

## INVESTOR PRESENTATION AMENDMENT

**European Metals Holdings Limited (ASX & AIM: EMH, OTCQX: EMHXY, ERPNF and EMHLF)** (“**European Metals**” or the “**Company**”) is pleased to advise that Executive Chairman, Mr Keith Coughlan, will be presenting at a Lithium Update event at 12:45pm today at the Hyatt Regency, Perth. The event is sponsored by four ASX listed lithium development companies and features special guest, Joe Lowry.

The event will be followed by similar presentations in Sydney and Melbourne next week.

The Company's updated investor presentation associated with these events is attached and is also available on the Company's website: [www.europeanmet.com](http://www.europeanmet.com)

The presentation released earlier today contains details of the Simplified Process Flowsheet that has been amended to include a cross reference to the Company's previous related release dated 31 October 2022 (**Simplified Extraction Process delivers exceptionally clean battery grade lithium products with improved economics**).

The presentation slide on the Cinovec – Long Section has also been amended to include a cross reference to the Company's previous related release dated 13 October 2021 (**Resource Upgrade at Cinovec Lithium Project**).

**This announcement has been approved for release by the Chairman.**

### CONTACT

For further information on this update or the Company generally, please visit our website at [www.europeanmet.com](http://www.europeanmet.com) or see full contact details at the end of this release.

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James Joyce/Darshan Patel

(Corporate Finance)

Harry Ansell (Broking)

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#### DIRECTORS AND MANAGEMENT

**Keith Coughlan**  
EXECUTIVE CHAIRMAN

**Richard Pavlik**  
EXECUTIVE DIRECTOR

**Kiran Morzaria**  
NON-EXECUTIVE DIRECTOR

**Lincoln Bloomfield**  
NON-EXECUTIVE DIRECTOR

**David Koch**  
COMPANY SECRETARY

#### CORPORATE INFORMATION

ASX EMH

AIM EMH

OTCQX EMHXY, ERPNF and EMHLF

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The Cinovec Project

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

November 2022



# DISCLAIMER & CAUTIONARY STATEMENT



## DISCLAIMER

This presentation has been prepared by European Metals Limited ("European Metals" or the "Company"). It is not a disclosure document and should not be considered as an offer or invitation to subscribe for, or purchase any securities in the Company or as any inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this presentation. This presentation contains forecasts and forward looking information. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. European Metals has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this presentation. Accordingly, to the maximum extent permitted by applicable laws, European Metals makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for, the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission, from any information, statement or opinion contained in this presentation.

You should not act or refrain from acting in reliance on this presentation material. This overview of the Company's Cinovec Project does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Cinovec Project's prospects. You should conduct your own investigation and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation before making any investment decision. Information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves is based on previous announcements made by European Metals (or other relevant parties) to the ASX and AIM.

This presentation does not constitute financial product advice (nor investment, tax, accounting or legal advice) and has been prepared without taking account of any person's investment objectives, financial situation or particular needs.

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

Simple Flowsheet producing 99.99% pure lithium carbonate

### Compelling Economics:

- \$1.938B post-tax NPV<sub>8</sub>, 36.3% post-tax IRR, \$5,567/t opex
- Based upon LiOH price of USD 17,000 per tonne
- 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 supply for European Market

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)

**Marc Rowley** DFS Manager (Australia)

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

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

### 12 Month stock performance

Market Cap: 150 million (AUD) November 2022

Cash at Bank: AUD 18 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 Legislation

Introduction of  
European Critical  
Raw Materials Act

## EU self sufficiency

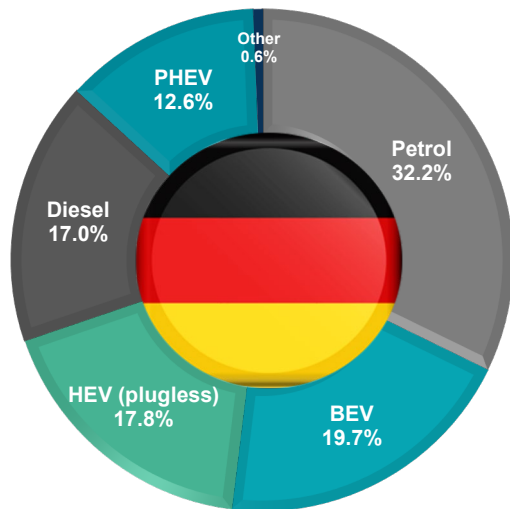
Targeting 80% lithium  
self sufficiency by 2025

