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**Head of Sustainability and
Enterprise Risk**

27 August 2026

ASX/FSE: VUL

FROM BRINE TO BATTERY

**How sustainable lithium extraction is
reshaping Australia's role in the
global energy transition**

CLIMATE CHAMPION | DETERMINED | INSPIRING



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Powered by Technology.

Delivered by People.

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Ore Reserves and Mineral Resources reporting. It is a requirement of the ASX Listing Rules that the reporting of ore reserves and mineral resources in Australia comply with the Joint Ore Reserves Committee's Australasian Code for Reporting of Mineral Resources and Ore Reserves ("JORC Code"). Investors outside Australia should note that while ore reserve and mineral resource estimates of the Company in this document comply with the JORC Code (such JORC Code-compliant ore reserves and mineral resources being "Ore Reserves" and "Mineral Resources" respectively), they may not comply with the relevant guidelines in other countries and, in particular, do not comply with (i) National Instrument 43-101 (Standards of Disclosure for Mineral Projects) of the Canadian Securities Administrators (the "Canadian NI 43-101 Standards"); or (ii) subpart 1300 of Regulation S-K under the US Securities Act of 1933, as amended (the "Securities Act"), which governs disclosures of mineral reserves in registration statements filed with the US Securities and Exchange Commission ("SEC"). Information contained in this Presentation describing mineral deposits may not be comparable to similar information made public by companies subject to the reporting and disclosure requirements of Canadian or US securities laws and investors are cautioned that there can be no assurance that the reserves and resources reported by the Company under the JORC Code would be the same had it prepared its reserve or resource estimates under the standards adopted under subpart 1300 of Regulation S-K.

Technical information. Vulcan has carried out a definitive feasibility study ("DFS") and bridging engineering study ("Bridging Study") for its Phase One Project, the results of which were announced to the ASX in the announcements Phase 1 DFS Results dated 13 February 2023 (DFS Announcement) and Positive Bridging Study Results on 16 November 2023 (Bridging Study Announcement). This presentation may include certain information relating to the DFS and the Bridging Study. The DFS and Bridging Study are based on the material assumptions and parameters outlined in their respective announcements. While Vulcan considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Bridging Study or DFS will be achieved. This presentation may also include certain information relating to future phases of its Project. Vulcan has not yet carried out a definitive feasibility study for future phases of its Project.

Funding strategy. To achieve the range of outcomes indicated in the Bridging Study, additional funding will be required. Investors should note that there is no certainty that Vulcan will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Vulcan's existing shares. It is also possible that Vulcan could pursue other financing strategies such as a partial sale or joint venture of the Project. If it does, this could materially reduce Vulcan's proportionate ownership of the Project.

Competent Person Statement. Please see the Competent Person Statement slide in Appendix 1.

Note(s): ¹ This slide contains a summary of the applicable disclaimers, the full disclaimer in relation to this presentation is contained in Appendix 1.



EVERYTHING COMES FROM SOMEWHERE. IF IT DIDN'T GROW, IT WAS MINED.

MINERALS COUNCIL OF AUSTRALIA

How do we source the minerals we need responsibly?

“BATTERIES ARE KEY TO HUMANITY’S FUTURE – BUT THEY COME WITH ENVIRONMENTAL AND HUMAN COSTS, WHICH MUST BE MITIGATED.”

