



**EUROPEAN METALS**

# CINOVEC

A GLOBALLY SIGNIFICANT  
LITHIUM & TIN PROJECT  
IN THE HEART OF EUROPE



INVESTOR PRESENTATION  
NOVEMBER 2018

# DISCLAIMER & CAUTIONARY STATEMENT



**EUROPEAN METALS**

## **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.

## **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

**Cinovec is a globally significant lithium project due to its:**

**Size**

The largest lithium resource in Europe and one of the largest non-brine lithium resources in the world.

**Cost**

Potential low cost producer targeting the bottom half of the cost curve.

**Location**

In the heart of Europe within close proximity to numerous potential end users.

**The goal of EMH is to sustainably supply a minimum 22,500 t/a lithium carbonate (or 25,600 t/a as lithium hydroxide) into the European battery market – low cost, long term.**

“Europe battery production is a strategic imperative for clean energy transition and the competitiveness of its automotive sector.”

“The immediate objective is to create a competitive manufacturing value chain in Europe with sustainable battery cells at its core.”

“Strategic Action Plan for Batteries: Secure access to raw materials for batteries from resource-rich countries outside the EU and facilitate access to European sources of raw materials.”

[https://ec.europa.eu/growth/industry/policy/european-battery-alliance\\_en](https://ec.europa.eu/growth/industry/policy/european-battery-alliance_en)

# LITHIUM – NEW DEMAND EUROPE



EUROPEAN METALS



- Jan 2017 – Gangfeng Lithium US\$40M equity investment and US\$125M debt facility into Lithium Americas.
- Oct 2017 - Great Wall A\$28M equity investment into Pilbara Minerals.
- Jan 2018 – Toyota Tsusho US\$224M equity investment into Orocobre.
- Feb 2018 – POSCO A\$79.6M equity investment into Pilbara Minerals & agrees binding offtake.
- Aug 2018 – Nemaska Lithium secures EUR\$10M promissory note and 5 year offtake from Northvolt.
- Aug 2018 – POSCO A\$280M purchase of the Salar del Hombre Muerto project from Galaxy Resources.
- Several spodumene producers in Australia with Asian offtake agreements.
- However for European requirements .....

# POTENTIAL EUROPEAN SUPPLY SOURCES



EUROPEAN METALS

Country	Company	Deposit	Stage	Total resource (Mt)	Li <sub>2</sub> O (%)	LCE (Mt)
Czech Republic	European Metals	Cinovec	DFS	695.9	0.42 <sup>1</sup>	7.17
Serbia	Rio Tinto	Jadar	PFS	135.7	1.86	6.24
Spain	Infinity Lithium	San Jose	PFS	111.3	0.61	1.68
Germany	Deutsche Lithium	Zinnwald	DFS	40.4	0.75 <sup>2</sup>	0.75
Portugal	Savannah Resources	Mino do Barroso	DFS	20.1	1.04	0.52
Finland	Keliber	Several	DFS	10.0	1.16	0.29
Austria	European Lithium	Wolfsberg	DFS	10.98	1.0	0.27

*Source: Relevant company presentations.*

*Note 1: Cinovec ore readily concentrated to 2.7% Li<sub>2</sub>O due to magnetic susceptibility.*

*Note 2: Zinnwald resource based on higher cut off grade and mining method assumptions of Cinovec*

- Australian lithium mine output is the highest in the world.
- However, lithium refining capacity is now also becoming significant:
  - Tianqi building a A\$700M refinery with 48,000 t/a lithium hydroxide capacity in Western Australia.
  - SQL/Kidman building a circa 40,000 t/a lithium hydroxide or carbonate producing refinery in the same precinct.
- With government support these projects are moving ahead rapidly as are several projects in Asian countries.
- Australian lithium engineering and hard rock mining experience will be utilized to assist in the implementation of a successful design, commissioning and operation of the Cinovec project.

