



CriticalMetals

Critical Metals for Europe

Introducing the **NEW** Vanadium Recovery Project

www.criticalmetals.eu

Preamble

- This presentation introduces two excellent transactions recently completed by Critical Metals with Swedish steel giant SSAB and leading Australian specialty minerals company Neometals Ltd
- The Vanadium Recovery Project is new to our investors and this presentation highlights key aspects of the project in its early development stage
- Investors are welcome to contact the Company for more information

Refer Appendix A for Q & A on value creation



Mission

Our mission is to supply Europe with metals from Scandinavia via:

- urban mining (recovering metals from industrial by-product stockpiles); and
- traditional mining (discovering and extracting metals from the earth)

Refer Appendix B for portfolio summary



New Vanadium Recovery Project – Value Proposition

Critical Metals aims to produce high-purity vanadium products late 2024 and in doing so:

- supply Europe with vanadium products from Sweden and Finland
- decrease reliance on supply chains connected with China for the supply of vanadium
- supply Europe with responsibly sourced vanadium products
- recover metals from by-products in an environmentally friendly manner
- produce vanadium products using renewable energy
- produce vanadium products without mining
- produce safe and saleable by-products

Refer Appendix C for vanadium information



Value Creation for Investors

Critical Metals investors have exposure to the highest grade vanadium feedstock globally and therefore have leverage to significant value creation

- Europe is focussed on sourcing critical metals internally (including vanadium) and decreasing reliance on China for the supply of critical metals
- Scandinavia is focussed on recycling and the circular economy, use-reuse-recycle
- Critical Metals aim to recover by-products from the steel making process into high-purity vanadium products for use in the high strength steel, aerospace and energy storage industries
- Production costs have potential to be in the lowest quartile because Critical Metals has access to the highest grade feedstock for vanadium production globally and the feedstock is located on surface, at major ports, in low sovereign risk countries (Sweden and Finland)
- Critical Metals is free-carried through the scoping, pre-feasibility and feasibility studies by partner and will have a final joint venture interest of 50%
- Scoping study anticipated July 2020 and pre-feasibility study March 2021

Production in 2024



Excellent Transactions

Two transactions underpin the vanadium recovery project, namely a feedstock supply agreement with Scandinavian steel giant SSAB and a technology collaboration agreement with leading Australian specialty minerals company Neometals Ltd

- 10 year slag supply agreement with SSAB
 - Critical Metals will purchase steel by-products (i.e. slag) from SSAB
 - Agreement provides for at least 2 million dry metric tonnes of slag
 - Agreement conditional on Critical Metals meeting project study milestones and commencing production by December 2024
- Collaboration agreement with Neometals Ltd
 - Critical Metals and Neometals will share the economic benefits of the vanadium recovery project
 - Neometals to fund all studies up to final investment decision, which if positive will lead to a 50:50 joint venture
 - Critical Metals will fund location study for plant in Sweden or Finland
 - Neometals entitled to a gross revenue royalty on sales of vanadium products

Valuations of Listed Vanadium Companies

Critical Metals plans to list on a securities exchange in the short-medium term

Stage	Name	Securities Exchange	Market Capitalisation (AUD M)	Equity interest in projects	V ₂ O ₅ Grade (%)
Production	Largo Resources Ltd	TSX:LGO	685	100%	2.4
Production	Bushveld Minerals Ltd	AIM:BMN	292	74%	1.98
Pre-development activities	TNG Ltd	ASX:TNG	67	100%	0.28
DFS	Australian Vanadium Ltd	ASX:AVL	23	100%	0.77

- The table above lists a subset of the vanadium only companies listed on global securities exchanges. All projects are different and no two projects can be compared directly.
- Critical Metals has a feedstock grade of 3-4% V₂O₅ and no mining is required.



