reactor components, fuel elements and surface acoustic wave devices.

CAGR 15.8%

Source: Nuclear (SMR) : Allied market research (2020 -2023)

Thermo Power

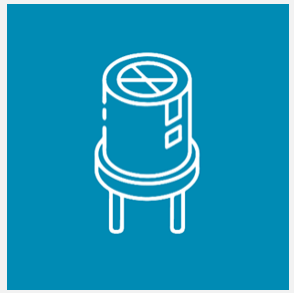
Niobium is used in Ultra Temperature Thermal Power, due to high-temperature and resistance to corrosion, user in high temperature pipes.

CAGR 9.1%

EV Batteries

As the green energy transition gathers pace, niobium's use in electric vehicle batteries has the potential to decrease charging times, increase range, improve battery life and maximise performance.

Refer Slide 10



Capacitors

Niobium capacitors can substitute Tantalum, due to its stable performance, reliability level, non burning high resistance and high break down voltage.

CAGR 6.4%

Source: Capacitors : Allied market research (2021 – 2031)

Batteries are a game-changing market opportunity in the future

[1] Source: https://www.autofutures.tv/topics/how-niobium-makes-batteries-greener--cheaper-and-cleaner---with-insights-from-a-nobel-prize-winner--/s/7457515b-c647-434f-8877-31321e968592

[2] Source: World's Leading Niobium Anode Battery Materials Supplier (echiontech.com) 2023

[3] Source: https://www.global.toshiba/ww/products-solutions/battery/scib/next/nto.html

Niobium oxide makes batteries greener, cheaper and cleaner.[1]

Ultra-fast charging

Niobium oxide batteries can be fully charged in less than

10 minutes

at lower operating temperatures[2]

Increased range

Niobium oxide increases the energy density of batteries by

200%

at a lower material cost[2]

Better performance

Niobium oxide batteries are more stable and can withstand

10,000

charging cycles[2]

Toshiba's Niobium Titanium Oxide (NTO)-SCIB battery can provide a mileage of up to 320km, reaching 90% capacity after six minutes and can fast charge to 80% capacity after 25,000 cycles.[3]

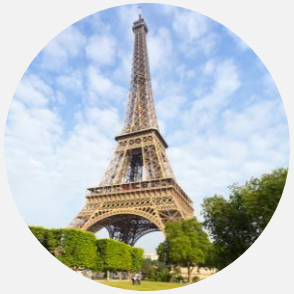
Niobium's main use is in steel making

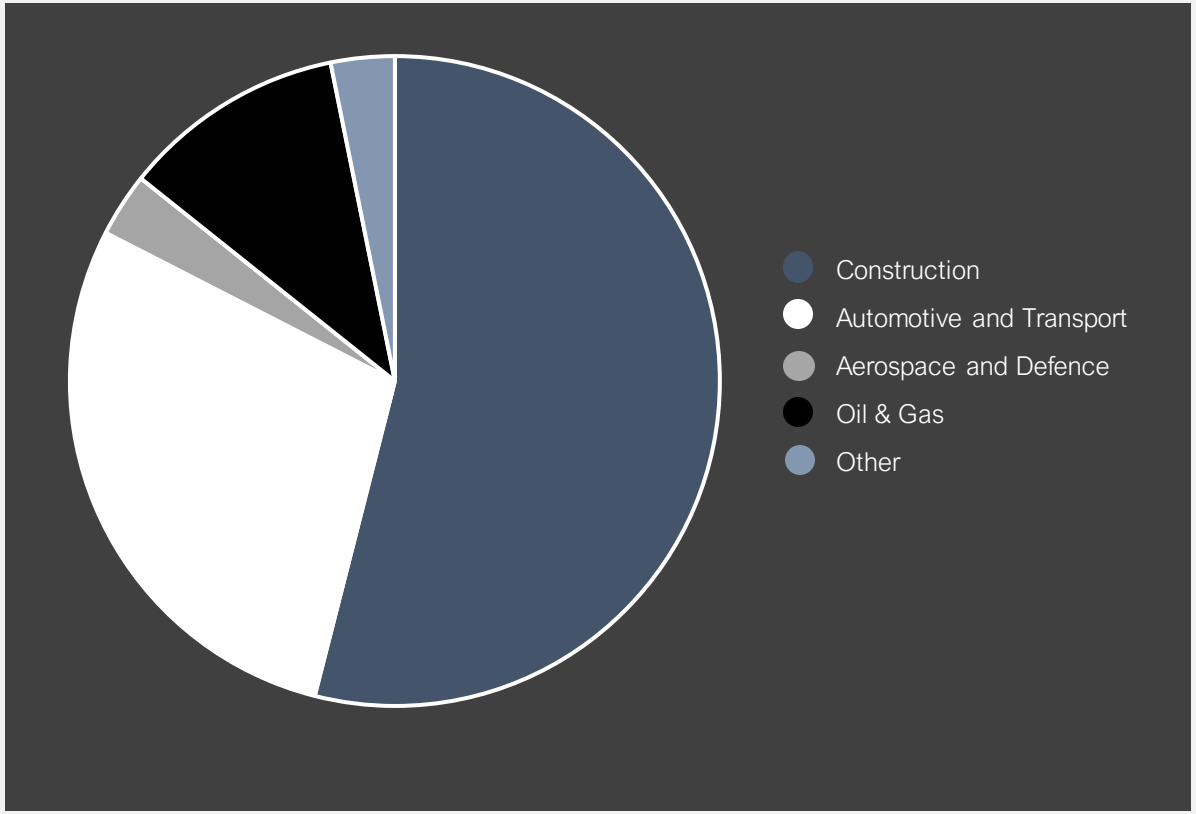
Ferroniobium (at 65% niobium) is the primary saleable form of the metal and sells for over US$40,000t.

