



**Bass Metals** Ltd.

Building an international industrial minerals business.

## BUILDING AN INTERNATIONAL INDUSTRIAL MINERALS BUSINESS

- Bass continues to progress the optimisation of its flagship asset: the Graphmada large flake graphite mine, with the aim of establishing a cash flow positive 6000 tpa run-rate at the lowest capital intensity in 2017.
- Bass intends to use this cash flow from Graphmada as a financial platform to accelerate its establishment as a mid tier producer and supplier of industrial mineral concentrates, through increasing production to 20,000 tpa at the lowest achievable C1 cash cost.
- In addition, the Company continues to materially grow its resource inventory, aggressively explore its permits and strategically assess potential acquisitions in order to meet growing demand in traditional and future technology markets.
- Through aggressive exploration and strategic acquisition, using its in-country producer status, Bass has recently discovered the Andapa large flake graphite deposit and acquired the highly prospective Millie's Reward lithium project.
- Underpinning all of this is a dedicated focus to continue to be a valued and responsible corporate citizen contributing to Madagascar and its people, specifically through its Graphmada Care Program, which seeks to positively impact communities through supplying cleaner water, better schools and further economic opportunities.

# Value Drivers

## In production with concentrate sales

Bass is currently the only listed Graphite producer on ASX. As opposed to nearly all of its peers Bass offers investors direct exposure to graphite production, selling a range of graphite concentrates into multiple market segments, to customers in India, the United States and Europe.

## Targeting production of high value graphite concentrates

Bass has spent the last ten months at Graphmada trialing different processing improvements aimed at optimising production, which has subsequently delivered increased recoveries and final concentrate grades, albeit at a reduced production run-rate to accommodate trials. This experience combined with extensive metallurgical testing targeting high value concentrates, will see the Company, on re-commissioning, targeting steady state production of 6,000 tpa at 75% recovery and 94% Fixed Carbon.

## Low capital expenditure

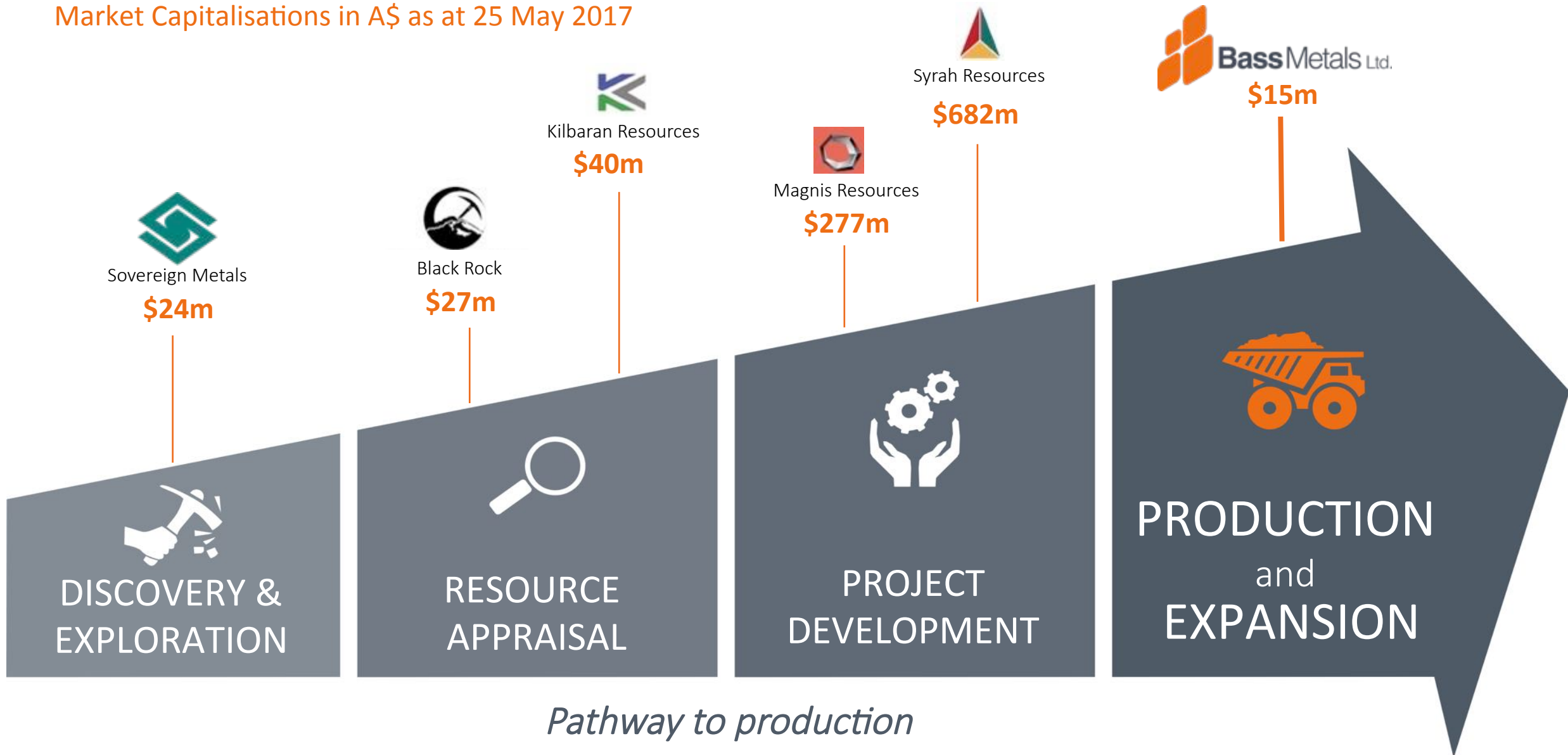
Bass assumed 100% control of Graphmada in August 2016 and renegotiated terms with the vendor for future milestone payments in December 2016. This effectively delivered the mine and all associated infrastructure for circa A\$5.5m. The infrastructure including tailings dams, processing facilities, camp, mining fleet, etc. has effectively been obtained at a fraction of its establishment or replacement cost. Inclusive of the Optimisation Program capital, Bass will have delivered an operating graphite mine with material scope for scalable production and inclusive of substantial upgrades for under \$A15m.



Graphmada Product

# Our Potential

Market Capitalisations in A\$ as at 25 May 2017



*Pathway to production*

# Board of Directors



Rick Anthon – **Non-Executive Chairman**

Mr. Anthon is a practicing lawyer with over 30 years' experience in both corporate and commercial law. Mr. Anthon also has extensive experience in the resource sector, as a director of a number of resource companies and as legal adviser, including project acquisition and development, capital raising and corporate governance. Mr. Anthon is currently General Counsel and Joint Company Secretary at Orocobre Ltd, Australia's premier Lithium producer.



Peter Wright – **Non-Executive Director**

Mr. Wright has 20 years experience advising on capital markets, investor relations, acquisitions and divestments, particularly in industrial minerals and metals markets. Mr. Wright is also currently Executive Director of Bizzell Capital Partners, a Brisbane based corporate advisory and funds management firm.



Jeffrey Marvin – **Non-Executive Director**

Mr. Marvin has 20 years global experience in mineral resource project origination, financing and development. Mr. Marvin has international management and corporate governance experience with projects located in diverse international business climates. Prior to joining Bass, Mr. Marvin was a founding executive director of an Australian energy technology company and has experience working across a range of projects including gold, coal, mineral sands and coal seam gas.

# Management



Tim McManus – Chief Executive Officer

Mr. McManus has 25 years as a mining professional with significant experience at senior management level across all facets of project assessment, development and operations. Previous roles include CEO of ASX listed Elementos Ltd, Chief Geologist for Xstrata, and Partner – Barclays Natural Resource Investments: Metallurgical Coal Management Team.



David Round – Chief Financial Officer & Company Secretary

With over 25 years experience, Mr. Round is a qualified accountant with extensive resource sector experience at senior management level. As Chief Financial Officer and Company Secretary to a number of resource companies, he has been integral to the commercial success of a number of companies both in Australia and internationally.



Wilhelm Reitz – General Manager

Mr. Reitz has over 20 years experience as a mining professional, working in operations and project development roles across Africa and Europe. He has extensive experience in mine management of gold, diamond and graphite operations, with previous roles including Production Manager for Afrigold, and Mine Manager for Stellar Diamonds and West African Diamonds.



Mamison Randriananatenaina – Corporate Affairs Manager and Gerant

Trained in Economics and currently studying commercial law, Mr. Randriananatenaina has extensive experience in administration, logistics and management in the mining sector. He was an integral part of the team that delivered the US\$5.5 billion Ambatovy Nickel Project for Sherritt International in Madagascar.