- NATURE JOURNAL

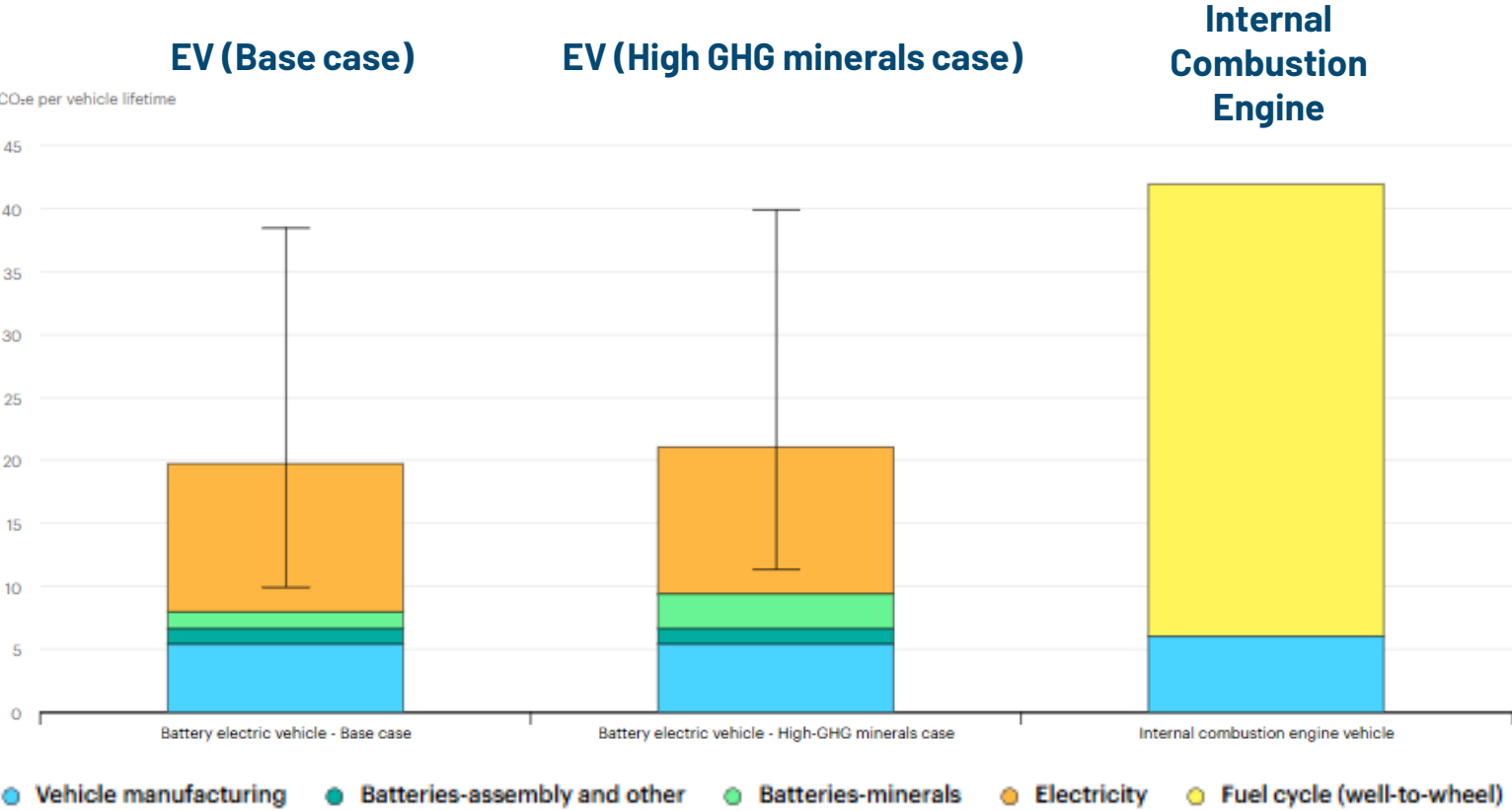
“RESPONSIBLE PRIMARY MINING, COMBINED WITH CIRCULARITY, IS ESSENTIAL TO DELIVER A JUST AND SUSTAINABLE TRANSITION.”

- INTERNATIONAL COUNCIL ON MINING AND METALS

THIS IS WHY VULCAN WAS FOUNDED.

