



**Euro  
Manganese  
Inc.**

**THE CHVALETICE  
MANGANESE PROJECT**

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**Poised to Support the  
Energy Transition**

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**Investor Presentation for  
Australian Non-Deal  
Roadshow**

November 2022

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## Forward-Looking Statements and Risks Notice

Certain statements in this presentation constitute “forward-looking statements” or “forward-looking information” within the meaning of applicable securities laws. Such statements and information involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company, its Project, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as “may”, “would”, “could”, “will”, “intend”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, “predict” and other similar terminology, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. Readers are cautioned not to place undue reliance on forward-looking information or statements.

Results of the Feasibility Study constitutes forward-looking information or statements, including but not limited to estimates of internal rates of return (including any pre-tax and after-tax internal rates of return), payback periods, net present values, future production, assumed prices for HPMSM and HPEMM, proposed extraction plans and methods, operating life estimates, cash flow forecasts, metal recoveries and estimates of capital and operating costs. Such forward-looking information or statements also include, but are not limited to, statements regarding the Company’s intentions regarding the Project in the Czech Republic, the development of the Project, the ability to source green power and other requirements for the Project, the completion and submission of an environmental and social impact assessment, statements regarding the ability of the Company to obtain remaining surface rights, the benefits of remediating the historic tailings areas, the growth and development of the high purity manganese products market, the desirability of the Company’s products, the growth of the EV industry, the use of manganese in batteries, and the Company’s ability to obtain financing for the Project. Such forward-looking information or statements also include, statements regarding the Company’s North American growth strategy; any potential funding opportunities; potential North American supply chain; potential value-creating synergies; and the Company’s ability to secure a first mover advantage.

Factors that could cause actual results or events to differ materially from current expectations include, among other things: the ability to develop adequate processing capacity; the availability of equipment, facilities, and suppliers necessary to complete development; the cost of consumables and extraction and processing equipment; risks and uncertainties related to the ability to obtain, amend, or maintain necessary licenses, or permits, risks related to acquisition of surface rights; risks and uncertainties related to expected production rates; risks and uncertainties related to the accuracy of mineral resource and reserve estimates, the price of HPEMM and HPMSM, power supply sources and price, reagent supply resources and prices, future cash flow, total costs of production; risks related to global epidemics or pandemics and other health crises; risks and uncertainties related to interruptions in production; unforeseen technological and engineering problems; the adequacy of infrastructure; risks related to Project working conditions, accidents or labour disputes; social unrest or war; risks relating to variations in the mineral content and grade within resources from that predicted; variations in rates of recovery and extraction; developments in EV battery markets and chemistries; and risks related to fluctuations in currency exchange rates, changes in laws or regulations; and regulation by various governmental agencies. For a further discussion of risks relevant to The Company, see “Risk Factors” in the Company’s annual information form for the year ended September 30, 2021, available on the Company’s SEDAR profile at [www.sedar.com](http://www.sedar.com).

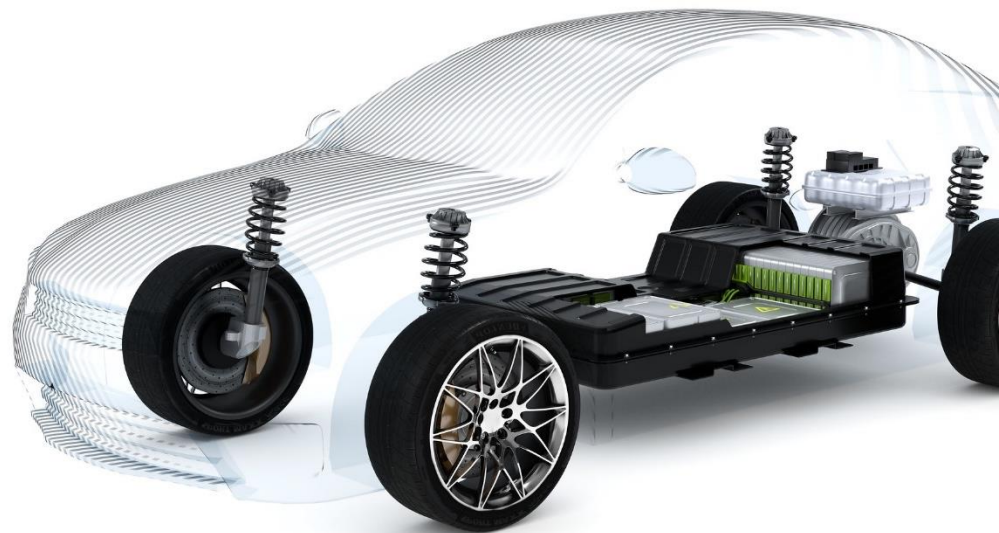
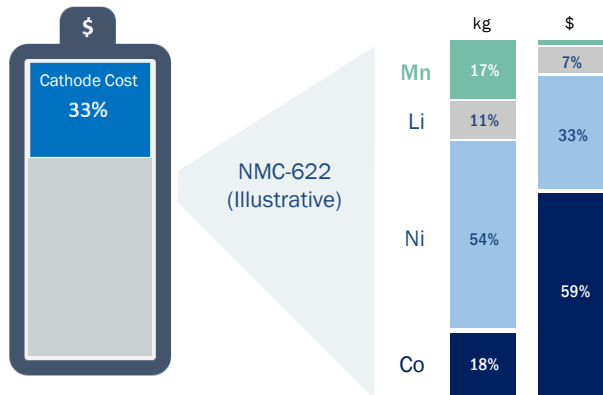
All forward-looking statements are made based on the Company’s current beliefs as well as various assumptions made by the Company and information currently available to the Company. Generally, these assumptions include, among others: the presence of and continuity of manganese at the Project at estimated grades; the ability of the Company to obtain all necessary land access rights; the availability of personnel, machinery, and equipment at estimated prices and within estimated delivery times; currency exchange rates; manganese sales prices and exchange rates assumed; growth in the manganese market; appropriate discount rates; tax rates and royalty rates applicable to the proposed operations; the availability of acceptable Project financing; anticipated extraction losses and dilution; and success in realizing proposed operations. Although the forward-looking statements contained in this presentation are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this presentation and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this presentation.

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# Manganese (Mn), the affordable battery metal, is essential in cathode chemistries

High-purity manganese, like cobalt, stabilises nickel in a modern Li-ion EV battery, yet it accounts for only 1-2% of the cost of cathode materials



Nickel-manganese-cobalt (NMC) cathode batteries remain the dominant chemistry, with ~ 50% market share (2020)

