Manganese is Electric!

GREEN AND EUROPEAN SOURCE OF ULTRA HIGH-PURITY MANGANESE
GREEN AND EUROPEAN SOURCE OF ULTRA HIGH-PURITY MANGANESE

Corporate Presentation – September 24, 2020
Cautionary Note

Forward-Looking Statements and Risks Notice

Except for statements of historical fact relating to the Euro Manganese Inc. ("EMI" or the "Company"), certain information contained in this presentation constitutes forward-looking statements. When we discuss our costs and timing of current and proposed evaluation; planning; development; capital expenditures; cash flow; working capital requirements; and the requirement for additional capital; operations; revenue; margins and earnings; future prices of electrolytic manganese metal, manganese sulphate and other products; future foreign currency exchange rates; future accounting changes; future prices for marketable securities; future resolution of contingent liabilities; or other things that have not yet happened in this review, we are making statements considered to be forward-looking information or forward-looking statements under Canadian law. We refer to them in this review as forward-looking information.

The forward-looking information typically includes words and phrases about the future, such as: plan, expect, forecast, intend, anticipate, estimate, budget, scheduled, believe, may, could, would, should, might, and will. We can give no assurance that the forward-looking information will prove to be accurate. It is based on a number of assumptions management believes to be reasonable, including but not limited to the continued operation of the Company’s exploration, evaluation and development activities, no material adverse change in the market price of commodities and exchange rates, and such other assumptions and factors as set out herein.

It is also subject to risks associated with our business, including but not limited to: risks inherent in the mineral exploration and evaluation and mineral extraction business; commodity price fluctuations and hedging; competition for mineral properties; mineral resources and reserves and recovery estimates; currency fluctuations; interest rate risk; financing risk; environmental risk; foreign activities; legal proceedings; and other risks.

If our assumptions prove to be incorrect or risks materialize, our actual results and events may vary materially and adversely from what we currently expect as set out in this review.

Forward-looking information is designed to help you understand management’s current views of our near and longer-term prospects, and it is not appropriate for other purposes. We will not necessarily update this information unless we are required to by law.
Compliance Statements

Competent and Qualified Persons Statement

All production targets for the Chvaletice Manganese Project referred to in this presentation are underpinned by estimated Measured and Indicated Mineral Resources 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 and Disclosures for Mineral Projects ("NI 43-101"), respectively.

Additionally, the scientific and technical information included in this presentation is based upon technical reports prepared 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., and Mr. Mark Horan, P. Eng., M.Sc., Senior Mining Engineer, all with Tetra Tech Canada Inc. ("Tetra Tech"), and entitled "Technical Report and Preliminary Economic Assessment for the Chvaletice Manganese Project, Chvaletice, Czech Republic" having an effective date of 29 January 2019 (release date 15 March 2019) (the "NI-43-101 Technical Report") and "Public Report and Preliminary Economic Assessment for the Chvaletice Manganese Project, Chvaletice, Czech Republic" having an effective date of 29 January (release date 22 March 2019) (the "JORC Code Report"). The NI-43-101 Technical Report was filed on SEDAR at www.sedar.com on 15 March 2019 and the JORC Code Report was lodged with the ASX on 26 March 2019. The above-named persons are consultants to, and independent of the Company 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, and Horan 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.

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 exploration results, estimates of Measured and Indicated Mineral Resources, and production targets as reported in accordance with the JORC Code and NI 43-101 standards:

i. Drill results for the Chvaletice Manganese Project reported on page 19 of this presentation were reported in TSX-V and ASX market announcements dated 17 October 2018 and 17 December 2018, respectively.

ii. The closing of the option agreement reported on page 21 of this presentation was reported in the TSX-V and ASX market announcement dated 17 October 2018.

iii. The decision made to proceed to Feasibility Study stage reported on pages 5, 6, 23, 24 and 27 of this presentation was reported in the TSX-V and ASX market announcement dated 22 May 2019.

iv. Metallurgical testing results referred on pages 5, 19, 23 and 26 of this presentation were reported in the TSX-V and ASX market announcement dated 17 December 2018.

v. Results of the drilling program and metallurgical testing reported on page 19 of this presentation were reported in TSX-V and ASX market announcements dated 17 October 2018 and 17 December 2018.

vi. The simplified process flowsheet reported on page 24 of this presentation was reported in the TSX-V and ASX market announcement dated 30 January 2019.

vii. Production specifications and other details related to the proposed demonstration plant reported on page 26 of this presentation were reported in the TSX-V and ASX market announcement dated 12 December 2019.

