



Knowledge Exchange Case Study

An integrated approach to knowledge exchange between academia and industry

By partnering with local employer Unipart, and financial support from the HEFCE Catalyst fund, Coventry University has set up a brand new state-of-the-art building on the Unipart manufacturing site, which provides students and researchers access to numerous technologies, including fully automated welding and joining processes, CNC tube manipulation, machining, high pressure testing, latest generation robots and control systems, as well as metrology and material testing & characterisation laboratories. This new way of engaging with business delivers highly skilled work ready graduates for the local area, and has secured millions of pounds of investment from local UK business through the application of high impact research through strategic partnerships with brands such as Aston Martin, Ford and Unipart. It was shortlisted in the “Contribution to Business” category in the Impact Awards for Knowledge Exchange and Commercialisation Professionals 2015.

Carl Perrin is the Director of AME, heading up the Institute. He has a degree and PhD in Metallurgy, and prior to joining the Institute for Advanced Manufacturing & Engineering (AME), Carl worked at Rolls Royce as Head of Technology. He was attracted to join the AME from an industry background due to the unique opportunities the Institute presented, to combine industry and research experience.

Carl says, “The Institute for Advanced Manufacturing and Engineering is a different model for developing engineering talent. Bringing the teaching and research environment on to the factory floor generates a unique experience for students and fresh thinking for industry. It is a means of developing industry-ready graduates, boosting UK economic growth and accelerating the process from innovation to commercial realisation.

“Its aim is to deliver partnerships that benefit both Coventry University and Unipart, to deliver impact through knowledge exchange. As a two-way process with industry, knowledge exchange needs to work collaboratively, and to facilitate that collaboration as equal partners. By siting this facility with a manufacturer rather than on campus, it removed both cultural and physical barriers.”

AME has three core strands to its operation: Training, Skills & Education; Research; and Growth & Impact. Training, Skills & Education includes a new BEng undergraduate course and PhDs, and Continuing Professional Development to help re-skill or up-skill those already in the workplace. CPD clients include large global blue chip OEMs as well as local SMEs. The Research strand maintains a healthy pipeline of research projects and helps generate publications and outputs which will contribute to the next REF submission from Coventry University. Growth & Impact works to deliver against Coventry University’s goal of continuing to grow and deliver excellent impact and research.

The AME has been extremely successful; one project on which AME worked with Ford has generated over £15M of new manufacturing business in the UK, which may otherwise have gone overseas.

The AME approach to overcoming the skills barrier challenge and working effectively with industry is replicable across the world. At present, Coventry University is in discussion with a US based University, to help them set up a similar model to the AME with one of their strategic partners who faces similar challenge to growth through a lack of skilled workforce.



“Unipart Manufacturing enjoys a close working relationship with Coventry University as we share many of the same passions, including increasing the number and calibre of engineers and associated skills in the Coventry and Warwickshire area, as well as researching and supporting high value manufacturing and engineering. This partnership is therefore a key element of our own growth profile in high value manufacturing.”

CAROL BURKE, Managing Director of Unipart Manufacturing Group

VALUE-ADDED KEC SUPPORT:

- Developed a long-term embedded partnership between academia and industry
- Accelerates innovation and commercialisation by overcoming cultural and physical barriers
- Retained investment in UK
- Created skilled workforce for local area

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