

Pilgangoora – positioned for the future of lithium raw material supply

Corporate Presentation – May 2020



**Pilbara
Minerals**

...Powering a sustainable energy future

ASX: PLS



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Important Notices



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Recipients of this presentation outside Australia should note that it is a requirement of the Australian Securities Exchange listing rules that the reporting of ore reserves and mineral resources in Australia comply with the Australasian Joint Ore Reserves Committee Code for Reporting of Mineral Resources and Ore Reserves (“JORC Code”), whereas mining companies in other countries may be required to report their ore reserves and/or mineral resources in accordance with other guidelines (for example, SEC Industry Guide 7 in the United States). Recipients should note that while Pilbara Minerals’ mineral resource and ore reserve estimates comply with the JORC Code, they may not comply with the relevant guidelines in other countries, and do not comply with SEC Industry Guide 7. In particular, SEC Industry Guide 7 does not recognise classifications other than proven and probable reserves and, as a result, the SEC generally does not permit mining companies to disclose their mineral resources, including indicated and inferred resources, in SEC filings. Accordingly, if Pilbara Minerals were reporting in accordance with SEC Industry Guide 7, it would not be permitted to report any mineral resources, including indicated and inferred resources, and the amount of reserves reported by Pilbara Minerals may be lower than its estimates. You should not assume that quantities reported as “resources” will be converted to reserves under the JORC Code or any other reporting regime or that Pilbara Minerals will be able to legally and economically extract them. In addition, investors should note that under SEC Industry Guide 7, mine life may only be reported based on ore reserves. Mine life estimates in this presentation assume that a portion of non-reserve resources will be converted to ore reserves, which would not be permitted under SEC Industry Guide 7.

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No new information regarding the Pilgangoora Project

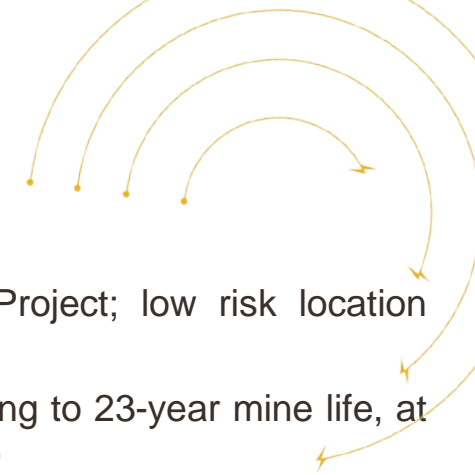
Information relating to the current mineral resource and ore reserve estimates, production targets and forecast information derived from the production targets (including information relating to the proposed expansions of the Pilgangoora Project), each in respect of the Pilgangoora Project, is extracted from the ASX announcement dated 3 August 2018 entitled “Outstanding DFS Results Support Pilgangoora Expansion”, the ASX announcement dated 17 September 2018 entitled “Pilgangoora Reserve and Resource Upgrade”, the ASX announcement dated 26 March 2019 “Stage 3 Scoping Study Outcomes”, the ASX announcement dated 27 August 2019 entitled “Update on Partnering Process and Revised Stage 2”, and as updated in the 30 June 2019 Annual Report.

Pilbara Minerals confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the resource and reserve estimates, production targets and forecast financial information derived from the production targets in the announcements continue to apply and have not materially changed. Pilbara Minerals confirms that the form and context in which the Competent Persons’ findings are presented have not been materially modified from the original market announcements.

The scoping and other technical studies referred to in this presentation in respect of the Revised Stage 2 expansion and the Stage 3 expansion have been undertaken to determine the potential viability of those expansions and to reach a decision to proceed with more definitive studies. Each scoping study has been prepared to an accuracy level of $\pm 30\%$. Each scoping and technical study is based on low-level technical and economic assessments and is insufficient to provide assurance of an economic development case at this stage or provide certainty that the conclusions of the scoping study will be realised. The results of the scoping studies should not be considered a profit forecast or production forecast.



Pilbara Minerals

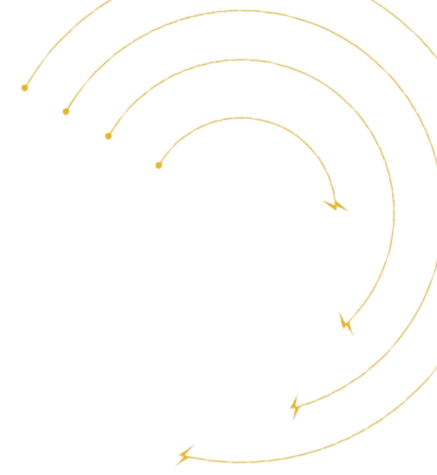


- 100% owned Pilgangoora Lithium-Tantalum Project; low risk location close to all key infrastructure (including port)
- >40 year mine life (Stage 1 2mtpa only) reducing to 23-year mine life, at 5Mtpa processing capacity (Stage 2 expansion)
- Leading partners; General Lithium, Ganfeng Lithium, Great Wall Motors (SVOLT), POSCO, CATL and Yibin Tianyi
- Downstream partnership development with POSCO
- Products:
 - ~6% Li_2O spodumene concentrate
 - +5% primary tantalite concentrate
- Low cost – operating costs expected to trend towards US\$320-US\$350/dmt CIF China once continuous nameplate production capacity is achieved
- Exploration and reserve growth upside
- Multi-stage mine expansion and targeted downstream participation:
 - Stage 1, in production (330ktpa nameplate capacity, production currently moderated)
 - Stage 2, phased expansion study nearing completion (up to 800-850ktpa)
- ASX200, ≈\$450M¹ market cap

¹As at 6 May 2020



Operational journey

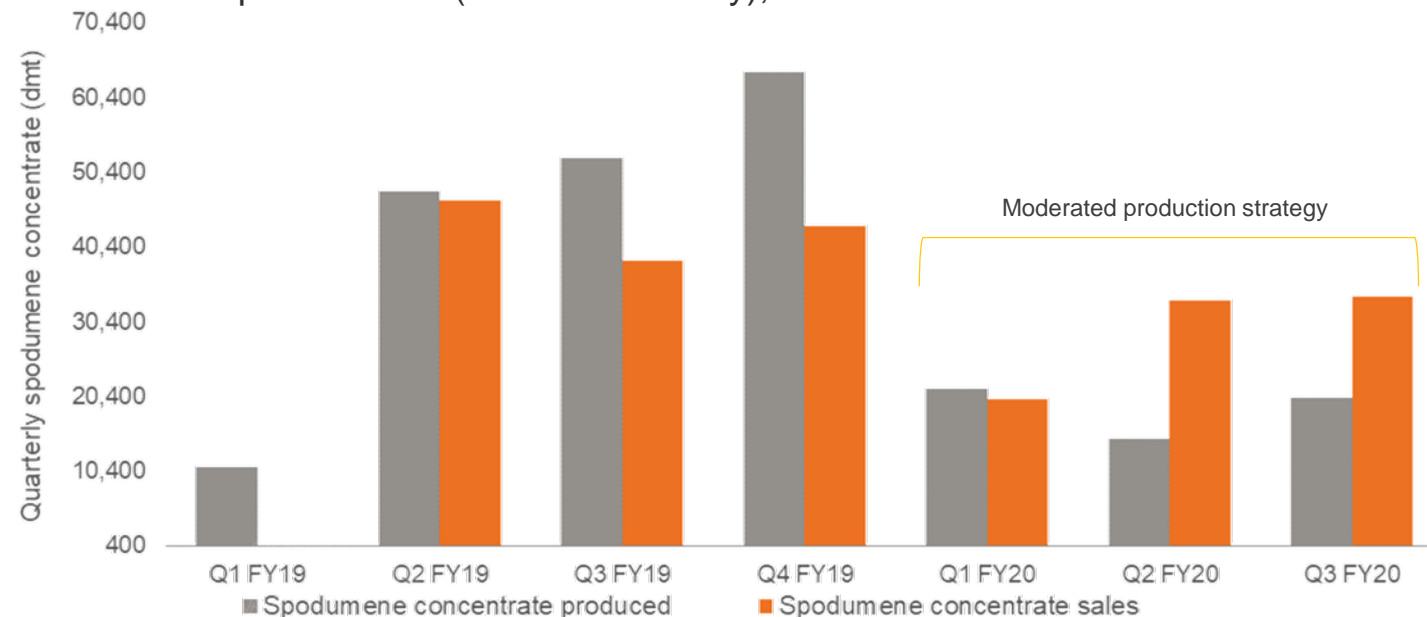


Nameplate production (Stage 1)