## EU CO2 targets tighten

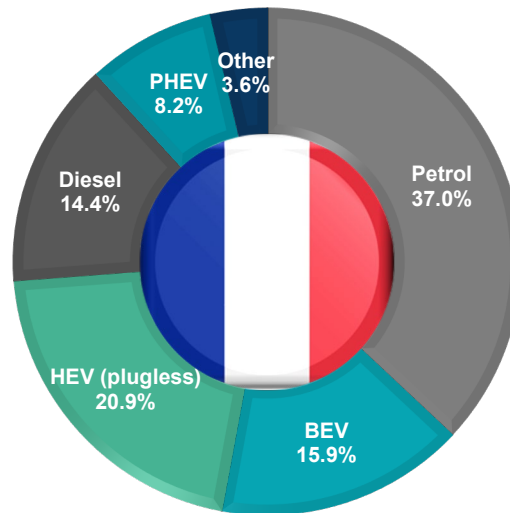
€billions potential fines  
for non-compliant  
automakers

# EUROPEAN EV SALES BOOMING

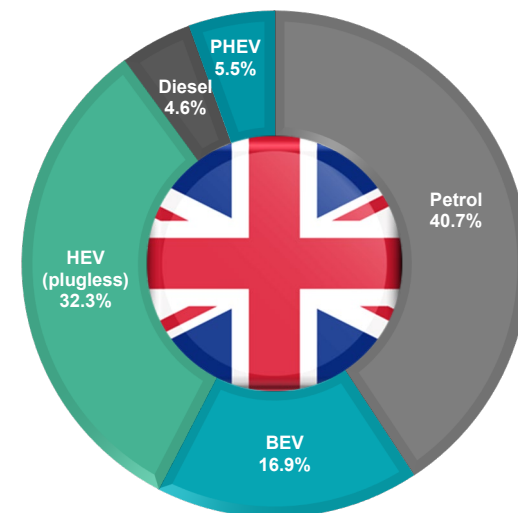
## New Car Sales September - 2022



Germany  
EV 32.2% (28.7% Sept 21)



France  
EV 24.2% (21.5% Sept 21)



United Kingdom  
EV 22.4% (21.6% Sept 21)



