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Sustainable Lithium from micas

Corporate Update:
Noosa Mining Investor Conference

July 2022



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The information is based on publicly available information, internally developed data and other external sources. No independent verification of those sources has been undertaken and where any opinion is expressed in this

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Forward-looking Statements

All statements other than statements of historical fact included in this release including, without limitation, statements regarding future plans and objectives of Lepidico, are forward-looking statements. Forward-looking statements can be identified by words such as "anticipate", "believe", "could", "estimate", "expect", "future", "intend", "may", "opportunity", "plan", "potential", "project", "seek", "will" and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that are expected to take place. Such forward looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, its directors and management of Lepidico that could cause Lepidico's actual results to differ materially from the results expressed or anticipated in these statements.

The Company cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this release will actually occur and investors are cautioned not to place any reliance on these forward-looking statements. Lepidico does not undertake to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this release, except where required by applicable law and stock exchange listing requirements.

Competent Person Statement

The information in this report that relates to the Helikon 1 and Rubicon Ore Reserve estimates is extracted from an ASX Announcement dated 28 May 2020 ("Definitive Feasibility Study Delivers Compelling Phase 1 Project Results") and was completed in accordance with the guidelines of the JORC Code (2012). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

The information in this report that relates to the Rubicon and Helikon 1 Mineral Resource estimates is extracted from ASX Announcements dated 30 January 2020 ("Updated Mineral Resource Estimates for Helikon 1 and Rubicon") and 12 March 2021 ("Karibib Mineral Resource expanded"), which completed in accordance with the guidelines of the JORC Code (2012). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

The information in this report that relates to the Helikon 2 - Helikon 5 Mineral Resource estimates is extracted from an ASX Announcement dated 16 July 2019 ("Drilling Starts at the Karibib Lithium Project") and was completed in accordance with the guidelines of the JORC Code (2012). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

Lepidico is

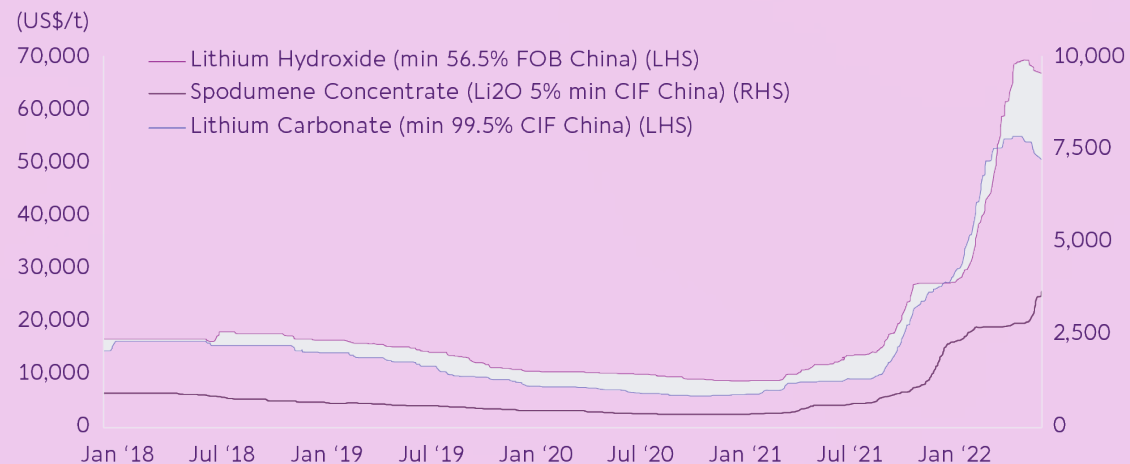
set to capture a first-mover advantage in the current cycle with lithium in long-term structural undersupply.

And given a binding offtake agreement and industry leading risk management strategies, we are well-positioned to deliver enhanced returns.

Accelerating EV adoption rates driving Li-prices

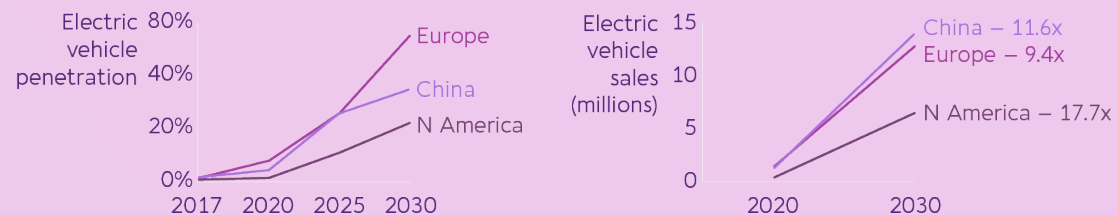
Tight market supply combined with rapidly increasing EV demand is expected to maintain elevated contract lithium prices throughout this decade

Lithium is the critical component



Source: Bloomberg, S&P, Roskill. Note: Market data as of January 25, 2022.

Secular changes in EV adoption are transforming demand for battery materials



Source: Jefferies Equity Research.

We are a vertically- integrated producer

Our patented L-Max[®] and LOH-Max[®] technologies extract lithium from lepidolite and other lithium micas, opening up a far less contested mineral supply than traditional sources. We deliver lithium hydroxide or carbonate into the supply chain, as well as other in-demand strategic metals.

Part of our Phase 1 project risk management strategy has been to ensure a relatively modest capital requirement for while delivering attractive returns.