ELECTRIC VEHICLES DELIVER APPROXIMATELY 50 TO 70% LOWER LIFE-CYCLE EMISSIONS

The emissions advantage increases as electricity grids and battery supply chains decarbonise



EVs reduce emissions, but HOW batteries are made still matters

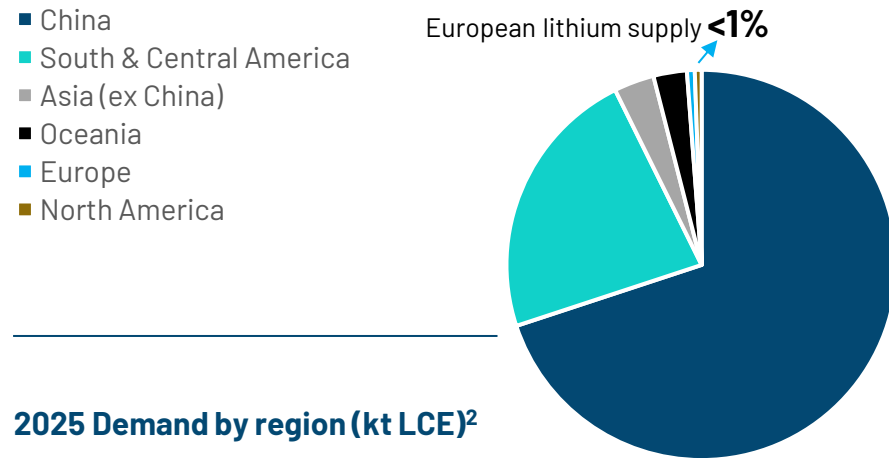


EUROPE HAS A STRUCTURAL LITHIUM SUPPLY GAP

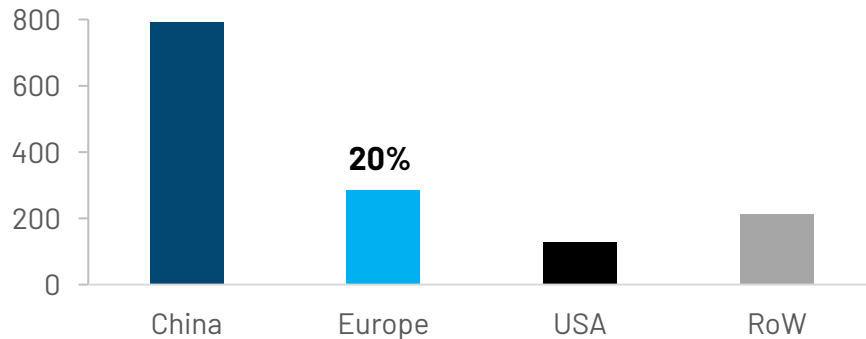


Local, responsibly produced lithium will be important to Europe's supply resilience

