

The Cinovec Project

# **Ethically-sourced** European battery metals to power **Europe's sustainable future**

May 2022



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All \$ amounts in this presentation are references to United States Dollars.

## COMPETENT PERSON

The Exploration information in this presentation is based on information compiled by Mr Widenbar who is a recognised geologist and consultant to European Metals. Mr. Widenbar has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Widenbar consents to the inclusion in this presentation of the matters based on his information in the form and the context in which it appears

# EUROPEAN METALS HOLDINGS



## POWERING SUSTAINABLE EUROPEAN E-MOBILITY

**Integrated mine & lithium processing plant**

**Largest hard rock lithium resource in Europe**

### Compelling Economics:

- \$1.938B post-tax NPV<sub>8</sub>, 36.3% post-tax IRR, \$5,567/t opex
- 29,386 t.p.a of lithium hydroxide

### Strong Partners:

- CEZ - dominant utility in Czech Republic
- EIT InnoEnergy - Official European Union body

**Fully funded to Final Investment Decision**

**Secure, sustainable EU supply for EV/Battery gigafactories**

**Strong ESG credentials**

**Keith Coughlan** Executive Chairman (Australia)

**Richard Pavlik** Executive Director (Czech Republic)

**Kiran Morzaria** Non-Executive Director (UK)

**Lincoln Bloomfield** Non-Executive Director (USA)

**David Koch** Company Secretary and CFO (Australia)

**Simon Edwards** Corporate Development & COO of GEOMET (UK)

**Grant Harman** Metallurgical Consultant (Australia)

**Peter Huljich** Corporate Finance (Australia)

**Michael Atkins** Corporate Consultant (Australia)

**Walter Mädel** Operations Manager (Czech Republic)

**Vojtech Sesulka** Consulting Geologist (Czech Republic)

### 12 Month stock performance

Market Cap: 235 million (AUD) May 2022

Cash at Bank: AUD 19.9 million

Shares outstanding: 186 million

ASX & LON: EMH, OTCQX: ERPNF, ADS:EMHXY



# EU AUTO REGULATIONS SUPPORT SIGNIFICANT EV UPTAKE



## **EU spends big on climate change**

€1 Trillion to be spent  
on European Green  
Deal by 2030

## **Just Transition Fund**

€40 billion fund to  
transition fossil fuels to  
green energy

## **EU self sufficiency**

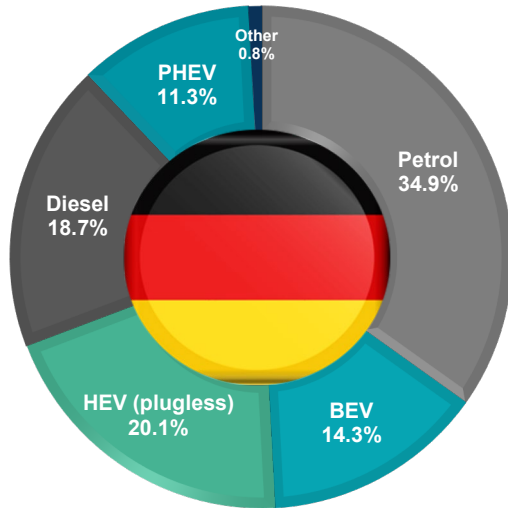
Targeting 80% lithium  
self sufficiency by 2025

## **EU CO2 targets tighten**

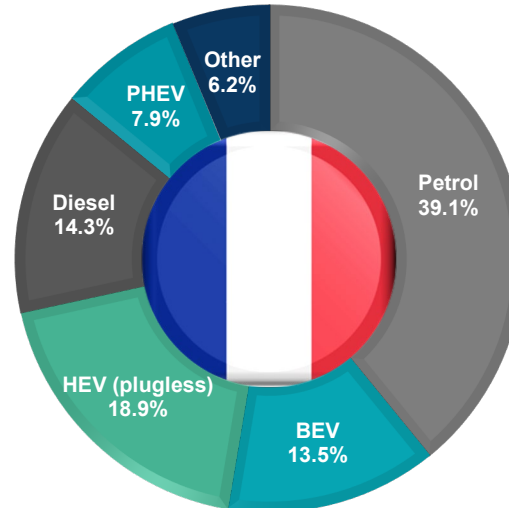
€billions potential fines  
for non-compliant  
automakers