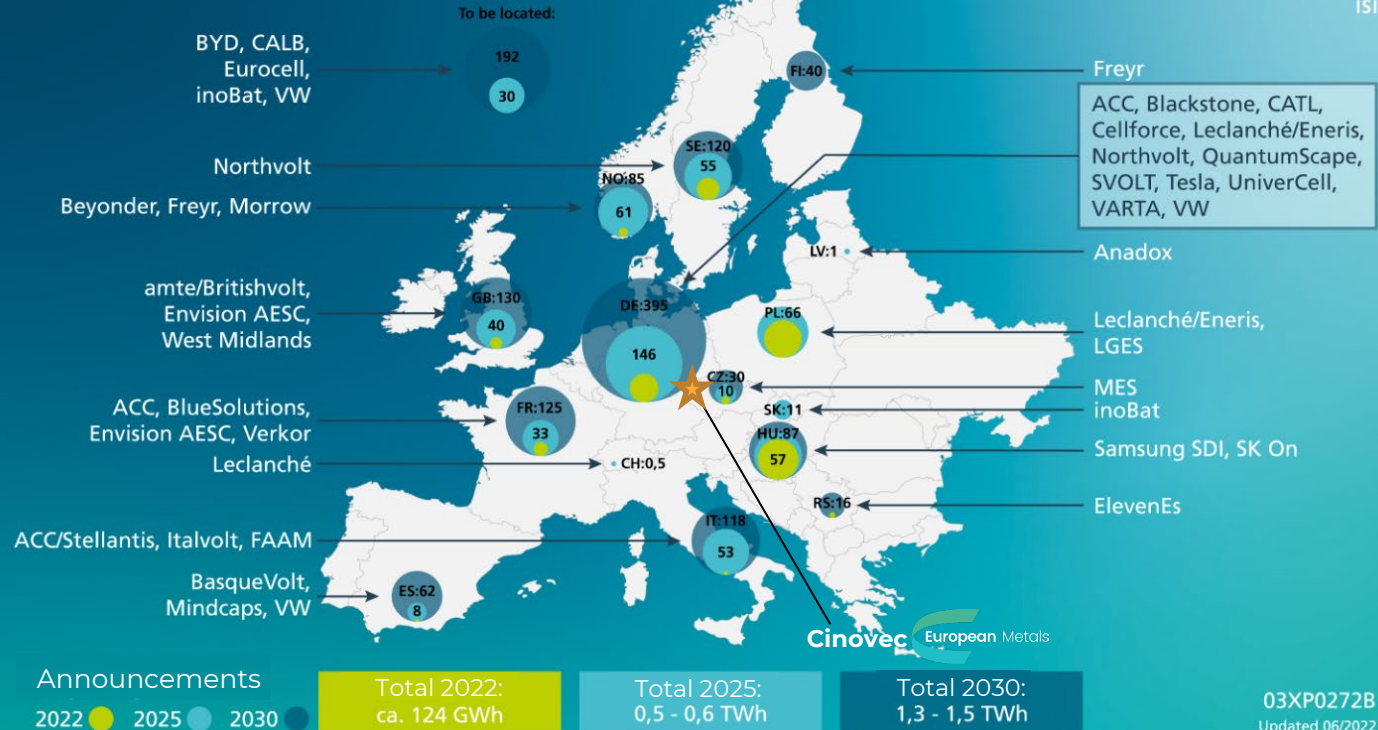
# PROXIMITY TO END USERS

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

Critical for EU's 80% supply security target

## Planned Battery Cell Production Capacity [GWh]

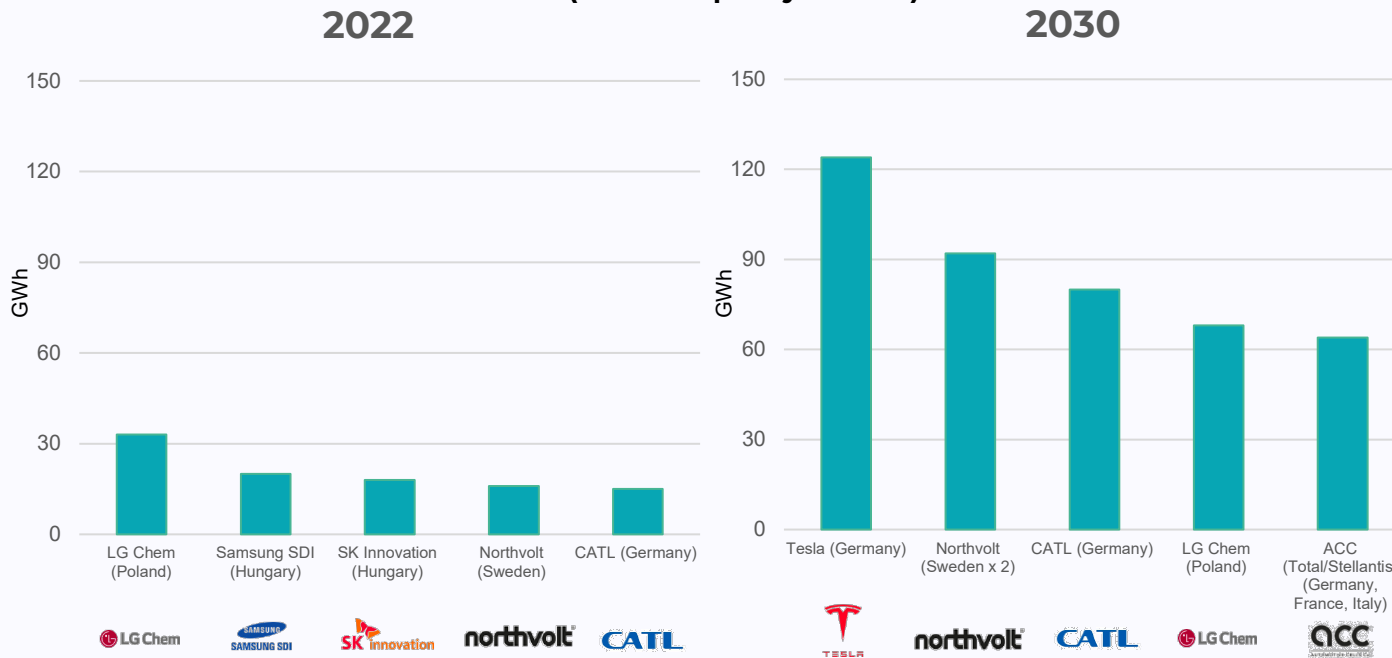
Fraunhofer ISI






# EUROPE DRIVING EXPONENTIAL GLOBAL EV SALES GROWTH

## Europe's Top 5 EV Lithium Battery Makers 2022 v 2030 (annual capacity in GWh)




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



 **105.8 GWh** from 9 active gigafactories

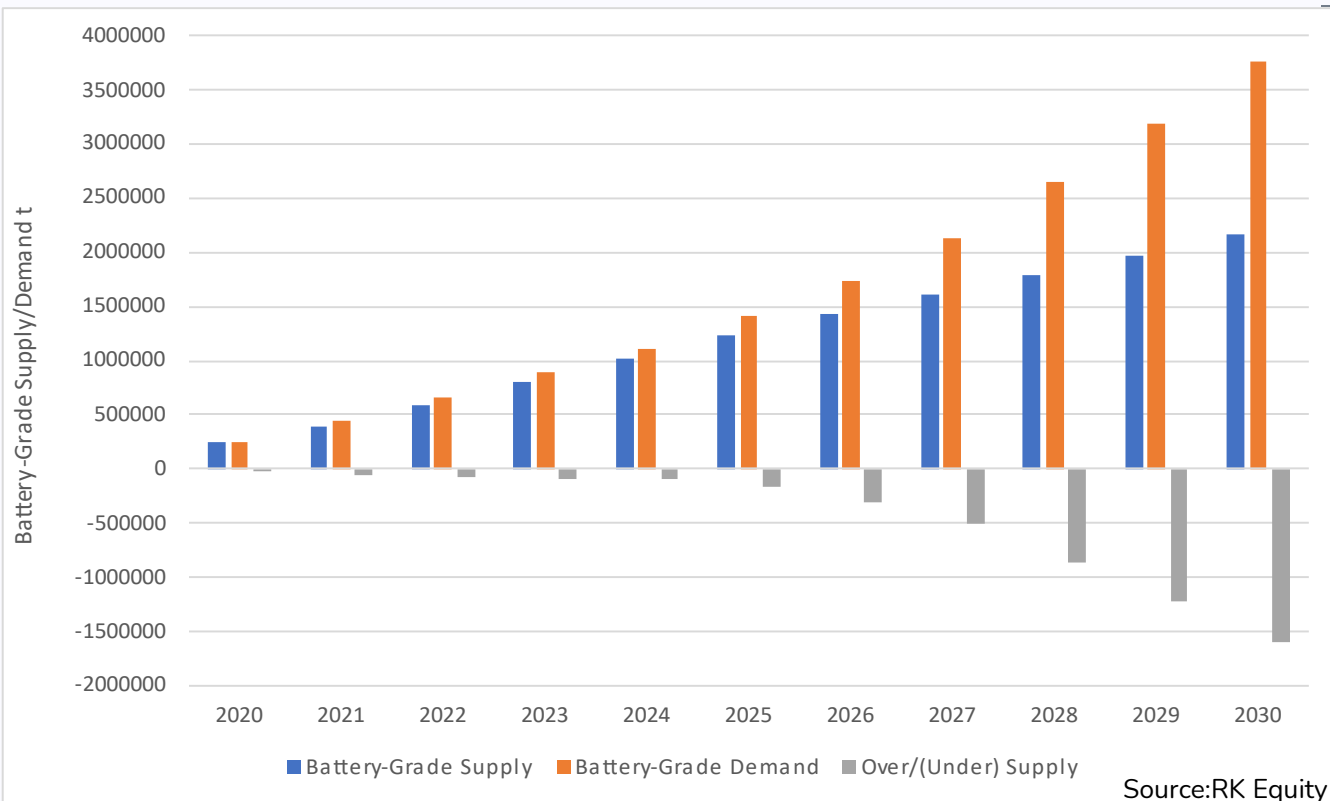
