

Syrah Resources: In Production, Focussed on Value

Sydney Mining Club, April 2018

Shaun Verner – Managing Director and CEO

Disclaimer

This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction. This presentation may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction. This presentation does not constitute financial product advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

Certain statements contained in this presentation, including information as to the future financial or operating performance of Syrah Resources Limited (Syrah Resources) and its projects, are forward-looking statements. Such forward-looking statements: are necessarily based upon a number of estimates and assumptions that, whilst considered reasonable by Syrah Resources, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements; and may include, among other things, Statements regarding targets, estimates and assumptions in respect of metal production and prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. Syrah Resources disclaims any intent or obligation to update publicly any forward looking statements, whether as a result of new information, future events or results or otherwise. The words "believe", "expect", "anticipate", "indicate", "contemplate", "target", "plan", "intends", "continue", "budget", "estimate", "may", "will", "schedule" and other similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Syrah Resources has prepared this presentation based on information available to it at the time of preparation. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information, opinions and conclusions contained in the presentation. To the maximum extent permitted by law, Syrah Resources, its related bodies corporate (as that term is defined in the *Corporations Act 2001 (Cth)*) and the officers, directors, employees, advisers and agents of those entities do not accept any responsibility or liability including, without limitation, any liability arising from fault or negligence on the part of any person, for any loss arising from the use of the Presentation Materials or its contents or otherwise arising in connection with it.

Corporate Introduction

Corporate overview

Issued Capital

ASX Code	SYR
ADR	SRHYY
Shares issued	297.4m
Options	5.8m
Performance Rights	1.0m
Market Cap (undiluted) ¹	A\$946m (US\$726m)

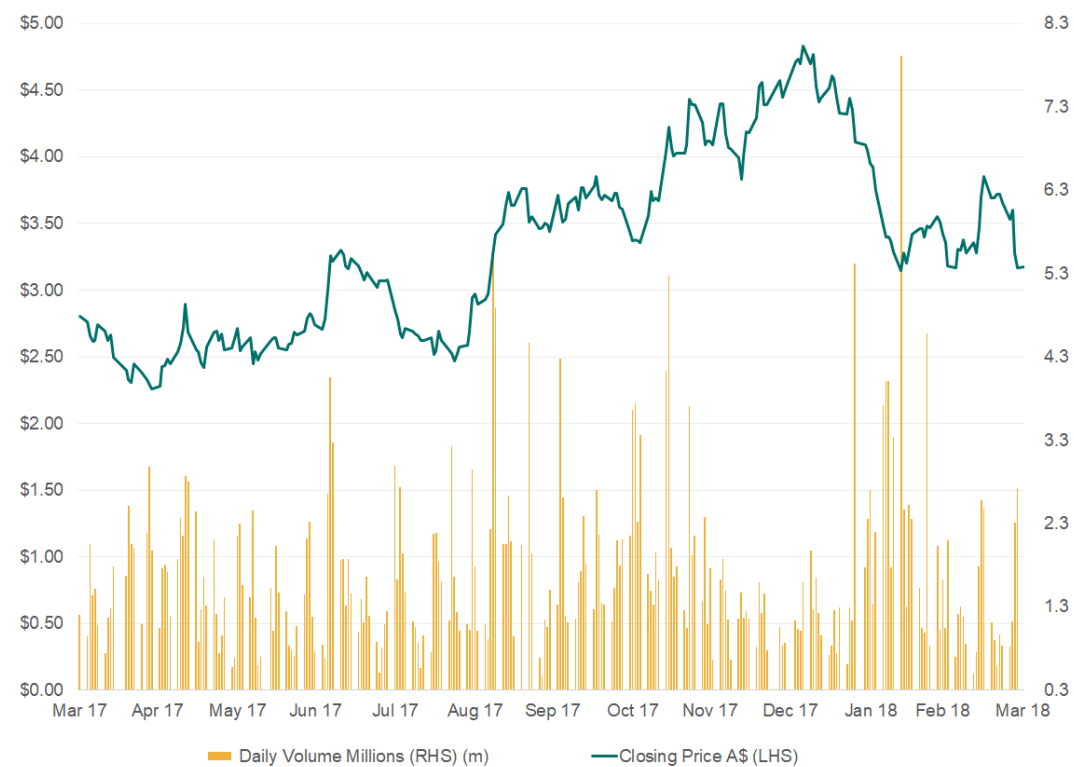
Cash and Debt

Cash as at 31 Dec 2017	US\$112m
Debt	-

(1) As at 03 April 2018

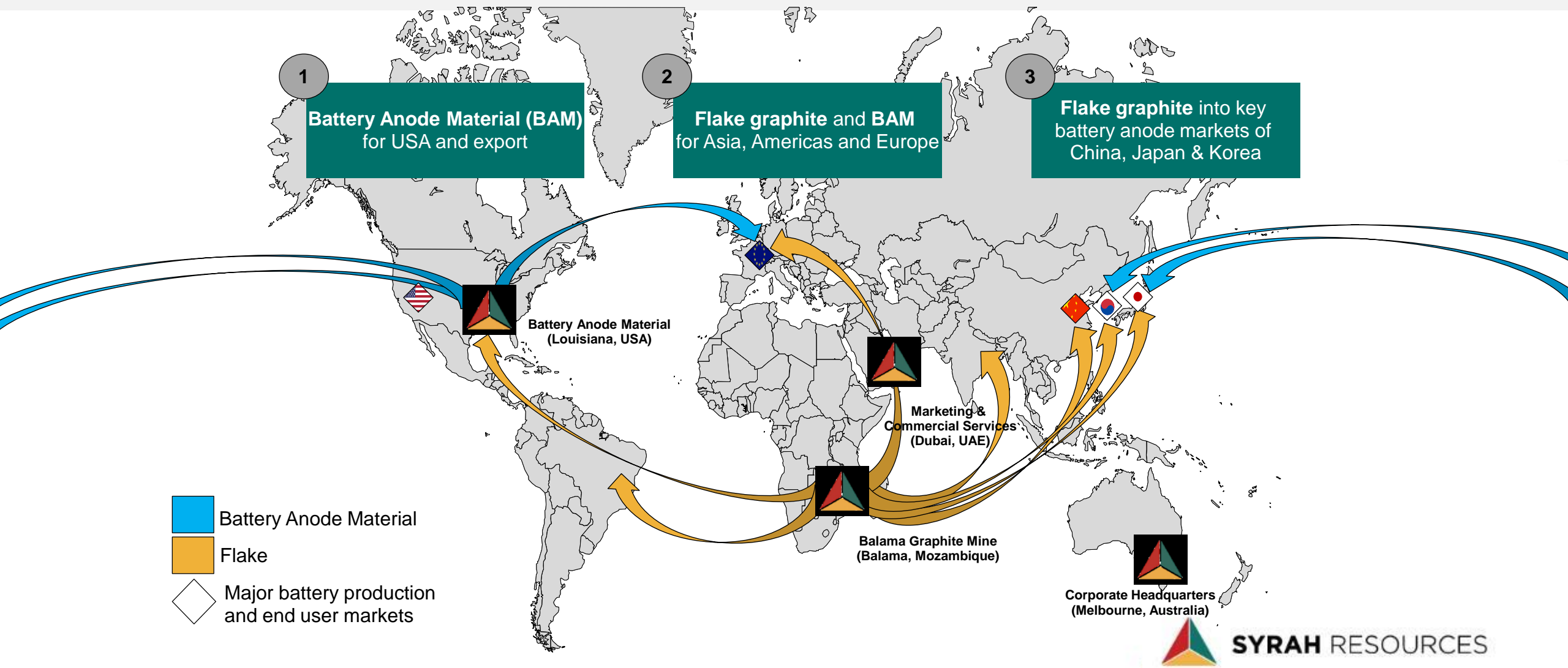
(2) Daily 12 months to 31 March 2018

Share Price A\$/share and volume²



SYRAH RESOURCES

Syrah will provide global baseload of supply of high quality flake graphite and BAM to all key battery producing markets



Syrah's strategy is focussed on value; enabled by a world class deposit and fast growing market

Goals	Logic	Enablers	Timing
Be the pre-eminent supplier of flake graphite	<ul style="list-style-type: none"> Industrial for baseload demand Lithium-ion battery market growth 	<ul style="list-style-type: none"> Low cost <US\$400/t, toward US\$300/t High quality 95%-98% Fixed Carbon Large volume 350ktpa 	<ul style="list-style-type: none"> Transitioned to operations 1 January 2018
Be the first integrated Battery Anode Material producer outside China	<ul style="list-style-type: none"> High value-add product First mover advantage Diversification in the global supply chain 	<ul style="list-style-type: none"> Electric vehicle market growth Energy storage Consumer goods 	<ul style="list-style-type: none"> 2018
Maximise value of other options	<ul style="list-style-type: none"> Large scale deposit Lithium-ion battery market growth Vanadium 	<ul style="list-style-type: none"> Expansion of Balama mine Battery anode material expansion Processing Vanadium 	<ul style="list-style-type: none"> Options under development
Our Values and People underpin how we execute our strategy			
Deliver value for stakeholders and shareholders			

Balama Graphite Operation Mozambique



SYRAH RESOURCES

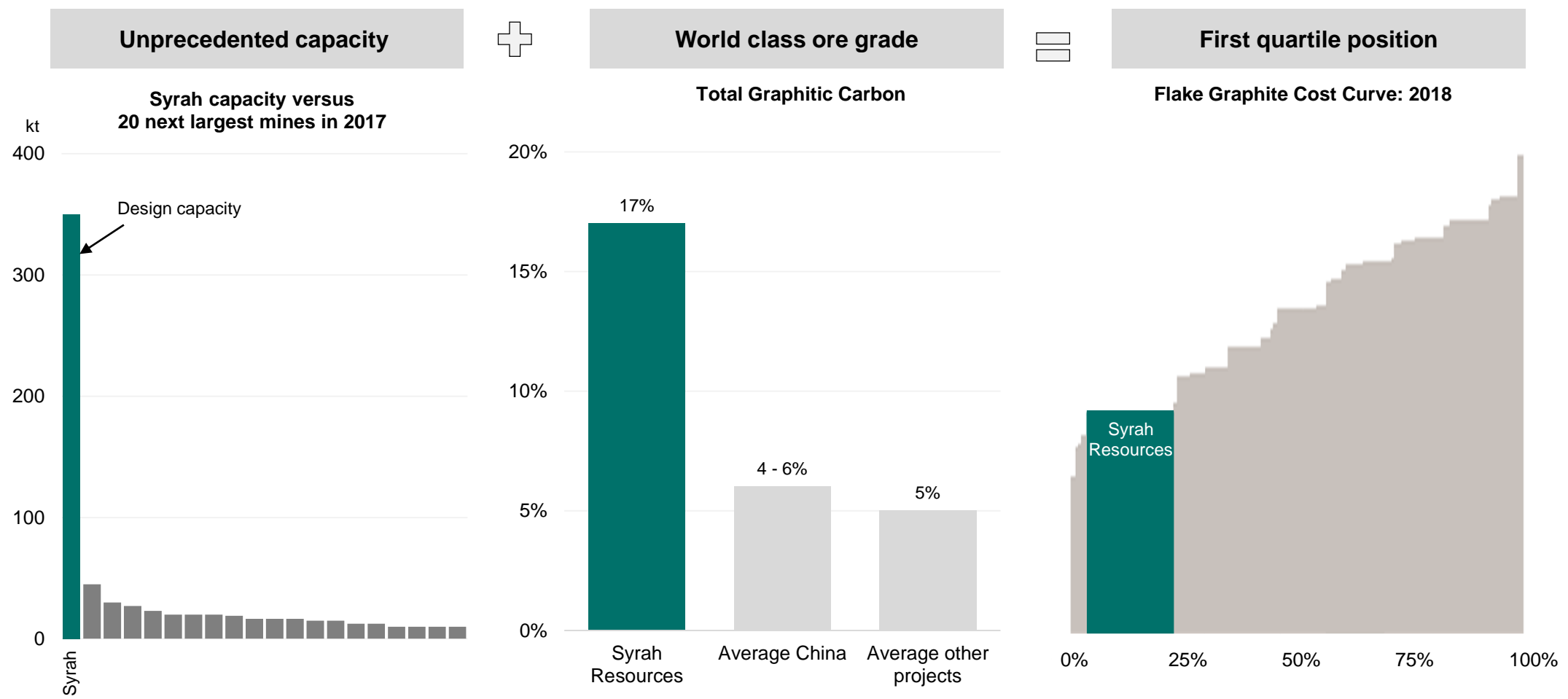
Syrah's Balama Graphite Operation is a tier 1 asset by any measure