# EUROPEAN EV SALES BOOMING

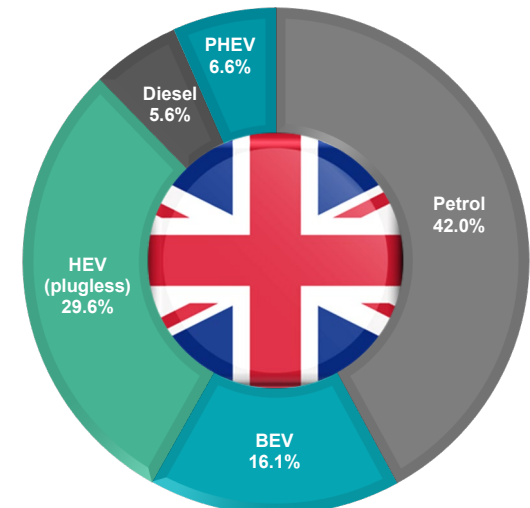
## New Car Sales March - 2022



Germany



France



United Kingdom

# EUROPEAN EV SALES ARE THE FUTURE



**86.1%** full battery electrics

**5.8%** plugin hybrids

**Only 2.8%** Petrol-only combustion

## Norway



Sales in March 2022

# 92%

**Record EV Market Share**

CO2 emissions taxes came into effect  
**January 2022**

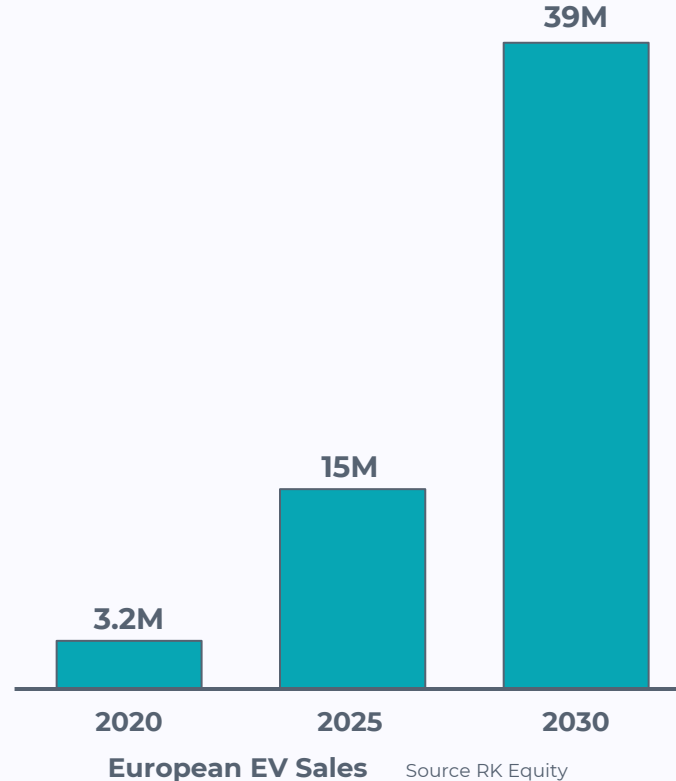
CO2 emitting car costs to rise by  
**5% - 10%**

\*EV = BEV & PHEV

Source PFA/Clean Technica

# EUROPE DRIVING EXPONENTIAL GLOBAL EV SALES GROWTH

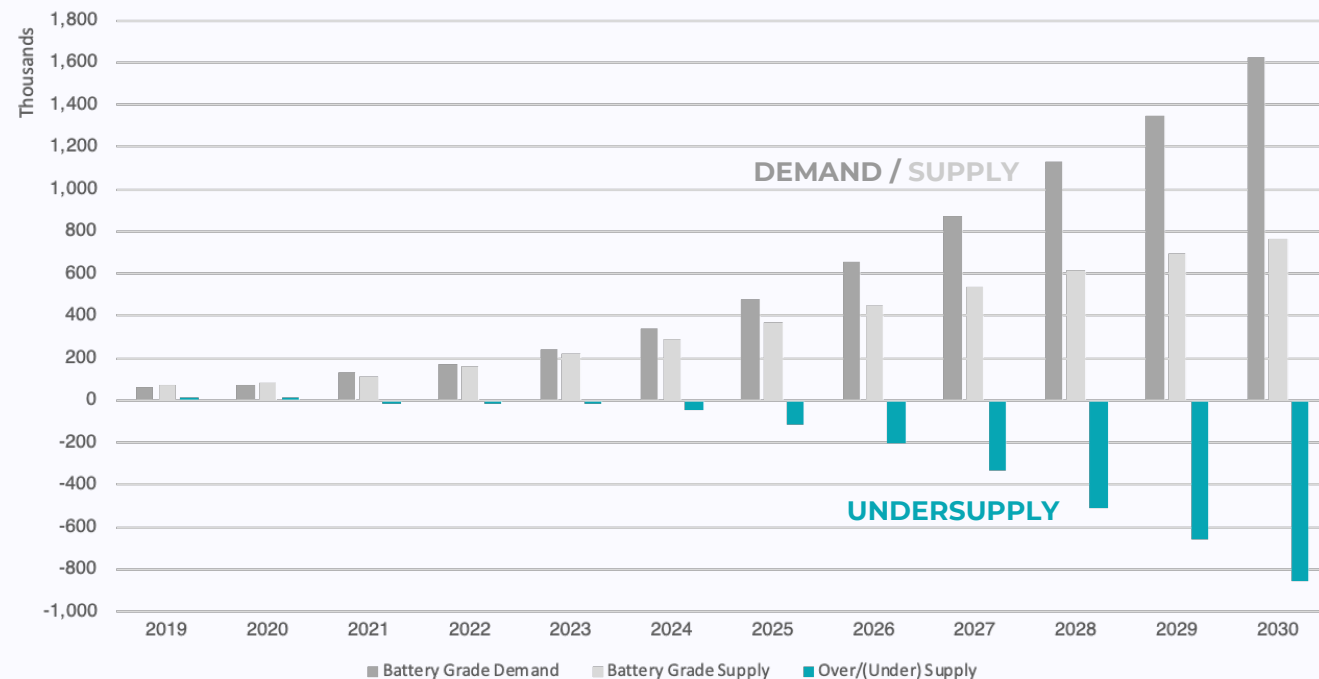
Tesla Berlin  
Largest battery  
gigafactory in the world  
(Oct 2021 Completed)