- ~330,000tpa, ~6% Li₂O spodumene concentrate
- ~321,000lbspa, +5% primary tantalite concentrate

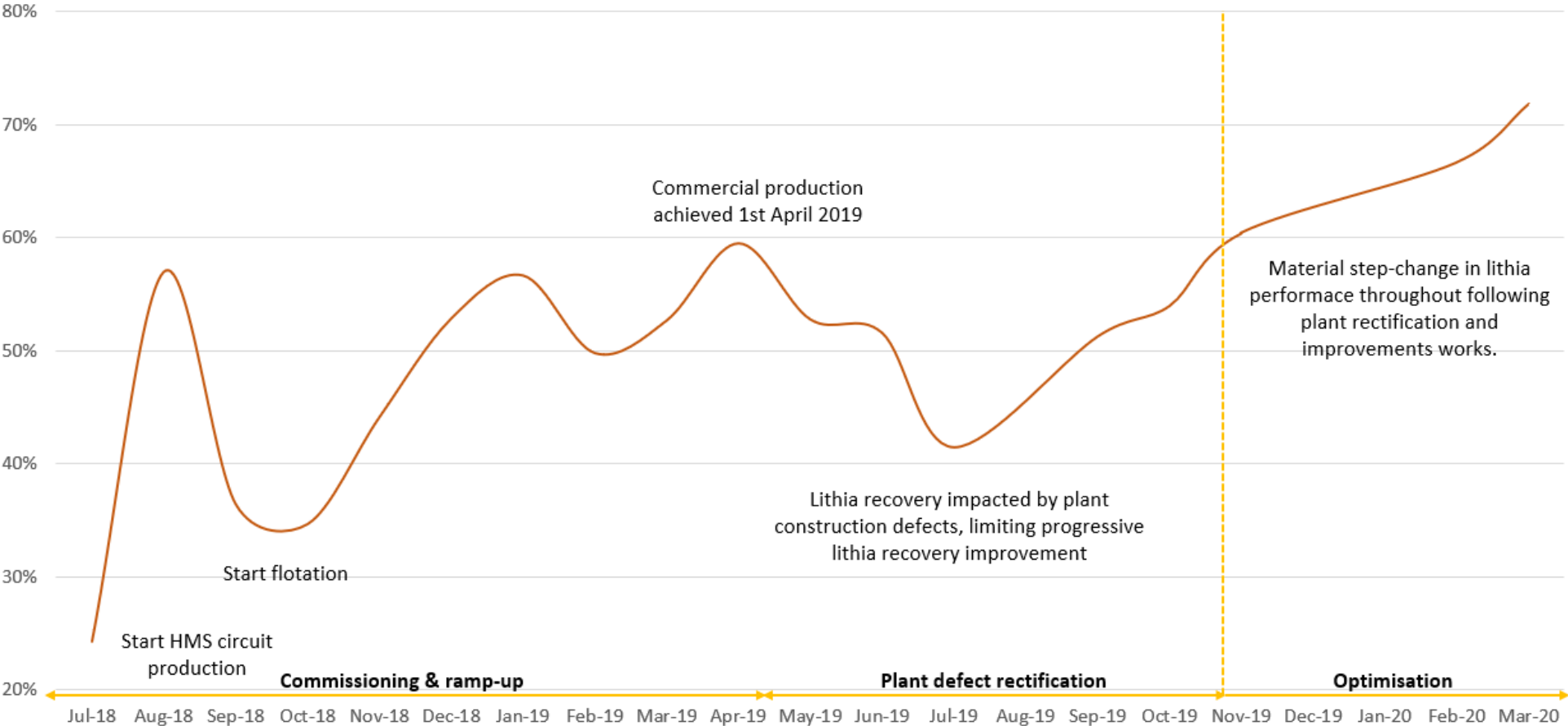
Moderated production strategy currently in place in response to soft market conditions

- Prudent cash flow management strategy, maintaining strong cash reserves
- Healthy March Qtr cash balance of \$108.2M (31 December 2019: \$105.5M), inclusive of \$7.2M of irrevocable bank letters of credit for shipments completed in late March 2020
- Process plant and mining campaigns currently in progress as moderated production strategy continues:
 - Exceptional plant performance
 - Consistent improved lithia recovery rates, with recovery now largely in line with plant design specifications (72-78% recovery), with fresh ore feed



Operational journey

Overall lithia recovery¹ since the commencement of Pilgangoora production



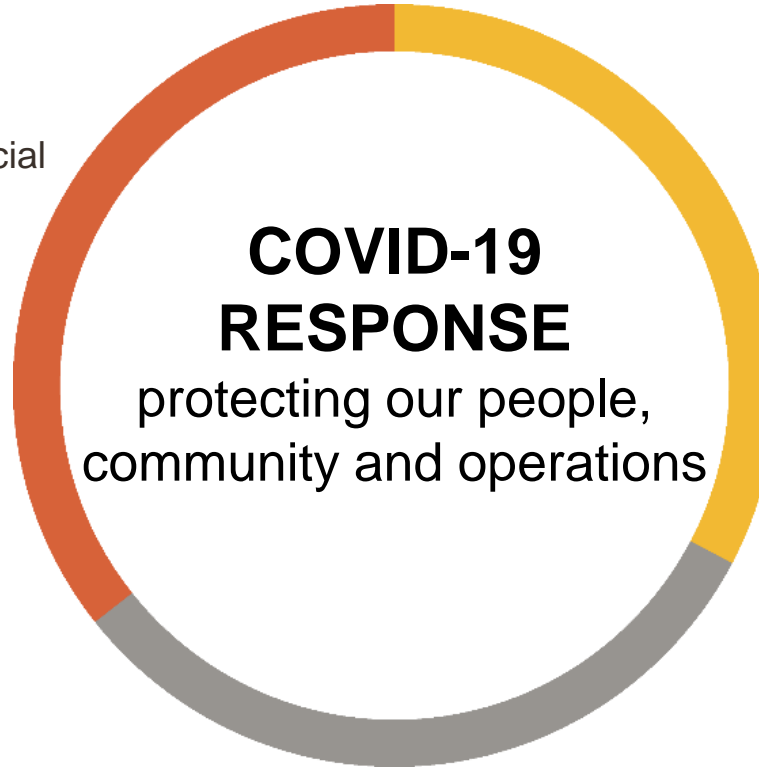
Process plant and mining campaigns currently in progress at Pilgangoora as the Company’s moderated production strategy continues:

- exceptional plant performance and recoveries being achieved
- recent campaigns continuing to highlight Pilbara Minerals’ ability to improve lithia recovery performance, which is now largely in line with plant design specifications (72% - 78% recovery, dependent on the ore blend being delivered to the plant)

¹ Monthly reconciled lithia recoveries. There was no lithia recovery during months Aug-19, Dec-19, Jan-20 due to no plant production as part of moderated operations.