Our technologies

L-Max[®]

The conversion solution
for li-mica minerals

L-Max[®] utilises common use, inexpensive reagents, is energy efficient and utilises conventional equipment operated at atmospheric pressure and modest temperature

By-products include: Critical Minerals caesium and rubidium; potassium sulphate fertiliser (SOP); amorphous silica; and potentially tantalum and tin

Sustainable; greenhouse gas emissions are c. 25% lower than a typical equivalent spodumene operation and can be best in industry when green H₂ is used; and no solid process waste is generated

Scale-up from pilot to Phase 1 is just c.200x for 5,000tpa LiOH; this will substantially eliminate the scale-up risk to large scale Phase 2 commercial production

Scalable; scoping study for a Phase 2 plant contemplates output of 10,000t to 20,000t pa LCE



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L-MAX[®]
LOH-Max[®]

Our technologies

LOH-Max[®]

A more sustainable
lithium hydroxide solution

LOH-Max[®] has broad application including spodumene conversion; it produces high purity lithium hydroxide from lithium sulphate without generating undesirable sodium sulphate

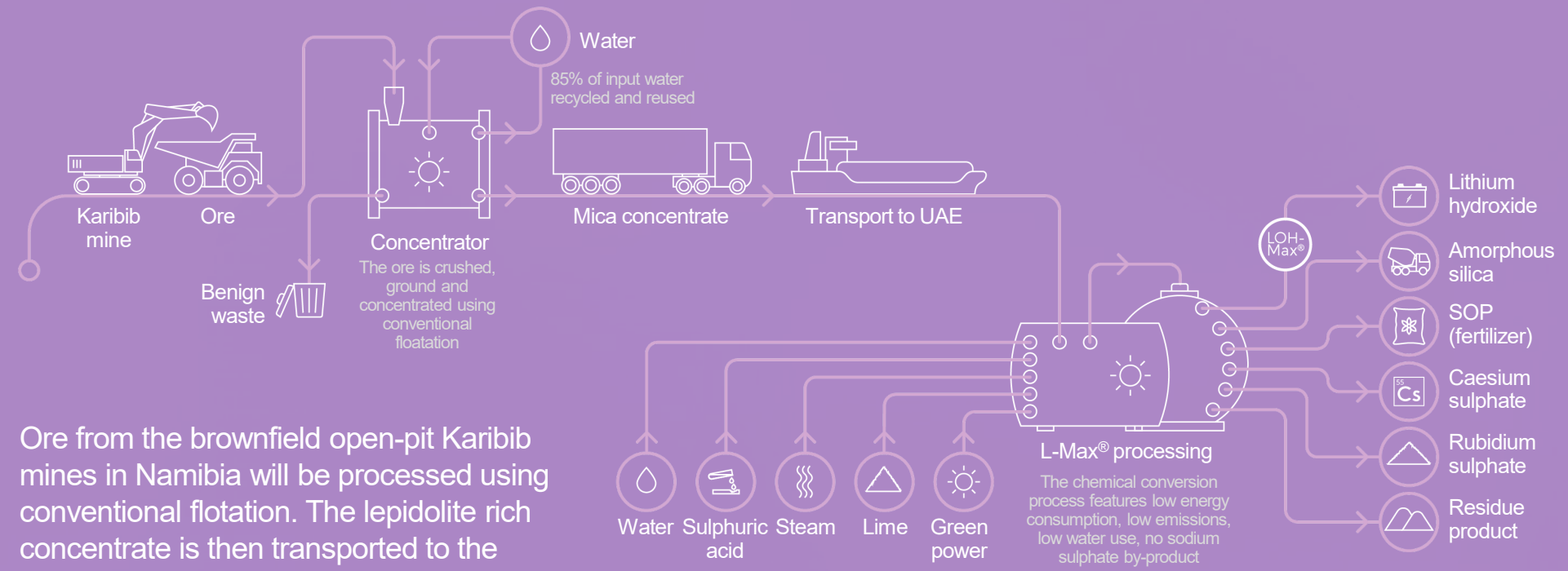
Material reductions for conventional spodumene converters in both capital cost – estimated at more than US\$50 million for 20,000tpa of lithium hydroxide – and operating costs should be achieved using LOH-Max[®]

Metallurgical recovery enhanced, with an estimated +4% increase in lithium recovery versus conventional spodumene processing

Modest energy consumption supports low greenhouse gas emissions

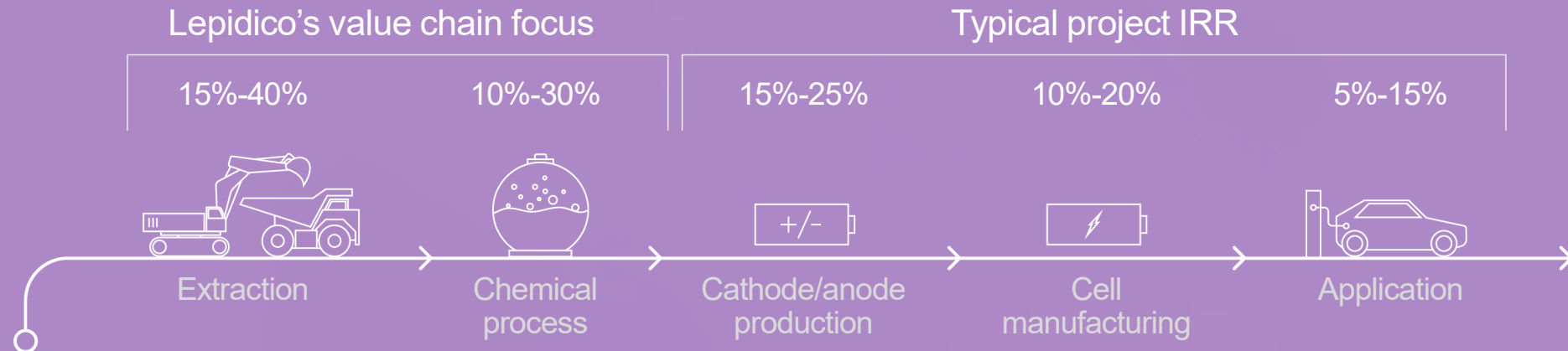
Benign gypsum rich residue may be used as a construction or agricultural product

Lepidico supply chain



Ore from the brownfield open-pit Karibib mines in Namibia will be processed using conventional flotation. The lepidolite rich concentrate is then transported to the UAE for conversion using our patented technologies. The lithium hydroxide will then be shipped to customers of Traxys under a binding offtake agreement.