VW goal  
22 million EVs in 10 years



# BATTERY GRADE HYDROXIDE UNDERSUPPLY



Source: RK Equity

## LITHIUM

“The irreplaceable element for the electric era” VW

## HYDROXIDE

For high energy, long range batteries

## CHINA RELIANCE

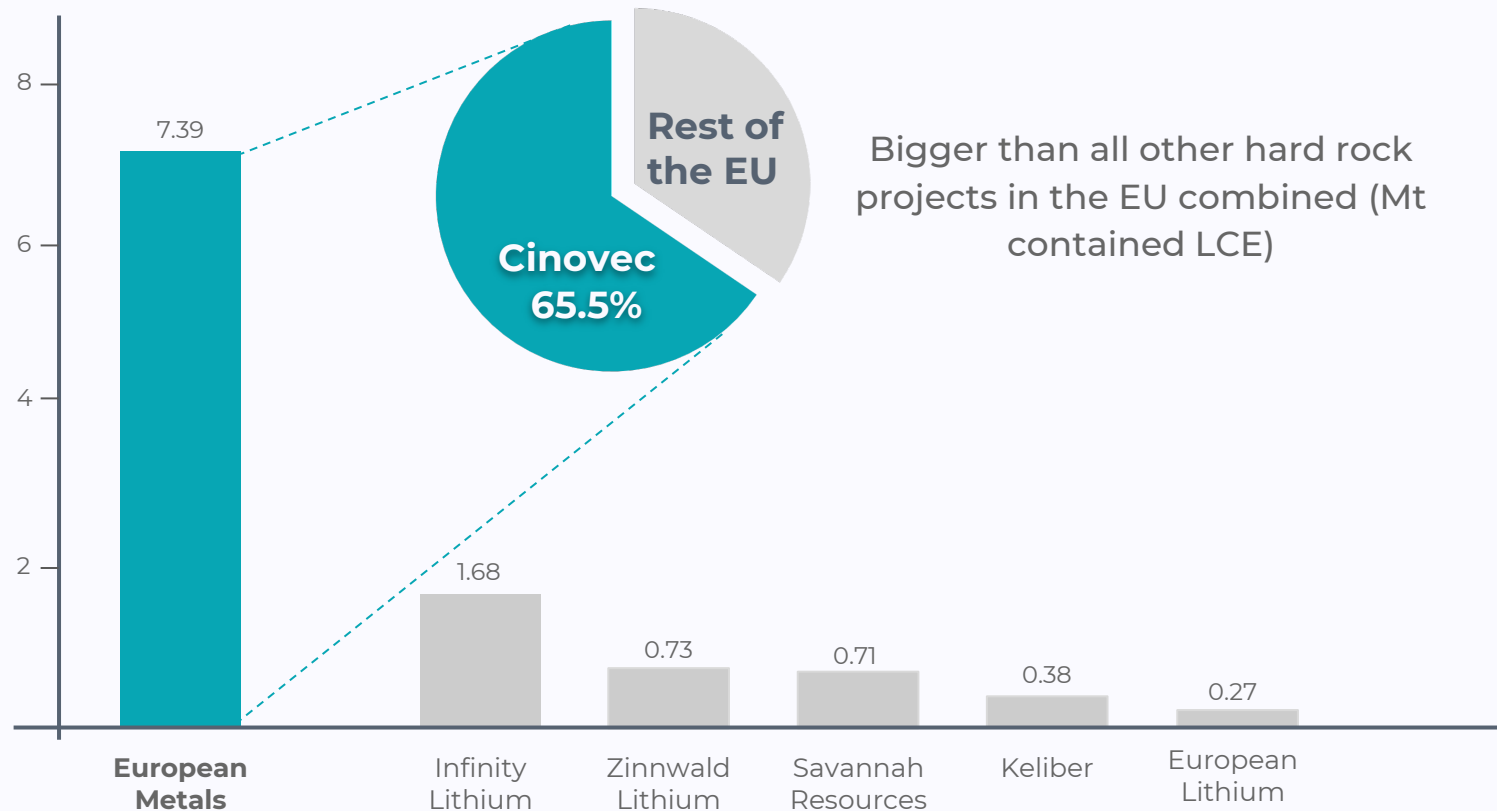
83% global hydroxide production

## EUROPE

80% self sufficiency target by 2025



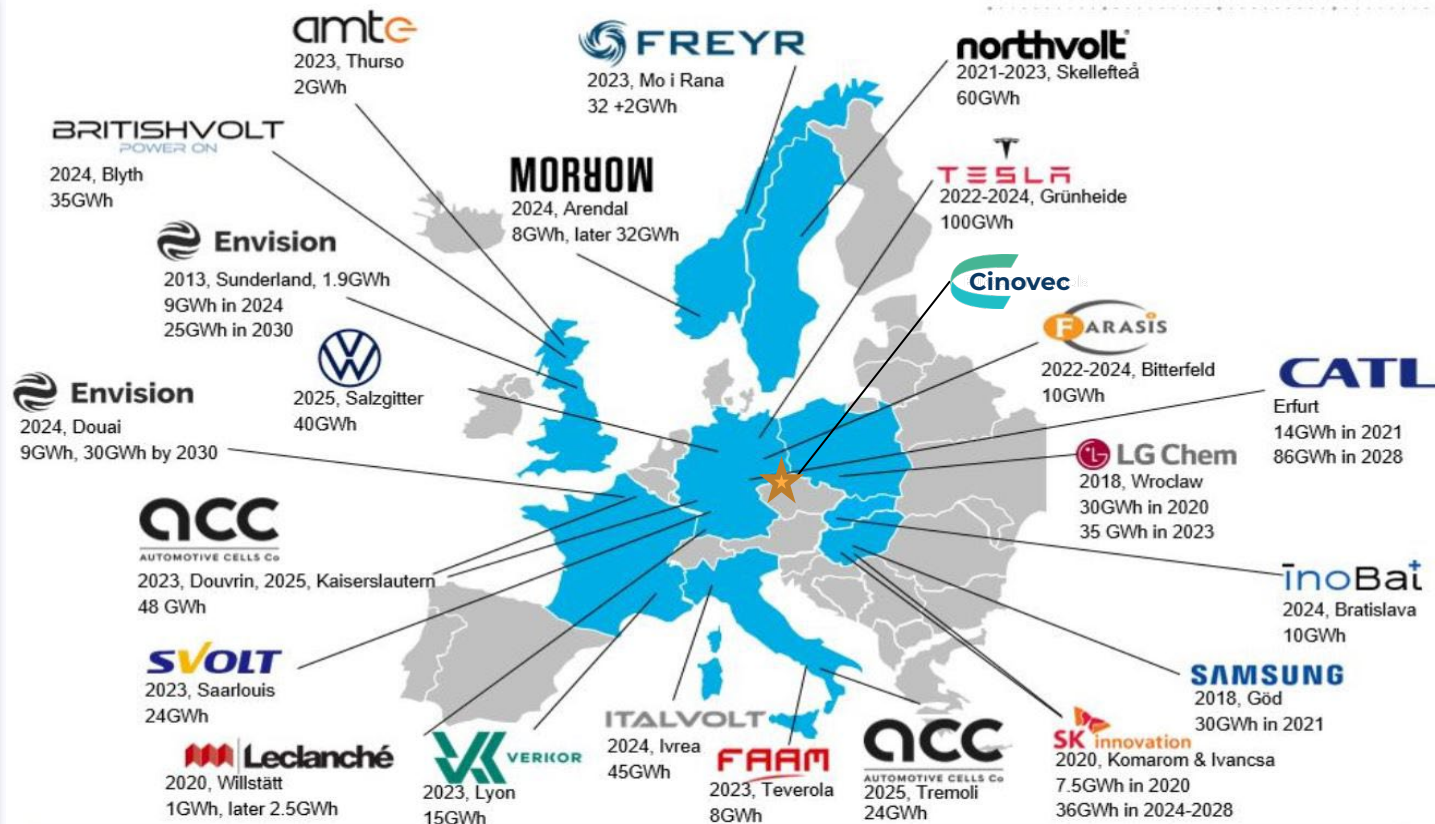
# CINOVEC - LARGEST HARD ROCK PROJECT IN EU



# PROXIMITY TO END USERS

Localized hydroxide close to key cathode, battery & auto makers.

Critical for EU's 80% supply security target



# THE CZECH REPUBLIC



## In heart of Europe

Over 90% of its exports are to European countries with 32% to Germany alone



## Business friendly

Stable political and economic environment. Member of the European Union and low corporate income tax rate of 19%



## World Class Infrastructure

Road and rail services available. Communication network and power facilities in place