Ferroniobium is primarily used in the production of High Strength Low Alloy (HSLA) steel which is used extensively in the construction and automotive industries and in the manufacture of high-pressure gas and oil pipelines, providing extra strength, and greater resistance to heat and corrosion.

Fast fact

Construction of the Eiffel Tower used 7,300t of wrought iron. Today, it could be built using 2,000t of HSLA steel clearly indicating its part in the world's decarbonisation goals.





Global ferroniobium sales by sector[1]
~100,000t/year
~US$3 billion per year[2]

[1] Source: CBMM
[2] *Niobium Outlook to 2030 Roskill*, 2020

That's why its at the top of critical metal list

Niobium is considered critical not just in Australia but also in the EU, US, Japan, and India.

Number 3 of 35 on the US Critical metal list critically ranking.

Niobium oxide price has increased 17% in the last six months changed

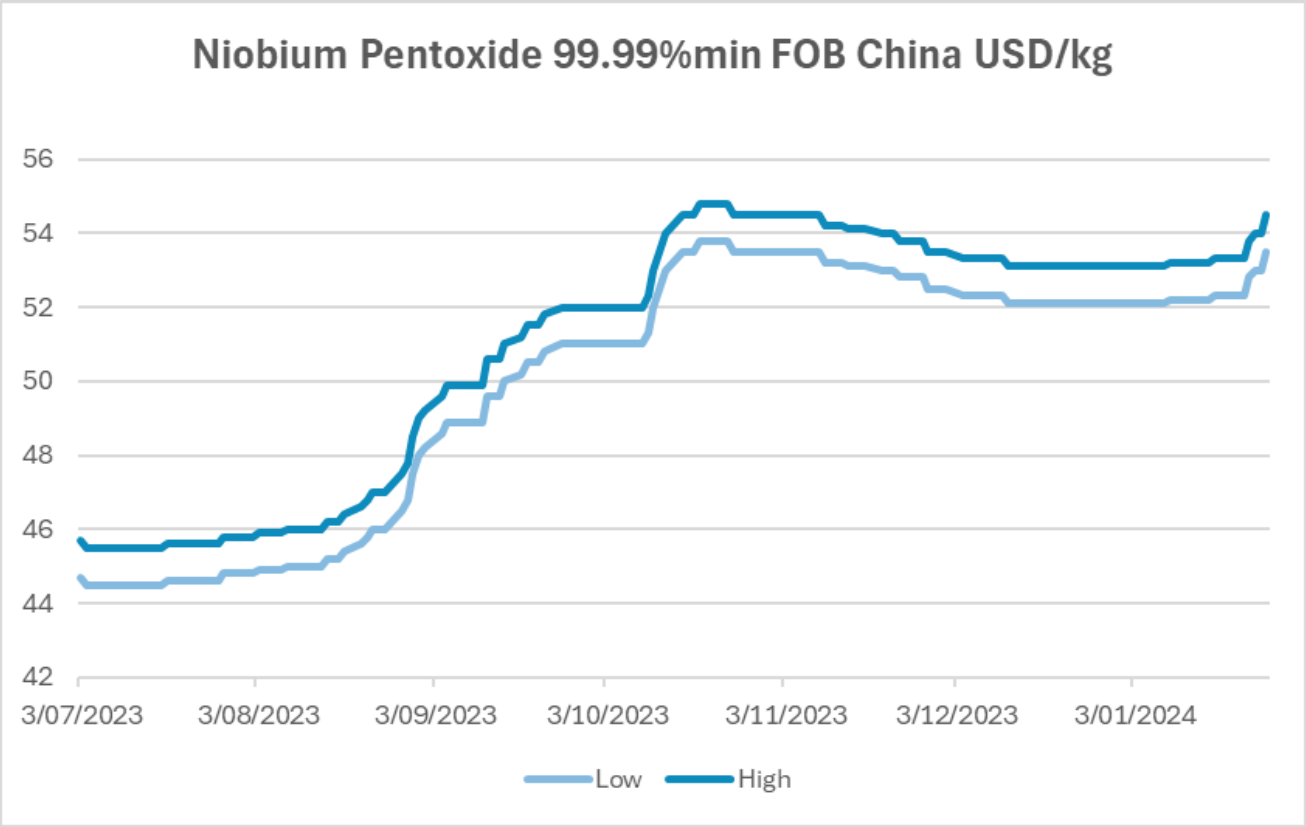
Current niobium oxide (Nb_2O_5) prices are $US54,000t for 99.9% (FOB China).[1]