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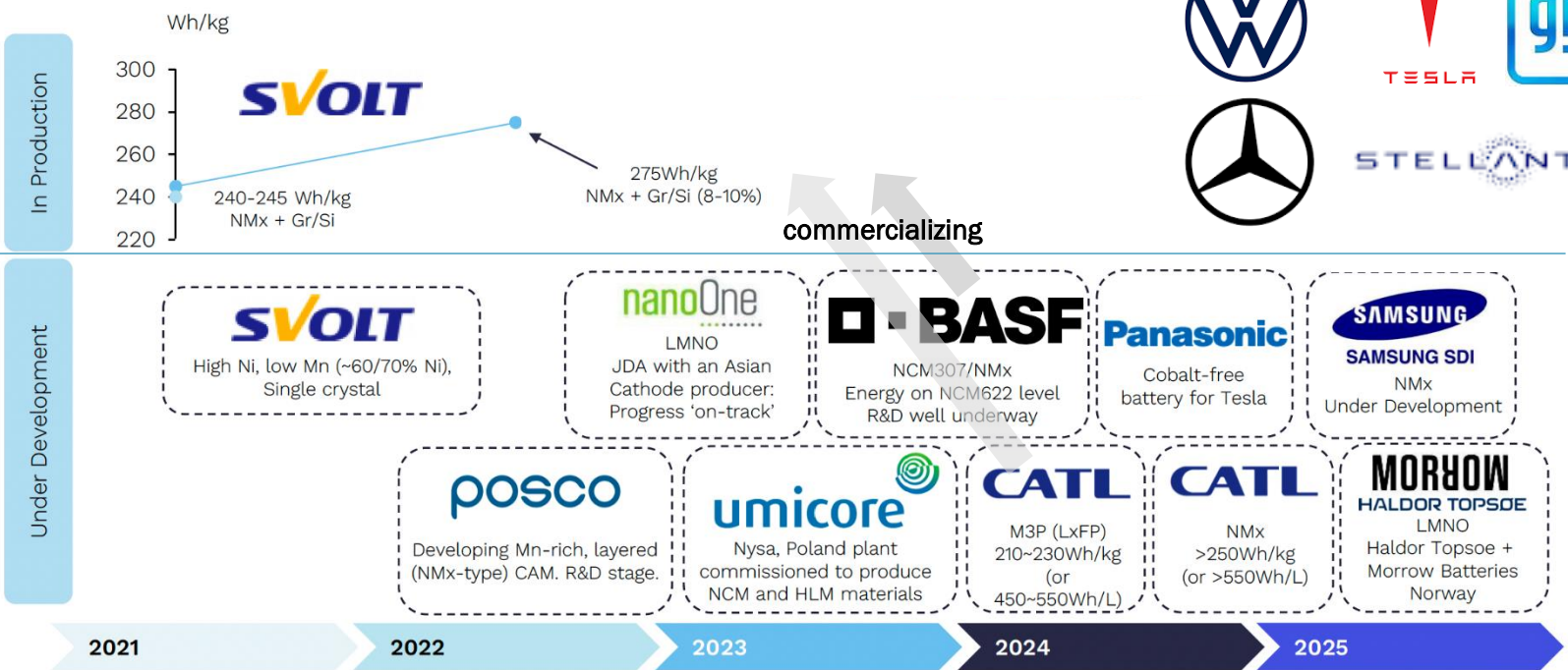


# High Mn chemistries in demand by OEMs in order to make EVs more affordable

## Battery Chemistry Roadmap for High Manganese Cathode Chemistries

(NMC370 ~70% Mn, LMNO ~ 40% Mn, LMFP ~40-60% Mn, NMx ~30% Mn)

OEMs that have announced intention to used High Mn application



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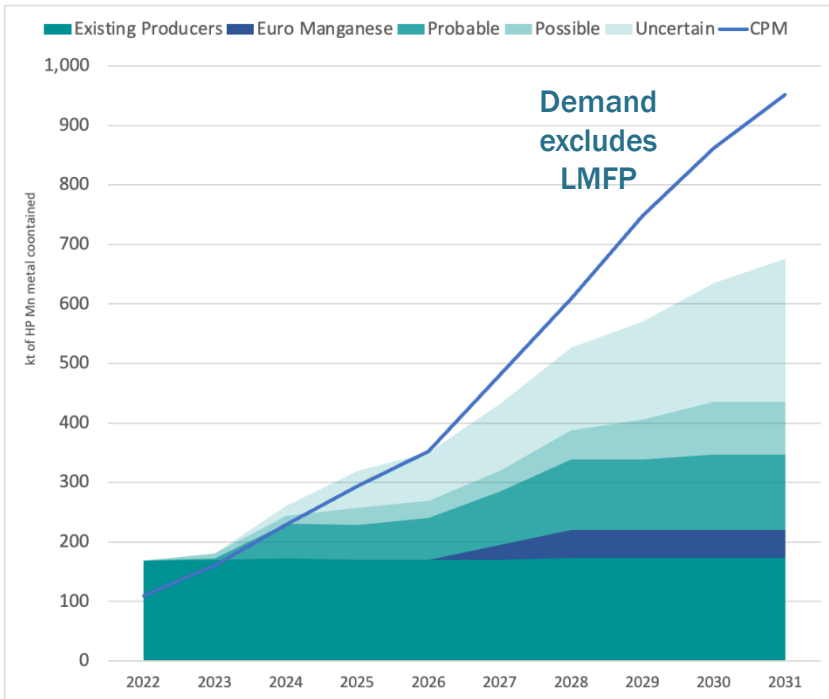
Sources: Rho Motion & EMN analysis



# Key demand drivers: EV market growth, supercharged with high Mn chemistries

## Global High-Purity Manganese Demand & Supply to 2030

(thousand tonnes of Mn)



### Forecast Demand Growth

- Forecast HP Mn demand growth is based on EV and other battery applications.
- HP Mn demand growth is sensitive to timeframes for the introduction of manganese rich cathode chemistries.
- Battery metal shortages are tempering some EV forecast (e.g. Rho Motion & Benchmark EV forecasts are now lower than OEM forecasts)
- Regional demand in 2031: China 52%, EU+NA 48%

### Forecast Supply Growth

- Supply currently dominated by China

#### Existing Production

- China, 17 plants (133ktpa '22)
- Prince (3ktpa '22)
- MMC (28ktpa metal '22)
- Indonesia (10ktpa '22)

#### Probable <sup>(1)</sup>

- China existing add 70ktpa
- Prince add 14ktpa
- MMC (add 18ktpa sulphate)
- Giyani

#### Possible <sup>(2)</sup>

- Element 25
- Manganese X
- South 32 (Arizona)
- New China (30ktpa, 2031)

#### Uncertain

- China (~110ktpa, 2031)
- Recycling (~70ktpa, 2031)
- 5 Others (~60ktpa, 2031)

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1: Probable are existing producer expansions or with Feasibility Study; 2: Possible are yet to have Feasibility Study  
Sources: E-Source, CPM Group, Industry Sources, EMN analysis



# Customers and regulators committing to sustainable, traceable, local supply

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## Demand for locally-sourced, low-carbon battery raw materials is increasing

### OEM, Battery & Cathode Makers



“We in BASF have always believed in having the **supply of key raw materials** in close customer proximity. We believe that **local production and local content** for battery materials are key to ensure a resilient and sustainable supply chain.”



“Setting out to establish a **fully localized European supply chain for e-mobility made in Europe** certainly marks a rare opportunity in business history.”



“The Company intends to maximize the full value of the battery life cycle through repair, remanufacturing, second-life use and recycling, as well as ensure a **sustainable system** that prioritizes customer needs and **environmental concerns**.”

### Regulators



#### Critical Raw Materials Act

- Focusing on strategic applications
- A more resilient supply chain
- A strong and sustainable level playing field



#### Inflation Reduction Act

- \$369 billion for energy security and climate change
- Tax credit for the purchase of new electric vehicles
- Secure supply of critical minerals



Global Battery Alliance's Battery Passport accreditation required to be sold in Europe. Establishment of **green battery supply chain** with **mandatory green procurement**, including **responsible sourcing** and minimum levels of recycled content.



# Battery metals company poised to become a leading producer of high-purity Mn

Focused on delivering fully-traceable, responsibly-produced high-purity Mn products for the EV industry



Set to become Europe's primary producer of high-purity manganese products



Strategically located in heart of world's fastest-growing EV battery market



Positioned to support the shift to a circular, low-carbon economy



Well-funded; project backed by EU institutions (EBRD, EIT InnoEnergy)



Aim to have best-in-class environmental & social performance



Experienced team with deep high-purity manganese experience



First step in building a multi-asset high-purity manganese platform



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# Chvaletice delivers high-purity manganese supply security for Europe...