 **1.4m** EVs equivalent

 **789.2 GWh** from 27 active gigafactories

 **14.3m** EVs equivalent

Source: Benchmark Lithium Ion Battery Gigafactory Assessment

# BATTERY GRADE LITHIUM UNDERSUPPLY



## LITHIUM

“The irreplaceable element for the electric era” VW

## HYDROXIDE

For high energy, long range batteries

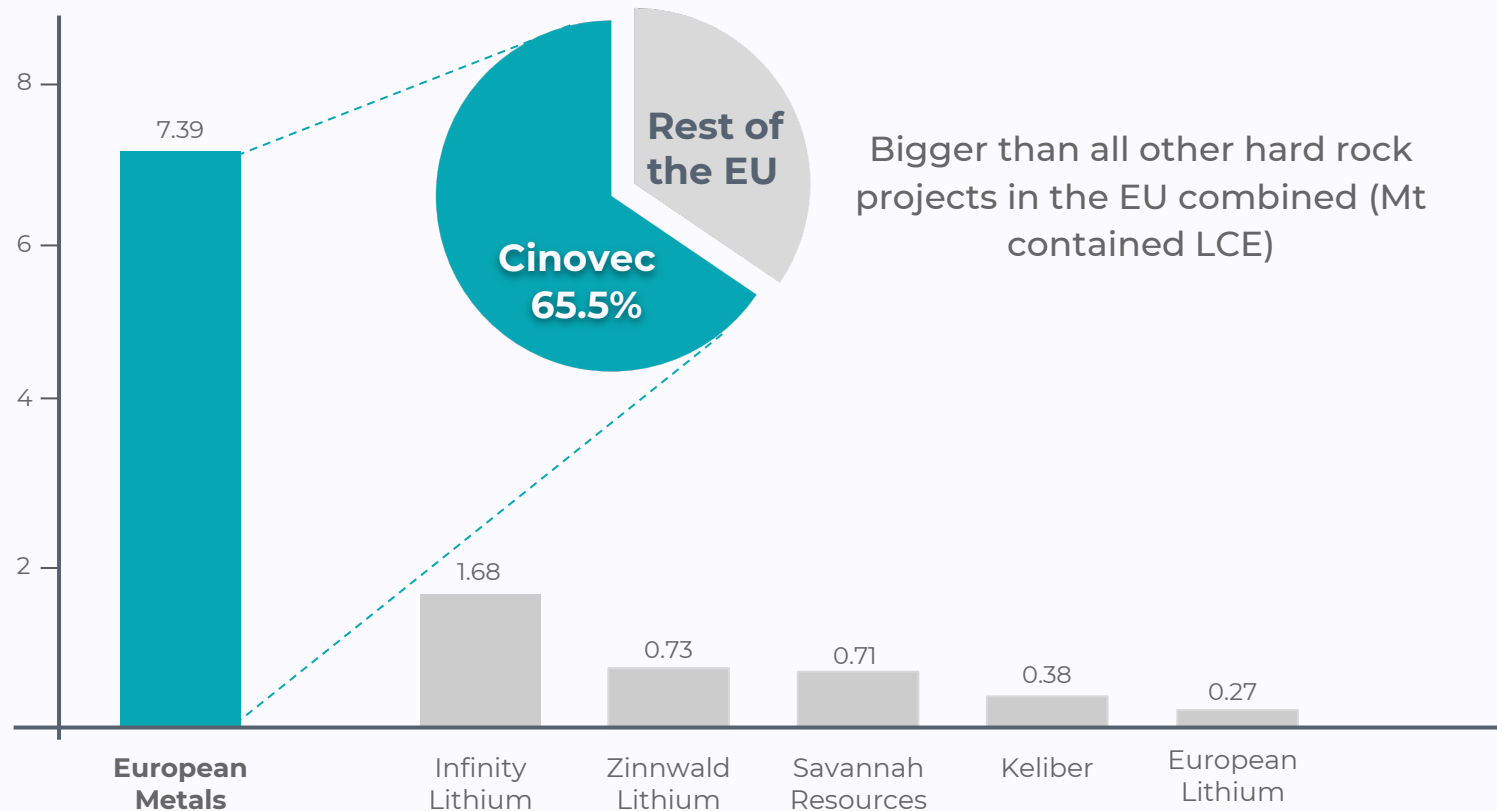
## CHINA RELIANCE

83% global hydroxide production

## EUROPE

80% self sufficiency target by 2025

# CINOVEC - LARGEST HARD ROCK PROJECT IN EU



# SIMPLIFIED FLOWSHEET PRODUCES 99.99% PURE LITHIUM CARBONATE



## High-grade Lithium End-Products

Testwork produced high quality lithium carbonate products, compared with the published global standard specification:

	Li <sub>2</sub> CO <sub>3</sub>	Na	K	Mg	Ca	Mn	Fe	Ni	Cu	Zn	Al	Si	Pb	SO <sub>4</sub> <sup>2-</sup>	Cl
	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
YS/T 582-2013	≥99.5	250	10	80	50	3	10	10	3	3	10	30	3	800	30
Crude LC	99.4	368	3	5	357	0	8	3.4	0.2	1.2	5.1	26	0	4860	NA
Battery- Grade LC	99.99	3	0.8	0.9	2	0.7	6.3	3.4	0.2	1.3	2.8	2.1	0.07	95	NA