Studies to Sales

Critical Metals is aiming for first sales of high-purity vanadium products in 2025

Year	Expected Delivery Period	Milestone
2025	Jan – March	First sales
2024	Sept – Dec	Commercial production
2022	Sept – Dec	Final Investment Decision
2022	March – June	Feasibility study
2021	March – June	Prefeasibility study
2020	July – Dec	Scoping study

- Feedstock contains +4% V_2O_5 in Luleå and +3% V_2O_5 in Oxelösund and Raahe
- Benefiting from +30 years of SSAB assaying feedstock stockpiles
- Throughput ~200,000 tpa of feedstock
- Feedstock crushed to <10mm
- No mining risk on feedstock
- Hydrometallurgical flowsheet
- Products include V_2O_5
- By-products are inert and potentially saleable

Agreement to **Plant Commissioning**

Year	Month	Milestone	Completed
2024	Q4	Commission plant	
2023		Commence construction	
2022	December	Commence site preparation	
2022	September	All permits granted	
2020	July	Commence preparation of permit applications	
2020	June	Identify preferred locations	
2020	April	Sign agreement with SSAB	✓

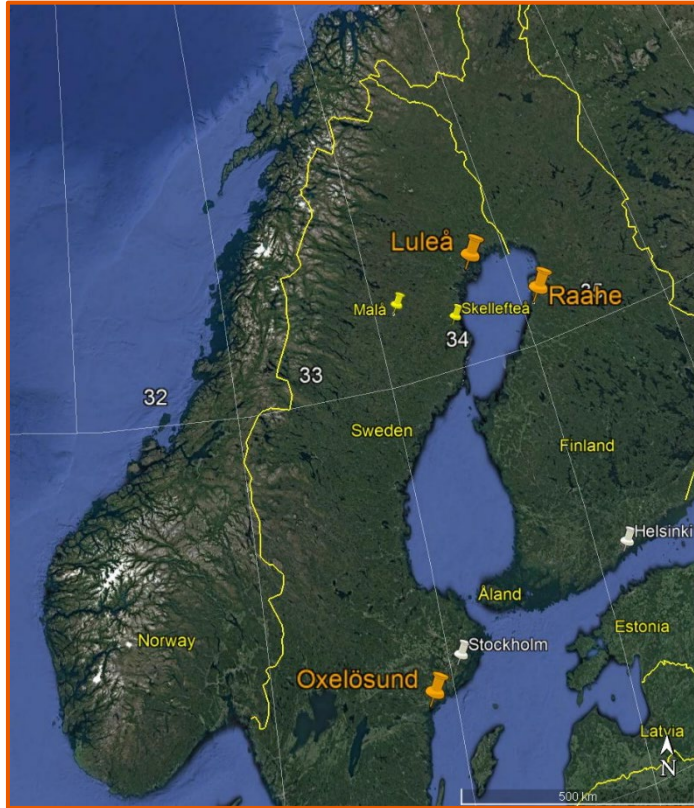


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Permits and Approvals

Year	Month	Milestone	Completed
2022	September	<ul style="list-style-type: none"> ▪ All permits and approvals granted 	
2020	July	<ul style="list-style-type: none"> ▪ Commence preparation of permit and approval applications 	
2020	June	<ul style="list-style-type: none"> ▪ Execute Memorandums of Understanding with Stakeholders ▪ Receive pitch presentation from Stakeholders ▪ Identify preferred locations 	
2020	May	<ul style="list-style-type: none"> ▪ Discussions and information sharing with Stakeholders 	
2020	April	<ul style="list-style-type: none"> ▪ Introduce Vanadium Recycling Project to Stakeholders 	✓

Plant Location



- Luleå, Oxelösund and Raahé are being considered as potential locations for the project
- Location of stockpiles, tonnage and grade: Luleå 711kt of slag grading +4% V_2O_5 ; Oxelösund 890kt of slag grading +3% V_2O_5 ; Raahé 385kt of slag grading +3% V_2O_5
- Plant area: ~10 Ha, stockpile storage ~10 Ha
- By-product storage area: 40-80 Ha
- Labour: 80 full time employees (when in operation)
- Power consumption: 26 million kWh per year