Reserves and Resources	<ul style="list-style-type: none"> - Reserves¹: 114.5Mt at 16.6% Total Graphitic Carbon (TGC) - 18.9Mt of contained graphite - Resources¹: 1,191Mt at 11.0% TGC - 128.5Mt of contained graphite
Mining	<ul style="list-style-type: none"> - Simple, open pit mining operation with extremely low stripping ratio
Processing method	<ul style="list-style-type: none"> - Conventional process that includes crushing, grinding, flotation, filtration, drying, screening and bagging
Product	<ul style="list-style-type: none"> - 95% to >98% TGC concentrate to be produced across a range of flake sizes
Production^{1,2}	<ul style="list-style-type: none"> - Production capability of 350kt of graphite concentrate per year - CY18 production of 160kt to 180kt / CY19 250kt – 300kt - Ramp up profile to be optimised to meet market demand over time
Cash operating cost	<ul style="list-style-type: none"> - Targeting a cash operating cost of <US\$400 per tonne by end 2018; expected to reduce to <US\$300 per tonne as the plant is optimised and ramps up to full capacity
Life of mine	<ul style="list-style-type: none"> - Over 50 years
Option value	<ul style="list-style-type: none"> - Balama's large reserve and resource allows for potential plant expansion (flake or fines circuit), representing a low capital intensity option to meet incremental future graphite demand - Vanadium, a by-product which is liberated during the graphite production process (V₂O₅)

(1) Refer to ASX announcements titled "Syrah finalises Balama Graphite study and declares maiden ore reserve" released on 29 May 2015, "Syrah increases Balama Reserves and awards Laboratory Contract" released on 15 November 2016

(2) All material assumptions underpinning the production target in the initial announcement continue to apply and have not materially changed

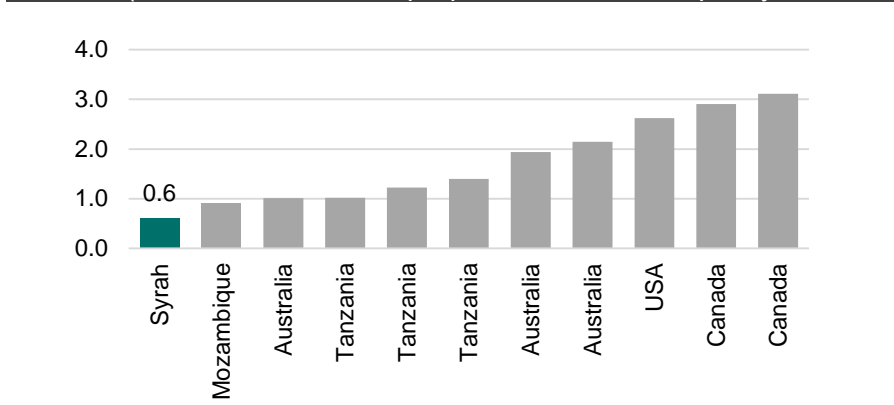
Largest capacity, high and consistent quality, and a long life asset enables Syrah Resources to be the global graphite leader



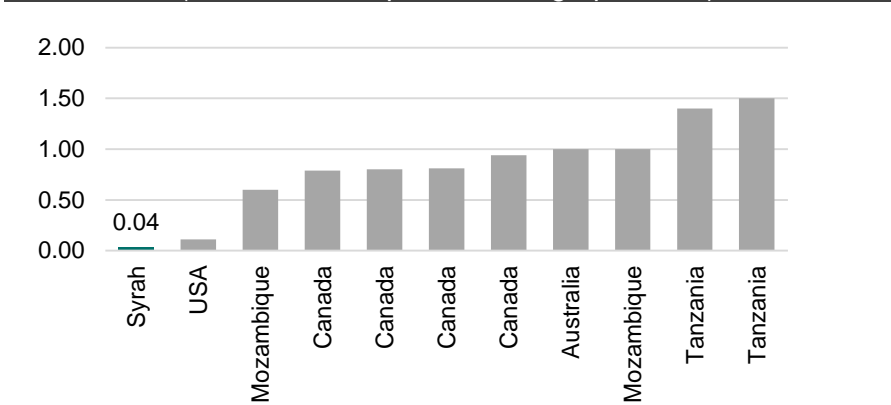
Source: Syrah Resources

Investment and operating metrics highlight Syrah's advantage over all other greenfield projects; Balama brownfield expansion possible

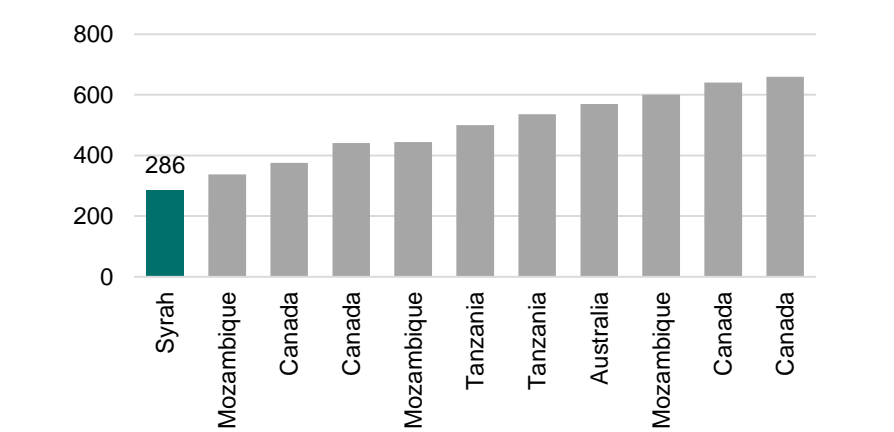
Capital Intensity
(US\$'000 invested or proposed / tonne of capacity)



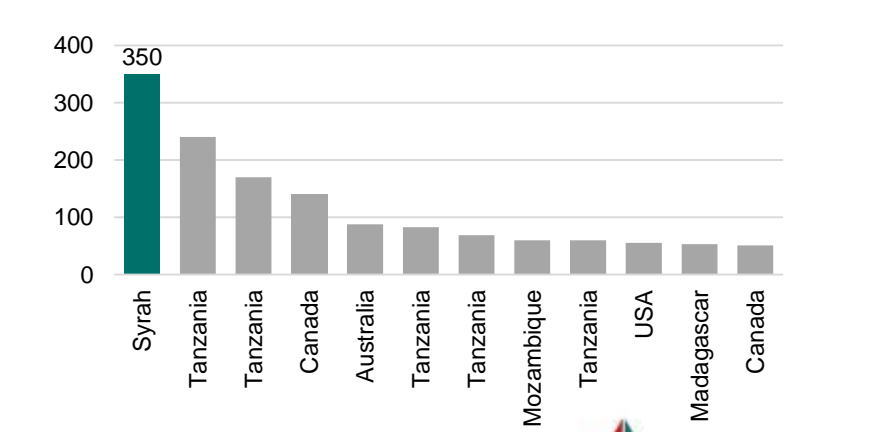
Strip Ratio
(tonne of waste per tonne of graphite ore)



Cash cost per tonne at full production
(US\$/t)

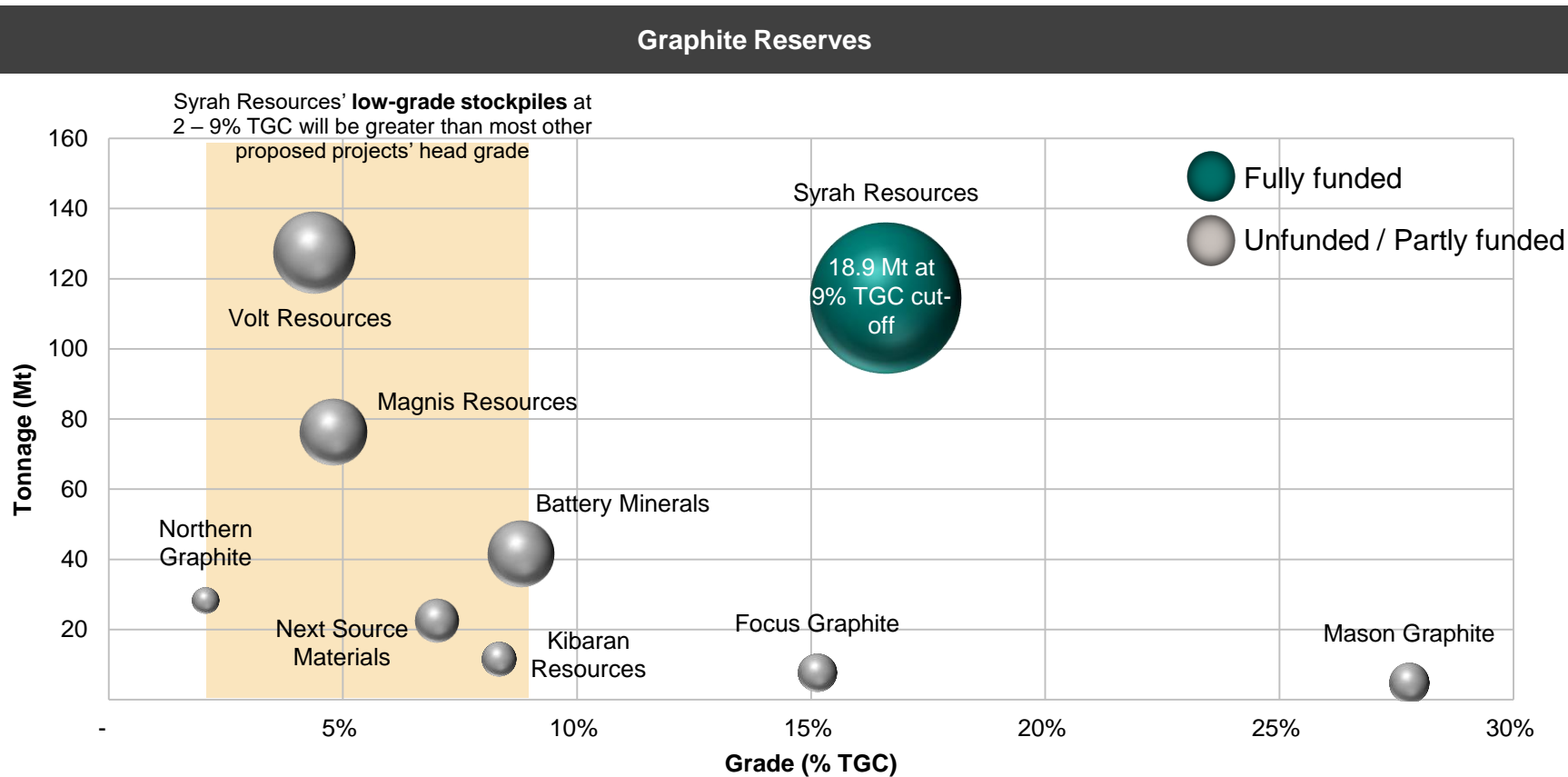


Production Capacity
(ktpa)