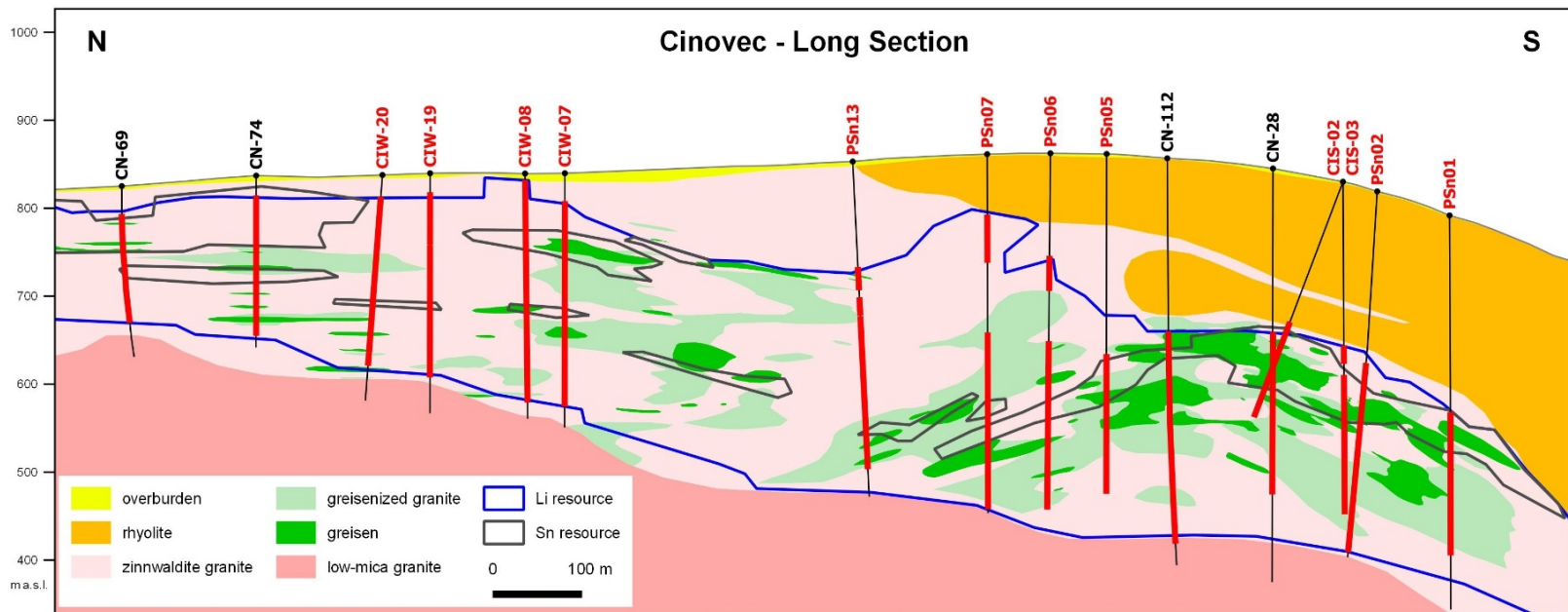


- Large 1.68 M t/a underground mining operation.
- Underground crushing and conveyor to surface milling.
- Slurry pipeline to beneficiation plant.
- Wet magnetic separation of lithium concentrate.
- Production of lithium carbonate (or hydroxide) via gypsum & sodium sulphate roast, water leach, purification and product precipitation / crystallization route.
- By product gravity recovery of tin and tungsten.
- Production of potash final product.
- Potential for recovery of a pure silica product.
- Tailings disposal in adjacent abandoned coal pits.

# CINOVEC – THE DEPOSIT



EUROPEAN METALS



Hole	From	To	Width (m)	Li <sub>2</sub> O (%)	Hole	From	To	Width (m)	Li <sub>2</sub> O (%)
CN-17	22	224	202	0.62	CIW-25	9.5	373	361.5	0.43
CIW-22	123	387.5	264.5	0.54	CIW-26	173.75	410	236.25	0.49
CN-81	1	224	223	0.52	CN-86	81.8	230.9	149.1	0.48

Selected lithium drill intercepts

# CINOVEC – THE DEPOSIT



- Historic underground mine for tin and tungsten, closed in 1993.
- Over 83,000 m historic diamond drilling, 21.5 km historic drive development, EMH confirmation drilling 9,477 m, further drilling commenced in October 2018.
- The upper portion of a granite cupola has been mineralized.
- Lithium is hosted in lithium mica (zinnwaldite) disseminated in granite.
- Total indicated and inferred resource:
  - 7.17 Mt of lithium carbonate equivalent.
  - 262,600 tonnes of tin.
  - 91,910 tonnes of tungsten.