## Reduced Flowsheet Process Steps

Chemical engineering unit processes reduced from 15 to 7

## Reduced Capex and Opex

The simplified process expected to reduce Capex and Opex in the LCP by 10-20%

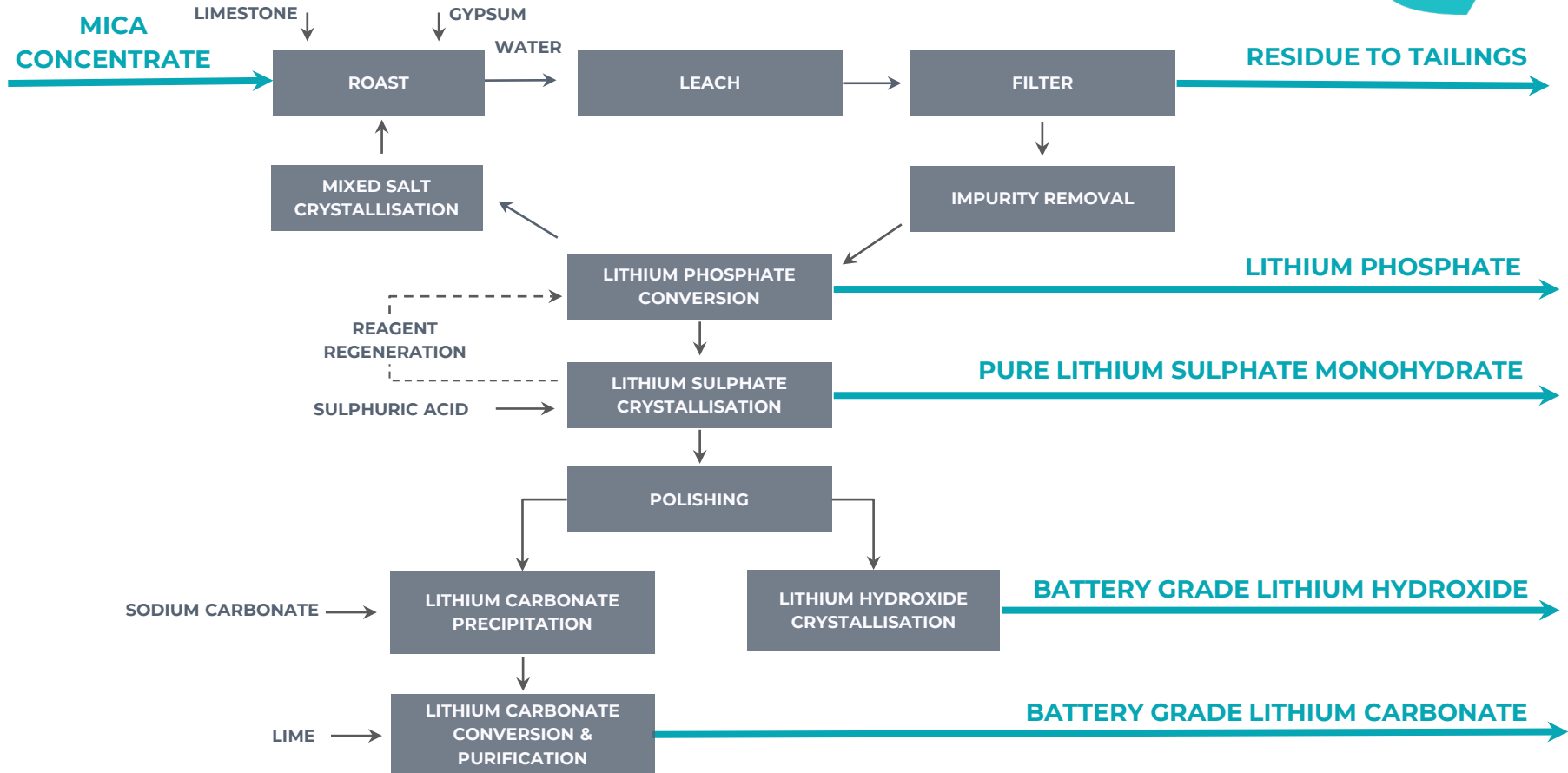
## ESG Benefits

Lower reagent use and elimination of all process cooling steps further enhances ESG profile

