

## Finnish Vanadium Recovery Project receives EU supported capital injection

### HIGHLIGHTS

- Neometals 88% owned entity, Recycling Industries Scandinavia AB (“**RISAB**”), executes project agreement with EIT RawMaterials GmbH (“**EIT RawMaterials**”) to support the development of the Finnish vanadium recovery project (“**VRP1**”);
- EIT RawMaterials is co-funded by the European Union (“**EU**”) and will provide €0.5M (c. A\$829k<sup>1</sup>) in grant funding to RISAB’s 100% owned VRP1 holding company, Novana Oy (“**Novana**”), and become a minority shareholder in RISAB at a pre-money valuation of €50M (c. A\$82.9M<sup>1</sup>) (“**Pre-Money Valuation**”);
- Funding to be applied towards progressing project financing, with improved economics arising from an additional €15M (c. A\$24.9M<sup>1</sup>) conditional investment grant (“**the Conditional Grant**”) being provided by the EU backed Finnish State NextGeneration fund and a potential new Finnish State 20% investment tax credit; and
- EIT RawMaterials to also have the option to subscribe for up to a further €10M (c. A\$16.6M<sup>1</sup>) in additional RISAB equity at the Pre-Money Valuation.

Sustainable process technology developer, Neometals Ltd (ASX: NMT & AIM: NMT) (“**Neometals**” or “**the Company**”), is pleased to announce the execution of a project agreement (“**the Agreement**”) providing funding and services to Novana (indirect NMT 88% interest through RISAB). Novana is commercialising Neometals’ patent-pending vanadium recovery process (“**VRP Technology**”) through the development of VRP1 in Finland.

EIT RawMaterials is based in Berlin Germany and is a legally independent part of the European Institute of Innovation and Technology, an EU entity. EIT RawMaterials is mandated by the European Commission to lead and manage the European Raw Materials Alliance (“**ERMA**”).

Under the Agreement, EIT RawMaterials will provide Novana with €0.5M in grant funding and be issued approximately 1.1% of the issued capital of RISAB at the Pre-Money Valuation. EIT RawMaterials funding and services, which are contingent on the application of funds to pre agreed activities and milestone dates, will support the project financing process for the development of a plant to produce high-purity vanadium pentoxide (“**V<sub>2</sub>O<sub>5</sub>**”) from vanadium-bearing steel slag in Pori, Finland.

<sup>1</sup> Reserve Bank of Australia 0.603 Aud:Euro exchange rate, 11th September 2024.

Neometals previously announced the results of the VRP1 feasibility study which confirmed the potential for lowest-quartile operating costs, with a low-to-negative carbon footprint<sup>2</sup>. Following receipt of the Agreement funds, Novana will formally commence a project financing selection process seeking approximately €400M (targeting c. 40% equity, 60% debt) with leading Nordic banks SEB and Aventum managing the equity and debt packages respectively, with assistance from EIT RawMaterials.

In addition, EIT RawMaterials have the option, at the earlier of **a)** a period of 18 months from signing the Agreement or **b)** the execution of a binding agreement on an equity commitment for at least €160M into RISAB from one or more (existing or new) investors, to subscribe for up to an additional €10M (c. A\$16.6M<sup>1</sup>) in equity funding in RISAB at the Pre-Money Valuation

The European Investment Bank ("**EIB**") conditionally approved Novana for debt financing in November 2023. In addition, Business Finland, has offered the Conditional Grant through the EU backed NextGeneration sustainable growth fund. Draw down on the Conditional Grant will be determined by industry standard terms which include Novana having first secured its project financing package. As announced by the Finnish Ministry of Finance on the 28<sup>th</sup> June 2024 (Press Release 326/2024) the Finnish State is also proposing to introduce a new 20% investment tax credit system for large industrial, energy transition and recycling projects in Finland.

Novana holds the exclusive licence to Neometals' wholly owned VRP Technology in the Nordics<sup>3</sup> and is required to pay a 2.5% gross revenue royalty on all products generated from its use. Novana holds a long-term lease over the proposed VRP1 plant site, has secured the project's environmental permit<sup>4</sup> and has entered a binding offtake for 100% of VRP1's V<sub>2</sub>O<sub>5</sub> products with Glencore International AG<sup>5</sup>. Neometals does not intend to provide further material funding to RISAB/Novana to develop VRP1 and expects to dilute its current holding to a minority equity position.

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<sup>1</sup> Reserve Bank of Australia 0.603 Aud:Euro exchange rate, 11th September 2024.

<sup>2</sup> For full details refer to Neometals ASX announcement headlined "Vanadium Recovery Project Delivers Strong Feasibility Results" released on 8th March 2023.

<sup>3</sup> Limited to Finland, Denmark, Sweden and Norway.

<sup>4</sup> For full details refer to Neometals ASX announcement headlined "Vanadium Recovery Project Environmental Permit Granted" released on 24th October 2022.

<sup>5</sup> For full details refer to Neometals ASX announcement headlined "Vanadium Recovery Project Offtake Executed with Glencore" released on 12th July 2023.

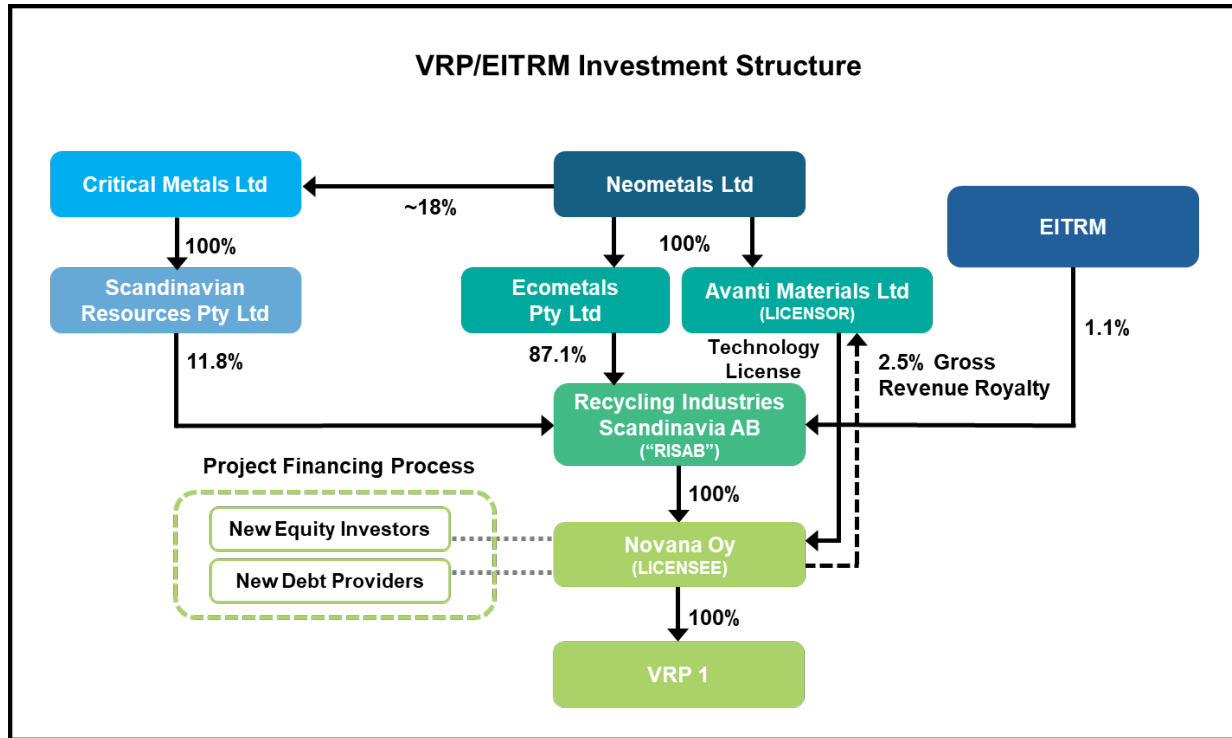


Figure 1 – Overview of Royalty and Corporate Structure post EIT RawMaterials investment.