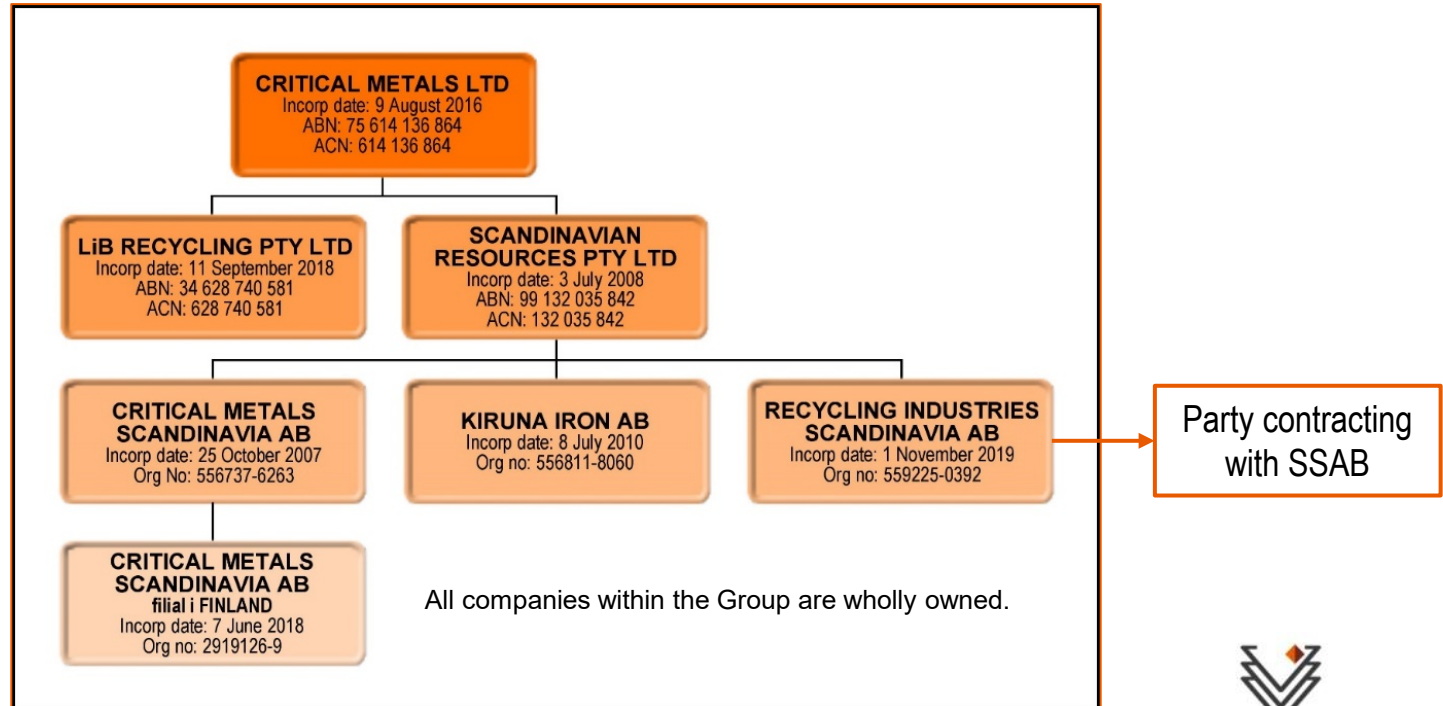


Slag stockpile in Luleå

Capital Structure

Capital Raising History	Shares & Options	Shareholders
Sept. 2016: In-specie distribution to shareholders of Hannans Ltd (ASX:HNR)	Fully paid ordinary shares on issue: 37,421,250 (incl. 1,518,750 shares subject to shareholder approval)	#1 Neometals Ltd 15.4%
Apr. 2017: \$1.13 million at \$0.10 ps	Options ex at \$0.30 each on or before 26 November 2023: 6,500,000	Top 20: 65 %
Sept. 2019: \$0.42 million at \$0.20 ps	Options ex at \$0.40 each on or before 30 April 2024: 1,000,000	
May 2020: \$0.76 million at \$0.25 ps (incl. \$0.38M conversion of debt to equity, subject to shareholder approval)		

Critical Metals – Corporate Structure



Directors & Management

Jonathan Murray – Independent Non-Executive Chairman

Resides in Perth, Australia

20 years experience as a corporate lawyer; Senior Partner of Steinepreis Paganin. Principal legal practice areas include equity capital markets, takeovers, project acquisitions and divestments, corporate governance, commercial law and strategy.

