

Homeward bound

IndustryVIEW

Technology is developing so fast it is changing how the automotive manufacturing industry does business. Companies are no longer just looking at developing factories around the world but creating joint ventures on British soil so they can respond quickly and adapt to these changes.

Historically the trend has been for British car manufacturers to form links with global suppliers and have identical factories around the world.

Carol Burke (inset), managing director at Unipart Manufacturing Group (UMG), says: "What happened was that globalisation was used to lower costs. That was fine when the product was basic and you needed to set up a plant in China, but there has been an increasing number of recalls and problems that exist within those plants.

"Global sourcing has often been seen as an approach to driving down costs and creating strong links between companies in different geographies. UMG went down that route with global partners for many years. But we found that technology was being developed at an incredibly fast rate and it was almost impossible to co-ordinate our own research and development opportunities with those of some of our partners.

"We revisited our strategy and evaluated the products that we were making. We found that using our own skills and resources we could move more quickly into higher-value, advanced engineering products. We recognised that we were essentially an engineering company with a unique approach, that we call The Unipart Way, which would enable us to harness the skills and innovation of our people to produce a whole new range of hi-tech products.

"To stay ahead of the game, UMG decided to invest in the facilities and equipment for sectors which needed to develop products that required more sophisticated advanced engineering capability. UMG chose gasoline direct injection (GDI) technology, which had a predicated high-growth trajectory across gasoline vehicle manufacture in Europe, the USA and Asia, and purchased a Midlands-based fuel rail manufacturer.

Burke continues: "What we saw was an opportunity – that if we could get in here and make these products successfully, we could compete against the toughest global competition. It is unusual in the global automotive industry to find those kinds of opportunities."

The GDI products UMG made started to gain traction and the manufacturer secured a large contract with Ford. "We started to make these products really well and are probably now recognised as the highest-quality supplier of GDI fuel rails," she says. "We are securing new contracts on the back of that."

Global partners can sometimes inhibit speed and agility and therefore, in order to foster creativity and innovation back in the UK, UMG joined forces with Coventry University in a bid to keep up with technology and develop new products beneficial to the industry.

In 2014, the joint venture created the £32million-plus Institute for Advanced Manufacturing and Engineering (AME) centre to train students in this area. "If you have a centre of excellence which you can control, then you will be more secure in the global marketplace," says Burke.

The partnership is a UK first and offers students three-year BEng and four-year MEng degrees, based on activity-led learning. It brings together academia, industry and research and development on the factory floor, with the aim of developing new products, processes and technologies. Presently there are 23



By nurturing British engineering talent, we can re-energise the UK's manufacturing sectors

undergraduates and six postgraduates undertaking courses.

Burke says: "We set out to put undergraduates into a facility so they would study their undergraduate degree in a real working environment from day one. That is hugely valuable in generating industry-ready graduates.

"If we do not get enough people into our industry, then we will not be able to grow at the rate that we need to. There is a big story to be told about increasing the number of engineers and apprenticeship programmes."

The engineers on the courses benefit from the experience of being able to work with customers, while existing UMG employees gain from access to continuous professional development.

UMG has also partnered with Coventry University to map out the technology road maps that exist for all the products in the business, so they can be prepared for the future. "We are doing research and development in the institute that underpins those road maps," says Burke.

"It is supporting our manufacturing business and can lead to contracts for Unipart, its customers and suppliers."

The technology that UMG is developing with

"We needed to revisit our strategy and look at the products we are making. We need to look at how we can fund our business and develop the skills needed to make them." *Carol Burke, managing director, Unipart Manufacturing Group*

Above: Unipart Manufacturing is playing a major role in the development of cleaner and more efficient engines

Coventry University is not only helping British automotive companies, but is being used in other sectors. Unipart has extensive expertise in designing, servicing and manufacturing heat exchange devices that can be used in a range of industries.

Burke says: "We sense the automotive sector has a huge amount to offer industries in the UK, particularly the growth industries like power generation, oil and gas – all things that the country is going to spend an enormous amount of money on.

In the area of heat exchange, hi-tech welding technology used in the automotive sector and developed by the AME institute can be used in manufacturing for heat exchange systems in industries such as nuclear power.

"We can apply all the know-how and expertise of the automotive sector – which is often described as one of the most sophisticated engineering sectors in the world – to actually underpin growth in other industries.

"We committed to building a world-class manufacturing business in the late 1980s when people had dismissed the country's ability to compete in manufacturing successfully. Today Britain is one of the best places in Europe to manufacture products.

"By keeping up-to-date with new technologies by making products on British soil and educating young engineers in these latest technologies, we can foster innovation. UK manufacturers can once again become a key driver in growth in our economy."

Unipart Manufacturing is part of the Unipart Group – the leading provider of logistics, manufacturing and consultancy services employing around 8,000 people worldwide
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