Stable production over 25-year project life, supported by 27 Mt reserve base

## Strategically located

- Czech Republic is a stable and business-friendly jurisdiction
- In the heart of European EV battery supply chains
- Is a secure, traceable & responsibly produced supply of high-purity Mn

## Unique waste-to value project

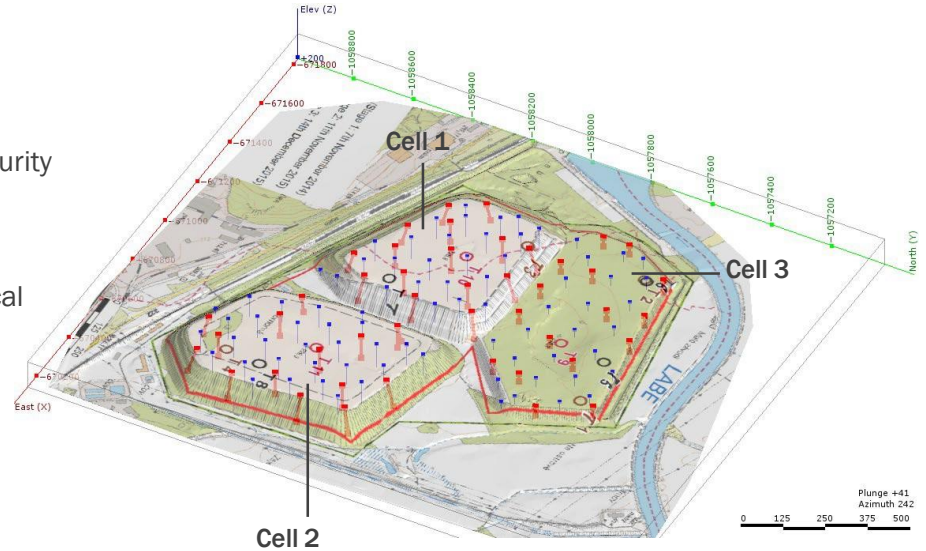
- Recycling & remediation project involving reprocessing historical mine tailings containing manganese
- No hard-rock mining impacts

## Mineral Reserve is well defined & uniform

- Reserves of ~27 Mt with an average grade of 7.41% Mn
- Easily treated manganese carbonate orebody <sup>(1)</sup>

## Supports stable production over 25 years

- Production of 48Kt/annum of Mn equivalent for 25 years <sup>(2)</sup>



2017-2018 Drill Program

■ 2017 drill holes

■ 2018 drill holes

(1) Clean carbonate ores, most suitable for HP Mn production, are rare. Oxide ores require extra treatment and removal of impurities is challenging.

(2) Based on 2022 Feasibility Study, published on 27 July, 2022.





## ... with exceptional ESG benefits

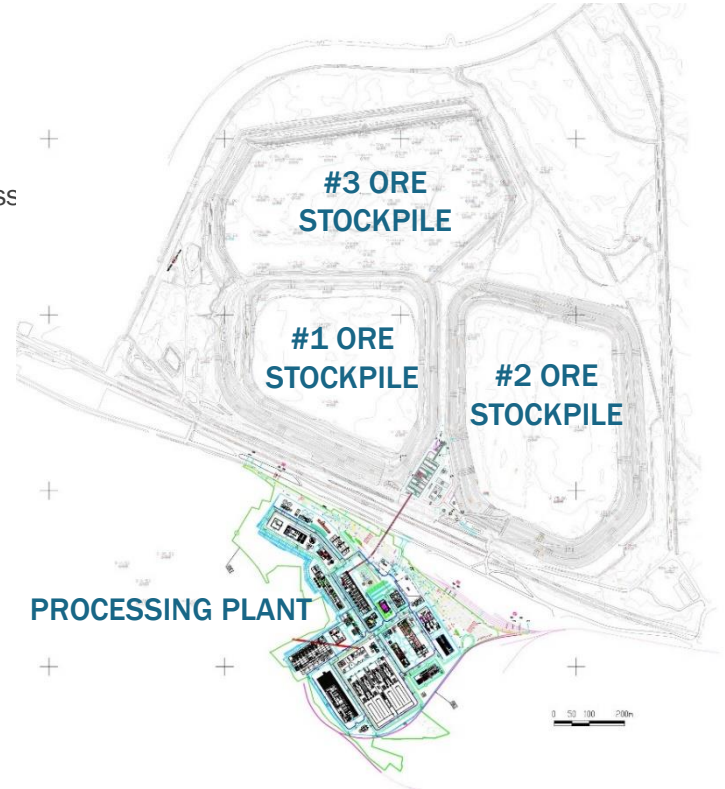
### Chvaletice project delivers wide-ranging benefits for all stakeholders

#### Use of Best Available Technologies for Low Carbon Footprint

- Net positive environmental benefits from remediation of historic tailings
- MoU to use 100% renewable electricity
- Supply of industrial wastewater from neighbouring power plant for process make-up water
- Recycling of CO<sub>2</sub> and hydrogen process emissions, as well as reagent regeneration and recycling
- Zero toxic selenium or fluorine used in process, unlike other manganese production
- Best practice tailings management (filtered, dry-stacked)
- No carbon footprint from long-distance ore transportation: resource is adjacent to process plant

#### Value creation for local communities and Czech Government

- Strong support from local communities and governments
- ~ 400 jobs created during operation
- US\$1.5 billion in corporate taxes and royalties over life of project



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# Demonstration plant enables large-scale product samples

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- ❖ Strong demand for Demonstration Plant and Pilot Plant samples from the Chvaletice Project by 12 companies, (OEMs, EV battery and cathode manufacturers, and specialty alloy manufacturers)
- ❖ The Demonstration Plant modules were unpacked and placed in position within two fully refurbished buildings in September
- ❖ Demonstration Plant installation substantially complete and commissioning underway
- ❖ Commissioning of the Demonstration Plant will occur on a module-by-module basis, including cold, hot and performance testing.
- ❖ The first modules commenced commissioning in November



**1. Ore to Slurry Preparation Module**



**2. Magnetic Separation Module**



**3. Post Magnetic Separation: Concentrate and Tailings Tanks and Filter Presses**



**4. Leaching and Purification Module**



# Process uses proven, conventional and commercial technologies

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5. Two Stage Purification Module



6. Electrowinning Module (a purification step as well)



7. HPMM Dissolution, Deep Final Purification Module

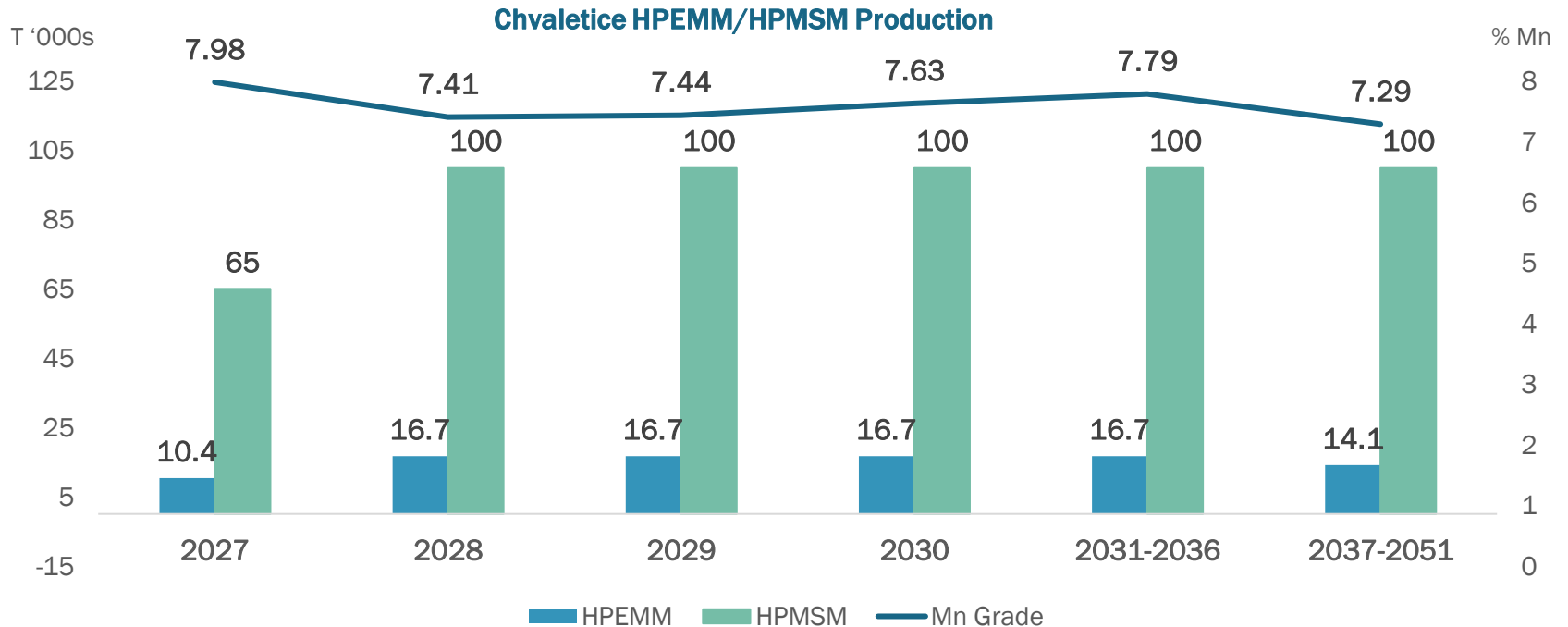


8. HPMSM Crystallisation Module



# Production profile over 25-year project life

Commissioning in 2026; 2027 ramp up leading to stable production over life of project



