# TALISSMAN

TALISSMAN (Technologies for Advanced LIthium-Sulfur batteries toward Safe and Sustainable Mobility Applications) is a Horizon Europe project which seeks to develop safe, high-performance, and sustainable lithium-sulphur batteries for aerospace and electromobility applications. By advancing gelled and solid-state battery concepts, TALISSMAN addresses key technical barriers to industrialisation.

The project integrates eco-design, circularity, and recyclability principles, while ensuring compatibility with existing production lines.

## IMPACTS

### Improved Technical Performance

TALISSMAN will deliver next-gen batteries with energy densities up to 550 Wh/kg (watt-hours per kilogram), meaning more energy stored with less weight – a key enabler for high-efficiency aerospace and electric mobility applications.

### Increased Safety

By replacing flammable liquid electrolytes with quasi-solid and solid-state alternatives, and implemnting robust interface protection, TALISSMAN significantly lowers the risk of thermal runaway and dendrite-induced failures.

### Superior Cost-Effectiveness

Thanks to low-cost, abundant materials like sulphur and carbon, combined with scalable, energy-dense designs, TALISSMAN aims to reduce battery costs below €75/kWh by 2030, enhancing competitiveness against conventional LIBs.

## PROJECT PARTNERS

cidetec energy storage · ARKEMA · AIRBUS · Sustainable INNOVATIONS · tecnalia (MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE) · Politecnico di Torino · saft · Fraunhofer IWS · JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN

## FOLLOW US

TALISSMAN PROJECT

www.talissman.eu

Funded by the European Union

Funded by the European Union under grant agreement N° 101203047. Views and opinions expressed are however, those of the author(s) only and do not necessarily reflect those of the European Union or the CINEA Agency. Neither the European Union nor the granting authority can be held responsible for them.