Neometals Managing Director Chris Reed said:

*"We are delighted Novana and VRP1 have attracted a group of EIT RawMaterials calibre as a shareholder and supporter of the project financing process. With the VRP1 conditionally confirmed for EIB debt financing, we look forward to formally securing the remaining equity and debt funding. We hope to capitalise on the significant support from the Finnish State and EU and new incentives to deliver Europe's first domestic producer of high-purity vanadium, a critical material for the production of high-strength steel, aerospace titanium alloys and stationary energy storage batteries."*

Authorised on behalf of Neometals by Christopher Reed, Managing Director.

**ENDS**

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MD/CEO

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E [chris@neometals.com.au](mailto:chris@neometals.com.au)

## About Neometals Ltd

Neometals facilitates sustainable critical material supply chains and reduces the environmental burden of traditional mining in the global transition to a circular economy.

The Company is commercialising a portfolio of sustainable processing solutions that recycle and recover critical materials from high-value waste streams.

- Neometals' core focus is its patented, **Lithium-ion Battery ("LiB") Recycling technology (50% NMT)**, being commercialised in a 50:50 incorporated JV (Primobius GmbH) with 150-year-old German plant builder, SMS group GmbH. Primobius is supplying Mercedes-Benz a 2,500tpa recycling plant and operates its own LiB Disposal Service in Germany. Primobius' first 21,000tpa commercial plant will be offered to Stelco under an existing technology licence for North America.

Neometals is developing two advanced battery materials technologies for commercialisation under low-risk, low-capex technology licensing business models:

- **Lithium Chemicals (70% NMT)** – Patented ELi™ electrolysis process, co-owned 30% by Mineral Resources Ltd, to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks at lowest quartile operating costs. Pilot scale test work and Engineering Cost Study update planned for completion in DecQ 2024; and
- **Vanadium Recovery (100% NMT)** – Patent pending hydrometallurgical process to produce high-purity vanadium pentoxide from steelmaking by-product ("Slag") at lowest-quartile operating cost and carbon footprint.

## About EIT RawMaterials:

EIT RawMaterials is the largest and most active raw materials knowledge and innovation network, with 300 partner organisations spanning the entire raw materials value chain and promoting the circular economy. EIT RawMaterials is mandated to lead the European Raw Materials Alliance, with 750 members and an investment pipeline of 30 projects with an investment potential of €10 billion. EIT RawMaterials is part of the European Institute of Innovation and Technology and was established in 2015 to advance Europe's transition into a sustainable economy, with a mission to secure a sustainable raw materials supply for Europe, close materials loops, and design product solutions to ultimately develop raw materials into a major strength for Europe by driving innovation, education, and entrepreneurship.

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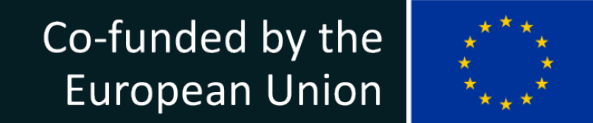
# Vanadium Recovery

**Vanadium Recovery Process Technology**

100% Neometals

**Vanadium Recovery Project 1 - Finland**

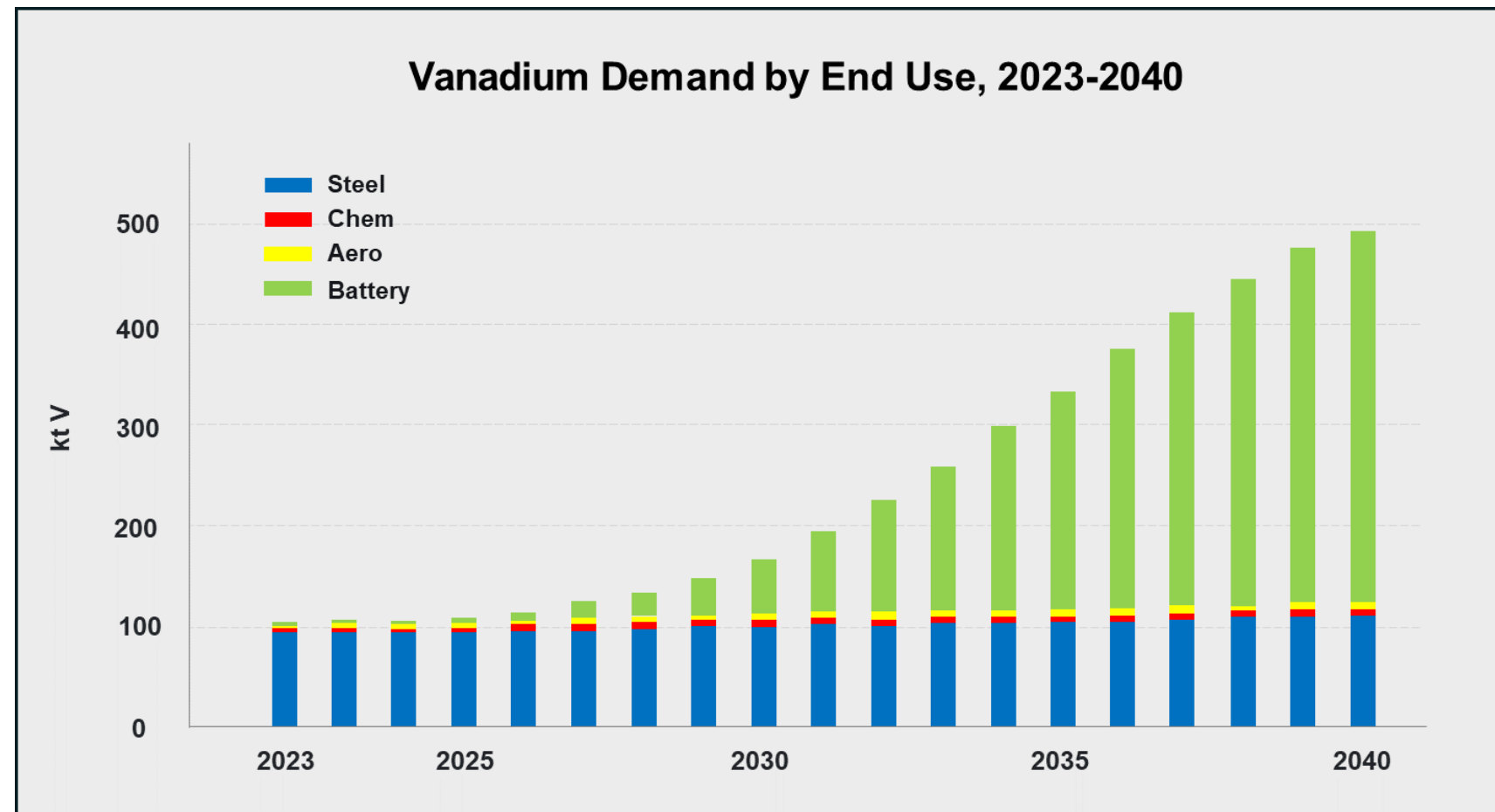
87.1% NMT via Incorporated Joint Venture Recycling Industries Scandinavia AB