OUR PEOPLE

- Health checks and screening
- Reduction of people movements
- Engagement on personal hygiene, social distancing and personal health responsibilities
- Mental health initiatives and regular communications



OUR OPERATIONS

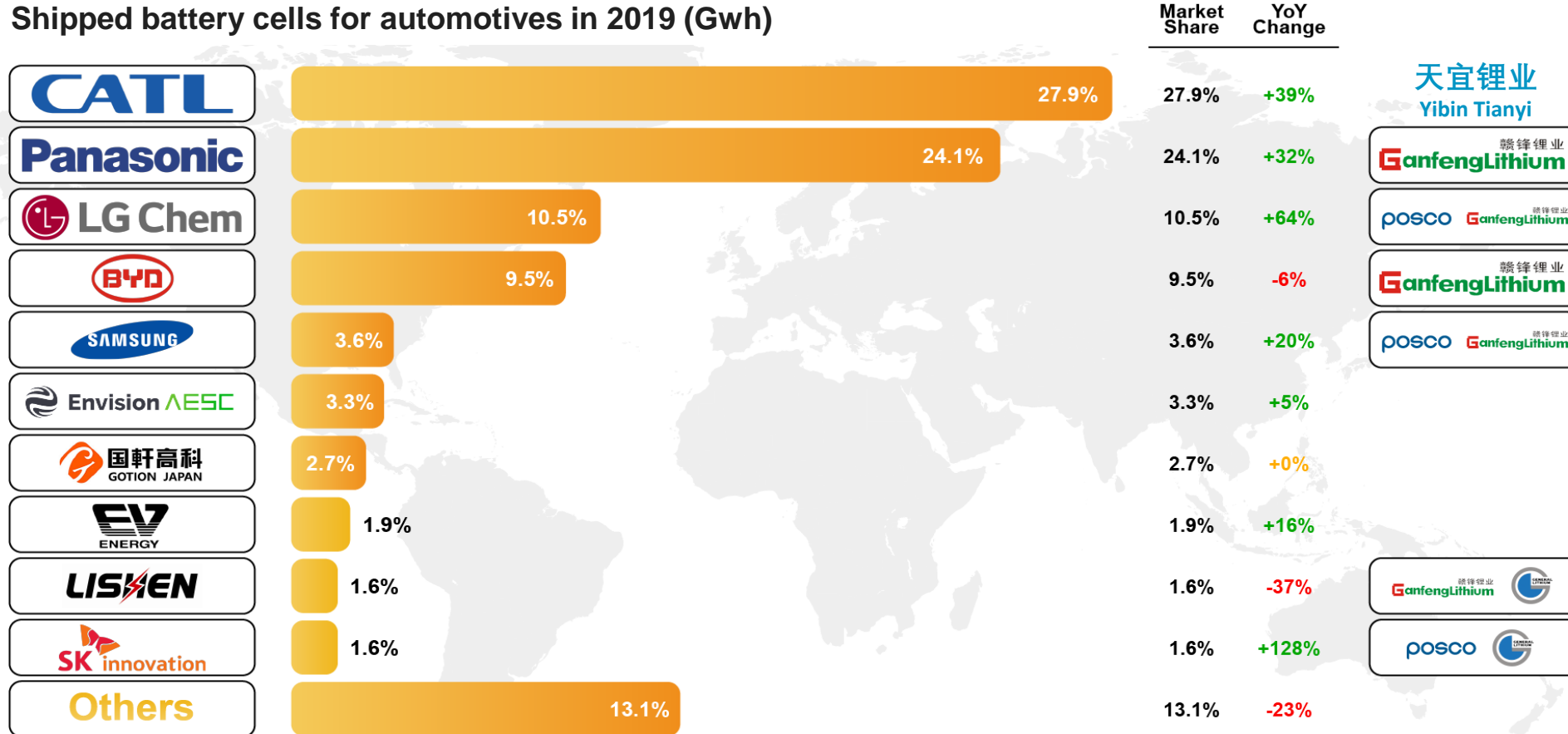
- Increased sanitation and cleaning procedures
- Activation of response plans and procedures
- Social distancing in transportation and across project site
- All non-essential travel banned
- Engagement with customers

OUR INDUSTRY

- Complying with government directives
- Engagement with industry
- Alignment Resource Industry Implementation Framework
- Local community response engagement
- Monitoring end-use demand

Our customers and partners supplying the biggest and highest quality battery manufacturers in the world

Shipped battery cells for automotives in 2019 (Gwh)



Source: 'Shipped Battery Cells for Automotive in 2019' Roland Zenn compiled from SNE Research 02/2020

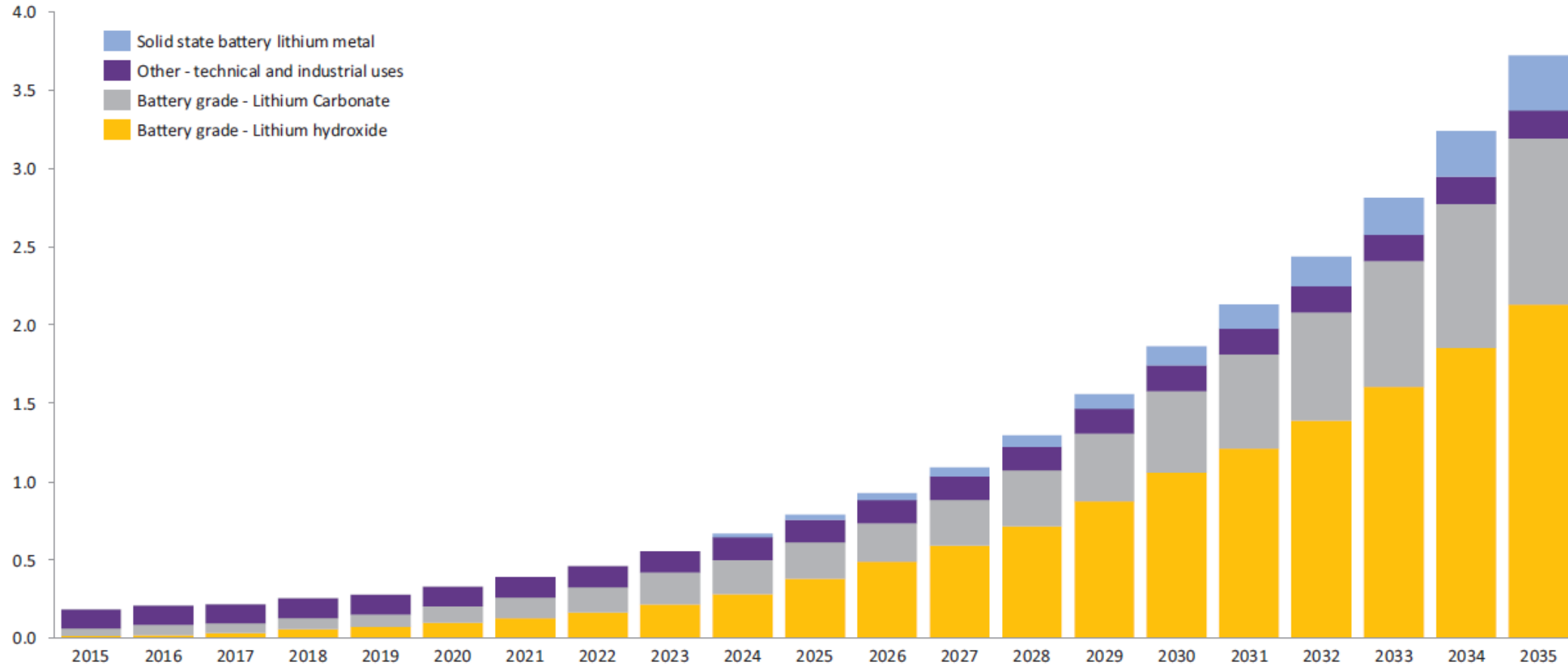
Note: Customer relationships based on Pilbara Minerals' estimates