Source: Syrah Resources, Corporate Reports and ASX announcements as at September 2017
 Note: Syrah Resources benchmarked against the next best ten greenfield options in each metric
 Competitor location based on location of proposed mine, not company headquarters

Syrah's high grade Balama deposit has the largest defined graphite reserve globally; only major new project in operations



Source: Company filings as at September 2017
Notes: Selected ASX and TSX listed graphite projects only and excludes Chinese producers. TGC = Total graphitic carbon

Bubble size is representative of latest reported contained graphite reserves
Cut-off grade for Northern Graphite (Ontario, Canada) is 0.96% TGC
Cut-off grade for Volt Resources (Tanzania) is 1.29% to 1.76% TGC
Cut-off grade for Magnis Resources (Tanzania) that aims for a 98% Cg concentrate grade at a production level of 240ktpa from a 5Mtpa concentrator
Cut-off grade for NextSource Materials (Madagascar) is 4.5% TGC
Cut-off grade for Battery Minerals (Mozambique) is 4% TGC
Cut-off grade for Kibaran Resources (Tanzania) is 5% TGC
Cut-off grade for Focus Graphite (Quebec, Canada) is 3.1% TGC
Cut-off grade for Mason Graphite (Quebec, Canada) is 6% TGC

Syrah Resources: The only major new supplier of natural graphite

First mover advantage – operations commenced

- First production November 2017
- Customer shipments commenced January 2018
- First revenue received February 2018

Largest natural graphite producer

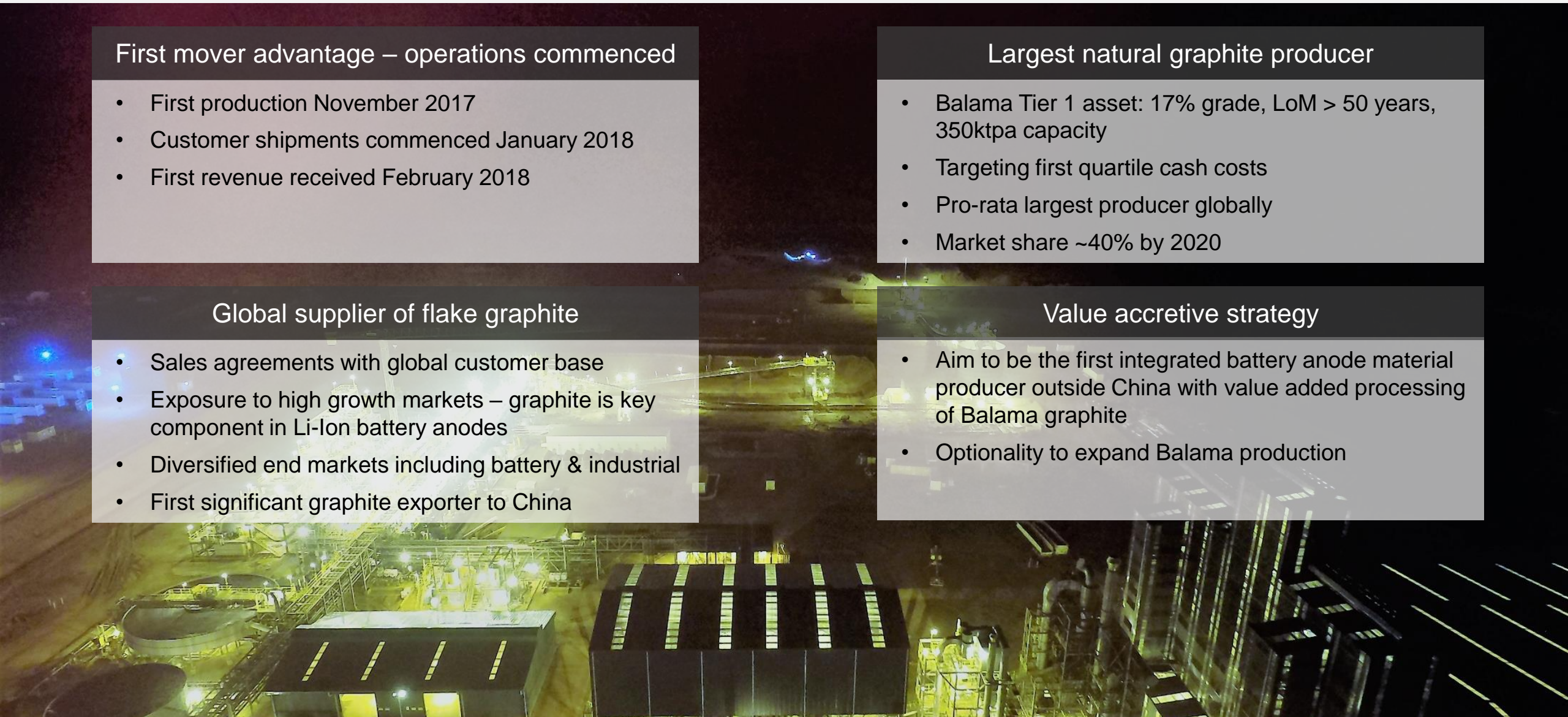
- Balama Tier 1 asset: 17% grade, LoM > 50 years, 350ktpa capacity
- Targeting first quartile cash costs
- Pro-rata largest producer globally
- Market share ~40% by 2020

Global supplier of flake graphite

- Sales agreements with global customer base
- Exposure to high growth markets – graphite is key component in Li-Ion battery anodes
- Diversified end markets including battery & industrial
- First significant graphite exporter to China

Value accretive strategy

- Aim to be the first integrated battery anode material producer outside China with value added processing of Balama graphite
- Optionality to expand Balama production



Our Health, Safety, Environment and People obligations are paramount

Strong health and safety record and ongoing community initiatives

- Total Recordable Injury Frequency Rate (TRIFR) of 0.8 at end of 2017
- Zero non-compliances across >200 environmental license conditions in 2017
- 90% Mozambican nationals employed; >60% from the 8 local host communities
- Chipembe Dam large scale irrigation and agriculture community program well advanced
- Remediation works at Chipembe Dam including dam outlet valve repair preventing water loss of up to 50,000m³ per day
- Balama Training Centre development underway



Chipembe Dam installation of concrete culvert on spillway



Local community site visit

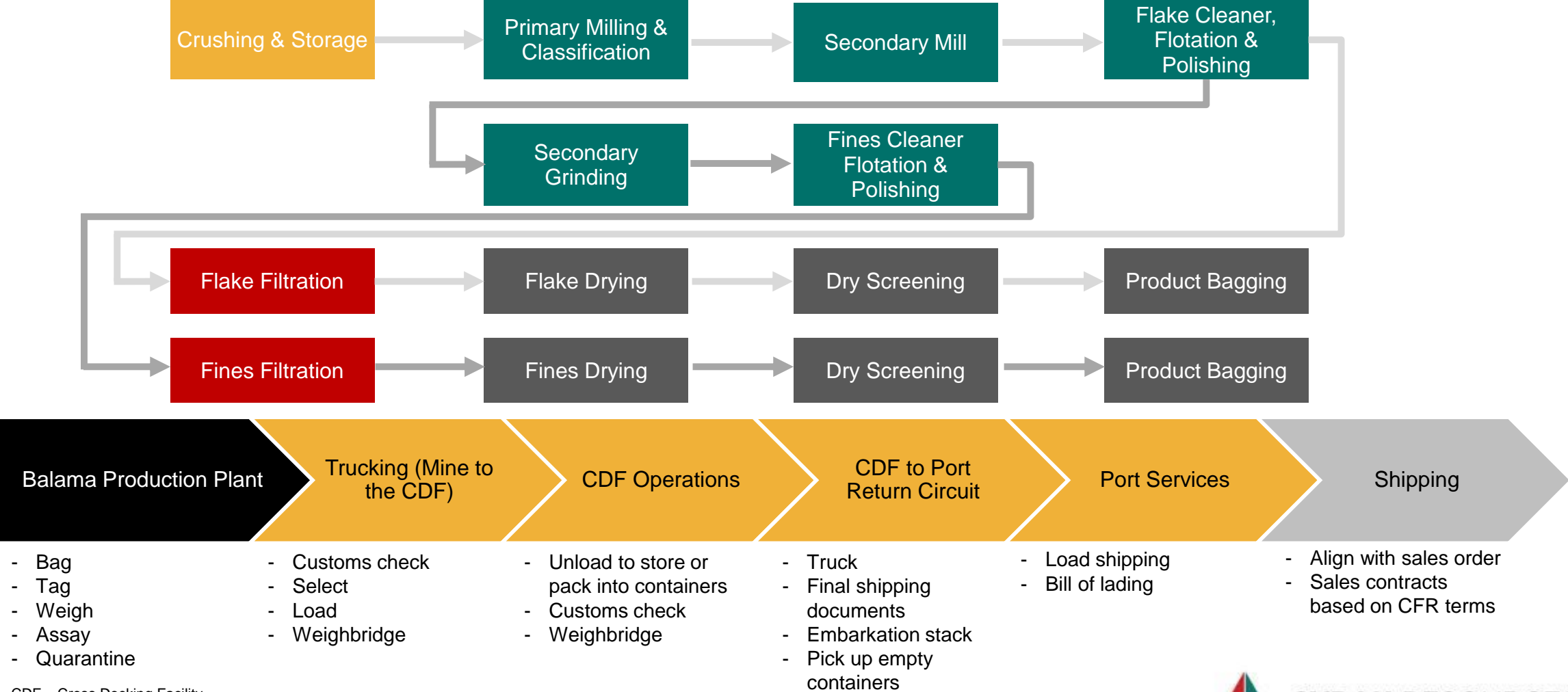


Seasonal celebration and gift giving to Balama orphanage



World Aids Day event co-hosted by Syrah including health awareness program

Processing and logistics operations are ramping up



CDF = Cross Docking Facility
CFR = Cost and Freight



SYRAH RESOURCES

Balama Graphite Operation – in production



Plant site



Primary crusher (overhead view)



Flotation cells



Polishing mills



Filtration



Drying, screening and bagging



First saleable bagged product November 2017



Loading product to truck to port






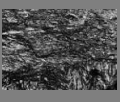














The Graphite Market Opportunity



SYRAH RESOURCES

Non-metallic and metallic properties of natural flake graphite ensure the largest variety of applications; including lithium-ion batteries

Graphite 101

Source	Type	End Markets	Disadvantages	Advantages	2017 Overview
Natural	 Flake	Steel  Batteries  Technical  Other  Recarburiser & Refractory	Historically inconsistent quality	Low cost, low impurities, crystalline structure, porosity	Shortage of good quality material; price increase of 20-30% Total trade value US\$450-500m
	 Amorphous	Recarburiser only   Brakes only  	Weak crystalline structure, low electromagnetic properties	Lowest cost	Balanced market; Prices stable Total trade value US\$180-200m
	 Vein	   	Small economic sources, high cost	Very high graphite content	Total trade value US\$10-20m
Artificial	 Synthetic	    Recarburiser & electrodes	Highest cost, highest polluting	Consistent quality, very low impurities	Undersupplied market; significant price increases of 80 – 100% Total trade value US\$1.5-2b