2025 Production by region²

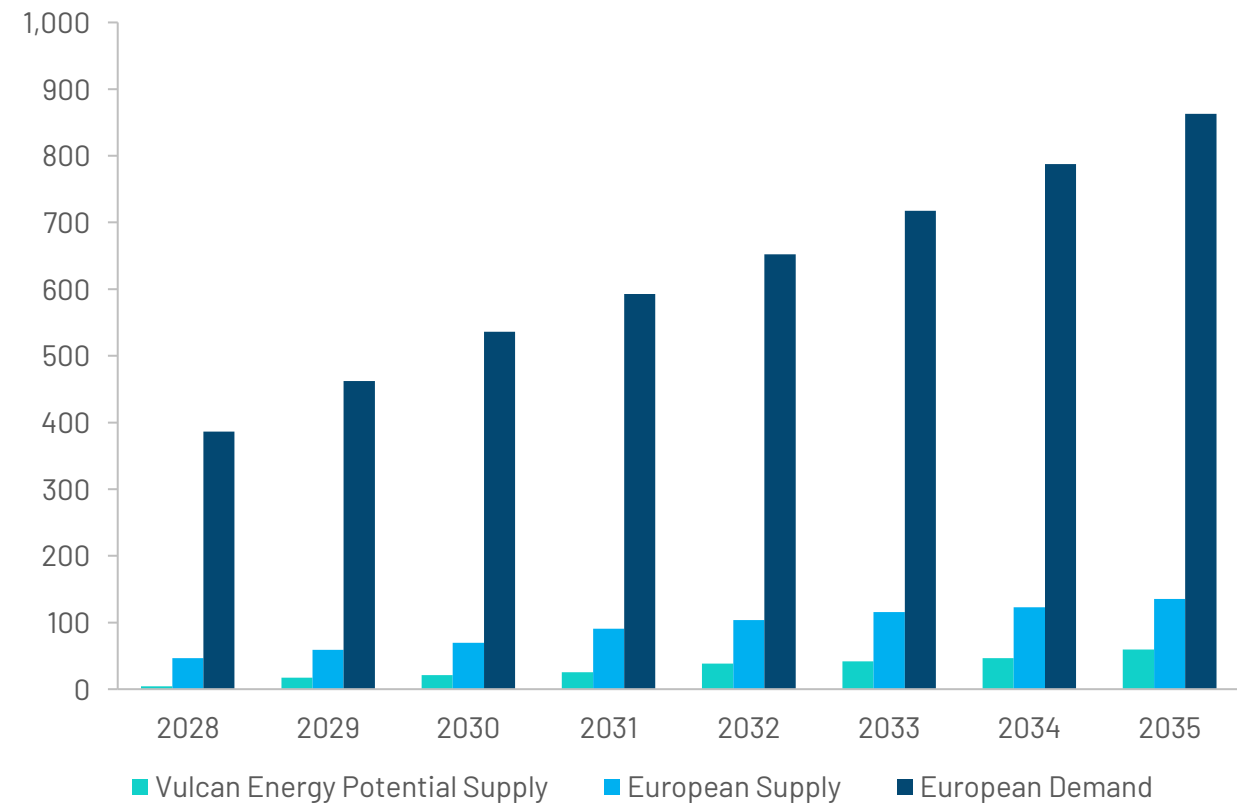


2025 Demand by region (kt LCE)²



Europe accounts for 20% of lithium battery demand, but <1% of global lithium production

European supply-demand forecast (kt LCE)



Lionheart is positioned to become a meaningful source of domestically produced European lithium.

WHAT IT TAKES TO SCALE THE ENERGY TRANSITION RESPONSIBLY



Technology & systems

Electrification, renewables and green engineering



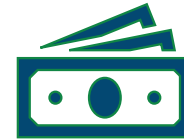
ESG & social licence

Risk management, stakeholder trust, governance and transparency



Policy & regulation

Clear rules and incentives provide certainty for technology to scale



Capital & investment

Green financing and sustainability-linked capital support low-carbon outcomes



People, capability and leadership

Diverse expertise, leadership and collaboration across disciplines

***Delivering the energy transition at scale requires all five elements to work together.
Lionheart shows what that looks like in practice.***

VULCAN ENERGY AT A GLANCE

Dual-listed, low-cost, sustainable lithium positioned for Europe

Scale and strategic location

- Globally significant lithium and geothermal resource with long asset life
- Located in the Upper Rhine Valley at the centre of European battery demand.

Process and value chain

- Integrated geothermal lithium production using Direct Lithium Extraction (DLE) powered by renewable energy leading to low-cost lithium supply chain
- Closed-loop process minimising land, water and waste impacts across operations.

Execution and delivery

- Lionheart in construction with drilling, well pads and early works underway
- Key permits, financing and offtake agreements secured, supporting project delivery.

Lionheart is one of the few scalable, highly competitive, low-carbon lithium projects globally.