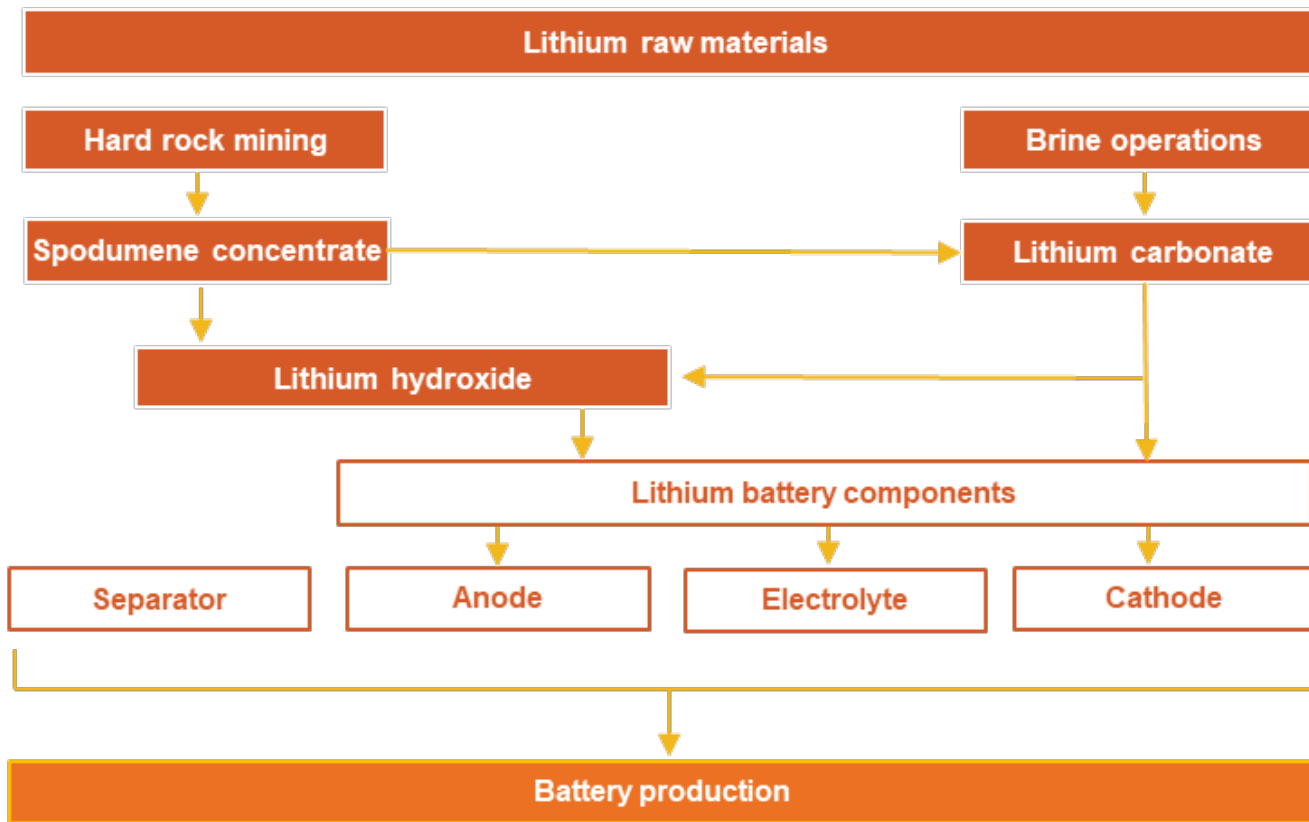
Lithium hydroxide the product choice of the future

Lithium demand by lithium chemical product – 2015 to 2035

Million LCE tonnes



Source: Benchmark Mineral Intelligence (2019)



Hard rock lithium

The direct conversion into lithium hydroxide makes hard rock more cost competitive and the preferred feedstock for the emerging high nickel cathode chemistries, which support energy dense batteries that enable extended driving range