The Nb205 99.9% price has increased by 50% since 2015.

Globe total gross cash cost for (Nb_2O_5).

$US18,900t gross cash margin % = 63%

per 2024 Optimization study for LOM.



[1]Source: Asian Metals at 26 January 2024

Niobium demand will grow but supply is limited

1 Source: https://www.mining.com/web/niobium- mining-the-first-step-in-building-a-fighter-jet/

2 Source: https://www.mining-technology.com/projects/niobec-niobium-mine-quebec/

3 Source: https://www.researchgate.net/publication/272424460_Niobium_oxide_mineral_flotation_A_review_of_relevant_literature_and_the_current_state_of_industrial_operations

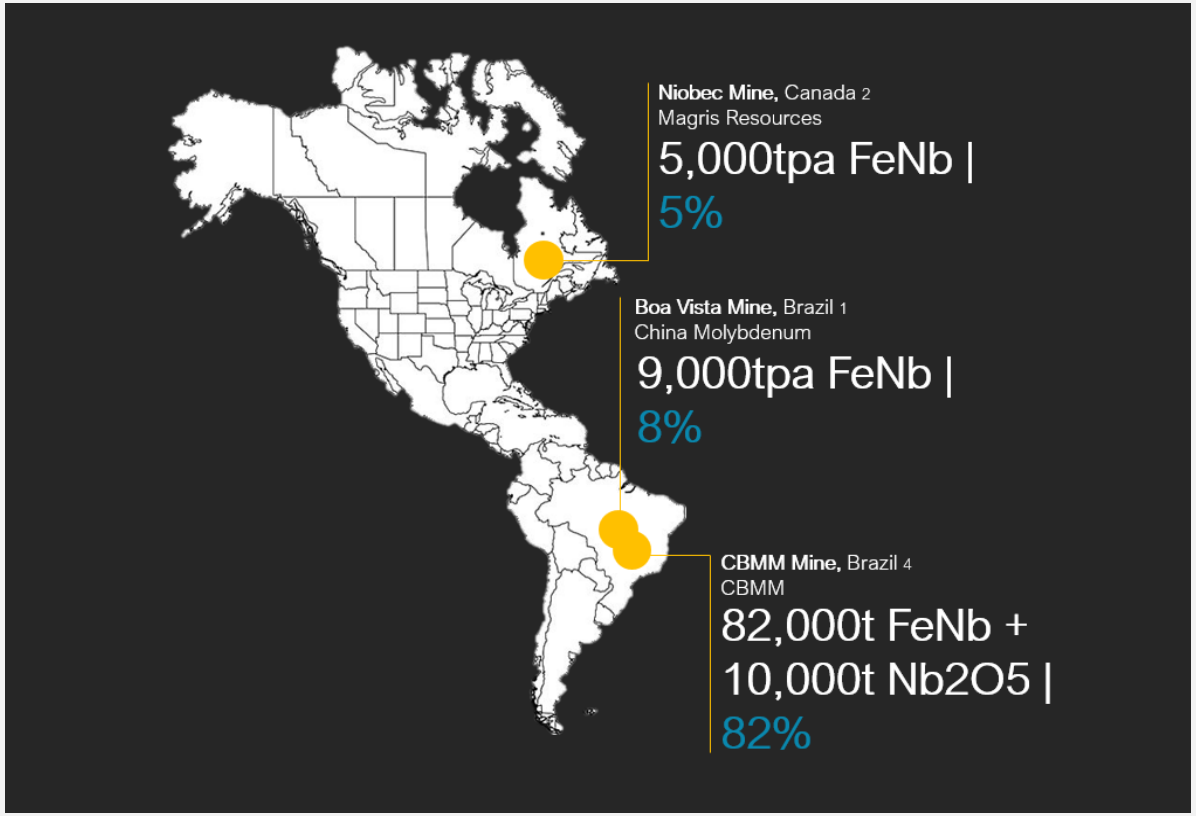
4 Source: https://cbmm.com/en

Three mines account for over 95% of the global mined niobium supply and no new mines have been brought into production for over 50 years.[3]

- Excessive dependence on single supplier countries makes global consumers vulnerable.
- Niobec and Boa Vista only produce ferroniobium. Only CBMM produces Niobium Oxide used in lithium-ion batteries.
- All three companies use the leach process together with electric arc furnace which is a carbon intensive process with significant slag.[3]

Global production of niobium (FeNb +Nb_2O_5)

~112,000tpa



CBMM is focusing on increasing niobium oxide production for the battery market

CBMM, one of the worlds leading producers of Niobium oxide will increase capacity over the next 3 years to serve the growing battery market. [1]

- CBMM invest in Eichion, Battery Streak, VW Brazil and Lighting Motorcycles plus 40 other projects.
- 25% of CBMM's sales will be for the battery market by 2030.

This strategic move of CBMM allows Globe the opportunity to enter the highly lucrative specialty mentals and Niobium oxide markets such as optical grade with prices more than US$50 per kg.

[1] Source: Derived and extrapolated from reports on https://niobium.tech/, https://www.echiontech.com/, https://cbmm.com/en/

