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DECARBONISING CRITICAL RAW MATERIALS SUPPLY CHAINS IN THE EU

121 EMEA Presentation

25 May 2021
ASX Code: NMT
OTC/Nasdaq Intl: RDRUY
Frankfurt: R9R



Neometals

DISCLAIMER

Nm



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EXECUTIVE SUMMARY

Neometals innovatively develops opportunities in minerals and advanced materials essential for a sustainable future

- Innovative ASX-listed project developer
- Focus on integrated minerals/materials for EV and ESS sectors
- 4 core projects with partners
- Pivoting from traditional hard-rock mining to eco-friendly materials recovery
- EU projects supporting resource efficiency, circularity and domestic supply chains
- Team with growing track record in delivering project outcomes – Mt Marion
- Future-proof balance sheet to fund all projects through to FID's ~ A\$82M* in cash and investments – no debt
- Paid A\$55M in dividends in last 5 financial years



OPERATIONAL FOCUS ON ADVANCED PROJECTS

- Vanadium Recovery
- LiB Recycling
- Lithium Refinery •
- Titanium & Vanadium •
- Nickel •



Lithium-Ion Battery Recycling Project

*(Feasibility / Demo Plant Stage,
50:50 Incorporated JV)*



Vanadium Recovery Project

*(Pre-Feasibility Stage, option
to form 50:50 Incorporated JV)*



Lithium Refinery Project

*(Feasibility Stage, MOU
for 50:50 Incorporated JV)*



Barrambie Titanium and Vanadium Project

*(Pilot-stage, 100% NMT,
MOU for 50:50 Operating JV);*



Mt Edwards Nickel and Lithium Project

OUR PEOPLE

NE Board Members



Steve Cole
Chair



David Reed



Dr Natalia Streltsova



Doug Ritchie



Dr Jennifer Purdie



Les Guthrie

Management Team



Chris Reed
Managing Director /
CEO



Jason Carone
Company Secretary /
CFO



Michael Tamlin
COO



Darren Townsend
CDO



Irena Ivanova
GM - Engineering



Paul Wallwork
GM – Marketing
and Product
Development



Jeremy Mcmanus
GM – Commercial
and Investor
Relations



Gavin Beer
GM – Lithium
Processing



Matthew Read
GM – Lithium
Projects



David Robinson
GM – Metallurgy
and R&D



Greg Hudson
GM – Geology

oral use only

CORPORATE DASHBOARD

Nm

Nm

ASX: NMT OTC:RDRUY FRA:R9R

Shares on Issue¹ m 545.4

Share Price (24-May-21) A\$ 0.485

Market capitalisation
(24-May-21) A\$m **264**

Cash (31-March-21)² A\$m 67.5

Debt A\$m -

Investments
(31-Mar-21)³ A\$m 14.1

Major Shareholders (24-May-2021)

David Reed
(Non-Executive Director) 7.3%

Westoz Funds Management 2.8%

Top 20 36.8%

No of Shareholders ~8,700

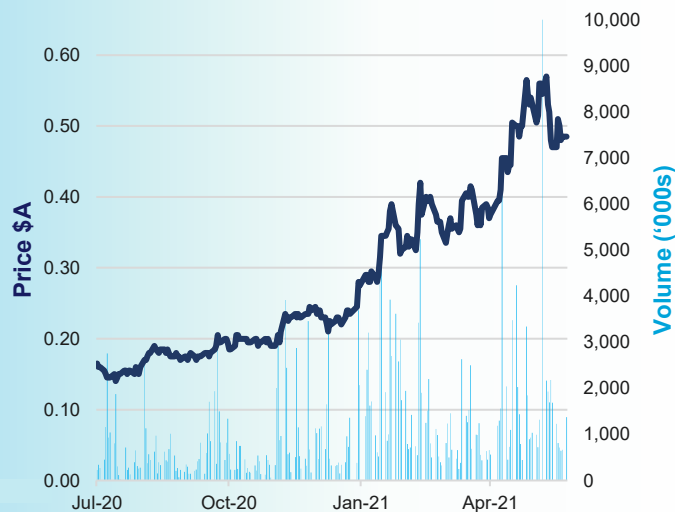
Average Daily Volume (FY) 1.15M

Note 1: Excludes 10.26M performance rights.

Note 2: incl A\$4.3M restricted term deposits

Note 3: Loan receivables and investments

Share Price Performance (FYTD)



Source: Neometals

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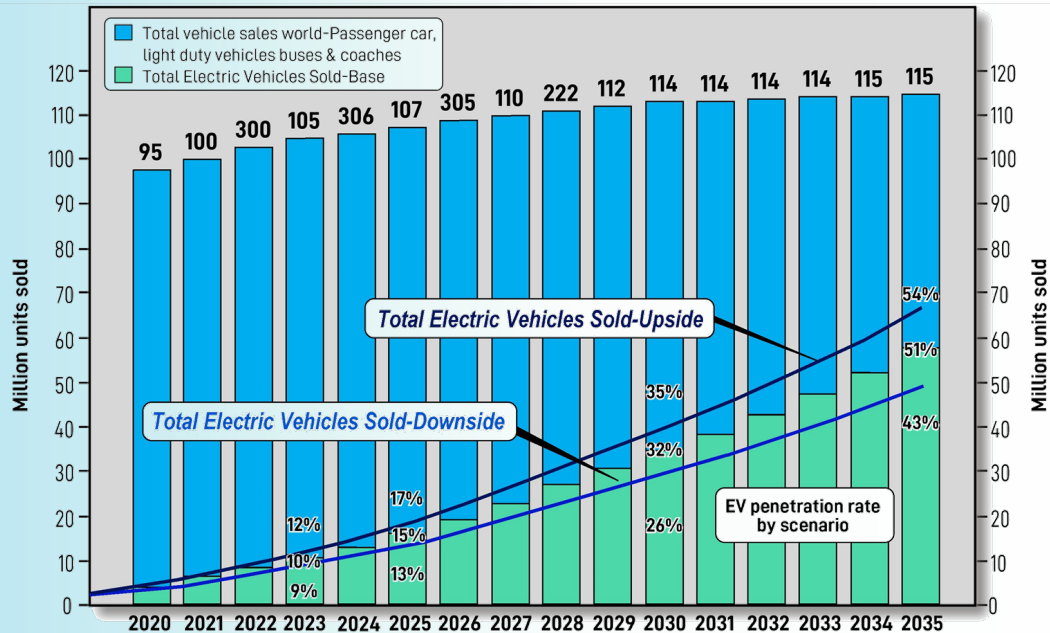


BATTERY ENERGY STORAGE

MARKET BACKDROP

EV DEMAND FORECAST

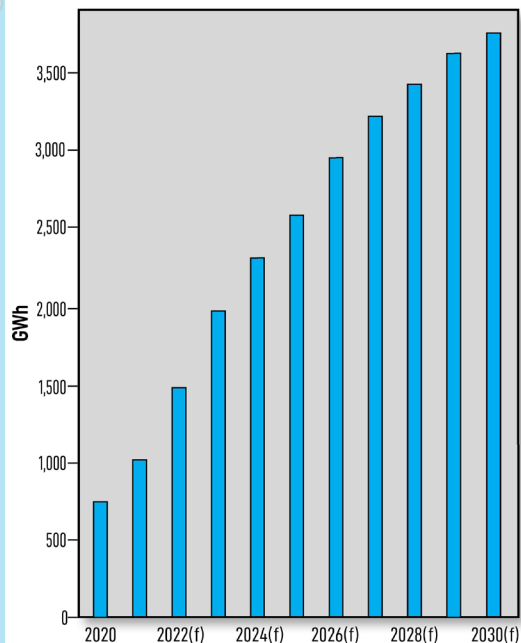
Global EV Sales and Penetration Rate Forecast, 2020-35