# HIGH QUALITY INFRASTRUCTURE



**MINE**

Fast low cost transportation of lithium concentrate to chemical plant



**CHEMICAL PLANT**



**ROAD**

Adjacent to road and rail lines connecting Cinovec to European customers

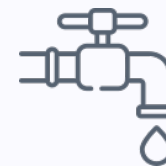


**RAIL**



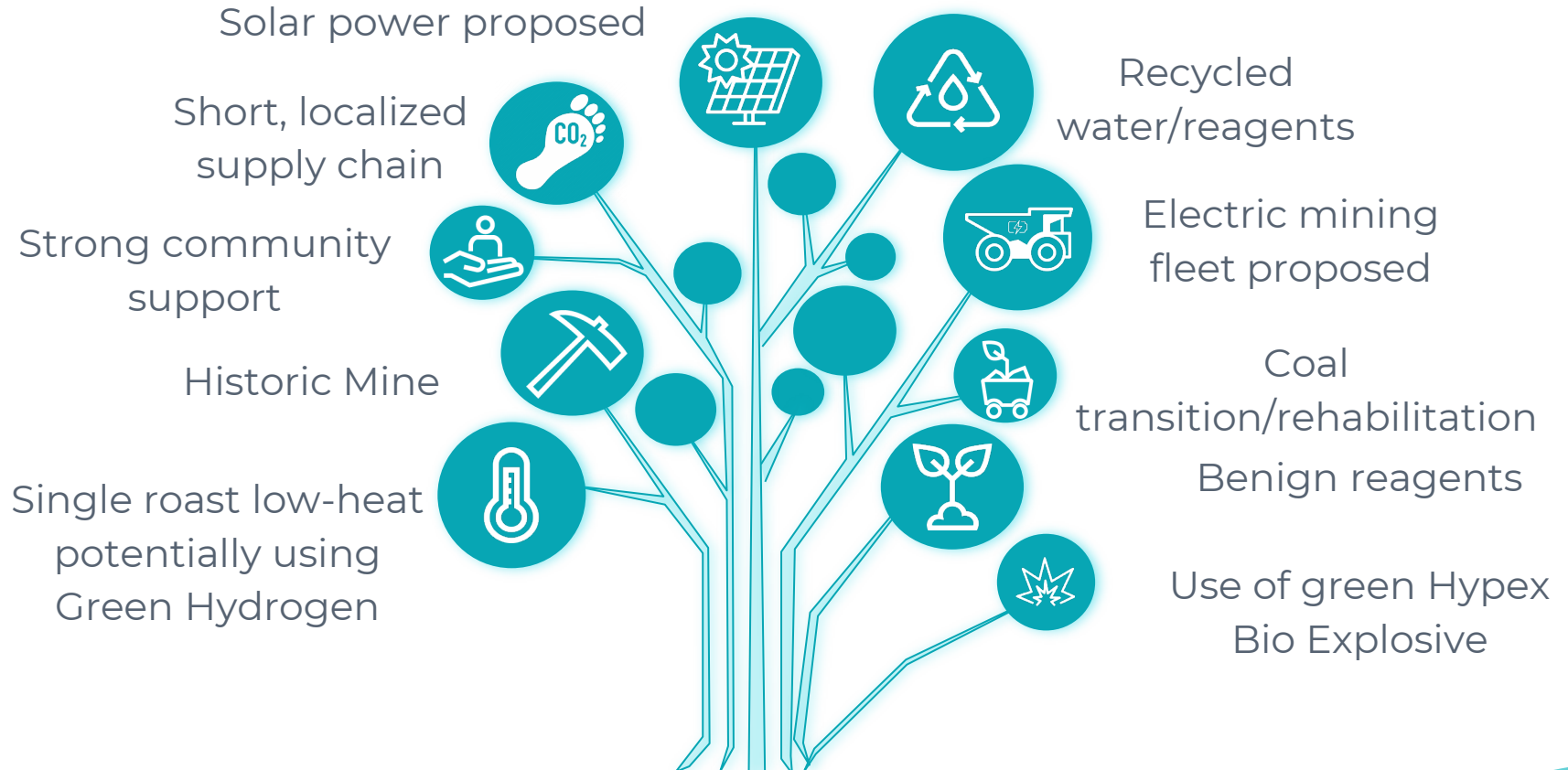
**POWER**

Solar power/Green energy close by mine and processing site along with established water supply



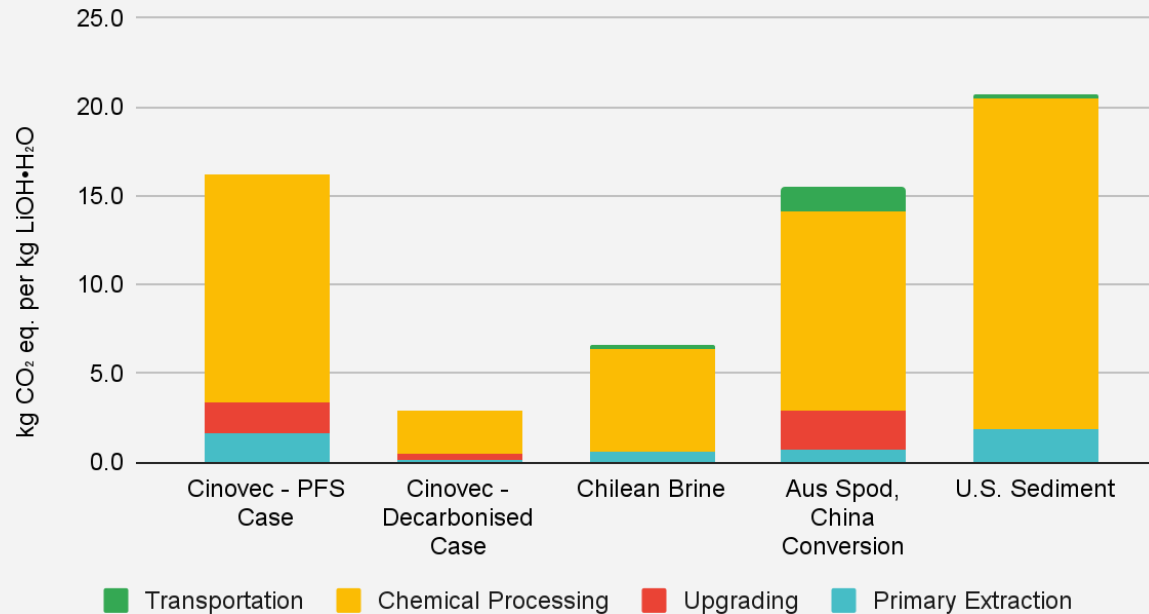
**WATER SUPPLY**

# POSITIVE ESG PROFILE



# LCA – WORLD LEADING DECARBONISED CASE

Global Warming Potential of Different Hydroxide Products



- Use of Solar Power/Green Energy
- Electric Mining Fleet
- Hypex Bio Explosive
- Use of Green Hydrogen