VULCAN ENERGY

LIONHEART PROJECT

In construction

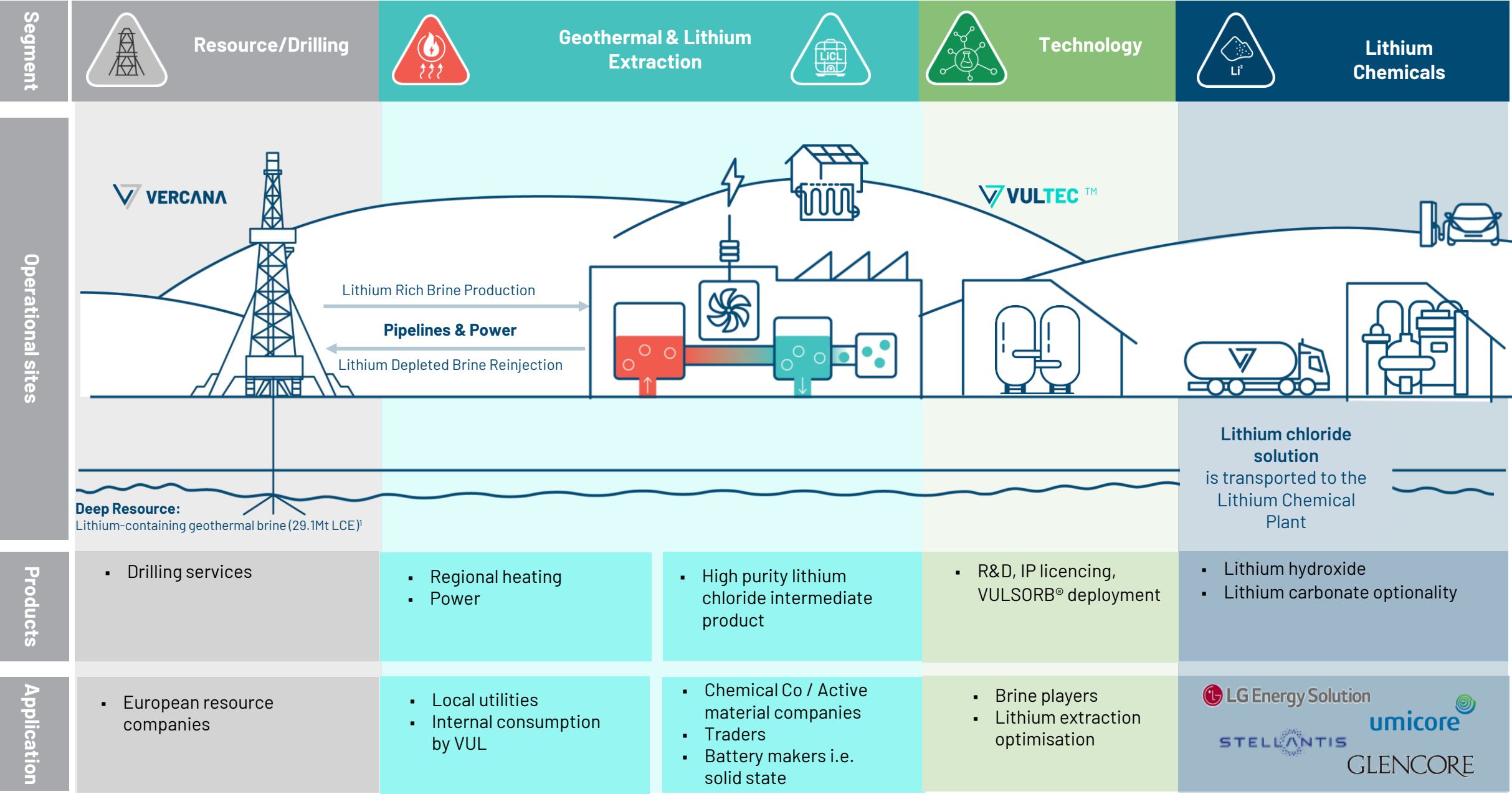
Integrated geothermal energy and lithium

€2.2 billion financing package

Strategic investment from EU and German Government

Targeted start of production H2 2028

INTEGRATED BRINE-TO-BATTERY VALUE CHAIN



Note(s): 1. Refer to footnote 2 of slide 4 for further information.