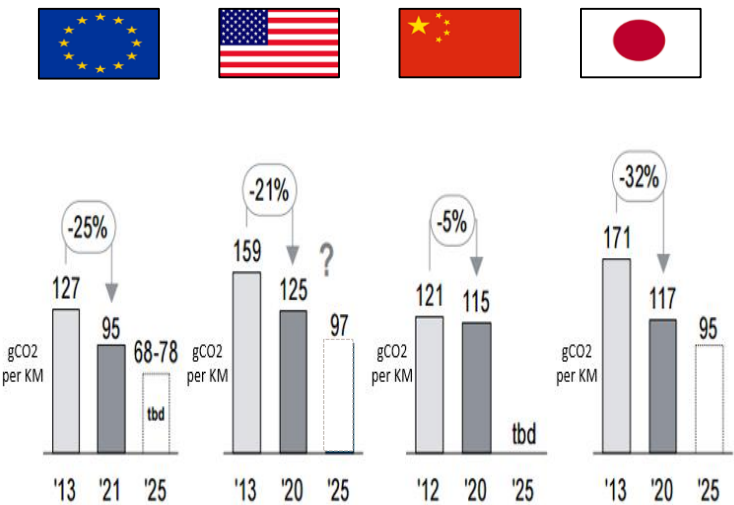
Source: Syrah Resources

Steel: Refractories, crucibles, moulds, castings; **Batteries:** Lithium-ion; **Technical:** expandable, brakes, flame retardants, nuclear reactors

Other: Pencils, lubricants

Global public policy, infrastructure and industry investment continue to build for the electric vehicle (EV) market; >1 million EVs sold in 2017

Government regulations driving change in the auto sector to reduce emissions



Infrastructure build out continues to enable greater take up of electric vehicles

400 - 500 Tesla chargers in China in 2015



3,000 Tesla chargers in China today

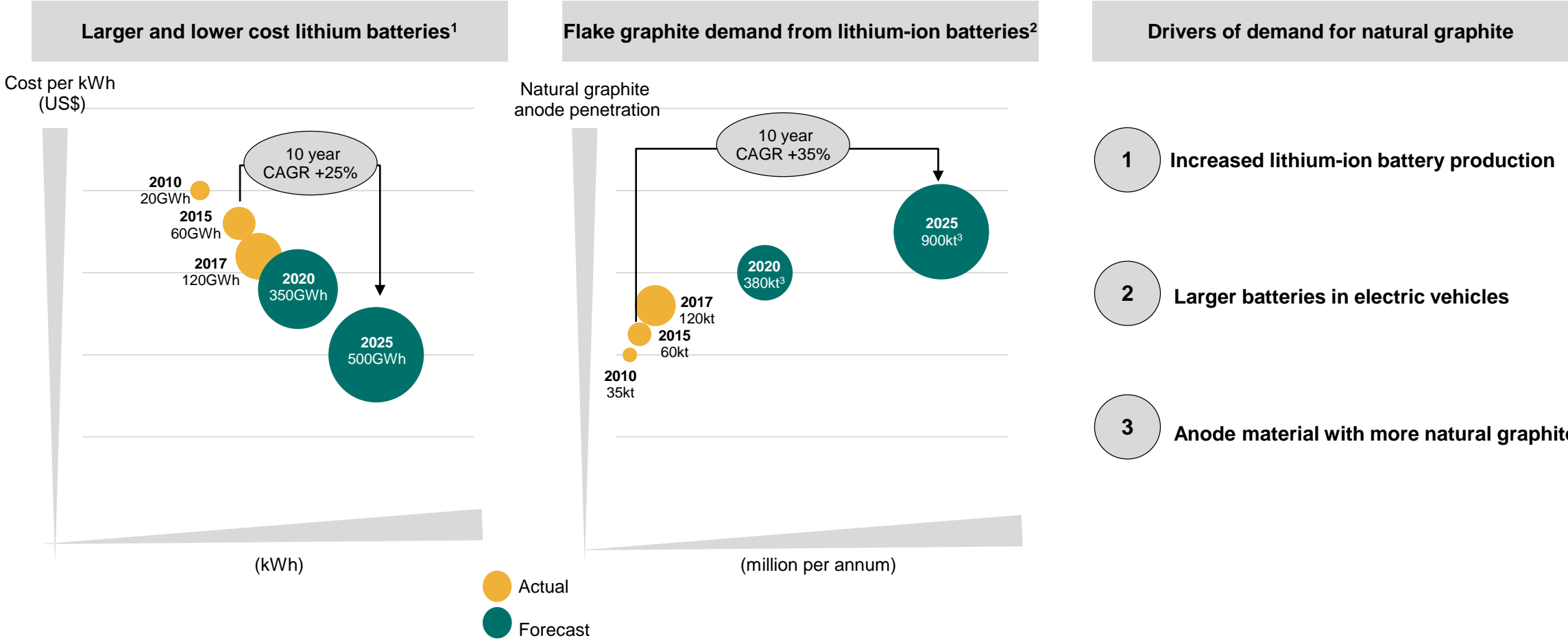


All traditional auto makers are now targeting EVs

- Invest up to \$24 billion to produce more than 3 million EVs pa by 2026
- Has sold 100,000 EV/PHEV in each of the last 3 years
- EVs to be 15-20% of sales by 2025
- All sales to be EV/PHEV by 2019
- 50% of sales to be EV/PHEV by 2020
- 80% of core models to be EV/PHEV by 2023
- 20% of EU sales to be EV/PHEV by 2020
- 65% of all sales to be EV/PHEV by 2030
- 31 new models and 300,000 EV/PHEV sales by 2020
- Partnering with Nissan/Renault to launch 12 new EV/PHEV models by 2022
- 10 EV/PHEV models by 2020
- 13 EV/PHEV models by 2022, including F-150 hybrid

Source: Syrah Resources, Bloomberg, Tesla, Business Insider

Lithium-ion battery market expected to grow to 500GWh in 2025, from 120GWh in 2017; impact on flake graphite significant and imminent



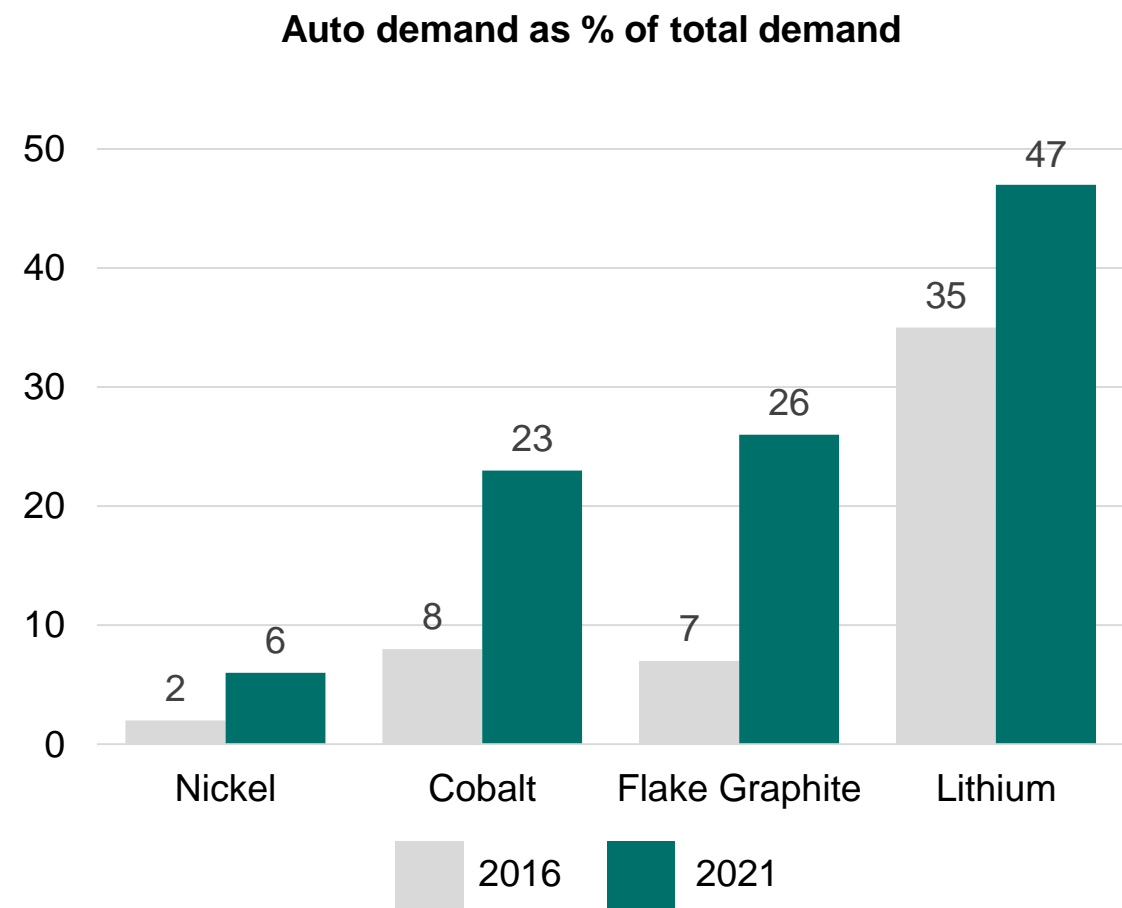
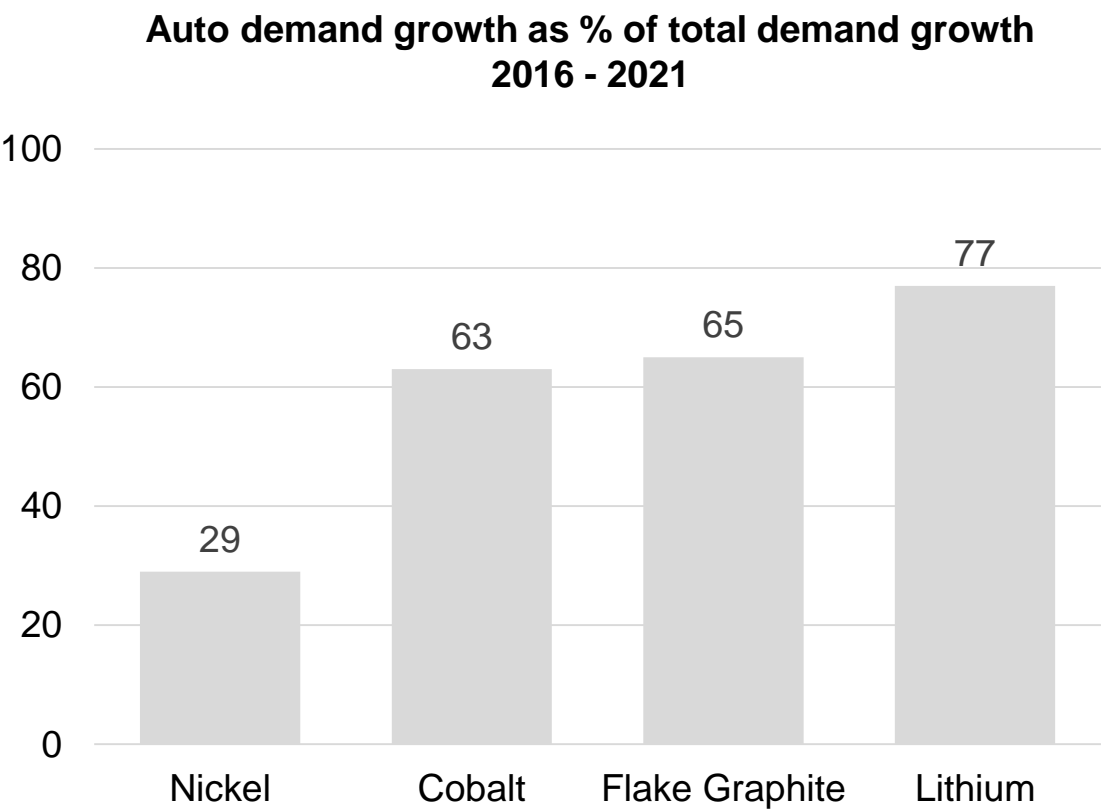
Source: Syrah Resources, Bernstein

