

## Vulcan & Circular to establish world-first full lithium traceability & CO<sub>2</sub> measurement across supply chain

### Highlights:

- Vulcan to use Circular's full traceability and dynamic CO<sub>2</sub> measurement solution for Zero Carbon Lithium™ across the European Lithium-ion battery and Electric Vehicle (EV) supply chain, in a world-first for the lithium sector.
- Circular's customers include major European automotive manufacturers such as Volvo Cars, Daimler, Polestar and Jaguar Land Rover, which indicates OEMs' growing need to demonstrate responsible sourcing of raw materials like lithium and to track and manage the embedded CO<sub>2</sub> emission in their upstream supply chain for EVs, as they strive towards their net zero targets.
- Circular offers a software solution that enables customers to track raw materials through supply chains to demonstrate responsible sourcing and sustainability.
- This system implementation enables reputational protection, proof of compliance with regulations and dynamic carbon tracking.
- Circular's CO<sub>2</sub> solution provides a dynamic month-to-month visibility of CO<sub>2</sub> intensity across the supply chain and its participants.
- Battery raw materials transparency, traceability and sustainability were directly targeted in the latest European Commission Battery Regulation proposed in December 2020.
- Vulcan will be implementing Circular's solution to its future lithium supply contracts with European OEMs to help them meet their sustainability objectives for material traceability and CO<sub>2</sub> transparency.
- Circular's solution will first be used during Vulcan's project development including at a pilot and demonstration plant level, when the first samples are dispatched to customers.
- Circular and Vulcan will work together to prepare Vulcan and its supply chain for full traceability of Vulcan's Zero Carbon Lithium™ product at the production start in 2024.

### Highlights

Aiming to be the world's first  
**Zero Carbon Lithium**  
producer.

**Large, lithium-rich**  
geothermal brine project, in  
the Upper Rhine Valley of  
Germany.

Europe's **largest** JORC-  
compliant lithium resource.

Located at the heart of the EU  
Li-ion battery industry.

Fast-track development of  
project under way towards  
production.

### Corporate Directory

Managing Director  
Dr Francis Wedin

Chairman  
Gavin Rezos

Executive Director  
Dr Horst Kreuter

Non-Executive Director  
Ranya Alkadamani

Non-Executive Director  
Annie Liu

CFO-Company Secretary  
Robert Ierace

### Fast Facts


Issued Capital: 107,464,256  
Market Cap (@\$6.32): \$679m

### Contact

Level 11, Brookfield Place  
125 St Georges Terrace  
Perth WA 6000 Australia  
08 6189 8767

Vulcan Energie  
Ressourcen GmbH  
Baischstr. 8,  
76133 Karlsruhe

www.v-er.com  
info@v-er.eu

 @VulcanEnergyRes

Douglas Johnson-Poensgen, Circular's CEO commented: *"The EV battery market in Europe is evolving fast with many new players establishing themselves in the market, and with a clear advantage for those who can prove sustainable practices. We are pleased to be supporting Vulcan in meeting Europe's needs for the electric vehicle transition, from a zero-carbon source, for many years to come. Together, we will set a new benchmark for the responsible sourcing of raw materials to enable sustainable mobility for the future."*