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 Measured and Indicated Mineral Resources as provided in the relevant market announcements, as well as all material assumptions underpinning the production targets and financial forecast information in the JORC Code Report, 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.
Introduction to Euro Manganese

Developing the Chvaletice manganese resource in the Czech Republic – in the heart of Europe.

- 25-year project designed by world-leaders in high-purity manganese production ("HPM").

- Production of battery-grade manganese by reprocessing tailings (waste recycling) in Europe makes the Chvaletice manganese products environmentally-superior.

  - No hard rock mining, crushing or milling required. No long-distance ore transportation to processing facility. On site production of finished product. No new waste generation.

  - Manganese carbonate ore allows direct leach. No energy-intensive calcination or environmentally-challenging chemical reduction of ore required prior to leaching.

- Extensive metallurgical test work completed with modern, conventional, proven process technology.

- Pilot-plant test completed, PEA completed, feasibility study underway and now ready to start building 7x scale-up Demonstration Plant – shovel-ready.

- Strong permitting momentum. Proactive, respectful and intensive community consultation and engagement.

- Chvaletice expected to become Europe’s only primary producer of HPM products. Close to large, growing market.

- Strong customer interest. Developing strategic commercial relationships. Setting the stage for project financing.
**Investment Highlights**

**HPM MARKET SET TO BE TRANSFORMED**

- **HPM demand** growing rapidly on back of growth in the Li-ion and EV markets
- **Significant barriers of entry to HPM**, where not all manganese ores and HPM are created equal
- **Strong customer interest.**
- Euro Manganese is building strategic commercial relationships.

**STRATEGIC EUROPEAN SOURCE OF SUPPLY**

- Globally significant, 25-year project expected to be Europe’s only primary producer of High Purity Electrolytic Manganese Metal (“HPEMM”) and High Purity Manganese Sulphate Monohydrate (“HPMSM”)
- Located in the heart of Europe’s fast growing EV production hub
- **Strategic supplier** of in an industry where China currently has a 93% market share and where that share is growing

**EXCELLENT INFRASTRUCTURE AND JURISDICTION**

- Rail, highway, gas pipeline, water and competitively-priced power available on-site
- Rights to industrially-zoned land adjacent to deposit secured for plant
- **Sophisticated, stable and business-friendly Czech Republic jurisdiction in the European Union**
- Europe’s automotive industry employs over 14 million people and is strongly committed to electrification.

**EASILY TREATED CARBONATE TAILINGS**

- Uniform and fully drilled deposit very well suited to production of HPM using clean, modern and commercially proven technologies
- Carbonate ore and tailings deposit provide significant extraction and processing cost, and environmental advantages
- **Pilot plant products exceed ultra-high purity manganese specifications** required by the most demanding high-tech customers

**WASTE RECYCLING, NOT MINING**

- Recycling of old mine waste and remediation of polluted site, solving an old environmental problem for local communities
- **No mining waste.**
- Preliminary mining permit received in 2018
- **Solid permitting momentum**
- Opportunity to purchase certified CO₂-free power, further reducing already small environmental footprint

**CLEAR DEVELOPMENT PLAN**

- Pilot plant confirmed ultra-high-purity nature of product and amenability of process flowsheet for this deposit.
- **Feasibility Initiated:** Building upon PEA issued in early 2019
- **Permitting Initiated:** EIA notification filed in Q2 2020
- **Strong customer interest** for demonstration plant to be built in 2021
- **Targeting Commercial Production in 2024**

**LED BY HIGHLY EXPERIENCED MANAGEMENT TEAM**

- **Solid multidisciplinary team with proven development track record** and award-winning excellence in environmental and social practices
- Rare in-house HPM production experience
  - “God is in the details”
- World-leading HPM technology, plant design and construction expertise secured
- Management team and directors are significant and supportive shareholders

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**GREEN AND EUROPEAN SOURCE OF ULTRA HIGH-PURITY MANGANESE**
Investment Highlights

Recent Developments

➡️ 55% of annual HPEMM and HPMSM capacity of proposed Demonstration Plant allocated to first five customers in MoUs
   1. JFE Steel Corporation. Major Japanese steel producer – for use in specialty steel applications

Other parties under NDA regarding the disclosure of Corporate name
   2. Global leading participant in the lithium-ion battery supply chain - for use in NMC cathodes
   3. Company focused on large scale lithium-ion battery manufacturing - for use in NMC cathodes
   4. Global chemicals and specialty materials company - for use in hybrid automobile battery anodes
   5. Global chemicals and specialty materials company - for use in ferrite permanent magnets

