

Pilgangoora – positioned for the future

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**Pilbara
Minerals**

...Powering a sustainable energy future

ASX: PLS



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By attending a presentation or briefing, or accepting, accessing or reviewing this document you acknowledge, accept and agree to the matters set out above.

No new information regarding the Pilgangoora Project

Information relating to exploration results, 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 exploration results, 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. 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 and technical study has been prepared to an accuracy level of $\pm 30\%$. Each scoping 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

- ASX200, \$690M¹ market cap
- 100% owned Pilgangoora Lithium-Tantalum Project
- 23-year mine life, at 5Mtpa processing capacity
- Products:
 - ~6% Li₂O spodumene concentrate
 - +5% primary tantalite concentrate
- 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 (800-850ktpa nameplate capacity)
 - Downstream partnership development with POSCO
- Leading partners; General Lithium, Ganfeng Lithium, Great Wall Motors (SVOLT), POSCO and CATL

¹As at 21 February, 2020

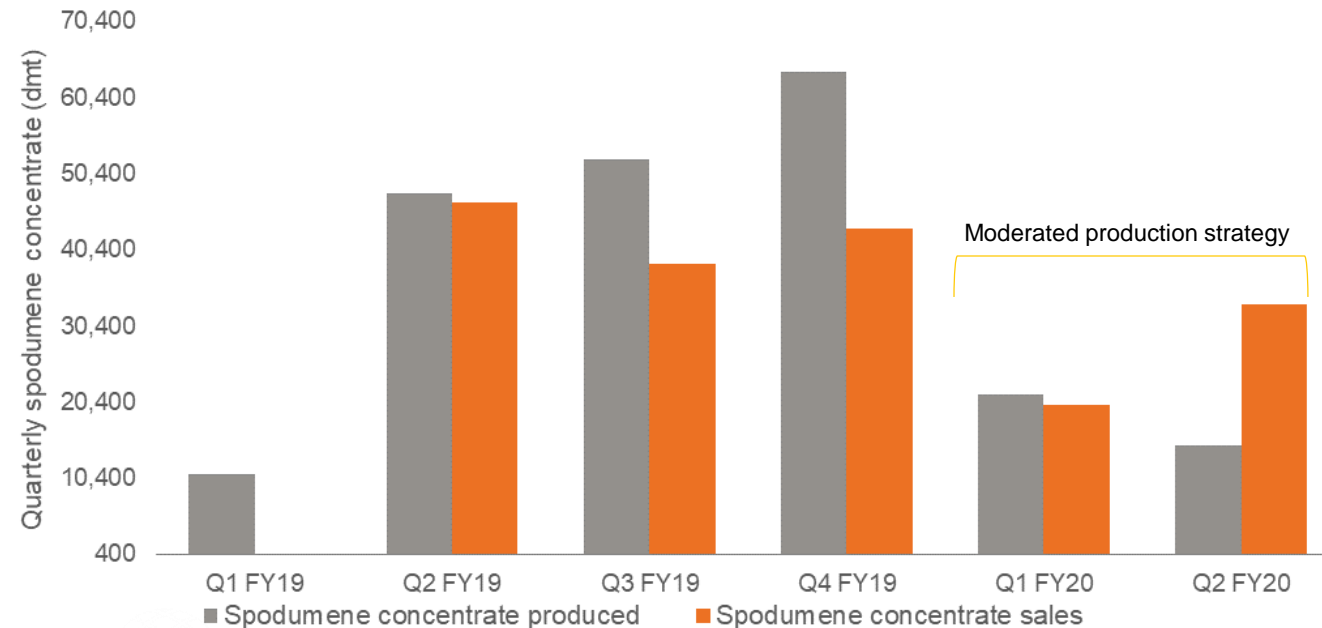
Operational journey

Nameplate production

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

Moderated production strategy in response to current market conditions

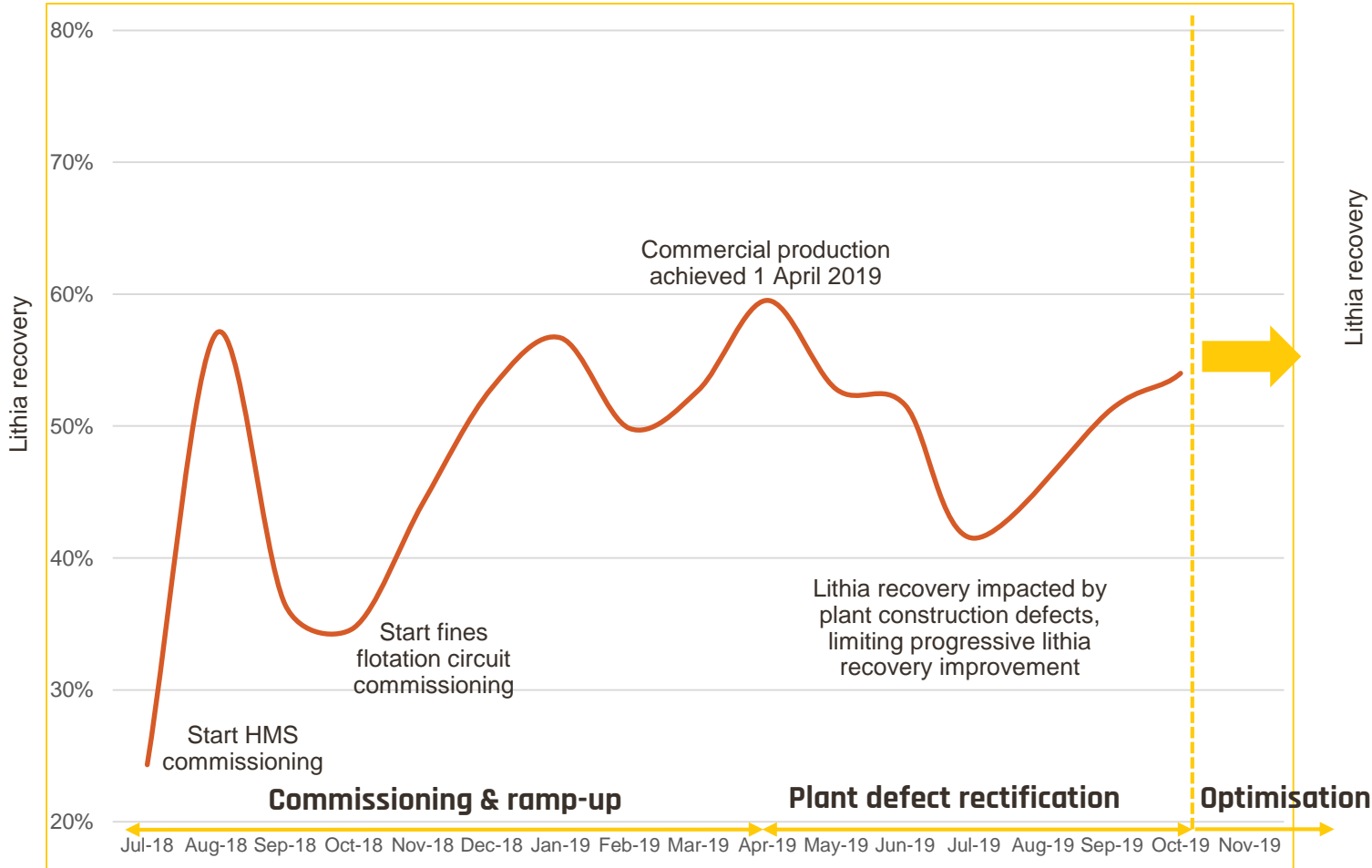
- Prudent cash flow management strategy
- Latest production campaign (currently underway)
 - Consistent recovery levels from commencement of campaign with average lithia recovery of 66%¹ (including start-up) including multiple intervals of (minimum 36hrs) at an average of 71%¹ or higher