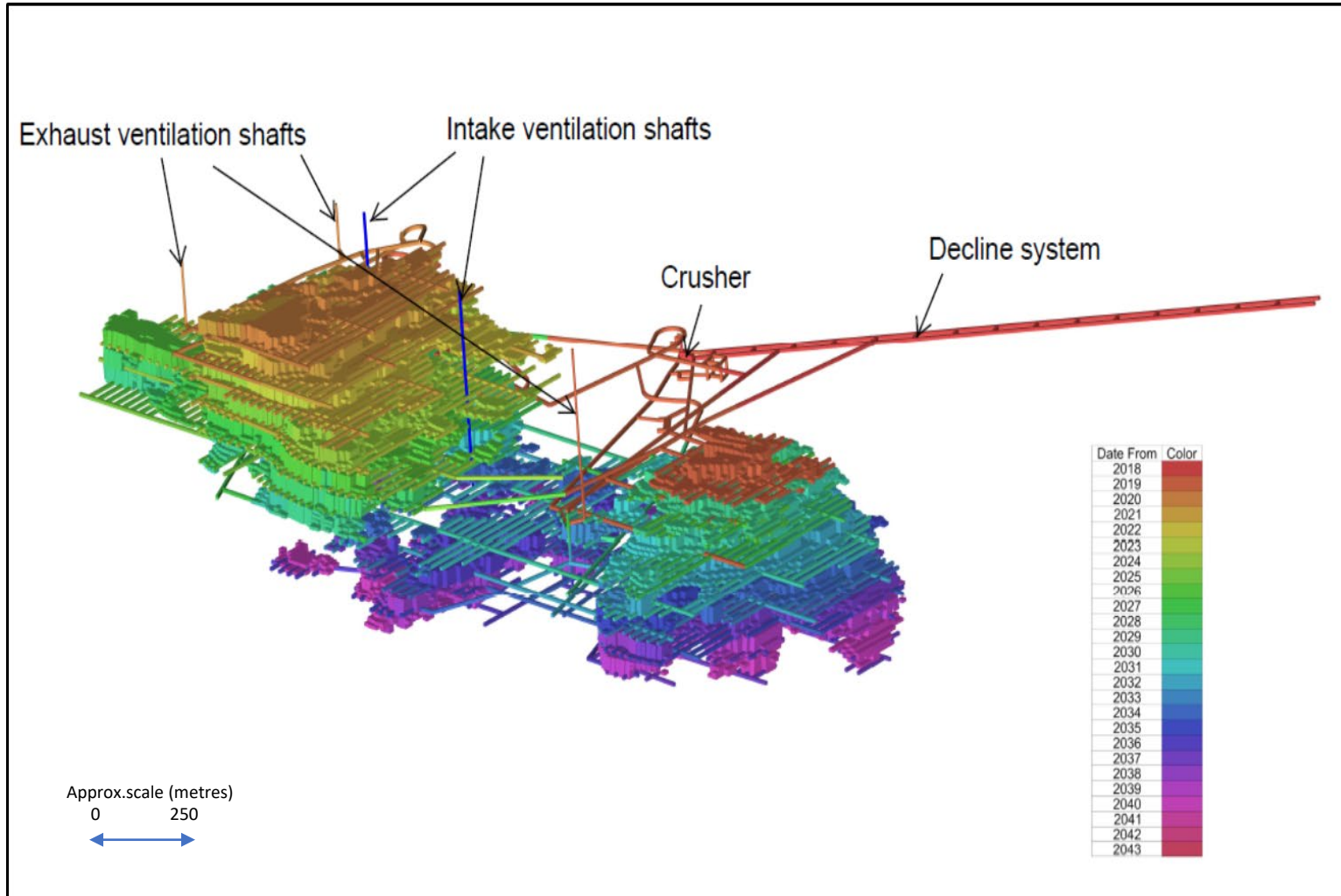
Resource Category	Mt	Li (%)	Li <sub>2</sub> O (%)	LCE (Mt)	Sn (%)	Sn (t)
Indicated	372.4	0.206	0.44	4.05	0.04	139,080
Inferred	323.5	0.183	0.39	3.12	0.04	123,520
Total	695.9	0.195	0.42	7.17	0.04	262,600

