

SITE VISIT | PUBLISHED ON 01 DECEMBER 2022 (11:57 NZDT) | BY EUROZ HARTLEYS

SITE VISIT TO CINOVEC LITHIUM PROJECT IN CZECH

EMH.ASX | EUROPEAN METALS HOLDINGS LTD

PRICE
0.76TARGET PRICE
2.41
(FROM 2.35)RECOMMENDATION
SPECULATIVE BUY
(FROM SPECULATIVE BUY)ANALYST
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Event

We visited EMH's Cinovec lithium project in Czech (49% EMH).

Impact

We visited the site where the underground portal is planned. It was easy access and there is nothing around it that appeared to be an approval problem (all we saw was a walking track). At the portal site there will only be a paste plant and rope conveyer loading facility (all the crushing infrastructure will be underground) so the disruption and land footprint at site is minimal and the walking track should easily bypass.

We went underground in the old mine entrance on the German side that can still be used to access EMH's project. It was interesting to see the big voids left by old timers and how the voids remain stable after centuries. This suggests that high underground mining rates are achievable.

We also visited the planned site for ore processing into battery lithium chemicals. This site is down the hill from the proposed portal and is in run-down industrial area next to an old coal pit (now filled with water). Ore will be brought to site by a planned rope conveyer and tailings railed out on nearby railway (old siding already goes to site).

Action

It is clear there is still a work to be done to get all the approvals, but the investment partner CEZ should help. The planning is well thought and villages look in need of new industry (they are mining/industrial/manufacturing towns, not tourist towns). Lithium deposits on a very large scale like Cinovec in Europe are important and rare. Recent process improvements appear to have simplified the Cinovec flowsheet and make a high spec lithium product. We saw the drums of sample pregnant leach solution (PLS) that will be refined into chemicals and sent to potential offtake partners in early CY23 as samples for qualification.

We remain very happy with Speculative Buy recommendation. It is an unusual asset compared to spodumene mines in Australia, but Europe needs projects like Cinovec and at current lithium prices the project is hugely economic.

The timetable for approvals is largest risk. Validation from binding off-takes (perhaps in in 1H CY23) would be a very big catalyst and could help with urgency to then to get approvals moving.

The current EMH share price assumes Cinovec will not be a project, but if the equity market changes its view to price the stock like it will be developed (probably after customer validation) then there is a huge re-rating through 2023/2024 likely to happen.

The key and very substantial risks are approvals, financing and lithium selling price assumptions.

Catalyst

- Potential Offtake - early CY23
- DFS - CY23

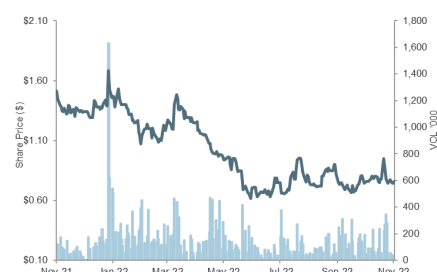
Share Price 0.73
Price Target 2.41
Valuation 2.40

Shares on issue 204
Market Capitalisation 148
Enterprise Value 128
Debt (30 Jun 22) 0
Cash (30 Jun 22) 20

Production F'cast	2023F	2024F	2025F
LC	0.0	0.0	5.6

Assumptions	2023F	2024F	2025F
AUDUSD	0.66	0.71	0.73
Spod	5500	5000	5000
LC (Battery)	70000	70000	70000