# STRATEGIC PARTNERSHIPS



CEZ GROUP

- Czech national power company Mkt Cap EUR17B
- Strong community and government relationships
- Invested EUR 29m at project level
- Heading consortium to build Li ion battery factory in Czech
- Significant investment in green energy solutions for Cinovec



European Institute of  
Innovation & Technology

The EIT is a body of the European Union



- Principal facilitator and organiser of European Battery Alliance
- Support provided for offtake, construction, finance and ultimate commercialisation of Cinovec
- Aim to secure raw materials and technological development for European battery industry

# PFS HIGHLIGHTS



<b>Annual production</b>	29,386 tpa battery grade LiOH.H <sub>2</sub> O
<b>Total JORC resource</b>	7.39 Mt LCE 0.64 Mt LCE measured 3.88 Mt LCE indicated 2.87 Mt LCE inferred
<b>Construction Capital costs</b>	\$643.8 million
<b>Operating costs (without credits)</b>	\$6,727/t LiOH.H <sub>2</sub> O
<b>Operating costs (with credits)</b>	\$5,567/t LiOH.H <sub>2</sub> O
<b>Lithium hydroxide price assumption</b>	\$17,000/t battery grade LiOH.H <sub>2</sub> O

*1 The PFS Update for the production target and forecast financial information was released on 19 January 2022*

*2 The annual production is stated as 100% lithium hydroxide monohydrate*

*3 The JORC Resource was updated 13 October 2021*

*The Company confirms that all material assumptions underpinning the production target and forecast financial information continue to apply and have not materially changed.*

**\$1.938**

**Billion**

NPV

(8%, after tax)

**36.3%**

IRR

(after tax)

**25 years**

Life Of Mine

(based on only 13.1% of Measured  
and Indicated resource and  
7.7% of total resource)



# CATALYSTS TO DRIVE SHAREHOLDER WEALTH

## Key Accomplishments

- ☒ Appointment of lead engineer
- ☒ Partnership agreement with EU body
- ☒ Strategic partnership with CEZ – project fully funded to FID
- ☒ Completion of PFS demonstrating strong economics and low cost of production for underground mining
- ☒ Production of battery grade lithium hydroxide
- ☒ Completed locked-cycle tests – SMS has verified production of LiOH from Mica
- ☒ Completed drilling for resources and reserves update
- ☒ Update resource model to include Measured Resources for upgrade of Probable Reserves to Proven Reserves.

## In progress

- ☐ Progress strategic partner/offtake discussions – in active discussions with leading global (batteries/autos).
- ☐ Progress EIAs and permitting for mining and processing.
- ☐ Complete Flowsheet optimisation testwork in FECAB and LCP
- ☐ DFS and Front-End Engineering Design (FEED)
- ☐ FEED programme to produce marketing samples.

# BOARD & MANAGEMENT TEAM



## KEITH COUGHLAN

(AUS)  
**MANAGING DIRECTOR**

30 years stockbroking & funds management experience

Previously Chair of Talga Resources

Currently NED of Southern Hemisphere Mining of Calidus Resources Limited.

## RICHARD PAVLIK

(CZ)  
**EXECUTIVE DIRECTOR**

Masters Mining Engineering

30 yrs Czech mining experience

Previously Chief Engineer & Head of Surveying & Geology for OKD & New World Resources.

## KIRAN MORZARIA

(GB)  
**NON EXECUTIVE DIRECTOR**

CEO & Director of EMH's largest shareholder, Cadence Minerals in UK

Bachelor of Engineering & MBA Finance

Operational & Management experience in Mineral Resource Industry.

## LINCOLN BLOOMFIELD

(USA)  
**NON EXECUTIVE DIRECTOR**

Former US Ambassador & official specialising in foreign policy and international security

Former Chairman of the Stimson Center in Washington DC,

Experience working with governments, companies in the private sector, primarily involving renewable energy technology, private equity, and security issues.

## DAVID KOCH

(AUS)  
**COMPANY SECRETARY/CFO**

David is a Chartered Secretary and CPA with 35+ years experience working in the precious metals and mining services industries.

David is a Fellow of the Governance Institute of Australia and holds a Bachelor of Business with majors in Accounting and IT, and a Graduate Diploma of Applied Corporate Governance.

## SIMON EDWARDS

(UK)  
**CORPORATE DEVELOPMENT COO of GEOMET**

Chartered Accountant (ICAEW) with Coopers & Lybrand

Corporate finance roles in leading London-based bank/brokers

Metallurgy & Science of Materials (Oxford).

## GRANT HARMAN

(AUS)  
**METALLURGICAL CONSULTANT**

Previously Manager, Lithium Chemicals, for Talison Lithium

Held roles with UGL, SNC Lavalin, CleanTeq & Ausenco.

## PETER HULJICH

(AUS)  
**CORPORATE/FINANCE ADVISER**

25 years' experience in the Investment Banking, natural resources and Legal sectors in Europe/Australia/Africa.

B Com/LLB from the University of Western Australian

Graduate of the Securities Institute of Australia (National Prizes in Applied Valuation and Financial Analysis).

## WALTER MADEL

(CZ)  
**OPERATIONS MANAGER GEOMET**

Experienced minerals operations and ore processing specialist.

