

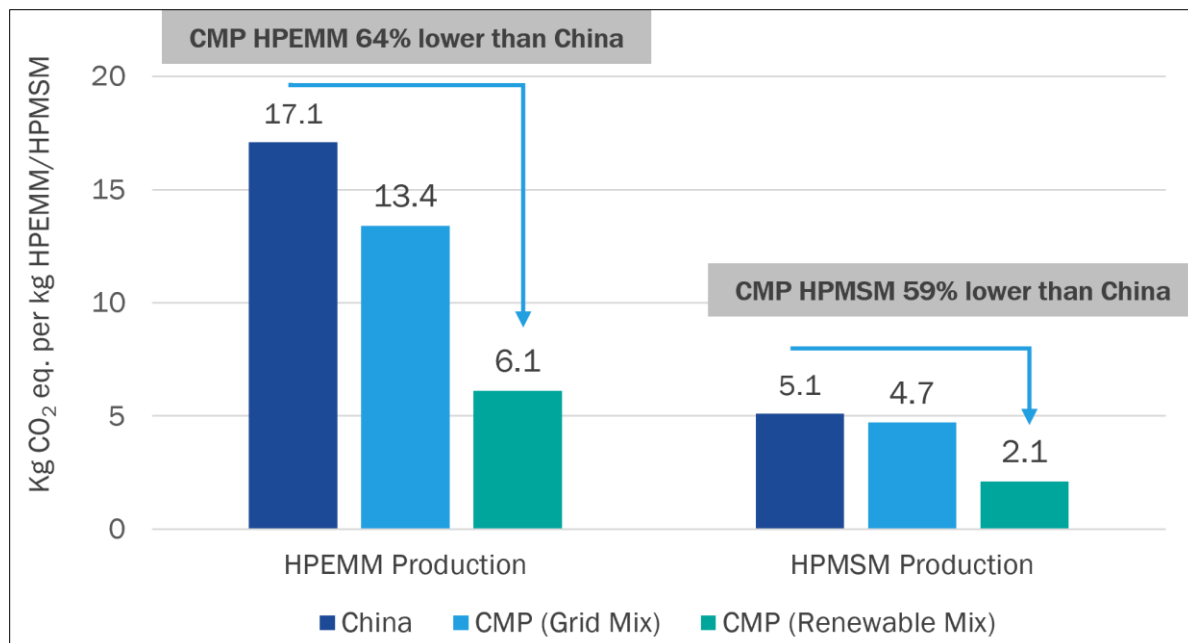
## Results of Comparative LCA Study show Euro Manganese’s Battery-Grade Manganese Products have Lowest Carbon Footprint

VANCOUVER, British Columbia (December 7, 2022) – Euro Manganese Inc. (TSX-V and ASX: EMN; OTCQX: EUMNF; Frankfurt: E06) (the "Company" or "EMN") is pleased to announce positive results from a Life Cycle Assessment study comparing the global warming potential ("GWP" or "carbon footprint") of the Company’s high-purity manganese products from the Chvaletice Project ("Chvaletice" or "the Project" or "CMP") in the Czech Republic with those produced by the incumbent industry in China – where currently 95% of global high-purity manganese products are processed.

### Highlights

- The GWP of high-purity electrolytic manganese metal ("HPEMM") produced at Chvaletice, using 100% renewable power, is 64% lower than the estimated GWP of HPEMM produced by the incumbent industry.
- High-purity manganese sulphate monohydrate ("HPMSM") produced via EMM dissolution has a carbon footprint 59% lower at Chvaletice compared to HPMSM produced in China.
- Additional Company analysis shows that Chvaletice’s high-purity manganese metal has a significantly lower carbon footprint compared to nickel and cobalt, the other NMC battery cathode metals.

### Comparative Summary of Life Cycle Assessment CO<sub>2</sub> Emissions for HPEMM & HPMSM



Source: Streamlined Life Cycle Assessment Study of Manganese Products, prepared by Minviro for Euro Manganese.

## Details of the Life Cycle Assessment

Euro Manganese engaged Minviro Ltd. (“Minviro”), a UK-based and globally recognized sustainability and life cycle assessment consultancy, and RCS Global Ltd. (“RCS Global”), a leading global auditor of battery material supply chains, to conduct a cradle-to-gate study to evaluate the GWP of HPEMM and HPMSM produced at the Chvaletice Project and by the incumbent industry in China. Data analyzed was from public sources for different operational manganese plants in the country. GWP processing routes using both grid mix electricity and renewable electricity were evaluated in-line with LCA best-practice and Global Battery Alliance requirements for the battery passport.

