



**The Virtual Engineering Centre is leading the field in how the digital revolution can be maximised by industry.**

Through digital engineering collaborative projects industry benefit from the VEC's expertise to help them to improve their product's physical design, manufacturing, assembly and testing processes, enabling these companies to gain a competitive edge.

Examples include:

**Bentley:** used VEC facilities and expertise when designing their new SUV and benefitted from a reduction in product development time of 6 months. This project also involved a University of Liverpool Psychology student, and was part of the AMSCI-funded STRIVE project.

The STRIVE project has created: **457 new jobs within the partner organisations and supply chain**, many which are newly developed roles due to the new technologies deployed.

**GAMMA:** the VEC worked with over **20 technology SME's to develop new products** in the field of autonomous systems mission management and supported further funding proposals for these technologies.

**Supporting academics and graduates**

The VEC works with University of Liverpool students across disciplines at post-graduate level, including **Industrial Design, Psychology, Architecture and Engineering.**

This includes student-projects such as **ARION** (LandSpeed Bike) and the **Formula Student** international competition team, with the aim to equip students with industry-ready skills.

The VEC is also working on an industry-academia project with world-leading advertising agency **McCann Erikson** and PhD students, focussed on digital advertising in the urban realm.

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

**Established in 2010, the VEC is a unique private-public partnership committed to advancing the use of modelling, simulation and 3D immersive visualisation, 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 STFC Hartree Centre which provides access to the UK's largest High Performance 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 and Risk and

Uncertainty) to provide 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 and FMCG.**

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

- Network of **over 140 SMEs, over 70 based in the Northwest**
- **Over 60 large companies within the UK**, such as BAE Systems, Bentley Motors and Jaguar Land Rover

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

**For more information about how your organisation could benefit from working with the Virtual Engineering Centre:**

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**virtualengineeringcentre.com**