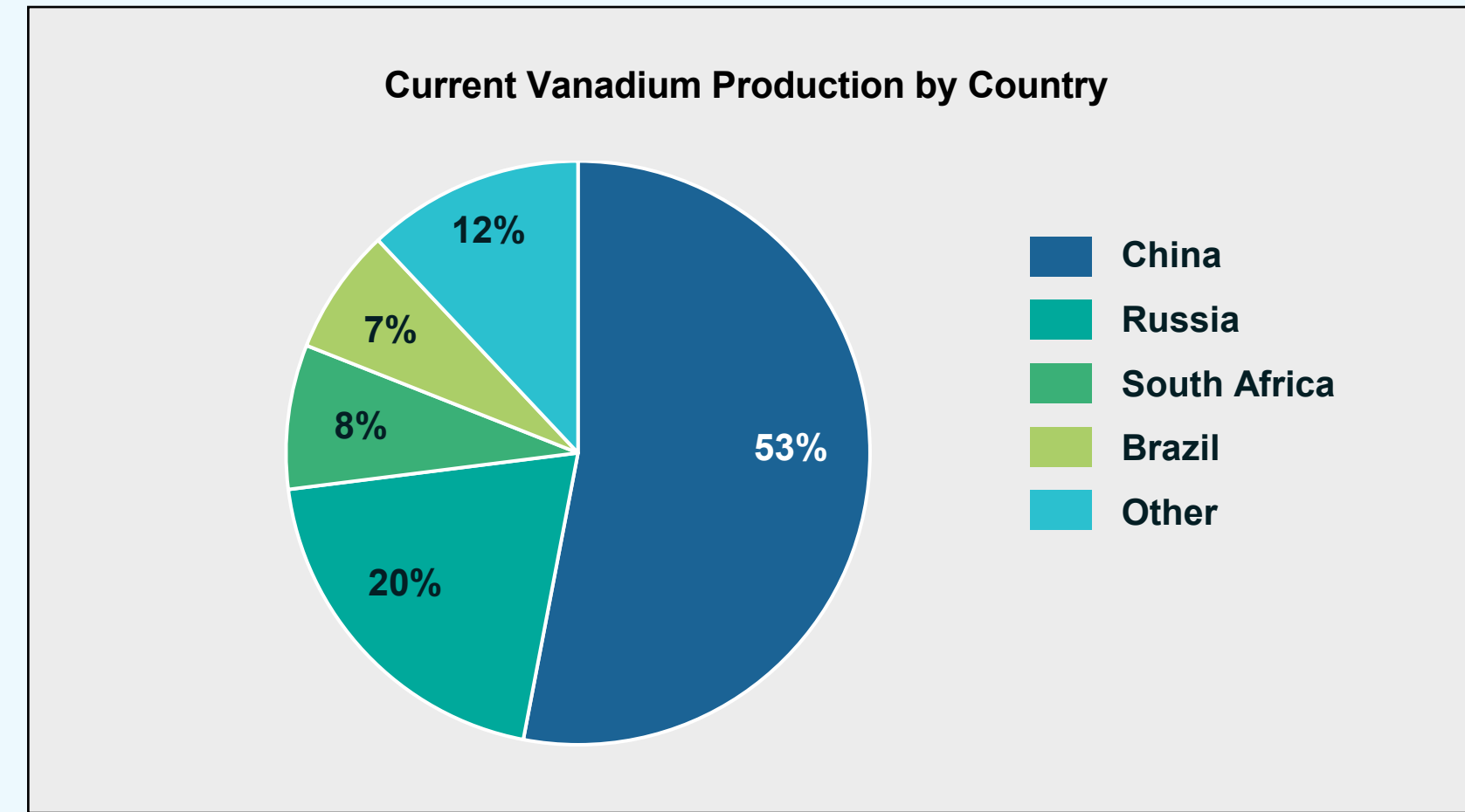


# Need

- Vanadium demand forecast to increase to 500%<sup>1</sup> of 2023 levels – primarily driven by increased adoption of stationary Energy Storage Systems batteries (vanadium flow type)
- Limited current EU production of this strategic/critical mineral - production dominated by BRICS



Sources: CRU



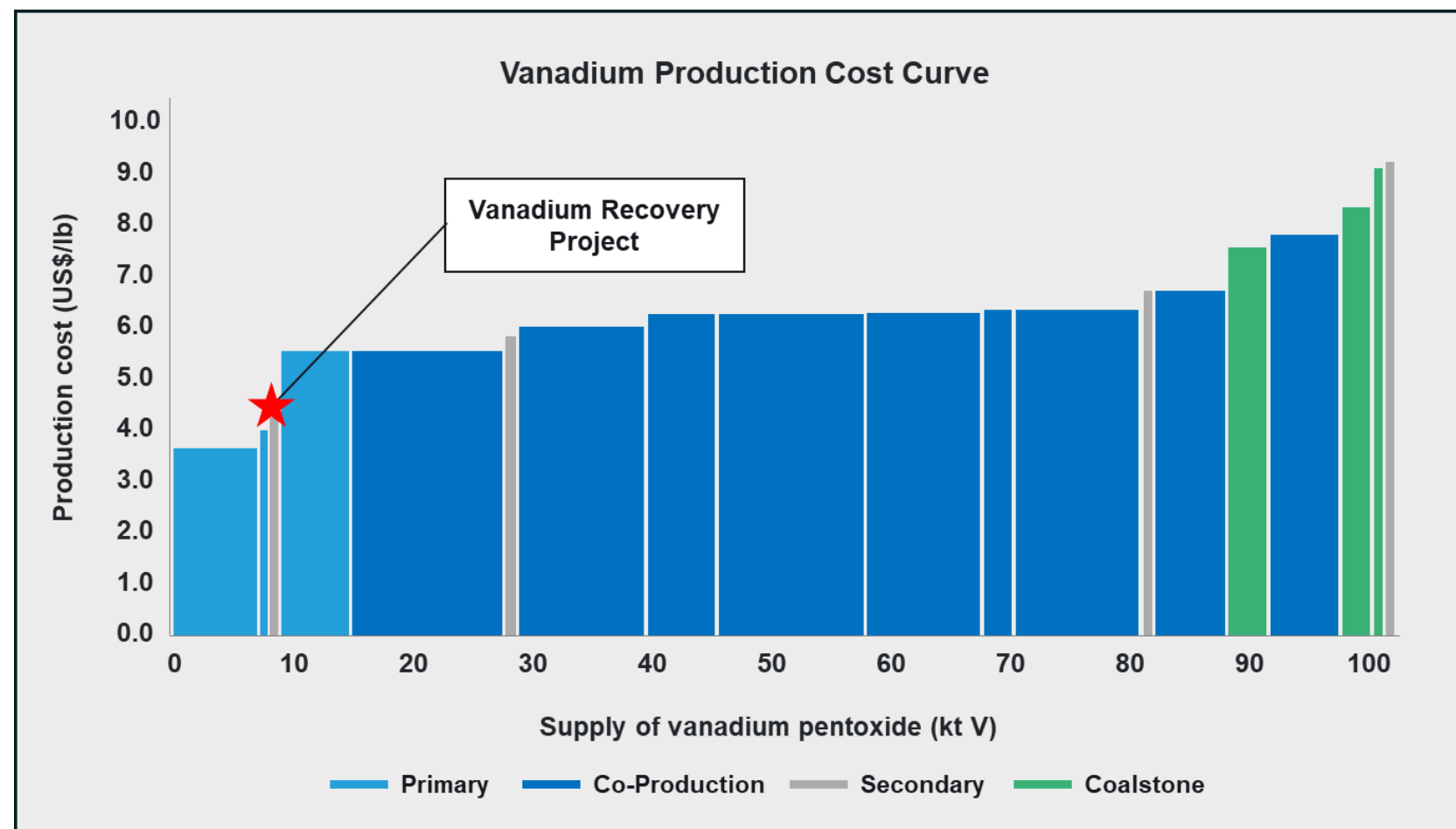
Sources: Wood Mackenzie 2022, Vanitec

Sources: Wood Mackenzie 2022, Vanitec  
<sup>1</sup>Based on CRU market study as of January 2023