Ideal time and opportunity for Globe to enter the market.

Question: How do we compete with an established 50-year-old supply chain? – we do not compete – Globe focuses on the specialty oxide markets!

01

Low mining cost

Shallow, open-cast mining (low mining costs)

02

Efficient concentration

Economic mineral processing and optimised oxide floatation, producing a c, 20% Nb2O5 concentrate.

03

Chlorination refining

Efficient - closed circuit chlorination refining technology v ersus Hydrofluoric Sulphuric Acid Leach with Ammonia Precipitation.

04

Low carbon footprint

Very low refining residue (Recovery of chlorine for reuse).

"Dry" refining - no effluent water.

Low carbon footprint – making use of Biomass/ Hydropower

05

Serving a speciality market

Globe will not compete in the Ferro-Niobium market.

Focused on the high specialty Niobium Oxide market - fast charging battery market transport, aero-space, MRI, Optical glass, Super Conductors Nuclear, Themo Power, Painting and Coatings and Capacitors.

Globe total cash cost - $US 18,900/t ($Nb_2O_5$).
Cash margin = 63% at current spot prices (99.99%)

Strong ESG Drivers

1 Source: Feasibility of Biogas Production from Napier Grass, The 6th International Conference on Applied Energy – ICAE2014, Vanatpornratt Sawasdeea and Nipon Pisutpaisal, www.sciencedirect.com
2 Source: https://www.angloamerican.com/media/press-releases/2022/18-03-2022
3 Source: Taulo, John L, Gondwe, Kenneth Joseph, & Sebitosi, Adoniya Ben. (2015). Energy supply in Malawi: Options and issues. Journal of Energy in Southern Africa, 26(2), 19-32. Retrieved August 01, 2023, from http://www.scielo.org.za/scielo.php

Social

Community development

- A percentage of turnover will be spent on projects with qualified communities within a 20km radius from the mine
- Training of artisans and other disciplines will draw trainees from the Kanyika environment