# Capital Market Summary



## CAPITAL STRUCTURE (ASX: BSM)

(as at 15 May 2017)

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Shares Outstanding	1,368 million
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Options Outstanding	471 million <sup>1</sup>
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Cash & Receivables	A\$1.5 million
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Share Price (ASX)	A\$0.010
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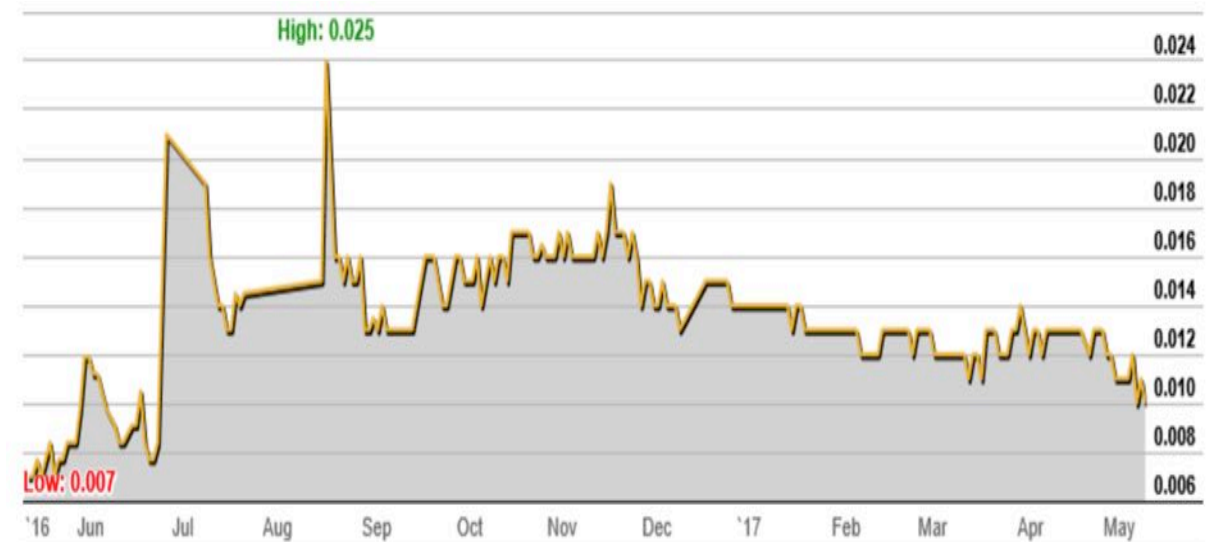
Market Capitalisation	A\$15 million
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No Debt	
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## SHARE PRICE CHART



## SHAREHOLDERS

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Executives and Directors	8%
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Top 20	46%
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<sup>1</sup> Excludes 126,394,220 unlisted options – see Appendix 3B released to the ASX on the 1st of September 2016 for further detail.

# Flagship Project: Graphmada Mine



The Graphmada mine has 40 year mining permits in place, containing premium quality, large flake, graphite deposits hosted in weathered graphitic gneiss, a soft, easily minable rock that incurs low mining costs.

With all associated mining infrastructure and logistics in place, the mine currently produces and sells a range of graphite concentrates into multiple market segments, to customers in India, the United States and Europe.

Graphmada has significant potential for low capital intensity optimisation and expansion. Bass is investing capital to expand production to 6000 tpa through to 20,000 tpa of graphite concentrate sales by 2020.

BASS HAS ALL THE PORTENTS TO CREATE MEANINGFUL SHAREHOLDER VALUE

CURRENT MINERAL RESOURCE <sup>1</sup>	TONNAGE	GRADE (CUTOFF 2%)	CONTAINED GRAPHITE
Indicated	0.4 Mt	5.1 %	22 Kt
Inferred	5.3 Mt	4.0 %	213 Kt
Total Resources <sup>1</sup>	5.7 Mt	4.1 %	235 Kt

<sup>1</sup> Table contains rounded figures



<sup>1</sup> These estimates were prepared and first disclosed by Stratmin under the JORC Code 2004. The estimates have not been updated to JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Reference is made to the Company's announcement of 2 September 2015 which provides further detail regarding this information.



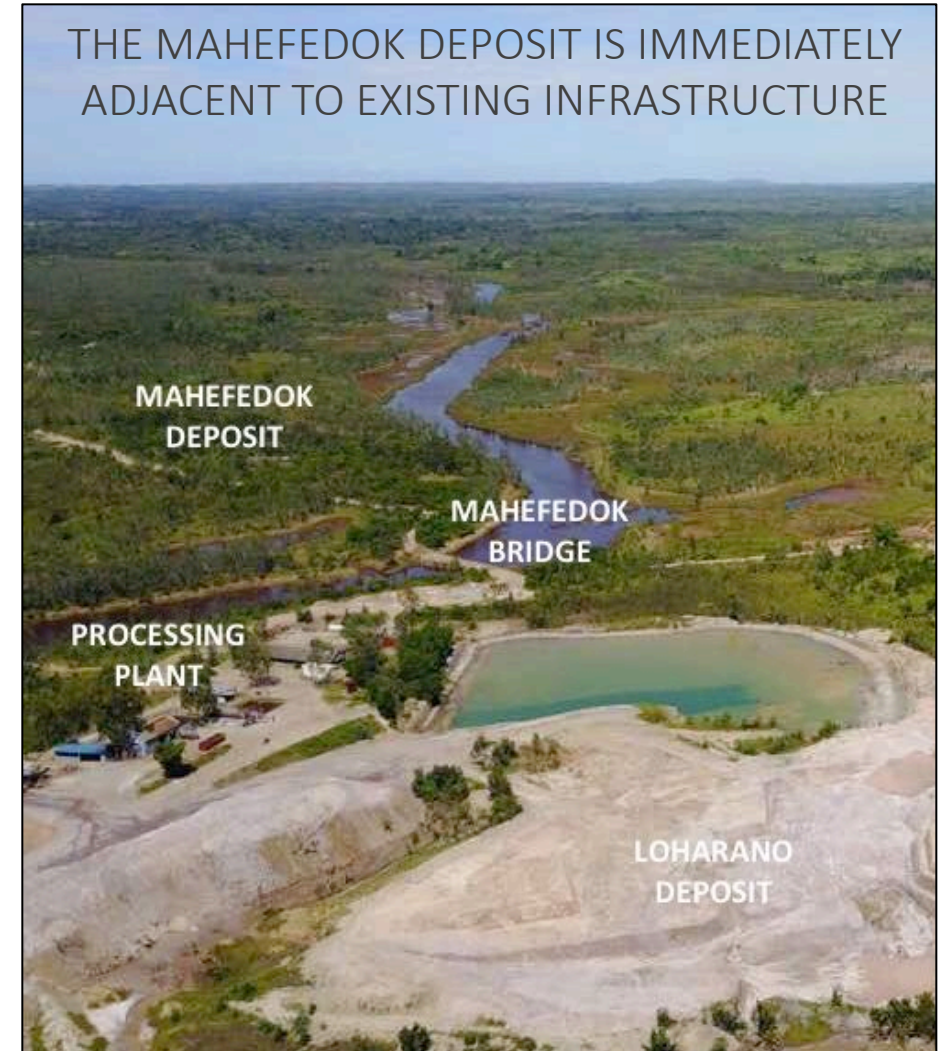
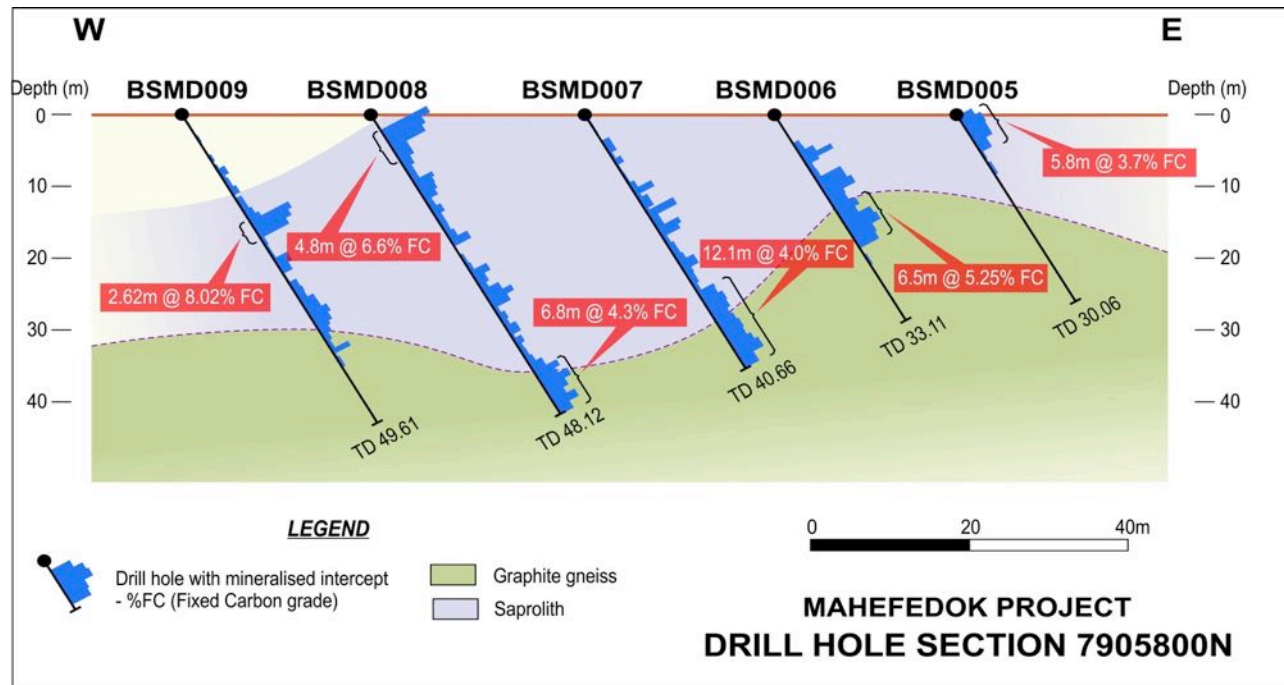
# Mahefedok Deposit