➡️ Preliminary Feasibility Test Work Confirms PEA results
   • Magnetic separation test results verified PEA results of approximately 85% Mn recovery and a 15% Mn concentrate grade
   • Deep purification testwork successful in meeting very high target product specifications

➡️ EMN admitted to European Battery Alliance
   • EBA objective is to grow a European EV battery industry in a supply-chain worth over €250 billion per year from 2025 – EBA includes all major European EV and Li-ion industry players and the EU

➡️ Czech Government Support
   • Investment incentives approved by Czech Republic’s Ministry of Industry and Trade
   • EMN secured ~CDN$27 Million of Corporate Income Tax Credits

➡️ Significant Environmental Ruling
   • Czech government ruling issued that Project is not expected to cause adverse effects to endangered species and their habitat under EU’s Natura 2000
HPM Market Set to be Transformed

SUMMARY

- **Demand for HPM products growing rapidly around the world** driven by growth of the electric vehicle and Li-ion battery industry
  - To date, the supply response has been entirely within China
- **NMC cathode chemistry expected to dominate**, with strong future market opportunity for solid-state batteries
- **Under-investment in necessary HPM production capacity is acute**, and widely expected to cause supply deficits in near to medium term
- **Europe has emerged as a major electric vehicle production hub**
  - Over €24 billion in investments in European electrical vehicle, battery, cathode and precursor plants underway – more expected
- High-purity manganese products are difficult to produce reliably without high manufacturing costs or significant adverse environmental impacts
- **Automotive and battery industry requires a reliable and verifiable supply of high-purity and sustainably-produced manganese products**
- Processing manganese carbonate ore is more reliable and environmentally sustainable vs manganese oxide ore
HPM Market Set to be Transformed

Manganese Use in NMC and LNMO Cathode Formulations

- The vast majority of Li-ion batteries use manganese in their cathodes and require HPM
  - Little price sensitivity given Mn is lowest cost input in a Li-ion battery (0.25%-2.3% of battery pack cost)
- Li-ion battery market due to grow dramatically in the next twenty years, growing from 166 GWh of annual demand in 2019 to 3,045 GWh in 2040 (18-fold increase)
  - Most NMC today is 1-1-1 as it is the most stable and long lasting
  - Other Mn predominant formulations will emerge in the next decade with NMC 5-3-2 and 6-2-2 forecast to be the most popular formulation by 2026
  - LNMO, the highest consumer of Mn per kWh of capacity is predicted to mature commercially after 2025, principally in electronics and certain EV battery formulations
- NMC 5-3-2 is ideally suited for solid state batteries
- The higher the purity of Mn in the battery, the lower quality of Ni and Co that can be tolerated.

Li-ion Rechargeable Battery Demand to 2040

- Using HPEMM or HPMSM, 54%

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HPM Market Set to be Transformed

Manganese Use in Li-ion Battery Market

- Only a small proportion of manganese ores are used for the specialty route
  - Critical factor is availability of right quality ore in right location
  - Carbonate ores (which are rare) are preferred for HPM, although oxides can be used after roasting or chemical treatment (making oxides more expensive to process, energy intensive and much less environmentally friendly)

- Li-ion cathode manufacturers and NMC precursor producers purchase HPMSM that has been made directly from manganese ore or from EMM, or they purchase high-purity EMM in order to make their own HP manganese sulfate

- The primary cathode chemistries in 2040 will be NMC and LNMO, requiring manganese input of the over one million tonnes of manganese metal equivalent per annum

Source: Cairn Energy Research Advisors, CPM Group ©2019
Strategic European Source of Supply

Europe is becoming a global hub for EV and battery production

<table>
<thead>
<tr>
<th>Country</th>
<th>Capacity (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>~15</td>
</tr>
<tr>
<td>Finland</td>
<td>17</td>
</tr>
<tr>
<td>Poland</td>
<td>~30</td>
</tr>
<tr>
<td>Sweden</td>
<td>32</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>8</td>
</tr>
<tr>
<td>Poland</td>
<td>17</td>
</tr>
<tr>
<td>Poland</td>
<td>~30</td>
</tr>
<tr>
<td>Hungary</td>
<td>7.5</td>
</tr>
<tr>
<td>Hungary</td>
<td>7.5</td>
</tr>
<tr>
<td>Hungary</td>
<td>3</td>
</tr>
<tr>
<td>Germany</td>
<td>60</td>
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<td>France</td>
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<td>Poland</td>
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<td>Poland</td>
<td>10</td>
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<tr>
<td>Poland</td>
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</tr>
<tr>
<td>Spain</td>
<td>~20-40</td>
</tr>
<tr>
<td>Slovakia</td>
<td></td>
</tr>
</tbody>
</table>

