



# PRIMOBIOUS TO FAST TRACK COMMERCIAL BATTERY RECYCLING OPERATIONS

## HIGHLIGHTS

- In response to customer interest, Neometals and SMS agree to fund Primobius JV to fast-track commercial operations with recycling services offered in Q1 2022;
- Primobius will modify its existing German battery recycling demonstration plant to process up to approximately 10 tonnes per day to provide disposal services to European vehicle and cell-makers;
- Primobius plans to shred batteries, physically separate battery components and sell mixed cathode and anode 'Black Mass' from Hilchenbach site; and
- Preparations for the commencement of demonstration trials and evaluation activities for 50tpd (20,000tpa) German operation continue in parallel.

Innovative project development company, Neometals Ltd (ASX: NMT) ("Neometals" or "the Company"), is pleased to announce the approval by the shareholders of Primobius GmbH ("Primobius"), the joint venture ("JV") company owned 50:50 by Neometals and SMS group GmbH ("SMS group"), to fund the fast-track commercialisation of commercial lithium-ion battery ("LIB") recycling operations. Primobius' intends to expand the current demonstration plant ("DP") in Hilchenbach Germany and build up operational capacity to provide a 10tpd battery disposal recycling service in Q1 2022 ("10tpd Shredder Plant"). Shredder Plant 1 will generate early revenue from the sale of intermediate active materials ("Black Mass") and set a market reference for operational capability.

Primobius was founded to evaluate the commercialisation of the Neometals sustainable LIB recycling technology. The current showcase DP trials will provide data for the engineering and feasibility studies to develop a 50tpd (20,000tpa) integrated (Shredding and Hydrometallurgical Refining) German LIB recycling operation ("50tpd Integrated Plant 1"). Substantial de-risking through the successful and safe commissioning of the DP Shredder circuit (*for further details see Neometals announcement titled "Battery Recycling Demo Plant – Stage 1 Commissioned" dated 12<sup>th</sup> August 2021*) using live cells, together with current market demand for disposal shredding services, has prompted Primobius to accelerate its commercialisation strategy. The short-term entry of Primobius into the European industrial recycling market is intended to establish and build market share and is consistent with Primobius' strategy to be the sustainable recycler of choice for carmakers and cell-makers.

This development to fast-track commercial shredding operations is a positive move to keep pace with a rapidly developing industry searching for immediate sustainable recycling solutions. The opportunity to build and showcase operational capabilities will also further de-risk and enhance the business case for the larger proposed 50tpd Integrated Plant 1. SMS and Neometals have approved funding to build a dedicated commercial and operational team, to procure and install new equipment, to modify the currently installed DP shredder circuit and to lease additional areas from SMS.

Primobius is in advanced commercial negotiations with third parties to secure both 'feed', via disposal service agreements, and for the sale of Black Mass, metal foils, steel and plastics produced from the 10tpd Shredder Plant. While these commercial negotiations are advanced, there is no guarantee at this stage that any binding formal agreements will be entered into by Primobius. For the avoidance of doubt, the decision to fund the upgrading of processing capacity is independent of, and not conditional on the outcomes of the aforementioned negotiations.

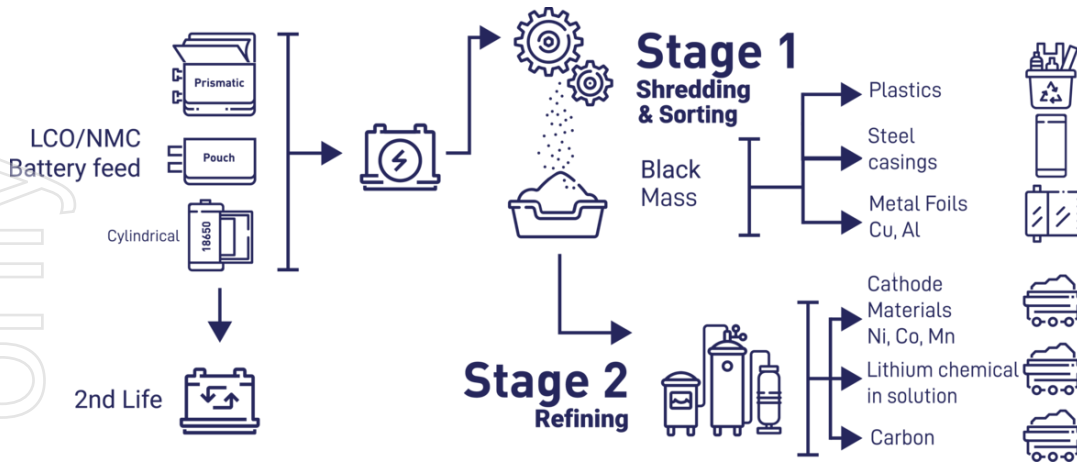


Figure 1 – Schematic of Primobious’ 2 Stage flowsheet

Neometals’ Managing Director Chris Reed commented:

“We are excited to herald the entry of Primobious into the commercial European battery recycling landscape. The funding approval is an agile response by the JV shareholders to strong demand for the safe disposal of growing volumes of lithium-ion batteries arising from warranty returns and at end-of-life. 10tpd Shredding Plant 1 represents the maximum commitment we can make to meet demand having regard to regulatory permitting timeline constraints. As well as being a showcase for potential customers and partners, the facility will provide a valuable training ground for the operations team and will support continuous process improvement ahead of the next scale up to a 50tpd operation. The scale and speed of the electrification of transport and renewable energy storage is phenomenal, the volumes and momentum of global investment funds available to support enablers of decarbonisation steel our resolve for Primobious to become the pre-eminent recycler in the western world.”

