



# EURO MANGANESE

*Poised to Support the Energy Transition*

INVESTOR PRESENTATION

March 2024

## 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 Chvaletice Project, its North American growth strategy, 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”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, and other similar terminology, or state that certain actions, events or results “may”, “could”, “would”, or be “taken, occur or be achieved”.

Forward looking statements includes, but is not limited to, statements regarding increasing demand for high purity manganese and resulting deficits, the Company being well positioned to meet current and future demand of the EV battery supply chain, the Company’s ability to obtain price premium for its product, and statements regarding any potential benefits from European and United States regulation.

Results of the Feasibility Study constitutes forward-looking information or statements, including but not limited to, estimates of 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. Forward looking information or statements also include the ability of the Company to complete commissioning of the Demonstration Plant and produce bulk samples of on-spec HPMSM, the successful testing and qualification by prospective customers of the Company’s products, and the Company’s ability to produce its products using best-in-class environmental and safety standards. Forward looking information also includes statements regarding estimated timelines for EPCM, EPCM contractors being able to achieve on cost and on-time construction, ability of the Company to obtain required permits, the acceptability of the revised ESIA documentation by the Czech Ministry of Environment and the anticipated timing of various regulatory approvals, statements regarding value chain creation for local communities and the Czech government, and the ability of the Company to progress potential customers through the sales funnel and enter into binding offtake agreements for its product on favorable terms.

Regarding the Orion financing, such forward-looking information or statements include, but are not limited to the closing of the second tranche of the convertible loan and related US\$30 million draw down, conversion of the loan into a royalty, the rates of the respective royalties that may be granted, the Company’s ability to meet the conditions precedent required to trigger funding obligations or sale of the royalty, the Company’s ability to advance the Project if it receives some or all of the secured funding package, the Company’s ability to satisfy the conditions precedent and make a final investment decision in order to complete the sale of the US\$50 million royalty and the Company’s ability to secure additional project finance debt, equity, and strategic investment required to fund the full development of the Project.

Regarding the Bécancour Plant, forward-looking statements include, but are not limited to, results of the Scoping Study including estimates of internal rates of return, net present values, and estimates of costs, statements regarding the timing for completion of the Bécancour feasibility study, the Company’s ability to reach a definitive agreement with MMC to supply feedstock, the Company’s estimated engineering and construction timelines to build the Bécancour Plant, the technical capability of the Bécancour Plant, the Company’s ability to operate the Bécancour Plant and produce both HPMSM and HPEMM with any associated cash flow, the Company’s ability to meet North American demand, and continuing successful cooperation with the W8banaki Nation.

All forward-looking statements are made based on the Company’s current beliefs including various assumptions made by the Company, including that: the Company can achieve its goals; that the political and community environment in which the Company operates in will continue to support the development and operation of the Chvaletice Project; and assumptions related to the factors set out herein. Factors that could cause actual results or events to differ materially from current expectations include, among other things: risks and uncertainties related to the ability to obtain, amend, or maintain necessary licenses, or permits; delay or inability to receive necessary regulatory approvals; risks related to acquisition of surface rights; the inability of the Company to meet the conditions of the secured financing; lack of availability of acceptable financing for developing and advancing the Chvaletice Project; inability to secure sufficient offtake agreements; risks related to the availability and reliability of equipment, facilities, and suppliers necessary to complete development; the ability to develop adequate processing capacity with expected production rates; the presence of and continuity of manganese at the Chvaletice Project at estimated grades; developments in EV (Electric Vehicles) 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, 2023, available on the Company’s SEDAR+ profile at [www.sedarplus.ca](http://www.sedarplus.ca).

# High-Purity Manganese 101

MARKET OVERVIEW

# Manganese is an essential raw material in most lithium-ion batteries

Nickel-Manganese-Cobalt (NMC) cathodes are currently the dominant chemistry in EV batteries with ~50% market share

## ABOUT HIGH-PURITY MANGANESE

### Is affordable

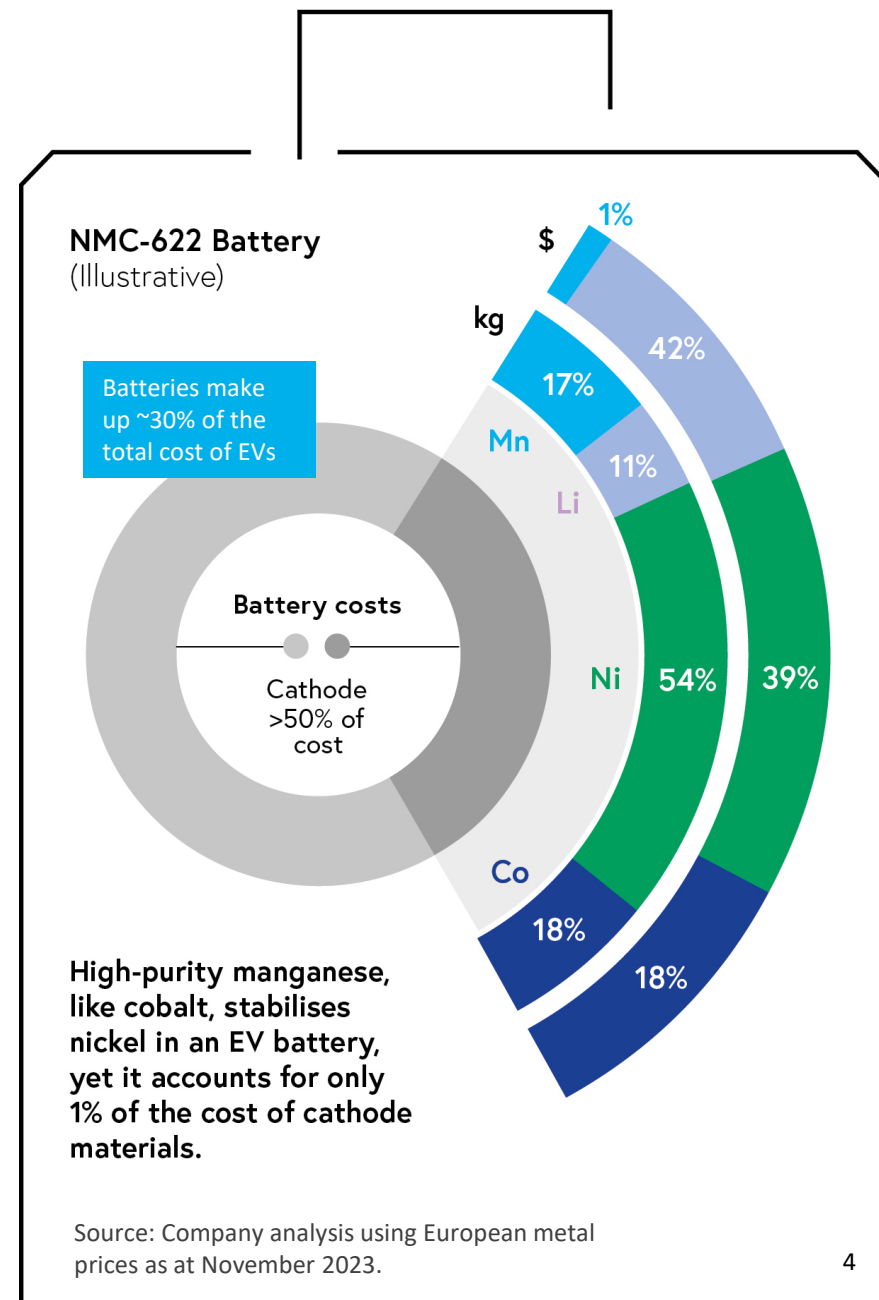
- Manganese is the most affordable, most abundant of the NMC cathode materials
- Makes up 17% of material in NMC-622 cathode but accounts for only 1% of the cost

### Improves safety

- Manganese stabilizes nickel, improving safety, in an EV battery

### Improves driving range

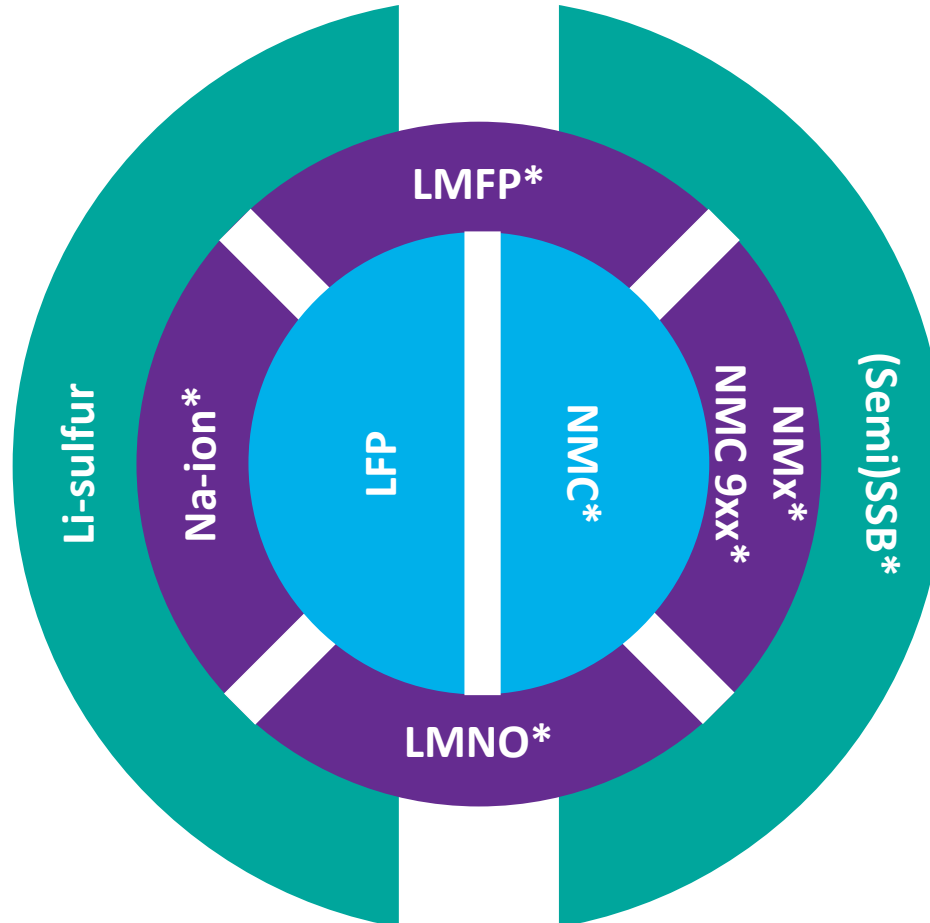
- Manganese increases energy density in LMFP and other high-Mn cathode chemistries, hence improves range



Moving forward, the market may shift its focus towards either reducing prices or enhancing performance, yet manganese will remain crucial in both

Battery chemistries<sup>1</sup> price and performance segmentation

Price differentiators



Performance differentiators

- Current technology
- Emerging technology
- Future technology
- \* Manganese-heavy

**Beyond 2030, Li-free cathodes (conversion, air and sulfur) might emerge as new technology branch**

1. LMNO (Lithium Manganese Nickel Oxide), NMC (Nickel-Manganese-Cobalt), NMCx (Nickel-Manganese Cobalt-free), LFP (lithium iron phosphate battery), LMFP (Lithium manganese iron phosphate), Semi(SSB) (semisolid-state battery).