Source: rho motion

SUPPLY CANNOT MEET 5X DEMAND GROWTH FROM LIB MEGAFACTORIES

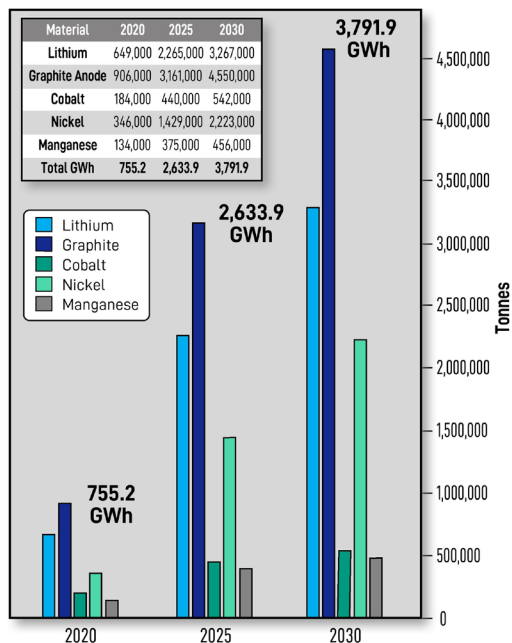
World Lithium Ion Megafactory Capacity 2020-2030



Source: Benchmark Minerals Intelligence - March 2021

Megafactory Impact on Raw Materials

Raw Materials Demand vs Global Lithium Ion Cell/Megafactory Capacity

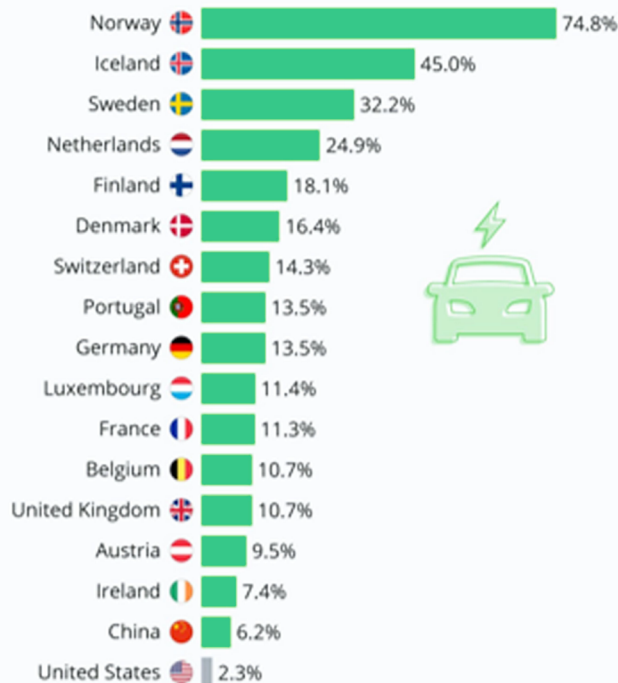


The data in this chart does not constitute a forecast, and assumes 100% utilisation rates



EU LEADING THE WORLD IN ADOPTION OF EV'S

Countries with the highest share of plug-in electric vehicles in new passenger car sales in 2020



Including plug-in hybrids and light vehicles,
excluding commercial vehicles

Sources: ACEA, CAAM, EV-Volumes

RECYCLING IS NOT OPTIONAL



Significant 'need' (Hazardous, CO₂ friendly & Valuable) driving regulation:



Fire Risk

Storage, transport and disposal



Landfill

Hazardous materials



Pollution (GHG)

Decarbonisation and GHG targets. Reduces footprint of OEMs



Material Shortages

Recycling complements virgin sources. Ethical supply certainty



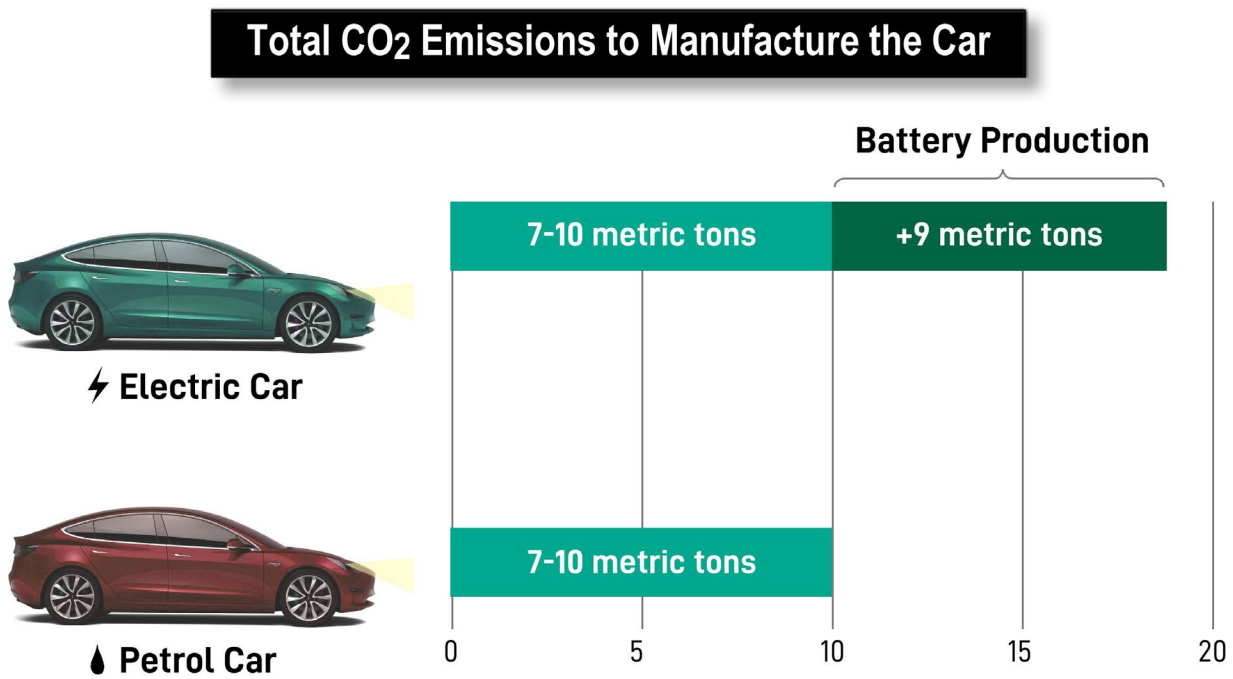
Circular Economy

Closing the loop, cradle to grave. Significant \$ value



NEED TO ADDRESS THE EMERGING 'CARBON SHOCK' OF EV'S

onal use only



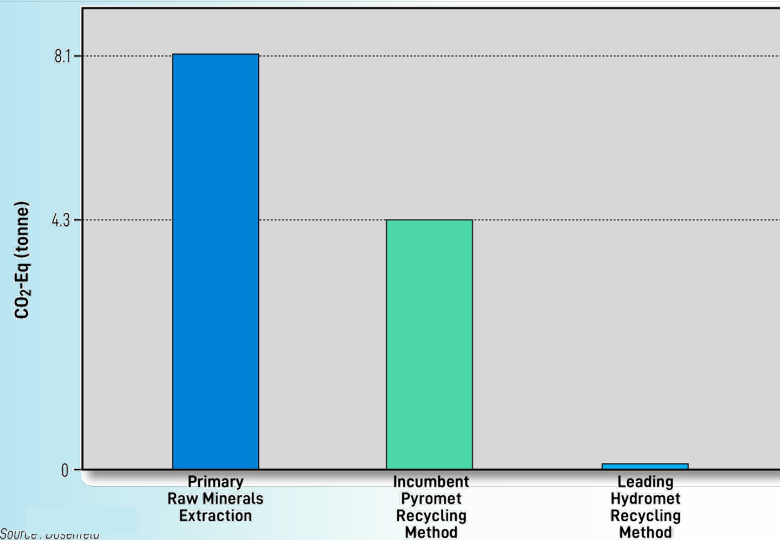
Source: The Correspondent



ECO-FRIENDLY LIB RECYCLING IS A KEY SUSTAINABLE SOLUTION

HYDROMETALLURGICAL
RECYCLING
HAS THE LOWEST
CARBON FOOTPRINT

Raw Material CO₂ Savings –
Traditional Mining vs Pyromet and Hydromet
Battery Recycling



