

MADE SMARTER

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From the left, Ioan Lutas (WMG), Phil Arme (ECAM Engineering) and Tim Kirby (Made Smarter West Midlands)

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Looking forward to a bright future

An experienced precision engineering services business is continuing with its growth plans after receiving support from Made Smarter West Midlands.

ECAM Engineering began life in 1968 based on the Derbyshire/Staffordshire border before moving to Cheadle in the Staffordshire Moorlands, near Stoke on Trent.

The specialists in laser cutting, metal fabrication, CNC machining, welding and painting moved to its current home at Tower Crane Drive in New Haden Road, Cheadle, 20 years ago.

The business is split over three adjacent sites for its machine shop, cutting shop and the fabrication, welding and painting operations.

Phil Arme, Managing Director at ECAM Engineering, joined the business ten-and-a-half years ago and within 12 months he had bought the business.

He quickly set about modernising the company and it was his forward-thinking that led him to contact Tim Kirby, who is the Digital Transformation Specialist for Made Smarter West Midlands in Stoke-on-Trent and Staffordshire.

The business wanted to introduce a second robot to its welding operations and its installation is proving a big benefit, since they returned their highest ever turnover last year.

Phil said: "One of our strengths is that we are able to carry out a whole job in-house without having to outsource, which not only costs money but time as well.

"We have introduced a second robot, which is doing the work of six people and that means we have been able to transfer staff to other parts of the business where their highly-valued skills are much needed."

The Challenge

ECAM Engineering was bought by Phil with the ambition to turn it into a world-class manufacturing facility and he has continuously invested in the business, initially with a CNC machine to focus on automation.

That approach has continued with around £1 million being invested in the company, which employs 45 people, over the last 12 months which has involved digitising the whole of the business, from the first order to the product sale – and everything in-between.

He contacted Tim Kirby, who visited ECAM Engineering and then arranged for Ioan Lutas from WMG at the University of Warwick, who are one of Made Smarter's strategic partners, to create a digital roadmap for the business.

Phil explained: "We had one robotic welder and have had it for some time and we have used it to its full potential.

"We recognised we needed to go down the road of having a second robot. I had read about the Made Smarter programme and I thought it could help us make a decision about which robot would be best for us since we are not experts in that field.

"I contacted Tim and he came down and introduced us to WMG. We had various conversations and they carried out the research and came up with the solution."

Tim Kirby said: "We had an initial conversation because there was a need for ECAM Engineering to become more efficient and productive but there was also

a skills issue because training staff takes a period of time and some were leaving to join larger businesses nearby.

"We wanted to show Phil that by introducing a second robot, it would leave more staff to carry out more skilled jobs.

"Digital technology can benefit a business in so many ways and the improvements to ECAM Engineering are being proved on a daily basis, which is helping its bottom line."

The Solution

Tim worked with Phil on his application for a £20,000 grant from Made Smarter towards a £100,000 Panasonic welding robot.

Phil said: "Our customers are mainly in the UK in the construction, railway, automotive and medical sectors.

"One of our major customers is JCB and we wanted a second robot to primarily produce their parts much more quickly, efficiently and with more consistency.

"We bought the robot from Japan and it then went to Germany to have particular parts added before it was shipped to the UK." Ioan Lutas, Innovation Manager at WMG, said: "Meeting Phil was positive from the first introduction and attention for the support rapidly became focused on automation and robotics improvements available through the programme.

"While the management was fully focused on the advantages offered by the digital uptake through performance improvements, there was a continuous reassurance and discussions opened for staff retention, championing the introduction of technologically advanced manufacturing practices onto the shopfloor, and foreseeing the gradual

adoption of innovative technologies to be introduced, with the consequent training and learning requirements."

The Benefits

Staff have seen the benefits of the second robot immediately and Phil has seen the benefits in the financial figures.

Overtime is no longer needed to complete jobs since the robot has sped up processes and shift patterns have been changed to reflect this.

Phil said: "The new robot has more manipulation than the other robot because it is more advanced, and the team has seen the advantages this brings.

"Business has been amazing and last year we had our best year ever. Turnover was up 20% on the previous year.

"We bought the robot to give us more capacity because we were having to ask staff to do overtime, which was putting pressure on the team. It has since helped us to become more organised as we have improved the layout of the site and made it cleaner.

"We have improved the quality and production on the shop floor and our work conditions, as well as the know-how of the staff who operate the robot."

The Future

ECAM Engineering has also invested £250,000 in a Doosan Horizontal Machining Centre to improve efficiencies in the machine shop and £700,000 on a new fully automated laser cutting machine, as well as installing solar panels on its industrial units and is being assessed for Environmental ISO 14000 certification.

Rama Krishna Adiya Bharadwaj Kolluri has also joined the business as a business analyst from Birmingham University and is focusing on the business's

performance and how it can further improve productivity.

Phil added: "All this technology is taking the business in the right direction and we are understanding what we need to be doing to maintain our upward momentum since business is now exceeding pre-pandemic levels.

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CASE STUDY