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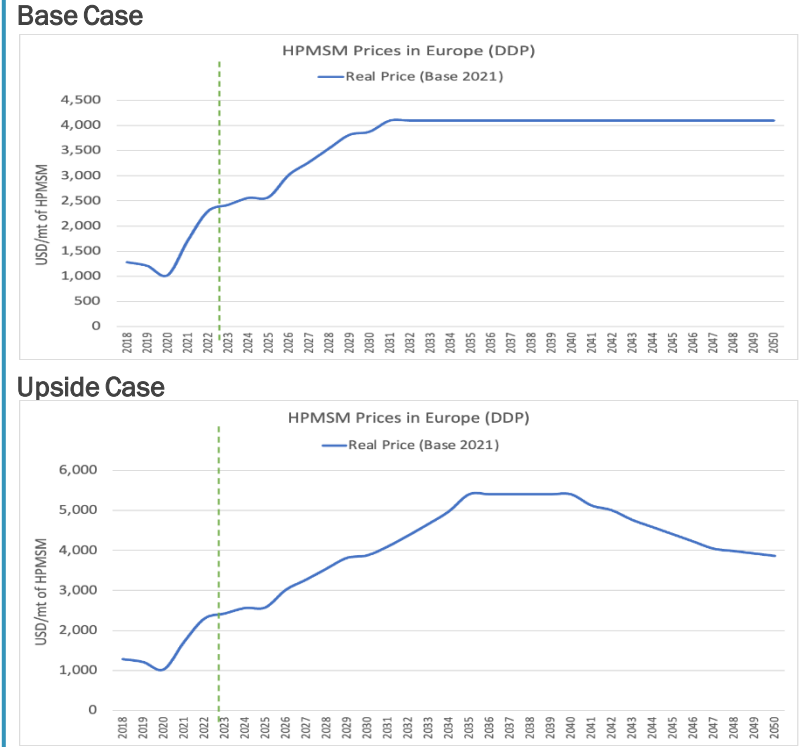
# Product quality, ESG credentials, and localization aspects deliver a price premium

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## European/North American Price Premium vs China

- ❖ The only regular price reporting is ex-works China
- ❖ There is no western price index for HPMSM or HPEMM
- ❖ Market analysts confer that bifurcation of market pricing will increase between China and EU/NA markets driven by:
  - High quality requirements (lower impurities)
  - Lower CO2 footprint and other ESG factors
  - Localisation for security of supply
  - Transparent traceability
  - EU “Level playing field” sustainability legislation
  - US “IRA” geo-political legislation
  - Freight cost for China to supply EU & NA market
  - Current tariffs
- ❖ EU/NA Demand – Supply deficit = increasing prices

## Feasibility Study EU Price Forecasts for HPMSM



Sources: CPM Group & Tetra Tech



## Key highlights: strong cashflow and margins for years to come (\$ in USD)

Base Case*			Upside Case (CPM Group Price Forecast)		
<b>NPV<sub>8%</sub></b>	<b>IRR</b>	<b>Mn Production</b>	<b>NPV<sub>8%</sub></b>	<b>IRR</b>	<b>Mn Production</b>
<b>\$1.34B</b> <i>Net Present Value post tax</i>	<b>22%</b> <i>Ung geared, post tax</i>	<b>48ktpa</b> <i>(100Kt HPMSM + 15Kt HPEMM)</i>	<b>\$1.79B</b> <i>Net Present Value post tax</i>	<b>24%</b> <i>Ung geared, post tax</i>	<b>48ktpa</b> <i>(100Kt HPMSM + 15Kt HPEMM)</i>
<b>Revenue</b>	<b>Opex</b>	<b>Margin</b>	<b>Revenue</b>	<b>Opex</b>	<b>Margin</b>
<b>\$554M</b> <i>Average per year</i>	<b>\$229M</b> <i>Average per year</i>	<b>59%</b> <i>EBITDA margin</i>	<b>\$625M</b> <i>Average per year</i>	<b>\$229M</b> <i>Average per year</i>	<b>63%</b> <i>EBITDA margin</i>
<b>Capital</b>	<b>Payback</b>	<b>Life of Project</b>	<b>Capital</b>	<b>Payback</b>	<b>Life of Project</b>
<b>\$757M</b> <i>To initial production</i>	<b>4.1</b> <i>years</i>	<b>25</b> <i>Years</i>	<b>\$757M</b> <i>To initial production</i>	<b>4.1</b> <i>years</i>	<b>25</b> <i>Years</i>

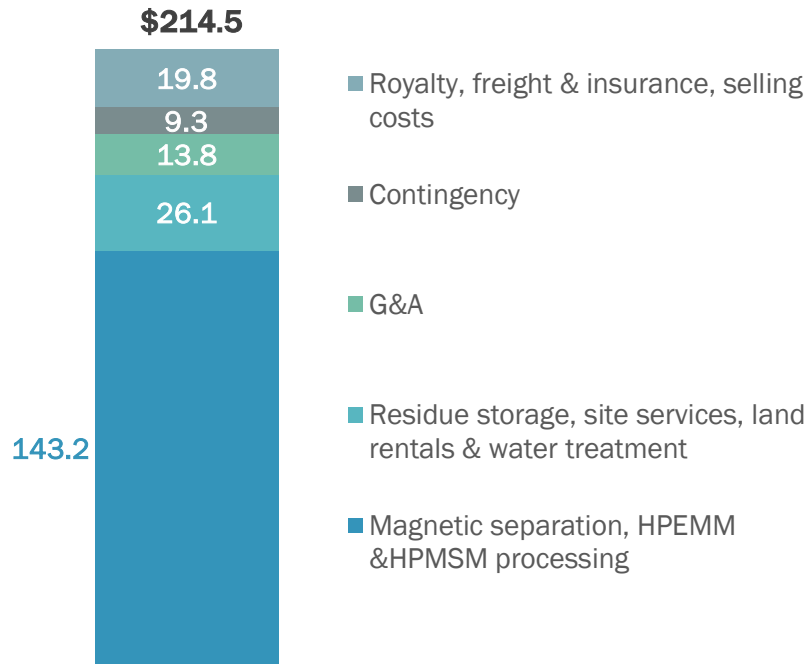
\* Base case project economics are based on Tetra Tech Canada Inc.'s adoption of a risk-adjusted short-term price forecast.



# Project operational costs based on current cost environment

Energy and reagents constitute ~68% of operational costs

## Operational Costs (\$/t of Plant Feed)



- ❖ Reagents and energy account for ~30% and ~38% of opex respectively.
- ❖ Power pricing based on long-term renewable power purchase agreement MoU discussions.
- ❖ Competitive labour costs.
- ❖ Opportunities for reduction:
  - Inclusion of contingency
  - Supply chain normalization for reagents
  - Power cost normalization
  - Build own sulfuric acid plant at later stage

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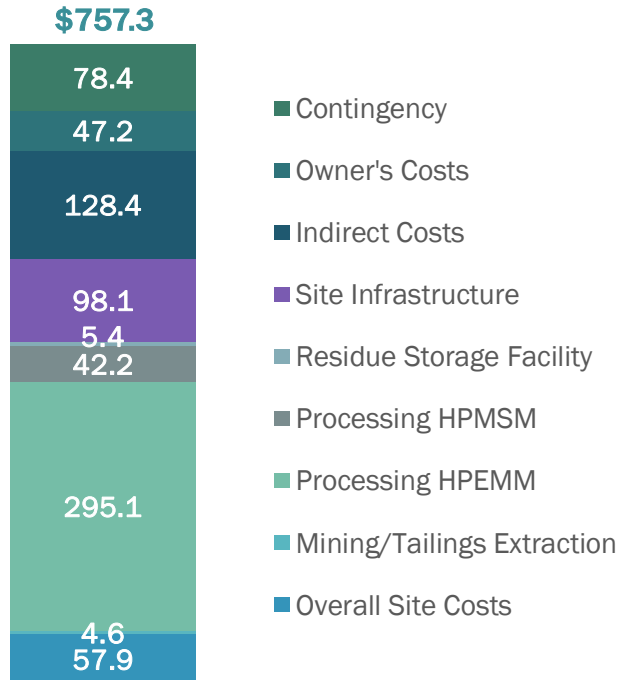