**Background**

Europe is the fastest growing market in LIB cell production globally outside China, within Europe (~1,000GWh/a LIB production capacity), Germany is largest car making country in Europe and has planned capacity in 2030 exceeding 270 GWh/a. Each 1 GWh of LIB production capacity is the equivalent of approximately 4.5 tonnes of LIBs, assuming 4.5g/Wh in an 18650 cylindrical lithium-ion cell.

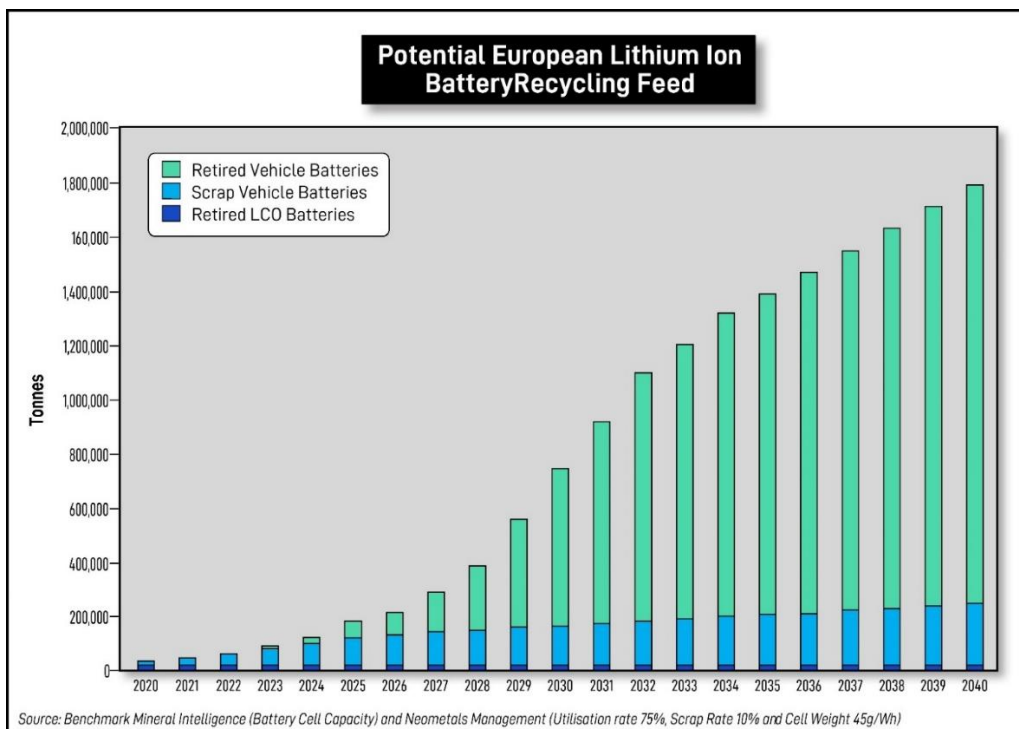


Figure 2 – Management modelling of the potential feedstocks of LIBs for Europe

Authorised on behalf of Neometals by Christopher Reed, Managing Director

## ENDS

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## About Neometals Ltd

Neometals innovatively develops opportunities in minerals and advanced materials essential for a sustainable future. With a focus on the energy storage megatrend, the strategy focuses on de-risking and developing long life projects with strong partners and integrating down the value chain to increase margins and return value to shareholders.

Neometals has four core projects with large partners that support the global transition to clean energy and span the battery value chain:

### Recycling and Resource Recovery:

- Lithium-ion Battery Recycling – a proprietary process for recovering cobalt and other valuable materials from spent and scrap lithium batteries. Pilot plant testing completed with plans well advanced to conduct demonstration scale trials with 50:50 JV partner SMS group, working towards a development decision in early 2022; and
- Vanadium Recovery – sole funding the evaluation of a potential 50:50 joint venture with Critical Metals Ltd to recover vanadium from processing by-products (“Slag”) from leading Scandinavian Steel maker SSAB. Underpinned by a 10-year Slag supply agreement, a decision to develop sustainable European production of high-purity vanadium pentoxide is targeted for December 2022.

### Upstream Industrial Minerals:

- Barrambie Titanium and Vanadium Project - one of the world's highest-grade hard-rock titanium-vanadium deposits, working towards a development decision in mid-2022 with potential 50:50 JV partner IMUMR.