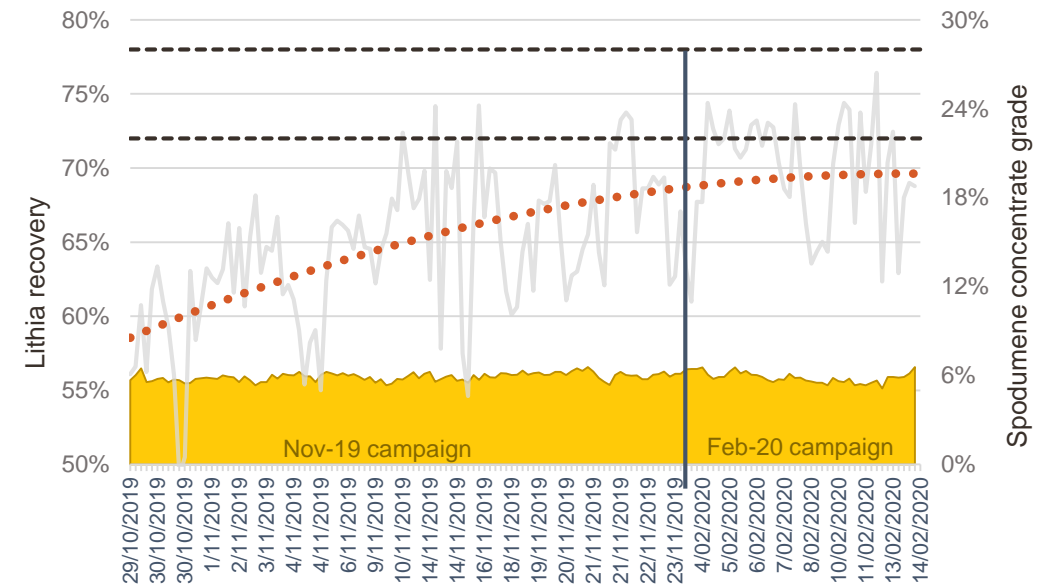
¹ Unreconciled lithia recovery between 3/2/20 to 20/2/20 (campaign currently on-going), with final recovery results subject to change as a result of end-of-month survey reconciliation.

Operational journey

Overall lithia recovery¹ since the commencement of Pilgangoora production



Optimisation: Recent campaigns steady state lithia recovery²



- Material step-change in lithia recovery performance throughout last two production campaigns following plant rectification and improvement works, now approaching design performance
- Nov-19 campaign recovery performance, 67%
- Feb-20 campaign recovery performance showing more consistent periods of 70%+ recovery
- Expectation for continued improvements, once steady state production is achieved

¹ Feb-20 onward is unreconciled daily lithia recovery, with final results subject to end-of-month survey reconciliation. There was no lithia recovery during month Aug-19, Dec-19, Jan-20 due to no plant production as part of moderated operations.

² Unreconciled steady state operation lithia recoveries, based on 3hr sample intervals.

Half-year physical results

Total ore mined and processed

| | Units | Q2 FY19 | Q3 FY19 | Q4 FY19 | Q1 FY20 | Q2 FY20 |
|----------------------|-------|-----------|-----------|-----------|-----------|---------|
| Ore mined | wmt | 762,531 | 540,426 | 640,173 | 303,177 | 65,941 |
| Waste mined | wmt | 2,154,690 | 2,445,917 | 1,900,027 | 868,441 | 26,046 |
| Total material mined | wmt | 2,917,220 | 2,986,342 | 2,540,200 | 1,171,618 | 91,987 |
| Ore processed | dmt | 420,221 | 414,223 | 456,541 | 202,596 | 102,251 |

Production and shipments

| | Units | Q2 FY19 | Q3 FY19 | Q4 FY19 | Q1 FY20 | Q2 FY20 |
|---------------------------------|-------|---------|---------|---------|---------|---------------------|
| Spodumene concentrate produced | dmt | 47,789 | 52,196 | 63,782 | 21,322 | 14,711 |
| Spodumene concentrate shipped | dmt | 46,598 | 38,562 | 43,214 | 20,044 | 33,178 |
| Tantalite concentrate produced | lb | 56,663 | 33,374 | 67,075 | 48,825 | 11,162 |
| Tantalite concentrate delivered | lb | 27,821 | 30,356 | 38,856 | 10,765 | 78,156 ¹ |

¹ Sales estimates pending final assays results.

Source: ASX announcement 20 February 2020 - Interim Financial Report 31 Dec 2019

- Production moderation strategy, implemented in Q3 2019 to align production with customer demand
- Existing stocks drawn down during Q4 2019 to satisfy customer sales and preserve working capital
- Five shipments totalling 53,222 dmt of spodumene concentrate
- Total of 36,033 dmt spodumene concentrate produced
- Tantalite concentrate sales totalled 90,327 lbs¹