2,300m drilling completed with significant intercepts of soft easily mineable saprolite<sup>1</sup> mineralisation.

Maiden Mineral Resource due this quarter.

Significant intercepts<sup>2</sup> include:

- 24.4m @ 4.4% FC
- 16m @ 5.1% FC
- 13.2m @ 5.6% FC
- 7.8m @ 6.6% FC



<sup>1</sup> Soft, thoroughly decomposed and porous rock, formed by the in-place chemical weathering of igneous, metamorphic, or sedimentary rocks.

<sup>2</sup> Only the down hole lengths are reported - true width has not been estimated. FC - Fixed Carbon.

# Site Tour

ALL INFRASTRUCTURE AND COMPONENTS IN PLACE FOR PRODUCTION

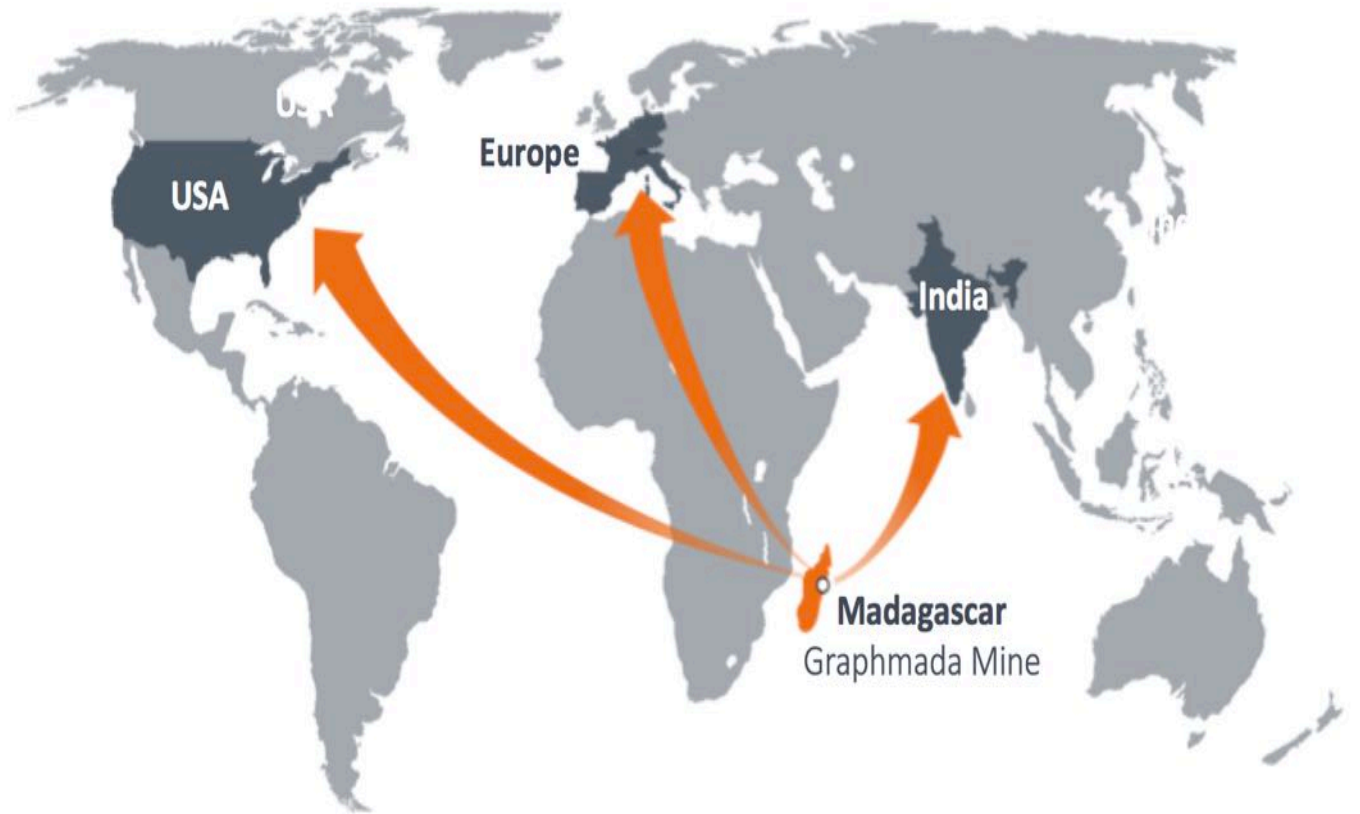


# Production Tour

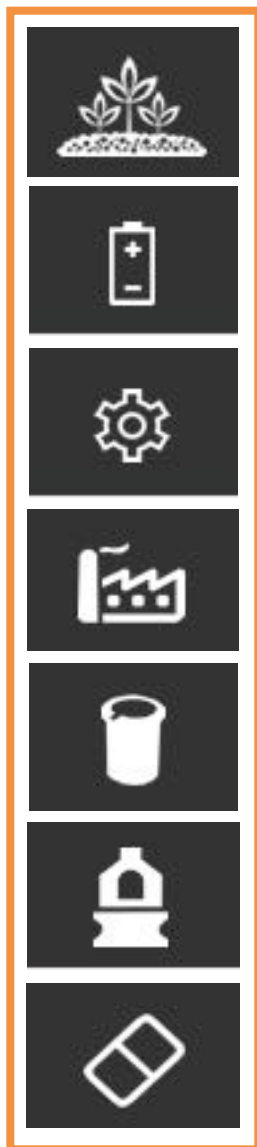


# Sales & Logistics

Graphmada has excellent and straightforward logistics to reach established graphite concentrate markets, with the mine being adjacent to the main National Highway and only 110 km to the country's main export port at Toamasina.



# Graphite Market & Applications



## AGRICULTURE

Seed lubricants.

## PORTABLE ENERGY

Alkaline, Carbon zinc and Lithium ion batteries, Fuel cells.

## PARTS AND COMPONENTS

Carbon brushes, Brake pads and friction linings, Foils and Pencils.

## METALLURGY

Carbon additives and Carbon raiser for ductile and grey irons.

## REFRACTORY

Monolithic, Magnesia and Alumina carbon, Crucible, Casting parts.

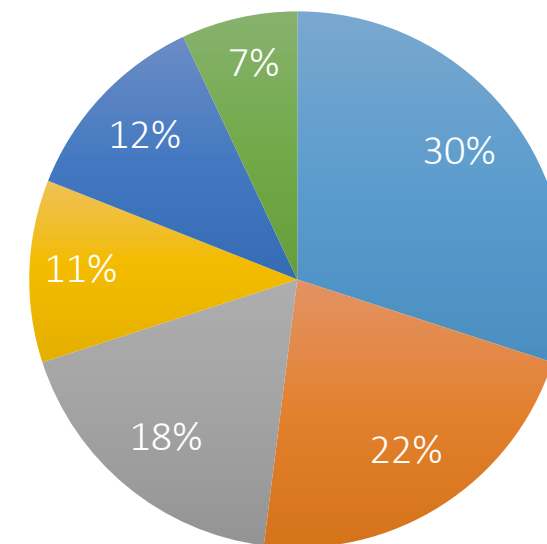
## LUBRICANTS

Forging, Hot metal forming, Powders for lubricants.