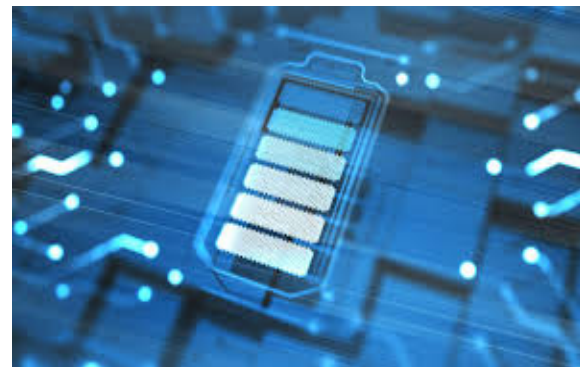
Source: Duesenfeld

Source: Duesenfeld



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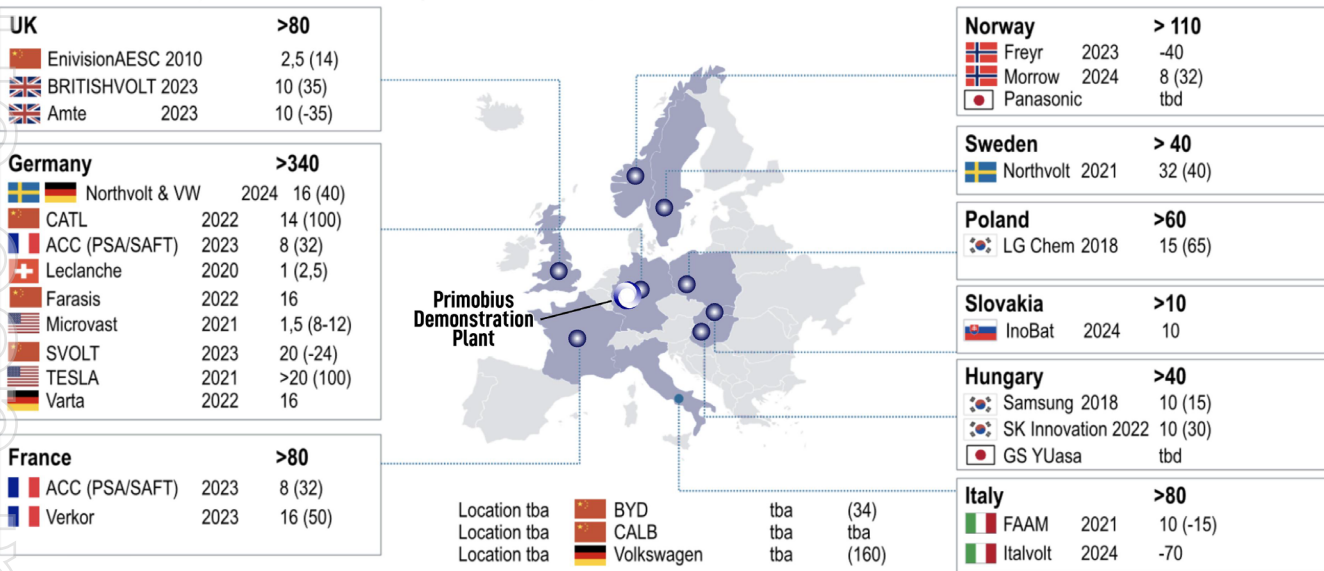


EU FORECAST TO BE 2ND LARGEST LIB PRODUCTION HUB GLOBALLY IN 2030



In Europe alone, more than 1,000GWh of cell manufacturing capacities are announced (as of end of March 2021)

Announced Cell Production capacity (GWh/a) - By country before 2030, by companies¹⁾



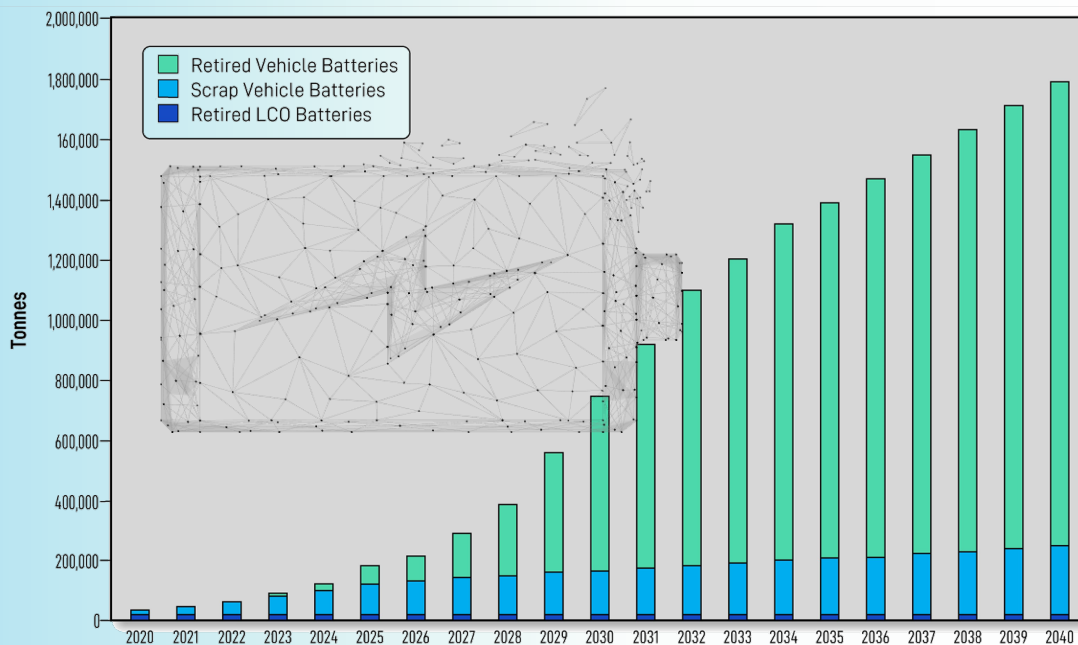
Source: Press releases, expert interviews, company announcements, Roland Zenn, 16/4/2020

¹⁾ Flags show HQ of company / country of origin



AND GENERATE 2ND LARGEST VOLUME OF SCRAP AND END-OF-LIFE BATTERIES

Potential European LiB Recycling Feed Volumes



Source: Benchmark Minerals Intelligence (Battery Cell Capacity) and Neometals Management (Utilisation rate 75%, Scrap Rate 10% and Cell Weight 45g/Wh)