Irrigation water

- Globe will build a dam to divert the river around the orebody and for freshwater storage
- Raising the dam wall will retain additional water that will be made available as irrigation water to local communities
- Being able to grow two crops per year is a significant income improvement

Environment

Biogas from biomass[1]

- The biomass purchased from the community will be anaerobically digested to produce biogas
- Biogas will be used to dry concentrate
- Biogas will be upgraded to biomethane
- Biomethane will replace 60% of the diesel in the mining fleet

Solar PV with battery storage plus Hydro power[2]

- Solar power will provide power to the plant and charge the battery during daylight
- The battery will be recharged at night from grid hydropower (96% of Malawi grid is hydro)
- Globe will install a run-of-river hydro generator that will operate during the rainy season

Production optimisation

- Move from two stage flotation to single stage
- Reduction from 12 reagents to 4
- Single water circuit
- Move from SAG/ball mills to EDS /spiral/ball mill
- Early gangue rejection
- Reduced power consumption
- Lower flotation throughput

Regenerative chlorination process

- The chlorination process regenerates and recycles chlorine
- Very low residue volumes remain
- Dry process means no effluent water produced

What we look for in strategic partners

Takes a stake

Equity Investment

1. The listed entity.
2. The project level.
3. Current shareholder partial buyout.

Debt funding

1. Assistance with construction funding debt packages through external providers.
2. Debt funding direct with strategic partner.

Offtake Agreements

1. At least 25% of production scaling from Phase 1 to Phase 2.
2. Prepayment to assist with construction.

Then helps us with

Marketing

1. Working together to qualify our product in the relevant market.
2. Marketing/trading rights on our product.
3. Being part of the marketing arm of the strategic partner.

Operatorship

1. Management/ Operator of the mine and refinery.
2. Member on technical/ operations/ finance committees.

ESG

1. Working together to achieve net zero and supply chain decarbonisation.
2. Reporting thereon.

Globe
Metals & Mining

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Head to:
https://investorhub.globemm.com/auth/signup

Follow the prompts to sign up for an Investor Hub account.

Complete your account profile.

Link your shareholdings if you are a current shareholder.

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Appendices

Competent person's statement

Mineral resource estimates:

The information in this report that relates to Mineral Resources is extracted from the report titled "Kanyika Niobium Project – Updated JORC Resource Estimate" released to the Australian Securities Exchange (ASX) on 11 July 2018 and available to view at www.globemm.com and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 11 July 2018 and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original ASX announcement.

Full details are contained in the ASX announcement released on 11 July 2018 titled "Kanyika Niobium Project – Updated JORC Resource Estimate" and is available to view at www.globemm.com

Production target and forecast financial information:

The production target and forecast financial information derived from the production target included in this presentation were first announced to the ASX in the announcement released to the ASX on 19 August 2021 titled "Kanyika Niobium Project – Project Feasibility and Economics". Globe confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production target as reported to the ASX on 19 August 2021 continue to apply and have not materially changed.

Full details are contained in the ASX announcement released on 19 August 2021 titled "Kanyika Niobium Project – Project Feasibility and Economics" and is available to view at www.globemm.com

Ore reserves:

The information in the report that relates to Ore Reserves is extracted from the report titled "Kanyika Niobium Project – Project Feasibility and Economics" released to the Australian Securities Exchange (ASX) on 19 August 2021 and available to view at www.globemm.com and for which a Competent Person's consent was obtained. The Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 19 August 2021 and, in the case of estimates of Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original ASX announcement.

Full details are contained in the ASX announcement released on 19 August 2021 titled "Kanyika Niobium Project – Project Feasibility and Economics" and is available to view at www.globemm.com

Board and Executive
Global mining experience

On 31 August 2023 Globe appointed Mr Rogerio Magalhães Pastore as Market Development Consultant (spent over 11 years at CBMM as Head of Market Development for Energy Materials Technology).

Alice Wong
Non-Executive Chairperson

Commenced her business career with Price Waterhouse. After more than a decade in the investment banking industry in Asia working for large multinational companies including Morgan Stanley, ABN AMRO Rothschild, and BNP Paribas Peregrine, she extended her entrepreneurial endeavours into luxury products and healthcare businesses. Ms. Wong is a director in Apollo Metals Investment Co. Ltd which holds 48.5% of Globe.