# Industry tail winds benefitting high-purity manganese market

## Macro factors aligning to drive increased demand for high-purity manganese

1

### Continued growth of global EV market

- 50% of new vehicles sold in 2030 forecasted to be EV or hybrid
- Most car companies in Europe expect to switch to mostly EV production by 2030:



**RENAULT**

90% electric



100% electric



90% electric



100% electric

2

### Development of manganese-rich chemistries

- VW, Tesla, GM and Stellantis have announced moves to high-manganese cathodes
- Samsung, Umicore, BASF, SVOLT, CATL, and Gotion are all developing manganese-rich NMC or LMFP cathodes

*“Umicore reaffirms its frontrunner position in battery technology as our manganese-rich HLM technology moves closer to commercial production for future customers and provides an optimum alternative for the production of low-cost EV batteries.” Feb 13, 2023*



3

### EU & US regulation supports localization of supply chains

#### Europe

- Critical Raw Materials Act – battery grade manganese identified as a strategic material
- Passing of Battery Regulations
- Batteries sold in EU from 2026 will have to report ESG compliance

#### USA

- Inflation Reduction Act EV tax credit requires:
  - 40% battery raw materials to be sourced from US or FTA country in 2024
  - Rises 10%/year to 80% by 2027
  - From 2025, any vehicle with battery raw materials extracted, processed or recycled in a “foreign entity of concern” is ineligible for the tax credit



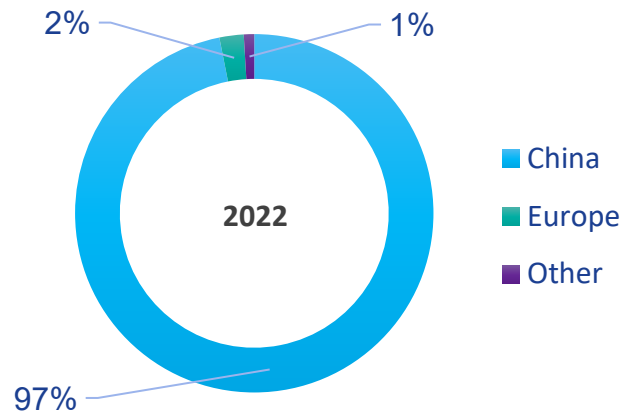
# Global high-purity manganese production landscape

Supply currently dominated by China; project pipeline inadequate to meet forecasted demand

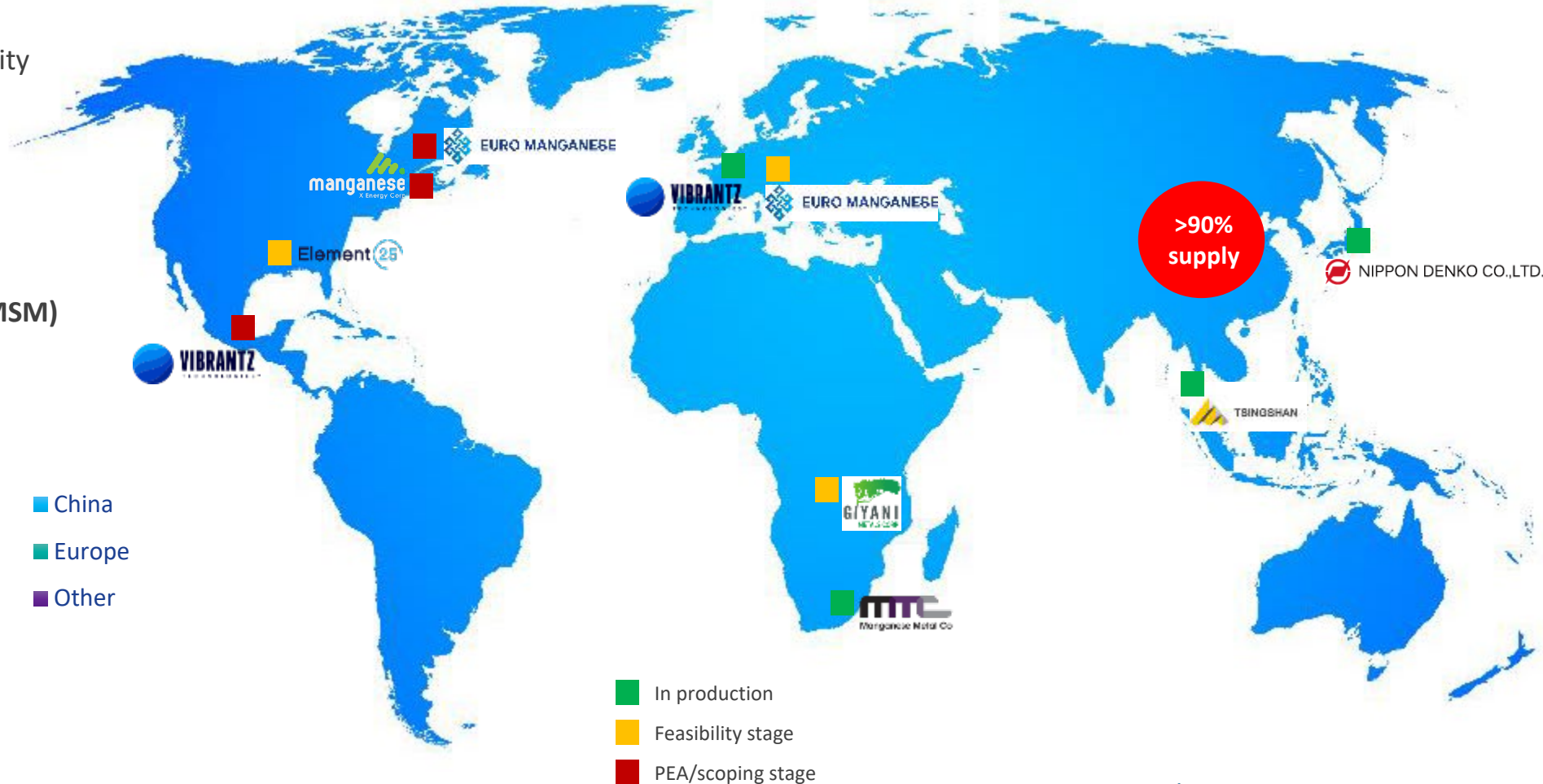
## Supply Forecast

- Only 3 new projects at Feasibility stage
- EMN set to become one of largest western producers of HPMSM

## Global Processing Capacity (HPMSM)

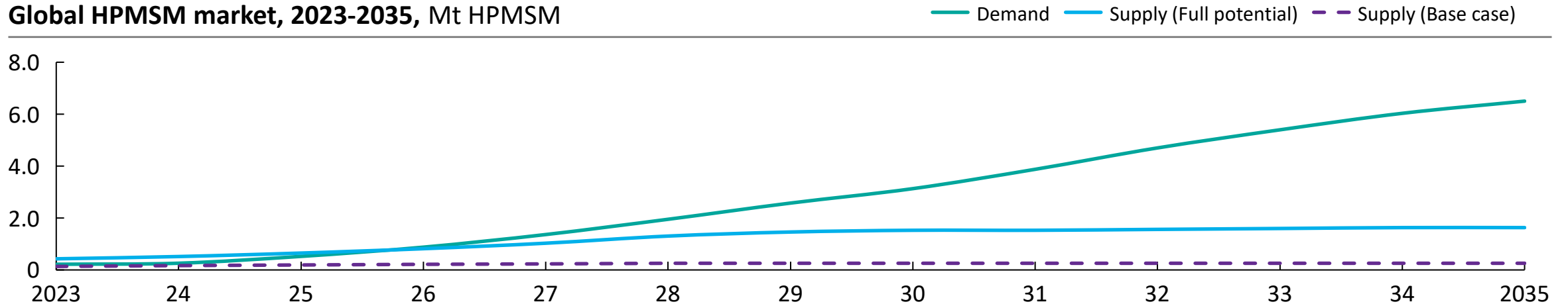


Source: CPM Group.

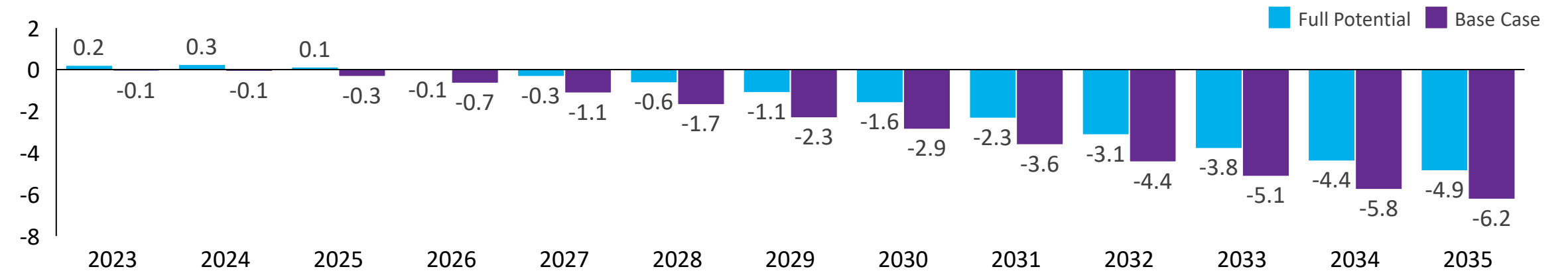


# Significant gaps appear in supply-demand balance of HPMSM in 2026 and increase steadily thereafter

Global HPMSM market, 2023-2035, Mt HPMSM



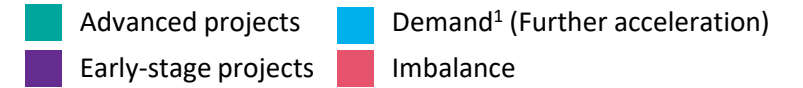
HPMSM Market balance, 2023-2035, Mt HPMSM