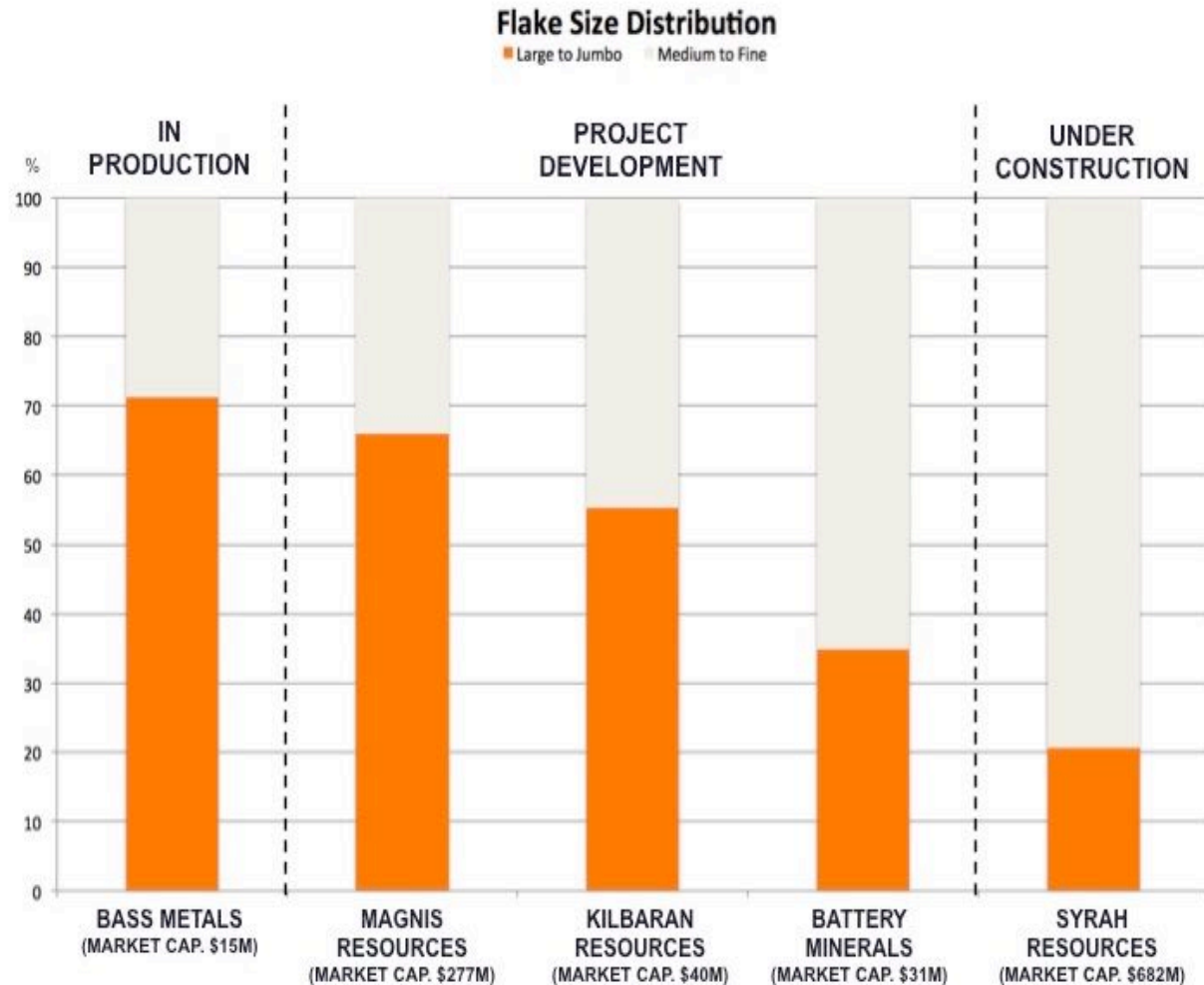
## POLIMETERS

Plastics, Flame retardants, Rubbers.

## THE GRAPHITE MARKET BY SEGMENT



# Benchmark for Traditional Markets

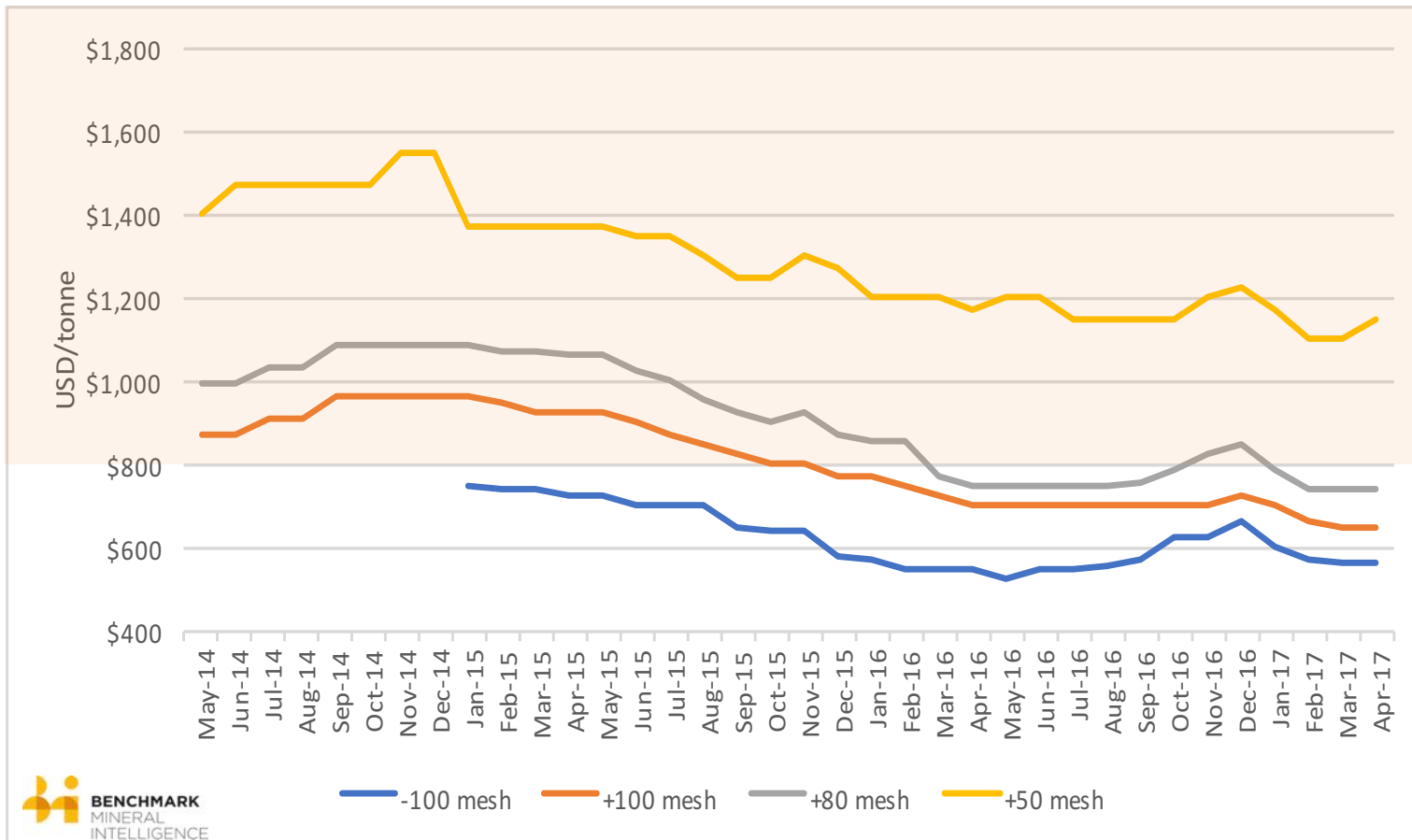


Graphmada concentrates are the benchmark for foundries, crucible and refractory applications due to:

- ✓ Exceptional flake size.
- ✓ A high resistance against oxidation.
- ✓ A low LOI at 420°C
- ✓ No carbonates such as calcite and dolomite being identified, along with no other fluxes being discovered.
- ✓ A very low Sulphur (SO<sub>3</sub>) content, at 0.02 wt. %.
- ✓ Exhibiting favorable flake ash melting temperatures.