Walter has successfully delivered lithium ore processing plants for Altura's Pilganloora mine and Firefinch's Goulamina hard rock lithium DFS.

## MICHAEL ATKINS

(AUS)  
**CORPORATE CONSULTANT**

Fellow of the Australian Institute of Company Directors.

30+ years' experience as an executive manager and served on the Board of numerous publicly listed resource companies.

Current Chairman of ASX-listed Legend Mining, Castle Minerals and SRG Global Limited.



ASX : **EMH**



LON : **EMH**



NASDAQ : **ERPNF**

Frankfurt : **E861.F**

## **Keith Coughlan**

Executive Chairman

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[keith@europeanmet.com](mailto:keith@europeanmet.com)

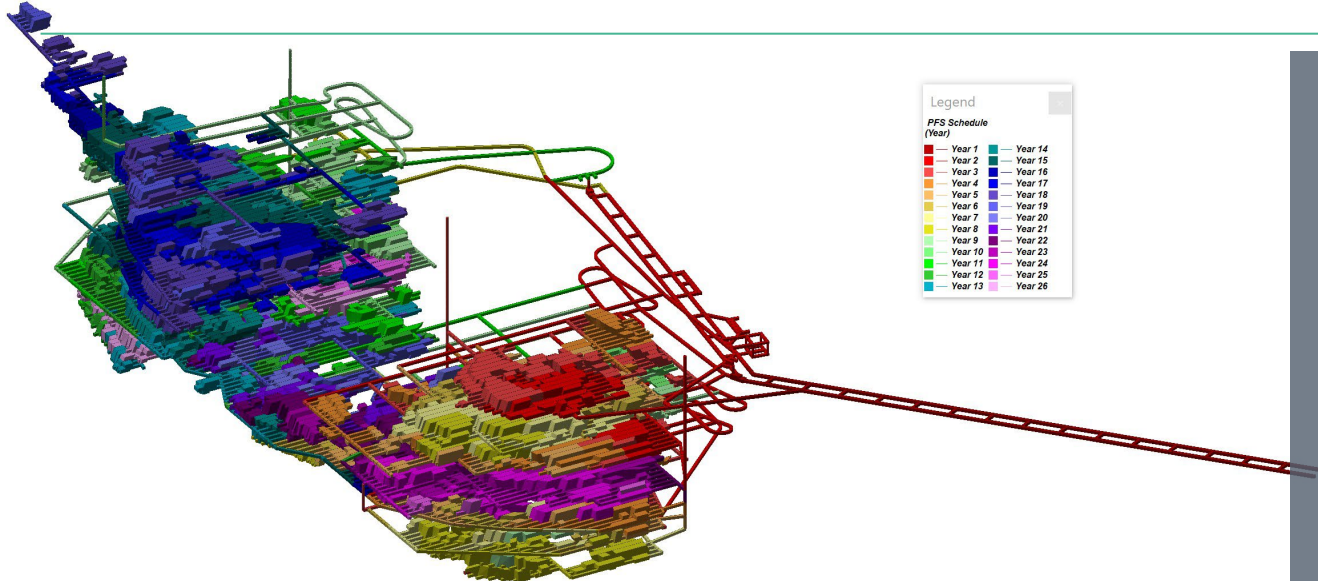
[www.europeanmet.com](http://www.europeanmet.com)

# PROJECT SUMMARY

- Large 2.25mtpa underground mining operation with paste backfill.
- Underground crushing and conveyor to surface milling.
- Slurry pipeline to beneficiation plant.
- Wet magnetic separation of lithium concentrate.
- Locked Cycle Test verifies production of lithium hydroxide or carbonate from Mica via gypsum & sodium sulphate roast, water leach, purification and product precipitation / crystallization route.
- By-product gravity recovery of tin and tungsten.
- Potash and sodium sulphate by-products from lithium plant.
- Potential for recovery of a pure silica product (glass/ceramics).
- 56% Tailings used for backfill remainder used to rehabilitate adjacent abandoned coal pits.



# UNDERGROUND MINE



Historic underground mine for high-grade tin/tungsten veins, closed in 1993.

Over 89,000m historic diamond drilling, 21.5km historic drive development.

EMH confirmation drilling 20,756m, further geotech drilling in progress.