Performance



Source: Euroz Hartleys

P&L	Jun 23e	Jun 24e	Jun 25e	Price Assumptions	Jun 23e	Jun 24e	Jun 25e
Net Revenue	0.0	0.0	263.8	AUDUSD	0.66	0.71	0.73
Gross Profit	0.0	0.0	219.7	LC / LiOH	70,000	70,000	70,000
Total Costs	-4.8	-5.0	-49.3	Spodumene- Battery	5500	5000	5000
EBITDA	-4.8	-5.0	214.5				
- margin	-	-	81%	F'cast Production	Jun 25e	Jun 26e	Jun 27e
Depreciation/Amort	-1.1	-9.9	-23.5	Processed Grade	0.3%	0.3%	0.3%
EBIT	-5.9	-14.9	191.0	Produced Battery Grade LC/LiOH	5.6	22.5	22.5
Net Interest	-13.0	-26.9	-27.9	Total Costs per tonne (US\$)	-13.1	-11.9	-11.4
Pre-Tax Profit	-18.9	-41.8	163.0	EBITDA margin per tonne (US\$)	56.9	53.1	43.6
Tax Expense	0.0	0.0	-24.5	Recovery	75%	75%	75%
Normalised NPAT	-18.9	-41.8	138.6	Minining inventory	106	104	101
Abnormal Items	0.0	0.0	0.0				
Reported Profit	-18.9	-41.8	138.6	Valuation	\$m	\$/EMH	
Minority	0.0	0.0	0.0	Cinovec (49%)	1773	3.18	
Profit Attrib	-18.9	-41.8	138.6	Exploration	100	0.18	
				Forwards	0	0.00	
Balance Sheet	Jun 23e	Jun 24e	Jun 25e	Corporate Overheads	-19	-0.03	
Cash	611.6	219.9	159.3	Net Cash (Debt)	20	0.04	
Other Current Assets	1.8	1.8	47.7	Investments	0	0.00	
Total Current Assets	613.3	221.8	207.0	Tax (NPV future liability)	-538	-0.97	
Property, Plant & Equip.	2.3	353.1	512.4	Options & Other Equity	1	0.00	
Exploration	18.3	18.7	19.1	Total	1337	2.40	
Investments/other	0.0	0.0	0.0	Spot Prices		12.04	
Tot Non-Curr. Assets	20.6	371.8	531.6				
Total Assets	633.9	593.6	738.6				
				Reserves & Resources			
Short Term Borrowings	-	-	-		Mt	% Li2O	LC Mt
Other	0.8	0.8	7.3	Cinovec - resource	708	0.42	7.4
Total Curr. Liabilities	0.8	0.8	7.3	Cinovec - reserve	nm	nm	nm
Long Term Borrowings	360.0	360.0	360.0				
Other	-	-	-				
Total Non-Curr. Liabil.	360.0	360.0	360.0				
Total Liabilities	360.8	360.8	367.3				
Net Assets	273.1	232.7	371.3				
Net Debt (net cash)	-251.6	140.1	200.7				
- including AASB16	-251.6	140.1	200.7				
Cashflow	Jun 23e	Jun 24e	Jun 25e				
Operating Cashflow	-4.8	-5.0	175.0				
Income Tax Paid	0.0	0.0	-24.5				
Interest & Other	-13.0	-26.9	-27.9				
Operating Activities	-17.8	-31.9	122.7				
Property, Plant & Equip.	-2.2	-360.7	-182.9				
Exploration and Devel.	-0.4	-0.4	-0.4				
Other	0.0	0.0	0.0				
Investment Activities	-2.6	-361.1	-183.3				
Borrowings	360.0	0.0	0.0				
Equity or "tbc capital"	257.1	1.4	0.0				
Dividends Paid	0.0	0.0	0.0				
Financing Activities	617.1	1.4	0.0				
Net Cashflow	596.8	-391.6	-60.6				

Figure 1: Pregnant leach solution (P.L.S.) ready to be sent to process into chemicals for potential offtake customer qualification



Source: Euroz Hartleys Site Visit

Figure 2: Old voids from historic mining over German border (notice hand rails in top left corner for scale)



Source: Euroz Hartleys Site Visit

Figure 3: The lithium (zinnwaldite mica - the black at top of photo) was left by the old-timer tin and tungsten miners. Most of the Cinovec ore does not look like this...it is more disseminated.



