Iondrive Commences Key Benchmarking & Engineering Studies with Leading Institutions, Advancing PFS Milestones

Highlights

- **Iondrive has commenced a Benchmarking Study with the Production Engineering of E-Mobility Components (PEM) department at RWTH Aachen University, a leader in automotive battery technology and recycling.**
    - PEM's reputation includes successful partnerships, such as with Henkel, focusing on next-generation battery technologies and enhancing battery safety and sustainability.
    - The benchmarking study will compare the economics of Iondrive's battery recycling technology for a 10,000tpa black mass operation in Europe against conventional hydrometallurgical processes.

- **Iondrive has initiated an Engineering Study with Koch Modular Process Systems (Koch Modular), a global leader in process engineering and modular construction, to provide insights on commercialising its deep eutectic solvent (DES) battery recycling process.**
    - Koch Modular provides early-stage technology companies with critical data and insights to enhance economic viability for successful commercialisation. Their recent advancements in metals recovery and purification, using proprietary SCHEIBEL® and KARR® liquid-liquid extraction technologies, offer the battery recycling industry efficient, cost-effective solutions compared to conventional hydrometallurgical processes.
    - The engineering study will review laboratory testing and each step of the process, including solvent recovery and the use of DES, to develop an economical, commercial-scale process.

- **Both studies will inform the Pilot Plant phase, ensuring the process is optimised for commercial scalability.**

- **These studies are crucial components of Iondrive's Pre-feasibility Study (PFS), on track for completion by October 2024.**

Iondrive Limited (ASX: ION) ("Iondrive" or the "Company") is pleased to announce it has commenced a Benchmarking Study in collaboration with the Production Engineering of E-Mobility Components department at RWTH Aachen University and an Engineering Study with Koch Modular Process Systems. Both studies, focussing on optimising the economics of the process, are key aspects of completing the PFS for Iondrive's unique environmentally sustainable battery recycling process.

Iondrive Limited CEO Dr Ebbe Dommisse commented:

"Collaborating with PEM and Koch Modular, both distinguished leaders in their respective fields, is a significant milestone for Iondrive. Their extensive expertise and state-of-the-art facilities will be instrumental in commercialising our DES battery recycling technology. These

collaborations validate our approach and ensure we align with industry best practices. By leveraging PEM's and Koch Modular's advanced methodologies and extensive databases, we aim to optimise our technology for commercial scalability, ensuring economic viability and securing future investments. These partnerships are crucial for the progression of our Pre-feasibility Study and the ultimate commercialisation of our technology.

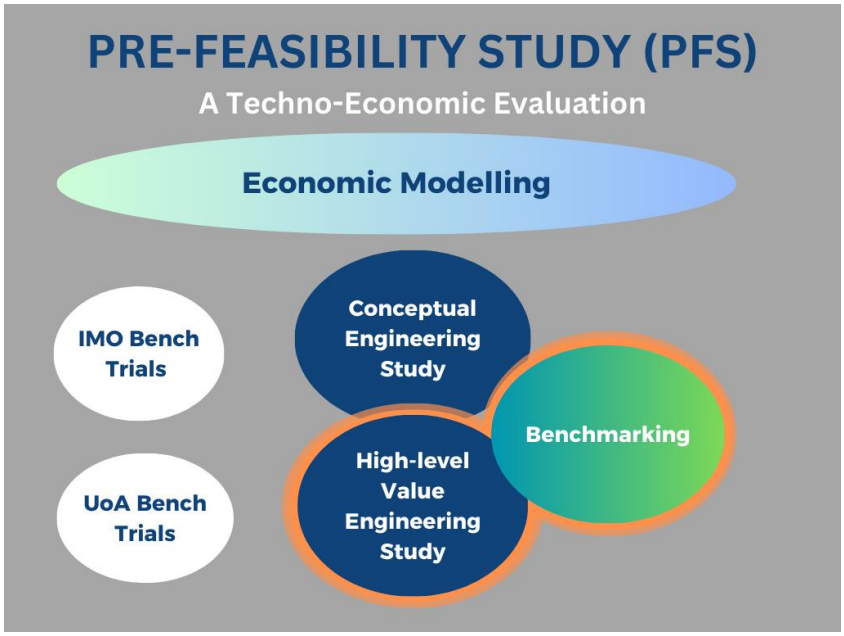
About Koch Modular Process Systems

Koch Modular has successfully designed and constructed modular systems for the global chemical processing industry for over 25 years and has over 40 years of process engineering experience. Specialising in mass transfer, Koch Modular supports early-stage technology companies on their pathway from concept to commercialisation, providing pilot testing and process conceptualisation services, process design package development, detailed engineering, and modular constructed systems. To learn more, visit kochmodular.com.

About Production Engineering of E-Mobility Components

The PEM department at RWTH Aachen University focuses on the research and development of production technologies for electric mobility components. This includes the design, optimisation, and implementation of processes related to the manufacturing of electric vehicle components such as batteries, battery recycling, electric motors, and power electronics. The department aims to advance sustainable and efficient production methods to support the growth and adoption of electric mobility.