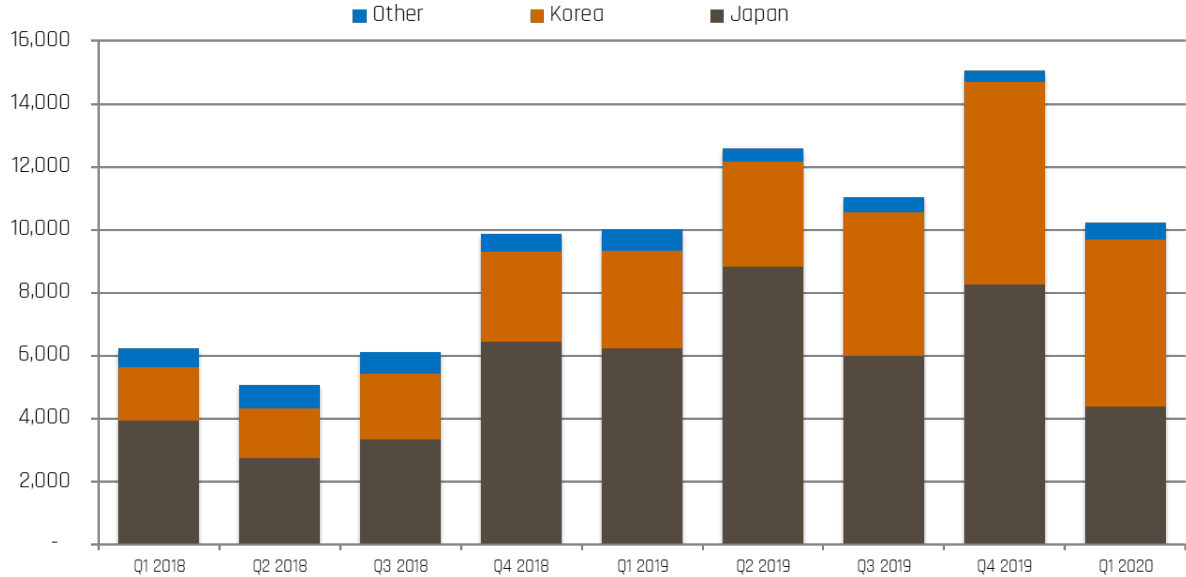


Spodumene consolidating its competitive advantage in hydroxide

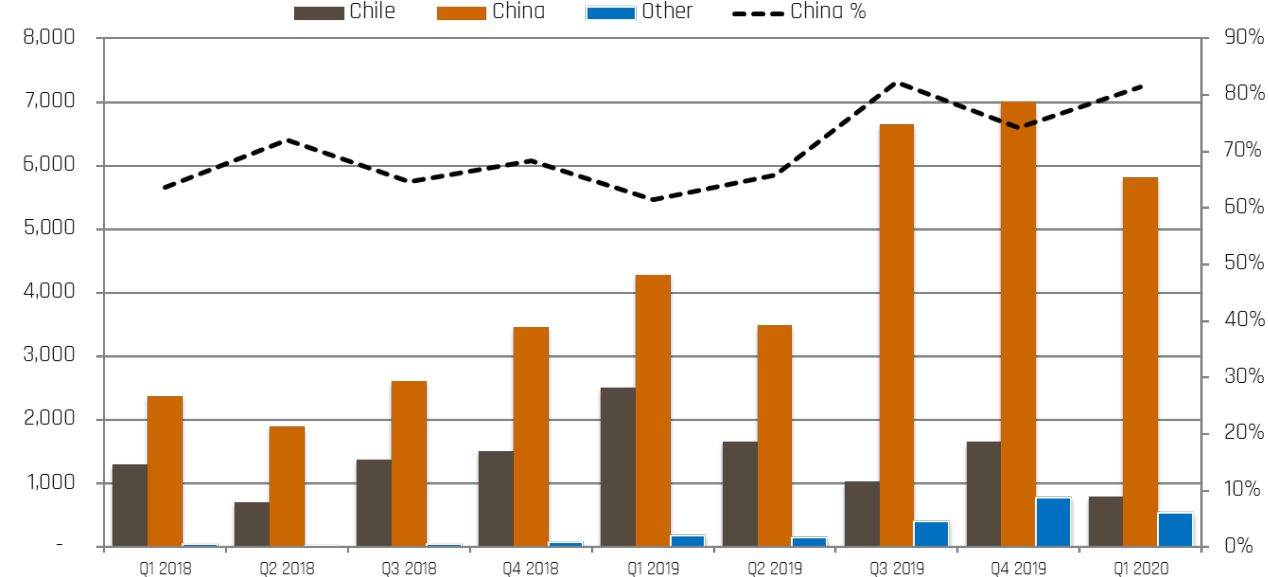
China, and the low-cost spodumene they rely on, is now firmly embedded in the global lithium hydroxide supply chain and growing strongly



China, lithium hydroxide exports



Korea, lithium hydroxide imports



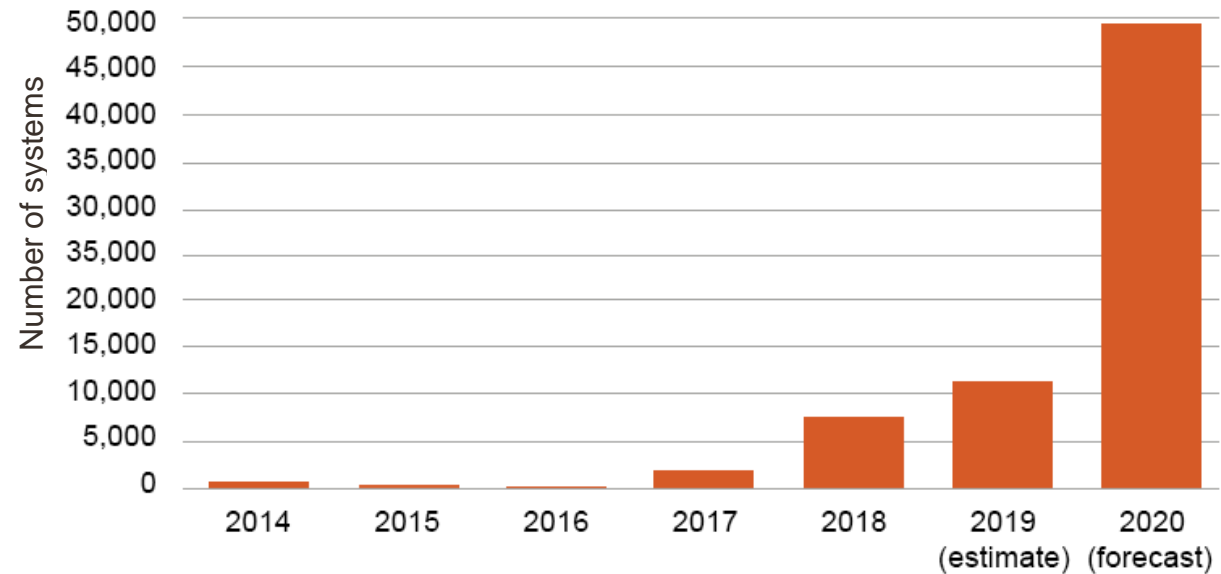
Data Source: Bloomberg Battery Metals Monthly, April 2020

Battery storage markets gaining traction

Lower cost driving energy storage installation and larger scale facilities

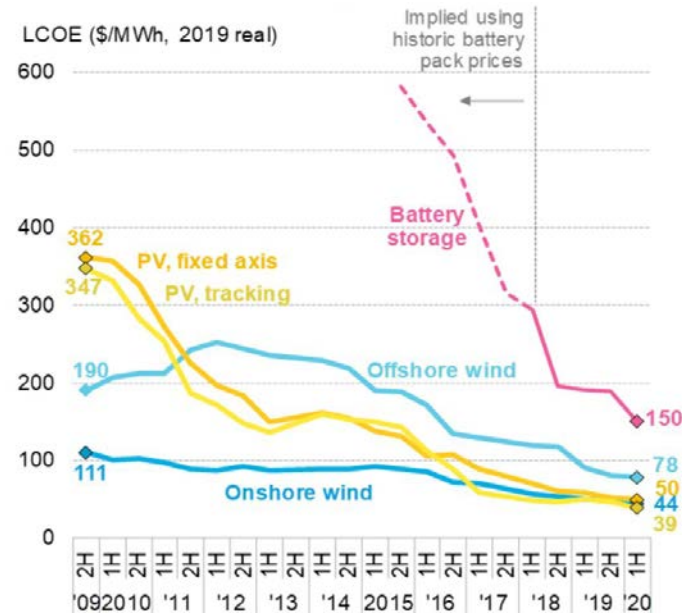


California residential energy storage installations



Source: BloombergNEF, EIA Form 861M

Global Levelized Cost of Energy (LCOE) benchmarks – PV, wind and batteries



Source BloombergNEF.
 Note: The global benchmark is a country weighted-average using the latest annual capacity additions. The storage LCOE is reflective of utility-scale projects with four-hour duration and it includes the charging costs.