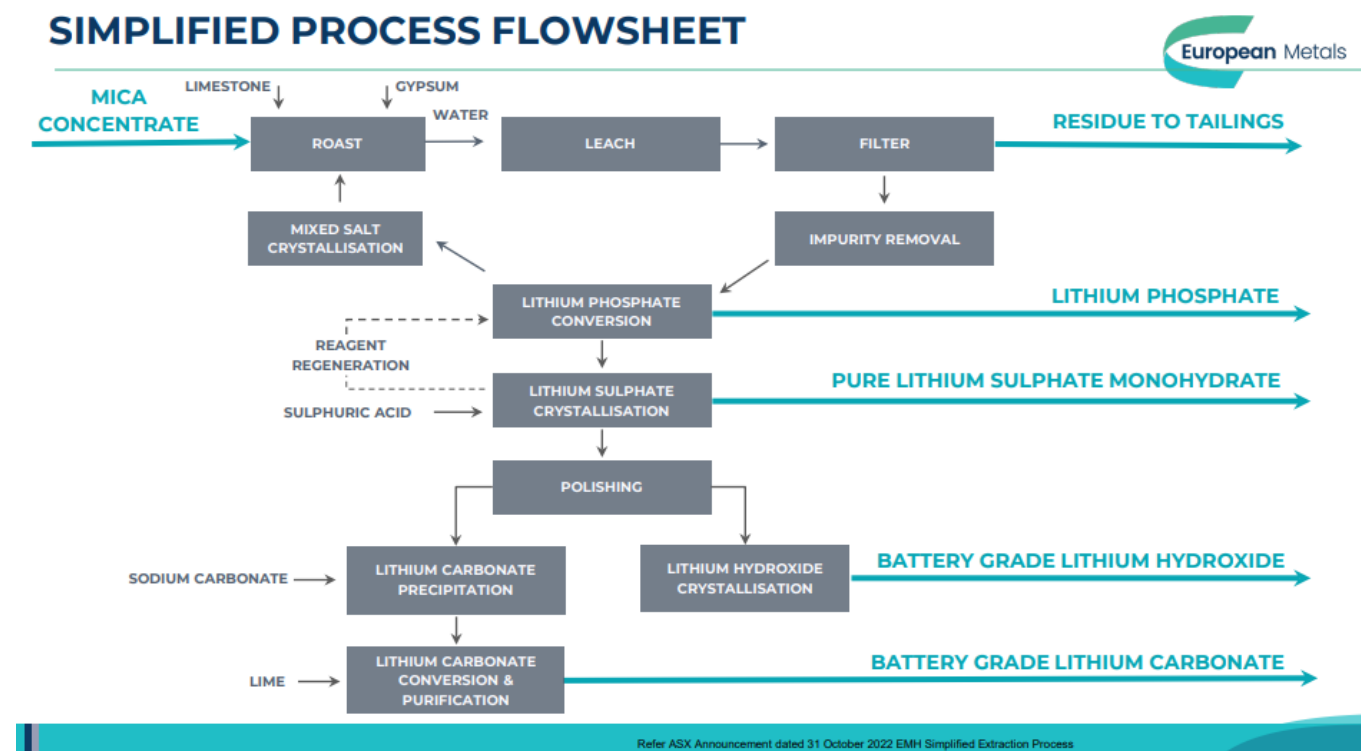
Source: Euroz Hartleys Site Visit

Figure 4: Derelict industrial site for processing plant



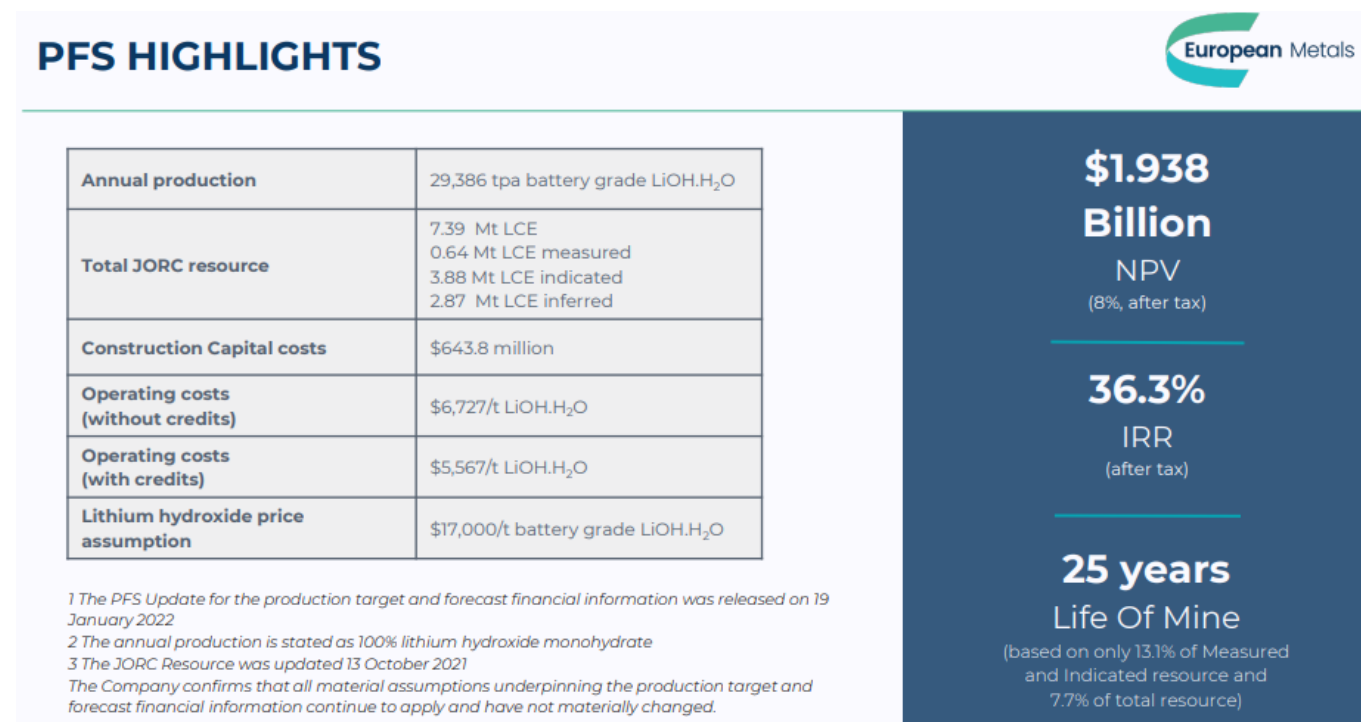
Source: Euroz Hartleys Site Visit

Figure 5: Flowsheet



Source: EMH

Figure 6: PFS



Source: EMH

Figure 7: Euroz Hartleys Lithium Price Assumptions (US\$/t)

	NEW				Old			
	2023	2024	2025	LT	2023	2024	2025	LT
Spod	5,500	5,000	5,000	1,313	4,000	2,200	1,300	1,250
LiOH	70,000	70,000	70,000	17,500	55,000	24,600	18,000	17,000
LC	70,000	70,000	70,000	17,500	55,000	24,600	18,000	17,000

Source: Euroz Hartleys

We have increased our lithium price profile assumption;

Our long run prices stay similar, and are back calculated by assuming only moderate returns in the long run for investing in new LC/LiOH supply;

However, our profile now assumes this is 5 years away;

There are strong arguments that exceptional returns in the lithium are required to incentivise peak supply and meet 2030-2035 demand;

We are conscious we are upgrading at the same time as potentially peak enthusiasm. It is likely that oversupply periods occur over our profile, and is also possible that demand exceeds supply, but lithium prices still fall given the current exceptional margins;