Lepidico supply chain



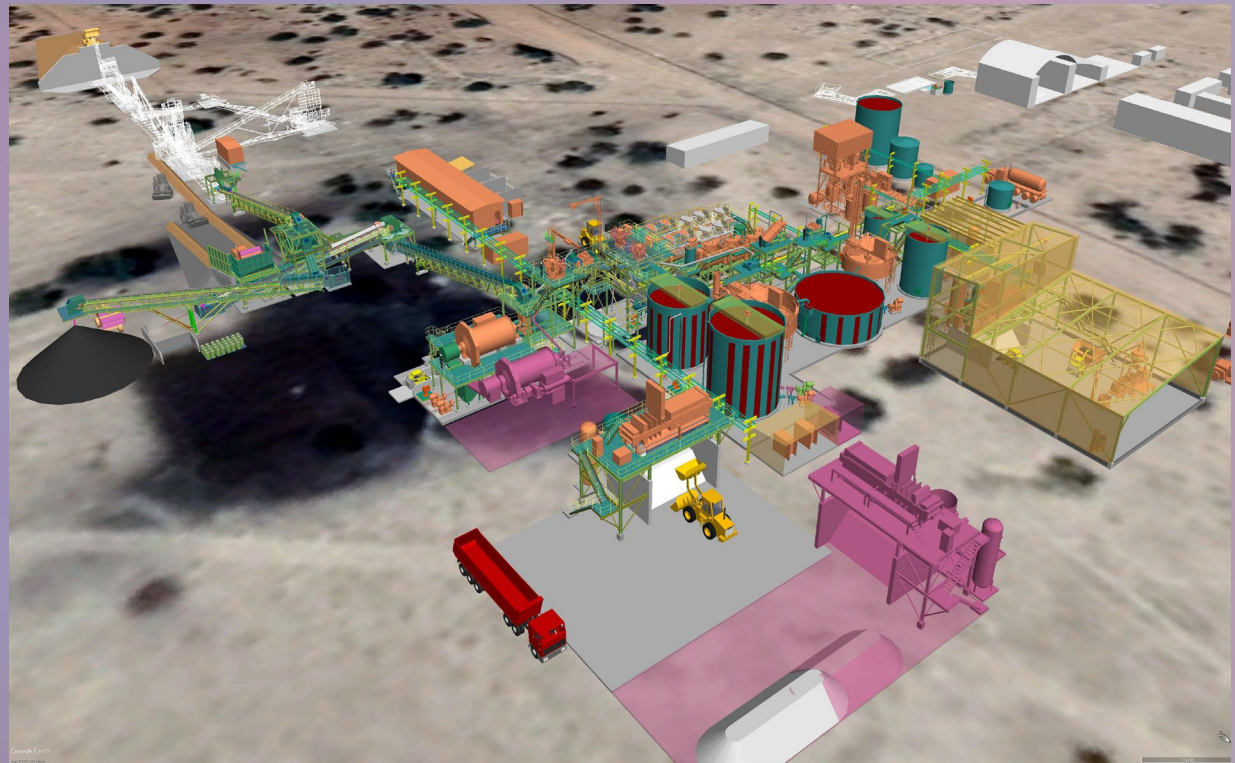
Vertical integration means that Lepidico will participate deeper into the lithium-ion battery supply chain, while by-products provide diversification of revenue and enhanced returns from a suite of eco-friendly compounds.

Our Phase 1 project

Vertical integration means that Phase 1 will reap the full value chain benefits – from ore mining to fine chemical manufacture – via our proprietary hydrometallurgical technologies that include L-Max[®] and LOH-Max[®].

We will produce and ship lepidolite concentrate from Namibia to the chemical conversion plant at KIZAD in the United Arab Emirates.

The hydrometallurgical conversion plant operates at modest temperature and atmospheric pressure, and has a concentrate capacity of 60,000tpa (tonnes per annum).



Our Phase 1 project

Namibia

- Brownfield re-development of Rubicon & Helikon mines; Ore Reserve 6.8Mt @ 0.46% Li₂O, 320ppm Cs, 0.23% Rb & 2.0% K
- Fully permitted: Granted 68km² Mining Licence
- Construction of 60,000tpa concentrator
- Access to excellent existing regional infrastructure; 27km power line spur required
- Water rights in place to support 2x expansion
- Large ground position prospective for lithium, caesium & gold
- Mine closure plan will allow these previously abandoned mine sites to be rehabilitated and returned to agricultural use



Timo Ipangelwa

General Manager
Operations Namibia

Our Phase 1 project

UAE

- Located in Khalifa Port Free Trade Zone, Abu Dhabi – no corporate tax and duties; 100% foreign ownership allowed
- 25-year land lease agreement signed 2021
- Abu Dhabi ESIA complete and environmental permit to construct in place
- Exceptional existing shared infrastructure through “plug and play” approach
- Stable and affordable energy, and other bulk consumables locally available
- Commercial green H2 and ammonia supply being fast-tracked for 2024-'26