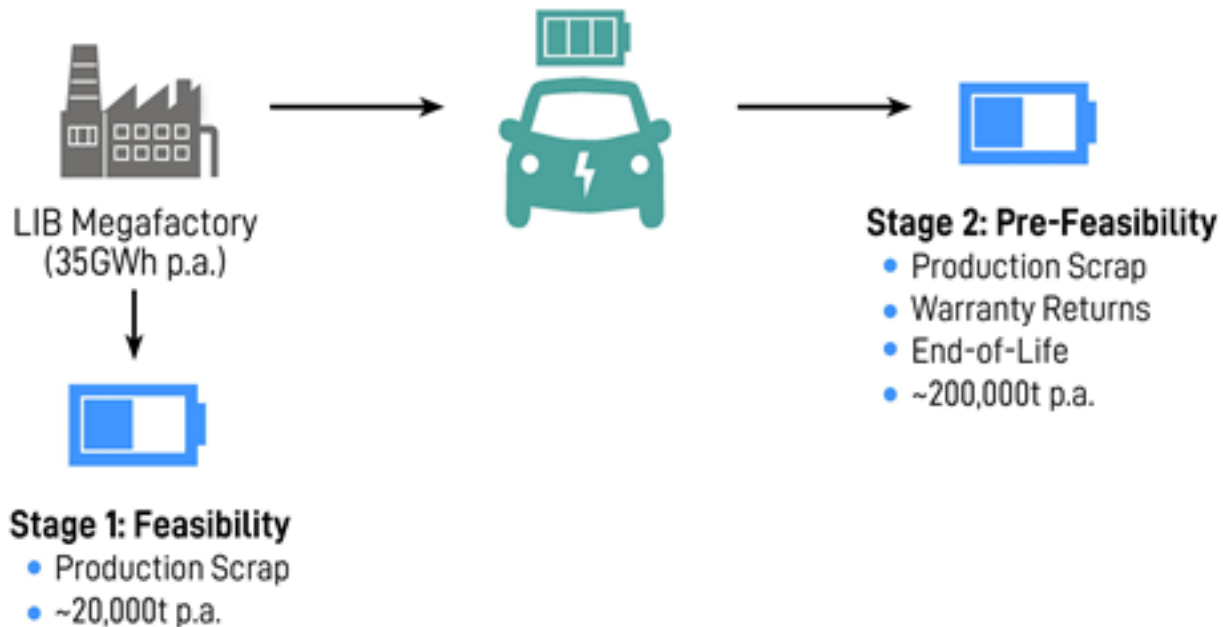
Primobius

Battery recycling without limits

LI ION BATTERY
RECYCLING PROJECT

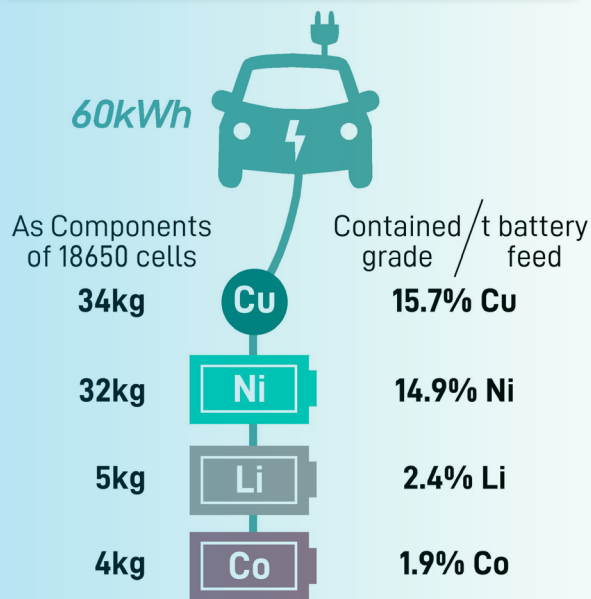
50:50 JV with SMS group – 'Primobius GmbH'

AIMING TO BE RECYCLER OF CHOICE FOR CELLMAKERS AND CARMAKERS

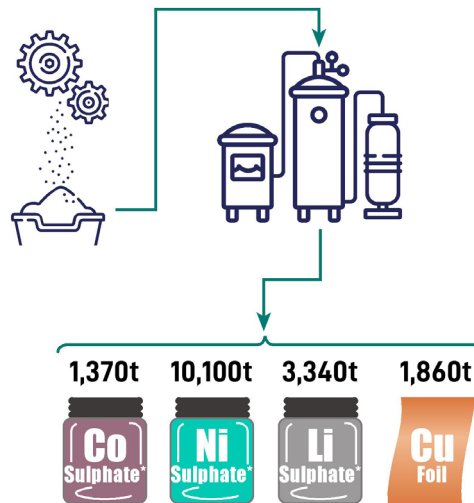


DEVELOPING EU'S LARGEST HYDROMET REFINERY FOR LIB CATHODE PRECURSORS

Typical BEV Battery Composition Using NCM 811 Chemistry



Annual Primobius Production @ 50 Tonnes per Day of Battery Cells



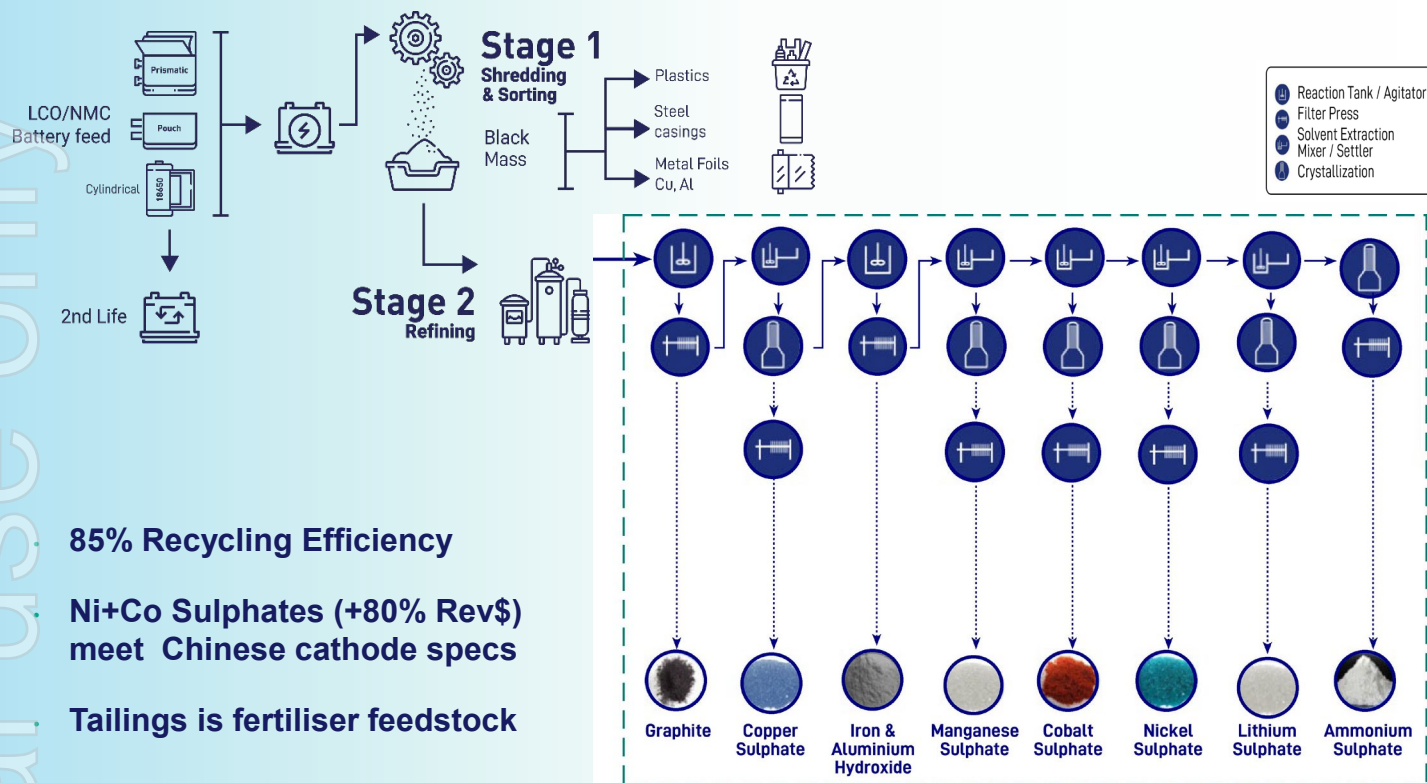
*CoSO₄ · 7H₂O, NiSO₄ · 6H₂O, LiSO₄ · H₂O

Source: Benchmark Minerals Intelligence



OUR PROPRIETARY RECYCLING PROCESS

Successfully Piloted at SGS Canada in 2019/20



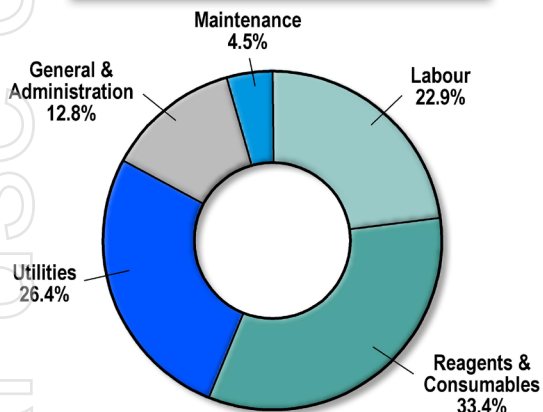
ENGINEERING COST STUDY ESTIMATES MAY 2021 - AACE CLASS 4 ($\pm 25\%$)

Based on Pilot Plant at SGS Canada in 2019/20

Operating Costs

US\$ 1,560/t Feed

Battery Recycling Project - OPEX (breakdown by area)



CAPITAL	US\$M
DIRECTS	
Infrastructure Civil	9
Land and Buildings	34
Front End	6
Hydromet	24
Utilities	12
Installation	11
Sub-Total Directs	96
INDIRECTS	
Engineering, Project Management and Owner's Costs	45
Insurance, Freight, Taxes and Interest	9
Sub-Total Indirects	54
CONTINGENCY (10%)	15
TOTAL	165