However, in order to be consistent with market expectations we have moved our assumptions significantly higher;

Key risks to "higher for longer" included technological changes particularly DLE. We view DLE as potentially significantly disruptive and big blind spot amongst lithium bulls. We have seen this before when the lithium industry was dominated by brine producers that discounted the idea that spodumene could become a major source of supply. This time around, many incumbent industry participants (spodumene and conventional brine) are discounting the potential for DLE to eventually bring on meaningful supply;

We also believe that the most bullish lithium bulls may not be adequately considering the capital being invested into battery recycling, and the new OEM business models and legislation to drive recycling rates to exceptionally high levels mean that lithium primary supply will have a peak (not for a long time though);

Many commodities where super profits have been present have encouraged extraction innovation (think what onshore USA fracking did to the very high oil prices of the 2000's). Recycling and DLE are two obvious areas / risks for long term super profits in lithium.

The key though is that super profits can last for years before technological innovation erodes them, which most lithium equities are still not completely pricing in;

Every extra year of super profits can greatly strengthen balance sheets and significantly increase valuations;

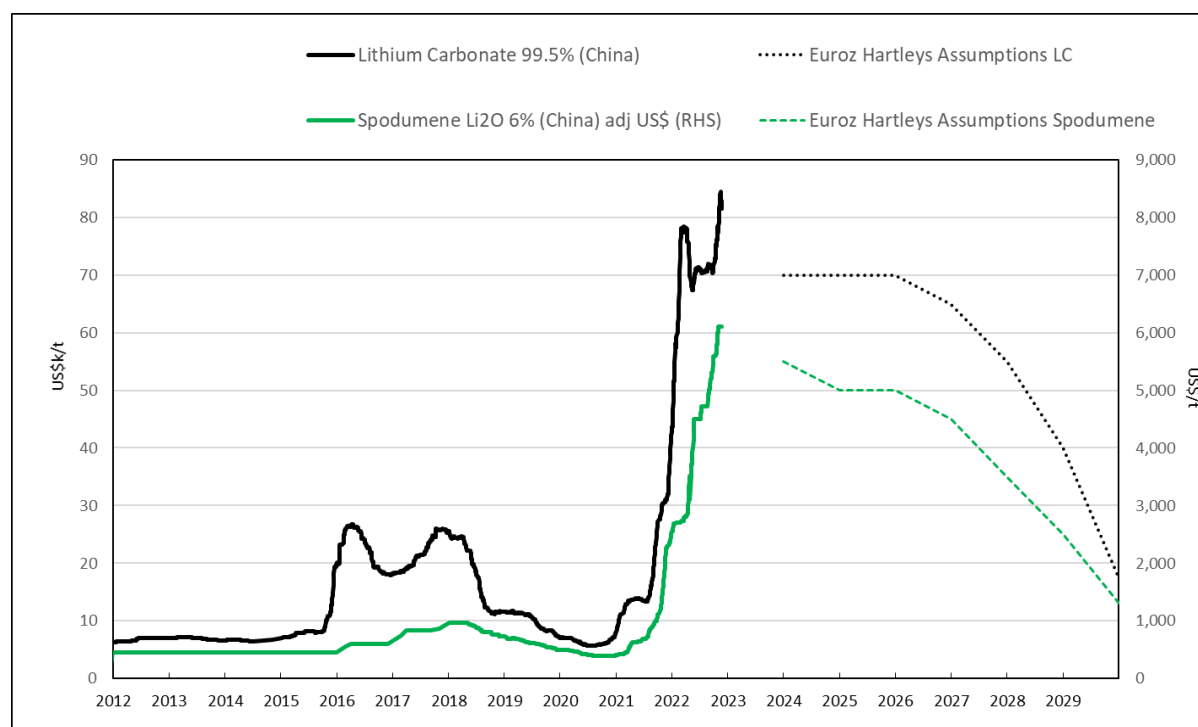
And the very good management teams can reinvest those super profits into sustainably high margin business (downstream/diversification) beyond the short term super profit period;