Bo Tan
Non-Executive Director

A Canadian national, he has approximately 20 years' experience as a senior manager and director in financial planning, reporting, investment, capital structure and industrial research.

Worked for companies such as Bohai Industrial Investment Fund, Lehman Brothers Asia and Macquarie Securities Asia, and across international markets in China, Hong Kong, Canada and USA.

Ricky Lau
Non-Executive Director

Over 20 years of experience in the private equity industry in Asia and is presently the Managing Partner of Crane Capital Limited, a regional real estate private equity company based in Hong Kong.

Received an Executive MBA degree from Kellogg-HKUST and graduated with honors from the Sauder School of Business at the University of British Columbia.

Michael Barrett
Non-Executive Director

Has held senior mining sector roles in Western Australia, including with Rio Tinto Iron Ore and WMC Resources Ltd before he took the position of Chief Financial Officer of Rio Tinto's US energy business in Wyoming and Denver from 2004 to 2015. He led Rio Tinto's divestment and IPO of the business as Cloud Peak Energy on the New York Stock Exchange in 2009 and continued to serve as CFO of the listed company. Non-executive director of Novo Resources Corp (TSX Code: NVO).

Michael Choi OAM
Non-Executive Director

Over 30 years' experience in business ownership and management and was a Member of the Queensland Parliament for 11 years between 2001 and 2012. He was at one stage the Assistant Minister for Mines and Energy and Assistant Minister for Trade. Founding managing director of a company in property development, project and development management as well as construction management. Established since the 90s, the company was recognised at one stage as one of the top 20 firms in Queensland in its sector with multiple industry awards.

Dean Lungu
Director (Globe Africa)

Mr. Dean Lungu is a prominent Malawian businessman and director of companies. He is a former chairman of Press Corporation Limited, Malawi's leading commercial conglomerate, and has served on the boards of several of the country's major companies, including Telekom Networks Ltd. and Alexander Forbes. Mr Lungu is President emeritus of the Malawi Chamber of Mines and Energy.

Grant Hudson
Chief Executive Officer

Prior to joining Globe, Mr Hudson was the Managing Director and Chief Executive Officer of Bikita Minerals, which has been mining lithium and tantalite in the Bikita hills of the Masvingo province in Zimbabwe for around 75 years and is the world's foremost supplier of the lithium mineral petalite.

Other mining appointments include three years as Manager of the M'beta tantalite mine in Zimbabwe and three years as Managing Director of Tantalite Holdings.

Rex Zietsman
Chief Technical Officer

Registered professional engineer with 40 years of experience in the areas of chemical, mining and minerals processing, pulp and paper and fertilizer. His experience was initially in a production environment though he has been a design engineer for the last 30 years. He was also the NI 43-101 defined Competent Person on a TSX listed, Rare Earths project.

Rex occupied the role of Mine Executive at Bikita Minerals in Zimbabwe. This involved all aspects of running a fully integrated lithium mine and concentrator

Charles Altshuler
Chief Financial Officer

A Chartered Accountant/ MBA is a finance and business leader with 18+ years experience. He has strong experience in IPO's, corporate finance, strategy, M&A, reporting and IT within both listed and family organizations globally across healthcare, mining, industrial, renewable energy and FMCG/retail businesses.

Mining experience includes 7 years in senior finance and business partnering roles in Anglo American, Samancor Manganese JV and Glencore in Africa and Australia.

Paul Smith
Chief Operating Officer

Mr Smith has over 30 years' experience as a senior mining industry executive across exploration, feasibility, project development, and operations management on a global platform. He has extensive experience with start-up and turnaround strategies, leveraging significant expertise in stockbroking, corporate finance, and project funding in delivering key business objectives. Mr Smith has previously held senior executive positions with Aquarius Platinum Limited (now part of Sibanye Stillwater Limited), Weiszwe Platinum Limited, and more recently Impala Platinum Holdings Limited.