*PSA Group: Citroën, DS, Opel, Peugeot and Vauxhall

Source: Cairn Energy Research Advisors ©2020
EU, North America and China share of the Lithium-ion Battery Raw Materials Supply Chain

<table>
<thead>
<tr>
<th>Stage One: Mining</th>
<th>Stage Two: Chemical Processing/Refining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td></td>
</tr>
<tr>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>Cobalt</td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>Graphite¹</td>
<td></td>
</tr>
<tr>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Lithium</td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Manganese</td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage Three: Cathode or Anode Production</th>
<th>Stage Four: Lithium ion battery cell manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathode</td>
<td>Cells</td>
</tr>
<tr>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Anode¹</td>
<td>10%</td>
</tr>
<tr>
<td>0%</td>
<td>73%</td>
</tr>
</tbody>
</table>

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INDUSTRY NEWS: The Impact of Tesla’s Battery Day

- At its Battery Day on September 22nd, Elon Musk revealed an ambitious plan to produce Three Terawatt-hour/annum of EV batteries by 2030 and millions of electric vehicles to go with these (The entire global lithium-ion battery industry produces around 2.7 Terawatt-hour/annum today).
- Tesla also revealed that they plan to mass-produce a revolutionary new battery in their intermediate passenger vehicles (Models S, 3, X and Y) with a cathode that contains zero cobalt, two-thirds nickel and one-third manganese.
- Combined with numerous innovative technological and manufacturing improvements, these new batteries are expected to lower the cost per kilowatt-hour (KWh) to around $50, shattering the price parity barrier with internal combustion engine automobiles.
- Tesla also plans to build a cathode plant in the USA, which will use a simpler manufacturing process and high-purity metal feedstock (High-purity manganese metal).
- This sets the stage for lower cost EVs and their mass adoption globally, accelerating the electrification revolution.
- Tesla’s new battery is a game changer for the high-purity manganese metal industry, as it is expected to dramatically increase demand for this highly-refined product.
- Other automakers, including Volkswagen, GM, BMW, Peugeot, Volvo, Mercedes Benz, Citroen, Jaguar, Porsche, Nissan, Ford, Hyundai and Audi, will continue to use manganese sulphate.
- Tesla’s plan is further validation of Euro Manganese’s product strategy.
- The Chvaletice Manganese Project plant is designed to have complete flexibility to produce exceptional quality and sustainably produced High-Purity Manganese Metal AND High Purity Manganese Sulphate, to satisfy customer requirements.
Excellent Infrastructure and Jurisdiction

Strategically Located in the Heart of Europe

- Set in an industrialized valley with gentle topography, served by excellent infrastructure. **Rail, gas, water and power are all available on the Project site**

- Adjacent to 820 MW power station at a major node in the Czech Republic’s modern electrical distribution grid, ensuring competitively-priced power

- The Czech Republic is a modern, industrialized free market economy with a highly-skilled and educated workforce, and a member of the European Union. Corporate tax rate is 19%.

- Potential Czech and EU green direct investment and innovation incentives
Easily Treated Carbonate Tailings

Barriers to Entry in the HPM Market

Photos show ultra high purity manganese products made from Chvaletice Manganese Project tailings during 2018 product development and testwork program.

- Ultra-high-purity manganese products have emerged as critical raw materials for new, high-performance, low-cobalt Li-ion battery manufacturing; they are difficult to produce.
- Technical specifications for manganese products are tightening for demanding new battery formulations.
- Producing ultra-high-purity manganese for new generation batteries is principally a processing cost and environmental challenge.
- Product purity is critical. Very significant resource quality, technological and environmental barriers to entry.
- Very few manganese deposits are well-suited to efficient, environmentally-sustainable production of high-performance, Li-ion battery-grade manganese products.

Source: Cairn Energy Research Advisors, CPM Group ©2019
## Easily Treated Carbonate Tailings

### Simpler Cost-Effective Processing

- Asia imports the majority of its manganese ore used for HPM production, predominantly from oxide sources in Africa.
- In comparison, EMN processes tailings onsite with simple commercially proven technologies.