# Solution - Neometals Vanadium Recovery Technology

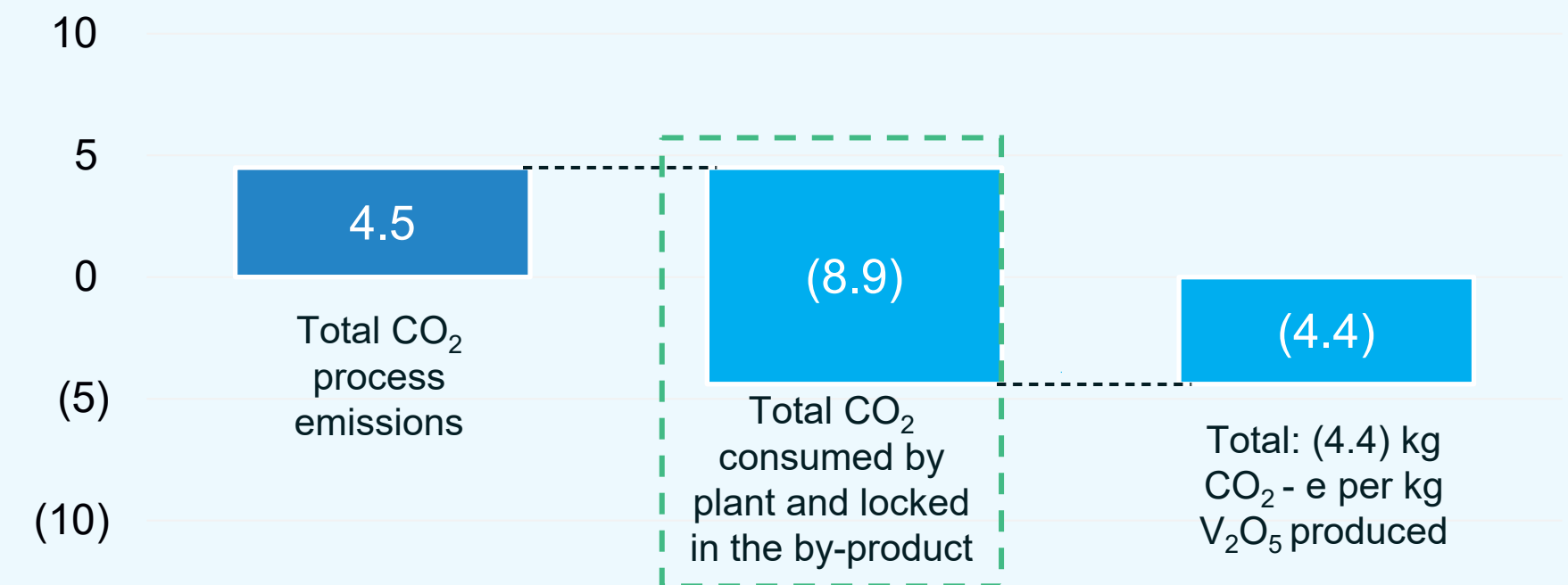
- Hydrometallurgical process (EU patent pending) to produce high-grade vanadium from steel slag byproducts
- Lowest quartile costs indicated in Feasibility Study<sup>2</sup> following long-duration continuous pilot plant trial
- Conventional equipment configured in a fully piloted novel process, utilising captured CO<sub>2</sub> from local emitters



<sup>2</sup> For further information, refer to ASX release dated 8th March 2023 – Vanadium Recovery Project Delivers Strong Feasibility Results

## Low Carbon Footprint<sup>3</sup>

Kg CO<sub>2</sub> - e per kg CO<sub>2</sub> V<sub>2</sub>O<sub>5</sub> produced







<sup>3</sup> Sources: Internal image based on data from Minviro - Project life cycle assessment results reported in ASX release dated 8th March 2023 titled "Vanadium Recovery Project Delivers Strong Feasibility Study Results" Calculations assuming CO<sub>2</sub> consumed is sourced from renewable sources; 1) The CO<sub>2</sub> impact includes a sodium sulphate credit that is due to system expansion as the sodium sulphate does not itself sequester CO<sub>2</sub> and is based on typical SSAB slag as an input



# Opportunity – First Circular Vanadium Development in EU

## Finnish Vanadium Recovery Project (“VRP1”) Overview

-  Location: **Tahkoluoto Port, City of Pori, Finland**
-  Capital cost: **~314M USD** <sup>4</sup>
-  Operating cost: **US\$4.19/lb V<sub>2</sub>O<sub>5</sub>** <sup>4</sup> (lowest quartile)
-  Indicative Construction timeline: **H1 2025 – H2 2026**
-  Throughput: up to **300k tonnes p.a.**
-  Planned annual production: **~9k tonnes V<sub>2</sub>O<sub>5</sub>** <sup>4</sup>
-  Stakeholders



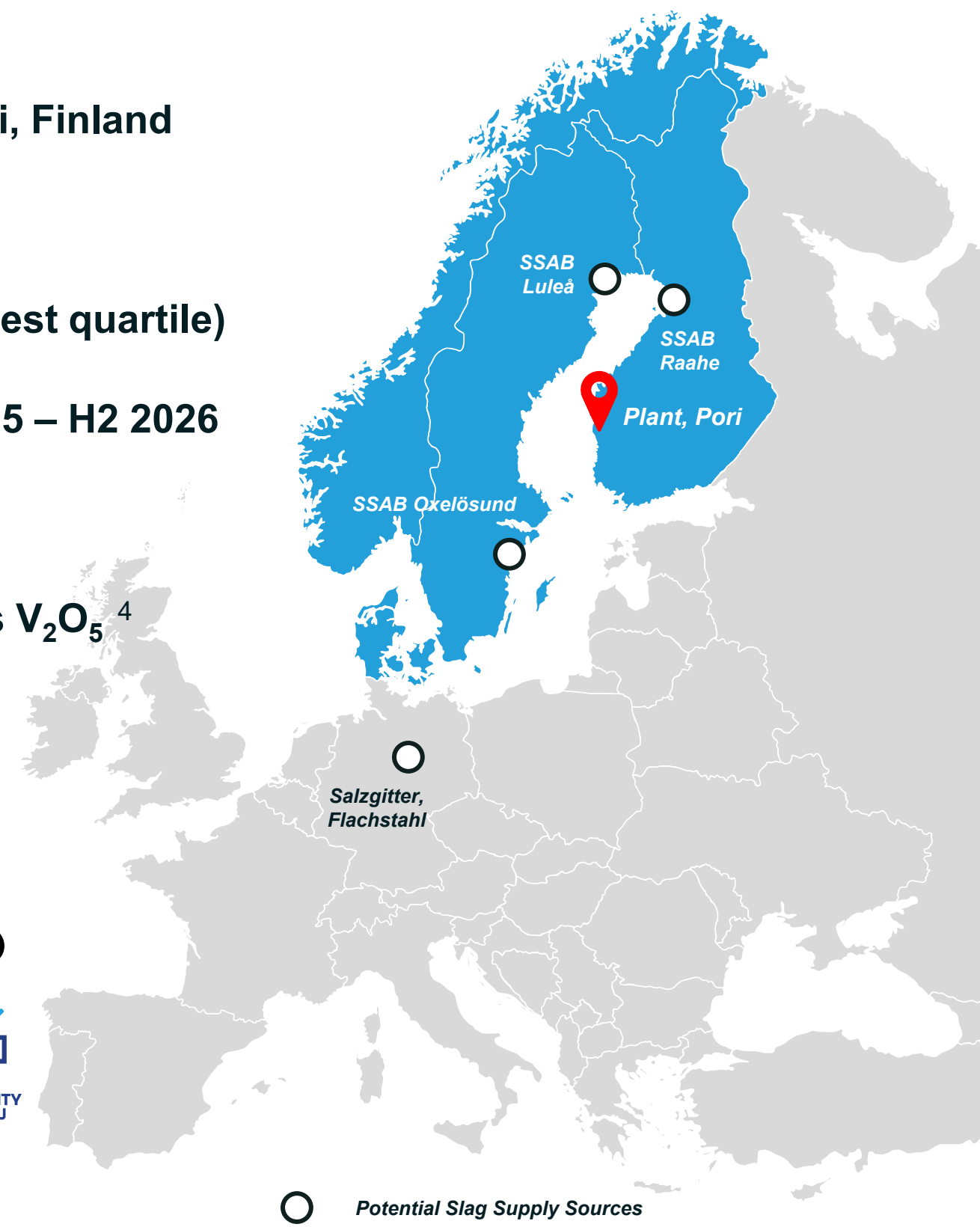












○ Potential Slag Supply Sources



Plan view of Port of Pori



Schematic view of planned VRP1 plant

<sup>4</sup> For further information, refer to ASX release dated 8th March 2023 – Vanadium Recovery Project Delivers Strong Feasibility Results





