

# Syrah Resources Annual General Meeting

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# Focus on Health, Safety and Environment

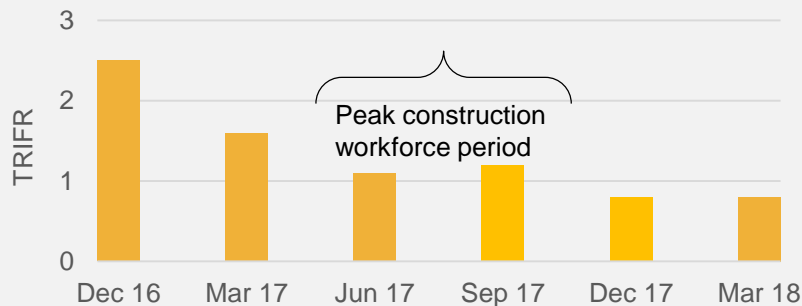
## Health and Safety remains highest priority

- Balama development underpinned by highest standards of health and safety
- Continued development of health & safety leadership
- Commitment reflected in TRIFR 0.8 per million hours worked at end of 2017 vs 2.5 end of 2016

## Environmental sustainability

- Over 200 environmental licence conditions met in 2017
- Sample data includes: surface water, air quality, noise, dust, flora and fauna parameters

## Safety improvement achieved in 2017

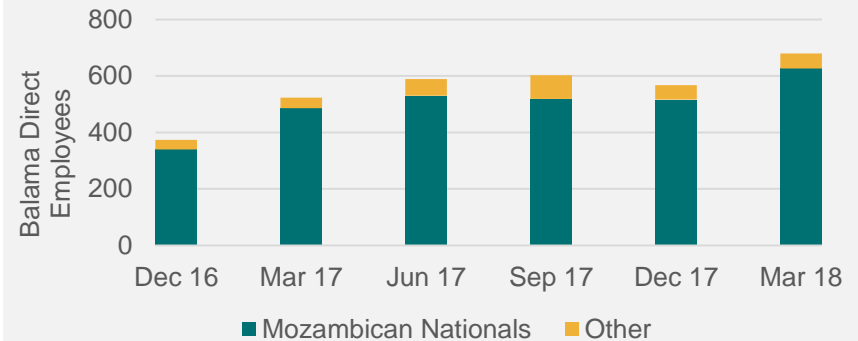


# Community engagement strengthens as Balama ramps up operations

## Employment

- Highly skilled, experienced and well trained Mozambican Nationals employed at Balama
- Large number of employees from 8 local host communities
- Many local people entering stable employment for the first time

## Balama Employees >90% Mozambican



## Community Initiatives

- Health programs
- Balama Training Centre
- Remediation works on Chipembe Dam
- Ongoing provision of clean water
- Irrigation and agricultural program



# Syrah Resources: 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

## 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

## Largest natural graphite producer

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

## 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



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

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

**Our Values and People underpin how we execute our strategy**

**Deliver value for stakeholders and shareholders**



**SYRAH RESOURCES**

# Balama development 2017



Jan 2017 - Plant site



Mar 2017 – Primary milling



May 2017 – Polishing mills and thickener



Aug 2017- Primary Milling and Flotation



Nov 2017 - Plant site



Nov 2017 – First production of coarse graphite



# Balama graphite operations commenced



Crushing and primary milling



Flotation cells



Polishing mills



Thickener and process water storage



Flakes and fines drying; screening and bagging



15MW Power station



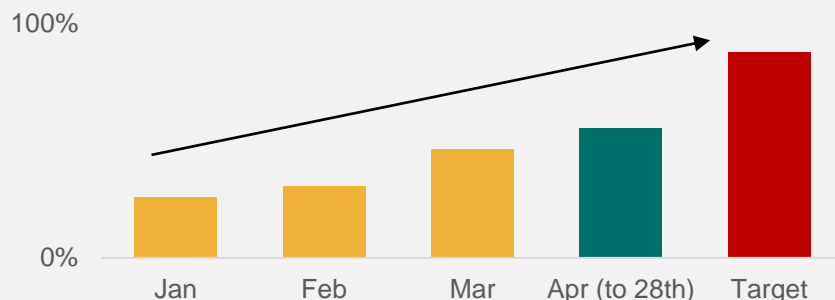
# Balama Graphite Operation: Production rates improving

