



Letter of Intent (LOI)

Preamble

The collaboration between the **University of Sheffield Advanced Manufacturing Research Centre (AMRC)** and **CHESCO GmbH** – a 100% subsidiary of the Brandenburgische Technische Universität Cottbus-Senftenberg - builds on a shared vision to advance research, innovation, and industrial transformation in manufacturing and sustainable mobility.

CHESCO has been developed with inspiration from the concept and successful implementation of the AMRC Sheffield and its surrounding industrial ecosystem. The idea of creating a similar innovation hub in the Lusatia region in Brandenburg gained further momentum following the visit of representatives of the **State of Brandenburg** to Sheffield in 2020. Both institutions place strong emphasis on close cooperation with industry as a foundation for translating research excellence into practical, high-impact solutions.

Driven by comparable strategic objectives — yet with distinct regional and thematic profiles — AMRC and CHESCO recognize the significant potential for joint activities and mutual benefit. This **Letter of Intent** expresses their shared commitment to exploring and developing collaborative research, innovation, and industrial engagement initiatives for the advancement of sustainable manufacturing and mobility technologies.

Collaborative Partnership in Research, Innovation, and Sustainable Mobility

The undersigned parties declare their mutual intent to strengthen cooperation in research, development, and innovation in the fields of advanced manufacturing technologies, digitalization, and sustainable mobility. The collaboration will contribute to European and bilateral priorities, strengthen regional innovation ecosystems, and support the transition towards a climate-neutral economy.

The partnership will be guided by the following principles and areas of action:

- **Commitment to Research and Innovation**

Both parties recognize the central role of research and innovation in enabling sustainable mobility solutions. They will jointly work to advance integrated process chains in manufacturing, digital technologies, and material innovations. The goal is to deliver measurable contributions to CO₂ reduction, energy efficiency, and environmental responsibility.

- **Joint Project Applications and Funding**

The partners agree to prepare and submit collaborative proposals under European programs such as *Clean Aviation*, *Horizon Europe*, the *Digital Europe Programme*, and relevant bilateral (Germany–UK) funding instruments. Priority will be given to projects with high industrial and societal impact, especially in the aerospace and mobility sectors.

- **Exchange and Mobility of Talent**

Recognizing that talent is a key driver of innovation, both sides will promote the exchange of students, PhD candidates, early-stage researchers, and scientific staff. Joint training formats, summer schools, internships and research stays will be supported to develop highly skilled professionals with cross-border expertise.

- **Cooperation in Sustainable Mobility Applications**

The partnership will focus on practical applications in aerospace and related industries, aiming to demonstrate how sustainable technologies can enhance competitiveness and resilience. Areas of emphasis include green fuels, lightweight materials, high-performance propulsion systems, digital twins, and circular economy approaches in manufacturing.

- **Infrastructure and Digitalization**

Both parties see digitalization and connected infrastructures as critical enablers. They will collaborate on testbeds, pilot lines, and demonstrator platforms that allow validation of new manufacturing processes, including the integration of 5G and advanced digital tools.

- **Strengthening Regional Ties**

A particular focus will be placed on strengthening cooperation between the regions of *Sheffield (UK)* and *Lusatia/Brandenburg (Germany)*. Both regions will benefit from knowledge sharing, industrial partnerships, and joint innovation initiatives. This cooperation aims to position the regions as European hubs for sustainable mobility innovation, supported by close cooperation with regional government.

- **Non-Binding Character**

This Letter of Intent (LOI) is not legally binding. It serves as a framework for exploring future collaboration opportunities, guiding the preparation of project proposals, and building long-term cooperation structures between the undersigned institutions.

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