## Improved Lithium Recovery

Overall lithium recoveries improved to 88-93%

# SIMPLIFIED PROCESS FLOWSHEET



# 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

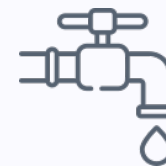


**RAIL**



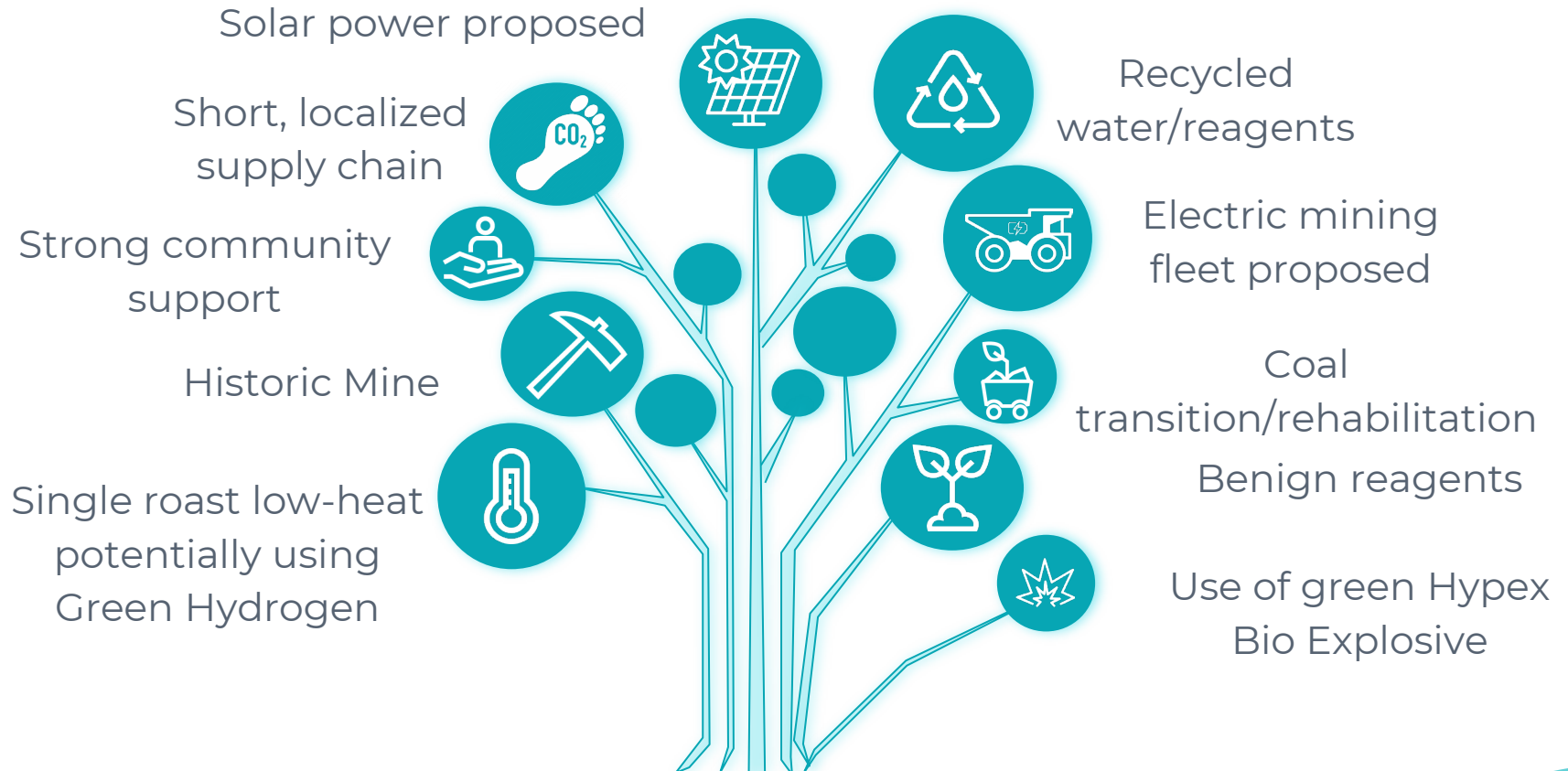
**POWER**

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



**WATER SUPPLY**

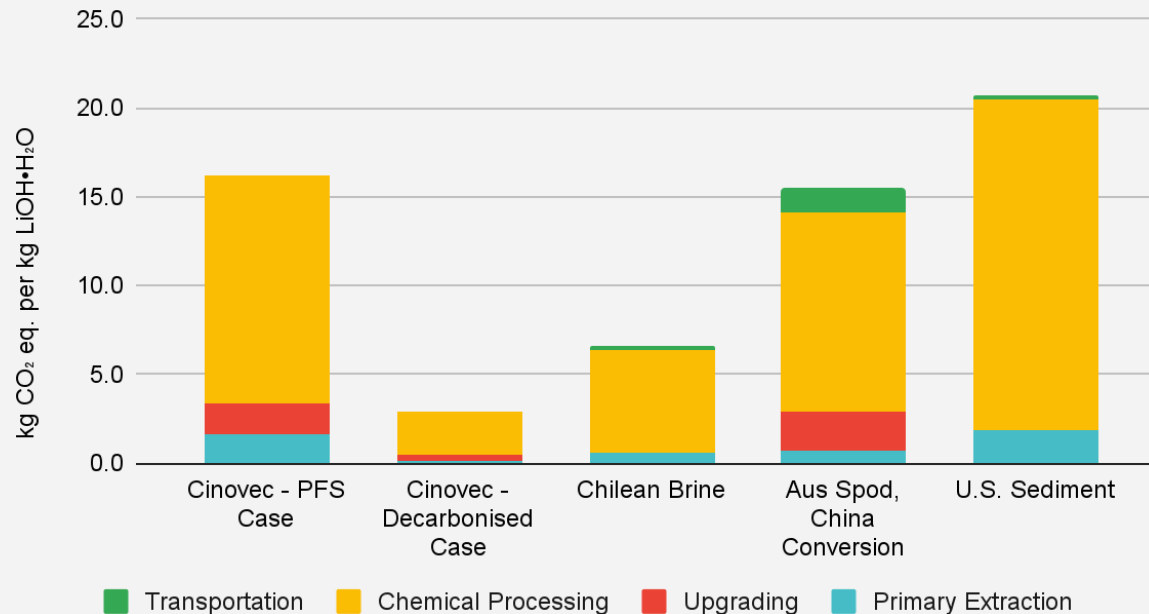
# POSITIVE ESG PROFILE





# 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.
- ☒ Complete Flowsheet optimisation testwork in FECAB and LCP

## In progress

- ☐ Progress strategic partner/offtake discussions – in active discussions with leading global (batteries/autos).
- ☐ Progress EIAs and permitting for mining and processing.
- ☐ DFS and Front-End Engineering Design (FEED)
- ☐ Pilot 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 Non-Exec Chair of Doremus Plc.

## 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.

## MARC ROWLEY

(AUS)  
**DFS Consultant**

Previously DFS Manager and delivered the DFS for the Goulamina Project, for Leo Lithium

Previously DFS Manager and delivered the PFS and DFS for the Pilgangoora Project, for Altura Mining

## 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 Pilgangoora 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 current Chairman of ASX-listed Legend Mining, Castle Minerals and SRG Global Limited.