## 2018 Production 160kt – 180kt

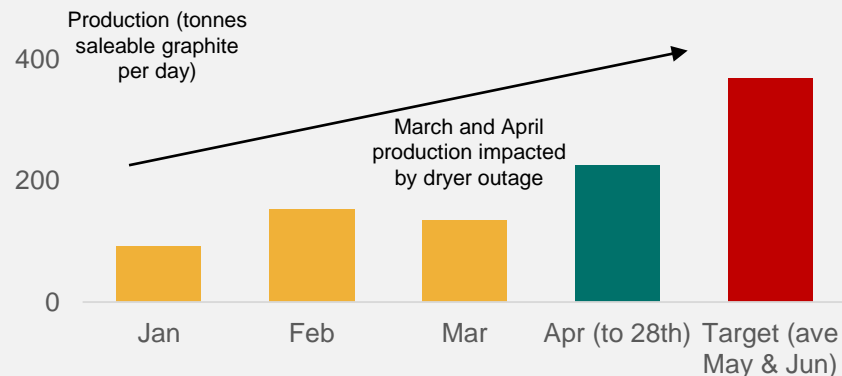
- Targeting lower end of guidance 160kt to 180kt<sup>1</sup>
- Planned production ramp up 25% H1, 75% H2 – Q2 and H2 profiles broadly similar to original plan
- Operating costs in line with expectations, well positioned to achieve C1 <US\$400/t<sup>2</sup> by end 2018
- Strong plant throughput performance post dryer repair, combined with continued improvement in graphite recoveries and improved plant stability positions the operation well for continued progressive production ramp up, with maximum daily production achieved in April of 470 tonnes

### Flotation optimisation improving recoveries

Recoveries



### Daily production increasing



- (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. All material assumptions underpinning the production target in these announcements continue to apply and have not materially changed.
- (2) C1 cash operating costs (FOB Port of Nacala, excluding government royalties and taxes)



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# Balama Inauguration April 2018

President of Mozambique, His Excellency Mr Filipe Nyusi, officially opening Balama



Greeting Syrah MD & CEO, Shaun Verner



Traditional tree planting



Local community



Bagging of graphite concentrate



Unveiling of commemorative Balama plaque



Balama inauguration plaque

# Syrah to become the first truly global supplier of natural flake graphite

## Sales Agreements

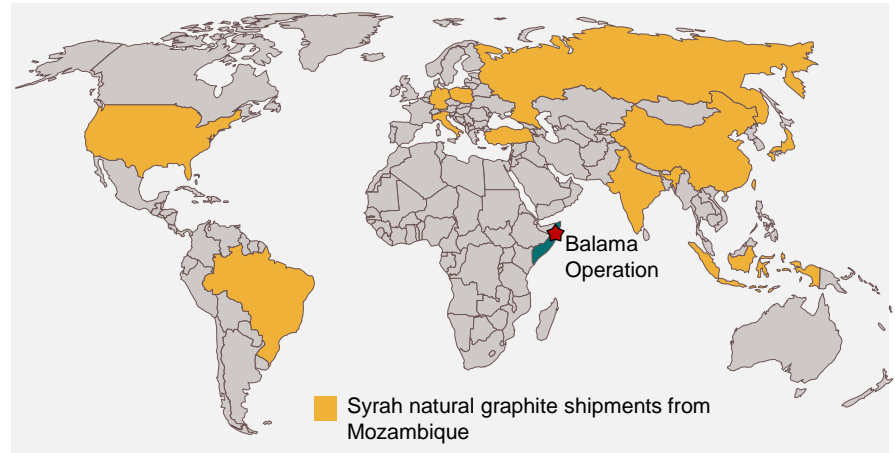
- Additional binding sales agreements in 2017 and 2018
- Sales to Chinese anode material market – first significant import of graphite into China
- Focus on diversification of sales book across geography and end use markets