# Project capital costs include a robust contingency

Capex figure reflects post-COVID supply chain environment

Capital Cost Breakdown (\$M)



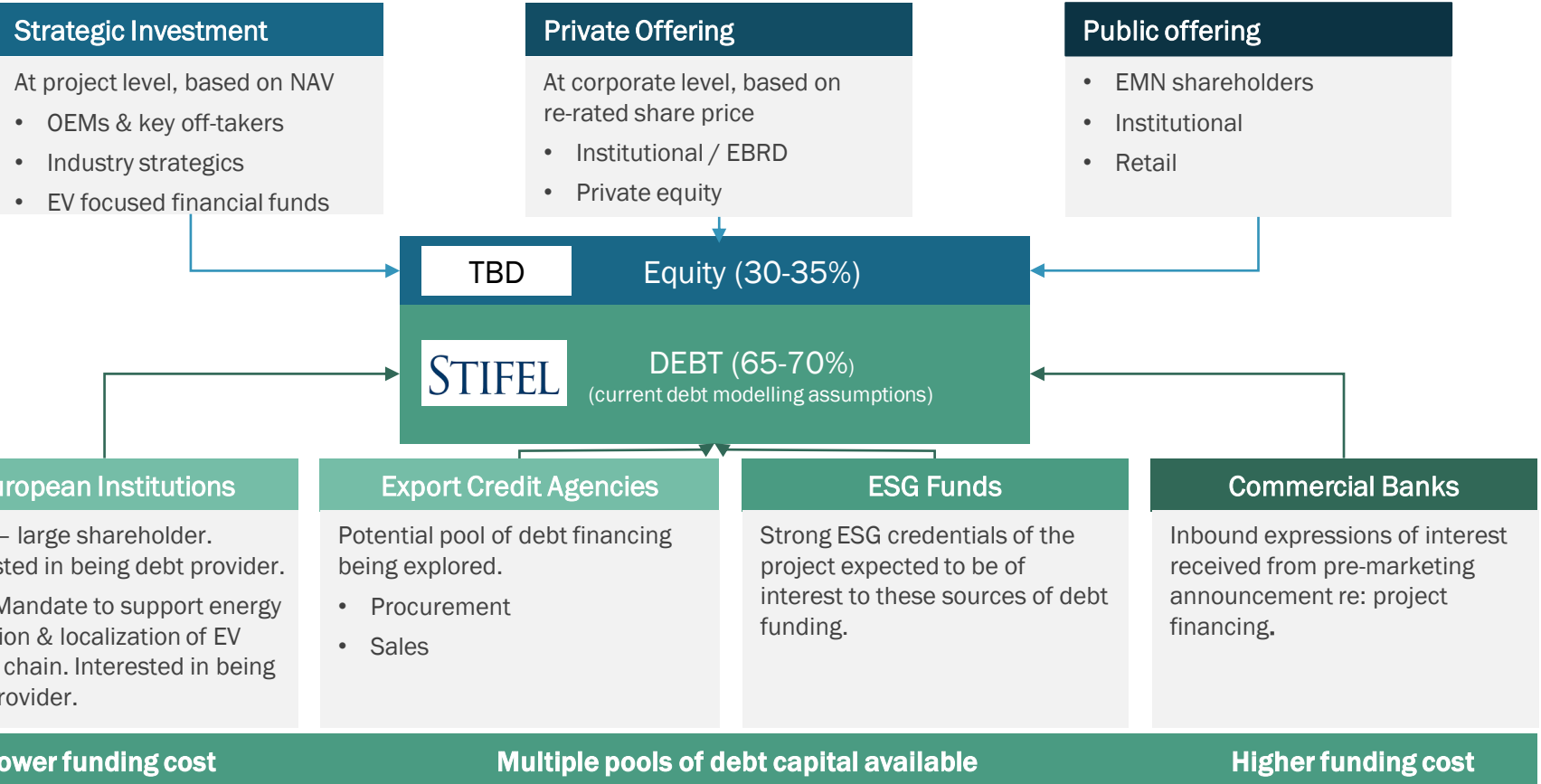
- ◆ Robust +\$100M contingency (includes \$78M contingency and \$25M of growth capital on direct costs).
- ◆ European supply chain environment yet to recover from COVID disruption.
- ◆ Equipment costs reflect list prices from RFQs. Opportunity to reduce via EPCM procurement process.
- ◆ Low infrastructure cost/risk: power connection & rail-yard \$23M, remaining \$75M on civil works, buildings, water distribution and mine infrastructure.
- ◆ Tier 1 EPCM contractors with experience of plant construction in Europe will be used to ensure on-cost, on-time construction.

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# Project financing strategy: Debt adviser Stifel, Equity adviser process underway

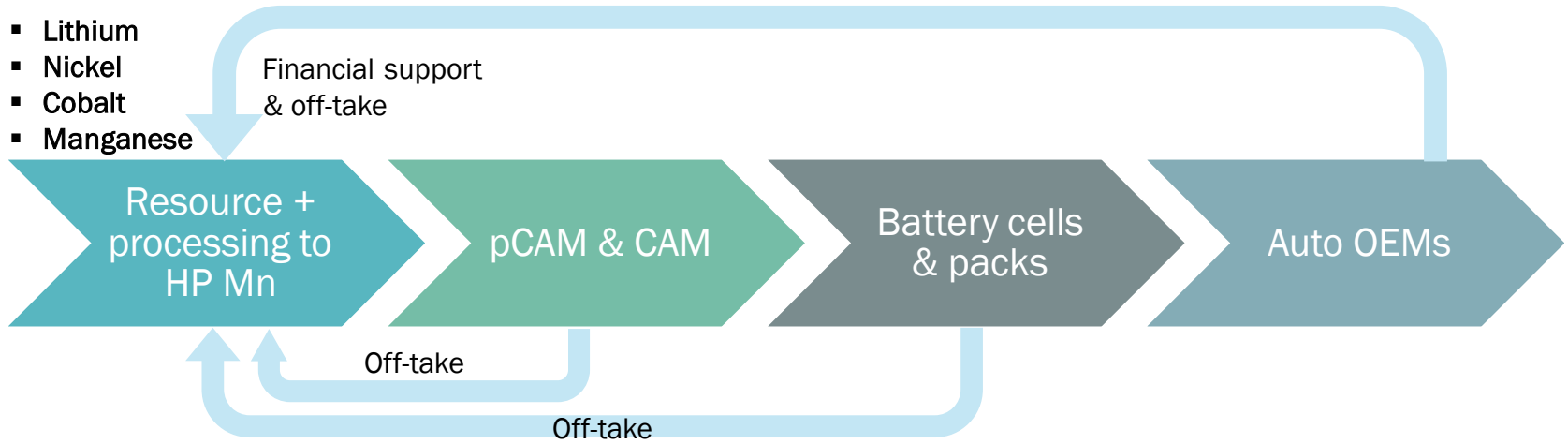
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# Off-take tender process underway with parties across the value chain

Increasing trend of backward integration, with Auto OEMs most dominant in shaping industry relationships



## Euro Manganese

- Off-take tender process underway
  - Data room made available and site visits undertaken
  - Bids received from multiple parties across the value chain
  - Ongoing discussions with additional parties
  - Driving to term sheets and then off-take contracts