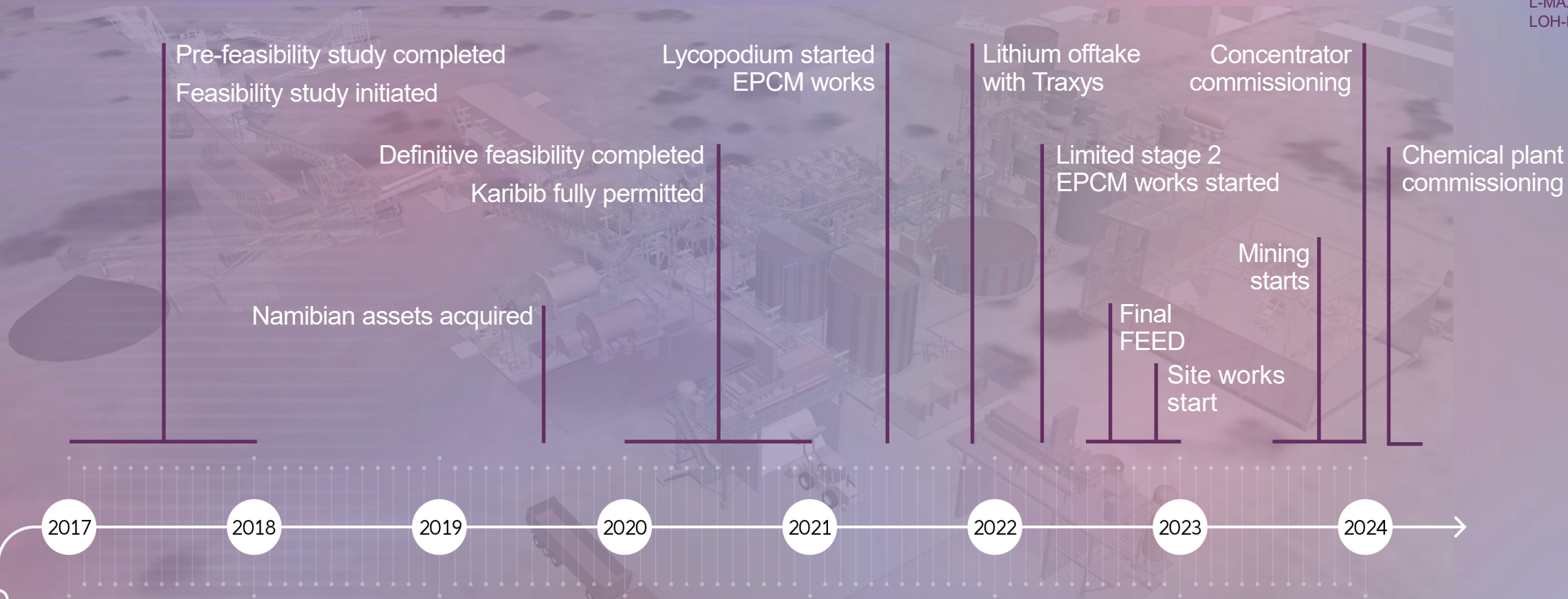


Hans Daniels

General Manager
Operations UAE

Our Phase 1 project

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Phase 1 fundamentals¹

Construction
cost

(inc. 13% contingency)

US\$139m

Post tax

NPV₈

US\$221m

NPV₀

US\$521m

IRR **31%**

Project
payback

(from start of production)

3 years

Operating
costs

(by-product LCE basis)

C1 cash cost

US\$/t 1,656

ASIC

US\$/t 3,221

Average
annual free
cash flow³

(post ramp-up)

US\$49m

Lithium
hydroxide
production²

4,879 tpa

Sulphate
of potash
production²

12,000 tpa

Caesium
sulphate
production²

240 tpa

Total LCE all
products²

7,060 tpa

Project life

14 years

¹ ASX Announcement 28 May 2020: DFS delivers compelling Phase 1 Project results.

² Products at steady state operation expressed as a salt.

³ Cash flows based on Benchmark Mineral Intelligence Q1 2020 LiOH price forecast (US\$12,910/t long term).

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Options for growth

We are already planning a 2-4x scale-up for a Phase 2 project, with concentrate supply from our own assets as well as third-party mines.

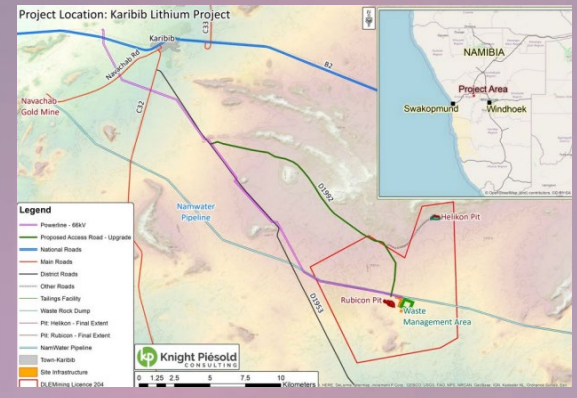
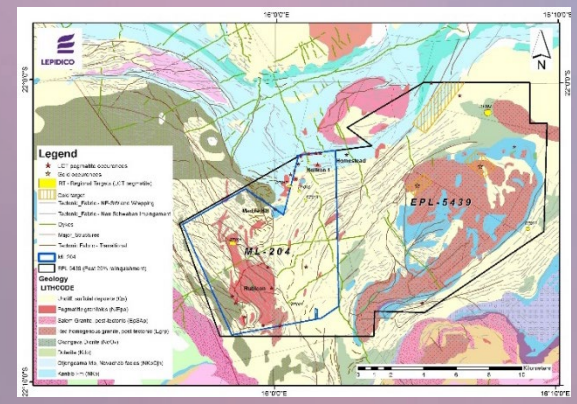
Karibib Mineral Resources located within the awarded Mining License area total 11.9M tonnes grading 0.45% Li₂O

Excellent established infrastructure and water permit in place for 2x expansion.

Capital efficient Karibib concentrator expansion leverages Phase 1 investment.

Globally, 19 lithium mica & phosphate deposits successfully tested for L-Max[®] amenability.

Royalty revenues from licensing of our proprietary tech to partners. One of these deals has already been completed.



Tom Dukovcic
GM Geology

ESG excellence

Water intensity

- 33m³/t LCE, 44% allocation to LiOH
- 20% Namibia/80% UAE for first 5 years
- 85% of concentrator water recycled



Competitive carbon intensity

- GHD reported “low” chemical plant emissions intensity vs other LiOH plants
- 8.8tCO₂-e/t LiOH.H₂O (10.0tCO₂-e/t LCE) for integrated project Scope 1 & 2 emissions – 90% in chemical plant, 10% mine & concentrator
- Renewable power and green hydrogen can lower emissions to just 3.0tCO₂-e/t LCE

Biodiversity

- ESAs identify no material impacts

Land use intensity

- 962Ha integrated project on predominantly industrial land
- Mine closure plan to return land to agricultural use
- No TSF required
- No sodium sulphate produced
- UAE zero solid process waste

Governance

- Experienced board of directors with complementary skills
- All Namibian leadership team
- Diversity – top 5% on ASX¹
- Sustainability & best practice ESG integrated with strategic planning

