News release

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EMR and Northvolt establish electric vehicle battery recycling facility in northern Germany

Electric vehicle battery manufacturer Northvolt, and world-leading metal recycler EMR have built and commenced operations at a battery recycling facility in Hamburg. The brand-new site will recycle the huge number of electric vehicle (EV) batteries that will reach their end of life in the years ahead and provide much-needed capacity to support the recycling of batteries in Europe.

The new facility will play a crucial role in dismantling these complex batteries before material is sent on for further processing or re-enters the circular supply chain.

The 12,000sqm facility, operated and furbished by EMR, features equipment enabling the discharge and dismantling of approximately 10,000 tonnes of electric vehicle battery packs per year. This will provide crucial recycling capacity as millions of drivers switch to electric vehicles. The layout and process flow of the facility was undertaken by Northvolt, integrating battery discharging and dismantling solutions designed and delivered by the company.

The discharge and dismantling of the battery packs is the first step in the battery recycling process. With more than 70 years of experience in the metal recycling industry, EMR will use its expertise to safeguard the high-quality copper and aluminium used to build modern EV battery frames. The process will ensure this material can, once again, be used to manufacture sustainable technologies, such as the next generation of electrical vehicles.

Following this, the remaining battery modules recovered from packs at the plant will be delivered to Northvolt's facilities for further recycling. There, the modules will be crushed to enable the recovery of plastics, aluminum and copper. The remaining material, known as black mass, will be processed at Revolt Ett recycling plant in northern Sweden using Northvolt hydromet technology to recover battery-grade materials including more lithium, nickel, manganese, and cobalt.

These materials will be fed to Northvolt's adjacent cathode active material production facilities, which in turn support on-site battery manufacturing. When fully built, Revolt Ett will enable the processing of 125,000 tonnes of black mass per year — sufficient to cover approximately half of Northvolt Ett's raw material needs for cathode production.

At every stage, the material that EMR and Northvolt recycle creates an entirely new pathway to sourcing minerals required for battery manufacturing – one that is economically and environmentally preferable to mining.

Now in operation, the Hamburg facility is receiving battery packs and modules from the European electric vehicle market, secured by Northvolt. Alongside end-of-life battery packs of varying designs, the facility is also equipped to receive and process battery packs that are recalled from the market.

With these capabilities, the facility represents a key piece of infrastructure within Northvolt's offer to its automotive customers, as well as to other stakeholders requiring battery recycling solutions.

The facility was officially opened today (24th August) by the First Mayor of Hamburg, Dr Peter Tschentscher.

Dr. Peter Tschentscher, First Mayor of Hamburg, underlines: "In Billbrook, Hamburg's first recycling facility for EV car batteries started production. The plant of Northvolt and EMR is a crucial project for the future of e-mobility in Germany. Recycling saves raw materials, protects the environment and benefits the German automotive industry by reducing the need for importing raw materials. That's the progress of a truly circular economy."

Emma Nehrenheim, Chief Environmental Officer at Northvolt, comments: "EMR is a world leader in metal recycling and has been an excellent partner in this project. The ability to effectively recycle batteries is crucial to making the electric vehicle revolution as sustainable as possible. With this new facility we are ready to receive volumes of European batteries for recycling and further our progress towards establishing a circular battery industry."

Murat Bayram, Director at EMR, said: "Working with one of Europe's most innovative battery manufacturers has enabled both our businesses to take significant steps forward in creating a truly circular supply chain for the valuable materials used to manufacture EV batteries. The atmosphere of trust and cooperation we have built together has been essential to the project's success.

"EMR's many decades of success have been achieved by facing every challenge head on – and the climate crisis is no different. From our chief executive to our teams on site, sustainability, circularity and protecting the world's precious resources is at the heart of how EMR does business – as this new site demonstrates."

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Image: Northvolt and EMR establish electric vehicle battery recycling facility

Notes to editors

About Northvolt

Northvolt is a European supplier of sustainable, high-quality battery cells and systems. Founded in 2016 to enable the European transition to a decarbonized future, the company has made swift progress on its mission to deliver the world's greenest lithium-ion battery with a minimal CO2 footprint and has grown to over 5,000 people from over 120 different nationalities. Northvolt has to date secured more than \$55 billion worth of contracts from key customers, including BMW, Fluence, Scania, Volkswagen, Volvo and Polestar, to support its plans, which include establishing recycling capabilities to enable 50 percent of all its raw material requirements to be sourced from recycled batteries by 2030.

About EMR

EMR is a global leader in sustainable materials with physical operations in the UK, USA, Germany, and the Netherlands. Their purpose is to create a future where the materials we use do not need to be extracted from the planet.

EMR recycles around 10 million tonnes of metal and plastics each year - anything from a can to an aircraft carrier. This saves over 15 million tonnes of Co2 compared to virgin ore.

They work internationally with industry, government bodies and the general public to turn end-of-life materials, including consumer products, vehicles, and materials from industry, construction, and demolition, into valuable resources – making the circular economy a reality.

To help the world use its precious resources more sustainably, EMR has committed to becoming a fully net-zero business by 2040 and have aligned their climate commitments with science to play their part in the battle against climate change. As part of this, they invest heavily in energy productivity, low-carbon and nature-positive technology and developing innovative new products that help their customers reduce their carbon emissions further.

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