Project Lionheart



Germany

Ludwigshafen

Mannheim

Frankfurt Hoechst -
lithium product

40 wt% LiCl concentrate
transport, approximately 130km

Landau - lithium and
renewable heat

France



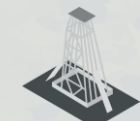
Lithium
Chemical
Plant



Geothermal
Plant



Lithium
Extraction
Plant



Well Site



Brine
Pipelines

LIONHEART IS DESIGNED TO DELIVER MEASURABLE CLIMATE AND COMMUNITY BENEFITS

The Lionheart Project aims to:

Produce enough lithium for ca. **500,000 electric vehicles p.a.**¹

Avoid 10Mt CO₂ -e. through **decarbonising** the lithium supply chain²

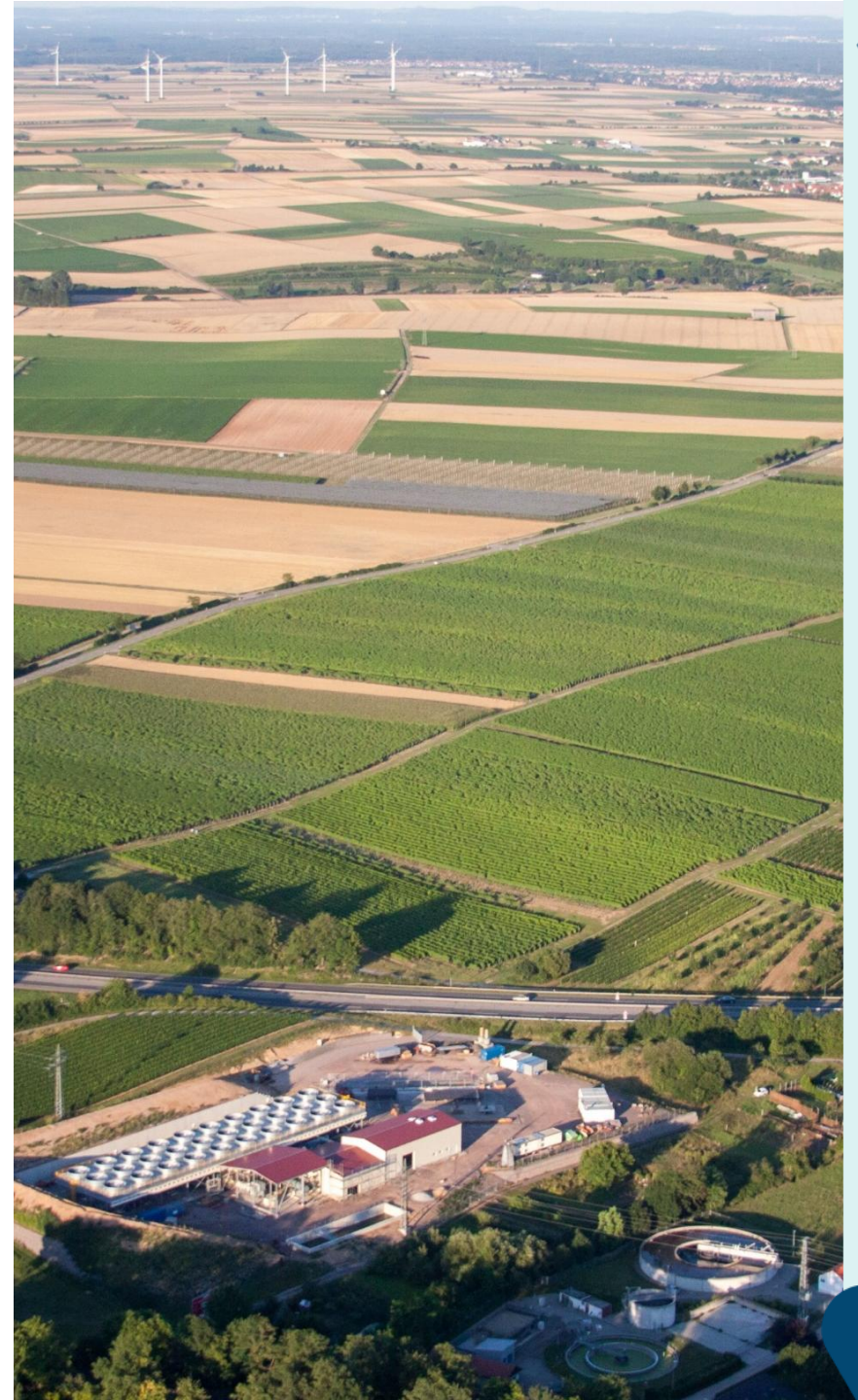
Produce **renewable heat** for thousands of people in the local community³