Social

- Zero harm H&S track record
- Creation of 115 direct jobs and +800 indirect jobs in Namibia
- Creation of 119 direct jobs in UAE
- Water supply to local farmers
- Medical equipment donations



Benedicta Uris

General Manager Sustainability & Country Affairs

¹ ellect, gender equality rating: <https://www.ellect.biz/>

Partnerships and financials

Sustainable long-term relationships being established with all stakeholder groups to underpin growth strategy



Shontel Norgate

CFO



David Hall

Marketing Consultant

Offtakes

- Lithium Hydroxide – **binding offtake agreement signed** December 2021 with Traxys for 35,000t over 7 years, includes sales-marketing, trade finance and logistics
 - Terms sheets in advanced negotiation for back-to-back agreements into the EV supply chain
- Caesium – binding term sheets in advanced negotiation with multiple consumers for sulphate; Traxys acting as agent
- Strong demand in UAE for all bulk products – SOP, silica & gypsum – in environmental applications

Finance

- Formal mandate signed with the U.S. Government's International Development Finance Corporation for Karibib debt
- Commercial lenders engaged for UAE debt
- Lender due diligence advanced; commitments targeted September Q 2022
- Strategic partner process managed by Jefferies in final stage
- Cash at 30 June 2022 \$8.0 million & no debt



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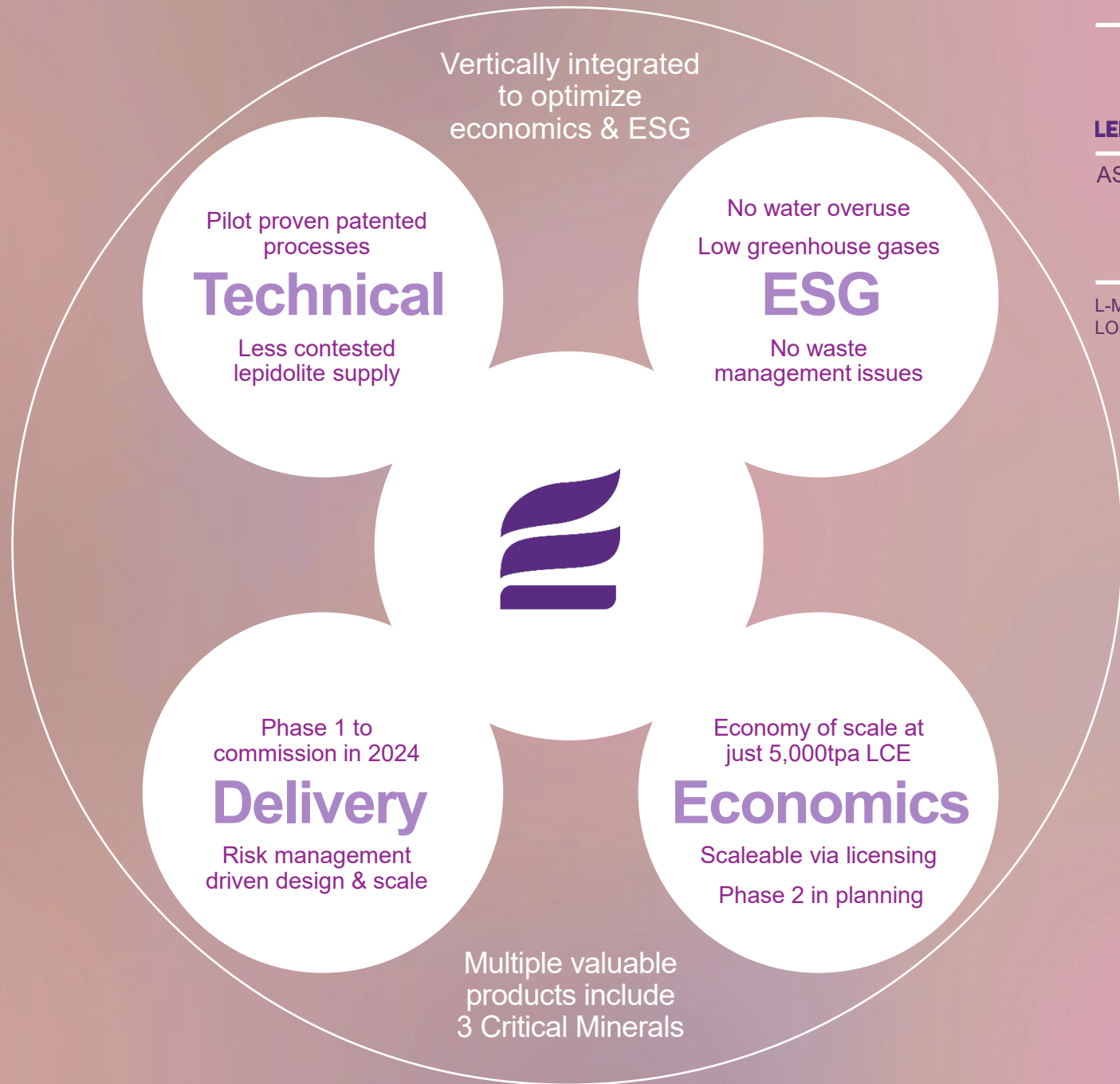
Near-term drivers/catalysts

- Chemical plant control estimate on track for August 2022; concentrator FEED complete
- Binding lithium and caesium offtakes with consumers targeted for July-September 2022
- Debt commitments to support a Final Investment Decision for Phase 1 targeted for September 2022
- Strategic partner process to complete September 2022 quarter
- Phase 2 concentrator expansion assessment August 2022
- Phase 2 Mineral Resource expansion program targeting high-grade additions at Helikon 2-5, Homestead & regional targets

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Investment highlights

Delivering a new source of sustainable lithium: why Lepidico



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Lithium market data

Push & pull policies are creating tailwinds for electric vehicles

The global state of incentives

United States

Up to \$7,500 grants for BEV purchases
10 states have set targets for 100% zero-emissions vehicles by 2050

France

Up to €6,000 for BEVs priced <€45,000
€2,000 for BEVs priced €45,000-€60,000
ICE new sales ban effective 2040