Global Resources Cinovec November 2017

# CINOVEC – UNDERGROUND MINE<sup>1</sup>



EUROPEAN METALS

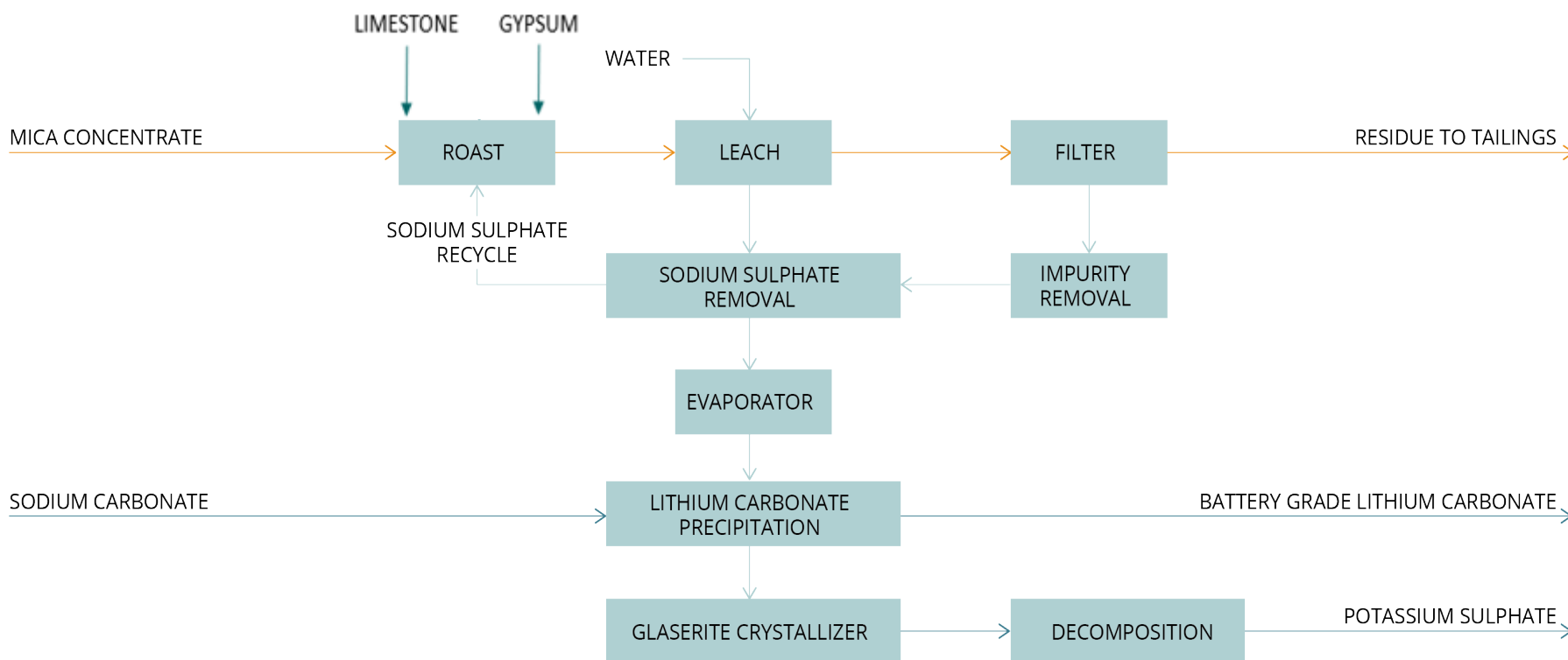


Note 1 Design and timeline from PFS

# CINOVEC - LITHIUM PROCESSING



EUROPEAN METALS



# PFS SUMMARY – April 2017<sup>1</sup> (USD)



ANNUAL PRODUCTION <sup>2</sup>	22,500 tpa battery grade LiCO <sub>3</sub>
PROJECT LIFE <sup>3</sup>	21 years
TOTAL JORC RESOURCE <sup>4</sup>	7.17 Mt LCE
CONSTRUCTION CAPITAL COSTS	\$393 million
OPERATING COSTS (without credits)	\$5,211/t LiCO <sub>3</sub>
OPERATING COSTS (with credits)	\$3,483/t LiCO <sub>3</sub>
LITHIUM CARBONATE PRICE ASSUMPTION	\$10,000/t battery grade LiCO <sub>3</sub>
AFTER TAX ECONOMICS	\$540 million (NPV <sup>8</sup> )
INTERNAL RATE OF RETURN	21%

*1 The initial public report for the production target and forecast financial information was released on 19 April 2017;2*

*2 The annual production rate was updated 11 July 2018*

*3 The PFS project life accounts for less than 10% of the total reported resource*

*4 The resource was updated 28 November 2017. Includes 4.05 Mt LCE indicated and 3.12 Mt LCE inferred*

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

## Key activities for the next 12 months:

- Complete drilling and upgrade resource model to include Measured Resources to facilitate calculation of a proven ore reserve.
- Begin DFS engineering.
- Progress EIAs for mining and processing.
- Complete locked cycle testwork & flowsheet optimisation.
- Operate pilot plant for production of marketing samples.
- Commence variability testwork.
- Progress strategic partner discussions.