Damian Hicks – Executive Director

Resides in Perth, Australia

15 years experience as Founder of resources companies in Western Australia (since 2002) and Sweden (since 2007). Financial, legal and compliance qualifications with principal responsibilities including strategy formulation, team development, deal origination & execution and capital raising. Director of all companies within the Group.

Kris Gram – Non-Executive Director

Resides in Oslo, Norway

5 years Management Consultant and 10 years Investment Banking experience. Currently COO of Norwegian investment bank.

Olof Forslund – Non-Executive Director

Resides in Malå, Sweden

Geophysicist with extensive international experience in the mineral exploration industry. Founder of Malå Geoscience. Commenced with Geological Survey of Sweden (SGU) in 1966 and during the period 2003 – 2007 was Regional Manager of the Mineral Resources Information Office in Mala, Sweden.

Markus Bachmann – Non-Executive Director

Resides in Johannesburg, South Africa

Corporate finance professional with 20 years experience. Founder of Craton Capital. Craton Capital awarded Fund Manager of the Year at the Mining Journal's "Outstanding Achievement Awards" during December 2010.

Amanda Scott – Non-Executive Director of Swedish Subsidiary Companies

Resides in Malå, Sweden

Geologist with 15 years experience (8 years in Sweden). Extensive experience in Western Australia and northern Scandinavia generating new projects and exploring for lithium, gold, copper, nickel, PGEs, iron and manganese.

Directors & Management

Per-Olof Renling – Non-Executive Director of Swedish Subsidiary Company

Resides in Malå, Sweden

Experienced in Power Generation and Power Distribution, particularly construction of power lines and operation and maintenance at thermal power generation and heat distribution plants. Currently Mr Renling is the site manager for several wind farms.

Pernilla Renberg – Chief Administrator

Resides in Malå, Sweden

Responsible for the day-to-day operations, management and administration of all companies within the Group.

Mindy Ku – Company Secretary

Resides in Perth, Australia

Accountant. Diverse experience in finance, compliance, information technology, marketing and management, both in Australia and internationally (www.corpbservices.com).

A: Q & A

- **What is the opportunity for Critical Metals shareholders?** To get in on the ground floor of Europe's most leveraged vanadium project. We expect the Company's value will increase rapidly as it achieves key milestones and new investors seek to acquire ownership of the project.
- **Who are the securities exchange listed primary producers of vanadium?** Refer to Bushveld Minerals Ltd (AIM:BMN), Largo Resources Ltd (TSX:LGO) and Glencore PLC (LSE:GLEN).
- **When will Critical Metals list on a securities exchange?** As soon as the right opportunity to do so presents itself taking into account the need to access capital and provide liquidity for shareholders.
- **How does Critical Metals' vanadium grade compare to these companies?** The vanadium pentoxide (V_2O_5) grade of the stockpiles we will process is at least 50% higher than the V_2O_5 grade of the deposits being mined by the most valuable primary vanadium producer Largo Resources.
- **What is the rationale for the transaction?** We want to create value for shareholders and make a positive contribution to the community. One way we can do this is by recovering by-products from the steel making process in Scandinavia and converting them into high value vanadium products for Europe. The slag has been sitting on the ground for many years in large stockpiles and is challenging to dispose of. We will process it and turn it into by-products.