Norway

BEVs are not subject to an import tax or the 25% VAT on motor vehicles
ICE new sales ban effective 2025

Germany

€9,000 grant on the purchase of BEVs priced below €40,000
ICE new sales ban effective 2030

United Kingdom

£1,500 for BEVs priced <£32,000
ICE new sales ban effective 2030

Spain

Up to €4,500 grant for EVs
ICE new sales ban effective 2040

China

Up to ¥22,500 (~\$3,500) grant for BEVs
Targeting 20% EV sales by 2025

Italy

€6,000 BEV purchase incentive +€4,000 if an ICE vehicle is scrapped
Targeting 30% EV penetration by 2030

Automotive manufacturers have identified electric vehicle targets



January 28, 2021 – General Motors is working with the Environmental Defense Fund to develop an **all- electric vision** and **eliminate tailpipe emissions from new light-duty vehicles by 2035**



July 12, 2021 – **Fully-electric vehicles will account for at least half of the sales** of the BMW Group by 2030

DAIMLER

December 2, 2021 – Daimler will invest **over €60 billion into battery electric vehicles** between 2022 and 2026 as they plan to go **all electric by the end of the decade**



March 19, 2021 – Volkswagen announced goal of becoming **balance sheet CO₂ neutral by 2050**



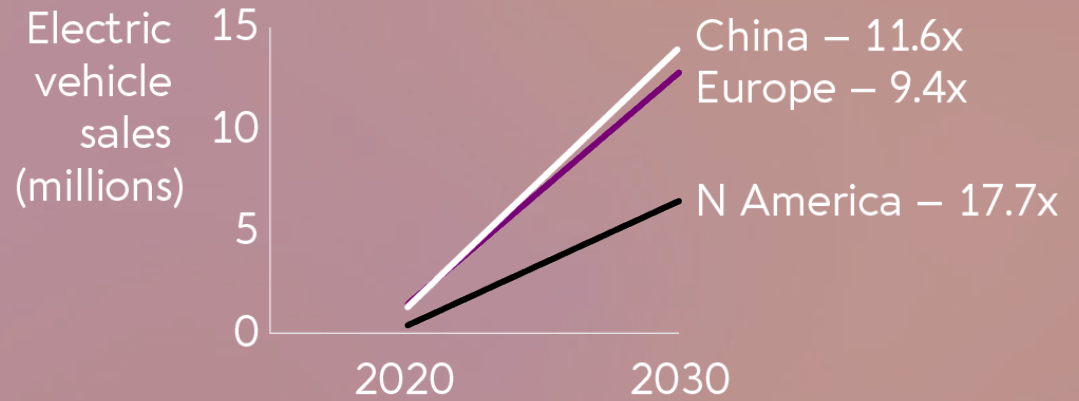
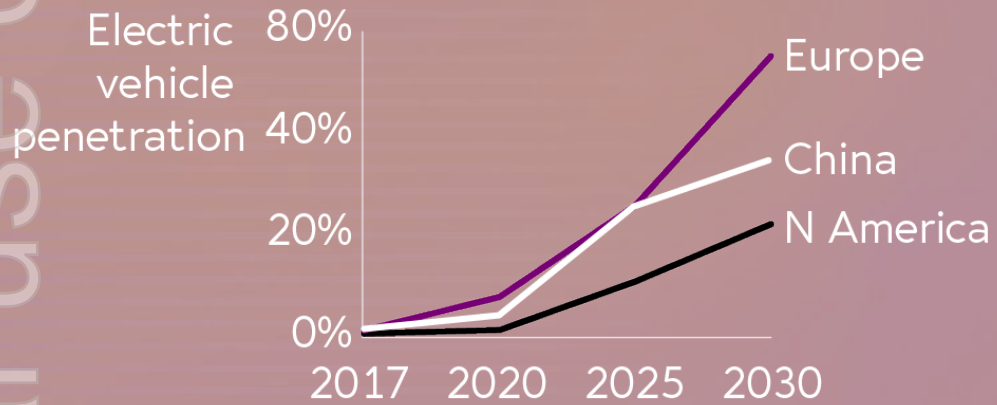
March 2, 2021 – Volvo Cars is committed to become a leader in the fast-growing premium electric car market and **plans to become a fully electric car company by 2030**



December 15, 2021 – Toyota plans to **increase U.S. sales of electrified vehicles to 70% by 2030** and become **carbon neutral by 2050**

...driving significant ramp-up in EV penetration globally

Secular changes in EV adoption will transform demand for battery materials



Source: Jefferies Equity Research.

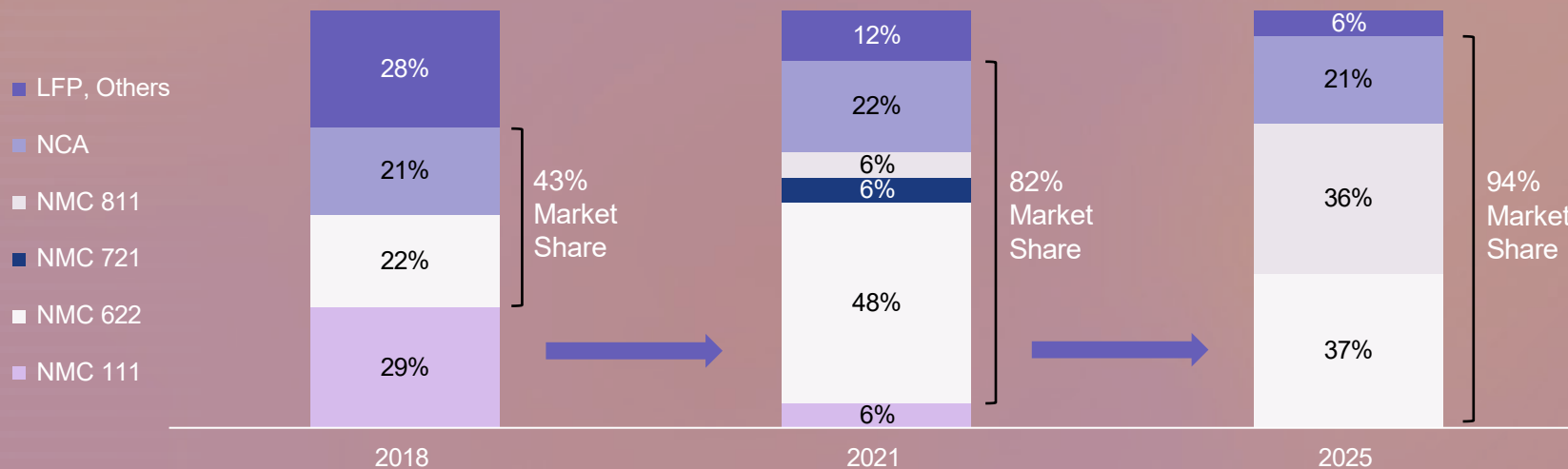
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Lithium is the critical component