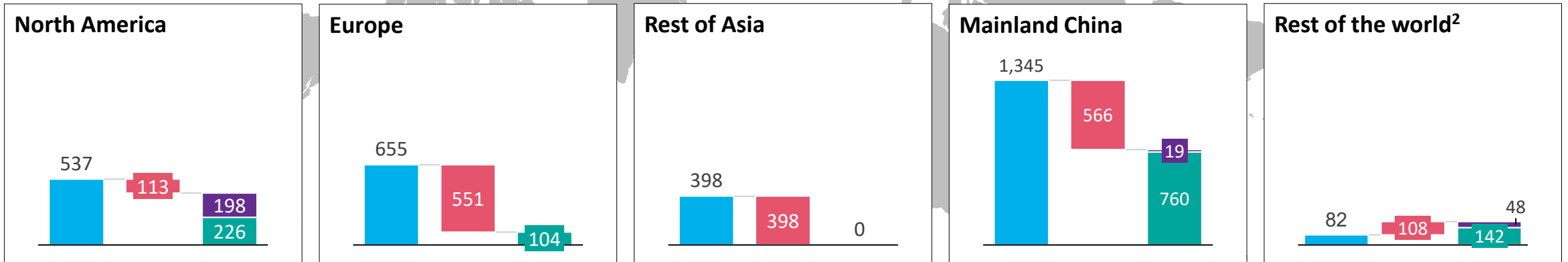


# The HPMSM market is regionalizing due to regulatory risk with Europe most likely to witness large and sustained imbalance

2030, kt HPMSM



Regions with FEOC restrictions (direct or indirect) have >1,000kt of market gap



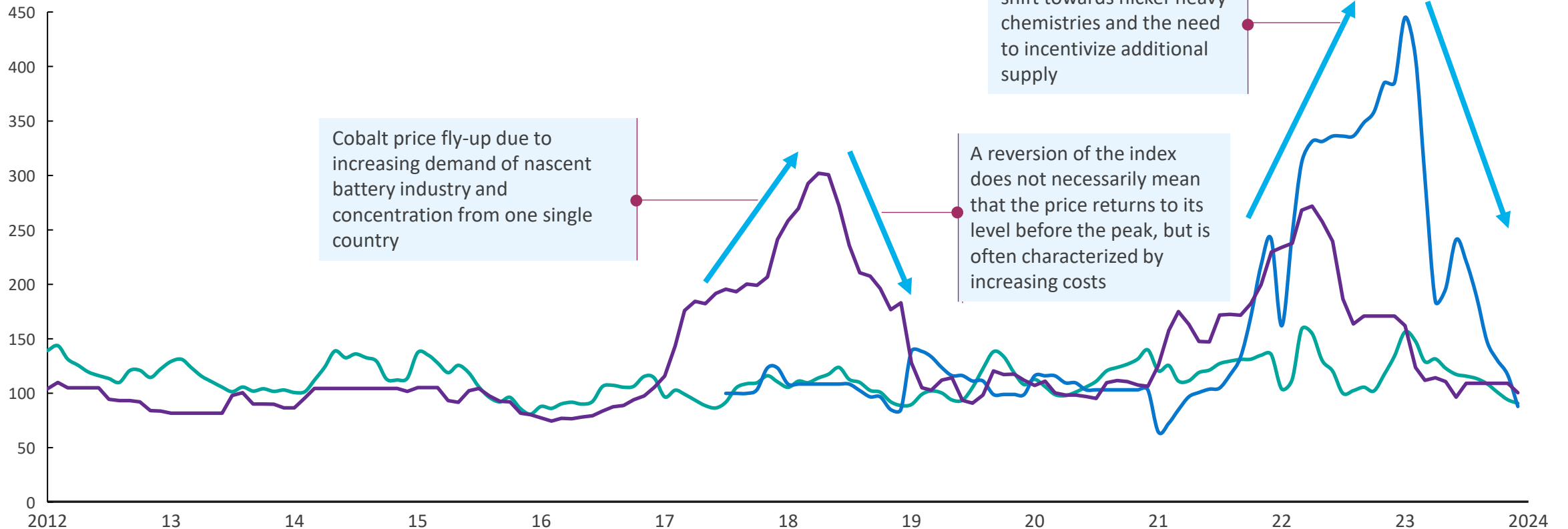
1. Demand includes High-purity Manganese Sulfate Monohydrate (HPMSM) but also including Electrolytic Manganese Dioxide (EMD) and high-purity manganese carbonate  
 2. Rest of the world includes Oceania (predominantly Australia) and Sub-Saharan Africa (South Africa and Botswana)

# Historical trends indicate that tight markets result in increased volatility and segmentation

## Nickel, lithium, and cobalt have had price fly-ups, followed by reversion

— Nickel — Lithium — Cobalt

Indexed<sup>1</sup> (Jan 2012 price) historical price fluctuations over marginal cost (Price/C90)



Ni & Li fly-ups due to a shift towards nickel-heavy chemistries and the need to incentivize additional supply

Cobalt price fly-up due to increasing demand of nascent battery industry and concentration from one single country

A reversion of the index does not necessarily mean that the price returns to its level before the peak, but is often characterized by increasing costs

1. Value on the chart is the monthly price over the yearly marginal cost of production (C90). Cobalt prices are evaluated against 30,000 USD/t.

Source: Argus Metals, Fastmarkets MB, Company press releases

# Who We Are

COMPANY & PROJECT OVERVIEW

# Battery metals company set to be a leading producer of high-purity manganese

Focused on delivering fully-traceable, responsibly-produced manganese for the EV industry



Strategically located asset; sole manganese resource in the EU



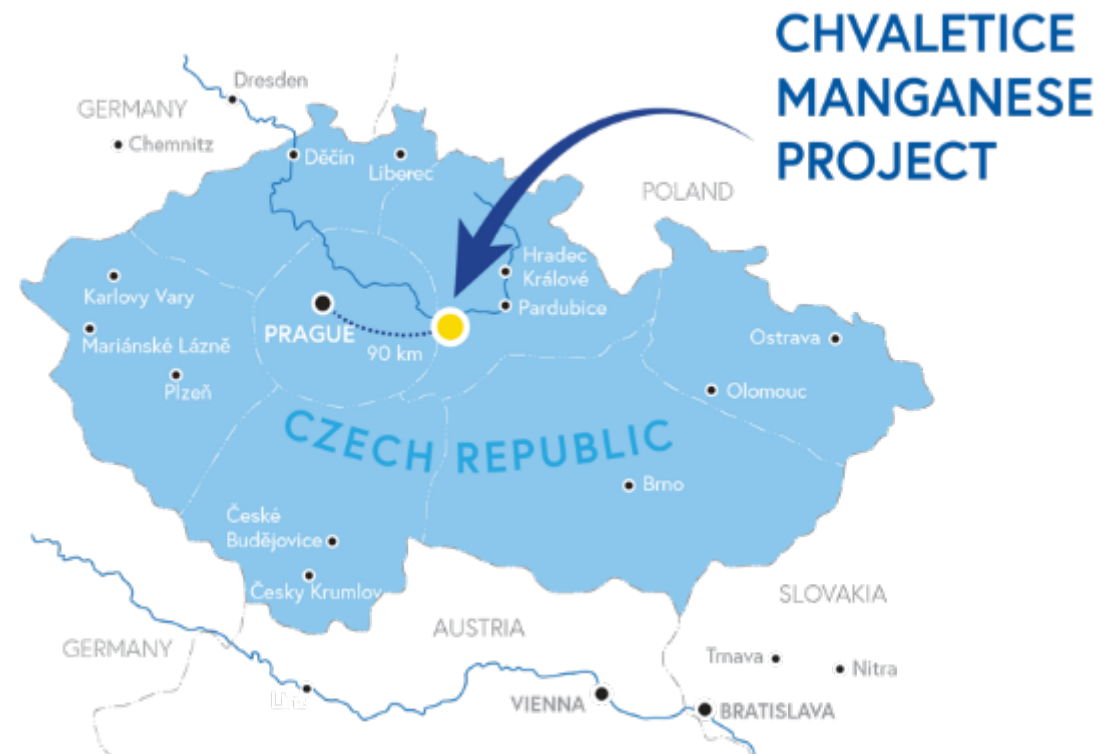
Positioned to support shift to circular (recycling), low-carbon economy



Project backed by EBRD and EIT InnoEnergy



First step in building a multi-asset manganese company



# Chvaletice is a unique waste-to-value project

Involves reprocessing historical mine tailings to produce high-purity manganese

## Recycling

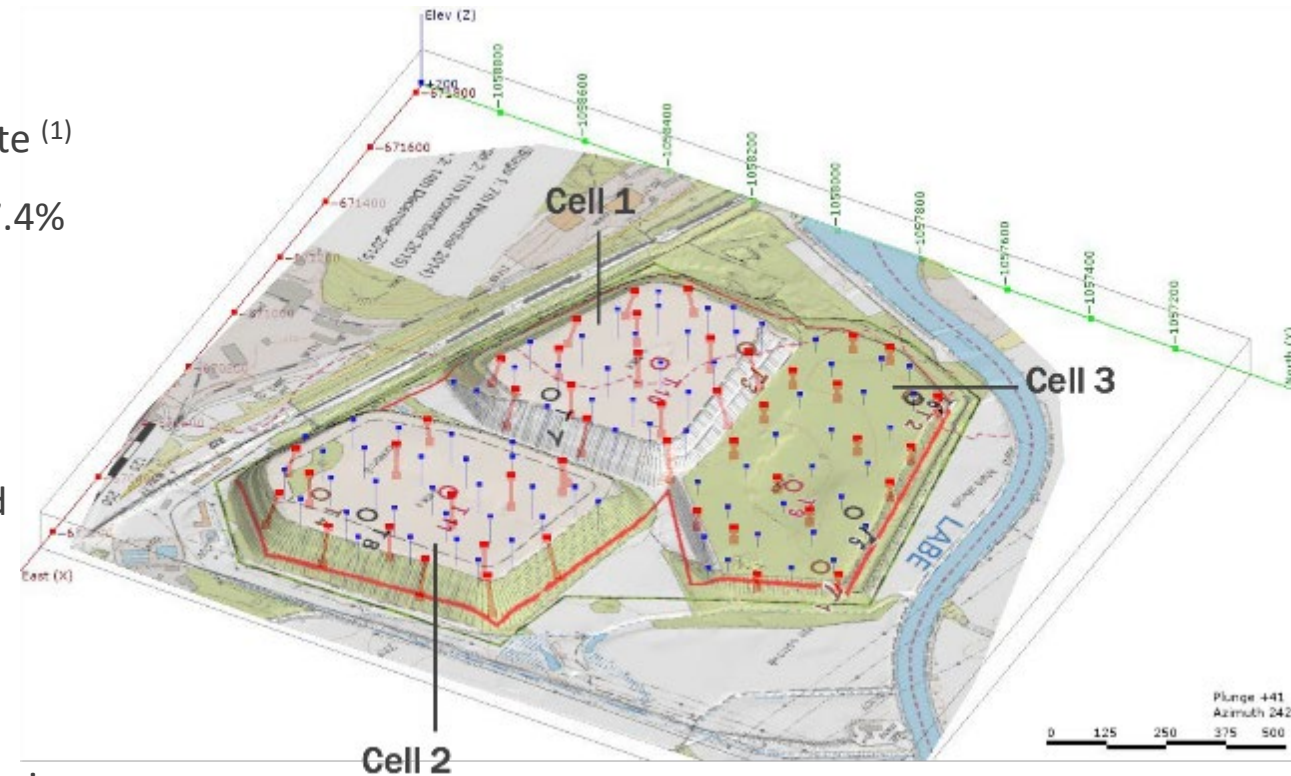
- Historic tailings containing easily-treated manganese carbonate <sup>(1)</sup>
- Well-defined Proven + Probable mineral Reserve of 27Mt @ 7.4% Mn with uniform distribution <sup>(2)</sup>
- No hard-rock mining impacts