(1) Bubble size representative of energy demand for lithium ion batteries (CCC, EV, ESS) measured in GWh

(2) Bubble size representative of market size measuring in kt

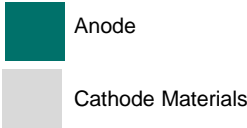
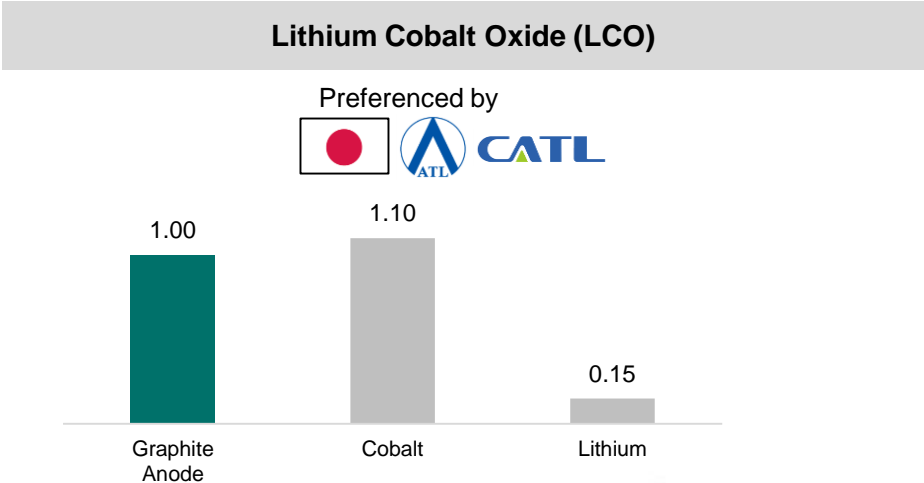
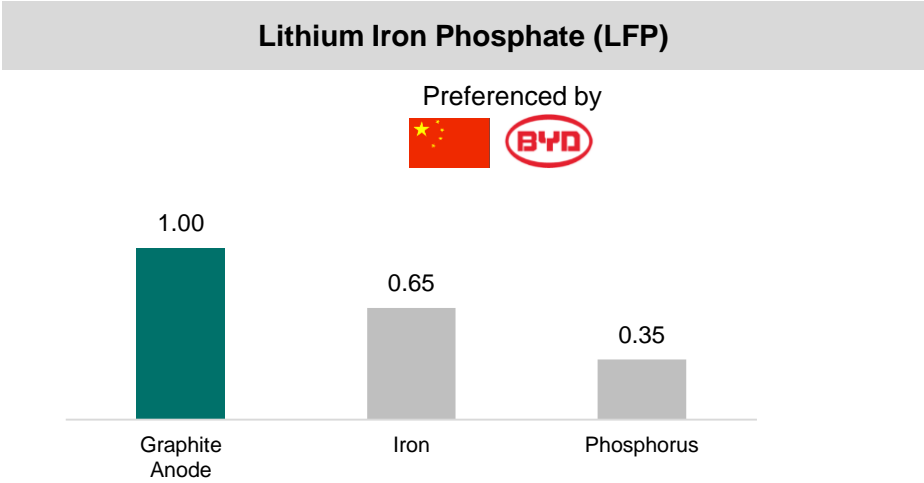
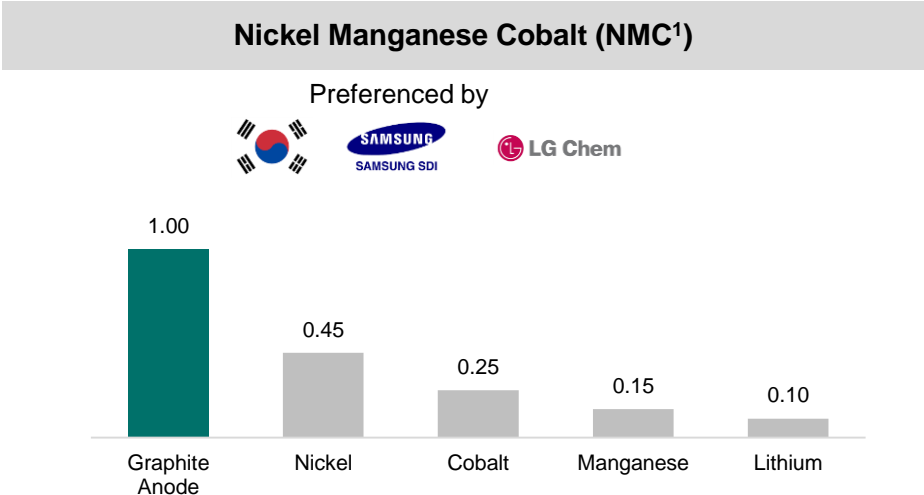
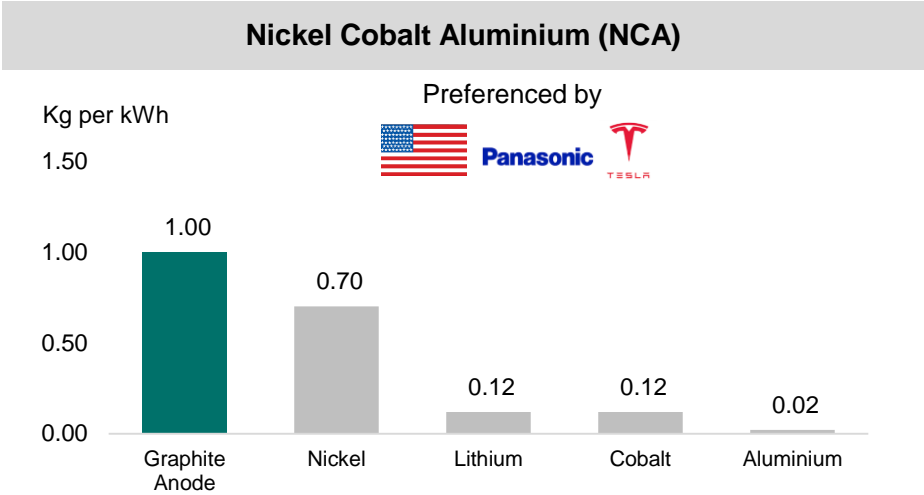
(3) Syrah Resources mid case

Electric vehicle market impact on flake graphite consistent with other key lithium-ion battery commodities; structural demand change imminent for all



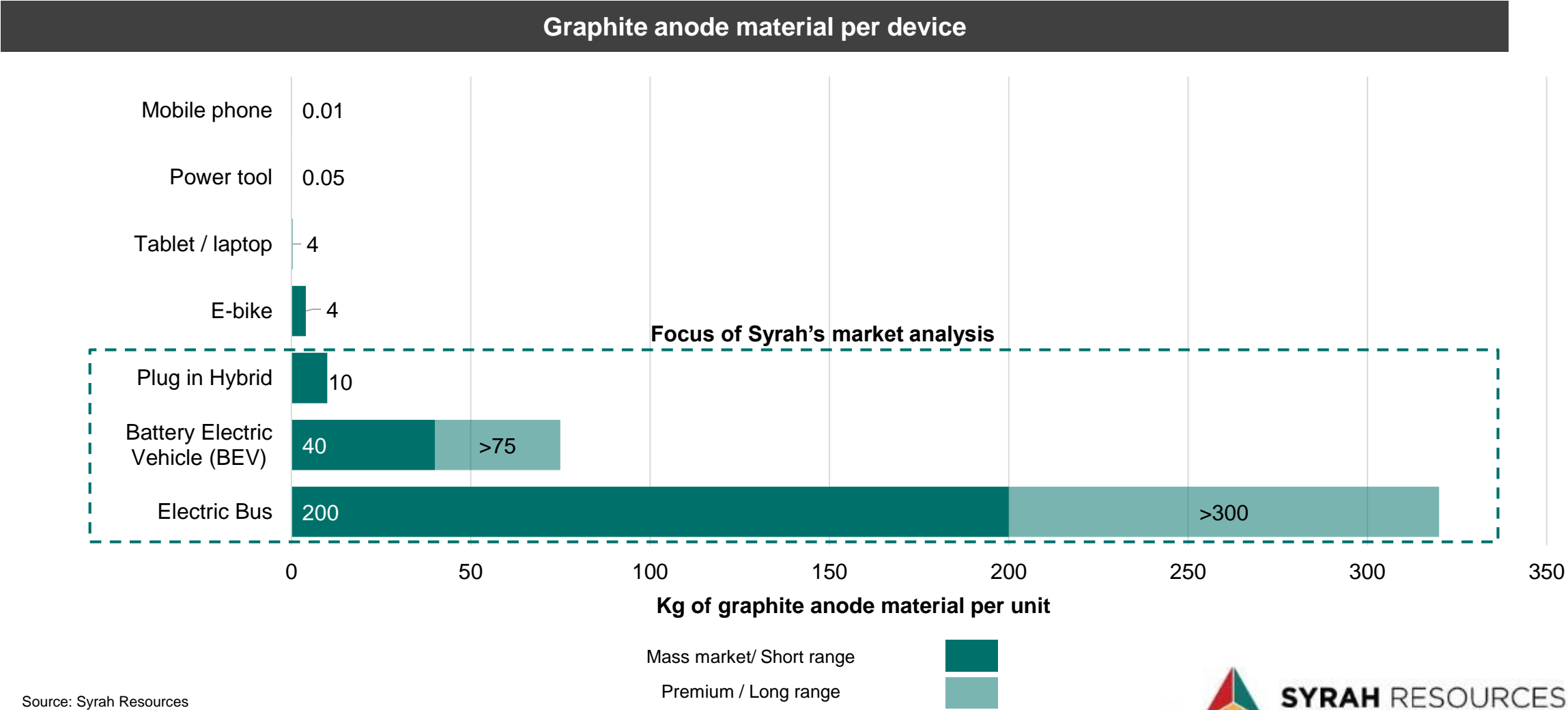
Source: CRU, Syrah Resources
Notes: Flake graphite demand numbers include electric busses and trucks

Graphite anode mass in Li-ion battery per kWh is consistent and agnostic of cathode chemistry








Source: Syrah Resources
Each kg of natural graphite anode material requires >2kg of natural flake graphite
(1) NMC 523 Chemistry

Focus on electric vehicles due to materiality of graphite use in each unit and the expected growth in the sector