Lithium is the constant input across all types of EV batteries

Cathode material	Lithium	Copper	Nickel	Manganese	Cobalt	Graphite
NCA	✓	✓	✓		✓	✓
NCA+	✓	✓	✓		✓	✓
NMC 333	✓	✓	✓	✓	✓	✓
NMC 532	✓	✓	✓	✓	✓	✓
NMC 622	✓	✓	✓	✓	✓	✓
NMC 811	✓	✓	✓	✓	✓	✓
LFP	✓	✓				✓
LMO	✓	✓		✓		✓

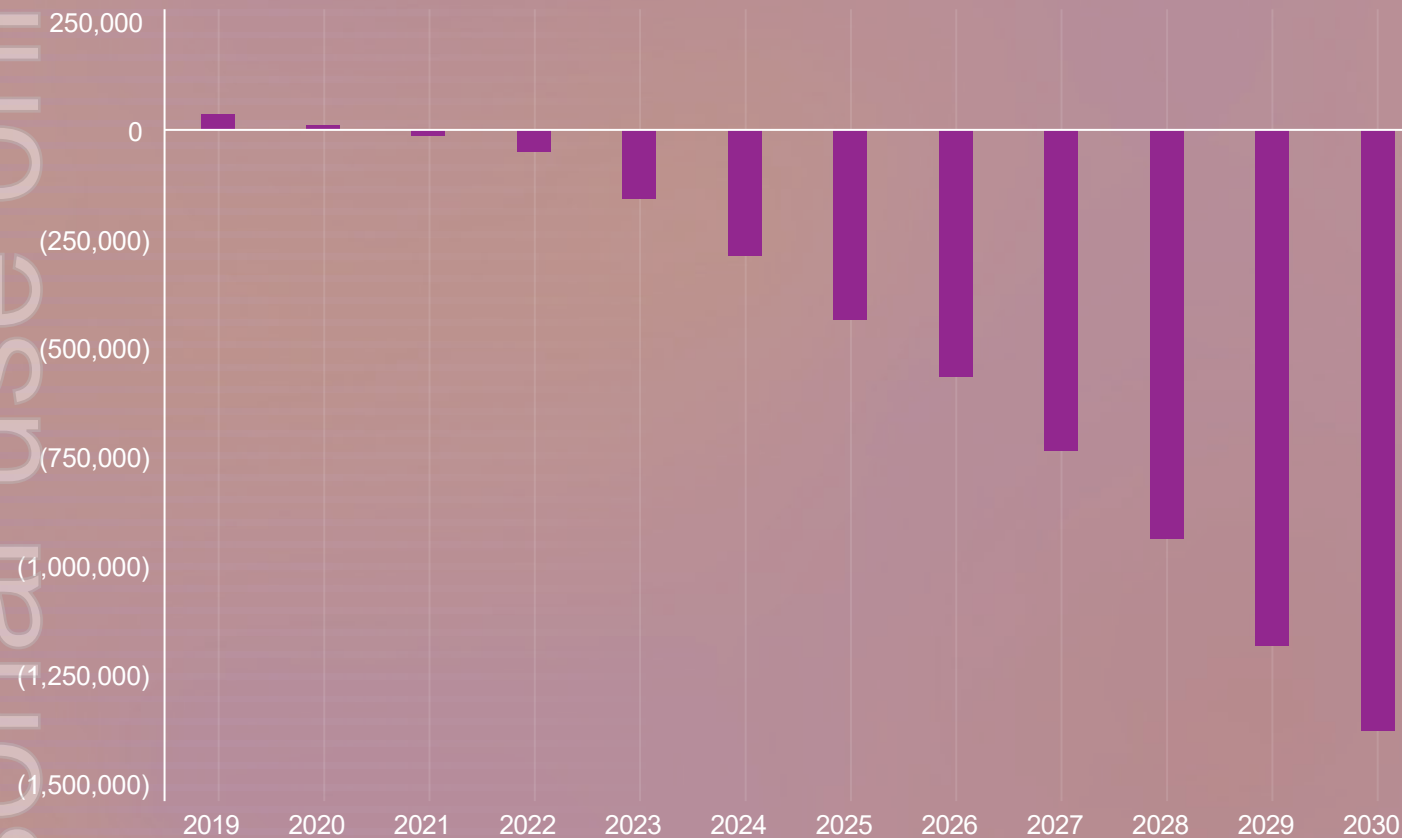
LiOH expected to take dominant share (90%+) in lithium battery cathode chemistries by 2025