## Customer end use markets

- Battery anode material
- Steel making
- Industrial
- Expandable graphite

## Pricing

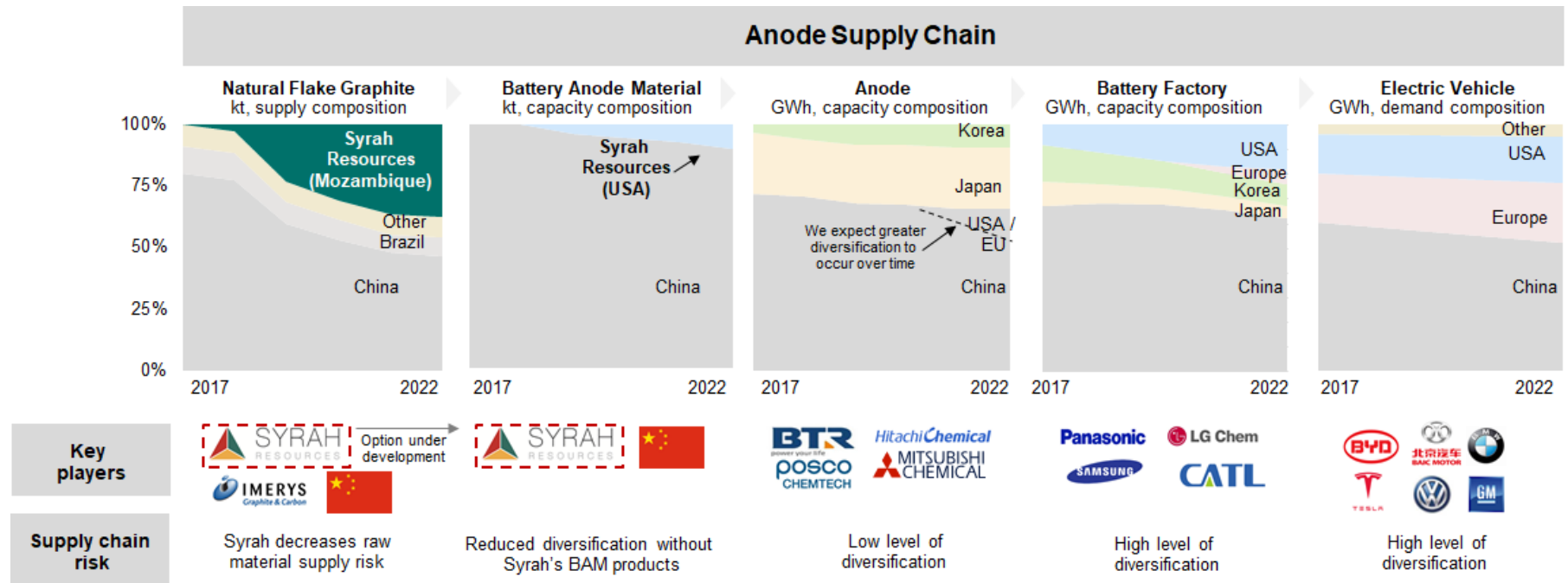
- Pricing is bespoke
- Bilateral agreement, not based on any index or benchmark prices
- Price discovery to develop further



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# Downstream strategy to produce spherical graphite is driven by an opportunity to be the first major and integrated producer outside China



Source: Syrah Resources

# Battery Anode Material (BAM) Project

## BAM preferred site identified

- Letter of Intent to purchase an industrial site in Vidalia, Louisiana, exclusive rights to purchase
- Air and water environmental discharge requirements met
- Attractive development incentives from Vidalia and strong development support
- Retain options for alternative site development

## Benchmarking reconfirms battery suitability

### Testing reconfirms:

- Precursor<sup>1</sup> materials have core properties required by global battery industry
- Finished BAM products<sup>2</sup> using industry standard processing have equivalent electrochemical performance to tier 1 competitors enabling market entry