Q & A

- **What vanadium product is Critical Metals aiming to produce?** We aim to produce vanadium at that point where purity, margins, cash flow, profitability and return investment are optimised.
- **What is Critical Metals life of mine?** Critical does not own a mine. It has a 10-year slag supply agreement with SSAB. The slag containing the vanadium is a by-product the steel making process. The iron ore used in the steel making process comes from Sweden and naturally contains a high percentage of vanadium. Subject to performance both parties are open to extending contract length.
- **What is the grade of the vanadium in the slag being purchased by Critical Metals?** The average grade of the slag from Lulea is 4% V_2O_5 . This is the highest-grade V_2O_5 feedstock we are aware of globally.
- **When does Critical Metals expect to be in production?** If everything goes according to plan, we aim to be in production late 2024 with first sales 2025.
- **Is the Critical Metals process for making vanadium products environmentally friendly?** Yes. We aim to deploy a low energy – low emission – low throughput process to recover the slag containing the vanadium. We will re-use many of the processing inputs, consume renewable energy and create valuable vanadium products. Our by-products will be safe to store and safe to use.

Q & A

- **Is Critical Metals using a proven technology to extract the vanadium?** The process we are using has not been deployed commercially. This is our competitive advantage and will enable us to provide excellent outcomes for all our stakeholders.
- **What does Critical Metals know about processing slag?** We rely on our technology partner to provide the processing expertise. If our joint venture partnership reaches its goals, we'll share ownership of the project equally 50/50. They are very experienced in vanadium and processing, they're called Neometals.
- **What does Critical Metals contribute to the project?** We secured the agreement for the slag and we have 10 years experience operating in Scandinavia. The slag is being sourced from Sweden and Finland. Most of our team live in Sweden and they have many years of professional experience and wide industry networks. We focus on the relationships in country and work to ensure the permits are in place so we can consider an investment decision at the appropriate time.
- **What's the next milestone for Critical Metals?** Results from detailed scoping study are expected to be received in July 2020.

Q & A

- At this early stage how is Critical Metals addressing the main risks of this recovering project? We've secured a 10 year supply of slag with a minimum volume of 2Mt so we have enough feedstock for at least 10 years of production. We completed preliminary hydrometallurgy tests during the last nine months. They confirm up to 80% vanadium recovery from leaching under mild conditions. We'll commence test work on another 150kg of slag in June 2020. In relation to permitting we're considering a low energy – low emission – low throughput hydrometallurgical flowsheet producing high-purity vanadium products. The by-products will be safe and generally saleable. We believe this is an environmentally and socially acceptable process. We're considering sites in both Finland and Sweden and there's a healthy appetite to secure this particular project. We anticipate being positioned in the lowest quartile of the global vanadium production cost curve so we anticipate a sustainable operation. We believe that traditional equity and debt will create a viable funding solution. Its early days but it's a promising start.

B: Portfolio

The portfolio has been developed by Critical Metals over an extensive period of time and has significant value at different times throughout the commodity price cycles

Urban Mining

- Vanadium Recovery – extracting high-purity vanadium from by-products of the steel making process in Sweden and Finland (Major Project)
- Lithium Ion Battery (LiB) Recycling – recycling high-purity battery metals from off-specification and end-of-life LiBs

Traditional Mining

- Lapland Cu-Ni-PGE / Fe-V-Ti / IOCG Project, Sweden – greenfields exploration aiming to confirm camp scale nature of this highly prospective “hot-spot (seeking JV partner)”
- Pahtohavare Copper-Gold Project – free-carried by joint venture partner (Lovisagruvan AB) through to Decision to Mine.
- Soidinvaara Vanadium Project, Finland – advanced exploration stage (seeking JV partner)
- Paljasjärvi Iron Projects – refer to www.kirunairon.se a wholly owned subsidiary of Critical Metals Ltd (seeking JV partner)



Location Map: Luleå and Raahe are two locations of the slag stockpiles. Skellefteå is home to a LiB Gigafactory (in construction).

C: Vanadium – Information

Vanadium

- Vanadium is a hard, silver-grey metallic element. It has a natural resistance to corrosion and stability against alkalis, acids and salt water. It is found in over sixty different minerals.