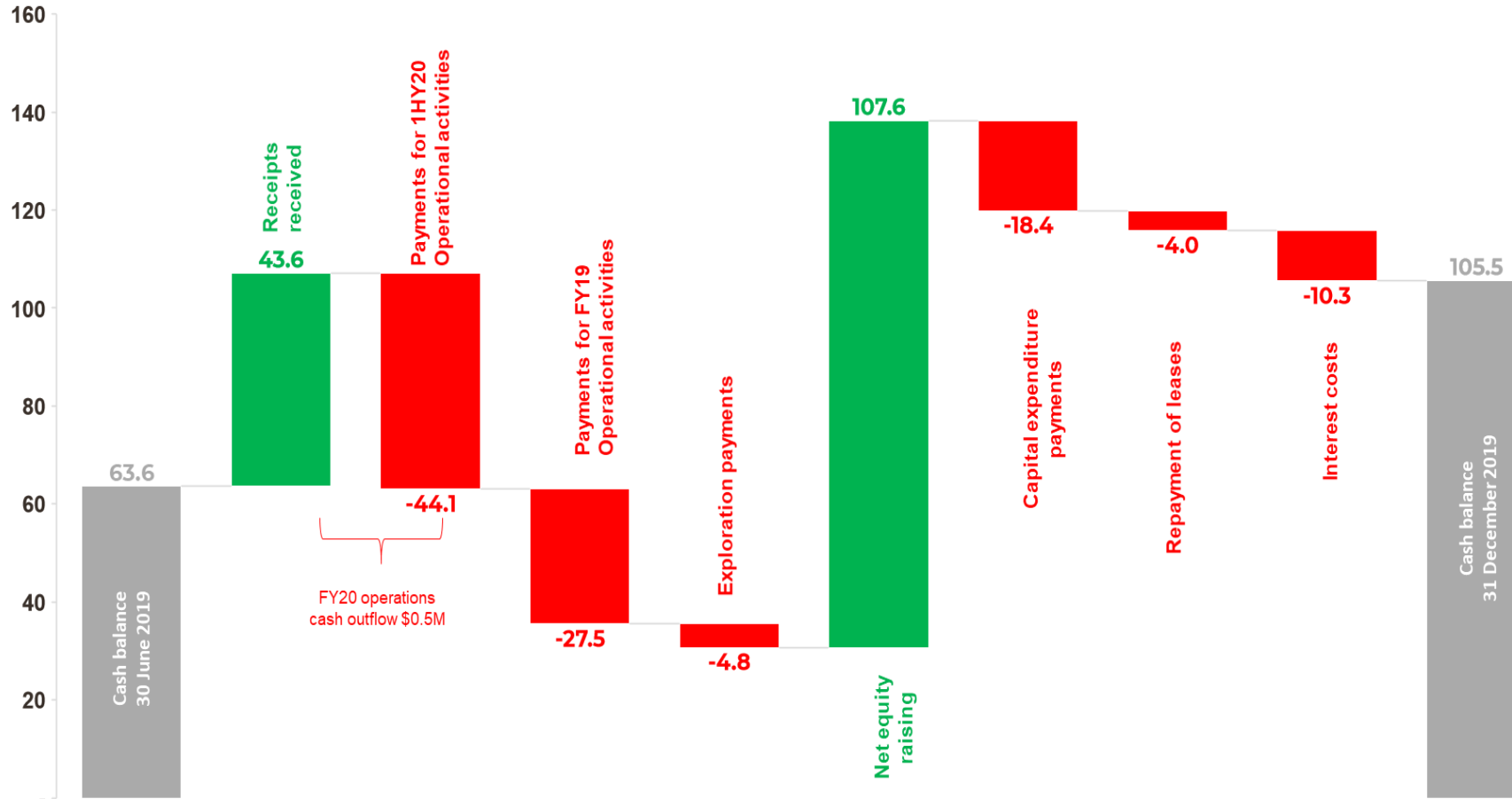
Half-year results

- Moderated production strategy preserved cash flow and working capital, resulting in an improvement in cash gross margin¹ in Q4 2019 to \$11.5M (Q3 2019: cash gross margin loss of \$13.3M) through the utilisation of existing stockpiles and operating cost reductions. Consolidated cash gross margin¹ loss of \$1.8M
- Existing stockpiles drawn down to support sales of 53,222 dmt of spodumene concentrate, underpinning sales revenue of \$37.8M
- Half-year EBITDA loss of \$24.1M before non-cash inventory write-down of \$21.2M, depreciation and amortisation of \$6.8M and net financing costs of \$11.3M
- Statutory net loss after tax for the half-year of \$63.4M
- \$111.5M equity raising completed during the half-year strengthened balance sheet. 31 December 2019 cash balance of \$105.5M, with working capital of \$94.8M

¹ Cash gross margin represents the operating margin from the Pilgangoora Project's operation before inventory movements, depreciation and amortisation expenses. Cash gross margin is a non-IFRS measure.

Strong balance sheet underpins operations

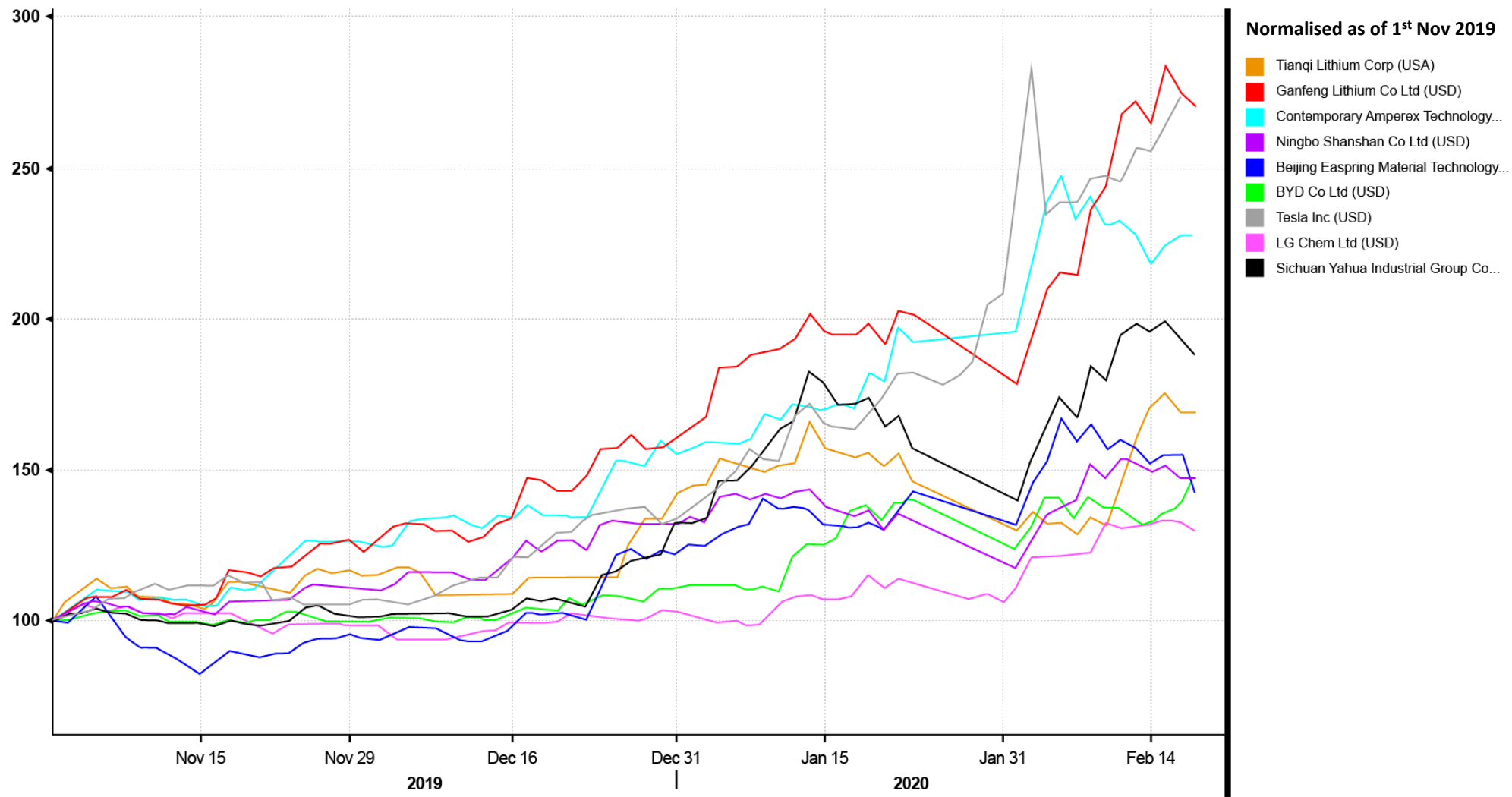
Cash flow analysis - half-year ended 31 December 2019