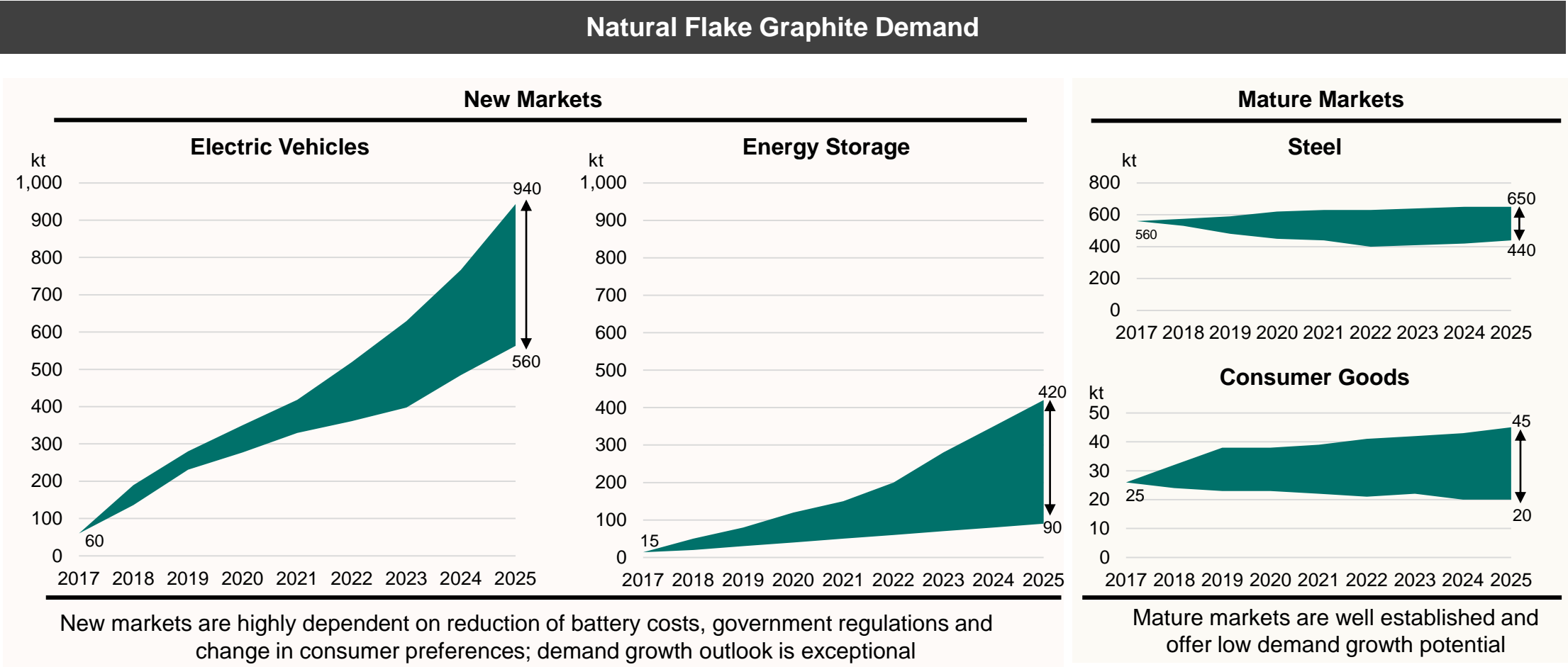
Source: Syrah Resources

How much natural graphite is in an electric vehicle? It depends on battery size and natural graphite content in the anode material

	2017 unit sales (global, thousands)	Lithium-ion battery size	Anode Material per unit (natural & synthetic combined)	Natural Flake Graphite per unit (40 - 50% yield per kg of anode material)
Plug in Electric Vehicle 	~400	5 - 20kWh	5 - 20kg Balanced proportion of natural and synthetic graphite	10 - 30kg
Full Electric Vehicle 	~400	30 - 45kWh	30 - 45kg Balanced proportion of natural and synthetic graphite	35 - 50kg
Electric Commercial Truck 	~120	40 - 70kWh	40 - 70kg Balanced proportion of natural and synthetic graphite	40 - 80kg
Premium Electric Vehicle 	~150	75 - 100kWh	75 - 100kg Higher proportion of synthetic graphite	40 - 50kg
Electric Bus 	~105	150 - 350kWh	150 - 350kg Balanced proportion of natural and synthetic graphite	150 - 380kg

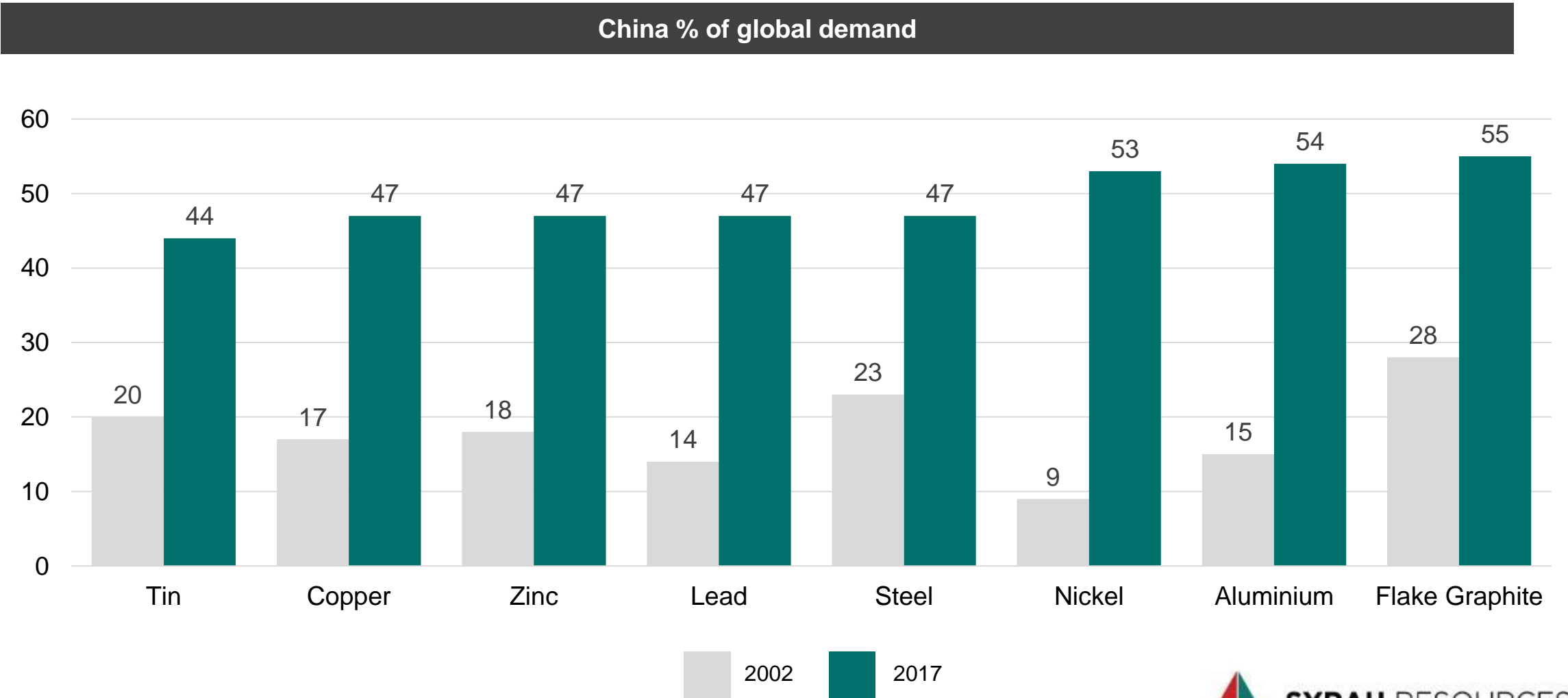
Source: Syrah Resources

New markets provide major demand growth opportunity for natural flake graphite; Mature markets provide a consistent base load of demand



Source: Syrah Resources
Notes: Steel sector includes refractory bricks, foundries, crucibles and recarburiser

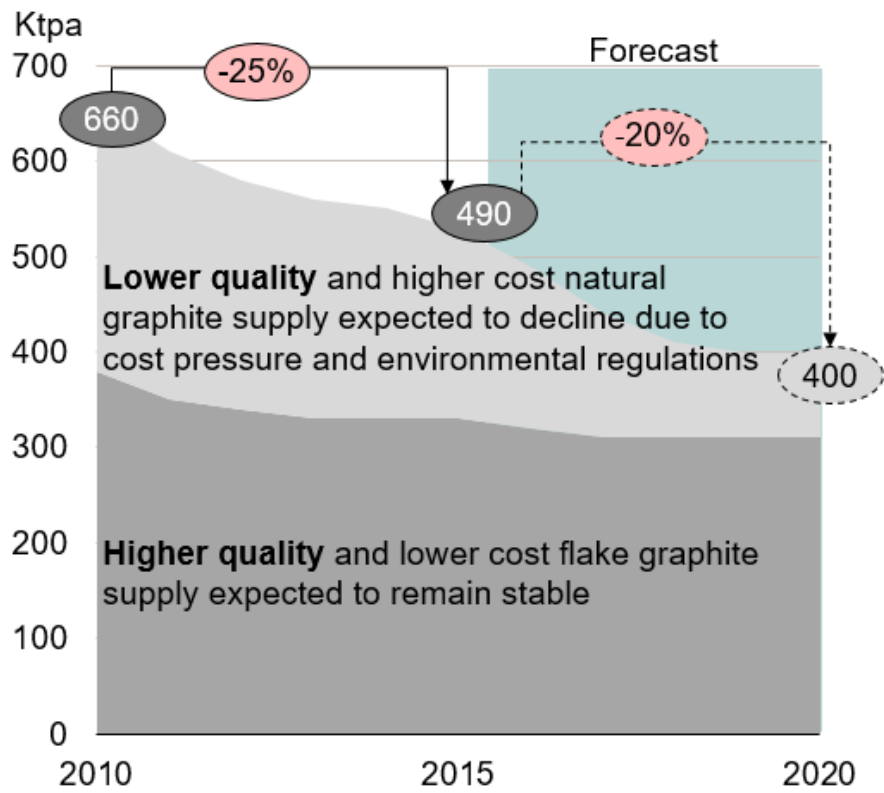
China's influence on demand in the last 15 years has transformed global commodity trade flows; impact on flake graphite in line with other commodities



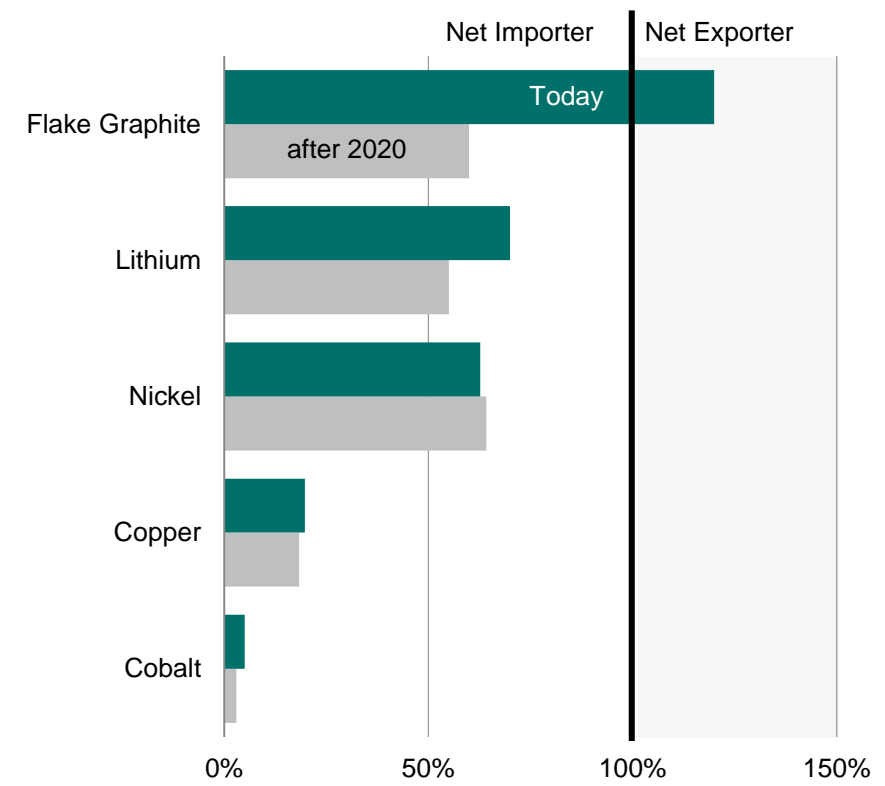
Source: Macquarie Bank, Syrah Resources

China's demand profile and declining domestic graphite resources means a structural change to a net importer of natural graphite will occur