Pilgangoora an exceptional growth opportunity

UPSTREAM

STAGE 1: 2MTPA

STAGE: Operations

STATUS:
Moderated production and shipments

PRODUCTION:

- 330,000tpa ~6% spodumene concentrate
- 321,000lbspa +5% tantalite concentrate

OFFTAKE:
Stage 1 spodumene concentrate ~100% under agreement

STAGE 2: 5MTPA

STAGE: DFS completed on original Stage 2 project, staged expansion studies underway

STATUS:
Revised Stage 2 expansion under consideration
- Further technical studies underway expected to be completed during June qtr 2020

PRODUCTION:
Incremental build out to

- 800-850,000tpa ~6% spodumene concentrate
- 800,000lbspa +5% tantalite concentrate

OFFTAKE:
Stage 1 and 2 spodumene concentrate ~100% under agreement

STAGE 3: 7.5MTPA*

STAGE: Proposed subject to market demand

STATUS:
Scoping study complete. On hold pending customer demand

PRODUCTION:

- Up to ~1.2Mtpa ~6% spodumene concentrate
- ~1,100,000lbspa +5% tantalite concentrate

OFFTAKE:
100% uncontracted

DOWNSTREAM

POSCO JV

STAGE: Detailed Term Sheet, subject to Board approvals

STATUS:
Subject to formal agreements, FID and Board approvals expected in Q3 CY2020

PRODUCTION:

- 40ktpa LCE facility
- 21% ownership with option to increase to 30%
- Commissioning expected from the March Quarter 2021

OFFTAKE:
POSCO developing the offtake pipeline for LCE product following final product qualification

* Up to 7.5Mtpa

Positioning Pilbara Minerals for market recovery

WORLD CLASS
LITHIUM -TANTALUM
PROJECT IN
PREMIUM MINING
JURISIDCTION

IMPROVED LITHIA
RECOVERIES AND
OPERATING COSTS

MODERATED
PRODUCTION
STRATEGY
CONSERVING
CASH

MASSIVE GROWTH
POTENTIAL WITH
IMPROVED
DEMAND



Pilbara Minerals

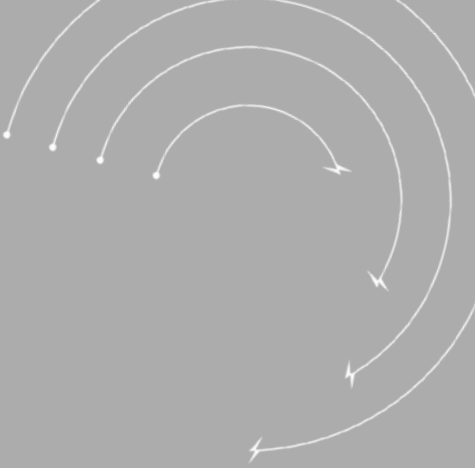
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Follow us on





LOW-COST

PROXIMITY TO MARKET
SOCIALLY RESPONSIBLE

VALUES

ENVIRONMENT
POLITICALLY STABLE
GROWTH

KEY INFRASTRUCTURE

WA HARD ROCK LITHIUM IS THE FUTURE

QUALITY PRODUCTS

LEADING PARTNERS

LOW SOVEREIGN RISK

SAFETY







CONFLICT FREE

STABLE GOVERNANCE

SUSTAINABILITY

DIVERSITY

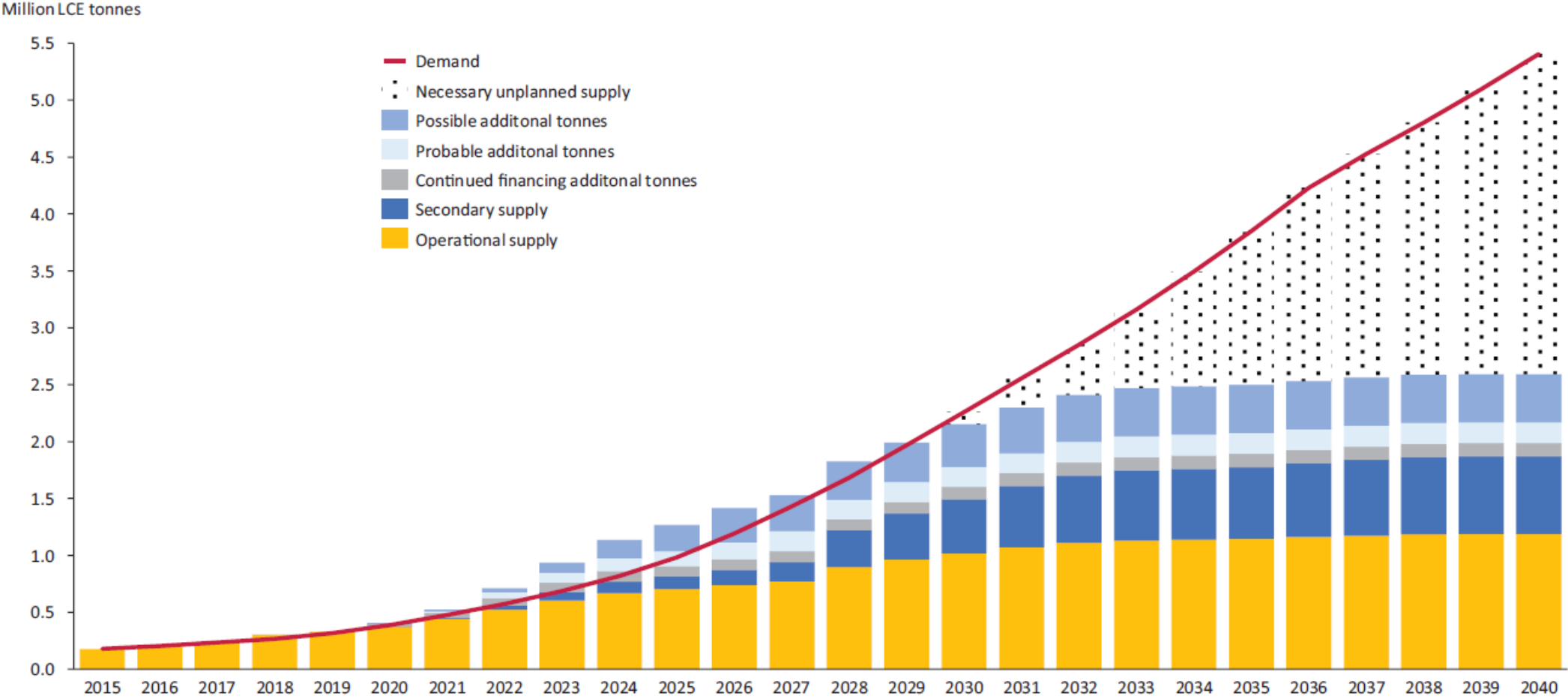
Strong relationships with leading, global partners

STRATEGIC PARTNER	PLS OFFTAKE / EQUITY	PARTNERSHIPS	CAPACITY (CURRENT AND FUTURE)
 <p>China's fourth largest lithium producer</p>	<p>120ktpa 6 year Offtake**</p>	<ul style="list-style-type: none"> Strategic partnership with major Chinese battery industry participants 	<ul style="list-style-type: none"> 22kt LCE - Jiangxi and Jiangsu Future: 82kt LCE on construction of Hubei plant (60Kt LCE)
 <p>World's third largest and China's largest lithium compounds producer</p>	<p>160ktpa 10 year Offtake** 150ktpa 10 year Offtake** (Stage 2)</p> <p>6.86% equity</p>	<ul style="list-style-type: none"> Strategic partnerships throughout the supply chain, including LG Chem, BMW, VW and Panasonic Tesla 	<ul style="list-style-type: none"> 67.5kt LCE - Jiangxi (two plants) Future: Aiming for 200kt LCE by 2025
 <p>World's fifth largest steel producer</p>	<p>315ktpa LOM Offtake*</p> <p>3.69% equity</p>	<ul style="list-style-type: none"> Existing battery raw materials production and diversification into lithium chemical conversion Major partnerships with LG Chem, Samsung SDI and SK Innovation 	<ul style="list-style-type: none"> Currently 4kt LCE via demo plant (hydroxide capacity). Other battery raw materials production including cathodes, anodes, nickel and cobalt sulphate Future: 40kt LCE Hydroxide in Gwangyang, South Korea in JV with Pilbara Minerals
 <p>China's largest SUV manufacturer</p>	<p>20ktpa Offtake (Stage 1) 150ktpa 10 year Offtake** (Stage 2)</p> <p>2.52% equity</p>	<ul style="list-style-type: none"> Establishment of battery R&D and manufacturing plant in Jiangsu by SVOLT Energy Technology, GWM wholly-owned subsidiary Strategic partnership with BMW 	<ul style="list-style-type: none"> 25kt LCE at Guangxi 7 x R&D centres, 4 currently in operation SVOLT Battery Plant (4GWH) in Jiangsu Future: 100GWh - SVOLT intends to build 5 lithium-ion battery plants by 2025 in China, Germany and US
 <p>China's largest lithium battery manufacturer</p>	<p>8.24% equity</p>	<ul style="list-style-type: none"> Strategic partnerships throughout the supply chain, including Tesla, Toyota, VW, BMW, Honda, Hyundai, Volvo and Daimler 	<ul style="list-style-type: none"> 40 GWh lithium ion battery capacity 30 GWh battery plant Yibin under construction 100 GWh battery factory in Germany by 2025
 <p>Associate company of CATL</p>	<p>75ktpa 5 year Offtake</p>	<ul style="list-style-type: none"> Key participant in the supply chain of CATL CATL 15% direct ownership 	<ul style="list-style-type: none"> Targeting 100ktpa LCE plant capacity First 25,000tpa LCE plant currently under construction