## Strategic Priorities

- Complete BAM site acquisition
- Feasibility study of potential commercial expansion BAM facility by end Q3 2018
- Installation and operation of initial 5kt milling and shaping followed by integration of chemical purification
- Detailed customer negotiations

## Product Roadmap

- Initial production of unpurified qualification product (3-4 months post site finalisation)
- First purified spherical graphite end 2018
- Near term supply of precursor graphite for anode products in 2018 and 2019
- Potential for next generation anode material technology in 2020

(1) Precursor products comprises of uncoated spherical graphite and uncoated purified spherical graphite

(2) Finished BAM product is coated purified spherical graphite



# Finance and Corporate

## Finance

- Cash balance as at 31 March 2018 US\$80.5 million
- Q2 2018 forecast net cash outflow US\$25m, 30 June 2018 cash ~ US\$55m
- Targeting positive cash flows from operations at Balama ~ mid H2 2018
- Timing of BAM major capital expenditure post site selection will be made in consideration with Balama cash flow profile

## Corporate

- COO Julio Costa appointed
  - Significant mining and operations expertise having worked for Alcoa, Rio Tinto and Vale



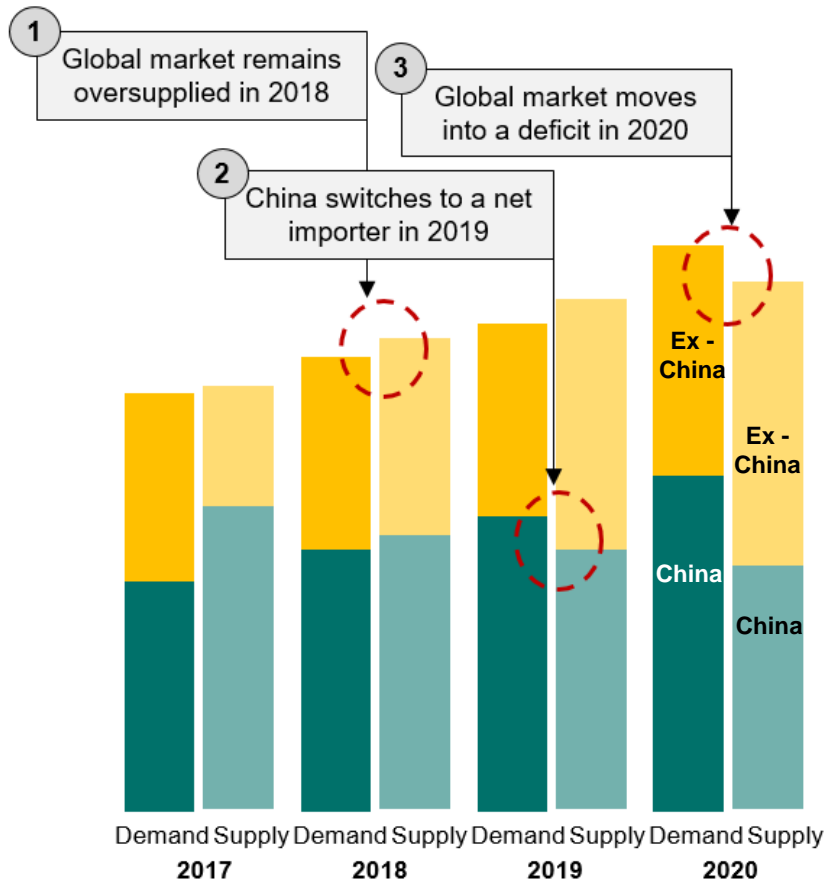


# Graphite Market



# China and the global flake graphite market is moving towards a supply deficit in the near term

## Global flake graphite market



Source: Syrah Resources internal demand and supply model

### Supply

- Majority of incremental global supply is from Syrah Resources before 2021
- China's higher cost supply to rationalise over the coming years due to resource depletion and environmental pressures; stabilises thereafter