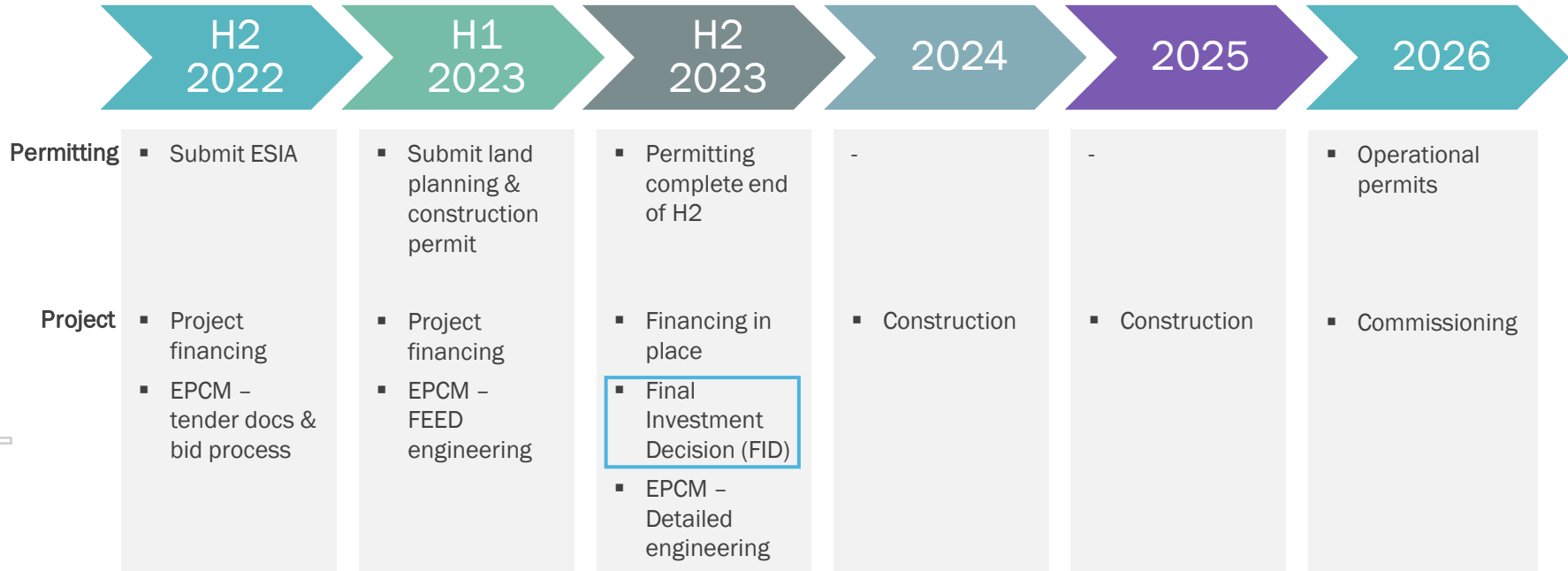
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# Permitting & next steps

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On track to deliver final investment decision by H2 2023



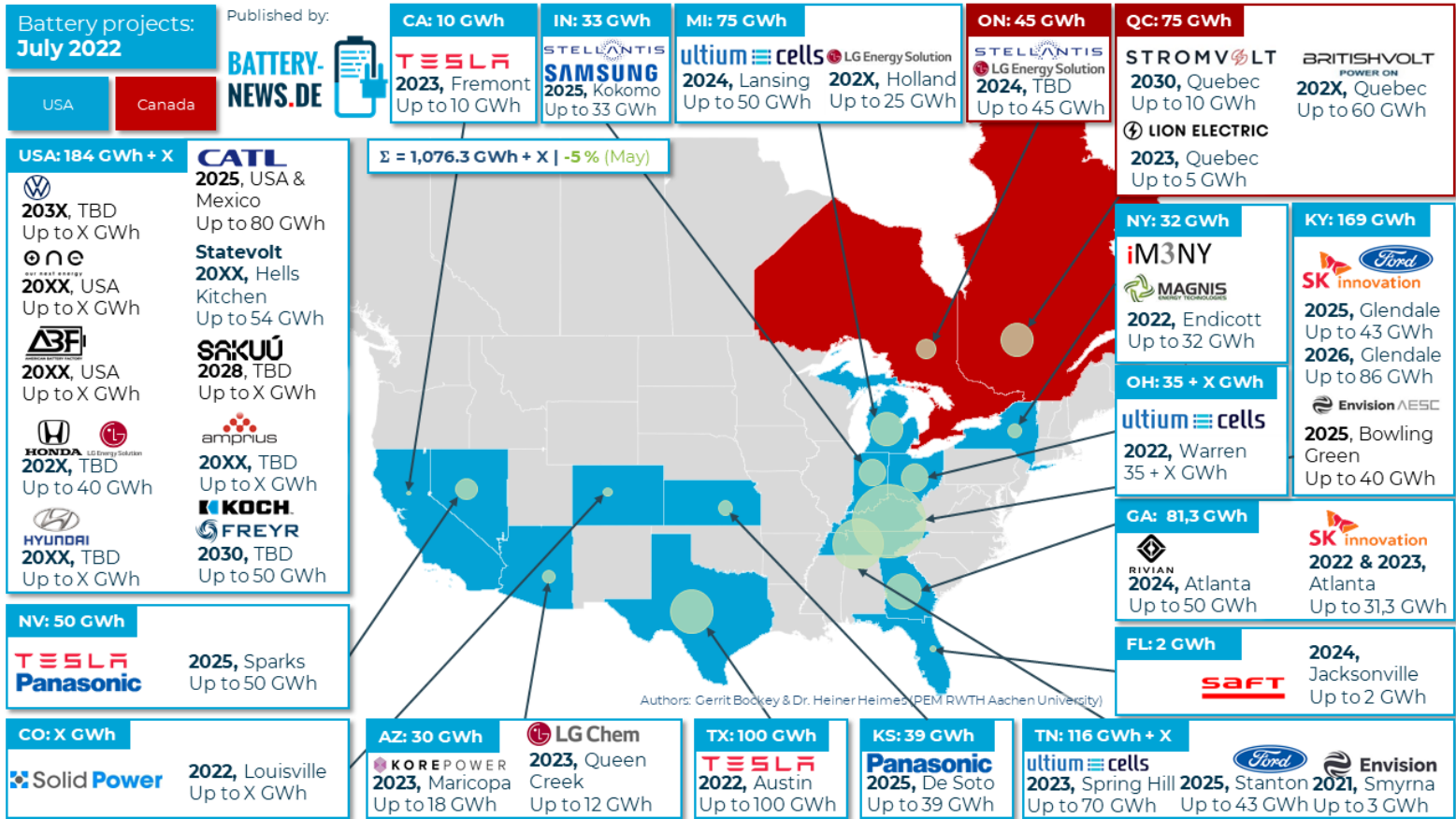
Project finance / customer offtake contracts... .. additional customer off-take contracts

Note: Timelines are subject to change based on financing, land access agreements, permitting and EPCM strategy outcomes.



# The battery plants in North America require pCAM and CAM plants

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# The IRA is driving battery and cathode makers to locate plants in North America

## North America is a growth market with no local HP Mn production

### Situation

- ❖ North America has no current HP Mn processing capacity to supply large number of battery gigafactories and PCAM/CAM plants under development
  - By 2031, North America expected to require over 200Kt of HP Mn annually\*
  - Canadian Critical Minerals and battery supply chain policies supportive.
  - Recent US regulation (Inflation Reduction Act) supports localization of supply chains for critical raw materials.
- ❖ Québec is strategically located: gateway to North America's fast growing EV market, Bécancour site offers:
  - Major EV battery supply chain cluster; near "Auto Alley" and potential North American customers
  - Excellent industrial infrastructure
  - Reliable and competitively-priced green energy
  - Stable, supportive government and programs
  - Qualified workforce and high-end service providers

\*CPM Group forecast as at Nov 2022.