## Processing

- Manganese is extracted using best-in-class environmental and safety standards
- Production of 48Kt/annum of Mn equivalent for 25 years <sup>(2)</sup>

## Remediation

- Net positive environmental benefits from remediation of historic tailings area
- Best practice tailings management (filtered, dry-stack)



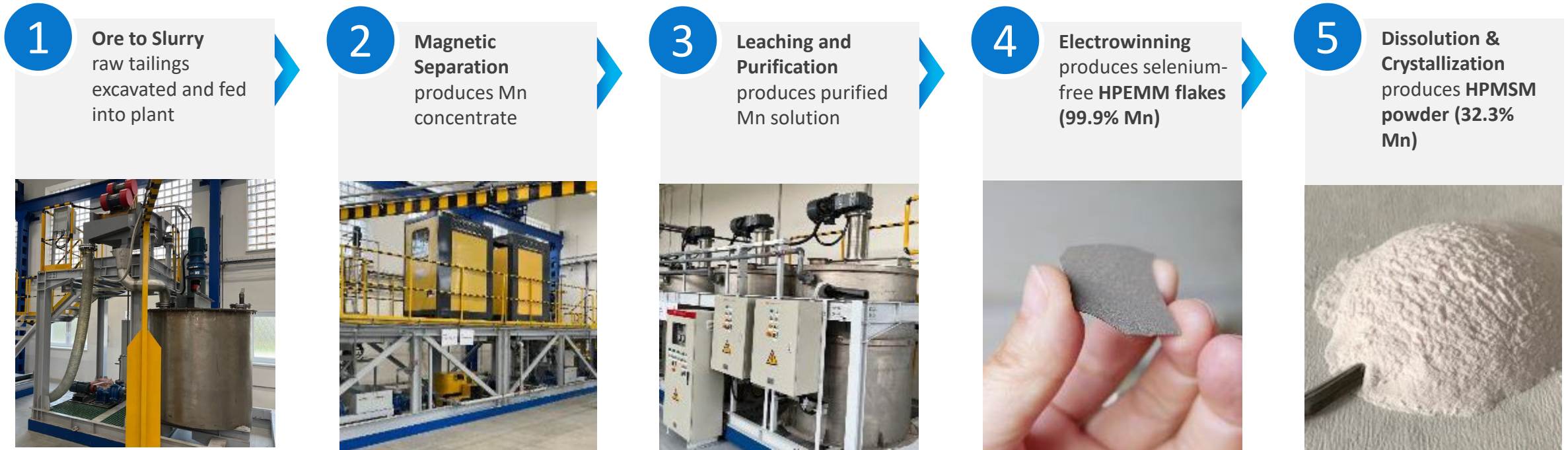
2017-2018 Drill Program

- 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.

# Flow sheet produces two high-purity manganese products: HPEMM & HPMSM

Robust process uses proven, conventional and commercial technologies; adheres to strict European environmental regulations



## ADVANTAGES OF PROCESSING VIA METAL ROUTE

- Guarantees purity for next stage sulphate production
- Provides optionality:
  - Metal used as feedstock for new technologies i.e. NanoOne's M2CAM OnePot Process
  - Metal can be further processed in alternate locations
  - Metal can be sold to specialty alloy industry



# Project designed to deliver exceptional ESG benefits

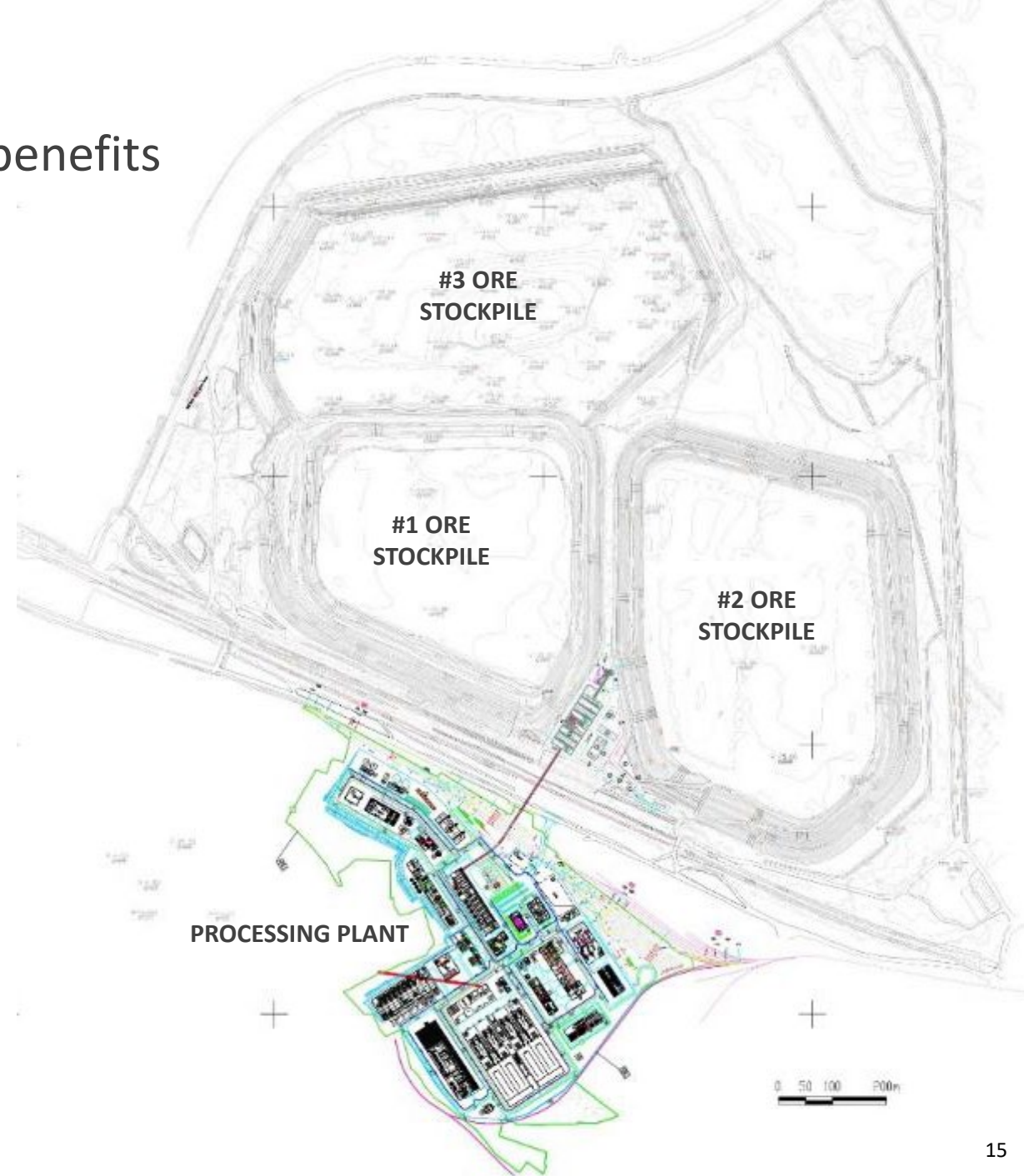
## Wide-ranging benefits for all stakeholders

### Use of Best Available Technologies to Minimize Footprint

- LCA shows net positive environmental benefits from remediation of historic tailings (land, water, biodiversity)
- Project to use 100% renewable electricity: CO<sub>2</sub> 1/3<sup>rd</sup> vs current industry
- No freshwater use: 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
- No carbon footprint from long-distance ore transportation: resource is adjacent to process plant
- International standard Environmental and Social Impact Assessment

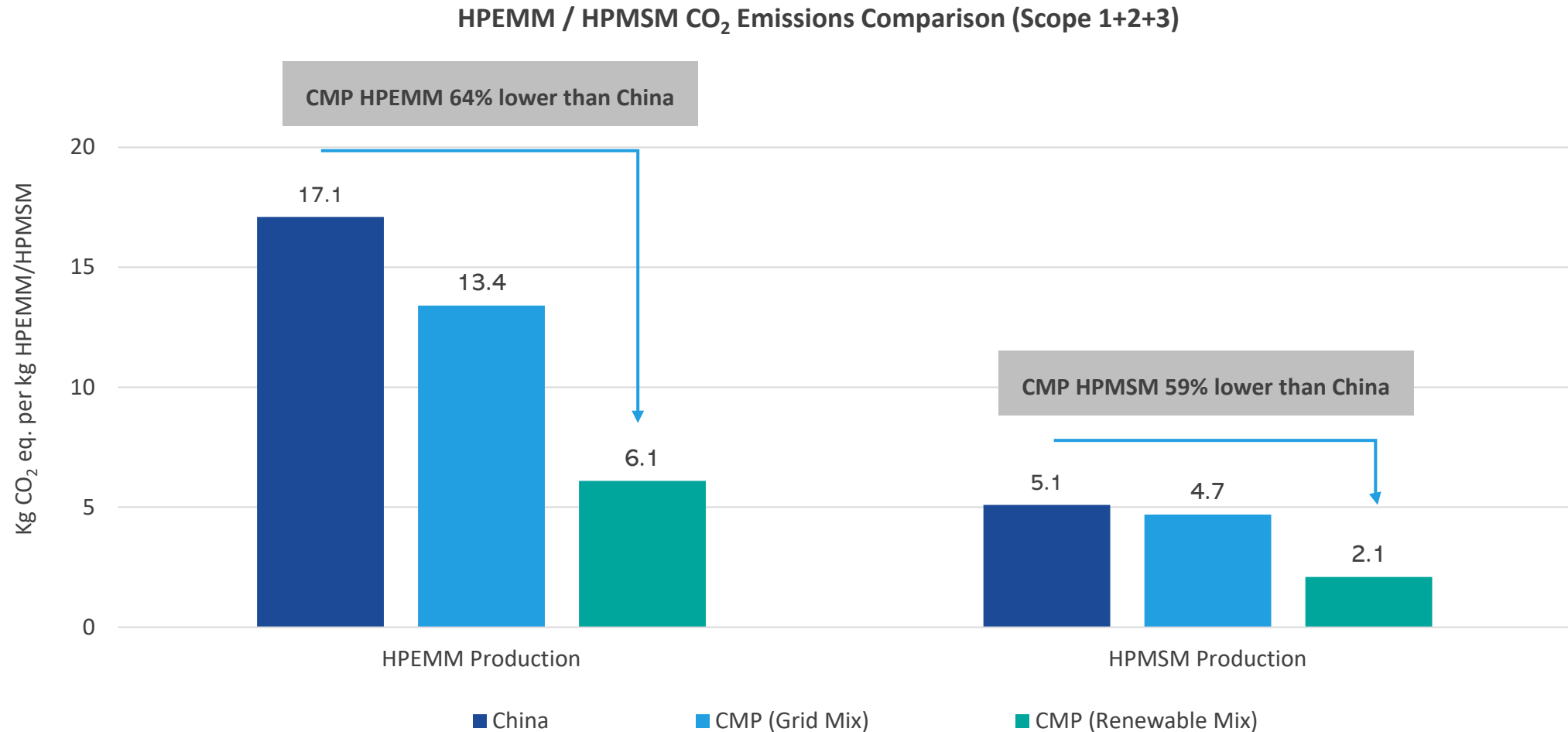
### Value creation for local communities and Czech Government