## Comparative Summary of Life Cycle Assessment CO<sub>2</sub> Emissions for HPEMM & HPMSM

Impact Category	HPEMM (kg CO <sub>2</sub> eq. per kg)			HPMSM (kg CO <sub>2</sub> eq. per kg)		
	China	CMP (Grid Mix)	CMP (Renewable Mix)	China	CMP (Grid Mix)	CMP (Renewable Mix)
Scope 1	4.7	1.2	1.2	1.6	0.4	0.4
Scope 2	11.4	9.5	2.1	3.2	3.3	0.7
Scope 3	0.9	2.7	2.7	0.4	1.0	1.0
<b>Total</b>	<b>17.1</b>	<b>13.4</b>	<b>6.1</b>	<b>5.1</b>	<b>4.7</b>	<b>2.1</b>

Note: Totals may not add exactly due to rounding.

- Scope 1: direct Greenhouse Gas ("GHG") emissions.
- Scope 2: indirect GHG emissions from imported energy (electricity, heat or steam).
- Scope 3: any other indirect emissions. This study excludes the transport of reagents for comparative purposes; as such, Scope 3 and total GWP figures for the CMP are slightly lower in this study than those detailed in the [LCA Study conducted earlier this year](#).

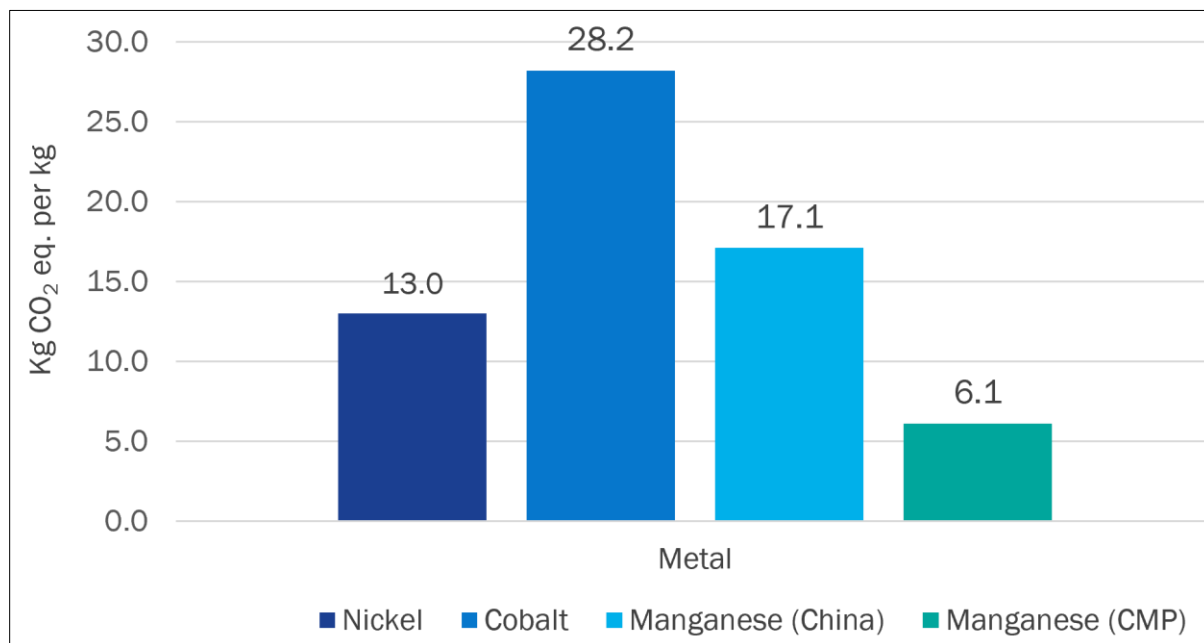
The main contributors to the estimated carbon footprint of HPEMM produced in China are the embodied emissions from the electricity grid mix. For HPMSM produced in China via EMM dissolution, the main contributor is the same: embodied emissions in the electricity grid mix.