### Conceptual Asian Producer

<table>
<thead>
<tr>
<th>Ore Cost Components</th>
<th>Processing Cost Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase of Mined African Mn ore</td>
<td>Leaching &amp; Purification</td>
</tr>
<tr>
<td>Transport to Asia</td>
<td>Electrolysis (1)</td>
</tr>
<tr>
<td>Milling of ore</td>
<td></td>
</tr>
<tr>
<td>Roasting or Chemical Reduction of ore</td>
<td></td>
</tr>
<tr>
<td>Transport to processing plants</td>
<td></td>
</tr>
</tbody>
</table>

### Chvaletice

| Free dig of soft tailings owned by EMN |
| Transport ore c. 800 metres to collection point |
| Add water, transport slurry c. 400 metres via pipeline |
| Concentration of Tailings via Magnetic Separation |
| Leaching & Purification |
| Electrolysis |

### Notes

1. Asia generally has slightly higher electricity costs but lower full-time equivalent labour costs.
Easily Treated Carbonate Tailings

Extensive Technical Studies and Testwork
Easily Treated Carbonate Tailings

Drilling & Bulk Sampling

Sonic drill – modern, effective sampling tool

Sonic drill “core” of soft, sandy tailings material

14.8 tonne bulk sample collected using Sonic drill for metallurgical and pilot plant testing
Easily Treated Carbonate Tailings

Fully Drilled Ore Body

2017-2018 DRILL PROGRAM

- 160-Hole 2017-2018 Sonic and auger drill program upgraded the resource estimate to a Measured and Indicated Status (98.3% of the resource classified as Measured under NI 43-101/JORC 2012)
- Resource model forms reliable basis for tailings extraction plan and robust project economics
- Representative bulk samples collected with drill rig supported extensive 2018/2019 metallurgical testwork and process design studies
- Test mining program planned for 2020 in the context of Demonstration Plant development

- Easily Treated Carbonate Tailings
- Fully Drilled Ore Body

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Meeting Europe’s Circular Economy Goals by Recycling Waste

- Extraction of Chvaletice manganese is expected to result in self-funding environmental remediation of the Chvaletice site, bringing it in full compliance with all Czech and European Union health, safety and environmental standards and regulations.

Staged Tailings Extraction

- Tailings extracted in phases, cell-by-cell, then placed back on same site
  - No new waste generation
  - Small footprint of tailings exposed at any given time

Progressive Site Reclamation

- After Mn extraction, **tailings to be washed and neutralized**, placed on impermeable membrane, then capped with geomembrane, before site revegetation for long-term, safe and productive use. Reclamation plan is being designed with community input.
- Site restoration and long-term usage plan to be designed in collaboration with local communities and regulators.
- Minimizing environmental footprint and leaving site in better condition than it is today.

**A major collateral benefit to local communities and the country.**
5 Waste Recycling, Not Mining.

PERMITTING MOMENTUM AND PLANT SITE LAND SECURED

- Baseline environmental studies completed. EIA preparation initiated with Q2 2020 Project Notification submission targeted.
- Rezoning process initiated. Both adjoining municipalities voted unanimously to proceed with land-use plan change.
- Intensive community consultation ongoing. Overwhelmingly positive feedback and reaction to project.
- Closed option in 2018 to acquire 100% of Czech company that owns 19.94 hectares of strategically-located land (Shaded blue on map), with payments spread over up to 5-years, and tied to permitting progress milestones. Additional parcels of land secured in 2018 and 2019, including one from the adjoining village of Trnavka.

  - Plant site land already zoned for industrial use.
  - Onsite infrastructure: Two rail spurs and sidings, highway access, gas, water and electrical energy.
  - Located fewer than 200 metres from Chvaletice tailings.
  - Adjacent to 820 MW power plant, as well as ready-mix concrete and pre-cast concrete plants.
Clear Development Plan

Pre-Feasibility Study-level Testwork Program and Pilot Plant Tests Completed
Clear Development Plan

Target Project Development Timeline

RECENT MILESTONES

2018

- Upgrade resource estimate to NI43-101 Measured and Indicated status
- Pilot scale metallurgical testwork, process design and optimization studies
- Confirm ability to produce ultra-high-purity EMM and MSM, meeting highest customer specifications for low-cobalt and high-nickel EV battery formulations
- Determine target products and specifications for modeling in PEA and Feasibility Study (HPEMM and HPMSM)
- Plant site selection and plant site land acquisition
- Complete environmental baseline studies
- Intensifying community engagement
- Product specification development

2019

- Complete NI-43-101/JORC Code Preliminary Economic Assessment (for both HPEMM and HPMSM production)
- Initiate EIA notification preparation process for filing in Q2-2020
- Design demonstration plant (DP) to produce bulk samples of finished manganese products in Czech Republic for customer testing and qualification
- Organizational development
- Initial DP MoUs and first steps towards offtake agreements
- Trigger rezoning process – community votes unanimous
- Intensive, ongoing community consultation