ASX : **EMH**



LON : **EMH**

OTCQX : **EMHXY**  
**ERPNF**

Frankfurt : **E861.F**

## **Keith Coughlan**

Executive Chairman

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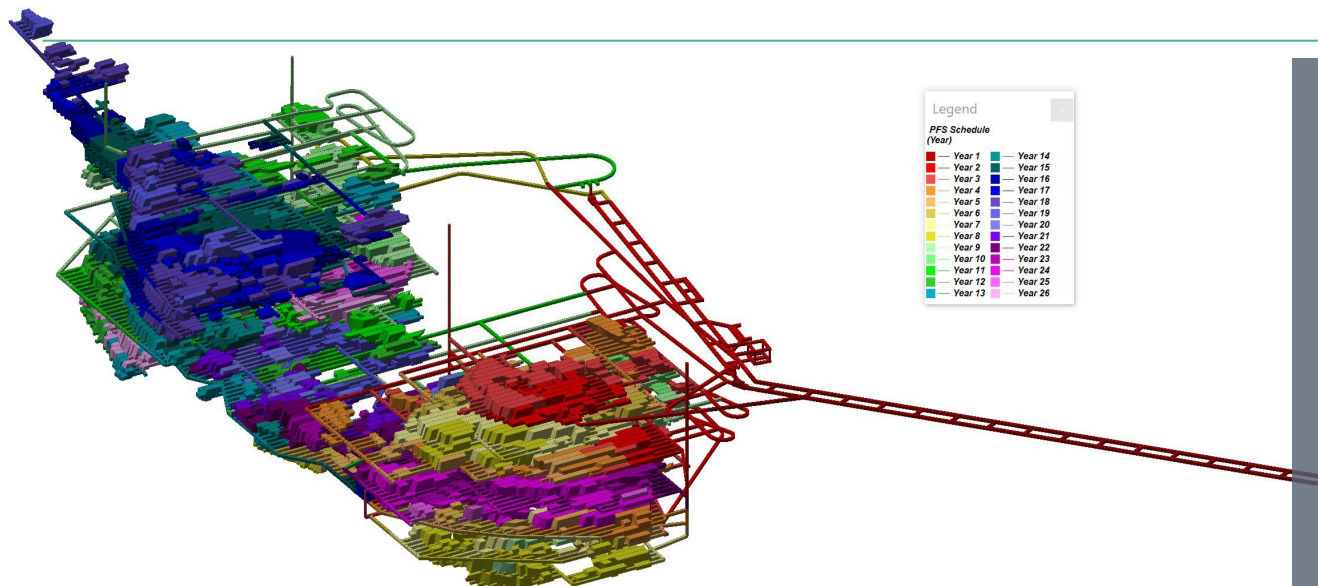
# PROJECT SUMMARY

- Large 2.25mtpa underground mining operation with paste backfill.
- Underground primary and secondary crushing.
- Rope conveyor to beneficiation plant.
- Wet magnetic separation and flotation of lithium concentrate.
- Locked Cycle Test verifies production of battery grade lithium carbonate from Mica using new flowsheet and achieves higher overall lithium recovery.
- By-product gravity recovery of tin and tungsten.
- Potential 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.

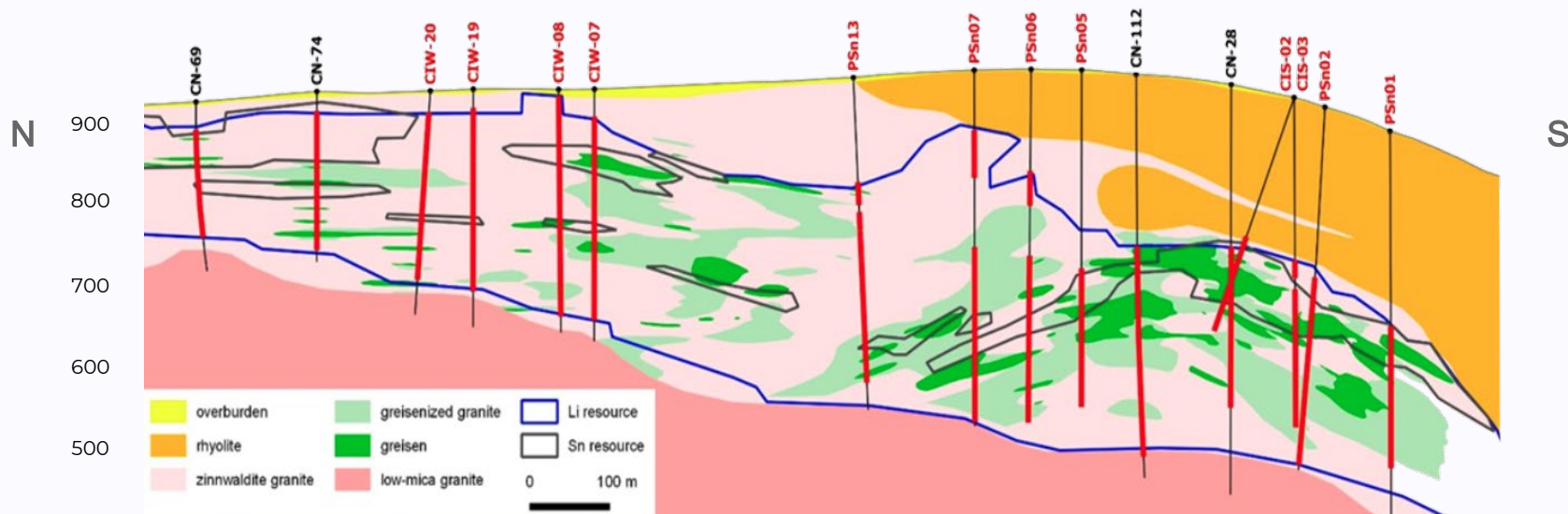
The upper portion of a granite cupola has been mineralized.

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