# Graphite Concentrate Pricing

Bass aims to increase sales revenues through production volume growth of higher value concentrates. This is to be achieved through increasing throughput of higher margin ore and optimising processing for higher grade and larger flake final concentrates.



CONCENTRATE SALES	
+35 (>500 micron)	90%-98% FC
+50 (>300 micron)	90%-98% FC
+80 (>180 micron)	90%-98% FC
-80 (<180 micron)	90%-98% FC
To Order	

Bass is focusing on achieving the lowest capital intensity to consistently produce and sell a 94% Fixed Carbon (FC) concentrate to traditional markets.

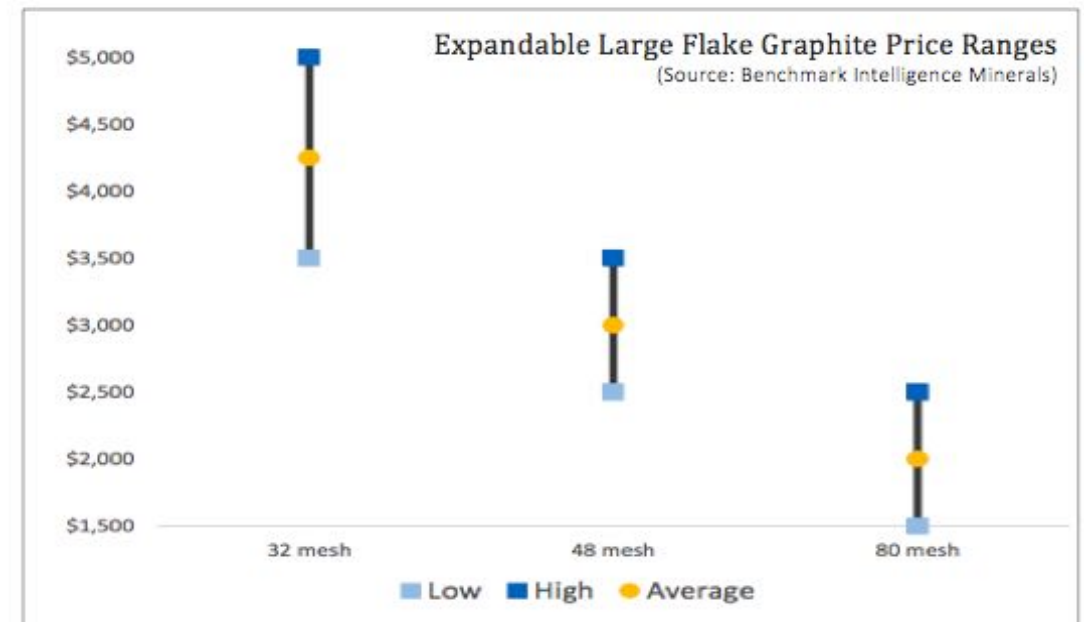
# Industry Leading Expandability

Expandability tests across all flake sizes delivered excellent results, with the maximum expansion volume of **510 cm<sup>3</sup>/g achieved with extremely large flakes > 400 microns**. These results exceed typical concentrates currently available.

Expandable graphite receives a price premium and is in significant demand due to regulatory pressures forcing higher adoption as fire retardants and there being only a few suppliers in the world today.

Size Fraction (micron)	800°C (cm <sup>3</sup> /g)	1000°C (cm <sup>3</sup> /g)
> 400	500	510
300 – 500	420	430
180 – 300	380	390
106 – 180	270	310
75 – 106	-	200
< 75	-	85

Expandability test results by size distribution.



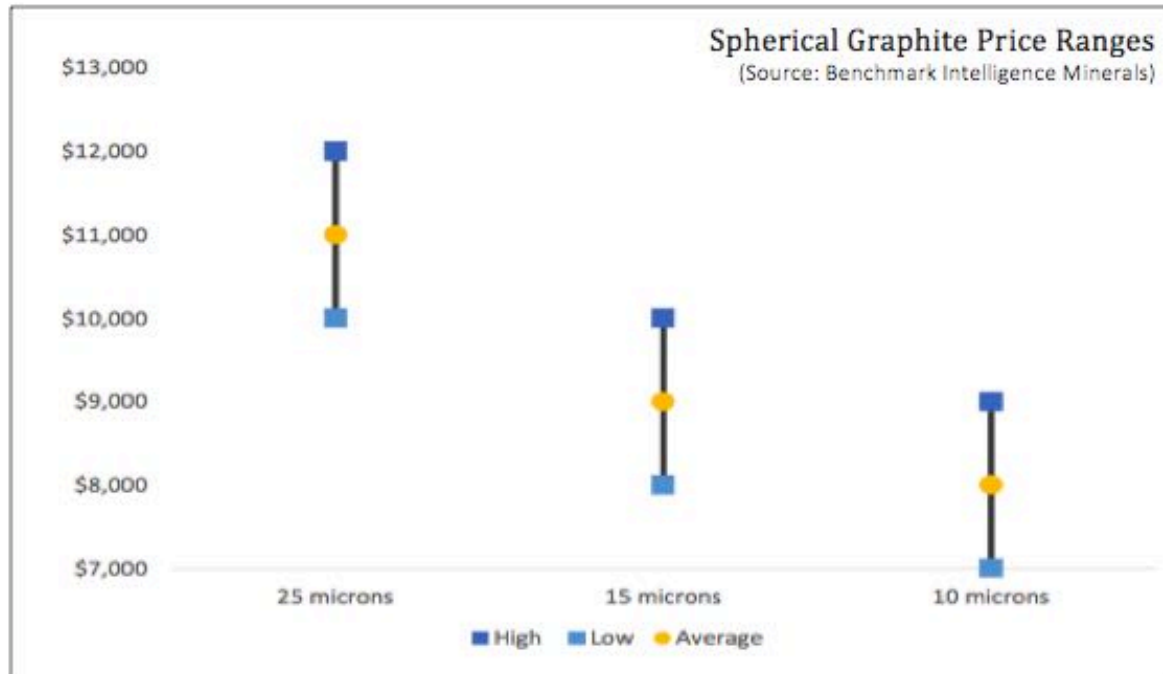
Current prices for large to jumbo expandable graphite concentrates.



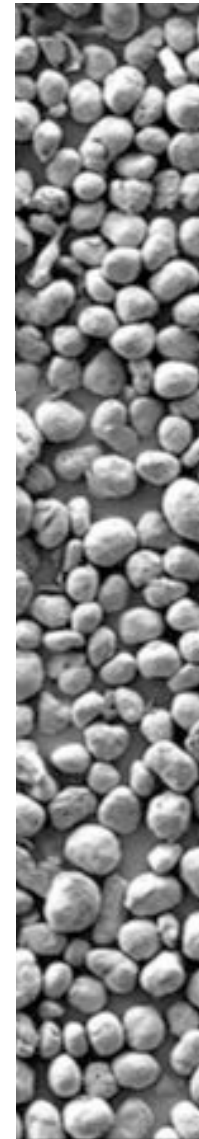
# Suitable for Battery Applications

Graphmada graphite concentrates are highly suitable for lithium-ion battery applications with a **very high purity of 99.99 wt.% carbon** achieved.

Parameters meet leading battery anode manufacturer specifications.



Current prices for spherical graphite.



