



## ENHANCING THE REGION'S PRODUCTIVITY-THROUGH ACADEMIA AND INDUSTRIAL ENGAGEMENT

Established in 2010, the Virtual Engineering Centre (VEC) is a unique private-public partnership committed to advancing the use of modelling, simulation, 3D immersive visualisation, digital twin technology, Al and data analytics, robotics and autonomous systems to improve husiness performance. systems to improve business performance, competitiveness and foster innovation within organisations.

## ACADEMIA AND RESEARCH

A University of Liverpool, School of Engineering led project, the VEC was catalysed by funding from the ERDF and the former Northwest Regional Development Agency. Since 2013 the VEC has established a partnership with Science Technology Facilities Council (STFC) Hartree Centre which provides access to the UK's largest High Performance Computing facility. Computing facility.

The VEC is underpinned by the University of Liverpool's academic achievements and works closely with their Centres of Excellence (Centre for Autonomous Systems Technology (CAST) and the Institute for Risk and Uncertainty) to provide industry specific requirements to their industry-specific requirements to their research. The VEC provides a link between the Liverpool city region's Knowledge Quarter and the science and innovation campus Sci-Tech Daresbury, with offices in both locations. More than that, it provides industry with access to the academic excellence of the University of Liverpool and the UK's science infrastructure.

## INDUSTRY ENGAGEMENT

The VEC supports the advanced manufacturing sector and wider industry by providing a focal point for leading and emergent virtual engineering technologies, research and expertise.

Key sectors include:

- Aerospace, Automotive, Nuclear, Space and Energy
- Newly emerging sectors such as Transport, Medical, Maritime and FMCG

The VEC engages with a range of organisations of all sizes including:

- A network of over 489 SMEs, over half of these are based in the North West
- Over 60 large companies within the UK, such as Airbus, BAE Systems, Bentley Motors, Jaguar Land Rover, Sellafield, Dstl and Jacobs PLC.

Which has helped to generate over £30m of investment in the regional economy and was instrumental in supporting the Hartree Centre secure its third phase of investment totalling £313M.

The VEC has undergone 876 collaborations, delivered 681 projects within the UK and utilised 142 digital tools from our 'toolbox' to support businesses solve their complex industry problems.