- Land access payments to local municipalities and local land holders
- Strong engagement and communication with local communities
- ~400 jobs created during operation, more in construction phase
- ~US\$1.5 billion in corporate taxes and royalties over life of project
- One-third of Government royalties flow back to local municipalities



# Chvaletice's products to have amongst lowest CO<sub>2</sub> footprint vs incumbent industry

Results of benchmarked LCA of high priority to customers and financiers



Note: EMN has signed an MoU with Statkraft AS for supply of renewable energy for the Chvaletice Manganese Project (CMP).

## Demonstration Plant has produced on-spec HPEMM and HPMSM

### Enables large-scale product samples on batch basis

- HPEMM (99.9% pure) and HPMSM\* (32.4% pure) produced; external lab tests confirm meets Plant specifications
- Final commissioning underway
- Valuable insights gained from operation of Demo Plant, leading to engineering & operational process improvements
- Facilitates supply chain qualification of Chvaletice high-purity manganese products

\*Third-party HPEMM with similar product impurity levels to those of the Chvaletice HPEMM product, was used as feedstock during the commissioning of the dissolution and crystallization module. As part of the final commissioning stages of the DP, the Company will use HPEMM produced from the DP electrowinning circuit for HPMSM production.



HPMSM crystallization module at the Demonstration Plant



## Significant advancement on land access and land rezoning

### Access to ~85% Mn Reserves now Secured

- Definitive Lease Agreement with ČEZ provides access to ~60% of Mn Reserves
- Land access granted in return for royalty on gross sales from the Project
- Royalty designed to ensure anticipated project finance debt covenants are met.
- ČEZ Lease Agreement together with previously announced land access agreements secures access to ~85% of total Project Reserves.

### Commercial Plant Area

- Commercial plant area acquired in December 2023

### Land Rezoning Complete

- Rezoning of tailings land for mining use completed.
- Rezoning of certain areas within the commercial plant site reclassified for heavy industrial use.



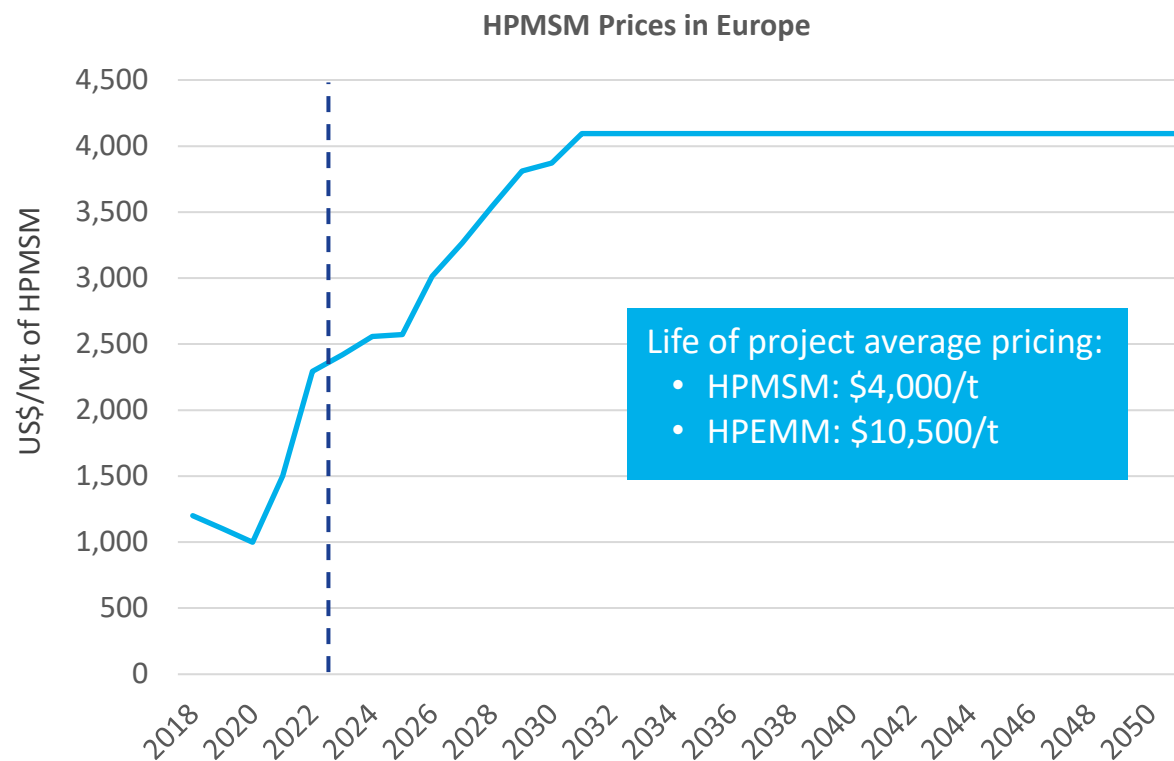
# Project has good cashflow and margins together with supply security for Europe

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

## Feasibility Study Base Case Highlights (\$ figures in USD) (July 2022)

<b>NPV</b> <b>\$1.3B</b> Post tax (8% discount)	<b>IRR</b> <b>22%</b> Ungeared, post tax	<b>Payback</b> <b>~4</b> Years
<b>Capital</b> <b>\$757M</b> To initial production	<b>Production</b> <b>48 Ktpa Mn</b> 100Kt HPMSM + 15Kt HPEMM	<b>Life of Project</b> <b>25</b> Years
<b>Revenue</b> <b>\$554M</b> Average per year	<b>Opex</b> <b>\$229M</b> Average per year (\$215/t)	<b>Margin</b> <b>59%</b> EBITDA margin

## Feasibility Study Base Case Price Forecast for HPMSM (July 2022)



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

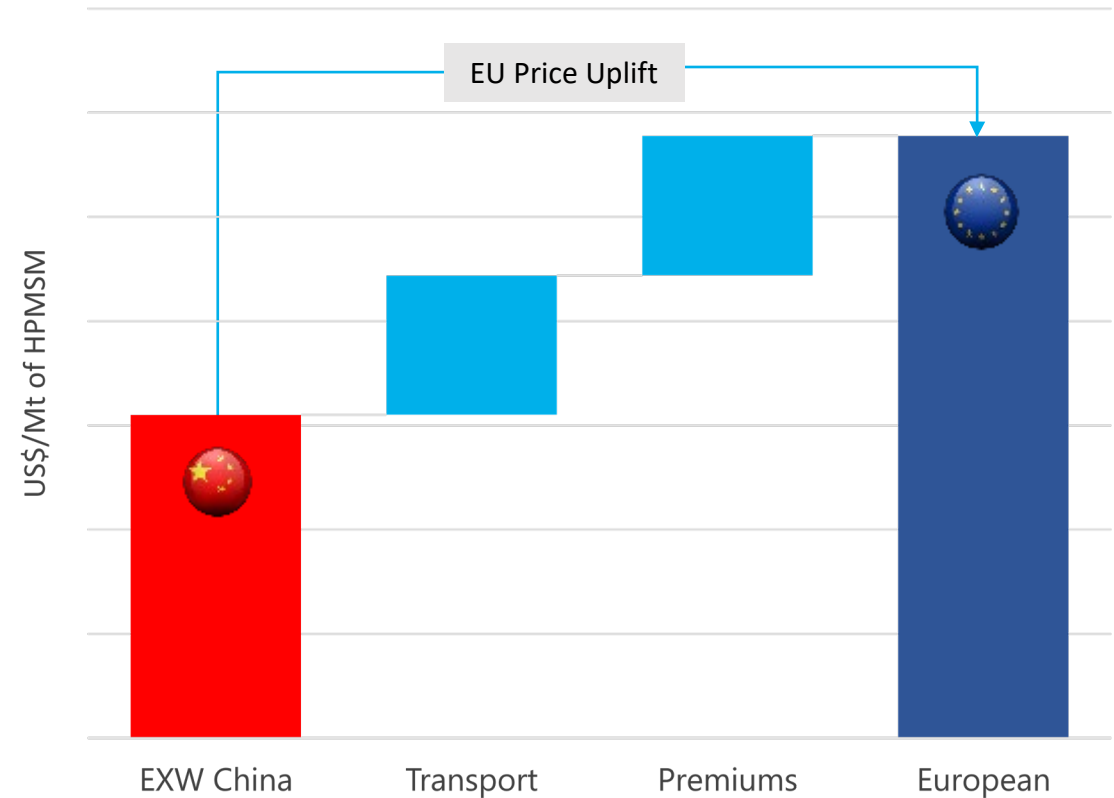
# Superior nature of Chvaletice products demand price premium

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

## Unique Aspects of Chvaletice HPEMM & HPMSM

- 1 High-purity specs, in-line with European and North American battery makers
- 2 Superior ESG credentials: low carbon footprint, recycled content (tailings)
- 3 Local, stable source of supply; fully traceable product
- 4 Well-positioned to meet current and future demands of EV battery supply chain