Figure 8: Current super profits for converters (at spot prices) assumed to decline significantly in our long run assumption

LC or LiOH		convert	convert			convert	convert
		Spod to LC	Spod to Li OH			Spod to LC	Spod to Li OH
Spod	US\$/t	6000	6000			1318	1318
- grade LiO2		6.00%	6.00%			6.00%	6.00%
Recovery		85%	85%			85%	85%
Tonnes of 6.0% Spod for 1 tonne product		7.93	7.25			7.93	7.25
- Grade Li		40.45%	37.00%			40.45%	37.00%
Cost Concentrate	US\$/t	47588	43529			10450	9600
Freight	US\$/t	700	700			700	700
Processing Cost	US\$/t	4500	4500			4500	4500
Storage	US\$/t	0	600			0	300
Cost to produce 1t product	US\$/t	52788	49329			15650	15100
Margin for converter	US\$/t	28612	29671			1850	2400
Selling price	US\$/t	81400	79000			17500	17500

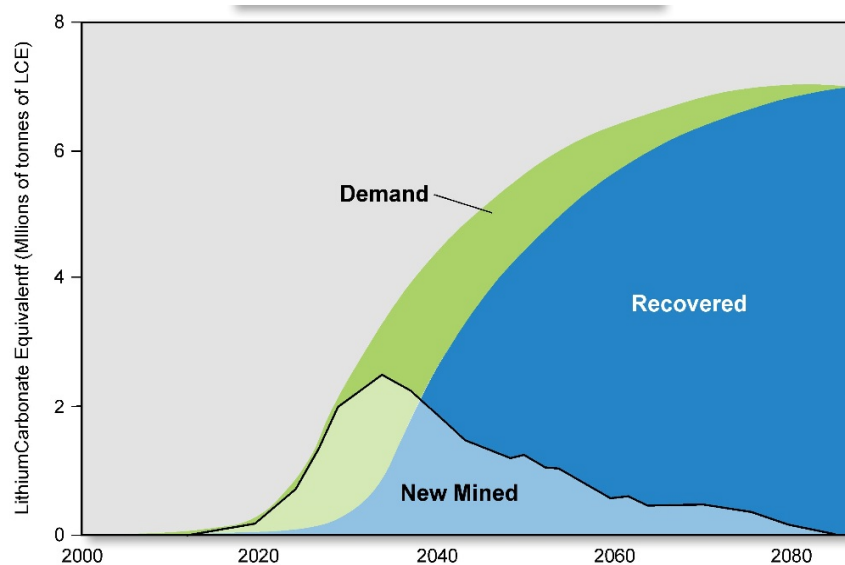
Source: Euroz Hartleys

Figure 9: Lithium Price Base Valuation Profile Assumption



Source: Asian Metals, Euroz Hartleys

Figure 10: Recycling one day could be a big part of lithium supply



Source: Argonne NL - Presented by Linda Gaines at IMLB2022

Source: NMT

Figure 11: Price Target

Price Target Methodology	Weighting	Spot	12 mth out
NPV12 base case	8%	\$2.40	\$2.60
NPV8 base case	15%	\$3.52	\$3.80
NPV12 at spot commodity and fx prices	1%	\$12.04	\$13.96
NPV8 spot prices	1%	\$19.10	\$20.63
Cash Backing	30%	\$0.10	\$0.10
20% of NPV12 spot prices	45%	\$2.41	\$2.79
Risk weighted composite		\$2.14	
12 Months Price Target		\$2.41	

Source: Euroz Hartleys

Company disclosures

The companies and securities mentioned in this report, include:

European Metals Holdings Ltd (EMH.ASX) | Price 0.76 | Target price 2.41 | Recommendation Speculative Buy;

Price, target price and rating as at 01 December 2022 (not covered)*

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