¹ Source: IEA

Strong fundamentals

Total Lithium Supply / Demand Balance (tonnes LCE)¹

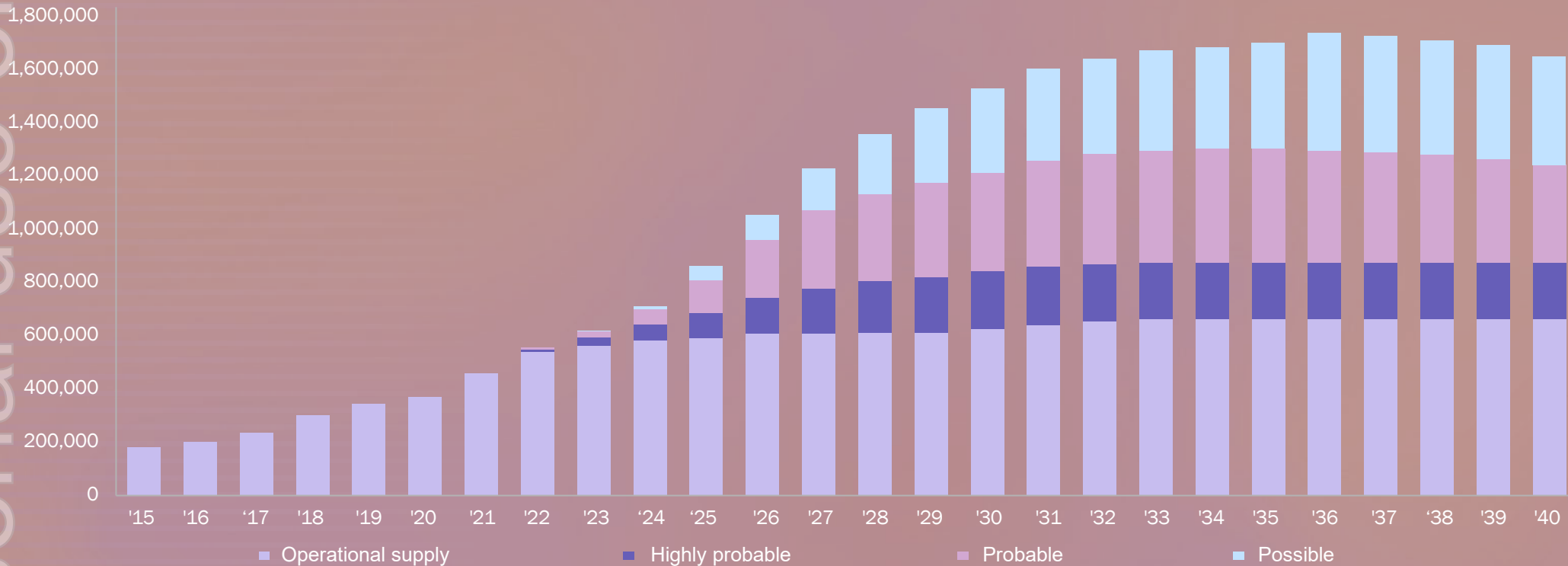


The market for lithium chemicals is forecasted to be in a supply deficit from 2022 onwards

¹ Source: Benchmark Mineral Index.

Underpinned by project uncertainty and long lead-times

Lithium Global Supply Forecast (tonnes LCE)¹



¹ Source: Benchmark Mineral Index.

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Lithium industry pricing mechanisms

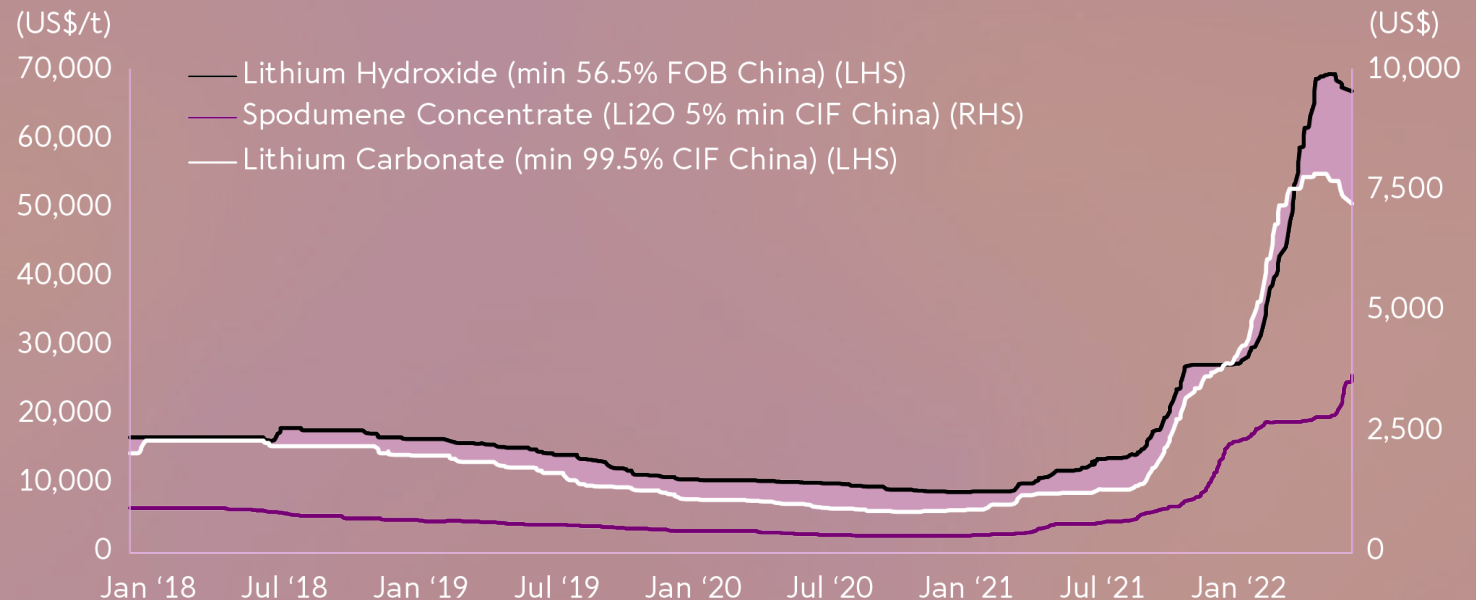


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- Since September 2021, prices of both lithium hydroxide and lithium carbonate prices have exceeded 2018 levels
- Primarily driven by the sharp surge in domestic Chinese lithium carbonate market
- Tight market supply combined with rapidly increasing EV demand is expected to maintain elevated prices in 2022



Source: Bloomberg, S&P, Roskill. Note: Market data as of January 25, 2022.

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Note: Market data as of January 25, 2022.

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