## Summary of Processing Routes analyzed in Life Cycle Assessment

	Processing Route	Location	Purity (% Mn)
HPEMM	Se-free electrowinning (Estimate)	China	99.9
	Se-free electrowinning (Grid Mix)	CMP	99.9
	Se-free electrowinning (Renewable Mix)	CMP	99.9
HPMSM	EMM dissolution	China	>32
	HPEMM dissolution (Grid Mix)	CMP	~32.4
	HPEMM dissolution (Renewable Mix)	CMP	~32.4

The purity of Chvaletice’s HPMSM exceeds the published Chinese specification, as impurities in Chvaletice’s HPMSM process are controlled to a tighter level. Chvaletice’s and Chinese HPMSM products have manganese levels above 32%, however, HPMSM produced in China contains selenium (if using EMM produced in China as feedstock) while Chvaletice’s HPMSM is selenium free. HPMSM produced in China using ore from South Africa has higher levels of trace elements of fluorine and silicon compared to Chvaletice’s HPMSM.

## Comparative Summary of Global Warming Potential for Ternary Battery Metals



Sources: Nickel Institute Life Cycle Assessment Report in 2020 and Cobalt Institute Life Cycle Assessment Report in 2022.

Additional Company analysis of the GWP for different cathode metals shows that Chvaletice manganese has the lowest kg CO<sub>2</sub> eq. per kg of metal when compared against the Nickel Institute LCA and Cobalt Institute LCA.

Dr. Matthew James, President & CEO of Euro Manganese, commented:

*“The results of this comparative Life Cycle Assessment confirm that high-purity manganese products from the Chvaletice Project are shown to have a significantly lower carbon footprint than the incumbent industry. These results are also lower than other manganese projects that have recently published Life Cycle Assessment results. Equally, when benchmarked against the carbon footprint of nickel and cobalt, the other battery cathode metals, manganese from Chvaletice also compares very favorably. This further supports the move to high-manganese cathode chemistries, with manganese being the most affordable and green battery metal.*

*With automotive manufacturers increasingly using strategic procurement to meet their targets of lower carbon emissions, and as we progress offtake discussions, the results of this comparative Life Cycle Assessment are extremely beneficial and very timely.”*

### About Euro Manganese Inc.

Euro Manganese Inc. is a battery materials company focused on becoming a leading, competitive, and environmentally superior producer of high-purity manganese for the electric vehicle industry and other high-technology applications. The Company is advancing development of the Chvaletice Manganese Project in the Czech Republic, which is a unique waste-to-value recycling and remediation opportunity involving reprocessing old tailings from a decommissioned mine. The Chvaletice project is the only sizable resource of manganese in Europe, strategically positioning the Company to provide battery supply chains with critical raw materials to support the global shift to a circular, low-carbon economy.

Authorized for release by the CEO of Euro Manganese Inc.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) or the ASX accepts responsibility for the adequacy or accuracy of this release.

#### **About Minviro Ltd.**

Minviro is a London-based and globally recognized consultancy and technology company specializing in carrying out life cycle assessments in the raw material sector and technology minerals and metals space. The company provides quantitative environmental and climate impact data for mineral resource projects and operations, battery manufacturers and the EV industry to make environmentally informed decisions. ([www.minviro.com](http://www.minviro.com))

#### **About RCS Global Ltd.**

RCS Global is a world leading, vertically integrated ESG audit, consulting, and data solutions provider with a specialisation in battery material supply chains.

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#### **Forward-Looking Statements**

Certain statements in this news release 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 projects, 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. Such forward-looking information or statements relate to future events or future performance about the Company and its business and operations. Further, it should be noted that no production decision has been made with respect to the Project and that such a decision will only be made based on permitting and financing having been secured.

Such forward looking statements or information include, but are not limited to, statements about the carbon footprint of the Chvaletice Project, the Company’s ability to source 100% renewable power, forecasted electricity demands, and the benefits of the LCA.

Readers are cautioned not to place undue reliance on forward-looking information or statements. Forward-looking statements and information involve significant risks and uncertainties, should not be read as guarantees of future performance or results and will not necessarily be accurate indicators of whether or not such results will be achieved. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements or information, including, but not limited to, the factors discussed under “Risks Notice” and elsewhere in the Company’s MD&A, as well as the inability to obtain regulatory approvals in a timely manner; the inability to source 100% renewable power; the potential for unknown or unexpected events to cause contractual conditions to not be satisfied; unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities;; social or labour unrest; changes in commodity prices; and the failure of programs or studies to deliver anticipated results or results that would justify and support continued studies, development or operations.

Although the forward-looking statements contained in this news release 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 news release 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 news release. The Company’s actual results could differ materially from those anticipated in these forward-looking statements as a result of the factors set forth in the “Risks Notice” section and elsewhere in the Company’s MD&A for the year ended September 30, 2021 and its Annual Information Form.