* 80kt Unconditional. Balance conditional on South Korean LiOH Plant JV and US\$25M prepayment. ** Options to extend

Lithium raw material demand only just beginning

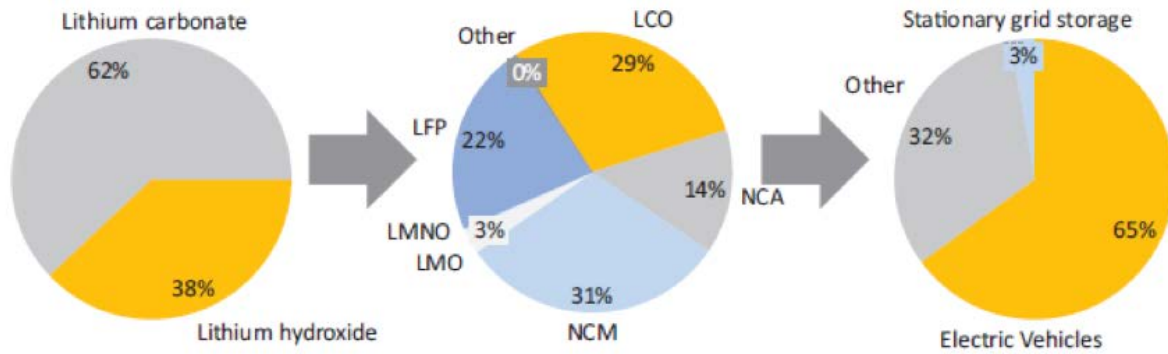
Long-term lithium chemicals supply forecast 2015 to 2035



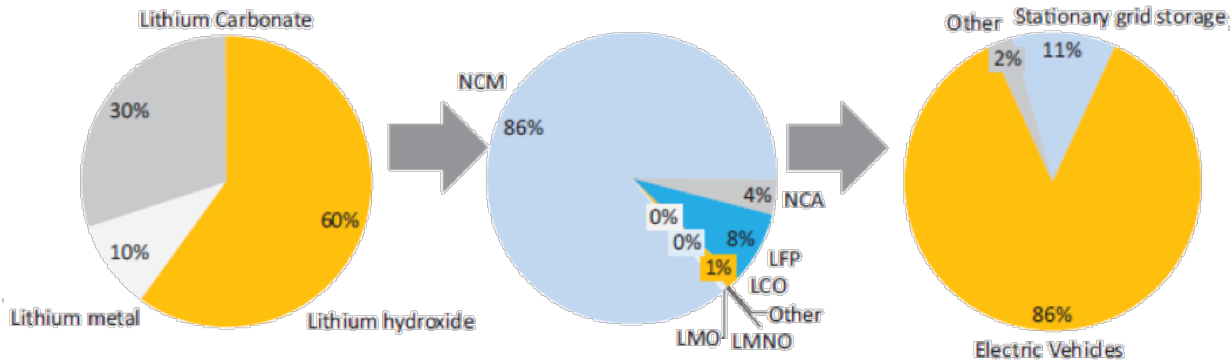
Source: Benchmark Mineral Intelligence (2019)

Battery technology of the future

Global lithium supply and breakdown of demand by end use 2018



Global lithium supply and breakdown of demand by end use 2035



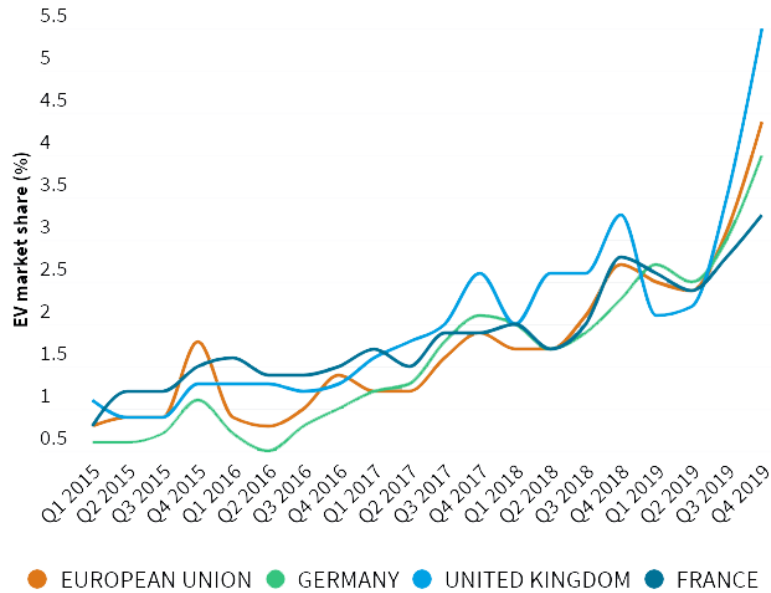
Note: LTO - Lithium-titanate, LFP - Lithium iron phosphate, LMNO - Lithium Manganese Nickel Oxide, LMO - Lithium Manganese Oxide, NMC - Lithium Nickel Manganese Cobalt Oxide, NCA - Lithium Nickel Cobalt Aluminium Oxide, LCO - Lithium Cobalt Oxide

Source: Benchmark Mineral Intelligence (2019)