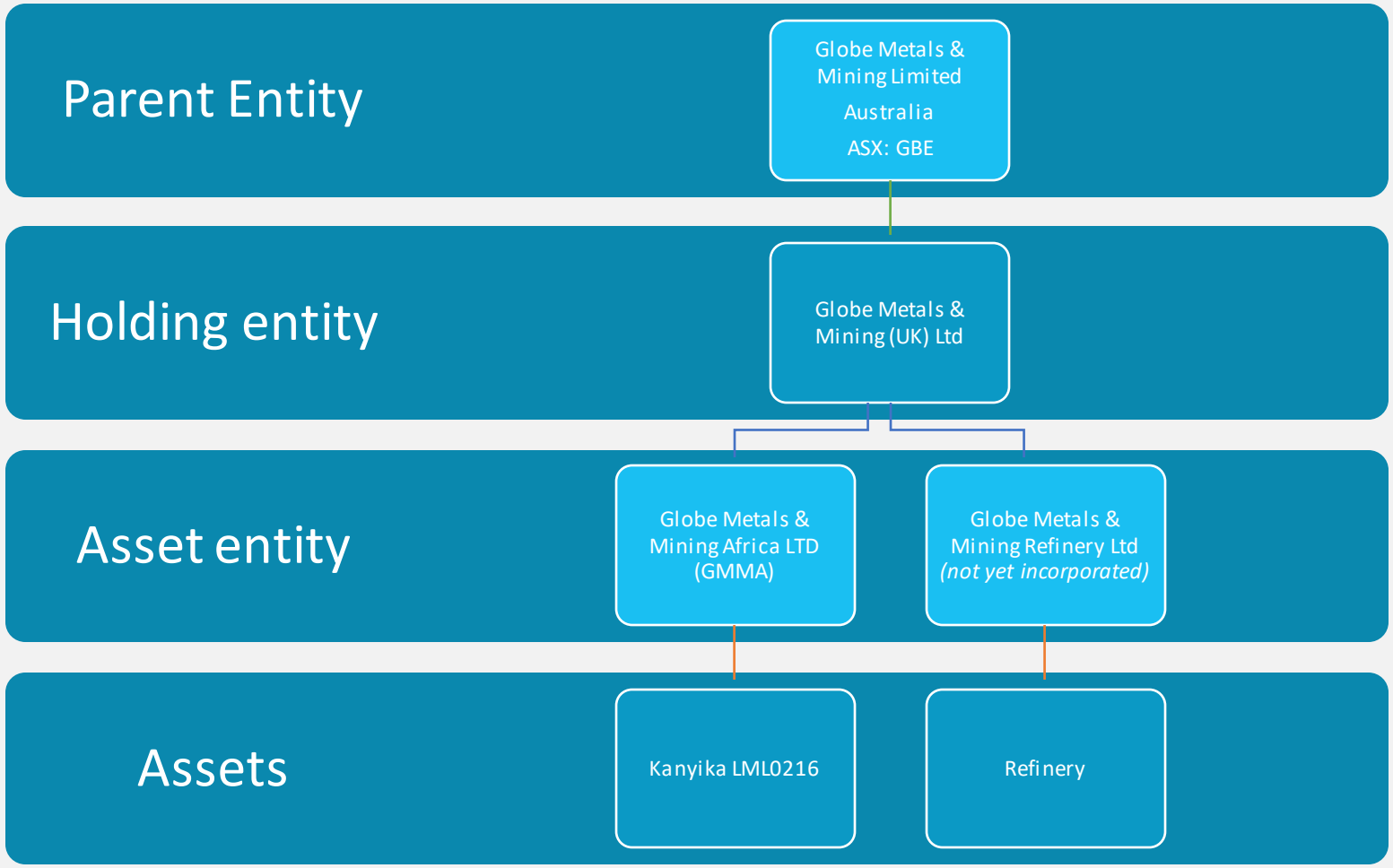
Neville Huxham
Chairman (Globe Africa)

Neville has extensive mining experience in southern Africa with the Anglo-American Corporation/De Beers group, and most recently as deputy chairman of Malawi's major uranium mining company. Over the past decade he headed Globe's in-country negotiations with the Malawi Government, culminating in the signing in March 2023 of the Mining Agreement authorising development of the Kanyika Niobium Project.

Macleod G. Nyirongo
Director (Globe Africa)

Mr. Nyirongo began his career as Principal Economist in Malawi's Office of the President and Cabinet, responsible for economic analysis and formulation of economic and social policies to stimulate Malawi's growth. Thereafter he had more than 25 years within the United Nations (UN) organisation, where his official postings as UN Country Director included the People's Republic of China, Eritrea, and Zambia, and he was also the UN's Resident Director in Sierra Leone and Kenya.