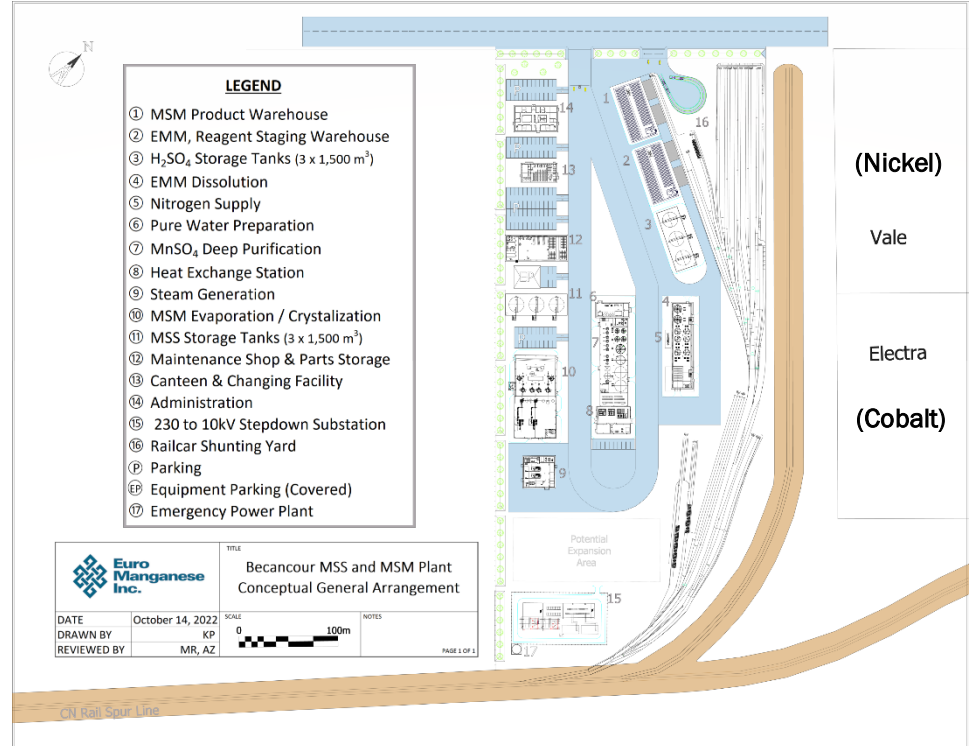
# Addressing this demand is a logical addition to our portfolio

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## HPEMM to HPMSM at Bécancour gives Euro Manganese first-mover advantage in a strategic, North American location

### Development plans

- A scoping study is underway to evaluate a site in Bécancour, Québec for production of high-purity manganese products.
- The scoping study will evaluate the dissolution of HPEMM to produce HPMSM powder and/or a high-purity manganese sulphate solution ("HPMSS").
- The study will leverage the extensive process development and engineering work completed at the Chvaletice Manganese Project in the Czech Republic.
- Euro Manganese has an exclusive due diligence agreement on a strategic site Bécancour where a cluster of pCAM plants are under development.
- SNC-Lavalin, to conduct site due diligence and advise on permitting processes.
- Ausenco is conducting a scoping study for the Dissolution Plant to an AACE Class 5 level of cost accuracy (-30%/+ 50%)







# Euro Manganese's Value Proposition

EMN is well positioned to create significant value for its shareholders



## Privileged Asset

- Chvaletice orebody (Czech Republic) is the only sizable manganese reserve in the EU
- Brownfield site with significant existing infrastructure
- Carbonate orebody (cost & environmental advantages)
- Premium product = premium pricing & valuation



## Partner of Choice

- Excellent ESG credentials; focus on operating with the highest integrity
- Positioned to support the shift to a circular, low-carbon economy
- Strong strategic relationships



## Well-Funded

- Project backed by EU institutions (EBRD, EIT InnoEnergy, European Battery Alliance)
- Fully funded to Final Investment Decision (expected in H2 2023) and 12 months of corporate G&A
- Project financing underway; Stifel appointed as financial advisor



## Solid Management Team

- Track record of raising capital & delivering large-scale projects
- Deep high-purity manganese experience
- Strategic growth opportunities



# Executive leadership team



**Matt James**

**DIRECTOR, PRESIDENT & CHIEF EXECUTIVE OFFICER**

- 27 years of experience in a broad range of roles, including established industrials and small growth companies within the global natural resources industry
- Previous senior roles: Engagement Manager at McKinsey & Co; Vice President, Strategy & Corporate Communications at Lynas Corporation, a specialty metals company; founding Managing Director of Rutila Resources; Vice President, Strategy and Business Development, Harsco Corporation
- B. Eng. (Hons) degree in Ceramic Engineering from the University of New South Wales, Australia and a Ph.D. in Material Science and Engineering from Queens' College at the University of Cambridge
- Graduate member of the Australian Institute of Directors



**Martina Blahova**

**CHIEF FINANCIAL OFFICER**

- 20 years of experience in finance; including public practice with PricewaterhouseCoopers and Ernst & Young in the Czech Republic and UK
- Previously corporate controller at Euro Manganese Inc.
- Held senior roles in automotive and mining industry, including Manager of Financial Reporting at SSR Mining Inc. and FP&A manager for KS Kolbenschmidt Inc., a Czech subsidiary of the Rheinmetall Group AG
- Qualified as a CPA, CGA (Canada) and as an ACCA (UK) and holds a Master's Degree in International Business



**James Fraser**

**VP COMMERCIAL**

- 25 years of experience in the geosciences, consulting, mining, carbon credit and automotive sectors.
- Previously Head of Sales & Sourcing and Managing Director with two UK-based specialist automotive/motorsport engineering firms.
- Worked for Permian Global, an investment fund focused on forest carbon and held a range of senior positions in commercial and technical fields at Rio Tinto. Began career as a strategy consultant for McKinsey & Company.
- Completed a doctorate in Earth Sciences at Oxford



**Fausto Taddei**

**VP CORPORATE DEVELOPMENT & CORPORATE SECRETARY**

- Over 35 years of public resource company experience with development and operating entities involved in precious and base metals, and metallurgical coal. Senior level experience in multiple mining operations, financing, treasury functions, off-take arrangements, tax planning and public company reporting and governance matters
- Held Senior VP & CFO positions with Nevsun Resources Ltd., Aura Minerals Inc. and Western Canadian Coal Corp.
- Qualified as a CPA (CA) in 1985



**Andrea Zaradic**

**VICE PRESIDENT OPERATIONS**

- 30 years of experience in corporate, project and business development, focused on mining and renewable energy throughout the Americas, Africa, Asia and Europe
- Held numerous senior roles including: President & CEO of Northair Silver; Program Manager for Ballard Power; VP Operations and Development for Magma Energy Corp.; Manager of Infrastructure Devel. for Canico Resource.; and Construction and Senior Process Oper. Eng. for BHP
- Serves on the board of Kootenay Silver, and as Technical Advisor to Northleaf Capital
- Holds a M.A.Sc degree in mechanical engineering and is a registered Professional Engineer in the Provinces of BC and Ontario



**Jan Votava**

**MANAGING DIRECTOR OF MANGAN CHVALETICE S.R.O**

- Engineer with 19 years experience as an executive leader in the Czech Republic
- Responsible for leading Euro Manganese's subsidiary in the Czech Republic, the company's organizational and reputational development, as well as project permitting and development
- Previously held roles as Head of Transformation Team for Europe, Technical Director for Central Europe, and Executive Chairman and Managing Director for the Czech Republic for Lafarge Holcim
- Holds a doctorate in mechanical engineering

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Inc.**

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TSXV: EMN

ASX: EMN

OTCQX: EUMNF

Frankfurt Stock Exchange: E06

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# Corporate information about Euro Manganese

EMN is a BC company incorporated in 2014 and listed publicly in 2018; its head office is located in Vancouver

## TRADING SYMBOLS

TSX-V and ASX: EMN OTCQX: EUMNF Frankfurt: E06

## FINANCIAL METRICS

Cash balance – June 30, 2022	~ CDN\$28.0 million
Total Liabilities – June 30, 2022	~ CDN\$1.6 million
Debt	Zero debt
Market cap (Jun 30, 2022 @ \$0.29)	~ CDN\$116.3 million
Enterprise value (June 30, 2022)	~ CDN\$88.3 million

## FINANCIALS (hyperlinks below)

Year	Q1	Q2	Q3	Q4
2022	<a href="#">MD&amp;A</a>	<a href="#">MD&amp;A</a>	<a href="#">MD&amp;A</a>	
	<a href="#">Financials</a>	<a href="#">Financials</a>	<a href="#">Financials</a>	
2021	<a href="#">MD&amp;A</a>	<a href="#">MD&amp;A</a>	<a href="#">MD&amp;A</a>	<a href="#">Annual Report</a>
	<a href="#">Financials</a>	<a href="#">Financials</a>	<a href="#">Financials</a>	
2020	<a href="#">MD&amp;A</a>	<a href="#">MD&amp;A</a>	<a href="#">MD&amp;A</a>	<a href="#">Annual Report</a>
	<a href="#">Financials</a>	<a href="#">Financials</a>	<a href="#">Financials</a>	

## CORPORATE PRESENTATION

Our most-recent corporate presentation can be found [here](#).