Minimise land disturbance compared to other types of lithium mining

Consume **minimal** amounts of **water**, due to closed loop recycling and reinjection of brine

Vulcan will deliver more sustainable, low cost and low impact battery materials while decarbonising the lithium supply chain, in Europe for Europe

Note(s): ¹ Based on the Phase One production target capacity of 24ktpa from Bridging Engineering Study (BES) Announcement 16th November 2023 and Vulcan internal estimated average EV battery size and chemistry in Europe; ² Minviro and internal estimates combined, using Innovation Fund methodology; ³ Based on official feed-in numbers from grid operator and calculated with the latest local electricity mix emission factor



HOW WE DEFINE SUSTAINABLE LITHIUM AT VULCAN



Purpose-driven production

Integrated end-to-end design intended to reduce environmental and social impacts

Low-impact extraction method

Adsorption-type Direct Lithium Extraction from brine with closed-loop reinjection

Renewable energy integration

Geothermal energy supports the lithium production process and reduces reliance on fossil fuels

Reduced physical footprint

No tailings, no pits or ponds, lower waste generation and minimal land disturbance

Local and community co-benefits

Renewable heat supply, local employment and transparent, responsible European value chains

No industrial activity is impact-free. Our aim is to deliver materially lower life-cycle impacts than conventional lithium production pathways.

INDEPENDENT ASSESSMENT SUPPORTS VULCAN'S SUSTAINABILITY APPROACH



Environmental and Social Impact Assessment (ESIA) identified no residual impact greater than minor post mitigation, and **several positive environmental and social impacts**

Vulcan's adsorption-type Direct Lithium Extraction (A-DLE) process is designed to **reduce** land, water and emissions **impacts** compared with conventional lithium production pathways

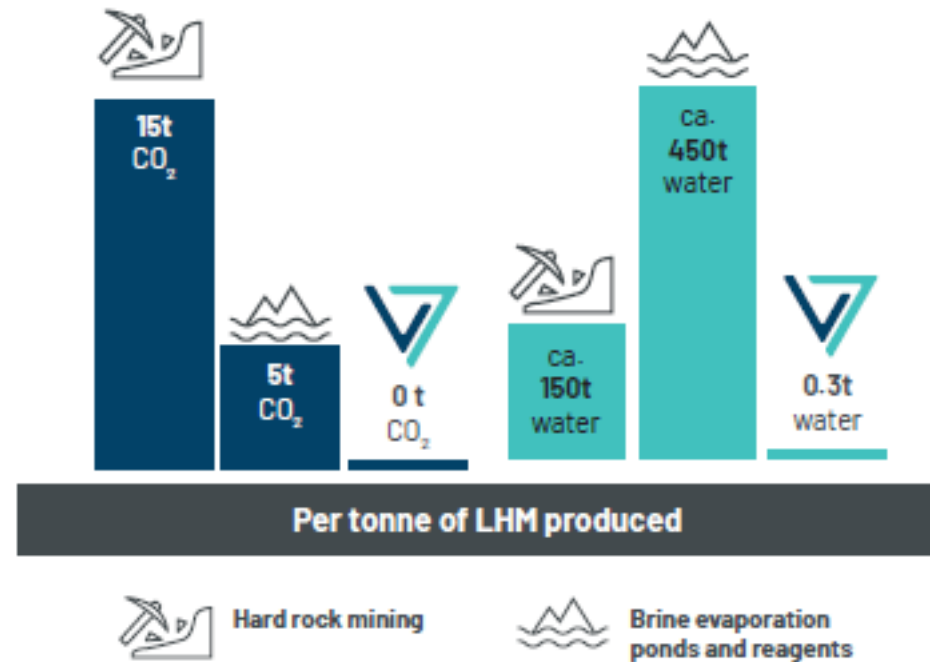
Vulcan's validated **commitment to sustainability**