Parameter	Result	Desired
Tap Density	0.94 g/cm <sup>3</sup>	>0.9 g/cm <sup>3</sup>
D50	14.7 micron	10 - 25 micron
Ratio D90/D10	2.6	2.6 - 2.8
BET	6.7 m <sup>2</sup> /g	3 - 8 m <sup>2</sup> /g
Yield Test	47 wt.%	>30wt%
Silicon dioxide SiO <sub>2</sub>	27 ppm	<45 ppm
Aluminium oxide Al <sub>2</sub> O <sub>3</sub>	11 ppm	<15 ppm
Iron oxide Fe <sub>2</sub> O <sub>3</sub>	24 ppm	<35 ppm
Titanium dioxide TiO <sub>2</sub>	<10 ppm	<10 ppm
Potassium oxide K <sub>2</sub> O	<10 ppm	<10 ppm
Sodium oxide Na <sub>2</sub> O	<10 ppm	<10 ppm
Magnesium oxide MgO	<10 ppm	<10 ppm
Calcium oxide CaO	<10 ppm	<10 ppm
Phosphorous oxide P <sub>2</sub> O <sub>5</sub>	<10 ppm	<10 ppm
Barium oxide BaO	<10 ppm	<10 ppm
Lead oxide PbO	<10 ppm	<10 ppm
Zirconium oxide ZrO <sub>2</sub>	<10 ppm	<10 ppm
Manganese oxide MnO	<10 ppm	<10 ppm
Sulfur oxide SO <sub>3</sub>	<0.01 wt.%	<0.01 wt.%
Loss on ignition LOI	99.99 wt.%	>99.96% wt.%
Ash content	0.01 wt.%	<0.04 wt. %

Graphmada spherical graphite test results

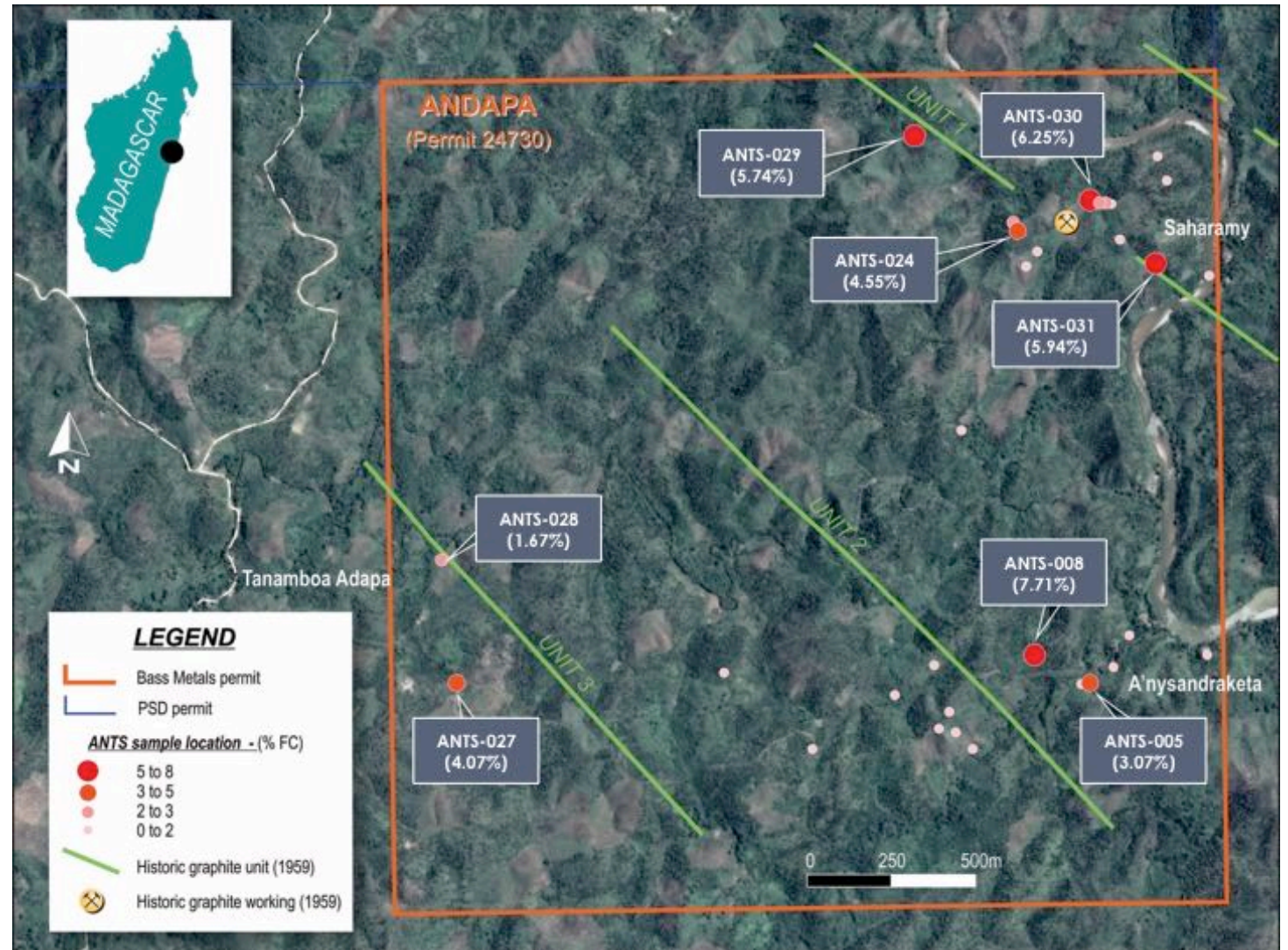
# Andapa Discovery

Discovery of **three significant large flake graphite targets at surface.**

The targets, from 1.3 km to 2.1 km in extent, are hosted in soft, easily mineable, weathered mineralisation, which indicates significant potential for low cost mining.

The main target, known as Unit 2, revealed Graphitic Carbon (GC) **grades up to 7.7% at surface<sup>1</sup>.**

The Company plans to conduct a systematic exploration program over the project area, including a mapping and sampling program aimed at **identifying targets for a follow up drilling program.**