Organization structure
ASX GBE



Summary of the optimisation results relative to the 2021 DFS: Kanyika Niobium Project Malawi

Metrics	Units	2021 DFS	2023 Opt Study
NPV 8% (pre tax)	US$m	1,009	1,004
IRR (pre-tax)	%	49.70%	47.08%
Closing cash balance (LOM)	US$m	4,361	2,882
Total FCF pre tax (LOM)	US$m	3,759	3,834
Life of Mine	Years	23	27
Payback period (Yrs)	Years	1.3	4.4
Revenue (LOM)	US$m	4,961	4,785
Cost of goods sold (LOM)	US$m	1,632	1,395
Gross Margin (LOM)	US$m	3,329	3,390
Gross Margin (LOM)	%	67.10%	70.83%
EBIT (LOM)	US$m	2,838	2,719
Net profit before tax (LOM)	US$m	4,645	3,805
Tax (LOM)	US$m	134	1,122
Net profit after tax (LOM)	US$m	4,511	2,682
Total ore mined	tons m	33.8	33.8
Total ore including waste mined	tons m	87.1	87.2
Total concentrate produced	tons (000's)	186.3	414.0
Total Nb205 production	tons (000's)	73.3	73.8
Total Ta205 production	tons (000's)	3.2	3.3
Total unit cost per ton of ore	US$	48	41
Total unit cost per ton of ore including waste	US$	19	16
Total unit cost (Per kg Nb205)	US$	22.28	18.90
Selling price of Nb205 (per kg)	US$	50.00	51.48

Summary of financial results of the optimisation study: Kanyika Niobium Project Malawi

Metrics	Units	Phase 1	Phase 2
ROM Ore Production	ktpa	86	1,455
ROM Grade (Nb_2O_5)	Ppm	4,933	3,063
Concentrate production	Ktpa	2	18
Concentrate grade	%	20%	18%
Refined Nb_2O_5	tons/year	313	3,155
Refined Ta_2O_5	tons/year	14	142
Annual Turnover	US$m	20	205
Annual EBITDA	US$m	7	112
Capital Costs (Mine & Concentrator)	US$m	17	190
Capital Costs (Refinery)	US$m	12	41
Total Capital cost including Environmental bond & PAP relocation	US$m	29	231
Operating Cost (Mine & Concentrator)	US$/kg (Nb205)	14.17	6.91
Operating Cost (Refinery)	US$/kg (Nb205)	11.90	11.88
Total Operating Costs	US$/kg (Nb205)	26.08	18.79
Project NPV/pre-tax (8%)	US$m	20	984
IRR (pre tax)	%	32.54%	47.08%

Our partners
Significant experience across all disciplines

Mine Civils

S.R. Nicholas Ltd provide the preliminary design and civil engineering of the plant for Phase 1 of the project.

Milling Technology

EDS has been developing a horizontal, multi-shaft mill that has a significantly lowered power consumption than the equivalent SAG ball mill since 2016.

Mine Plant

Solo has a wealth of experience in the design, build and commissioning of mineral plants in South Africa, and have supplied such installations all over the Continent. Selected to design and construct the mineral processing plant.

Logistics

C. Steinweg Group is a globally operating independent, worldwide logistics service provider. They operate in the fields of storage, handling, forwarding, chartering and other commodity related logistics services. C. Steinweg Group has over 5000 employees located across 100 locations in 52 countries. They are well-known in the region and are the largest logistics company in Malawi with 5 sites and an additional office in Namibia.

Refining Technology

TCM has been selected to design the refinery process for the Kanyika concentrate and to determine the design parameters of the refinery. TCM has worked with more than ten different ore concentrates that contain niobium and tantalum. In addition, they have processed concentrates containing PGMs, Rare Earths, gold, tin, vanadium and iron, tungsten, zircon and hafnium, nickel and copper sulphides as well as low levels of radioactive materials such as uranium, thorium and other fission daughter products.

Laboratory

Geolabs Global is the laboratory that will process the Kanyika bulk sample ore to concentrate. Geolabs Global is a leading provider of mineral processing solutions for the mining and minerals industry based in South Africa.

Refinery

Resonant Group will complete the engineering design for the refinery using the design parameters from TCM. Resonant is a multi-disciplinary engineering business active in the metals, minerals, chemicals, oil and gas, and infrastructure sectors.