- Cash balance of \$105.5M and working capital \$94.8M (as at 31 Dec 19)
- Moderation strategy results in net \$0.5M cash outflow associated with operating activities conducted during half-year (being receipts of \$43.6M and costs paid to suppliers and employees of \$44.1M)
- Cash outflow of \$27.5M for costs incurred on operating activities from the previous financial year (FY2019)
- Net cash inflow of \$107.6M, (net of fees) related to the successful equity raising completed during the period

Lithium supply chain stocks appreciating

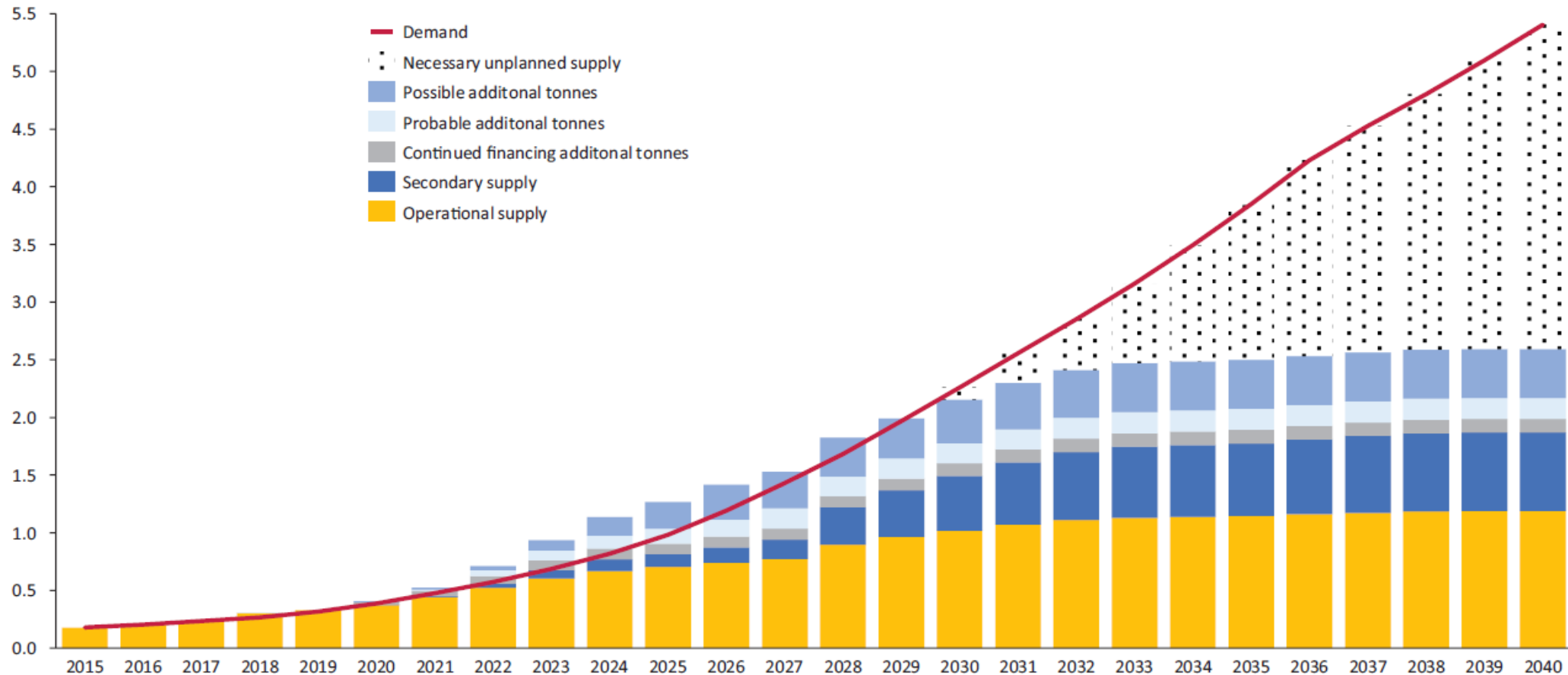
Three-month share price performance lithium industry participants