## Ex-Works China HPMSM Price vs. Forecasted European HPMSM Price





# Offtake tender process continues to attract significant interest; funnel is growing

Volumes under discussion exceeds capacity (>150 ktpa HPMSM); 80% production capacity targeted to support project finance

## Increased market research coverage for HPMSM

- Unanimous global deficit forecast, European & North American deficit: earlier and more serious
- Growing acknowledgement of price premium for western product and need for floor pricing

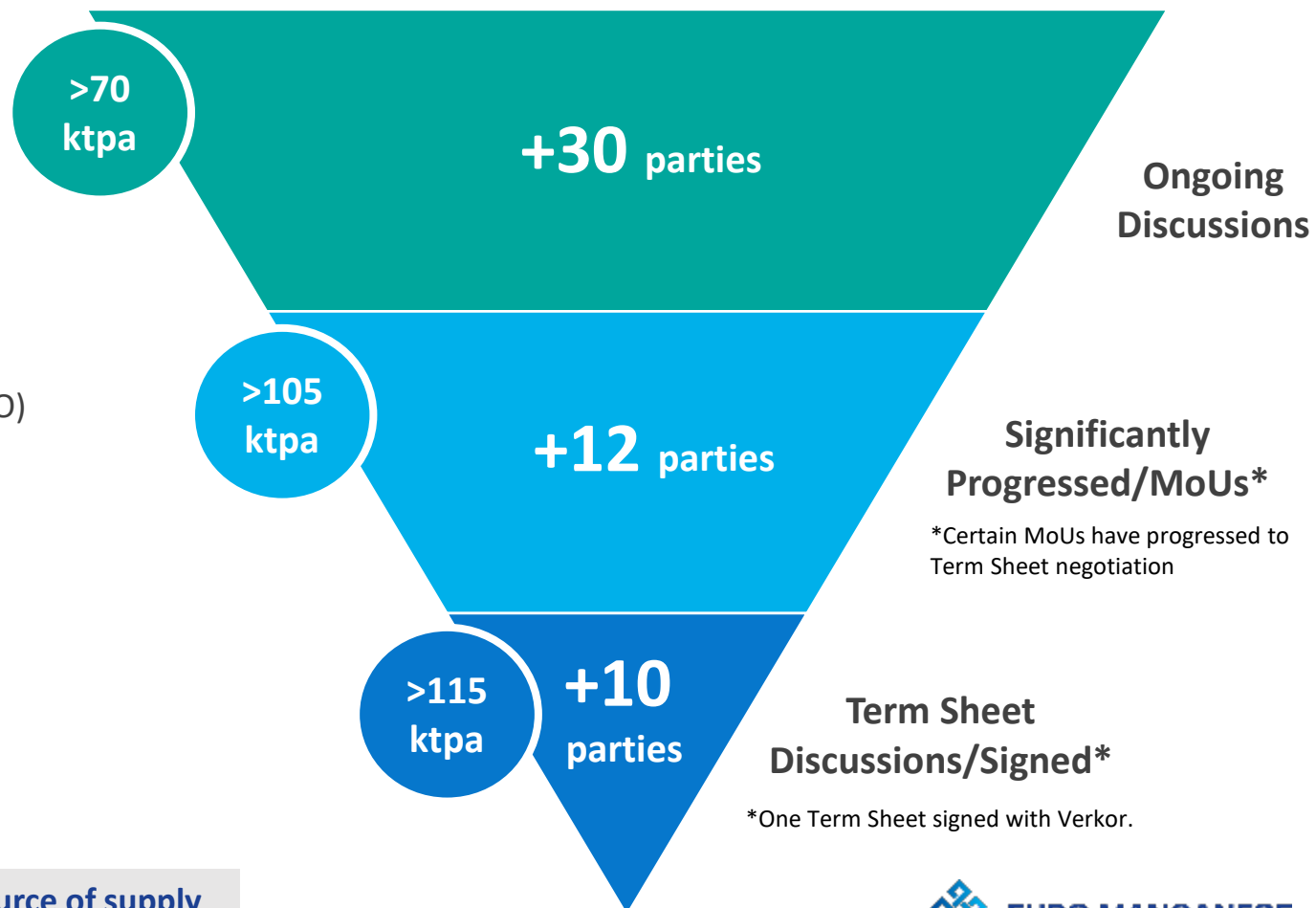
## Mn-rich chemistries create opportunity for higher demand

- Mn-rich chemistries becoming increasingly high profile, particularly with move to cobalt-free batteries (NMX, LMNO)
- Increased engagement with several larger potential customers yet to provide tonnages; off takers indicate likelihood for higher tonnages as chemistries evolve

## Early stage of funnel continues to grow, Term Sheet conversations now with 9 parties

- Progressing term-sheet discussions with large and small players in the sharp end of the funnel

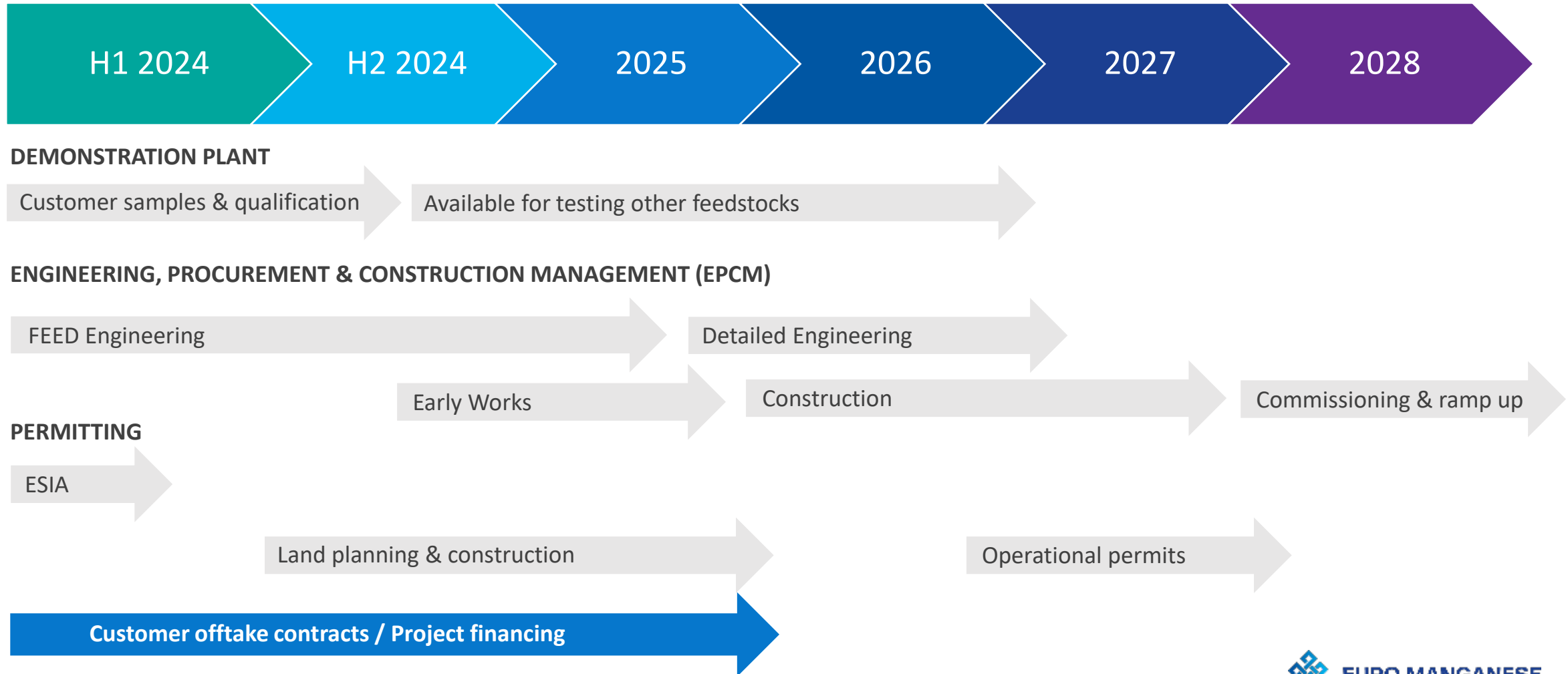
### Offtake Funnel (Cathode Makers, Battery Makers, OEMs)



Recognition EMN is well-positioned to offer local, secure source of supply

# Permitting and next steps

Timelines are subject to change based on financing, permitting, and FEED outcomes

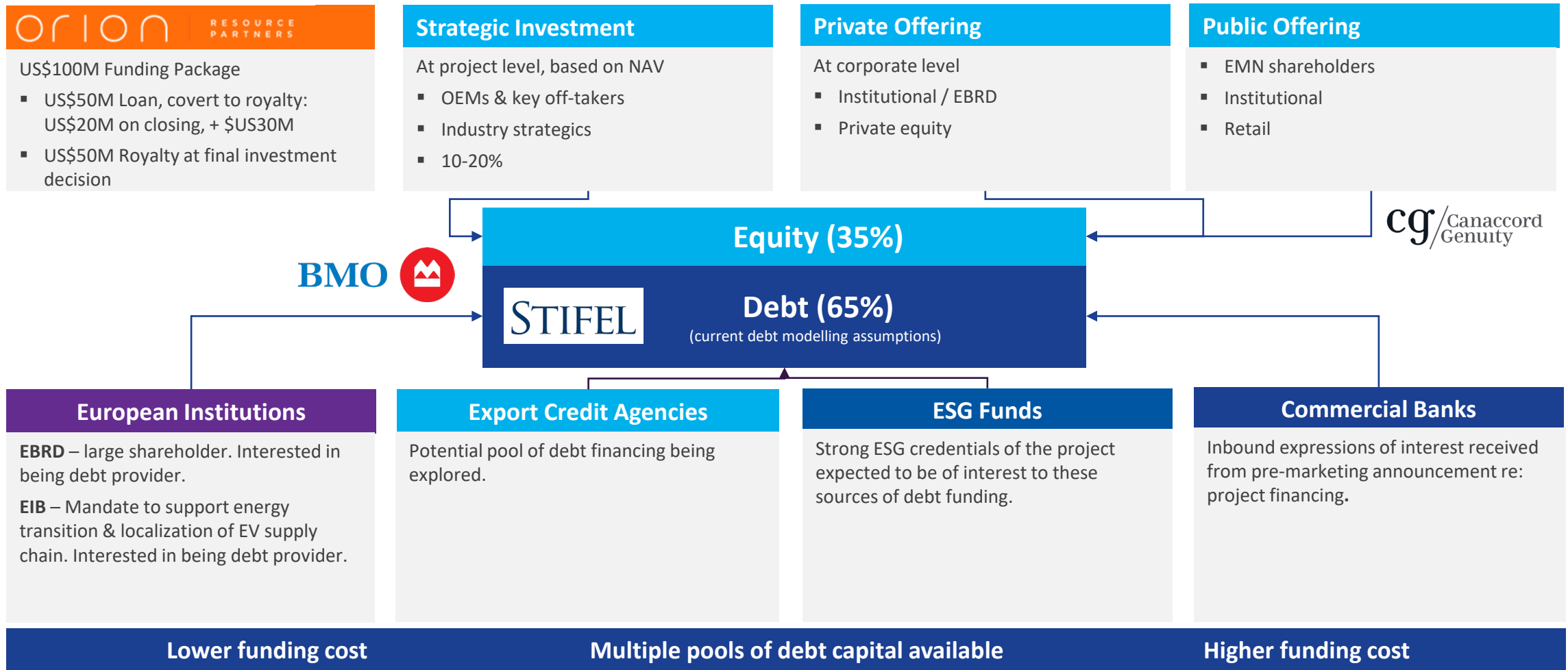


# Chvaletice: Funding

PROJECT FINANCE

# Project financing strategy: mix of debt, equity and royalty

Staged equity strategy; structured to reduce dilution



# Orion US\$100 million funding package facilitates pathway to final investment decision

**Non-dilutive, tranche structure; reduces future project financing requirements for Chvaletice\***

## Six-month process

- Funding structure and partner selection process with Stifel
- Extensive due diligence, by expert independent consultants
- Demonstrates robust nature of the Chvaletice Project and our ability to deliver the Project to the highest of standards

