

Media News

Constellium to showcase aluminium solutions for BEV battery enclosures at the CENEX Low Carbon Vehicle event on September 22-23

Paris, September 22, 2021 – Constellium will exhibit aluminium solutions for BEV battery enclosures at the 14th annual CENEX Low Carbon Vehicle event (booth C3-100) at the Millbrook Proving Ground in Bedford, UK on September 22-23.

The innovative structural battery enclosures on display feature high-strength, fully recyclable 6XXX aluminium extrusions as well as castings and advanced joining technologies to enable as much as 20% weight savings compared to conventional aluminium designs. Engineered as part of the AI-ULEV* and LIBERATE** collaborative R&D projects led by Constellium with automakers and supplier partners, these battery enclosures offer advance crash resistance to protect electric vehicle batteries. Novel thermal management systems within the extrusions also help control battery operating temperatures to reduce energy loss associated with urban driving cycles, and to minimize the risk of thermal runaway.

“Constellium is proud to showcase the significant progress made by the partners of the AI-ULEV and LIBERATE projects to design advanced aluminium battery enclosure systems to help make battery electric vehicles lighter and safer with greater driving range,” said Martin Jarrett, Director, Technology and Innovation of Constellium’s Automotive Structures and Industry Business Unit. “We have also redesigned the production process for these large structural components using advanced joining techniques and allowing volumes to be scaled as demand for battery electric vehicles grows.”

The new approach to battery enclosure design and production is expected to lower part count and assembly time, improve dimensional tolerances, and reduce cost and investment throughout the supply chain to make battery systems more viable for mass market vehicles.

Prototypes for these projects were produced at Constellium’s [University Technology Center](#) (UTC) at Brunel University London as well as by other project partners, using their unique technologies. The UTC is Constellium’s center of excellence for the design, development and prototyping of aluminium extrusions and automotive components such as Crash Management Systems, body structure components and battery enclosures for electric vehicles.

For more information or to register for the CENEX event, visit <https://www.cenex-lcv.co.uk>.

*[AI-ULEV](#) (Aluminium for Ultra-Low Emission Vehicles) is a collaborative R&D project of automakers and suppliers led by Constellium and funded in part by a grant from Innovate UK. Successfully completed in May 2021, the project aimed to develop extruded components for vehicle integration systems and battery enclosures for electric vehicles.

**[LIBERATE](#) (Lightweight Innovative Battery Enclosures using Recycled Aluminium Technologies) is a collaborative R&D project led by Constellium and funded in part by a grant from Innovate UK. Launched in 2019, the project aims to design battery enclosures to be used in future electric vehicles. Longer-term, the LIBERATE project aims to establish a UK-based manufacturing facility to provide an on-shore resource for manufacturing critical components for Ultra-Low Emission Vehicles.

About Constellium

Constellium (NYSE: CSTM) is a global sector leader that develops innovative, value added aluminium products for a broad scope of markets and applications, including aerospace, automotive and packaging. Constellium generated €4.9 billion of revenue in 2020.

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