2020-2021

- Build and commission Demonstration Plant + start of qualification process
- Complete land acquisitions
- Complete project Life Cycle Assessment (LCA)
- Completion of EIA and permitting process
- Complete feasibility study
- Detailed engineering
- Additional MoUs
- Initiate customer qualification of HPEMM/HPMSM products

2022-2024

- Complete customer qualification of HPEMM/HPMSM products
- Complete Offtake Agreements in 2022
- Project financing in 2022
- Initiate Construction in 2022
- Start-up, commissioning and commercial production in 2024
6 Clear Development Plan

FEASIBILITY STUDY

Feasibility Study initiated in 2019 based on process flowsheet developed during scoping and pre-feasibility study programs conducted during 2017 and 2018. Feasibility Study completion scheduled for H2 2021

Feasibility Study based on pilot plant process flowsheet that successfully confirmed amenability of Chvaletice carbonate ore to low-cost and low-environmental impact production of exceptional purity manganese products meeting very demanding battery industry customer specifications

Process stability and reliability are achieved by producing electrolytical manganese metal and converting it to manganese sulphate. Both are proven, commercial processes

HPM process flowsheet is selenium and chromium-free, assuring exceptional environmental performance and full compliance with Czech and European Union environmental standards

Highly experienced Feasibility Study contributors:

- Tetra Tech Canada – Owner’s Engineer, studies coordination, economics and Feasibility Study Qualified Person (QP) under NI 43:101 and JORC 2012 Code
- Beijing General Research Institute for Mining and Metallurgy (BGRIMM) – Process plant design, process optimization
- Tractebel Czech Republic – Localization studies, including cost estimation, compliance with Czech and EU regulations and codes
- GET sro. – Tailings extraction, dry stacking and site reclamation
- Bilfinger Tebodin – Environmental

Conventional Process Flowsheet
Clear Development Plan

Preliminary Chvaletice Plant Design
6 Clear Development Plan

DEMONSTRATION PLANT: THE KEY NEXT STEP.

- Demonstration Plant (DP) is a key element of EMN’s Chvaletice development strategy
- Lumpsum, turnkey EPC contract for DP awarded to CRIMM (Changsha Research Institute of Mining and Metallurgy, a division of China Minmetals Corporation) in December 2019; commissioning targeted to begin late 2021
- CRIMM has conducted extensive prior metallurgical testwork on Chvaletice for EMN since 2017, including building and operating its pilot plant. CRIMM are world leaders in manganese processing and battery materials production
- CRIMM scope of work includes DP design, delivery, installation, commissioning, laboratory set-up and operator training program. All equipment and technology is conventional and commercially proven
- DP total price ~US $2.5 M, plus ~$1.5 M installation / infrastructure cost. Annual operating cost ~$1 M
- DP replicates 2019 PEA process flowsheet and is designed to produce 32 kg of HPEMM or 100 kg of HPMSM per day
- DP designed to deliver multi-tonne, finished -product samples to customers, either HPEMM or HPMSM, as required
- DP output for 1st year of production will be allocated to selected customers during H1 for product qualification process
  - Strong customer interest in testing and qualifying DP products
  - MoUs are typically a prelude to potential offtake agreements
- Company may apply for green direct investment incentives, capacity development and/or innovation and upscaling funding from EU.
Investment Highlights

1. **HPM Market Set to be Transformed**
   - HPM demand growing rapidly on back of growth in the Li-ion and EV markets
   - Significant barriers of entry to HPM, where not all manganese ores and HPM are created equal
   - Mn used in the vast majority of Li-ion batteries, with low substitution risk
   - Strong customer interest.
   - Euro Manganese is building strategic commercial relationships.

2. **Strategic European Source of Supply**
   - Globally significant, 25-year project expected to be Europe’s only primary producer of High Purity Electrolytic Manganese Metal (“HPEM”) and High Purity Manganese Sulphate Monohydrate (“HPMSM”)
   - Located in the heart of Europe’s fast-growing EV production hub
   - Strategic supplier of in an industry where China currently has a 93% market share and where that share is growing

3. **Excellent Infrastructure and Jurisdiction**
   - Rail, highway, gas pipeline, water and competitively-priced power available on-site
   - Rights to industrially-zoned land adjacent to deposit secured for plant
   - Sophisticated, stable and business-friendly Czech Republic jurisdiction in the European Union
   - Europe’s automotive industry employs over 14 million people and is strongly committed to electrification.