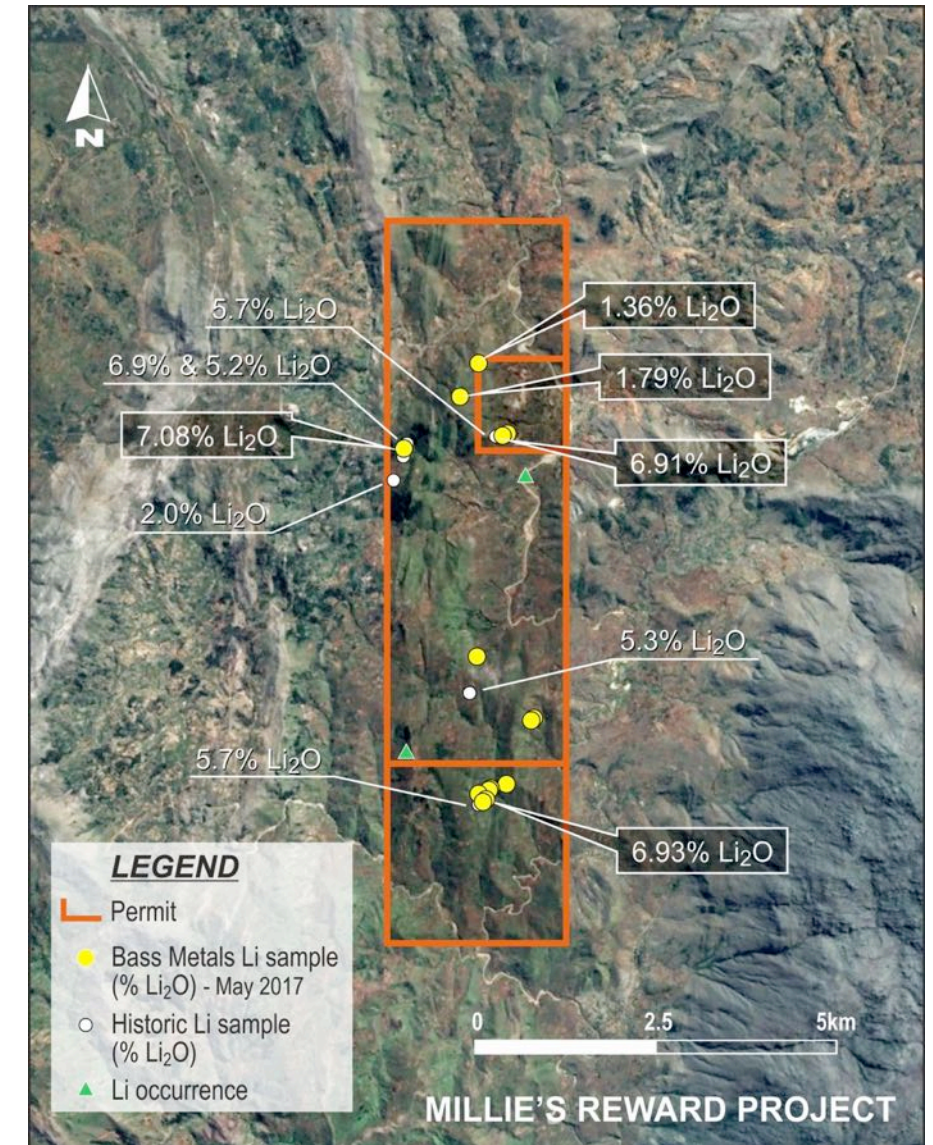
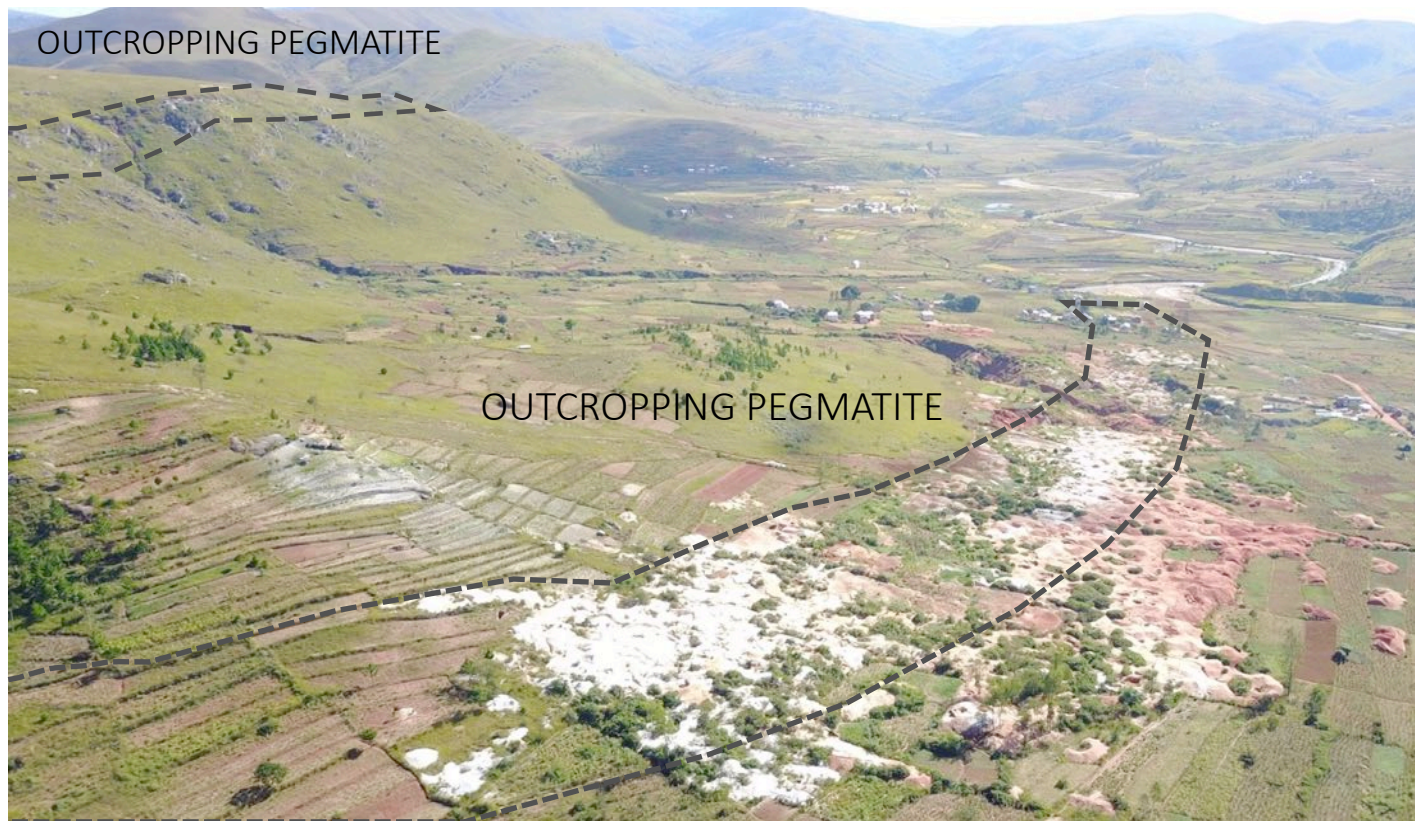


<sup>1</sup> See ASX Announcement 'Outstanding assay results confirmed for Andapa discovery' released on the 2/3/17.

# Millie's Reward

Millie's Reward, a hard-rock lithium project, located in Madagascar.

Fieldwork has confirmed outcropping pegmatites with significant spodumene mineralization, with grades up to 7.08%  $\text{Li}_2\text{O}$  and additional samples returning 6.93% AND 6.91%  $\text{Li}_2\text{O}$ , correlating with historic data for both grade and location.



<sup>1</sup> See ASX Announcement 'Exceptional lithium assay results up to 7%' released on the 29/5/17.

# Millie's Reward

The project is part of a **license with existing mining approval<sup>1</sup>** and complements Bass' presence in Madagascar as one of the country's leading industrial minerals producers.

Samples of high purity Spodumene crystals (Kunzite) have also been found in the project area.



<sup>1</sup> See ASX Announcement 'Exceptional lithium assay results up to 7%' released on the 29/5/17.

# Community Engagement



Bass Metals runs a Corporate Social Responsibility (CSR) program. The Company is committed to develop its business through strong local partnerships built on five pillars:



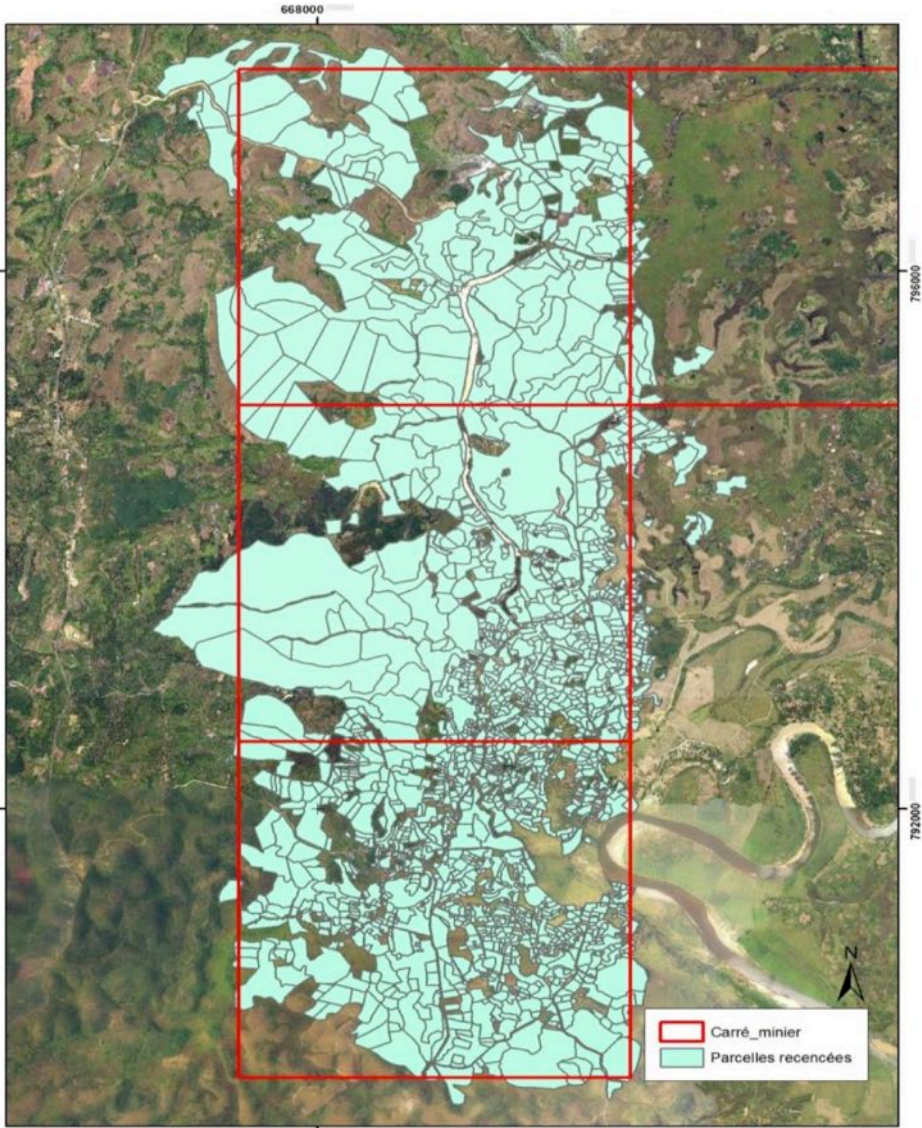
EDUCATION

HEALTH

PRODUCTION

TRANSPARENCY

EMPOWERMENT



Landholder Ownership Certificates Map: A first for Madagascar.