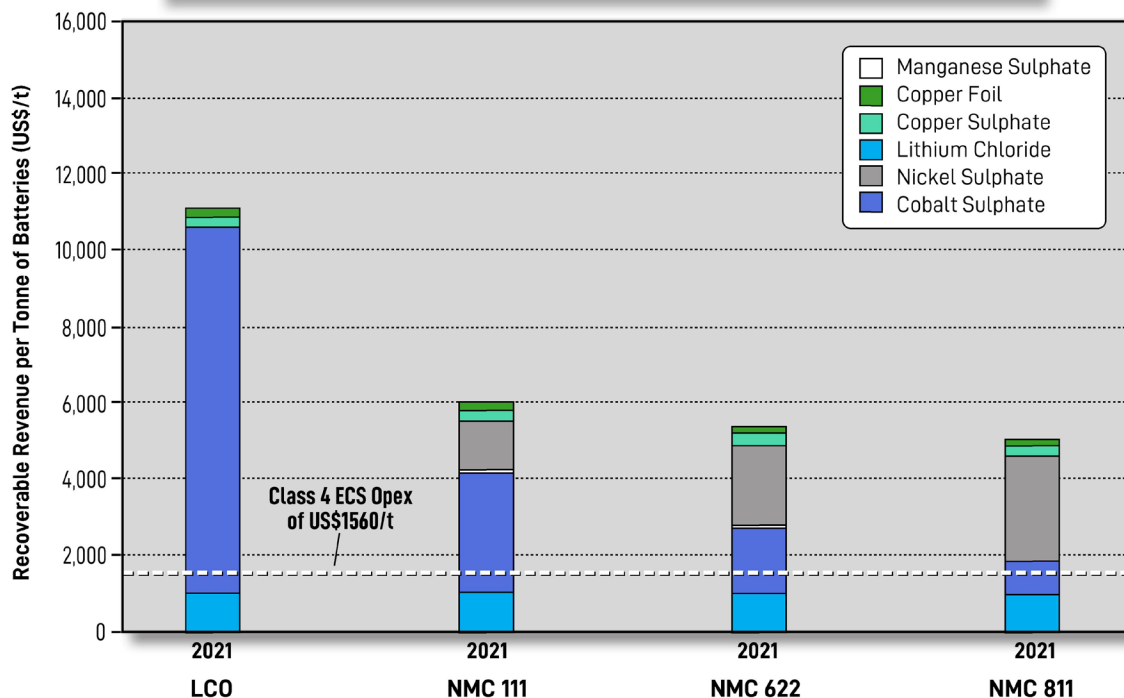
Source: Neometals ASX Announcement:- Lithium Battery Recycling – Outstanding Cost Estimates (7 May 2021)

Note: total numbers may not sum due to rounding



ROBUST ECONOMICS ON MAJOR EV BATTERY CHEMISTRIES

Revenue by Recovered Elements in 1 Tonne of Batteries

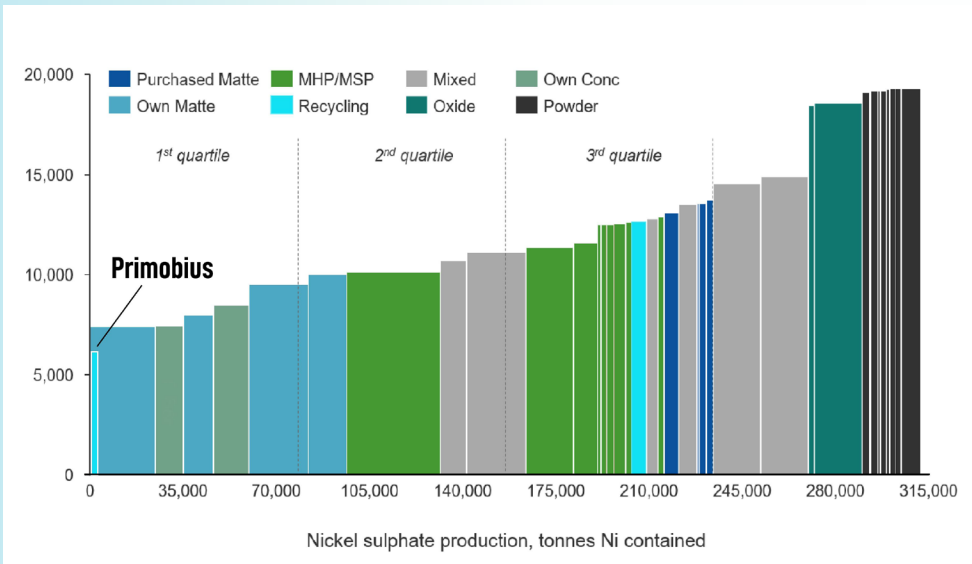


Source: Pricing - Fastmarkets (Cobalt, Nickel, Manganese - Spot), HIS Markit Trade Data (Lithium - Spot), Neometals Management (Copper Products - Forecast)
 Battery Cell Composition and Product Recoveries: Cobalt-82%, Nickel-83%,
 Lithium-82%, Copper-88% combined, Manganese-78% (Neometals Management)



POTENTIAL LOWEST COST NICKEL SULPHATE PRODUCER

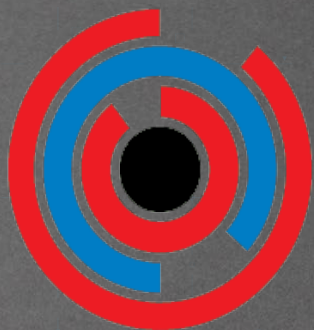
Nickel Sulphate Cost Curve 2025



Source: Cost Curve – Australian Mines/CRU (2019), Primobius Cost/Production – Neometals Management (2021) based on ASX Announcement:- Lithium Battery Recycling – Outstanding Cost Estimates (7 May 2021)



OUR COMMERCIALISATION PARTNER



SMS  **group**

50:50 JV WITH SMS group GmbH

- Incorporation of Primobius GmbH to commercialise recycling technology
- Constructing a showcase demonstration plant in Germany, complete feasibility study and FID consideration MarQ22
- Evaluating both 20ktpa and 200ktpa plants
- SMS will build, operate and procure debt financing* on behalf of JV
- Global commercial roll out capitalising on the SMS global footprint / reputation (140 years old, 14,500 employees at 95 sites)