# INVESTMENT SUMMARY



## Substantial Upside

Strong demand growth and prices predicted for lithium and tin  
Significant exploration upside – conversion of resource to reserve  
High level of industry interest in lithium  
Trading at a discount to peers

## Deposit Size & Style

Globally significant lithium and tin deposit  
Unique multi-commodity system  
Consistent mineralisation – bulk tonnage, low variability

## Low Risk

Stable country, well regulated  
High rate of conversion from Inferred to Indicated Resource  
Proven metallurgy from past operations and confirmatory metallurgical testwork  
Diverse commodities reduces exposure to revenue volatility

## Cost Base

Maximise revenue, lower overall cost by capturing all significant commodities  
Comparatively low cost operating environment within a European setting  
Low transport costs to potential end users

- Cinovec is located in the heart of Europe.
- Cinovec is the largest lithium resource on the continent.
- European industry requires substantial supplies of lithium.
- A minimum 22,500 t/a lithium carbonate (or 25,600 t/a as lithium hydroxide) to be produced for more than 20 years for supply to Czech & European industry.
- Low risk, conventional technologies will be used in the process.
- Significant employment opportunities will be created.
- Economic benefits will multiply for the Czech Republic due to local sourcing of lithium for batteries & electric vehicles.



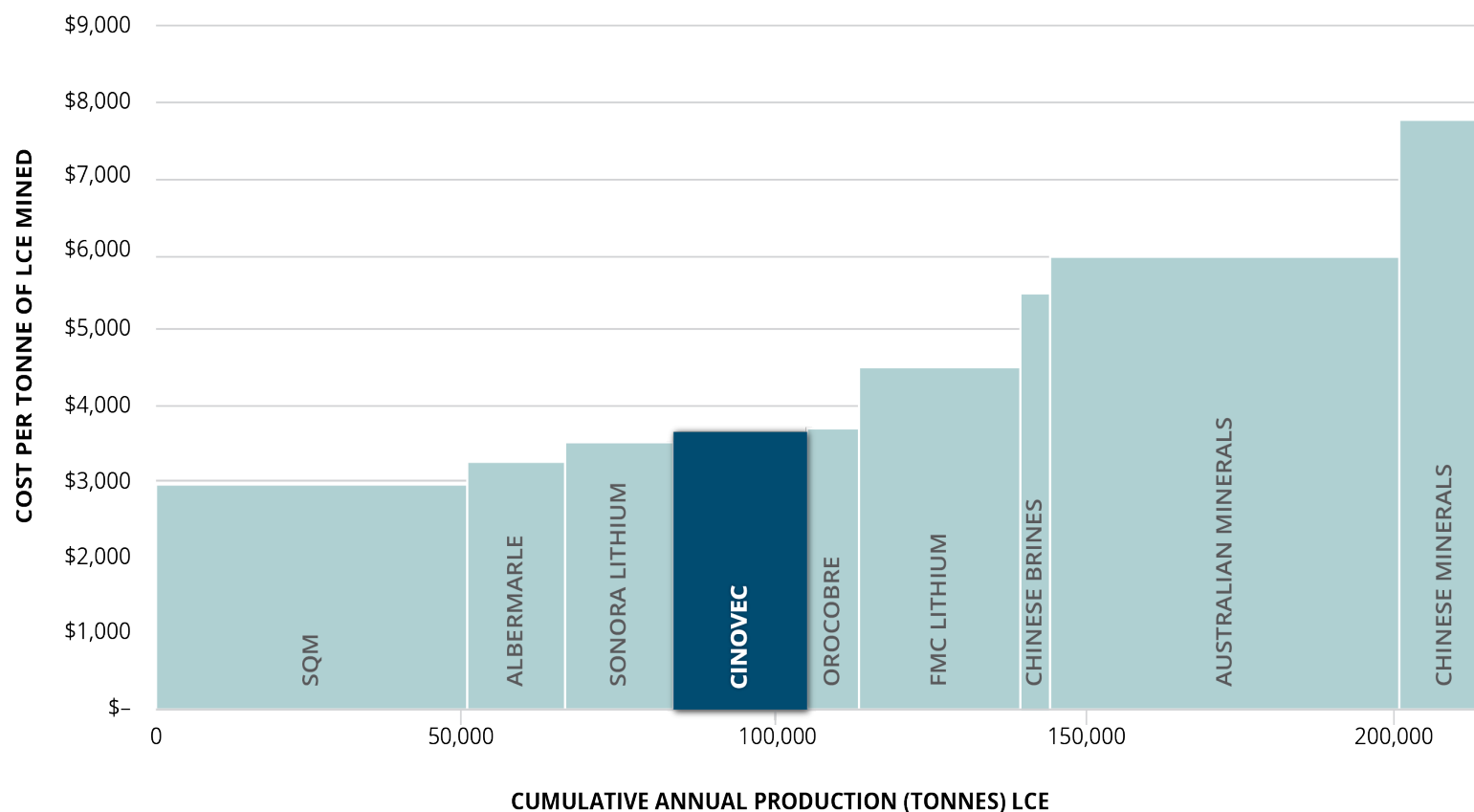
# APPENDIX



# PEER ANALYSIS – CARBONATE PRODUCTION COST



EUROPEAN METALS

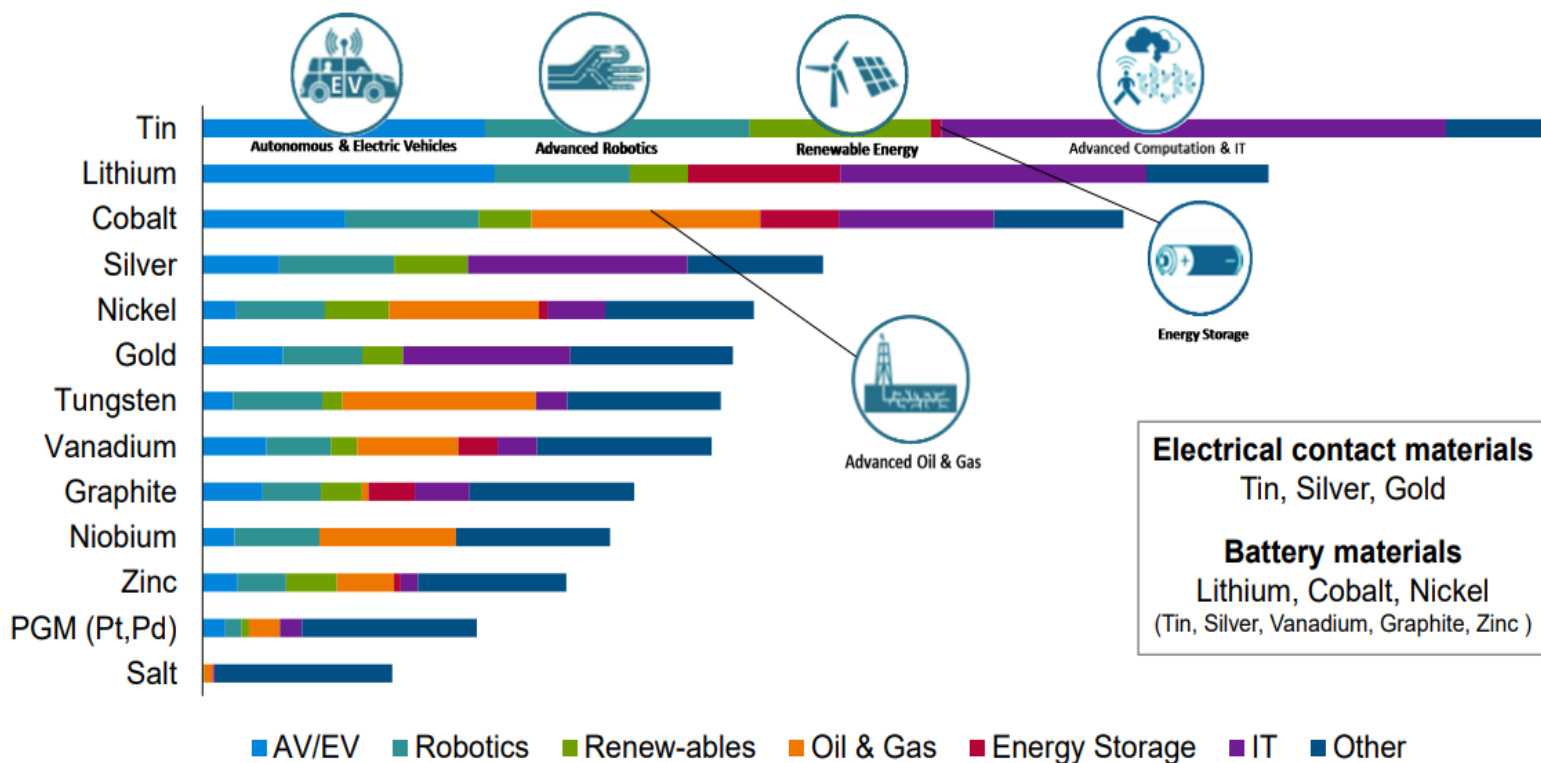


Source : HSBC Global Research

\* Amended to include dark blue column by EMH.



## Metals most impacted by new technology



# LITHIUM – NEW DEMAND EUROPE



Plan for 3M EVs pa to be sold by 2025. Planning to have 25 new EV models by 2020. Ordered US\$48B batteries mid 2018.



EUR 6B EV program. Factory in Zuffenhausen. First EV production in 2019. 50% of all vehicles to be EV by 2025.