## Tranche-structure minimizes cost of funds

- US\$100 million split into two US\$50 million components:
  - \$50M loan facility with a 12% per annum interest rate, convertible into a 1.29-1.65% royalty on Project revenues
    - \$20M received at end Nov 2023
    - \$30M received upon meeting certain commercial milestones
  - \$50M in exchange for a 1.93-2.47% royalty on Project revenues following final investment decision and other conditions precedent

## Offtake option

- Orion have an offtake option of 20-22.5% of the Project's high-purity manganese production
- 10-year term from first delivery
- To match commercial terms of the Company's sales, ensuring bankability of the Project

\*Use of proceeds excludes the Bécancour project.

For further detail of the Funding Package: <https://www.mn25.ca/post/orion-resource-partners-to-support-development-of-chvaletice-project-with-us-100m-funding>

# Our Growth Horizon: North America

GROWTH OPPORTUNITY



# Bécancour opportunity provides first-mover advantage in North America

## Bécancour overview

- Scoping study complete to evaluate development of an HPEMM dissolution plant to produce HPMSM
- Study leveraged process development and engineering work already completed at Chvaletice
- Feasibility Study to begin subject to financing
- Option agreement in place to purchase site\*

## Benefits of location

- Major EV battery supply chain cluster
- Excellent industrial infrastructure
- Reliable and competitively-priced green energy
- Stable, supportive government and programs
- Qualified workforce and high-end service providers

\*Subject to negotiation of agreement regarding public service works with the Port of Bécancour.



# MoU signed with Manganese Metal Company (MMC) for selenium-free 99.9% HPEMM

MoU provides feedstock optionality for the Bécancour Plant & enables potential acceleration to supply North American market

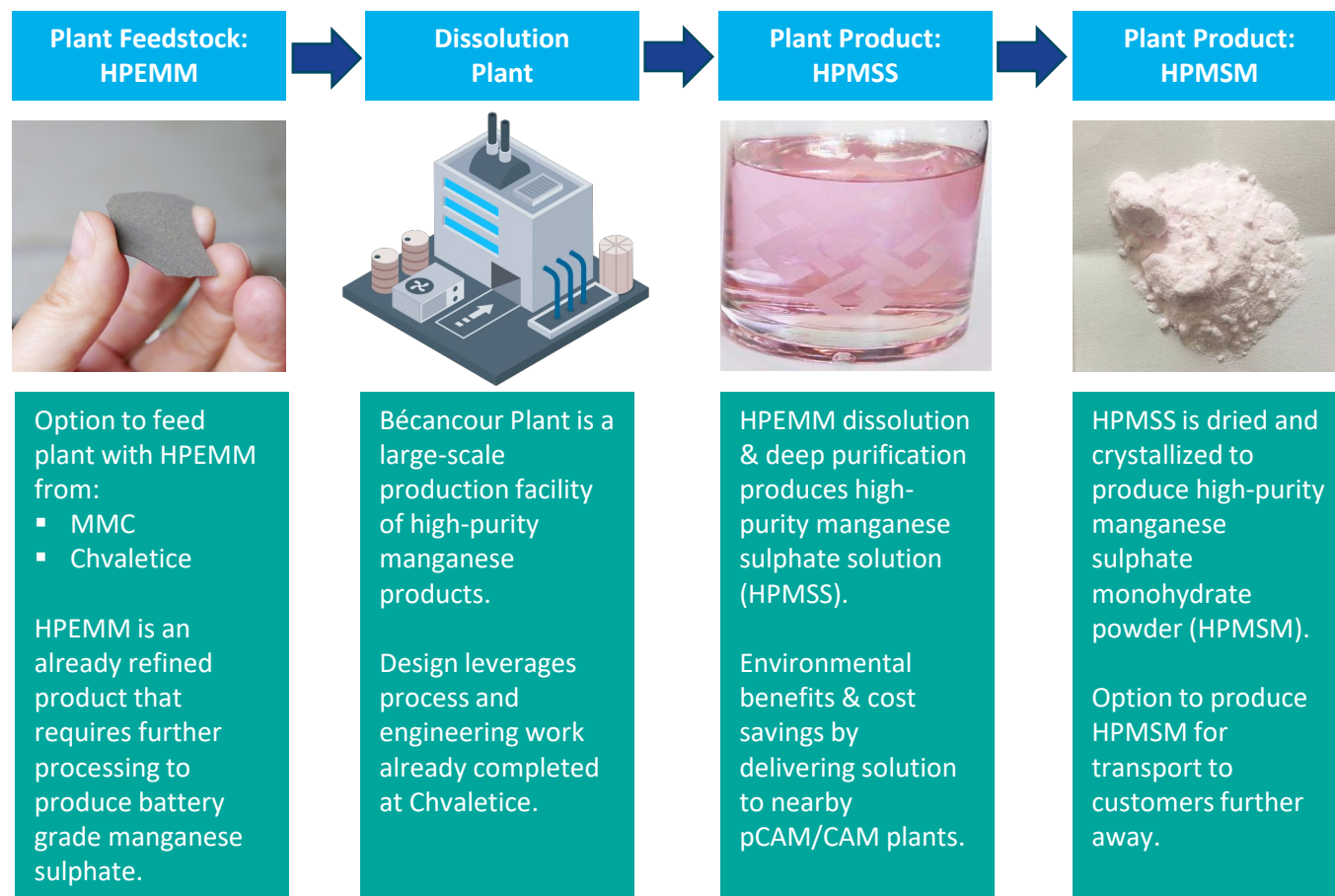
## MoU with MMC

- Provides feedstock optionality for Bécancour Plant
- Enables Bécancour Plant to potentially supply the North American market as early as 2027
- Potentially brings forward cash flows for the Company
- HPEMM samples for test work received

## Cooperation Agreement with the W8banaki

- Defines how the Company and the W8banaki intend to communicate and work together to develop Bécancour

## Bécancour Process Flow Sheet



# Positive Scoping Study highlights released for Bécancour Dissolution Plant

Study outlined strong preliminary project economics, modest capex, and short build time

## Scoping Study Highlights (\$ figures in CAD)\*

### NPV

**C\$190M**

(post tax, 8% discount)

### IRR

**26%**

(post tax, ungeared)

### Payback

**~4 years**

### Capex

**C\$110M**

(incl \$15M contingencies)

### Production

**48,500 tpa**

(HPMSM)

### Build Period

**~2 years**

engineering/construction

## Plant Design

- Allows for production of both HPMSM and HPMSS, providing customer offtake flexibility and potential cost/environmental benefits
- Leverages extensive process development & engineering work already completed at Chvaletice
- Minimal infrastructure required; offsite infrastructure limited to powerline connection and potential railway spur from main line

## Next Steps

- Commence Feasibility Study for the Plant; WSP Canada selected
- Permitting to advance in parallel with Feasibility Study
- Option agreement in place to purchase 15 ha site\*\*

\*\* Subject to negotiation of agreement regarding public service works with the Port of Bécancour.

\*Economic analysis run on a constant \$ basis with no inflation, no government grants, and unlevered. Outcomes and economics have a margin of error of -30%/+50%. Cost estimates based on Q4 2022 pricing.

Euro Manganese cautions that the Study does not constitute a scoping study within the definition used by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), as it relates to a standalone industrial project and does not concern a mineral project of the Company. As a result, disclosure standards prescribed by National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI-43-101") are not applicable to the scientific and technical disclosure in the Study. Any references to Scoping Study or Feasibility Study by Euro Manganese in relation to the Bécancour Plant are not the same as terms defined by the CIM Definition Standards and used in NI 43-101.

# Looking Forward

OUTLOOK

## 2023-2024 Key catalysts

### Demonstration Plant

Production of on-spec products

### Status

Complete; On-spec HPEMM & HPMSM produced

Shipments to interested parties

Throughout 2024

### EPCM for Commercial Plant

Appointment of EPCM contractor

Complete; Wood awarded EPCM contract

Front-end engineering design (FEED)

Early FEED work package to commence in March 2024

### Land Access and Permitting

Land access agreements

4 of 5 land access agreements complete, 1 on-going

Land rezoning for mining use

100% complete

Receipt of revised ESIA

Expected February 2024

Submission of the Land Planning Permit

Expected in Q1/Q2

### Financing and Offtake Contracts

Negotiation of customer offtake contracts

Ongoing

Formal debt process

Expected to commence in H2 2024

Strategic Investment at project level

Engagement with OEMs and critical raw material focused funds

### North American Opportunity (Bécancour)

Scoping Study for Dissolution Plant

Complete; highlights released

Feasibility Study for dissolution plant

WSP selected; Subject to project specific financing



# Executive leadership team

Track record of raising capital and delivering large-scale projects; deep high-purity manganese processing experience



**Matt James**  
President & CEO

- 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**  
CFO

- 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**  
Company 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**  
VP Operations

- 30 years of experience in corporate, project and business development, focused on mining and renewable energy throughout the Americas, Africa, Asia and Europe
- 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 Sedna Wind Technologies, 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**  
MD of Mangan Chvaletice

- 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





# EURO MANGANESE

*APPENDIX*





## FQ1 2024 Financial highlights and position

Sufficient funding for delivery of key project milestones and 2024 corporate G&A

<b>Cash Balance – October 1, 2023</b>	<b>C\$7.6M</b>
Commissioning of the Demonstration Plant	(0.4M)
Operational expenditure including Chvaletice permitting, other Chvaletice project feasibility study, and other corporate costs	(2.2M)
Net proceeds from convertible loan facility	23.1M
Acquisition of EP Chvaletice	(3.4M)
Land acquisitions and lease payments	(0.4M)
<b>Cash Balance – December 31, 2023</b>	<b>C\$24.3M</b>

### Net proceeds from the first US\$20M tranche of the Convertible Loan Facility\* expected to fund:

- Completion of permitting
- Demonstration plant commissioning and batch operation
- Completion of commercial plant site land acquisition and other committed land payments
- Initiating FEED engineering
- Certain site preparation works
- 2024 corporate G&A costs

### Current cash and cash equivalents expected to fund:

- Bécancour Plant feasibility study

\*US\$100 million funding package completed subsequent to year-end; refer to Slide 6 of this presentation.