China's domestic supply of natural flake graphite has been declining due to resource depletion and environment improvement



China's switch from an exporter to importer of natural will permanently and structurally change the market dynamics



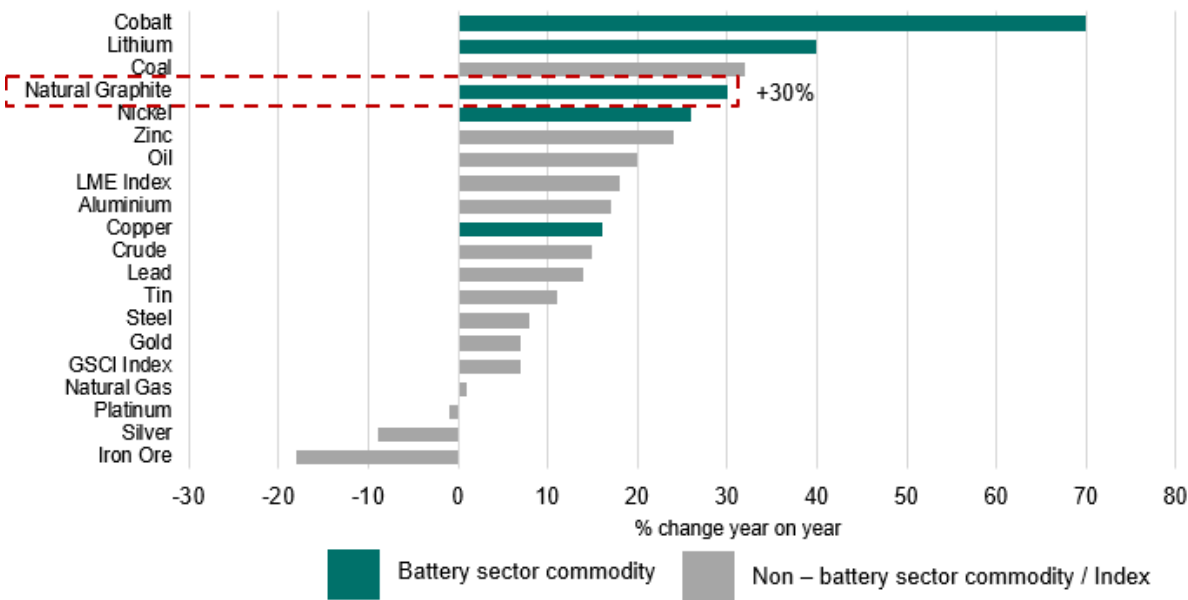
Source: Syrah Resources, Woodmackenzie, CRU, Metal Bulletin

Natural graphite price traditionally driven by steel market dynamics; more recently has moved in sync with other lithium ion battery linked commodities

Long term historical natural graphite price¹



Commodity basket price movements in last 12 months²



Source: Bloomberg, Trading Economics, USGS, Syrah Resources

(1) US\$, real in 2016 terms

(2) Prices as of 21 Feb 2018



SYRAH RESOURCES

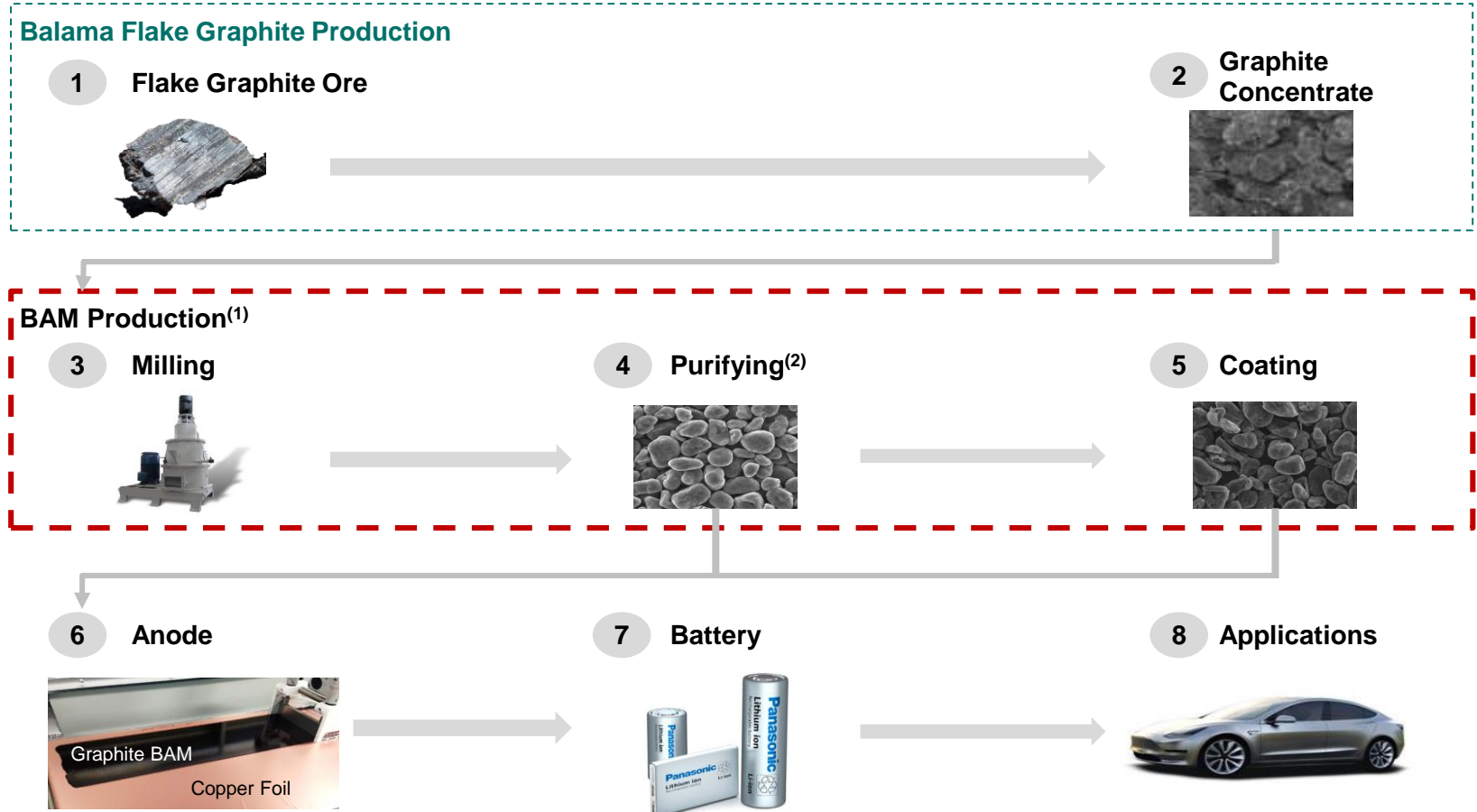
Battery Anode Materials Opportunity



SYRAH RESOURCES

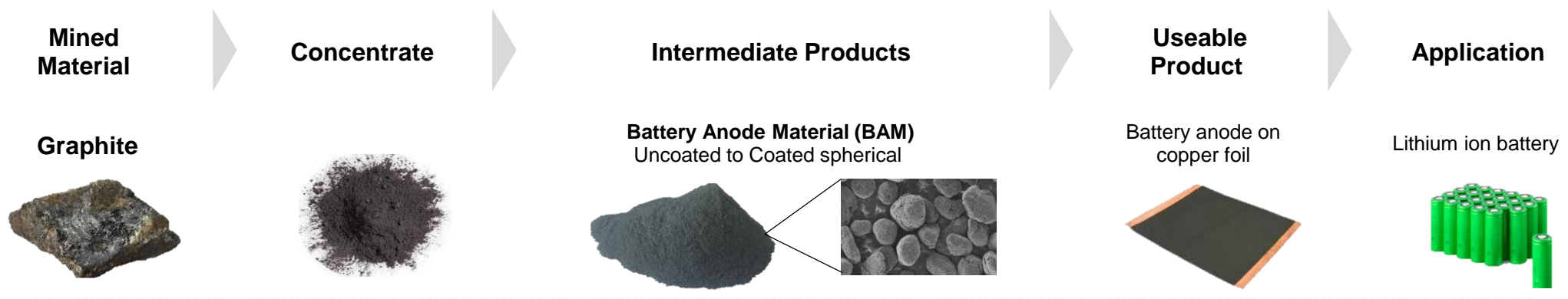
Lithium-ion battery supply chain

Opportunity for Syrah to capture additional margin in the battery value chain through BAM production



(1) Plant in Louisiana will initially have 10kt per annum of milling and purification capability with optionality to later add coating capability
(2) Purifying can be achieved chemically or thermally, plan for Syrah BAM plant to be capable of chemical purification

What is BAM? Battery Anode Material is the intermediate product before final anode material is placed into a battery pack