Lithium raw material demand only just beginning

Long-term lithium chemicals supply forecast 2015 to 2035

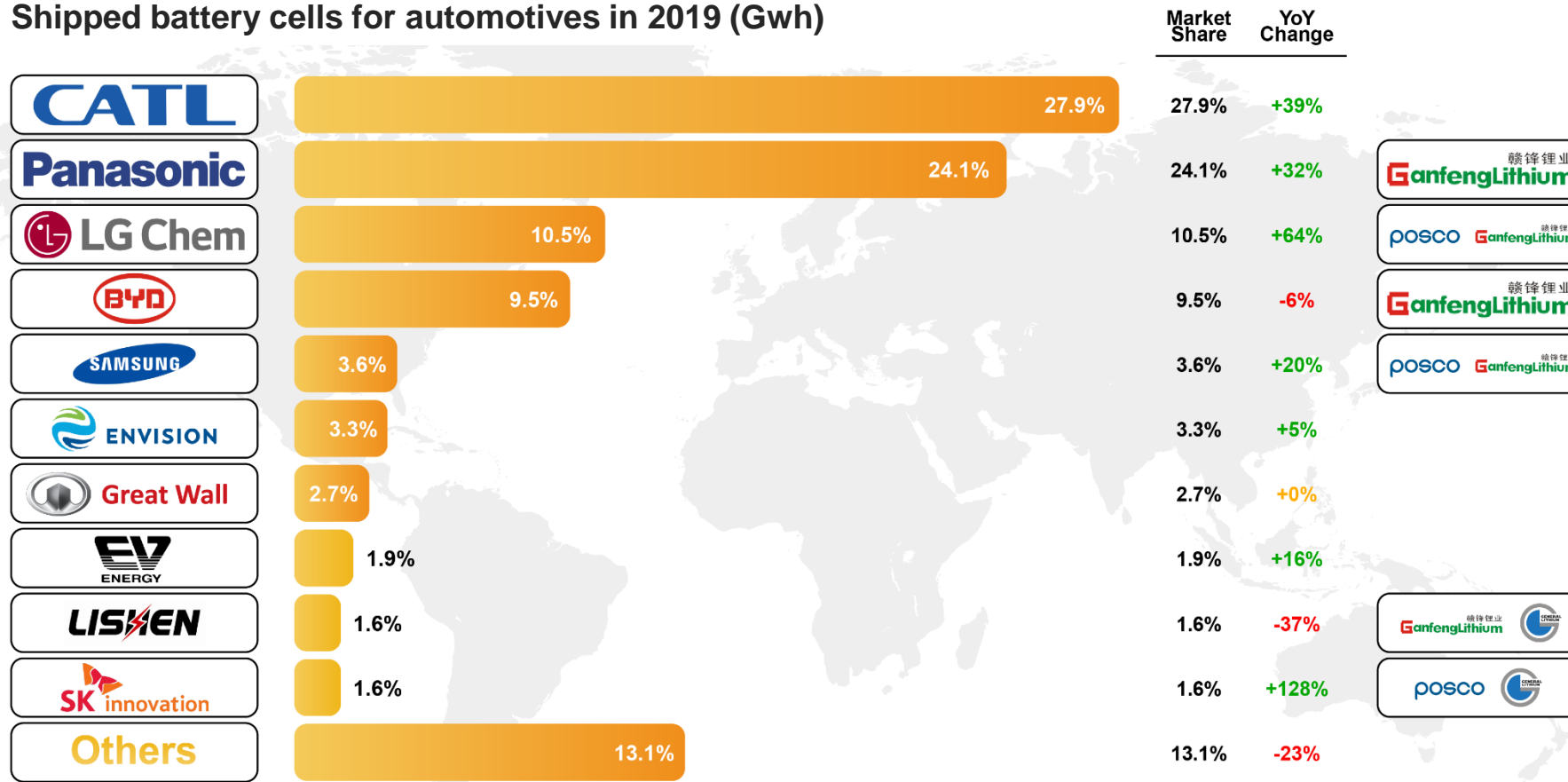
Million LCE tonnes



Source: Benchmark Mineral Intelligence (2019)