4. **Easily Treated Carbonate Tailings**
   - Uniform and fully drilled deposit very well suited to production of HPM using clean, modern and commercially proven technologies
   - Carbonate ore and tailings deposit provide significant extraction and processing cost, and environmental advantages
   - Pilot plant products exceed ultra-high purity manganese specifications required by the most demanding high-tech customers

5. **Waste Recycling, Not Mining**
   - Recycling of old mine waste and remediation of polluted site, solving an old environmental problem for local communities
   - No mining waste.
   - Preliminary mining permit received in 2018
   - Solid permitting momentum
   - Opportunity to purchase certified CO₂-free power, further reducing already small environmental footprint

6. **Clear Development Plan**
   - Pilot plant confirmed ultra-high purity nature of product and amenability of process flowsheet for this deposit.
   - Feasibility Initiated: Building upon PEA issued in early 2019
   - Permitting Initiated: EIA notification filed in Q2 2020
   - Strong customer interest for demonstration plant to be built in 2021
   - Targeting Commercial Production in 2024

7. **Led by Highly Experienced Management Team**
   - Solid multidisciplinary team with proven development track record and award-winning excellence in environmental and social practices
   - Rare in-house HPM production experience
   - “God is in the details”
   - World-leading HPM technology, plant design and construction expertise secured
   - Management team and directors are significant and supportive shareholders

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**Green and European Source of Ultra High-Purity Manganese**
Thank You!
APPENDICES
HP Manganese Market Opportunity

Gross Mn weight required for 1 kWh of battery capacity:

NMC-111: 0.473 kg HPEMM or 1.453 kg HPMSM
NMC-532: 0.404 kg
NMC-622: 0.269 kg
NMC-811: 0.127 kg
NMC-370: 0.986 kg

1 kWh = 0.13 – 1.1 kg HPEMM

Some new battery formulations will use up to 2.3 times more manganese than the prevalent NMC-111 chemistry

A 90-kwh BATTERY PACK MAY:

- Weigh 500 kg
- Contain 11 kg to 99 kg of Mn (depending on battery chemistry)
- Cost $13,000
- The cost of manganese can be 0.25% to 2.3% of the cost of the battery pack* (depending on battery chemistry)

* assuming $3/kg of HPEMM (2018 price)

Source: Cairn Energy Research Advisors, CPM Group ©2019
Easily Treated Carbonate Tailings

2018 NI 43-101 / JORC Resource Estimate


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 ore
- Extraordinary 98.3% of Chvaletice resource is now classified in Measured category

<table>
<thead>
<tr>
<th>Tailings Cell #</th>
<th>Classification</th>
<th>Volume (m³)</th>
<th>Tonnage (MT)</th>
<th>Dry In-situ Bulk Density (t/m³)</th>
<th>Total Mn (%)</th>
<th>Soluble Mn (%)</th>
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<tbody>
<tr>
<td>#1</td>
<td>MEASURED</td>
<td>6,577,000</td>
<td>10,029,000</td>
<td>1.52</td>
<td>7.95</td>
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<td>#2</td>
<td>MEASURED</td>
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<td>6.79</td>
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<tr>
<td></td>
<td>INDICATED</td>
<td>123,000</td>
<td>189,000</td>
<td>1.55</td>
<td>7.22</td>
<td>5.30</td>
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<tr>
<td>#3</td>
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<td>INDICATED</td>
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<td>39,000</td>
<td>1.45</td>
<td>7.90</td>
<td>5.89</td>
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<tr>
<td>TOTAL</td>
<td>MEASURED</td>
<td>17,509,000</td>
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<td>COMBINED</td>
<td>M&amp;I</td>
<td>17,818,000</td>
<td>26,960,000</td>
<td>1.51</td>
<td>7.33</td>
<td>5.86</td>
</tr>
</tbody>
</table>

* Resources are not to be considered reserves and their economic viability has not been proven or confirmed.
Led by Highly Experienced Team

Canada

Marco Romero
PRESIDENT & CEO, FOUNDER & DIRECTOR
- 40 years of diversified international experience in mining and construction material industries
- Company builder and co-founder of several Canadian enterprises including Eldorado Gold, Polaris Materials, Delta Gold and Euro Manganese
- Recipient of several international, national and regional awards for achievements in corporate social responsibility and environmental excellence

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 Kolbenscheidt Inc., a Czech subsidiary of the Rheinmetall Group AG
- Qualified as a CPS (CGA) and as an ACCA (UK) and holds a Master’s Degree in International Business

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; President and CEO of Troon Ventures Ltd.; 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 & Reservoir Capital, 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.