### Demand

- Almost all incremental demand growth comes from the lithium ion battery sector in the short and long term
- Other applications such as expandable and shapes are high value per tonne but low volume markets

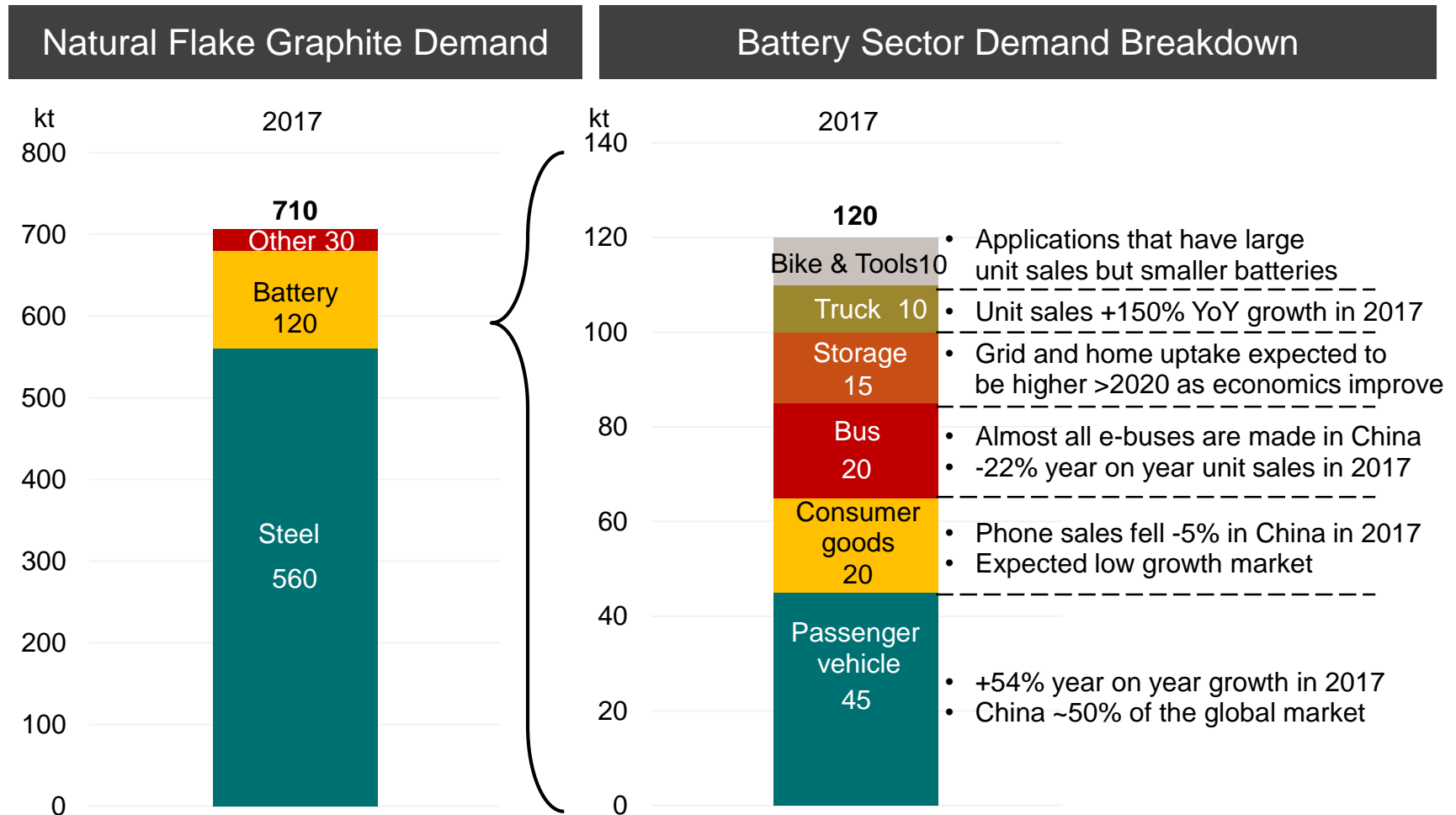
### Trade

- Global trade flows will structurally change as China moves to a net importer in 2019/20 as Chinese anode production grows
- Ex-China users currently sourcing graphite from China will require additional sources of supply