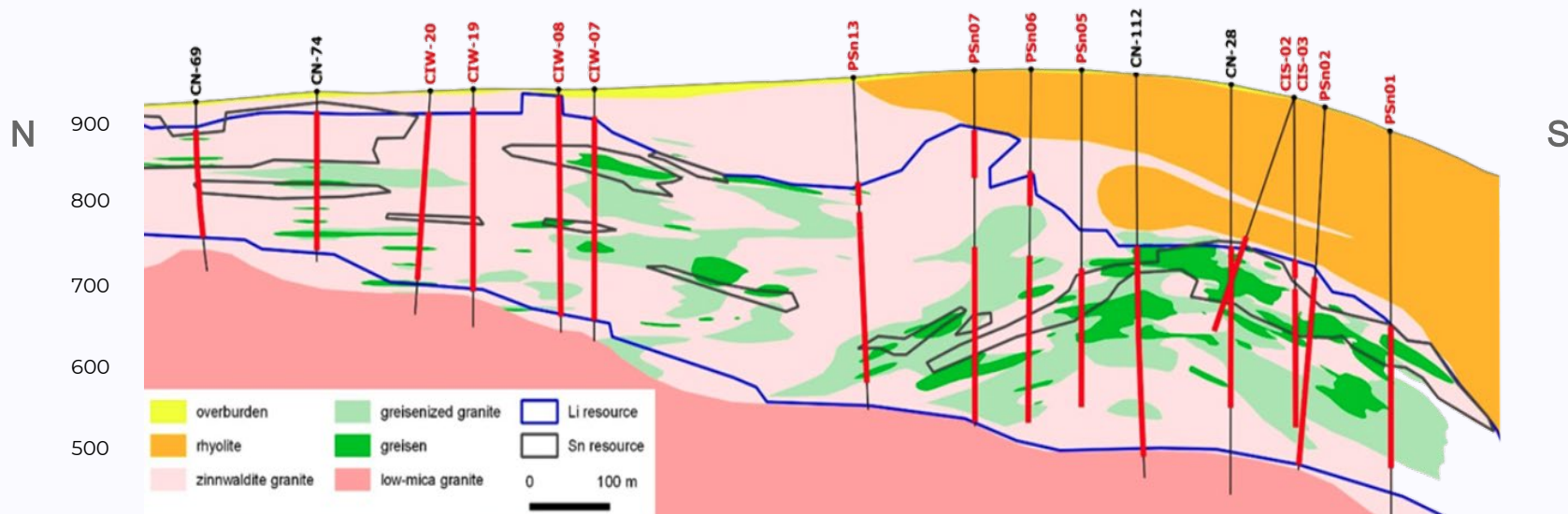
The upper portion of a granite cupola has been mineralized.

Lithium is hosted in lithium mica (zinnwaldite) disseminated in massive granite.

CINOVEC OCTOBER 2021 RESOURCE SUMMARY

	Cut-off	Tonnes	Li	Li <sub>2</sub> O	Sn	W	LCE
	%	(Millions)	%	%	%	%	MT
MEASURED	0.1 % Li (0.22% Li <sub>2</sub> O)	53.3	0.22	0.48	0.08	0.02	0.64
INDICATED	0.1 % Li (0.22% Li <sub>2</sub> O)	360.2	0.20	0.44	0.05	0.02	3.88
MEASURED+INDICATED	0.1 % Li (0.22% Li <sub>2</sub> O)	413.4	0.21	0.44	0.05	0.02	4.51
INFERRED (approx.)	0.1 % Li (0.22% Li <sub>2</sub> O)	294.7	0.18	0.39	0.05	0.02	2.87
TOTAL	0.1 % Li (0.22% Li <sub>2</sub> O)	708.2	0.20	0.42	0.05	0.02	7.39

# CINOVEC - LONG SECTION

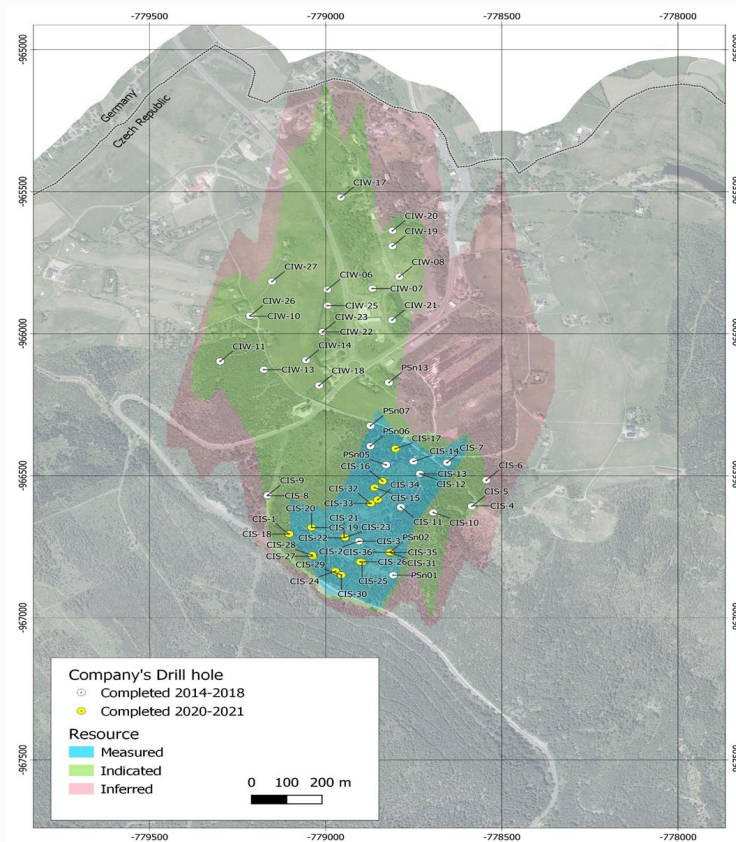


Hole	From	To	Width	Li2O%
CIW-25	9.5	373	361.5	0.43
CIW-26	173.75	410	236.25	0.49
CN-86	81.8	230.9	149.1	0.48

Hole	From	To	Width	Li2O%
CN-17	22	224	202	0.62
CIW-22	123	387.5	264.5	0.54
CN-81	1	224	223	0.52



# CINOVEC – Resource Aerial View



# PROCESS FLOWSHEET