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

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

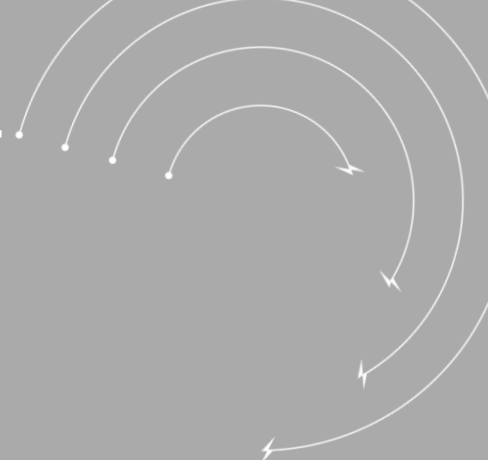
SAFETY

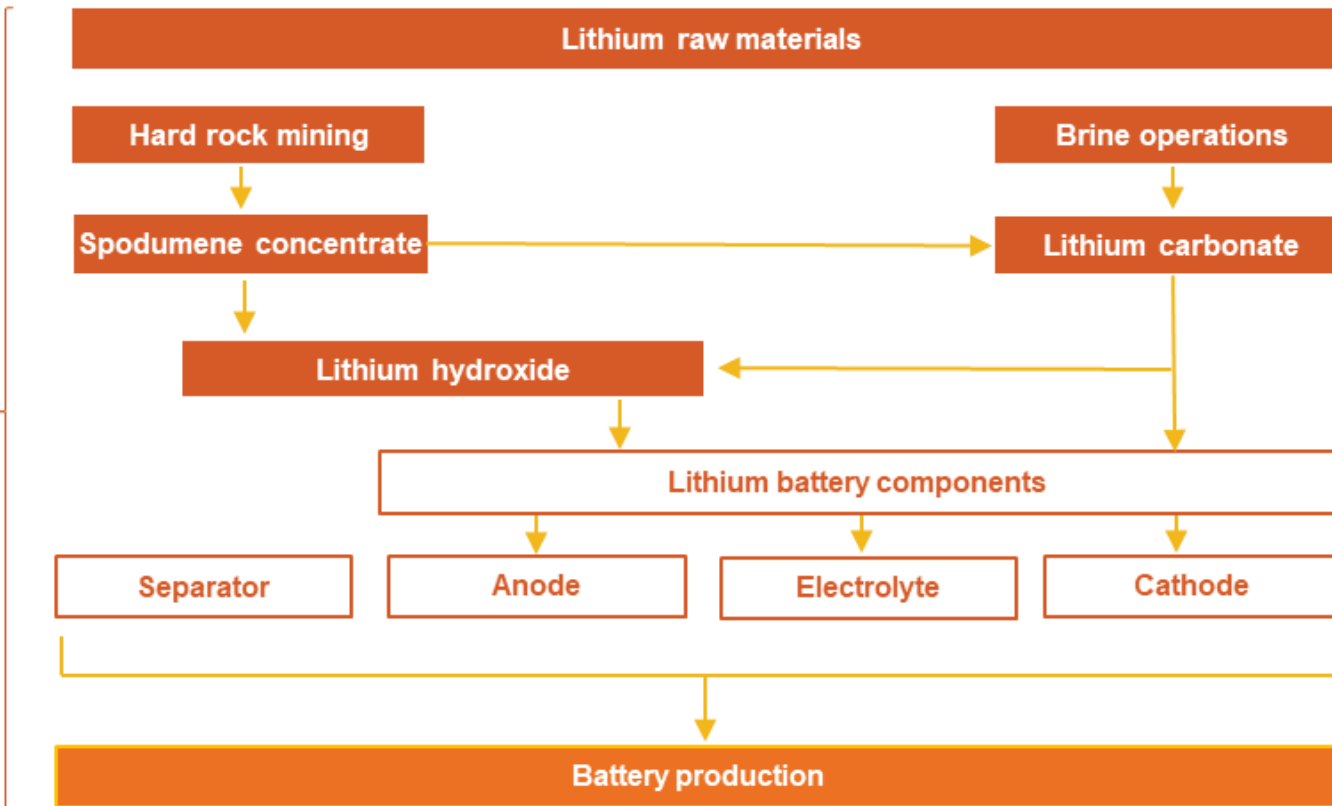
CONFLICT FREE

STABLE GOVERNANCE

SUSTAINABILITY

DIVERSITY





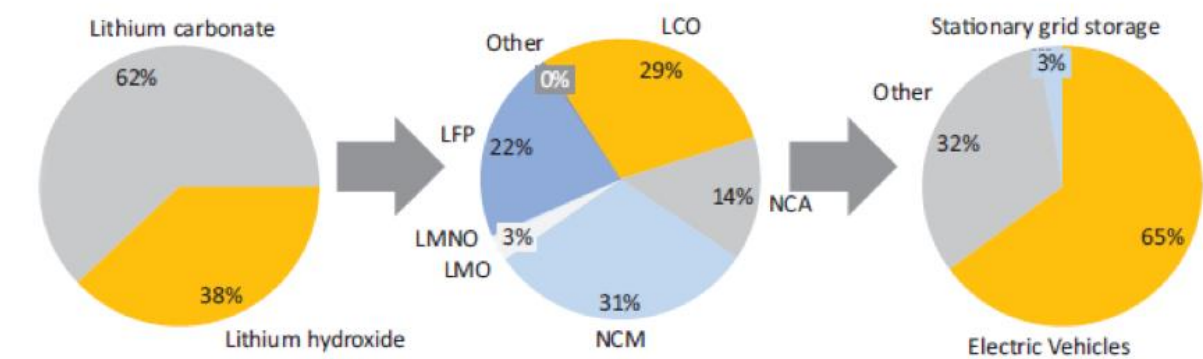
Hard rock lithium

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

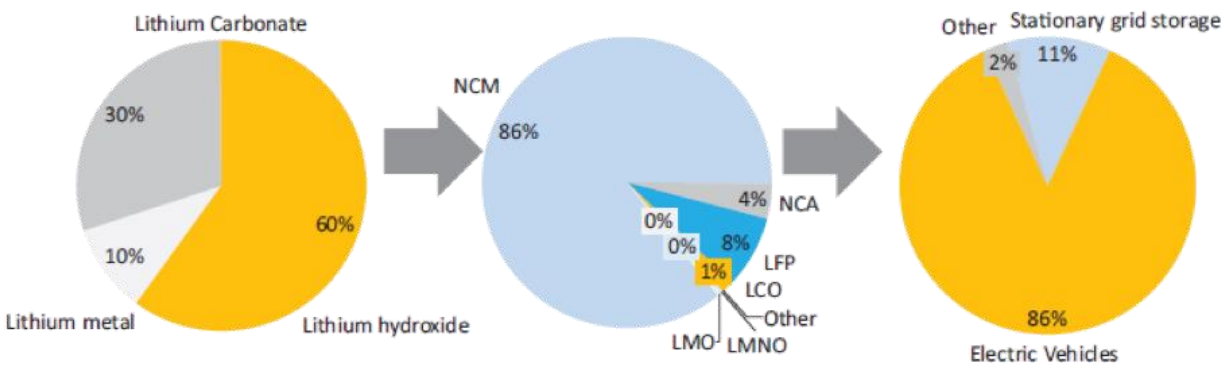


Battery technology of the future

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

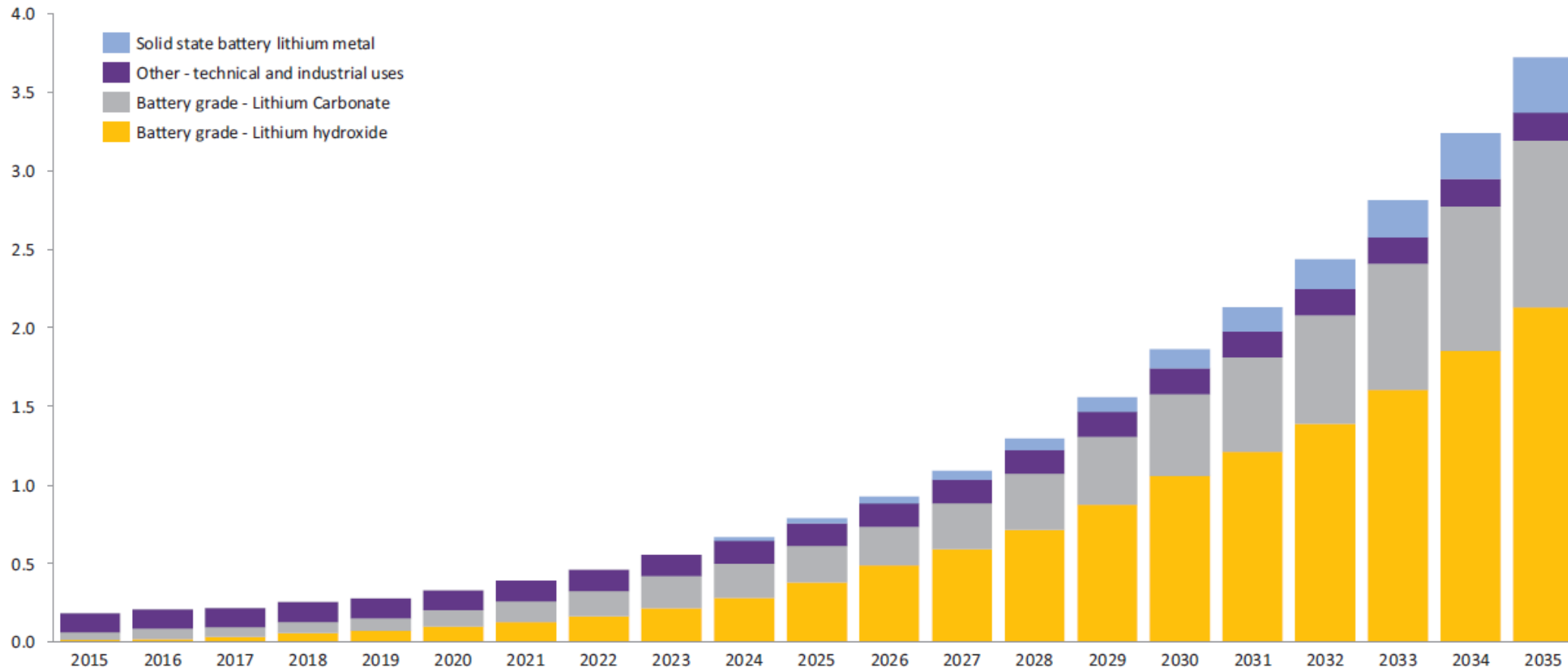
Source: Benchmark Mineral Intelligence (2019)



Hydroxide the product choice of the future

Lithium demand by lithium chemical product – 2015 to 2035

Million LCE tonnes



Source: Benchmark Mineral Intelligence (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