Examples of other commodities

Copper



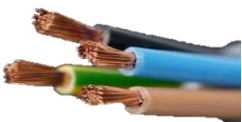
Cathode



Rod



Wiring



Bauxite



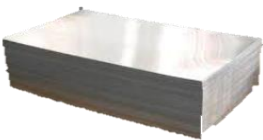
Alumina



Ingot



Sheet



Can

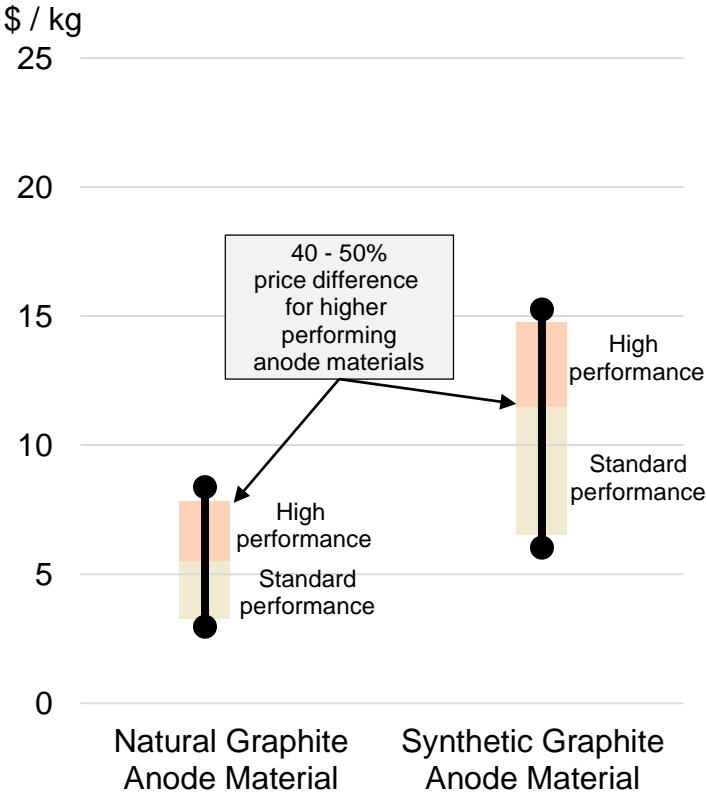


Source: Syrah Resources

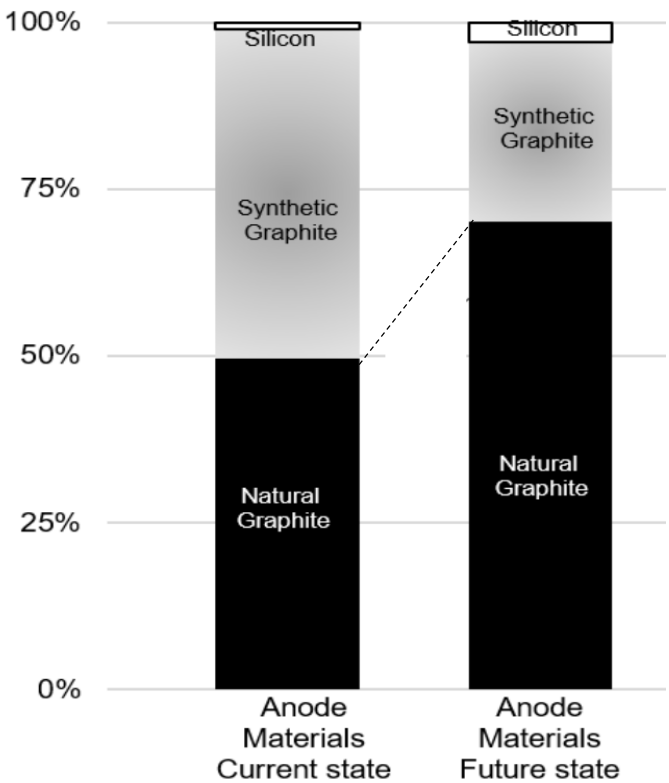


Increased penetration of natural graphite in anode material supports future demand and prices for natural graphite; facilitates reduction in battery costs

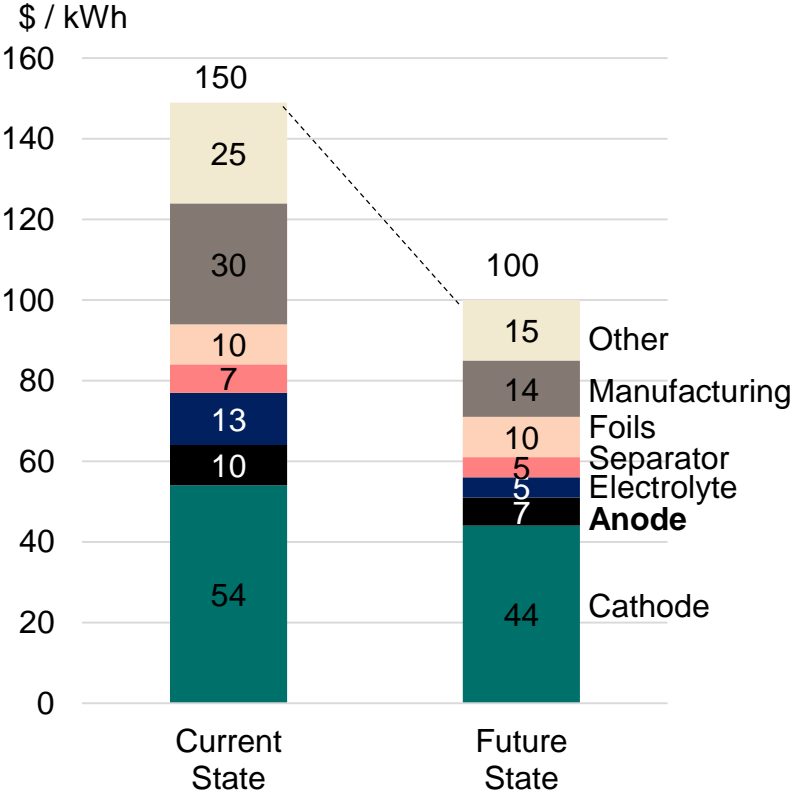
Significant difference in prices for natural and synthetic graphite anode material



Greater use of natural graphite expected

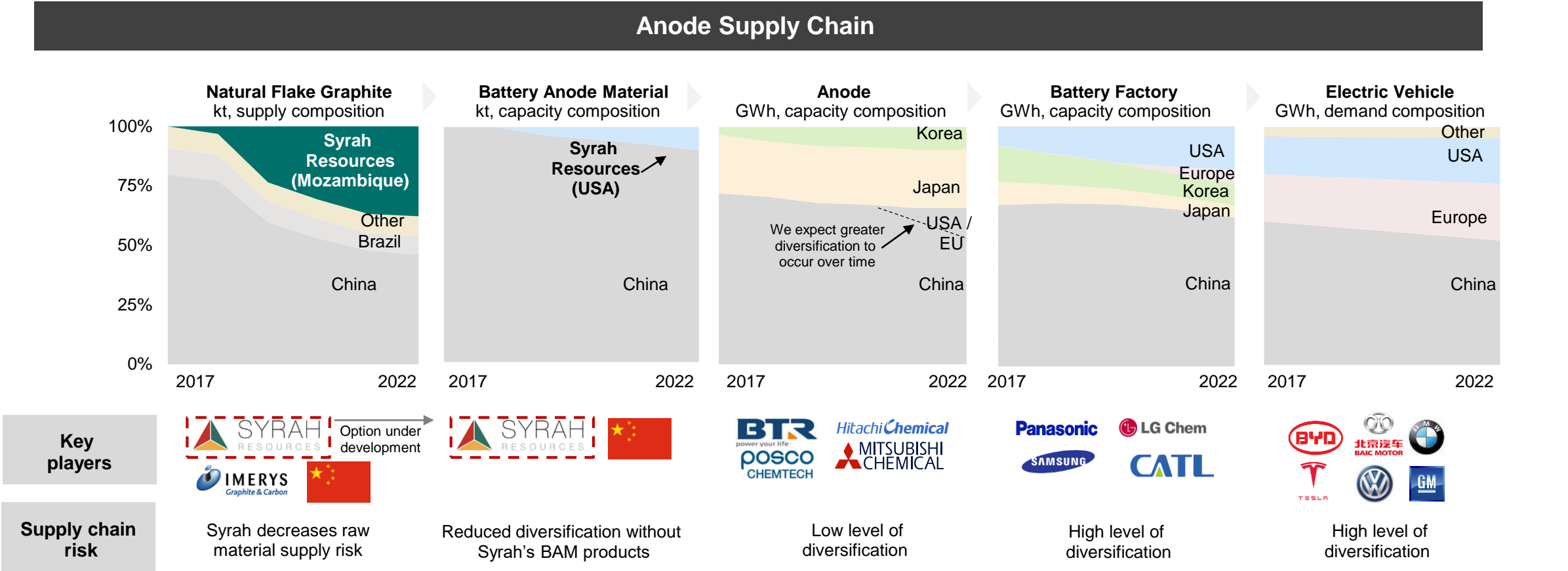


which will assist in overall battery reduction costs



Source: Syrah Resources, Bernstein

Syrah's BAM production will provide a strategic and valuable alternate source of anode material



Source: Syrah Resources

Battery Anode Material (BAM) project summary

Feedstock	<ul style="list-style-type: none"> - High purity flake graphite concentrate from Balama (-100 mesh size material)
Processing capacity and product mix	<ul style="list-style-type: none"> - Planned milling and purification capacity of 10kt per annum⁽¹⁾ - Optionality to produce variety of saleable material to diversify customer and sales base
Location	<ul style="list-style-type: none"> - Louisiana provides easily available access to primary processing consumables and low cost power - Strategically located to service the fast growing United States lithium-ion battery industry, with sea freight access to export markets - Plant commercial lease, detailed engineering design and construction planning activities well underway
Funding and Timing	<ul style="list-style-type: none"> - US\$40m will be used for construction of a BAM production facility in Louisiana and ongoing Syrah BAM product research testing and development - Initial focus on BAM product qualification followed by commercial scale production and sales of value added products
Research and development	<ul style="list-style-type: none"> - Testing and benchmarking the electrochemical properties of battery anode materials using Balama material is largely complete - Benchmarking will inform the evolution of Syrah's BAM product roadmap, the first generation completed in Q1 2018 - Spend during the quarter was for resourcing and capital for graphite anode and battery cell testing
Sales and marketing agreements	<ul style="list-style-type: none"> - Sales and marketing agreements announced with Marubeni and Morgan Hairong - Other negotiations are ongoing with potential battery market participants

(1) Initially planned milling and purification capacity of 10kt per annum, option to expand milling capacity to 16kt per annum

Summary

Syrah Resources

- Largest and one of the lowest cost and highest quality producers of natural flake graphite with up to 350ktpa capacity
- Strong demand profile outlook for natural graphite from lithium ion batteries for electric vehicles and power storage
- Sales agreements with traditional and battery market customers
- Opportunity to establish a core position in the battery supply chain through value added processing of graphite for anode materials
- Syrah remains the only major new supplier of flake graphite to world's battery market



BAM strategy leverages product quality, location and timing to establish position and maximise value

Electric Vehicle driven battery growth of 25% 10Y CAGR (in GWh) to 2025

Market and Strategy

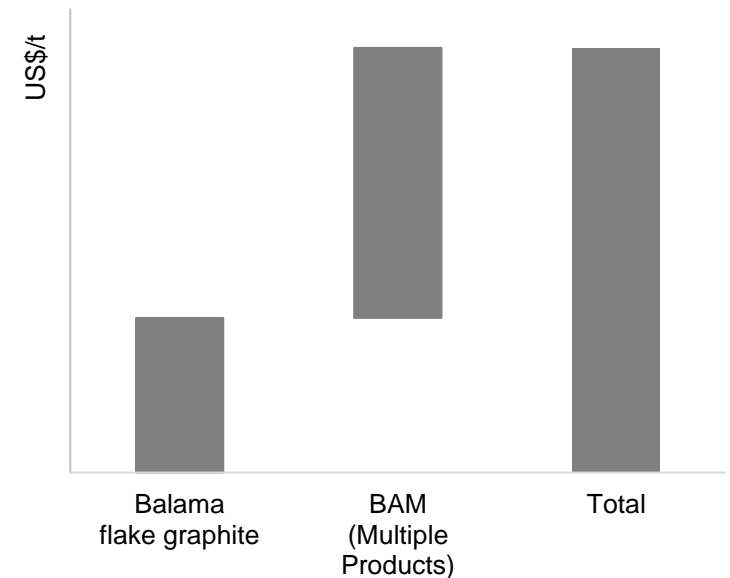
BAM market opportunity and margins are driven by:

- Anode **quality and performance** in the battery
- **Cost** of alternative materials
- **Security** of supply and sourcing **diversification**
- **Intellectual property** and **technology expertise**

Syrah's BAM strategy is to:

- Highlight quality through **testing and benchmarking**
- **Capture value in use** upstream
- Commence **low risk BAM production in Louisiana**
- Provide baseload **supply security and diversification**
- **Leverage relationships to move down the value chain** for market entry and value

Value



SYRAH RESOURCES