MULTHEM

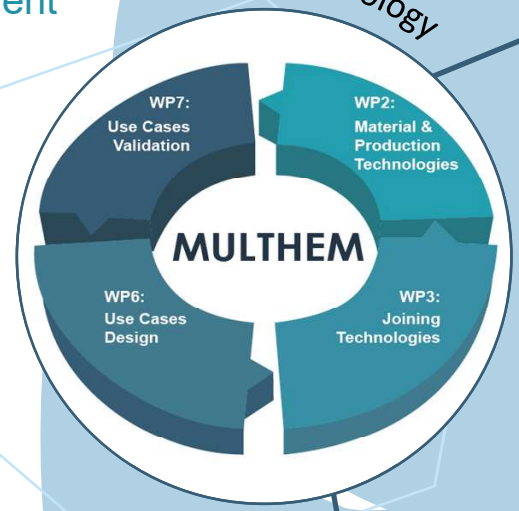
Multi Material Additive Manufacturing for Lightweight and Thermal Management

www.multhem.eu

Carbon Fibre Composites (CFC) have been increasingly replacing metals in products requiring lightweight features. However, due to the traditional manufacturing process and poor thermal conductivity, the use of CFC has been limited to structural applications. For example, the casings for batteries, electrical motors, and power electronics are typically manufactured entirely in aluminium because they are require to dissipate heat efficiently. Using pure aluminium is a heavier and less cost-effective solution than using pure CFC.

Our vision of MULTHEM is to use the different benefits from metals and CFC materials to develop and validate new reliable additively manufactured processes and new metal-polymer multi-materials with structural and cooling features with a more cost-effective approach as compared to traditional methods.

Our Methodology



Our Consortium Partners

Where we are based

Co-ordinator: cetemet — TECHNOLOGY CENTRE OF METAL-MECHANICAL AND TRANSPORT

Partners: Fraunhofer IPK; LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY LIST; TNO innovation for life; Brightlands Materials Center; Airelectric; ÉIRECOMPOSITES; Prima Additive; THALES Building a future we can all trust; Brunel University London

This project has received funding from the European Union's Horizon Europe Research and Innovation programme 2021 - 2027 under grant agreement number: 101091495