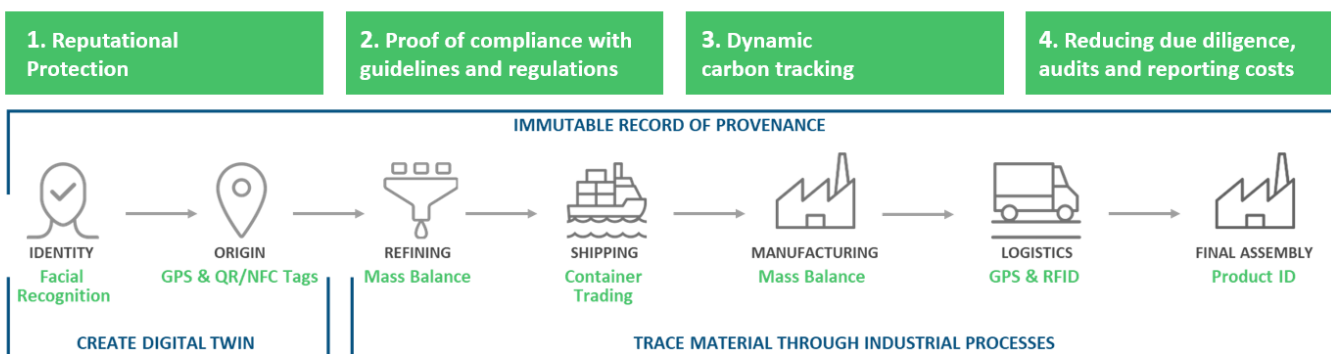
Dr Francis Wedin, Vulcan's CEO added: *"This collaboration between Circular and Vulcan will allow us to develop the world's first fully traceable, transparent and zero carbon lithium product extracted and consumed in Europe. As well as showing Vulcan's commitment to a transparent supply chain with net zero carbon footprint, it is another industry-leading move by Vulcan that sets the way forward for the raw materials industry to improve and align to OEMs' goal of producing truly sustainable EVs."*

## Vulcan Energy & Circular to establish first full lithium traceability & transparency across the EU supply chain

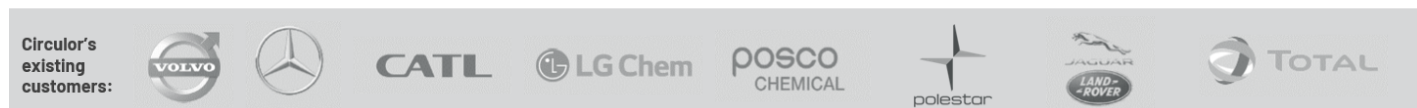


Circular offers a software solution that enables customers to **track raw materials and CO2 emissions** through supply chains to **demonstrate responsible sourcing and sustainability**.

By applying blockchain, artificial intelligence, machine learning, facial recognition, mass balancing and other technologies Circular makes sure that the digital twin is reliably linked to the physical resource through out its entire journey. This enables:



Example applied to the cobalt supply chain

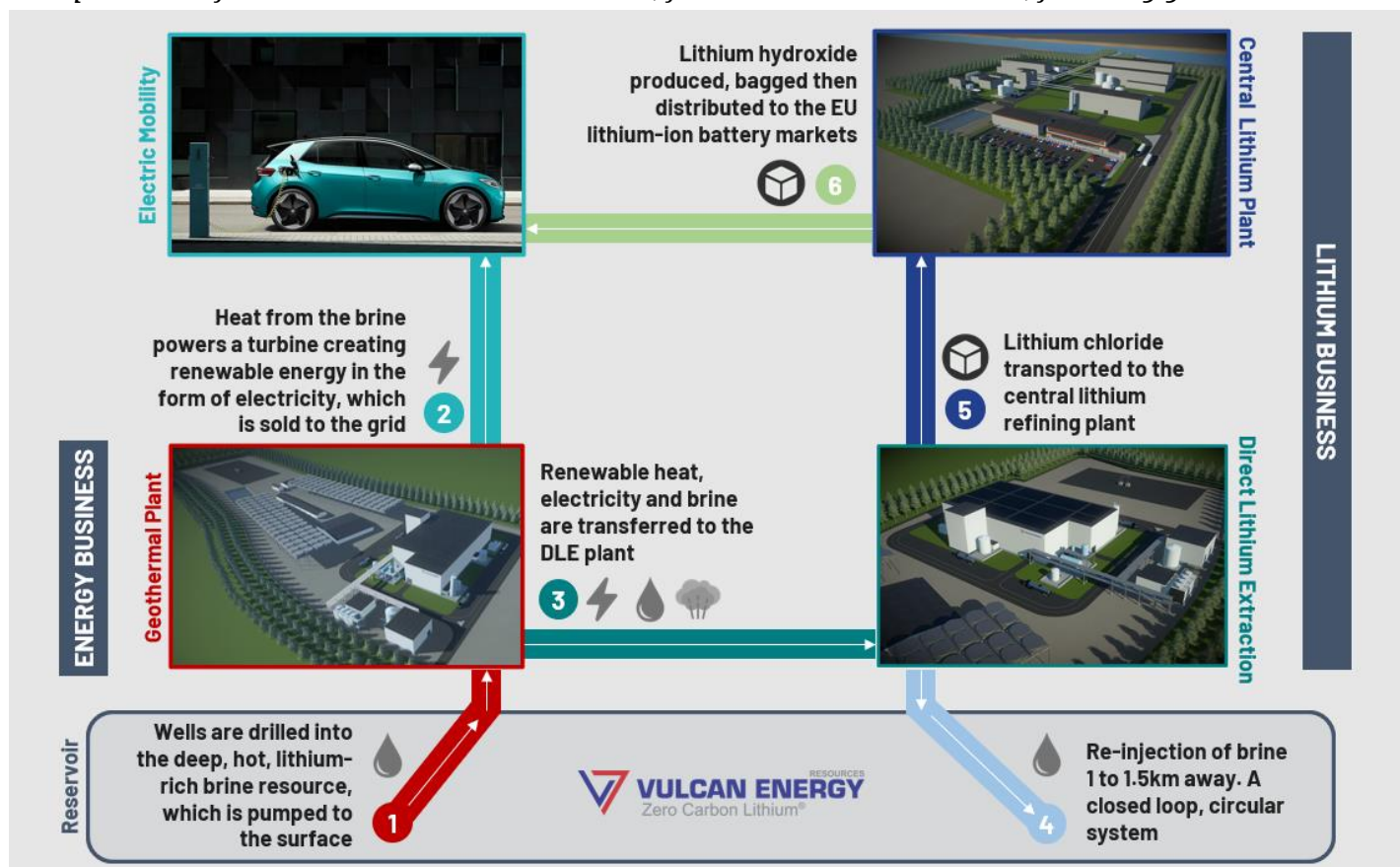


**Recent activities by the Company (<https://v-er.com/investor-centre/>):**

- Former Tesla Head of Battery Supply Chain joins as Director
- EU sustainable battery & CO<sub>2</sub> policy expert to join Vulcan as Advisor
- High lithium grades, low impurities from bulk brine sampling.
- Agreement with DuPont to advance Direct Lithium Extraction.
- Acquisition of world-class geothermal sub-surface development team.
- \$120 million placement endorses Vulcan Zero Carbon Lithium®.
- Positive Pre-Feasibility Study.
- European Commission Regulation on batteries & CO<sub>2</sub> footprint.

**About Vulcan**

*Vulcan Energy is aiming to become the world's first Zero Carbon Lithium™ producer, by producing a battery-quality lithium hydroxide chemical product with net zero carbon footprint from its combined geothermal and lithium resource, which is Europe's largest lithium resource, in the Upper Rhine Valley of Germany. Vulcan will use its unique, net zero carbon process to produce both renewable geothermal energy, and lithium hydroxide, from the same deep brine source. In doing so, Vulcan will address lithium's EU market requirements by reducing the high carbon and water footprint of production, and total reliance on imports, mostly from China. Vulcan aims to supply the lithium-ion battery and electric vehicle market in Europe, which is the fastest growing in the world. Vulcan has a resource which can satisfy Europe's needs for the electric vehicle transition, from a zero-carbon source, for many years to come.*



**For and on behalf of the Board**

Robert Ierace

Chief Financial Officer - Company Secretary

For further information visit [www.v-er.com](http://www.v-er.com)

**Disclaimer**

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Vulcan operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Vulcan's control.

Vulcan does not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of Vulcan, its Directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

This announcement is not an offer, invitation or recommendation to subscribe for, or purchase securities by Vulcan. Nor does this announcement constitute investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.

**Competent Person Statement:**

The information in this report that relates to Mineral Resources is extracted from the ASX announcement made by Vulcan on the 15 December 2020, which is available on [www.v-er.com](http://www.v-er.com). The information in this presentation that relates to the Pre-Feasibility Study for the Vulcan Lithium Project is extracted from the ASX announcement "Positive Pre-Feasibility Study", released on the 15<sup>th</sup> of January 2021 which is available on [www.v-er.com](http://www.v-er.com). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.