*for 50:50 debt:equity on a best endeavours basis

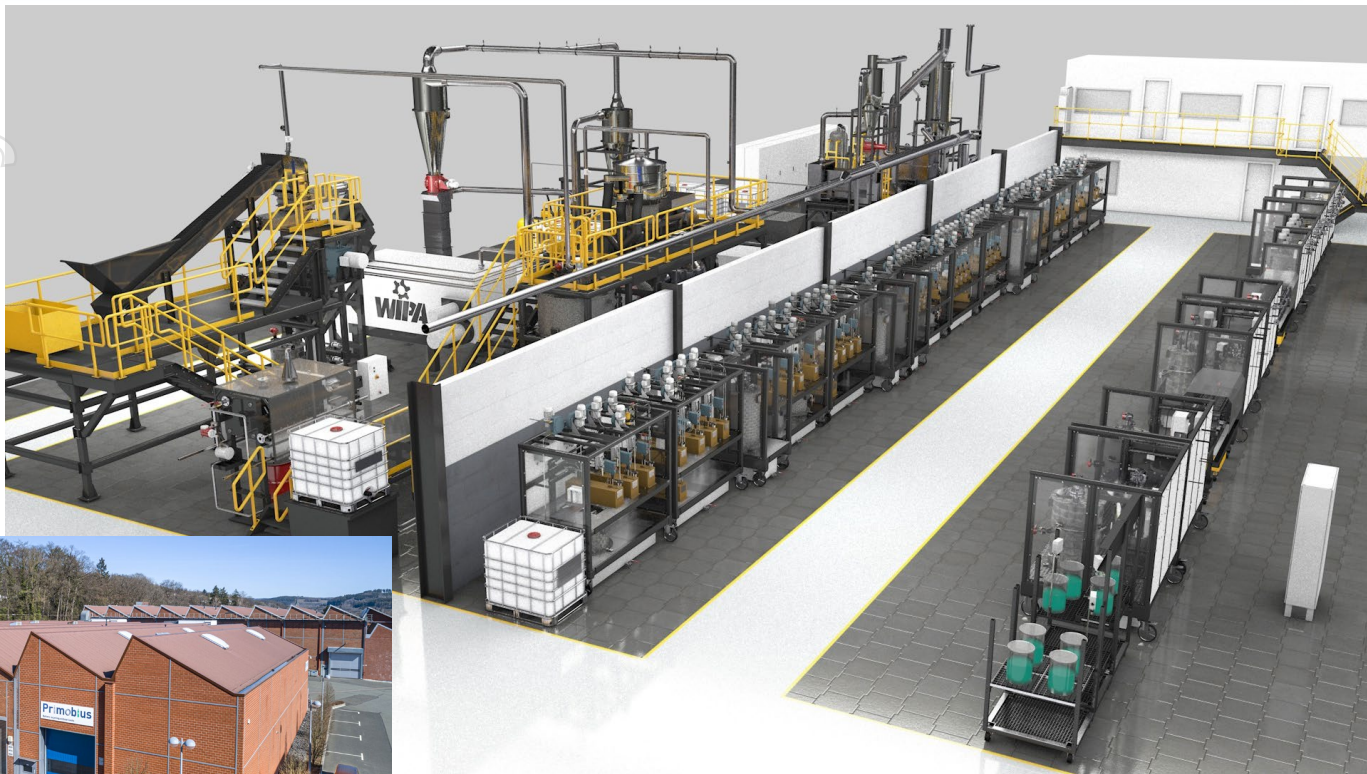


DEMONSTRATION PLANT

Nm

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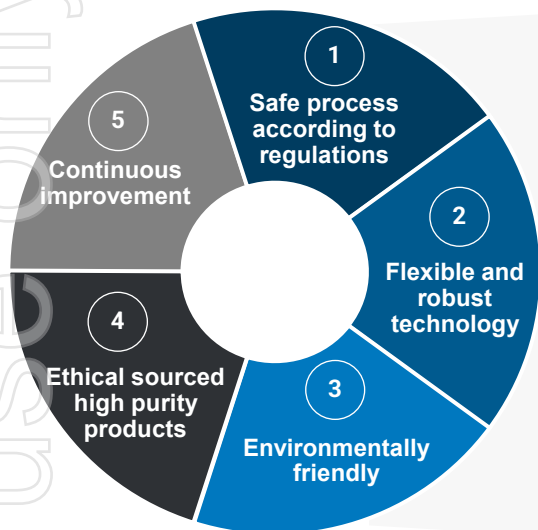
Demonstration Trial Feed secured from EV maker and ESS maker (Itochu)



Dedicated facility at SMS Manufacturing Headquarters
Hilchenbach, Germany



PRIMOBIOUS OFFERS A CLEAR USP AND WILL PROVIDE THE BEST POSSIBLE RECYCLING SOLUTION



1 Safe process according to regulations
High share of recycled materials to high purity chemicals meeting the current regulations with a safe process

2 Flexible and robust technology
In contrast to competitors' multiple battery chemistries, formats and types can be processed without prior discharging

3 Environmentally friendly
In contrast to incumbent pyromet. processes our technology generates less CO₂ production and less transportation of hazardous wastes

4 Ethical sourced high purity products
JV will produce high purity chemicals not intermediates intended for the ethical re-supply to the cathode producer supply chains

5 Continuous improvement
We continuously optimize our existing processes with regards to product yield, quality and efficiency

USP = Unique selling proposition
JV = Joint Venture

FLEXIBLE BUSINESS MODELS



Service agreement

- Primobius to responsibly process production scrap or EOL batteries for a fee. Option to purchase all products under offtake agreement



Partnership

- Primobius to build and operate recycling plant(s) both share economic returns – JV etc. Option to purchase all products under offtake agreement



License

- License IP you the IP directly and BOOT/supply-only recycling plant(s)

MOU WITH ITOCHU CORPORATION OF JAPAN

Primobius

Battery recycling without limits



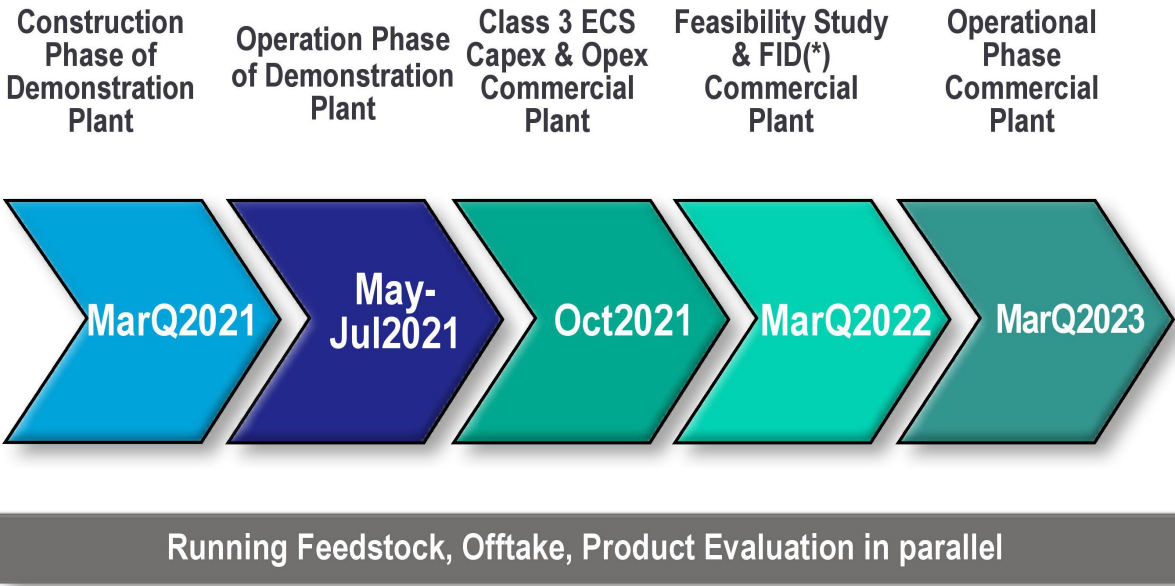
Itochu's stationary energy storage brand

- Itochu is one of Japan's largest trading houses (market cap +US\$50B)
- Itochu strong footprint in the lithium-ion battery supply chain
- Itochu produces cathode and anode materials, also its own stationary storage battery systems (ESS)
- Itochu will supply second demonstration trial which will process solely ESS batteries
- Evaluating hub and spoke model, centralised hydromet circuit fed by multiple shredding/beneficiation plants not only in Japan but throughout Asia.

Full details refer to Neometals ASX Announcement entitled: "Lithium Battery Recycling – MoU with Itochu Corporation" released on 5 March 2021.



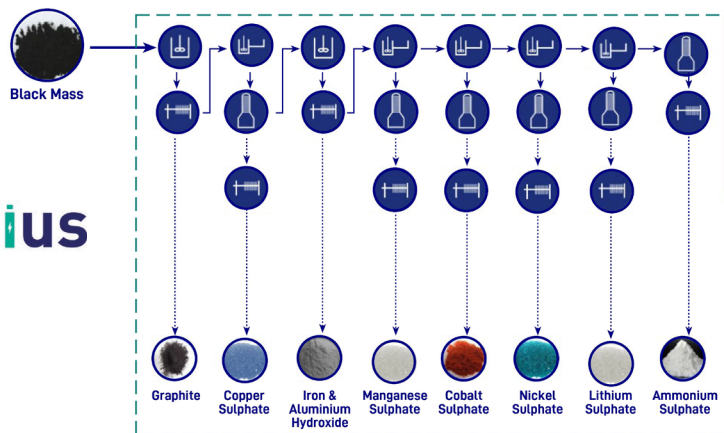
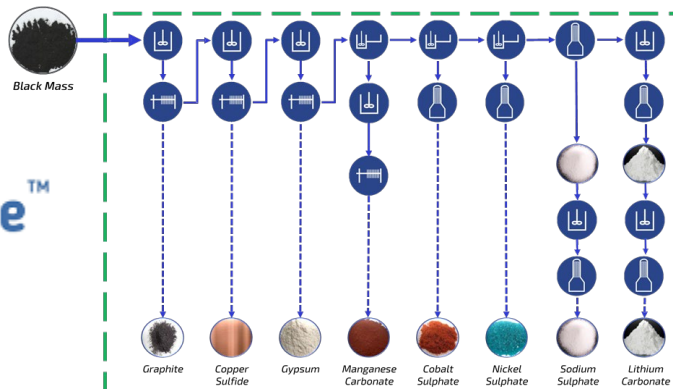
OUR INDICATIVE TIMELINE



Source: Neometals Management (*) Subject to NMT and JV Board Approval.