# Euro Manganese capitalization

Euro Manganese 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

## CAPITALIZATION – at Jan 31, 2024

Shares (including ~226.2 Mill. CDIs)	402,669,227
Options	37,527,584
Warrants	-
Fully Diluted	440,196,811

## FINANCIAL METRICS – at Dec 31, 2023

Cash balance	~ CDN\$24.3 million
Total Liabilities	~ CDN\$30.5 million
Debt	~ CDN\$25.7 million
Market cap (@ C\$0.095)	~ CDN\$38.3 million
Enterprise value	~ CDN\$39.7 million

## RESEARCH COVERAGE

Canaccord Genuity (Australia)

## 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](#)

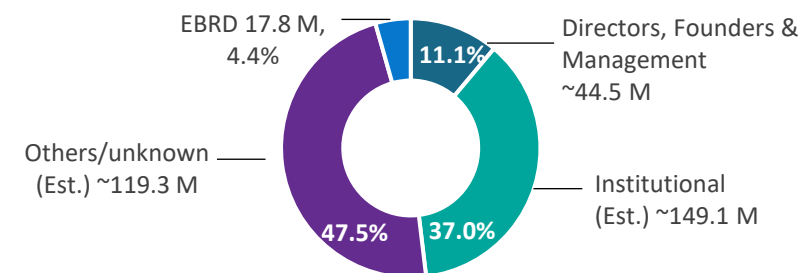
## CORPORATE POLICIES

Links to our corporate policies:

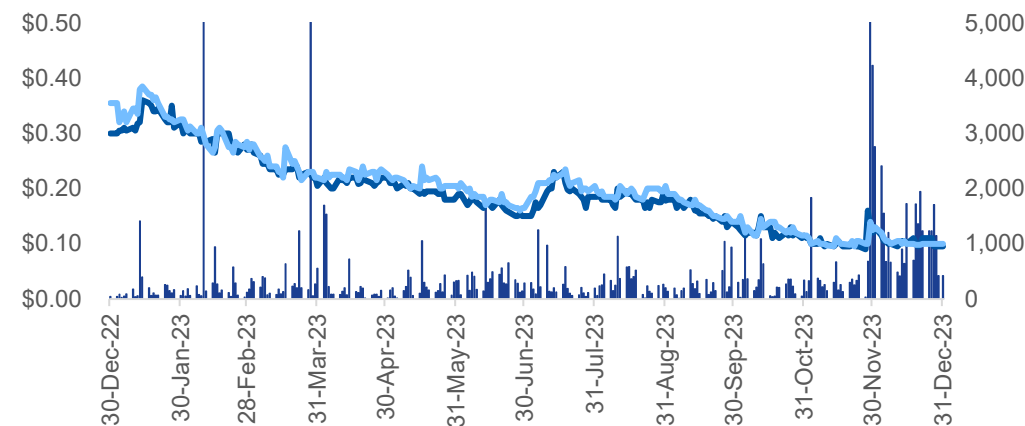
- [Code of Conduct and Business Ethics](#)
- [Corporate Governance Statement](#)
- [Whistleblower Policy](#)
- [Disclosure Policy](#)
- [External Grievance Mechanism](#)
- [Diversity Policy](#)
- [Sustainability Committee Charter](#)

## Ownership Structure at Dec 31, 2023

Total 402,669,227



## 12-month Share Price and Volume



■ Volume (000s) (RHS) ■ EMN-TSX Price (LHS) ■ EMN-ASX Price (LHS)

Source: Irwin and Factset.

## Resources converted to Reserves with 98% 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

### 160-hole drilling program (2017-2018) key findings:

- Manganese is 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

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

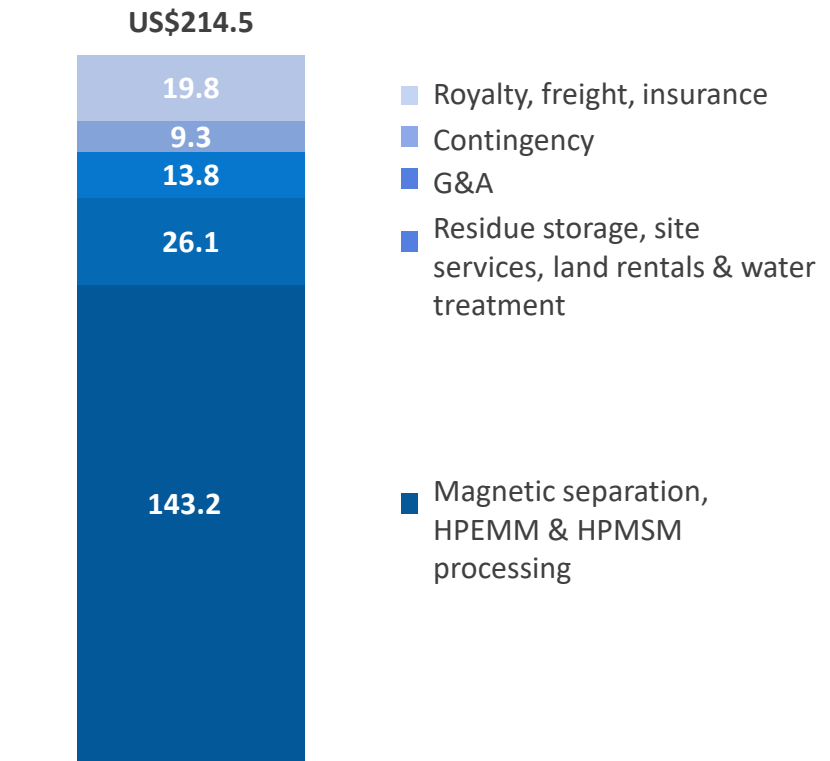
## Notes to Mineral Reserve Statement

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.

# Project operational costs based on cost environment in mid-2022

Energy and reagents constitute ~68% of operational costs

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



### Opex

- 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

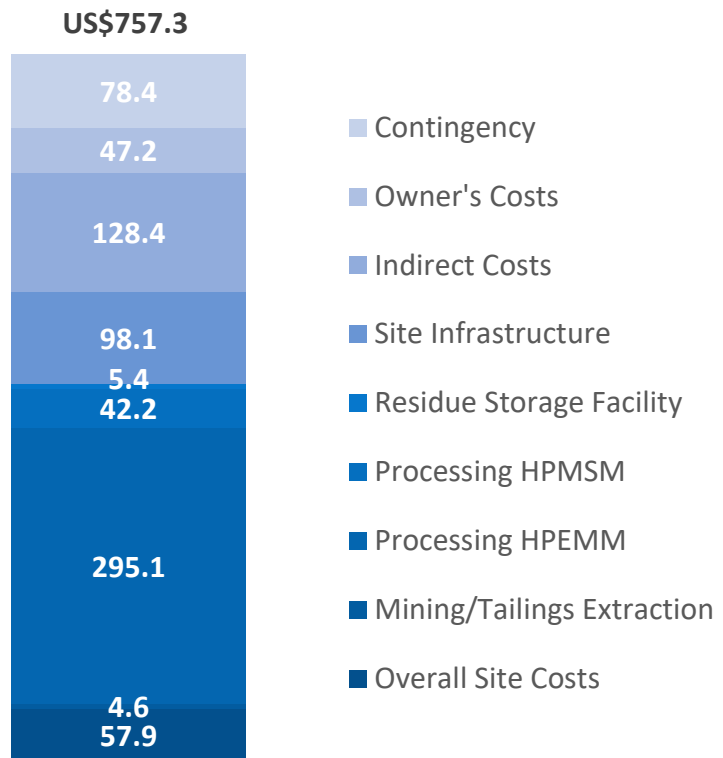
### Opportunities for cost reduction

- Inclusion of contingency
- Supply chain normalization for reagents
- Power cost normalization
- Build own sulfuric acid plant at later stage

# Project capital costs include robust contingency

Capex figure reflects post-COVID supply chain environment

Capital Cost Breakdown (US\$M)



## Capex

- 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



# Compliance Statements

## Competent and Qualified Persons Statement

All production targets for the Chvalitec 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, was filed on SEDAR at [www.sedarplus.ca](http://www.sedarplus.ca) on September 9, 2022 and is available on the Company’s website. The JORC Technical Report was lodged with the ASX on September 14, 2022.

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 Chvalitec 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 19 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- ii. The flowsheet summarized on page 14 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- iii. The Reserve Statement reported on pages 36-37 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- iv. The expected annual production as reported on pages 13 & 19 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- v. Information on the ESG benefits and Life Cycle Assessment results as reported on pages 15-16 of this presentation were reported in the TSX-V and ASX market announcement dated 7 Dec. 2022.
- vi. Information on the demonstration plant commissioning status as reported on page 17 of this presentation was reported in the TSX-V and ASX market announcements dated 13 April 2023 and 13 November 2023.
- vii. Information on the operational costs for the Project as reported on page 38 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- viii. Information on the initial capital expenditures for the Project as reported on page 39 of this presentation was reported in the TSX-V and ASX market announcement dated 27 July 2022.
- ix. Information on the offtake term sheet with Verkor as reported on page 21 of this presentation was reported in the TSX-V and ASX market announcement dated 11 January 2023.
- x. Information on the Orion Funding Package as reported on page 25 of this presentation was reported in the TSX-V and ASX market announcement dated 28 November 2023.
- xi. Information on the Company’s growth strategy as reported on page 27 of this presentation was reported in the TSX-V and ASX market announcement dated 16 November 2022.
- xii. The Bécancour flowsheet and Scoping Study results summarized on pages 28-29 respectively of this presentation were reported in the TSX-V and ASX market announcement dated 9 Aug 2023.

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.



# EURO MANGANESE

*Poised to Support the Energy Transition*



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