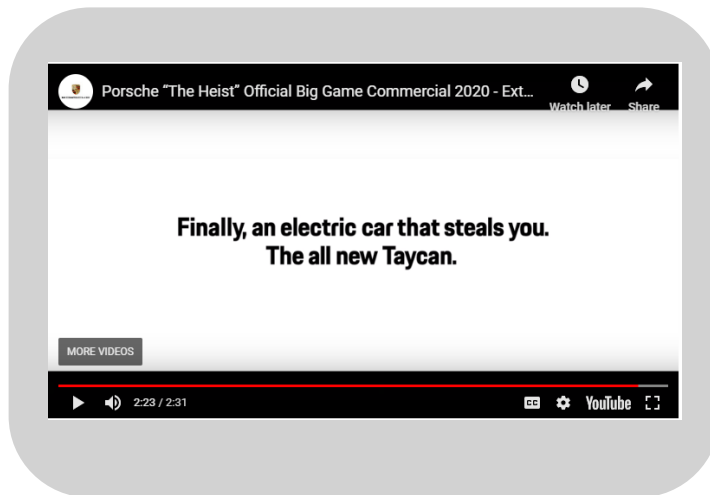
BMW

By 2023, BMW will offer 25 electrified models

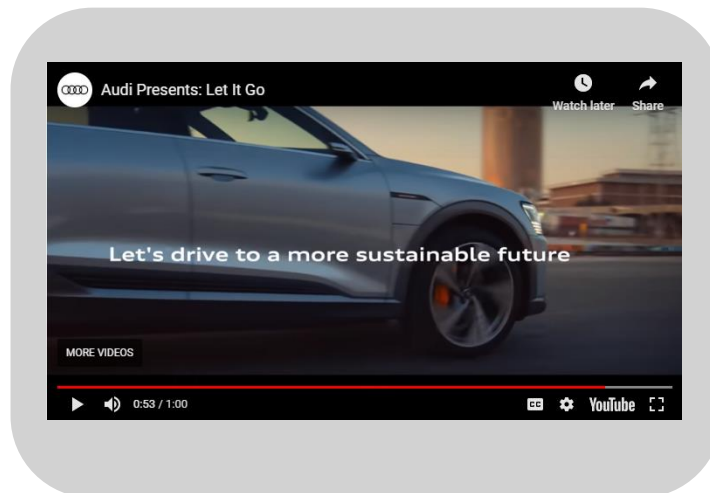
Superbowl EV commercials

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

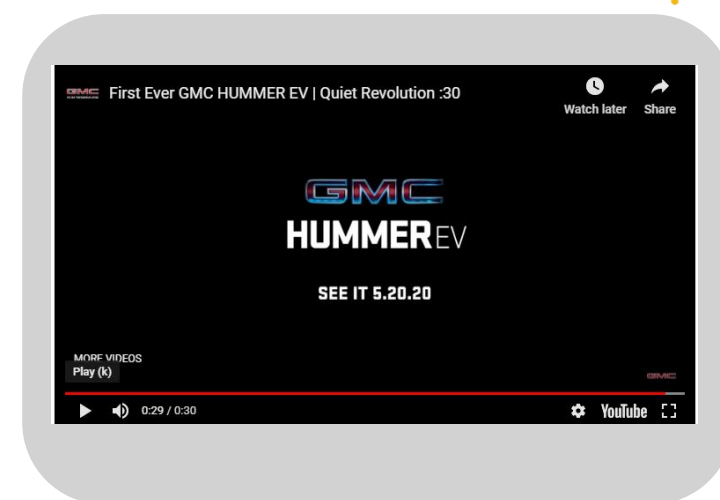
- Competition is heating up as EV brands grow (especially Tesla) and their sales steal market share
- Imperative for car manufacturers to demonstrate leadership and progress in EVs, otherwise brand diminishes
- Sales of their ICE cars are well-down and customers may well already have their eyes on the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