Production method

- Vanadium minerals are mined as both a primary ore and as a secondary ore (i.e. where it is not the most valuable metal being mined).

Vanadium products

- Vanadium can be supplied as flake, powder, chemicals and electrolyte.

Uses

- 91% of global vanadium consumption is used in steel alloys (rebar), 4.5% in aerospace alloys, 3.5% in chemical catalysts and 1% in batteries.

Supply

- Supply of vanadium is concentrated and constrained. 81% of the global vanadium supply comes from four countries namely China (53%), Russia (20%), South Africa (8%) and Brazil (7%).



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Vanadium – Information

Consumption

- Global consumption of vanadium in 2019 was ~98kt.
- 50% of the vanadium is consumed by China (~50kt), 13% by North America (~12kt), 14% by Europe (~13kt), 8% by Asia excl. China and India (~8kt) and 15% by the rest of the world (~15kt).

Forecast demand

- Global consumption of vanadium has been increasing year-on-year since 2016 and is expected to reach ~ 135kt by 2025 driven by the steel market in China and emerging markets

Pricing

- The higher the purity of the vanadium supplied the higher the price.
- Vanadium flake and powder purity ranges 78% through to 99.5% V.
- Products are often quoted as vanadium pentoxide (V_2O_5), vanadium trioxide (V_2O_3), ferro vanadium (FeV_{80}), vanadium chemicals and vanadium electrolyte.
- The price for FeV is published by the London Metal Bulletin Fastmarkets (Europe) and Ryan's Notes (US). The price for individual vanadium products is negotiated privately between the buyer and the seller. There is no openly quoted market for the full range of vanadium products.



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Vanadium – Information

Pricing continued...

- Real average FeV_{80} price over 40 years is ~ US\$33/kg V. The long-term average price for commodity grade V_2O_5 is USD8.86/lb.

Producers

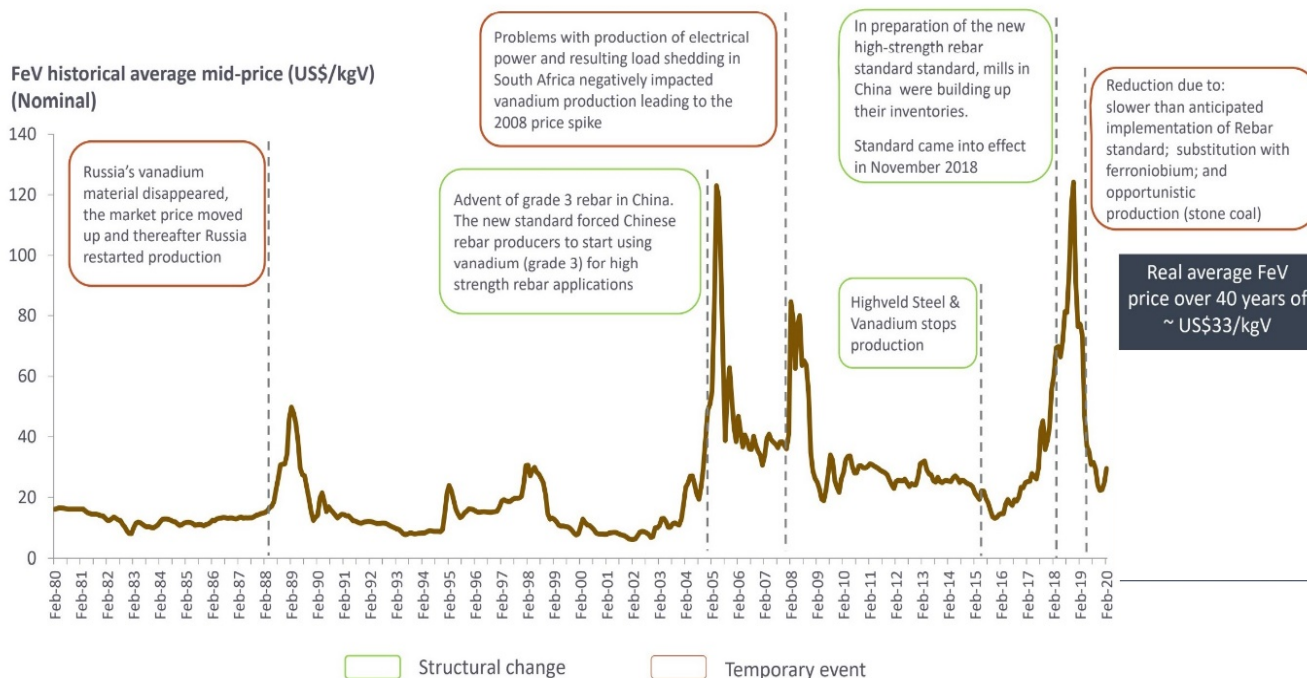
- The three main primary producers of vanadium listed on global stock exchanges are Bushveld Minerals Ltd in South Africa (AIM), Largo Resources Ltd in Brazil (TSX) and Glencore in South Africa (LSE).

