

News Release

Synthomer Secures Funding for Project to Improve the Performance and Environmental Impact of EV Batteries

London, 27.07.2020

Synthomer Plc, one of the world's foremost suppliers of aqueous polymers, and its partners have together been awarded £760,826 in funding from the ISCF Faraday Battery Challenge for a project focused on increasing the performance, manufacturability and environmental profile of lithium-ion battery cells. This will be achieved through improved anode and cathode raw materials and electrode formulation.

The project, named Synergy, is focused on developing step changes in the performance and environmental friendliness of lithium-ion batteries to meet the needs of electric vehicles (EVs). It combines the raw material, formulation, electrochemical knowledge and cell manufacture capabilities of Synthomer (including Synthomer's polymer binder and William Blythe active material development teams), CPI and AMTE Power (formerly AGM Batteries).

Project Synergy will lead to manufacturing and performance improvements in the anode system. It will also focus on methods to improve the safety and environmental profile of cathode systems. The combined improvements are expected to reduce the costs of cell manufacture and help to realise the range and power output needed for the next generation of electric vehicles.

Innovate UK, the UK's innovation agency and part of UK Research and Innovation, will fund the majority of the £1.1 million project as part of the ISCF Faraday Battery Challenge. The challenge is addressing key targets of automotive battery technology which will allow the UK to realise its commitment to move to full electrification and zero emissions vehicles.

"Despite significant improvements in battery technology, further optimisation of raw materials is needed to achieve the targets of the automotive industry," says Tom Castle, Market Development Manager at Synthomer. "Synthomer is a global supplier of polymer binders that are used commercially in high performance lithium-ion batteries and we are pleased to bring this expertise to the project. Synergy is another example of us collaborating with active material development teams to maximise the combined value of the active and binder to cell manufacturers and ultimately to consumers."

“The challenges of developing next generation batteries are best addressed by collaboration,” says Mike Butler, Business Development Manager at Synthomer subsidiary William Blythe. “William Blythe has a significant R&D focus on developing next generation active materials for new electric vehicles and are active in several consortia. We are pleased to be working with this strong team to further develop the UK supply chain.”

“This project cements AMTE Power’s position at the forefront of cell innovation, and forms an important part of us developing a wider portfolio of industry leading technology and developments,” comments Kevin Brundish, CEO at AMTE Power. “Synthomer, William Blythe and ourselves recognise the significance of building out a robust onshore supply chain, and take pride in collaborating to support an emerging ecosystem of green UK manufacturing.”

“CPI is delighted to be involved in this exciting project to improve the performance and environmental impact of cell technology,” comments Tony Jackson, Director of Formulation at CPI. “The project utilises our expertise and capabilities in developing next-generation battery technology to help deliver UK based innovation into this important sector.”

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Notes for Editors:

About Synthomer and William Blythe

Synthomer develops and markets polymers used in a wide range of industries to create and enhance everyday consumer products. It holds leading positions in its chosen markets and has a proven record to generate added value to its customers through in-depth application know-how and strong R&D support. Synthomer is one of the world’s major suppliers of latices and speciality polymers supporting leadership positions in many market segments. It uses its technical expertise and R&D capability to deliver competitive advantage by helping customers to create successful products and to improve the efficiency of their manufacturing operations.

Synthomer has a growing portfolio of polymer binders for use in lithium-ion cells powering batteries used in a range of markets including electric transportation, storage applications and handheld (3C) devices.

synthomer.com

As part of the Synthomer group of companies, William Blythe delivers specialty chemical solutions to help its customers meet the technological challenges of the 21st century in markets as diverse as life sciences, performance coatings, polymers, electronics, catalysts and renewable energy. Founded in 1845, William Blythe has pioneered the development and application of inorganic chemistry for demanding applications for more than 170 years.

williamblythe.com

About AMTE Power

AMTE Power works with clients and partners to scale new battery cell technologies through to manufacture and supply. AMTE helps in the early stages of development and design for manufacture, and has developed advanced lithium battery cells for a range of end user markets.

AMTE Power have developed alternative chemistries, including a new range of cells aimed to provide UK EV manufacturers with security of supply chain and alternative cell options unavailable from large scale foreign providers.

AMTE's battery production facility, AGM Batteries has a unique cell manufacturing plant in Thurso, Scotland. It is a direct replica of the large-scale cell manufacturing process, supporting prototyping and development of new technology on schedule to provide customers with a flexible UK Cell production facility.

amtepower.com/

About CPI (Centre for Process Innovation)

CPI works with partners to translate inventions into products and processes that enhance health and wellbeing, protect and improve our environment and increase productivity across industries.

With a deep understanding of technology fore-sighting, innovation processes and funding, outstanding technical expertise and industry-relevant assets, we enable the accelerated development of transformational products and processes that have the potential to disrupt and revolutionise markets. We also engage in incremental technological innovation that allows established products and processes to be optimised for better performance and efficient manufacture.

Through the breadth of our technology platforms, we support our partners across many diverse markets, including pharmaceuticals, speciality chemicals, food and drink, electronics and transportation.

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