FIRST PUBLIC PEER METRIC FROM HYDROMET RECYCLING DEVELOPER PURCHASED FOR US\$975M IN SPAC DEAL



- ⚙️ Reaction Tank / Agitator
- 🔍 Filter Press
- 🧪 Solvent Extraction
- 🌀 Mixer / Settler
- 🔮 Crystallization

Primobius

Battery recycling without limits



RECYCLING AND RECOVERY

VANADIUM RECOVERY PROJECT

Earning into 50:50 JV with Critical Metals Ltd

onal use only

THE OPPORTUNITY



- Scandinavian steel giant SSAB has +2Mt of high-grade vanadium-bearing by-product (“Slag”) stored at 3 steel mills in Sweden and Finland.
- Secured by Critical Metals Ltd (19.9% NMT) under supply agreement (*)
- Neometals earning into 50:50 Incorporated JV by funding evaluation to FID and licensing proprietary hydromet process (*)
- Eco-friendly process captures and sequesters more than 65,000t CO₂ per annum – zero carbon footprint
- Latest Class 4 Cost Study confirms potential lowest quartile cost position of high-purity 99.5% V₂O₅ (**)

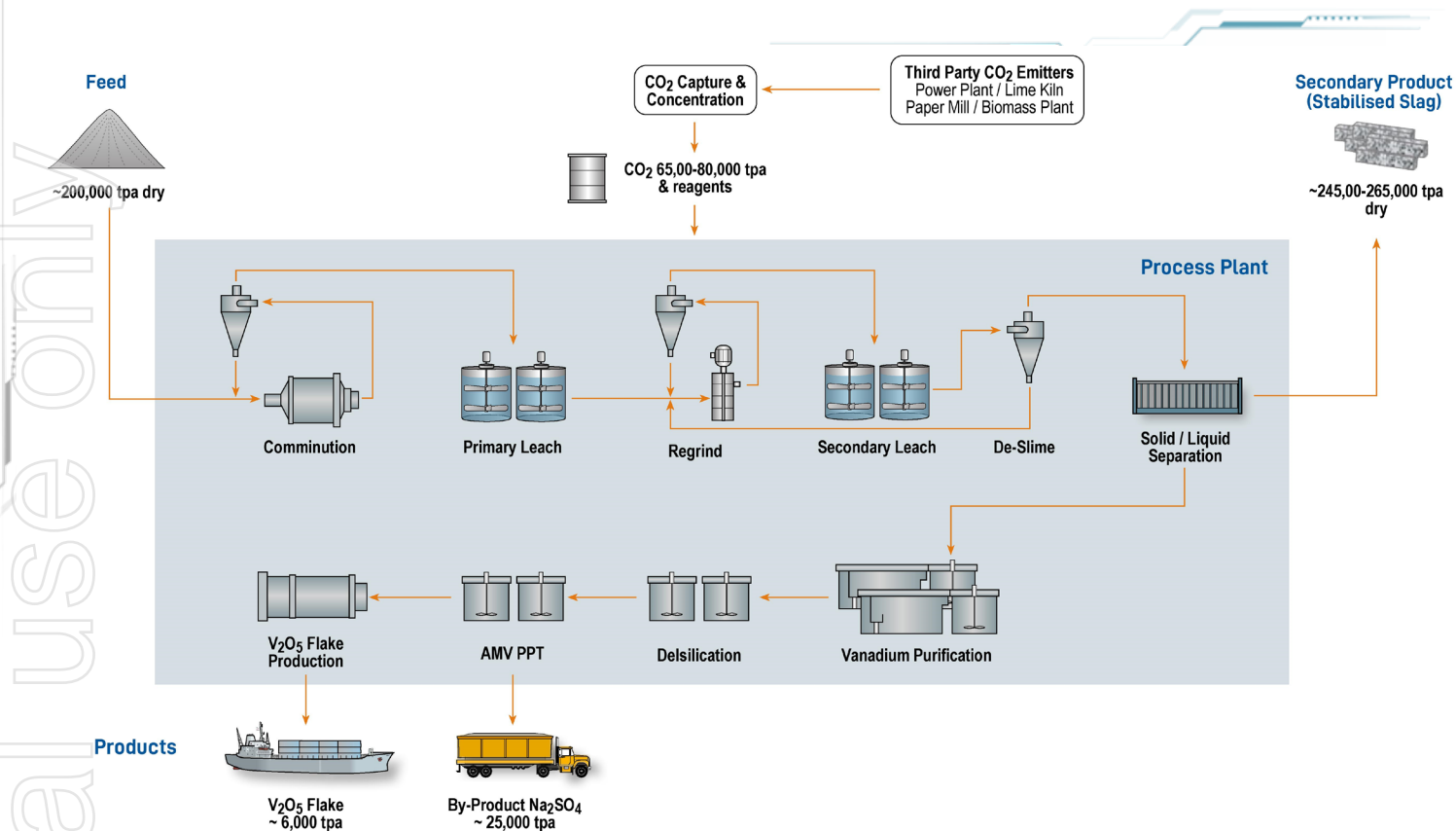
* For full details please refer ASX release dated 6th April 2020 titled “High-Grade Vanadium Recycling Agreement”

** Please refer to ASX release dated 21 April 2021 titled “Vanadium Recovery Project – Positive Cost Study Results”



OUR PROPRIETARY RECOVERY PROCESS

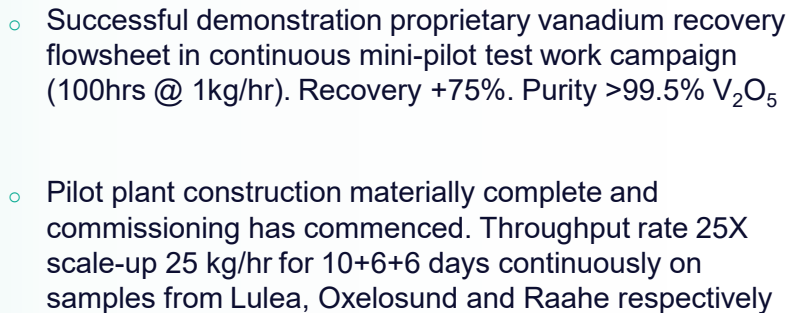
Successfully Mini-Piloted at Strategic Metallurgy Perth in 2020



Source: Neometals ASX announcement 21 April 2021 titled "Vanadium Recovery Project – Positive Cost Study Results"



34



For full details of Mini Pilot Plant results refer ASX release dated 4th November 2020 titled "Successful Vanadium Recovery Mini-Pilot and commencement of PFS"