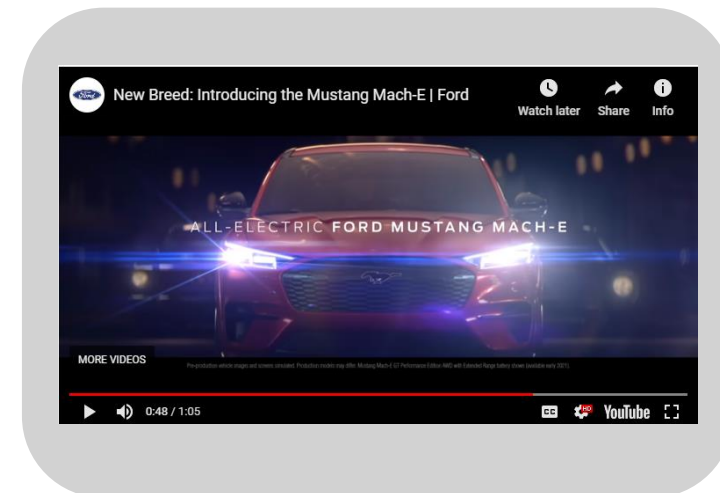
Porsche – Taycan Turbo S



Audi – e-tron Sportback



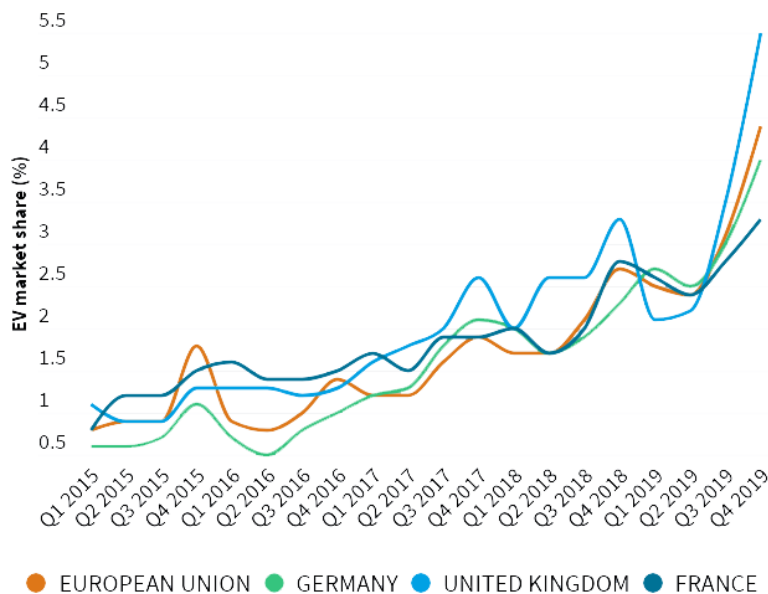
GMC – Hummer EV



Ford - Mustang Mach-E electric SUV

European market, EVs gaining traction

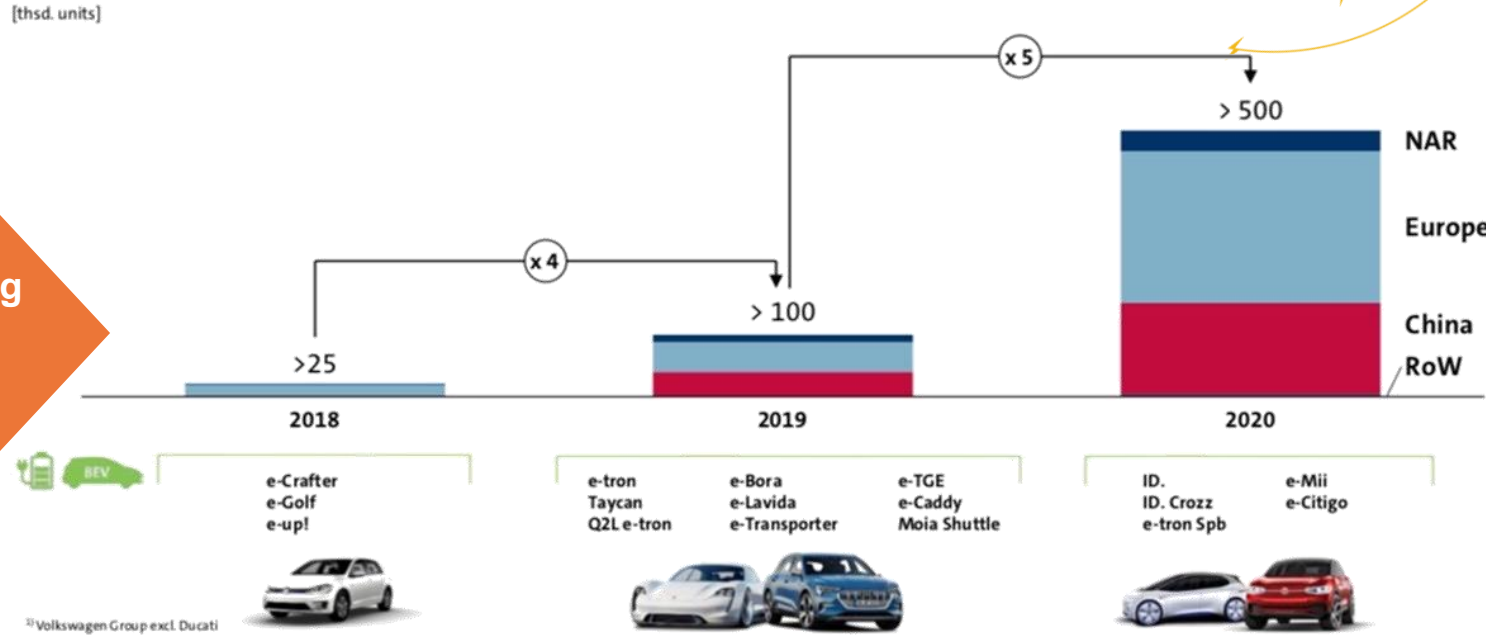
Quarterly EV sales in top European markets



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

Source: ACEA Quarterly Alternative Fuel Vehicle Registrations

Volkswagen Group – expected BEV volumes by region¹



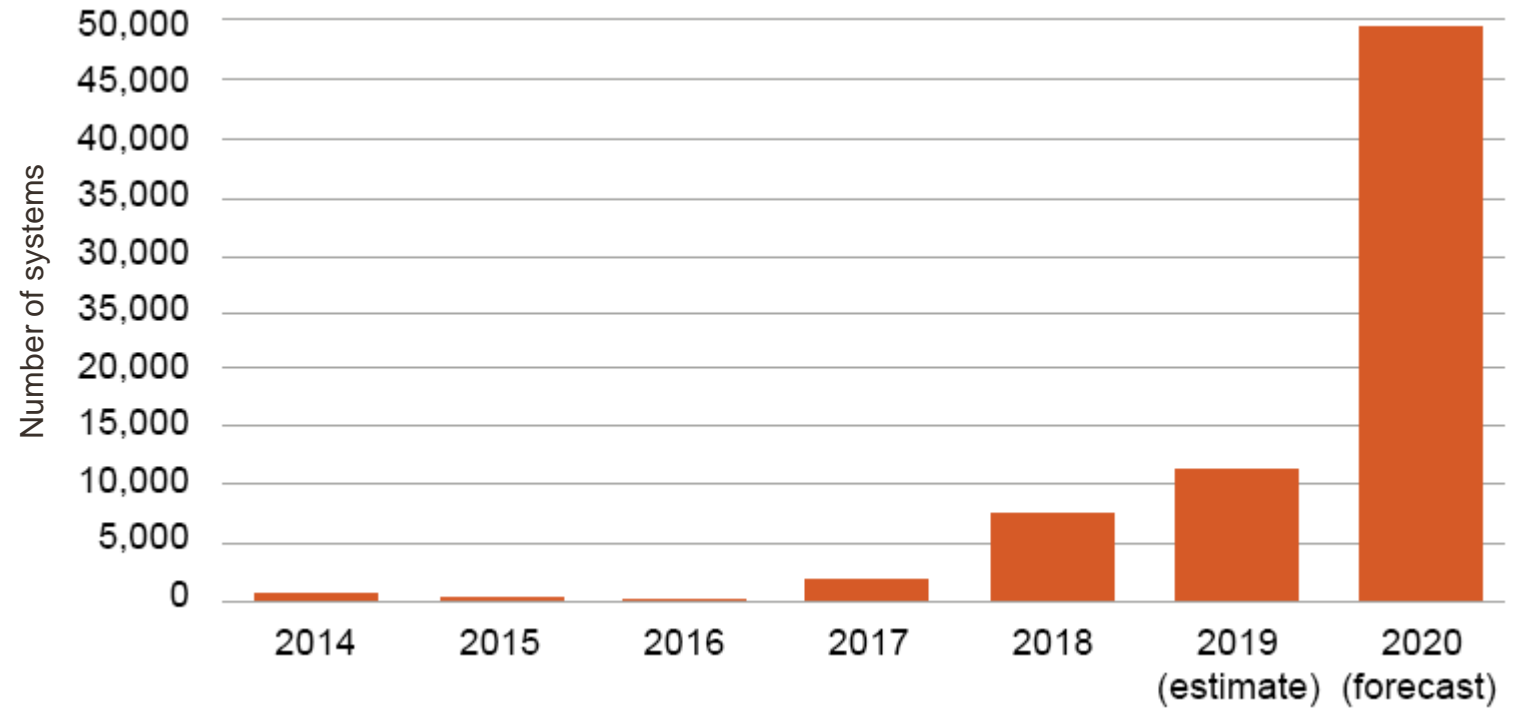
¹ Volkswagen Group excl. Ducati

Source: InsideEVs website (May 2019)

Battery storage markets gaining traction



California residential energy storage installations



Source: BloombergNEF, EIA Form 861M

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 and conditional FID complete on original Stage 2 project

STATUS:

Revised Stage 2 expansion under consideration
- Further technical studies underway expected to be completed by March 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 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



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ASX: PLS

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