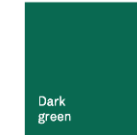
Lionheart Project
Environmental and Social Impact
Assessment (ESIA)



DATE
30 September 2025
REFERENCE
0699805



S&P Global



Awarded Dark Green rating overall for Vulcan's published Green Financing Framework, the highest ever received by a Metals and Mining company globally



€2.2bn green financing package secured and project construction has commenced



Winner of 2025 Australian Financial Review Sustainability Leaders Award for Resources, Energy and Utilities



Sustainalytics Top Industry Performer with a 'Low Risk' ESG Rating

FROM BRINE TO BATTERY: THREE PILLARS OF SUSTAINABLE LITHIUM



Integrated by design – reducing emissions, footprint and supply risk

Sustainable resource: Lithium from geothermal brine

- ✓ Small footprint with compact well sites
- ✓ Renewable geothermal energy used in extraction
- ✓ Renewable heat supplied to local communities
- ✓ No impact on groundwater resources
- ✓ Low disturbance to ecosystems and habitats
- ✓ Minimal water impact through reinjection



Sustainable processing: Adsorbent Direct Lithium Extraction

- ✓ Proven, commercially available technologies
- ✓ Very low operational emissions – no direct fossil fuel use
- ✓ Low waste and minimal chemical use
- ✓ High-efficiency lithium-selective adsorbent (VULSORB®)
- ✓ Reduced water use through closed-loop recycling



Sustainable supply chain: In Europe, for Europe

- ✓ Locally sourced lithium for supply security
- ✓ Proximity to market (~130 km vs global supply chains)
- ✓ Lower transport costs and reduced disruption risk
- ✓ Lower emissions vs traditional supply chains
- ✓ Supporting local industry and communities



OUR CO-PRODUCT: RENEWABLE ENERGY

Decarbonising industry and supporting local communities

Renewable heat (local impact)

- Baseload geothermal heat supplied to local communities in the Landau region
- Supports decarbonisation of local heating and industry.

Renewable power (operational advantage)

- Baseload renewable power generated on site
- Used internally, with excess supplied to the grid.

Community engagement (social licence)

- Local information centres supporting open, two-way dialogue
- Structured stakeholder engagement with ongoing transparency.

Delivering renewable energy and local benefits



FIRST OF A KIND PROJECTS REQUIRE EXCEPTIONAL TEAMS



What it takes to deliver a first-of-its-kind project

- ✓ Integrated engineering across the full value chain
- ✓ Specialist expertise from world-class partners
- ✓ Collaboration across disciplines, cultures and geographies
- ✓ Leadership, governance and disciplined execution

Diverse expertise, strong partnerships and integrated delivery turn innovation into an operating project.



SEDGMAN



HOCHTIEF



jord proxa
future focused

SIEMENS



Technik für Mensch & Umwelt



clean energy ahead
TURBODEN

MeRseN

SUSTAINABLE PROJECTS ARE ULTIMATELY DELIVERED BY PEOPLE

Technology creates opportunity. People turn it into reality.

Innovation creates opportunity

Technology opens new ways to solve complex challenges

Capability delivers results

Expertise, collaboration and disciplined project delivery turn ideas into operating assets.

Leadership creates lasting impact

Leadership at every level inspires action, challenges convention and drives change.

Technology may enable the transition, but people with the capability to deliver and the leadership to drive change will determine its success.



ENERGY TRANSITION IN ACTION: LIONHEART

<http://v-er.eu>