# Strong Management and Advisors to deliver

## Advisors

Equity  
advisors



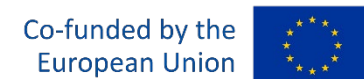
Legal  
Advisor



Debt  
Advisor



Supported by



Johanna Lamminen  
CEO



- Highly experienced business leader and board professional
- Experience includes CEO of Gasum, CEO and CFO of Danske Bank Finland, CFO and deputy CEO of Evli and Board Member of Sampo Plc, Cargotec Group, CellMark AB, Pohjan Voima
- Doctor of Science in Technology, MBA

Key experience:



Darren Townsend  
COO



- Mining Engineer with 25+ years. development, mining and corporate experience including managing ASX and TSX listed companies
- Head of Vanadium, Neometals, a sustainable battery materials producer

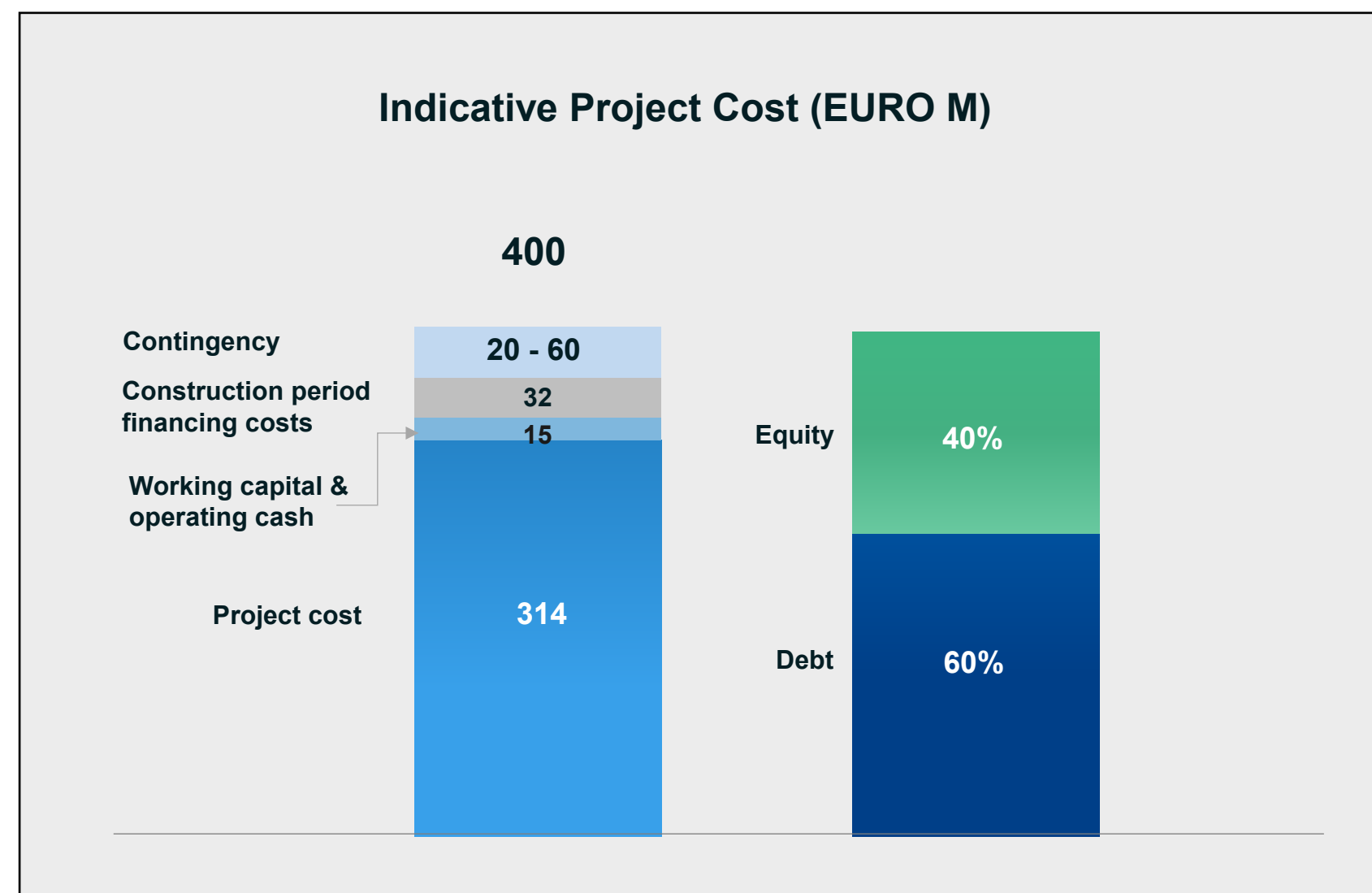
Key experience:





# Financing Strategy

- Novana’s financing strategy for the VRP1 is to procure approximately €400M (including working capital and contingencies) via a combination of debt (targeting 60%) and equity (targeting 40%). Leading Nordic Advisors Aventum Partners (debt) and Swedish bank SEB, supported by EIT RawMaterials (equity) are leading the financing process.
- European Investment Bank (“EIB”) has approved VRP1 for project debt financing and discussions with commercial banks are well advanced for the balance of the required debt facility. In addition, discussions are advanced with Finnvera, the Finnish state-owned financing company and export credit agency, in relation to providing a guarantee for the majority of the face value of commercial debt issued.