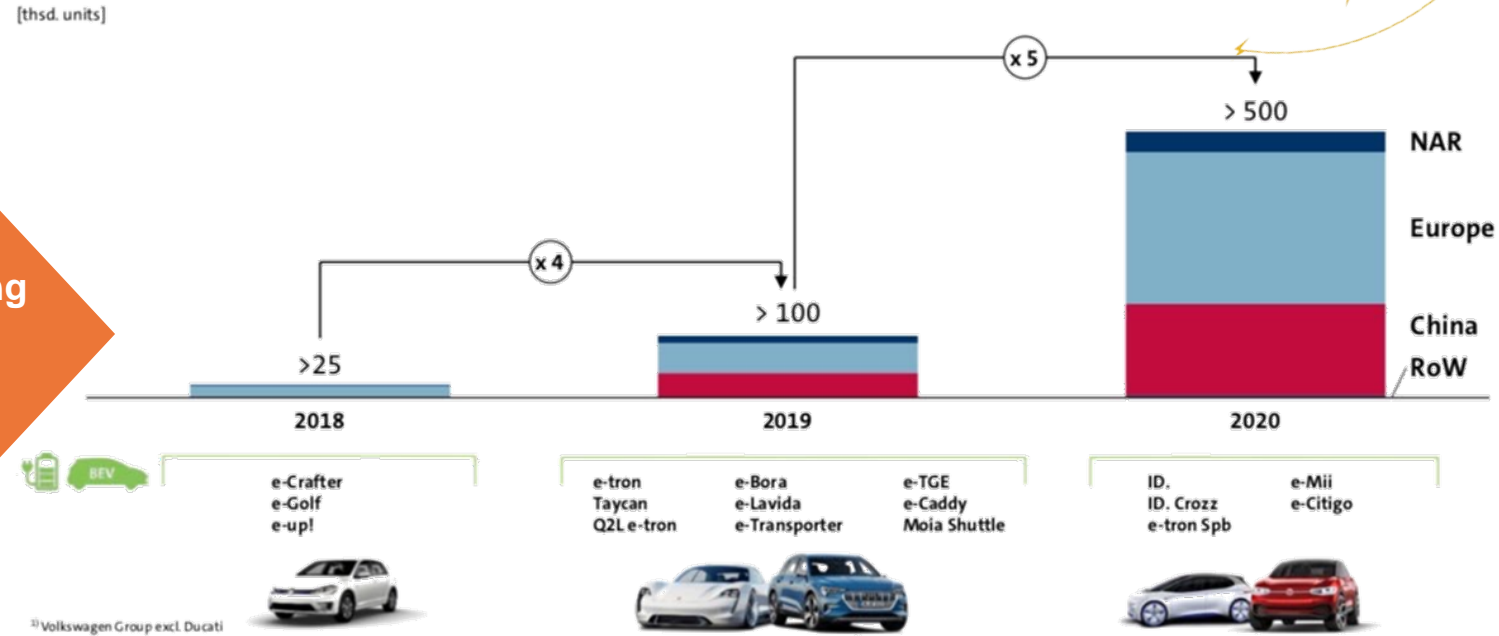
European market, EVs gaining traction

Quarterly EV sales in top European markets



VW targeting European markets

Volkswagen Group – expected BEV volumes by region¹



Includes both BEVs and PHEVs: 2.6% BEV and 1.8% PHEV in Q4 2019

Source: ACEA Quarterly Alternative Fuel Vehicle Registrations

Source: InsideEVs website (May 2019)

Car manufacturers gearing up for an electric future

All new cars launched by **Volvo** will be partially or completely battery-powered

Over the next 10 years **VW** will be launching 70+ new pure EVs

By 2023, **BMW** will offer 25 electrified models



Long term contracts to secure supply



Volkswagen

10+ year battery supply agreement LG Chem and CATL



Volvo

10-year lithium supply agreement with Ganfeng Lithium



Toyota

Half of global sales (10M in 2019) to be electric vehicles by 2025



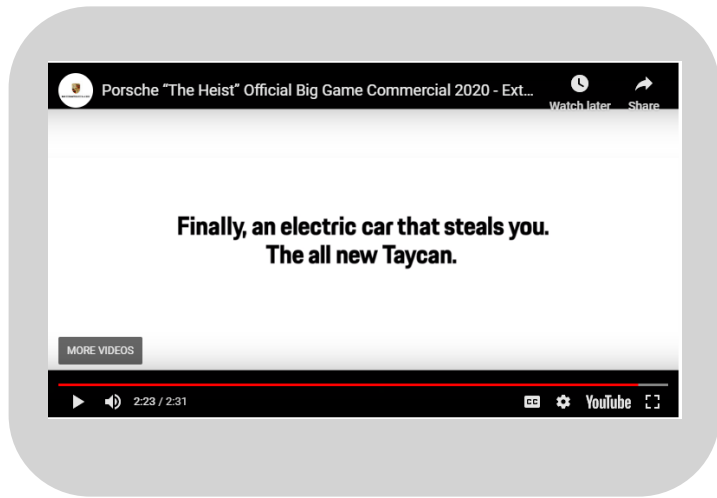
BMW

By 2023, BMW will offer 25 electrified models

Superbowl EV commercials

Big spending by car manufacturers to advertise their electric vehicle models at this year's Superbowl

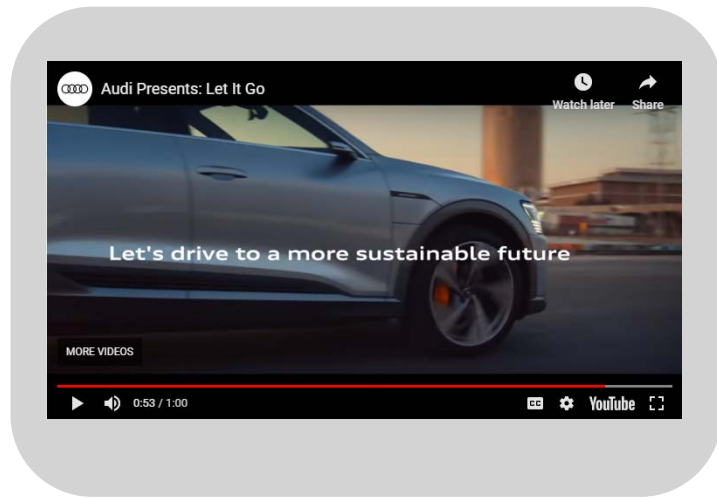
- Competition is heating up as EV brands grow (especially Tesla) and their sales steal market share
- Imperative for car manufacturers to demonstrate leadership and progress in EVs, otherwise brand diminishes
- Sales of their ICE cars are well-down and customers may well already have their eyes on the future product



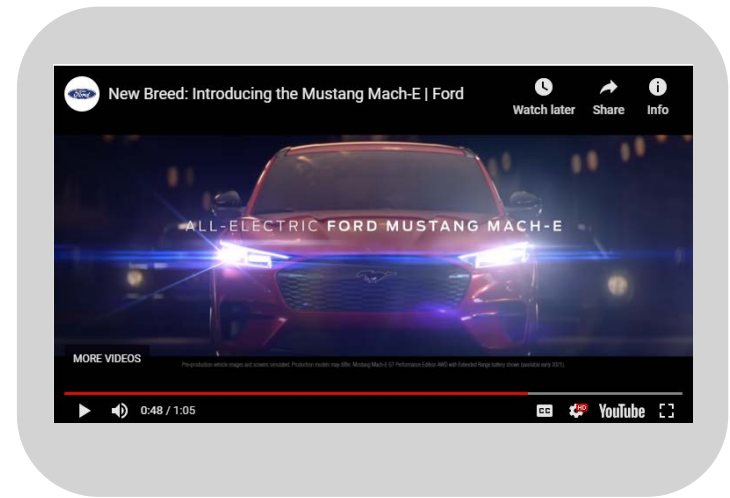
Porsche – Taycan Tubo S



GMC – Hummer EV



Audi – e-tron Sportback



Ford - Mustang Mach-E electric SUV

Positioning to capitalise on the future



Produce

- Achieve annual nameplate production capacity 330,000dmt of high-quality 6% spodumene concentrate and 300,000lbs of tantalite concentrate
- Optimise plant to improve recovery and lower operating costs

Grow

- Complete studies and secure funding for incremental Stage 2 expansion.
- Commence incremental project expansion in-line with customer demand
- Increase mine life through exploration

Diversify

- Finalise JV with POSCO to develop and operate a 40,000tpa downstream chemical conversion facility in South Korea
- Continue to expand and diversify our customer base