Sources of information

- Web sites of Vanitec, Bushveld Minerals Ltd, Largo Resources Ltd, Glencore and Australian Vanadium Ltd

Vanadium – Information

Ferrovanadium price chart



Source: Bushveld Minerals Ltd, April 2020

D: LiB Recycling Project

- Critical Metals has the sole and exclusive rights to recycle LiBs in Sweden, Norway, Denmark and Finland using proprietary technology¹.
- Urban mining includes recycling off-spec and spent lithium ion batteries (LiBs).
- Technology owner is ASX listed Neometals Ltd (ASX:NMT), refer www.neometals.com.au.
- Neometals are currently in negotiation with SMS Group GmbH (“SMS”) to establish a recycling joint venture. SMS is a global, leading partner for the metal industry, refer www.sms-group.com. Execution of an agreement is expected to add significant value to the sole and exclusive license held by Critical Metals. Decision on JV expected by 30 June 2020.
- In anticipation of the proposed joint venture Neometals has advanced design and procurement activities for the demonstration plant operation and shipped its process, analytical and assay equipment to SMS test work facilities.
- Neometals’ 20,000 tonne per annum, two-stage comminution circuit (shredding) is undergoing CE certification (EU Compliance) and factory acceptance testing in the USA for subsequent shipment to SMS in Europe.
- To the best of Neometals’ knowledge, once commissioned, the comminution circuit will have Europe’s largest LIB shredding capacity by throughput.

1. Technology owned by subsidiary of Neometals Ltd and licensed to LiB Recycling Pty Ltd (a wholly owned subsidiary of Critical Metals Ltd).

Lithium Ion Batteries Must be Recycled

Critical Metals is very well positioned to capitalise on the forecast surge in end-of-life lithium ion batteries in Europe by recycling them in Scandinavia

- The EU needs between 10 and 20 Lithium Ion Battery (LiB) Giga factories to meet demand.
- The EU faces intense global competition for critical metals to supply the Giga factories.
- Waste generated from end-of-life LiBs will be large and must be recycled.
- Forecast growth of EVs using LiBs is massive.
- Substantially more critical metals need to be sourced from within the EU.
- High potential to source feedstock and create a sustainable LiB recycling business with support of both the EU legislation and Scandinavian recycling culture.


LiB Recycling – Business Model

Critical Metals will finalise its business model on completion of the Feasibility Study and will work with Scandinavian stakeholders to maximise the benefits for the community and shareholders

- Independently process waste lithium ion batteries.
 - Revenue from sale of high-purity metals 'produced' from recycling waste LiBs.
- Batch process (toll treat) waste lithium ion batteries on behalf of collectives, existing recycling companies and importers & distributors of electronic and electric equipment.
 - Revenue from providing service to third party.
- Joint venture initiatives with National Government, local Kommuns, recycling companies, collectives and importers & distributors of electronic and electric equipment.
 - Partner with existing actors to generate an optimal solution for the recycling of waste containing critical metals.

Contact Details

For further information please contact:

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