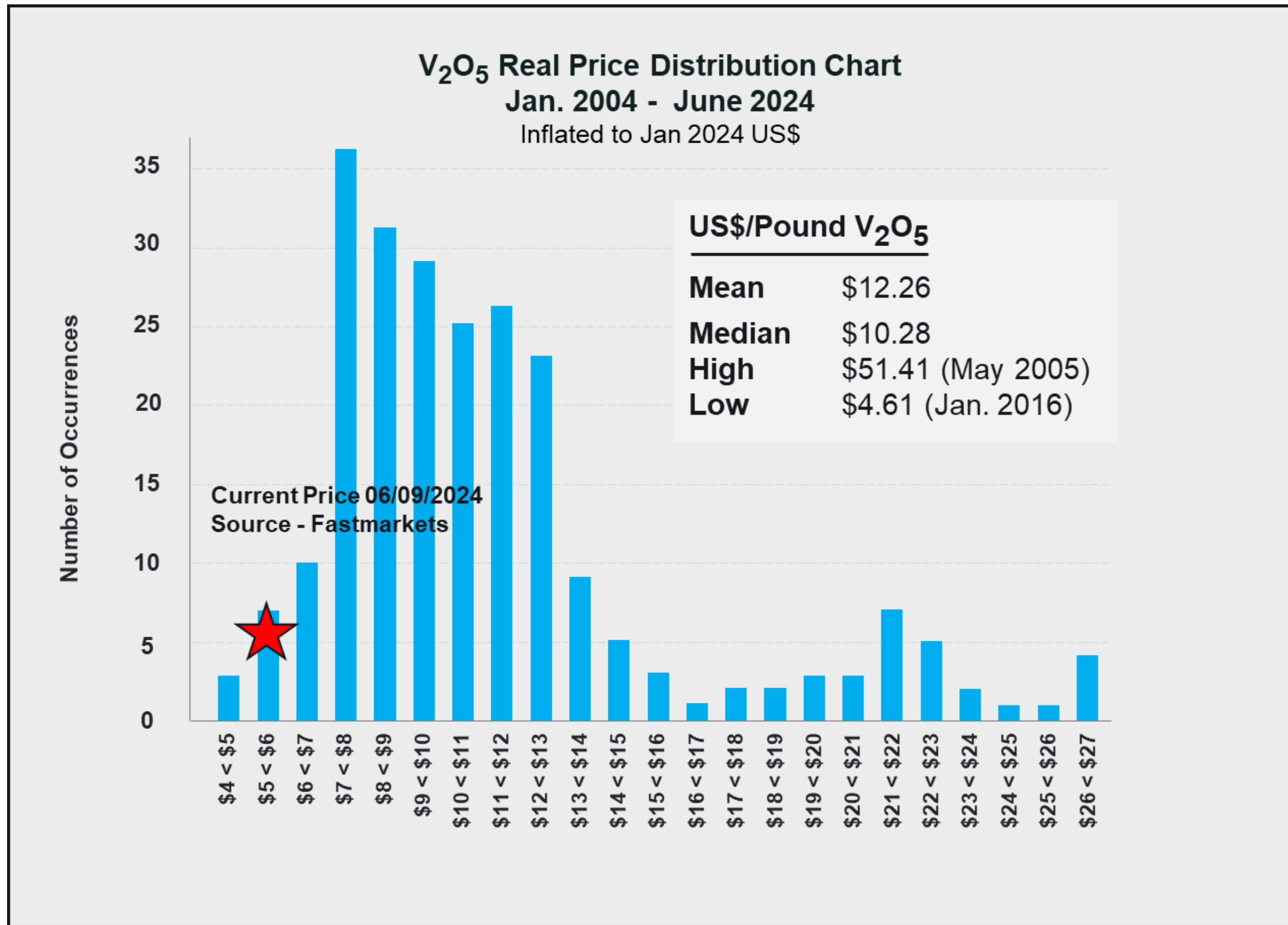


# Governmental Support - Tailwinds

- EIT RawMaterials is mandated by the European Commission to lead and manage the stakeholder consultation process on behalf of the European Raw Materials Alliance (“ERMA”).
- By 2030, ERMA’s activities will increase the production of raw and advanced materials and address the circular economy by boosting the recovery and recycling of critical raw materials within the EU. Vanadium has been on the EU list of critical raw materials since 2017.
- Business Finland is Finland's official government agency for trade and investment promotion, innovation funding, travel promotion and talent attraction. Business Finland funding is intended for circular economy investments by companies operating in Finland that improve the level of environmental protection beyond EU standards or increase waste recycling. Business Finland, has conditionally offered a €15M grant through the EU backed NextGeneration sustainable growth fund. Draw down on the grant will be determined by industry standard terms which include Novana having first secured its project financing package.
- On 28<sup>th</sup> June 2024, Finnish government Ministerial Committee on Economic Policy announced (2024 Press Release 326/2024) <https://valtioneuvosto.fi/en/-/preparation-moves-forward-on-tax-subsidy-for-large-investments> that the Finnish Ministry of Finance will continue to prepare tax support for large, clean transition industrial investments. The proposed tax support could be a material opportunity for Novana as it is proposed that tax aid take the form of a reduction in the corporation tax imposed.
- The Finnish Government proposal on tax support is currently being prepared by the Ministry of Finance. The draft legislation is scheduled for comment in the early European autumn.



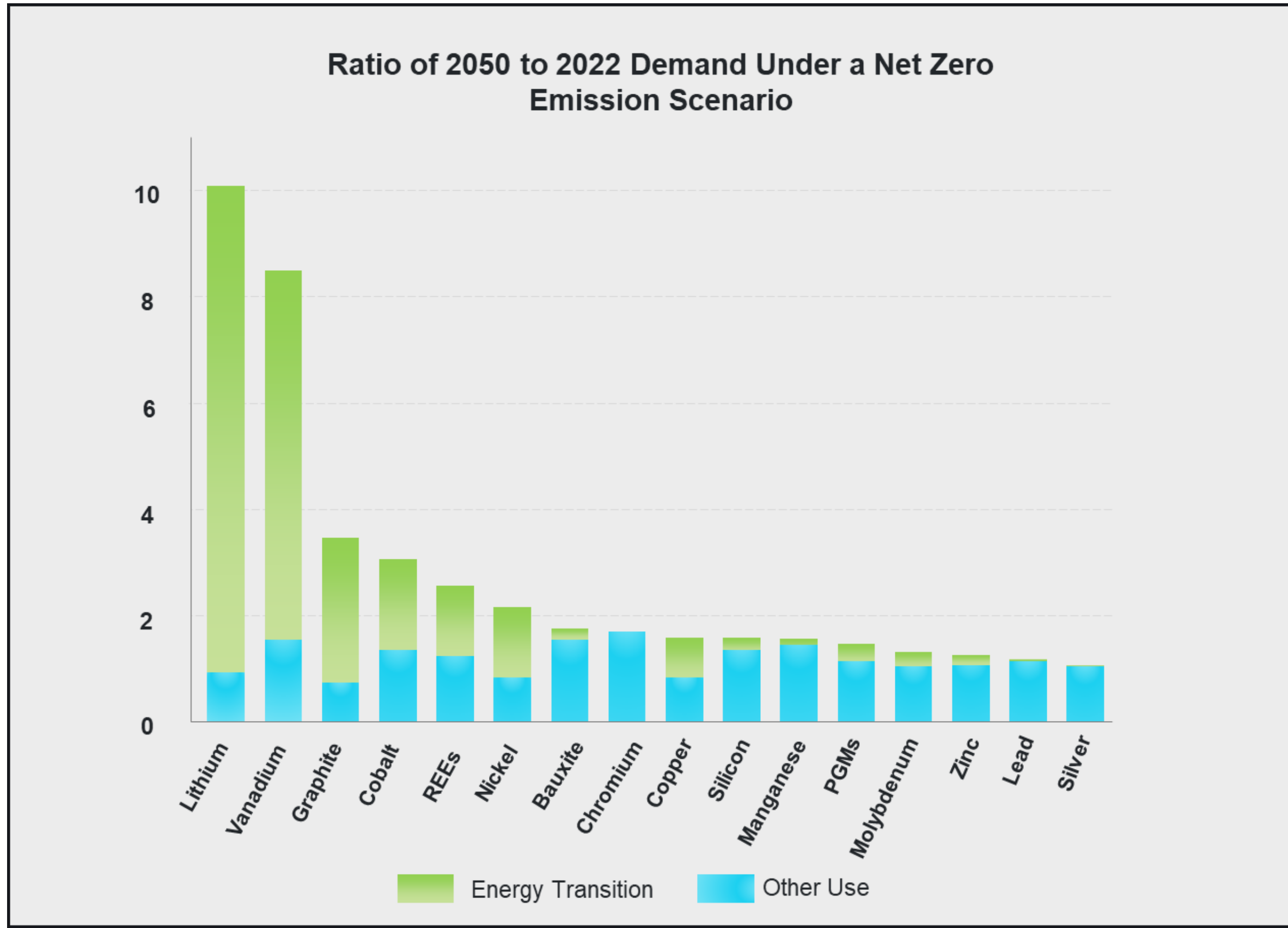
# Current Vanadium Pricing is Close to Multi-Year Lows