Several successful commercial projects highlight PEM's impact. One notable example is their strategic partnership with Henkel AG & Co (Henkel)[1]. This collaboration aims to pioneer next-generation battery technologies, focusing on safer and more sustainable battery solutions. The partnership also involves developing new materials and processes to enhance battery safety and recyclability.



[1] *Henkel AG & Co is a German multinational chemical and consumer goods company headquartered in Düsseldorf, Germany and listed on the Frankfurt Stock Exchange (ticker code HEN). In the fiscal year 2023, Henkel reported sales of around 21.5 billion euros and an operating profit of 2.011 billion euros. Henkel employees over 47,000 staff globally.*

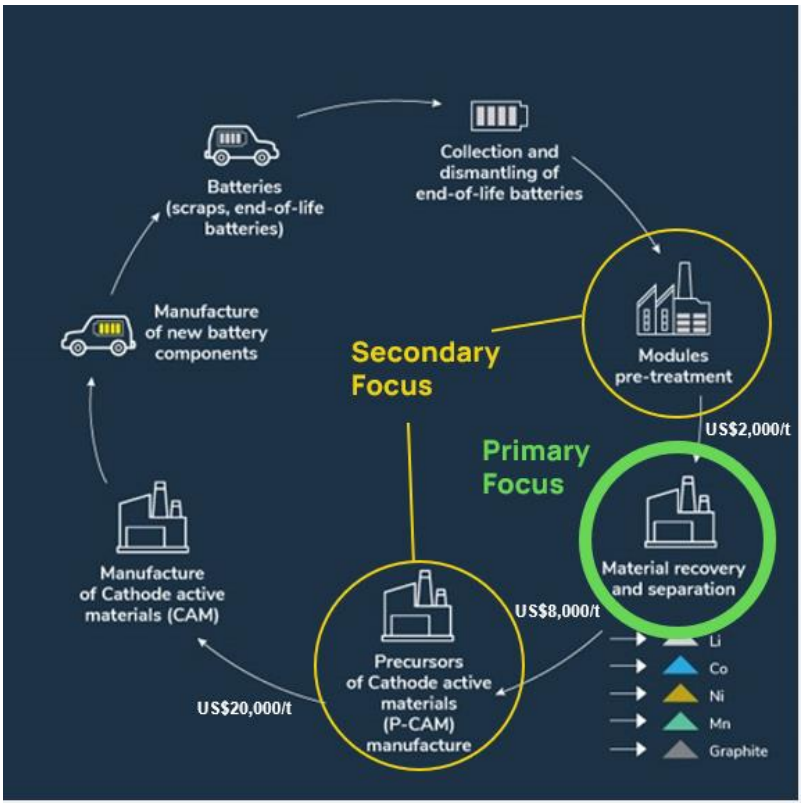
PFS Progress

The benchmarking study with PEM will compare the Capex and Opex costs of Iondrive's deep-eutectic solvent (DES) battery recycling process against conventional hydrometallurgical methods, identifying and quantifying cost drivers. The engineering study with Koch Modular will review the solvent recovery section, evaluate the DES recycling process, and suggest alternative, innovative process equipment to improve efficiencies and reduce Capex/Opex costs. Both studies will inform the Pilot Plant phase, ensuring the process is optimised for commercial scalability.

These efforts are critical components of Iondrive's PFS which is scheduled for completion by October 2024. The PFS will focus on de-risking strategies, including technological, commercial, and executional aspects, to ensure a solid foundation for the commercialisation of Iondrive's recycling technology.

Iondrive's Recycling Technology

Iondrive's DES process provides an attractive environmental value proposition in the rapidly growing battery recycling market. The DES process uses benign, biodegradable organic solvents without high temperatures or corrosive acids that are associated with incumbent processes. These environmental advantages, and the focus on Li-ion batteries, is of particular interest in the EU, the US and Australia. Iondrive's PFS activities and Pilot Plant planning is focussed on three sections of the battery recycling value chain, as highlighted below.



Authorised for release by the Board of Iondrive Limited.

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Iondrive Limited: Company Profile

Iondrive is an emerging leader in battery recycling technology, listed on the Australian Securities Exchange (ASX ticker "ION"). The company's primary focus is on developing and commercialising innovative solutions for lithium battery recycling. Iondrive's Hydrometallurgical Battery Recycling project employs a patented, environmentally safe solvent to gently separate critical components from used batteries, providing a safer and more efficient alternative to traditional methods.

In addition to its battery recycling initiatives, Iondrive holds exclusive worldwide licenses from the University of Adelaide for next-generation battery technologies, including an enhanced performance non-flammable lithium-ion based battery and a low-cost, high cycle life water-based battery.

While the main emphasis is on battery technology, Iondrive also maintains a portfolio of exploration projects in South Korea, focusing on lithium. Backed by a first-class technical team, Iondrive is dedicated to advancing sustainable battery technologies and contributing to the circular economy in both Europe and Australia.