EUR 10B EV program. Targeting 10 EV models to the market by 2025, making up 15-25% of global sales. First EV to market 2020.



Five core EV models by 2021. Mass production of EV's by 2020 and 12 EV models by 2025.



Skoda, headquartered in Mladá Boleslav, to launch 5 electrified EVs by the end of 2020.



First plant in Germany to supply EUR 4B pa batteries to BMW.



Considering the option to build a lithium-ion battery plant in Europe.

# LITHIUM – NEW DEMAND EUROPE



Building battery factory in Wroclaw, Poland to produce EV batteries in 2019.



Have built a battery factory in Hungary & own another in Austria.



Specialist lithium-ion battery manufacturer, new factory in Czech Republic.



Plan to build an 8 GWh pa lithium-ion battery factory in Sweden.



Building a 2<sup>nd</sup> Gigafactory in Germany or The Netherlands.



15 GWH pa lithium-ion battery factory in Karlstein, Bavaria.



Plans to build Gigafactory in Germany with capacity of 34 GWh pa by 2028.



With Magna Energy Storage building 1.2 GWH pa factory in Czech Republic.



7.5 GWh pa plant in Hungary to be in production in 2020.

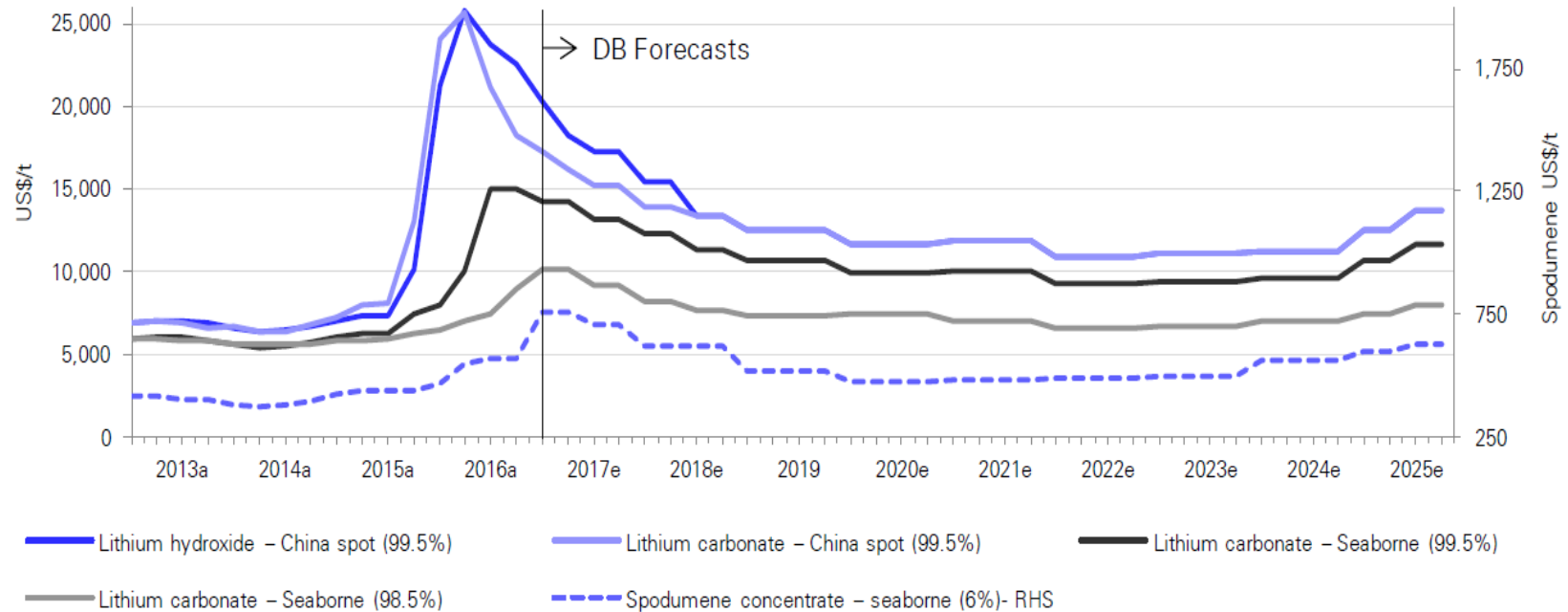


500,000 pa lithium-ion battery production facility in Hungary.