Source: Metals Bulletin publication, TTP Squared inc and Fastmarkets



# Vanadium – Major Leverage to Net Zero



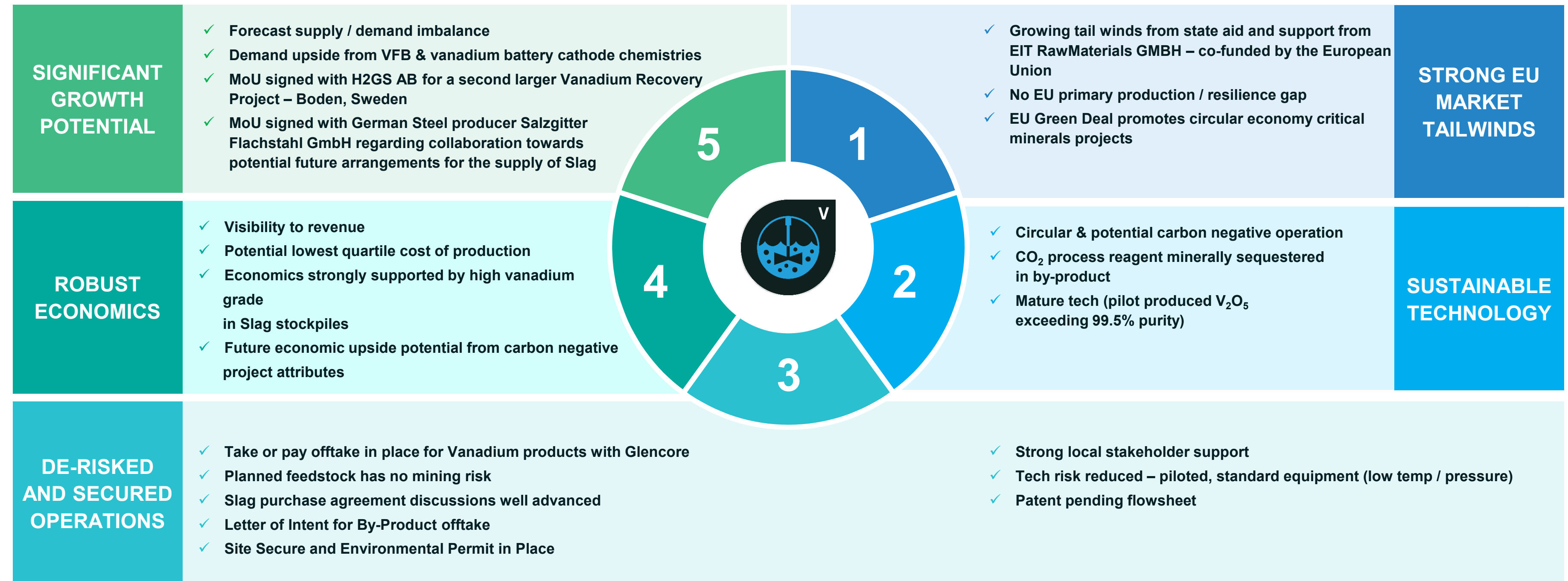
Source: International Energy Agency (IEA) World Energy Outlook (2023); and IMF calculations.

Note: The chart shows the IEA's projected increase in mineral demand (in quantity terms) broken down by sector as a ratio of 2050 to 2022 demand, under the IEA's net zero emissions transition scenario. REE - Rare Earth Elements; PGMs - Platinum Group Metals.



# Vanadium Recovery – Investment Case

Supply-constrained, critical battery material without mining risk



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Appendix

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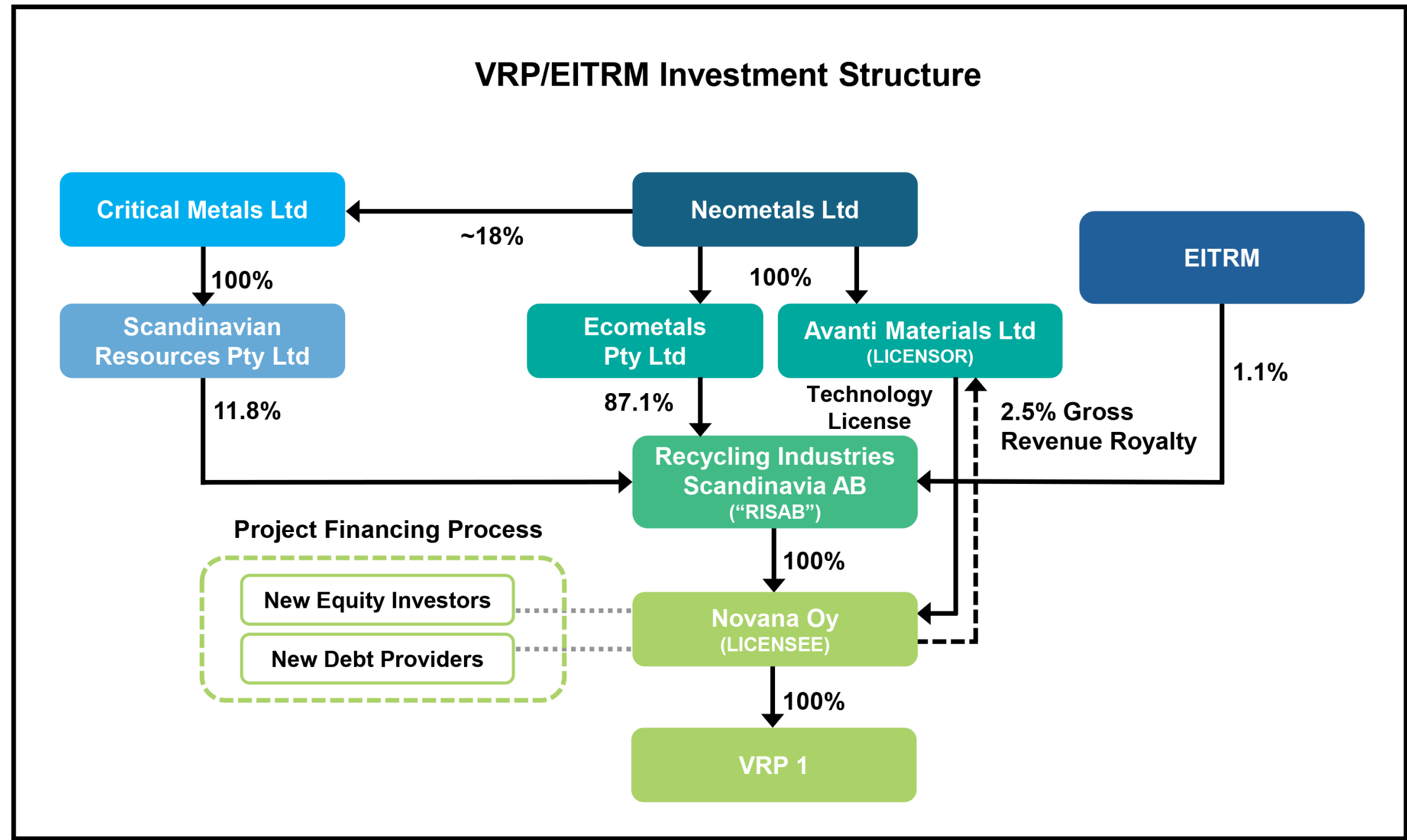
**Nm** Neometals