# Summary

Building an international industrial minerals business utilising cash flow from the Graphmada Mine as a platform for growth.

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The only ASX listed graphite producer, optimising and expanding production to 6,000 tpa, then to >20,000 tpa.

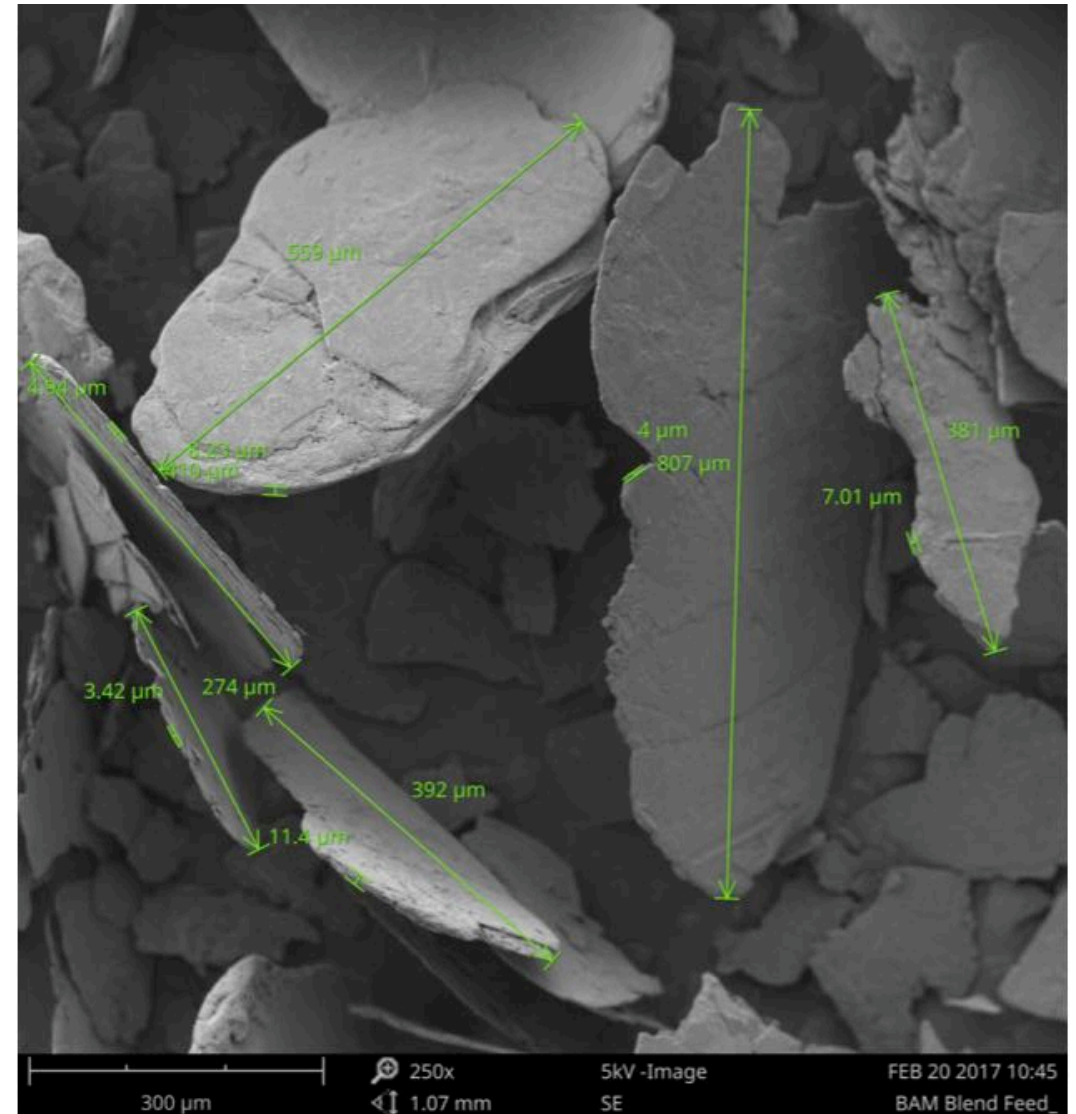
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Accelerating the establishment of the Company as a mid-tier producer and supplier of industrial mineral concentrates.

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Materially growing resource inventory, aggressively exploring permits and strategically assessing acquisitions.

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# Upcoming Catalysts

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Maiden Mineral Resource for the Mahefedok deposit

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New customers and off-take agreements for 2018 production

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Commissioning of new Dryer and Packaging Plant

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Recommencement of Mining Operations

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Re-commissioning of the upgraded Process Plant

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Exploration and Drilling at Millie's Reward Lithium Project

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Exploration and Drilling at Andapa Graphite Project

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# Contacts Us

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Bizzell Capital Partners Pty Ltd

**Peter Wright**

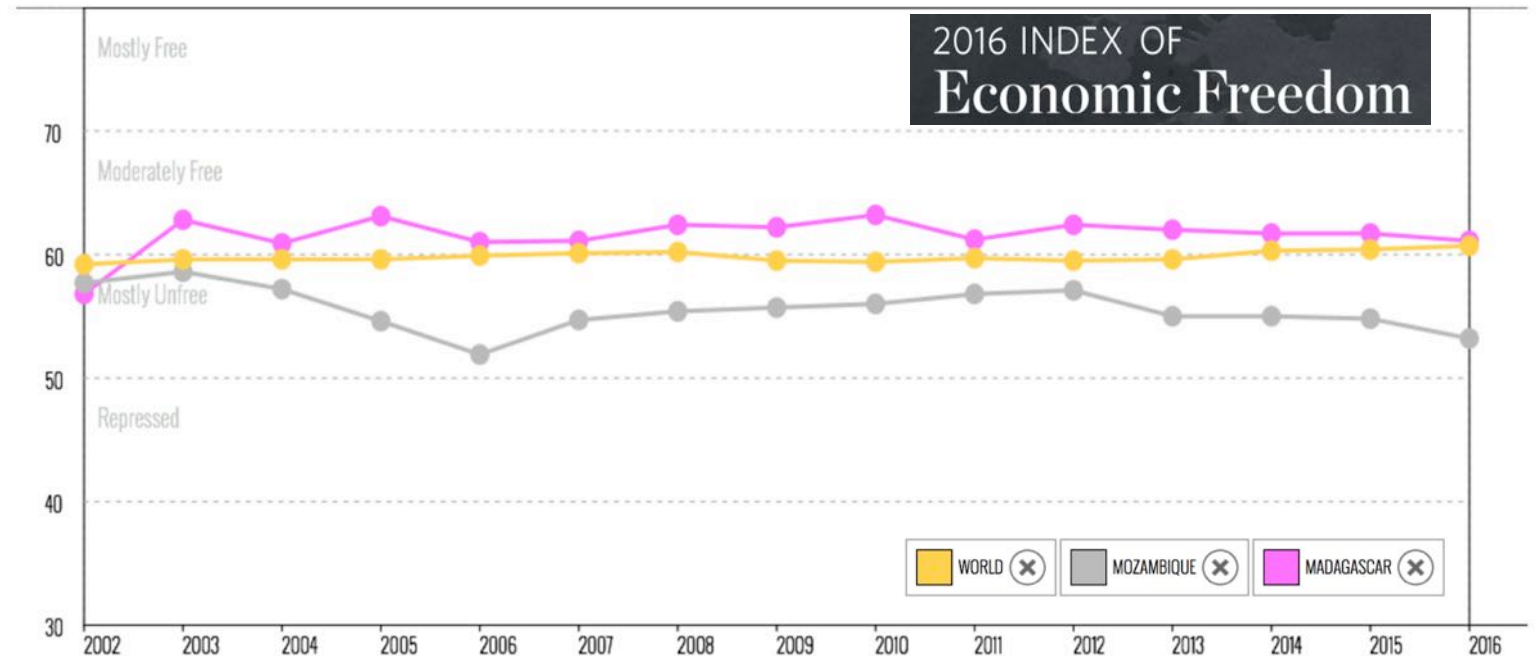
Executive Director

Telephone: (07) 3212 9200

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Web: www.bizzellcapital.com

**Madagascar** is an island country in the Indian Ocean, off the coast of Southeast Africa, and has been a democracy since 1960. It is governed under a French legal system and has a population of ~24m. The **Corporate Tax rate is a low 20% with a low 2% Mining Royalty.**



Index of Economic Freedom, an annual guide published by The Wall Street Journal and The Heritage Foundation.