# LITHIUM FORECAST PRICES



EUROPEAN METALS



Source : Deutsche Bank, Asian Metals

# CINOVEC - INFRASTRUCTURE



EUROPEAN METALS

- Excellent infrastructure in place to support development of Cinovec
- Adjacent to a main road and near large industrial centres, car and chemical plants in Germany and Czech Republic
- Processing location 2 km from existing rail line in industrial estate and adjacent to primary coal mining and power producing areas in the Czech Republic
- Good water supply and other infrastructure.
- 22 KV transmission lines close by mine and processing site



- Central location in Europe
- Over 90% of its exports are to European and central asian countries with 32% to Germany alone
- Stable political and economic environment  
–Member of the European Union.
- Excellent infrastructure, communication network and power
- Relatively low corporate income tax rate of 19%
- Population is approx. 10.6 million
- Long tradition of silver, uranium, tin and coal mining
- Established mining code



# CORPORATE SNAPSHOT



EUROPEAN METALS

ASX & AIM CODE EMH

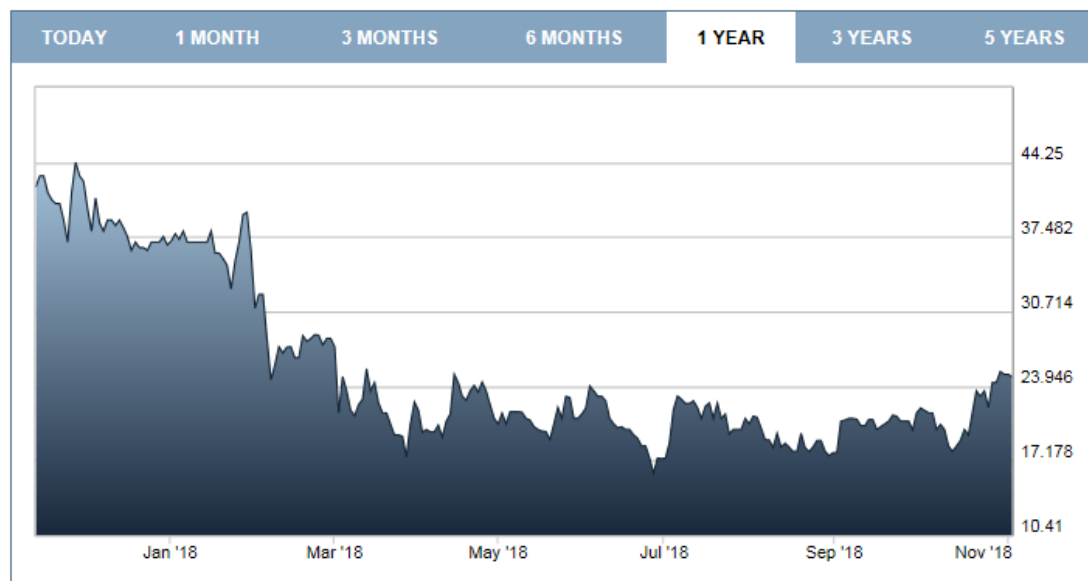
CDI's **141M**

MARKET CAP **35.01M\***  
@ GBP 0.25 GBP

## SHARE HOLDER STRUCTURE

Cadence Minerals plc 19.7%

Held by Directors  
(inc Cadence Minerals plc) 29.52%



\*all data as at 5 November 2018 at 11:03am

# THE TEAM



**EUROPEAN METALS**

## **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

## **DAVE REEVES** (AUS) NON EXECUTIVE CHAIRMAN

- Qualified Mining Engineer
- 25 years experience in Australia & Africa
- Honours degree from UNSW
- Grad Dip Applied Finance & Securities Investment, SIA

## **RICHARD PAVLIK** (CZ) EXECUTIVE DIRECTOR

- GM of Geomet s.r.o. CZ
- 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

## **NEIL MEADOWS** (AUS) CHIEF OPERATING OFFICER

- 30 years operations, project, engineering & business management experience
- Held senior leadership positions with BHP Billiton, Minara Resources, IMX Resources and Karara Mining
- Master of Applied Science (Metallurgy), Grad Dip Bus Admin

## **GRANT HARMAN** (AUS) METALLURGICAL CONSULTANT

- Previously Manager Lithium Chemicals for Talison Lithium
- Held roles with UGL, SNC Lavalin, CleanTeq & Ausenco

## **PAVEL REICHL** (CZ) CONSULTING GEOLOGIST

- Certified Professional Geologist
- Member of American Institute Professional Geologists
- Fellow of Society of Economic Geologists
- Competent Person for Australasian Code
- Qualified Person for AIM Guidance Notes



EUROPEAN METALS

## CONTACT

**Keith Coughlan** | Managing Director  
Suite 12, 11 Ventnor Avenue, West Perth, WA 6005, AUSTRALIA

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

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