# Appendix





# Corporate Structure



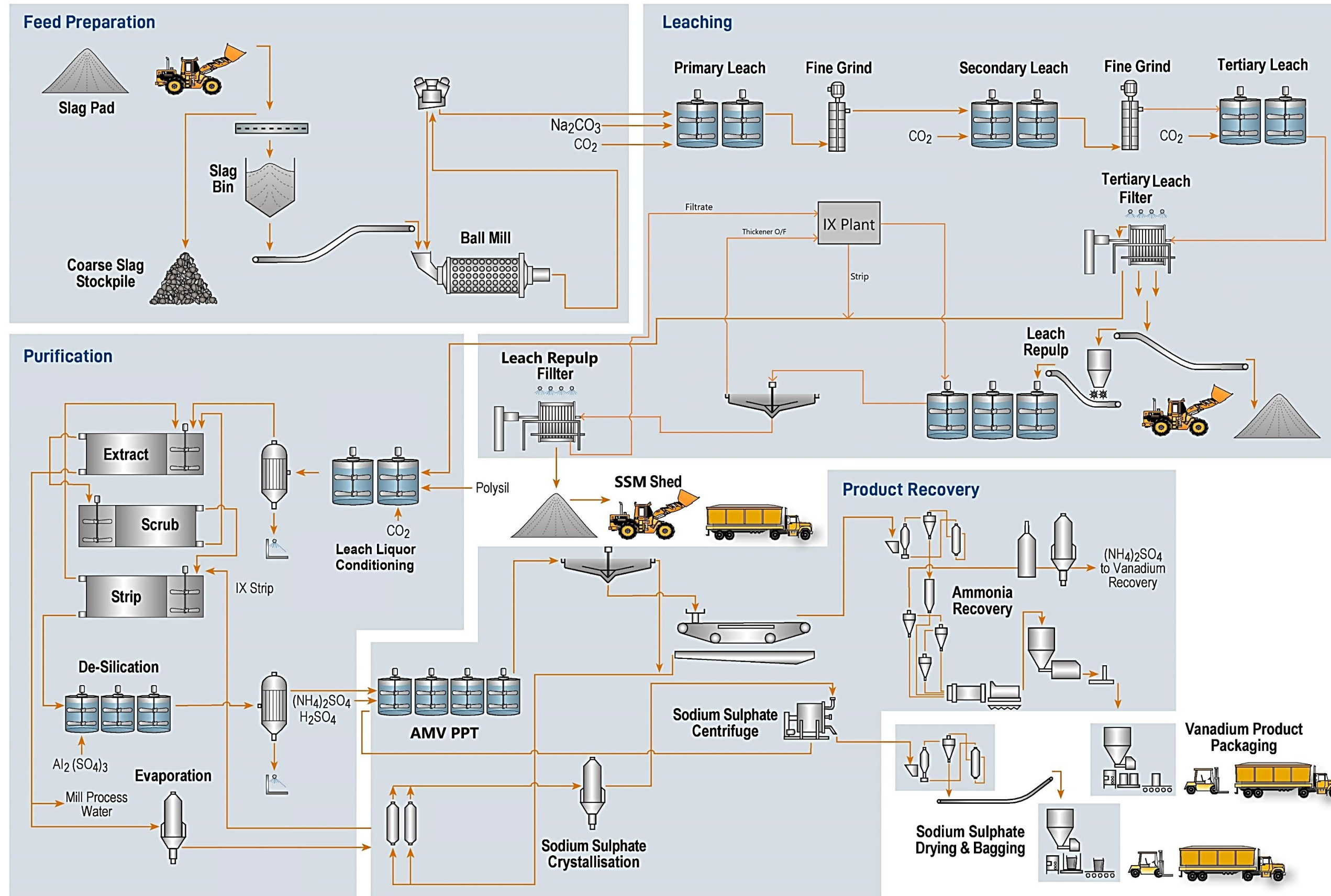
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Highlights  
Opportunity  
Solution  
Need  
Appendix



# Project Schematic

Slag Purchase & Logistics

Reagents & Services

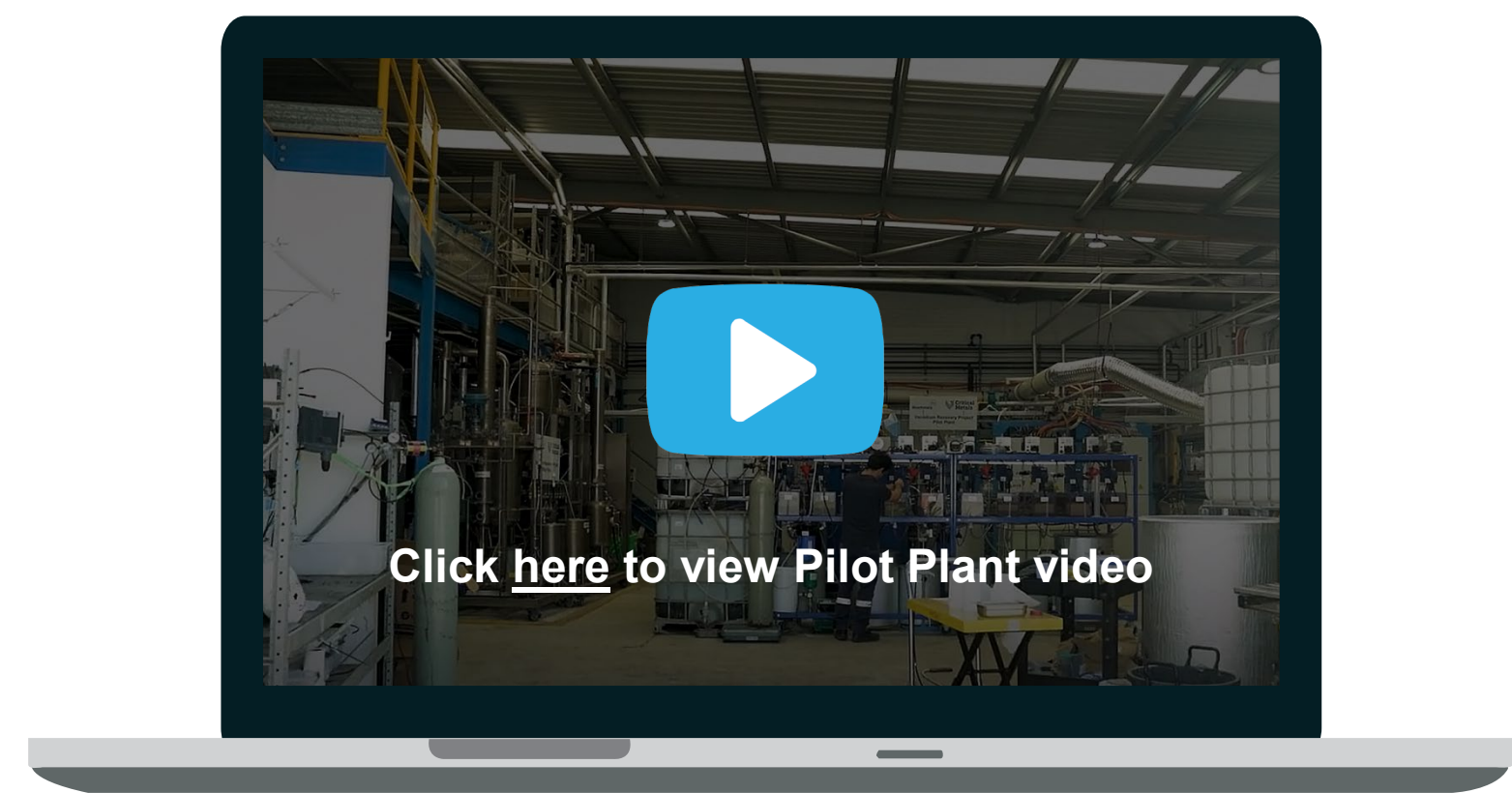




# Successful 28-day, Continuous 1:1500 Pilot Plant Trial

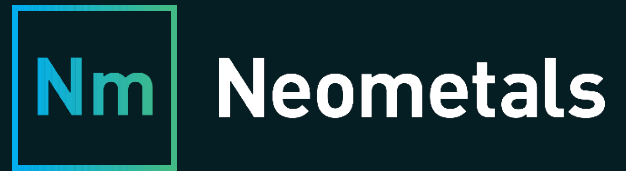


- Successful demonstration of Neometals' proprietary vanadium recovery flowsheet in continuous pilot test work campaign at 25 times scale up. 1:1500 of planned throughput
- Steady state Vanadium recoveries exceeding 75%
- Exceptional product purity of greater than 99.5%  $V_2O_5$
- Positive feedback from cycle testing by leading lithium-vanadium cell maker



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Highlights Opportunity Solution Need  
Appendix

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**Thank you**



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