### Price

- Syrah expects China's movement from a net exporter to importer to support prices

# Battery sector demand growth for flake graphite driven by passenger vehicles and trucks in 2017



Source: Syrah Resources internal supply and demand model, CEIC, World Steel Association

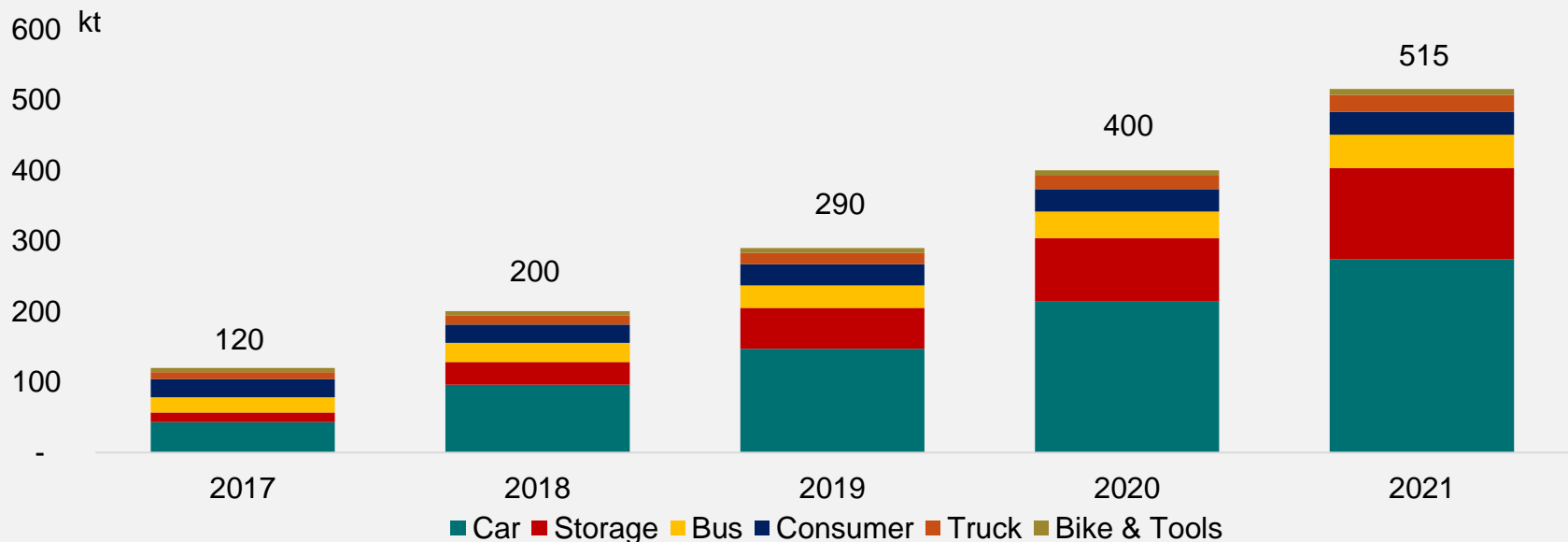


# Natural flake graphite market outlook: Battery sector

## Rapid growth of lithium ion battery market expected

- Syrah estimates an increase in demand of nearly 400kt from the battery sector between 2017 and 2021, to ~500kt
- Assume an electric vehicle penetration rate of 5.5% (global) and 9% (China) to reach 2021 demand forecast
- Expect energy storage to be a major market >2021 due to renewable energy integration in homes and grids

## Lithium ion battery demand by end use application



Source: Syrah Resources internal demand and supply model



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# Summary

Syrah establishing solid foundation as only major new supplier of graphite to battery market

## Syrah Resources

- Largest and one of the lowest cost and highest quality producers of natural flake graphite
- 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
- Will establish a 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