## CORPORATE MEMBERSHIPS

EMN is a member in good standing of the following organizations and is bound by their ESG codes and standards:

- [European Battery Alliance](#)
- [European Raw Materials Alliance](#)
- [Global Battery Alliance](#)
- [International Manganese Institute](#)

## CORPORATE POLICIES

Links to our corporate policies:

- [Code of Conduct and Business Ethics](#)
- [Corporate Governance Statement](#)
- [Whistleblower Policy](#)
- [Disclosure Policy](#)
- [External Grievance Mechanism](#)
- [Diversity Policy](#)
- [Sustainability Committee Charter](#)



## Q3 2022 Financial highlights and position

Fully funded to FID and ~12 months of corporate G&A

<b>Cash Balance – April 1, 2022</b>	<b>C\$ 32.1 M</b>
Advancing the feasibility study and other operating costs	(C\$ 3.1 M)
Demonstration plant under construction	(C\$ 0.5 M)
Deposits for land acquisitions	(C\$ 0.5 M)
<b>Cash Balance – June 30, 2022</b>	<b>C\$ 28.0 M</b>

### Fully funded to complete:

- Demonstration plant installation, commissioning and 1-year operation
- Environmental and Social Impact Assessment and other permitting
- Certain critical land acquisitions
- EPCM tender process
- Over 12 months corporate (G&A) costs



## Resources converted to Reserves with 98.4% classified in Proven category

Estimated in accordance with the CIM Definition Standards on Mineral Resources and Mineral Reserves adapted by CIM Council, as amended, which are materially identical to the JORC Code.

Chvaletice Mineral Reserve Statement, Effective Date July 14, 2022\*

Tailings Cell #	Classification	Volume (m <sup>3</sup> )	Tonnage (MT)	Dry In-situ Bulk Density (t/m <sup>3</sup> )	Total Mn (%)
#1	PROVEN	6,651,000	10,132,000	1.51	7.83
	PROBABLE	141,000	208,000	1.52	8.24
#2	PROVEN	7,929,000	12,106,000	1.53	6.91
	PROBABLE	119,000	183,000	1.54	7.35
#3	PROVEN	2,744,000	3,979,000	1.46	7.49
	PROBABLE	25,000	36,000	1.46	7.98
TOTAL	PROVEN	17,325,000	26,217,000	1.50	7.35
	PROBABLE	284,000	427,000	1.51	7.84
COMBINED	PROVEN & PROBABLE	17,609,000	26,644,000	1.51	7.41

\* Probable Reserves have lower confidence than Proven Reserves. Inferred Resources have not been included in the Reserves.

### 2017-2018: 160-hole drilling program findings

- Manganese is for the most part evenly distributed through the entire tailings deposit
- Finely milled, unconsolidated tailings placed above ground expected to result in very low mining and virtually zero ore dressing costs
- **~80% of manganese is contained in easily leachable manganese carbonate minerals** that require no calcination or chemical reduction prior to leaching, unlike manganese oxide ores



## Notes to Mineral Reserve Statement

1. Estimated in accordance with the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended, which are materially identical to the JORC Code.
2. The Mineral Resource is inclusive of the Mineral Reserves.
3. Probable Reserves have lower confidence than Proven Reserves. Inferred Resources have not been included in the Reserves.
4. A break-even grade of 2.18% total Mn has been estimated for the Chvaletice deposit based on preliminary pre-concentration operating costs of \$6.47/t feed, leaching and refining operating cost estimates of \$188/t feed, total recovery to HPEMM and HPMSM of approximately 60.5% and 58.9% respectively and product prices of US\$9.60 kg/t for HPEMM and US\$3.72 kg/t for HPMSM (CPM Group Report, June 2022). The actual commodity price for these products may vary.
5. Grade capping has not been applied.
6. Numbers may not add exactly due to rounding.
7. Minimal dilution and losses of <1% are expected to occur at the interface between the lower bounds of the tailings cells and original ground as the surface is uneven.





# Compliance Statements

## Competent and Qualified Persons Statement

All production targets for the Chvalteice Manganese Project referred to in this presentation are underpinned by estimated Proven and Probable Reserves prepared by competent persons and qualified persons in accordance with the requirements of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition ("JORC Code") and National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101"), respectively. The NI-43-101 report, including the results of the Feasibility Study and be filed on SEDAR at [www.sedar.com](http://www.sedar.com) within 45 days of the release of the Company's announcement dated 27 July 2022, and be made available on the Company's website. The JORC Technical Report is expected to be lodged with the ASX within the same time period. The scientific and technical information included in this presentation is based upon information prepared and approved by Mr. James Barr, P. Geo, Senior Geologist, Mr. Jianhui (John) Huang, Ph.D., P. Eng., Senior Metallurgical Engineer, Mr. Hassan Ghaffari, P.Eng, M.A.Sc., Senior Process Engineer, Mr. Chris Johns, P.Eng, Senior Geotechnical Engineer, Davood Hasanloo, P.Eng, M.A.Sc., Senior Hydrotechnical Engineer, and Mrs. Maurie Marks, P.Eng, Senior Mining, all with Tetra Tech Canada Inc. ("Tetra Tech"), and Ms. Andrea Zaradic, P. Eng., Vice President Operations for Euro Manganese. Mr. Barr, Mrs. Marks, Mr. Ghaffari, Mr. Johns, Mr. Hasanloo and Mr. Huang are consultants to, and independent of, EMN within the meaning of NI 43-101, and have sufficient experience in the field of activity being reported to qualify as Competent Persons as defined in the JORC Code, and are Qualified Persons, as defined in NI 43-101. Messrs. Barr, Huang, Ghaffari, Johns, Hasanloo and Mrs. Marks have no economic or financial interest in the Company and consent to the inclusion in this presentation of the matters based on their information in the form and context in which it appears. In addition, technical information concerning the Chvalteice Manganese Project is reviewed by Ms. Andrea Zaradic, P. Eng, VP Operations for Euro Manganese, and a Qualified Person under NI 43-101. Ms. Zaradic has reviewed and approved the information in this presentation for which she is responsible and has consented to the inclusion of the matters in this presentation based on the information in the form and context in which it appears.

## References to ASX and TSX-V Market Announcements

This presentation contains information extracted from certain of the Company's ASX and TSX-V market announcements, as shown below, including estimates of Proven and Probable Reserves, and production targets as reported in accordance with the JORC Code and NI 43-101 standards:

- i. The Feasibility Study results as reported on page 14 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- ii. The Reserve Statement reported on pages 8 and 28 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- iii. The expected annual production as reported on page 12 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- iv. The Feasibility Study EU price forecast for HPMSM as reported on page 13 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- v. Information on the operational expenditures for the Project as reported on page 15 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- vi. Information on the initial capital expenditures for the Project as reported on page 16 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- vii. Information on the Company's growth strategy as reported on pages 20-22 of this presentation was reported in the TSX-V and ASX market announcement dated 16 November 2022.
- viii. The Company is not aware of any new information or data that materially affects the information contained in the above-referenced market announcements. The Company also confirms that all material assumptions and technical parameters underpinning the estimates of Proven and Probable Reserves as provided in the relevant market announcements, as well as all material assumptions underpinning the production targets and financial forecast information, continue to apply and have not materially changed, and that the form and context in which the Competent Persons' findings are presented have not been materially modified.