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, offtake 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

Thomas Glück
CHIEF TECHNOLOGY OFFICER
- 27-year track record of successful development and operation of production facilities for electrolytic manganese metal and associated manganese products
- Held various leadership roles for world’s leading producer of high purity, selenium-free EMM, Manganese Metal Company, including superintendent, development manager and works manager
- Holds a PhD in Chemical Engineering
Led by Highly Experienced Team

Europe

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, its 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

Wenling Sun
STRATEGIC DIRECTOR, CHINA
- Highly experienced mining industry professional with 19-year track record in China in mining project development, metals trading, pricing, trade structure, project management and financing
- Ran consulting practice, advising international clients on procurement of Chinese technology, equipment and services
- Managed development of first bio-heap copper and nickel leaching projects in China. Played a key role in several international mine and plant developments
- Holds a Masters degree in Economics from Renmin University

Tomas Hochmann
TECHNICAL DIRECTOR
- Started career in basic petrochemistry research leading to a PhD in Chemical Engineering. Worked in applied research and development for petrochemical and pharmaceutical companies
- 20 years in cement industry working in cement plants in the Czech Republic, Bosnia, Libya, Serbia, Venezuela and Canada – responsible for process development and optimization, plant operations, plant strategy, investment planning and construction management
- Led technical training of young engineers, troubleshooting and start-ups in cement plants

Blanca Dobrakovská
ENVIRONMENTAL MANAGER
- Engineer of Environmental Science and Ecology
- Over 15 years of experience in environmental legislation and management
- Previously, held different managerial roles in the aerospace industry responsible for environmental issues and compliance for companies at Prague Airport, Nuclear Research Centre and CEMEX s.r.o.
- Holds a MSc. at Wageningen University, Netherlands and Engineering degree at Czech Agricultural University
Led by Highly Experienced Team

Non-Executive Directors

David Dreisinger  
DIRECTOR
- Professor and chair holder of the Industrial Research Chair in Hydrometallurgy at UBC
- Published over 200 papers and involved in 16 U.S. patents for work in hydrometallurgical research
- Active international consulting practice on many major hydrometallurgical projects and plants
- Corporate experience includes director and executive with Search Minerals, Clifton Star Resources, Polymet, South American Silver and Lead FX

Tom Stepien  
DIRECTOR
- CEO of Primus Power, a battery storage company headquartered in California’s Silicon Valley.
- Tom has over 30 years of hi-tech management, operations and engineering experience at small and large companies.
- Prior to co-founding Primus, he was a VP at semiconductor equipment manufacturer Applied Materials.
- He holds a BS and MS in Mechanical Engineering from the Massachusetts Institute of Technology, is a co-inventor on numerous patents, and a frequent speaker at energy conferences.
- He brings an international perspective, having led diverse teams in several countries.

John Webster  
INTERIM CHAIRMAN & DIRECTOR
- Senior finance professional who spent over 30 years with PricewaterhouseCoopers until his retirement in 2014
- Roles included British Columbia Managing Partner, three years as Assurance Leader in Romania and head of the firm’s mining practice in Canada
- Extensive experience as audit partner and advising private and listed clients
- Director of EldoradoGold Corporation

Gregory Martyr  
DIRECTOR
- Over 30 years experience in resources investment banking and corporate finance, and international resource and mining company management
- Executive Director of Carbon Fibre Development Technologies Pty Ltd.
- Former Managing Director with Standard Chartered Bank, ultimately as the Global Head of Advisory, Mining and Metals
- Previously a partner with Gryphon Partners and held several executive roles with Normandy Mining Ltd. Incl. President, Americas

GREEN AND EUROPEAN SOURCE OF ULTRA HIGH-PURITY MANGANESE
Euro Manganese Inc. - Capitalization

- Dual IPOs completed on October 2nd, 2018. Shares trade on the TSX Venture Exchange and CHESS Depository Instruments (CDIs) trade on the Australian Stock Exchange
- ASX & TSXV Symbol: “EMN”
- Cash position as of 06/30/2020 ~C$0.44M.
- Current Market Capitalisation: ~C$45.2 M based on C$0.175 (at Sept 24/2020)
- Recently completed C$4 million private placement in July/August 2020

### Capitalization as of September 24, 2020

<table>
<thead>
<tr>
<th></th>
<th>Shares (including ~112.3M CDIs)</th>
<th>Options</th>
<th>Warrants</th>
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<tr>
<td><strong>Fully Diluted</strong></td>
<td><strong>283,144,637</strong></td>
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<td></td>
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</table>

### Ownership Structure at Sept 24, 2020

- Total 258,162,887

- **Institutional** 86.2 M 33.4%
- **Others** ~142.9 M 55.3%
- **Directors & Management** ~29.1 M 11.3%