PFS RESULTS

Based on Mini-Pilot Plant at Strategic Metallurgy Perth in 2020

THROUGHPUT RATE



200,000tpa

PRODUCTS



13.43M lbs p.a.
high purity
zero carbon V_2O_5

OPEX



US\$4.25/lb

CAPITAL COSTS



US\$183.4M

NPV₁₀*



US\$230.5M

IRR*



31.2%

PAYBACK*



<4 years

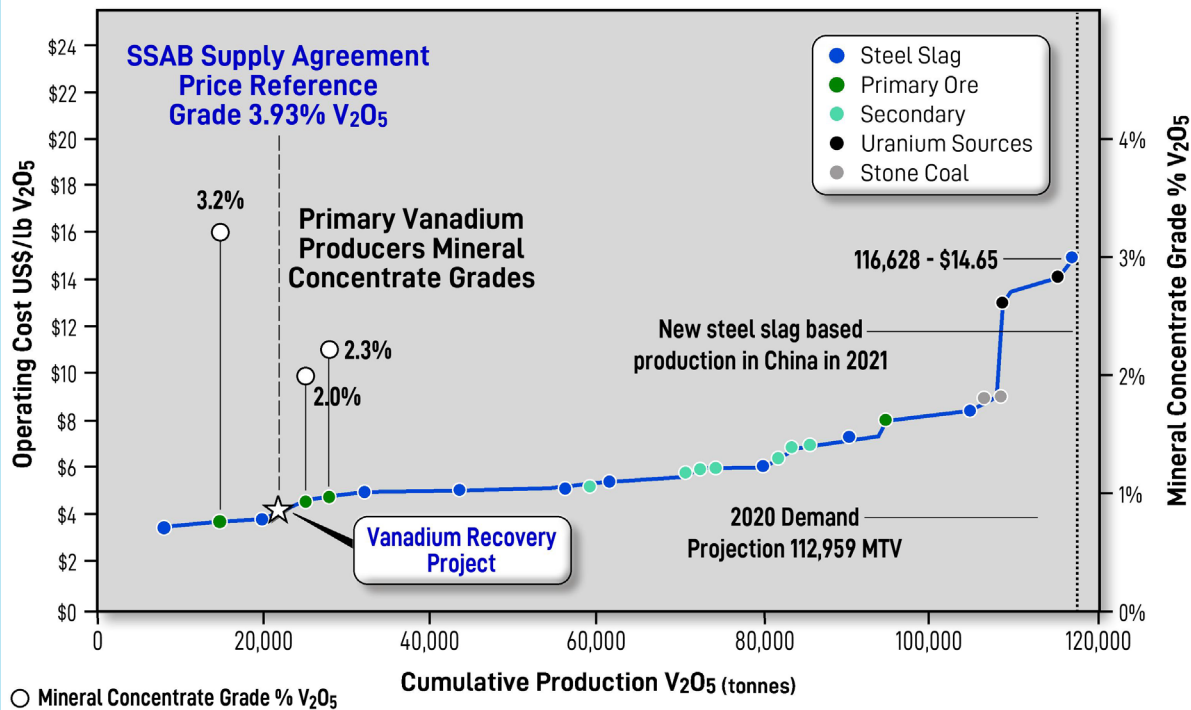
**Pre Tax and 100% ownership basis*

**Source: Please refer to ASX announcement 4 May 2021 titled "Vanadium Recovery Project - PFS Indicates Robust Potential Economics"*



POTENTIAL LOWEST QUARTILE COST VANADIUM PENTOXIDE PRODUCER

Vanadium Cost Curve 2021



Source: TTP Squared – Cost Curve, Neometals Management – Vanadium Recovery Project Cost Estimate

Please refer to ASX announcement 21 April 2021 titled "Vanadium Recovery Project – Positive Cost Study Results"



PLANT LOCATION AND STOCKPILES

Luleå

Slag stored	+630kt
Vanadium Grade V_2O_5	+4%
Contained V_2O_5	+25,000t
Net Slag Added	100ktpa

Raahe

Slag stored	+360kt
Vanadium Grade V_2O_5	+3%
Contained V_2O_5	+13,000t
Net Slag Added	80ktpa

Oxelösund

Slag stored	+890kt
Vanadium Grade V_2O_5	+3%
Contained V_2O_5	+25,000t
Net Slag Added	90ktpa



Agreement Volumes and Price

- Initial purchase of 700kt of Slag from Luleå post FID
- Purchase 200ktpa Slag post commercial production for 10 years
- Price linked to prevailing FeV80 vanadium price and vanadium content (reference grade 2.2% V ~ 3.9% V_2O_5)



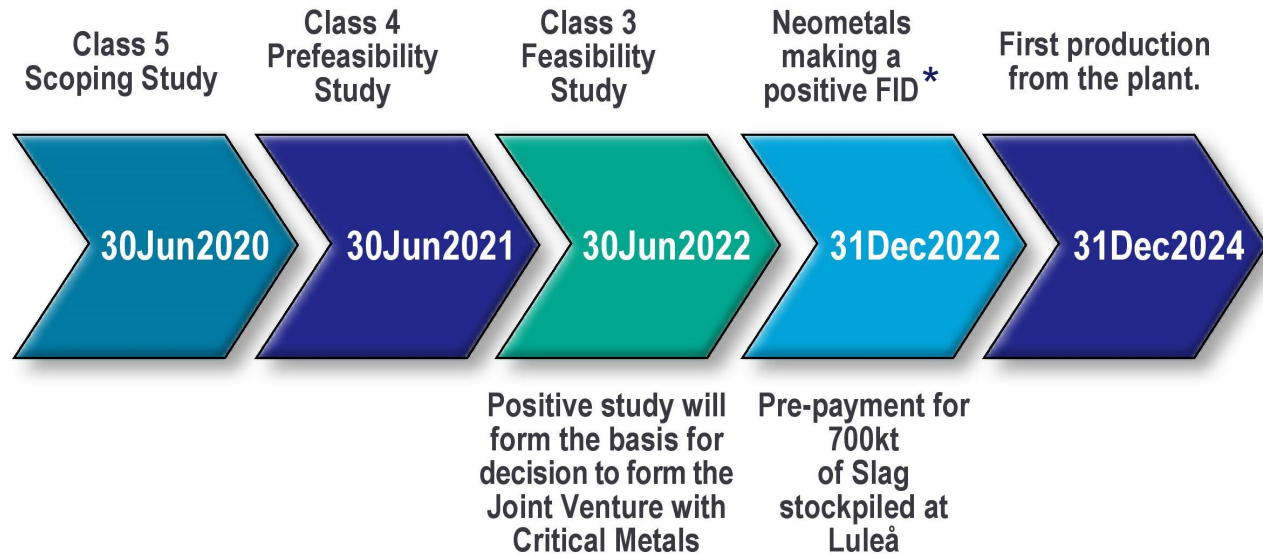
MOU WITH CITY OF PORI, FINLAND FOR VANADIUM RECOVERY PLANT SITE



- City of 86,000 inhabitants with a long history as a hydrometallurgical centre of excellence
- Access to a 'build-ready' 20 hectare industrial-zoned site adjacent to the deep water, year-round port with rail access to the bulk import/export and chemical berths
- Access to renewable power and other utilities and free access to its industrial sources of CO2 for capture and sequestration in Neometals' proprietary process flowsheet

For full details of Site Selection results refer ASX release dated 10th December 2020 titled "PORI, FINLAND SELECTED FOR VANADIUM RECOVERY PROJECT"

INDICATIVE PROJECT TIMELINE



Source: Neometals Management (*) Subject to NMT and JV Board Approval.

UNPARALLELED EXPOSURE TO THE NEW ENERGY (STORAGE) MEGATREND

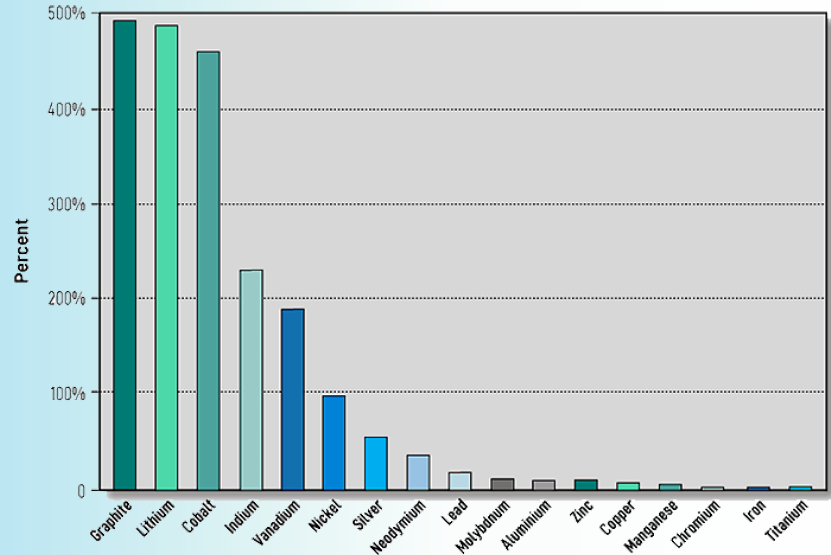


- Exposure to key commodities as the World transitions to low carbon:

- Li, Co, Ni, V, Cg

- All the right elements®

2050 Annual Demand from Energy Technologies
as Percentage of 2018 Production



Source: World Bank Group



COMPANY HIGHLIGHTS

SECURITY



Strong balance sheet,
no debt – can fund
developments to FID



Consistent strategy -
partnering to reduce risks
and realise returns



Strong Board and
management – project
execution experience



History of cash returns
to shareholders



Pivot to recycling and recovery
removes traditional mining risk

OPPORTUNITY



Green critical materials
for Europe



Resource efficiency for
circular economy



Secure, ethical
supply chain
certainty



Multiple catalysts
across portfolio



Transitioning to best practice
ESG - 'sustainable investment'

onal use only



**THANK
YOU**

**PLEASE VISIT
NEOMETALS.COM.AU**