

MADE SMARTER

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- Pete Murphy, Operations Director, Protaform



Fred Wray, MTC; Anuradha Kamble, Protaform; Martyn Mangan, Made Smarter

Redditch business accelerates its expansion after embracing new digital technologies

A specialist in tooling, design and manufacturing has a strategic plan in place for continuous growth after introducing digital technology thanks to support from Made Smarter West Midlands.

Protaform Springs and Pressings Ltd was established in 1977 and specialises in manufacturing and supplying springs, pressworks, wireforms and multiforms from its premises in Arthur Street, Redditch.

The business is owned by Managing Director Des Fagg and currently employs 65 staff to service its 400-strong customer base throughout the UK, Europe, USA and Asia.

It is growing its client base within the defence, construction and horticulture sectors, and in the last 12 months, Protaform has invested around £250,000 in state-of-the-art machinery.

Anuradha Kamble joined the business as part of Aston University's Knowledge Transfer Partnerships (KTP) before Made Smarter West Midlands and the MTC helped take the business to the next level on their digital transformation journey.

She was tasked with moving Protaform forward into the digital age and has been so successful that following the completion of the two-year programme, she has been employed as a full-time digital transformation manager.

"My main focus was to drive the digital transformation of Protaform to modernise the shop floor data throughout the factory to improve the efficiency of all the different stages of each operation," Anuradha said.

The Challenge

Protaform started working in partnership with Aston University on a KTP project because many of its processes – particularly its assembly work – were carried out manually and some of its machines were from the 1960s and 1970s, which was slowing production.

Operations Director Pete Murphy said: "A lot of our equipment, such as our hand-pressing machines, is pretty dated. We knew we needed support to improve our ways of working.

"Some of the lead-in times that have been inputted in Sage are from years ago and some of the machines are running at different speeds now.

"Anuradha started as part of the KTP and we saw the need to support her in her work by bringing in Made Smarter.

"We had the knowledge within the company, but we needed someone to ensure the digital machinery we had was giving us the data we needed from the shop floor.

"We had a digital system previously which had failed and that had coloured our judgement, but Made Smarter visited us to determine if there was a project they could help with."

Martyn Mangan, Digital Transformation Specialist for Made Smarter West Midlands in Worcestershire, said: "Made Smarter helps companies deploy a digital project that may not have achieved their exact outcomes without our support.

"Protaform engaged with the KTP which is another government funded programme that gave Anuradh the opportunity to take control of Protaform's whole digital programme. She didn't have a second job within the business – she was totally focused on this.

"Anuradh is now working permanently at the company following the end of the KTP and it is evident how much value she is bringing to Protaform.

"Their on-going digital programme is now part of Protaform's vision to grow their productivity and remain competitive in the manufacturing environment. This has enabled shop-floor intelligence to help key decision-makers know what's going on in the factory in real-time, which facilitates proactive decision-making and helps them to react to issues as they arise.

"That's made Protaform more productive, leading to more work. If there's down-time in a machine which they didn't have knowledge of before, this can now be resolved."

The Solution

Over the last 12 months, Protaform has spent around £250,000 introducing digital systems to their 3,282 m2 factory.

This has included buying a spring generating machine to increase its capacity to handle larger diameter wire sizes, a shot blasting machine, and a tapping process which is semi-automated.

Crucially, Protaform is working with MATICS manufacturing software to extract data from its machines and orders through tablets mounted on to each machine which include counting devices.

Pete said: "As part of the Made Smarter programme, Fred Wray, an advisor from the MTC, helped with the equipment selection process and advised on whether it could deliver what we needed. Having that second pair of eyes was invaluable.

"We spent a lot of time deciding which supplier to go with because we had been in this position before and had failed.

"The MTC spent half-a-day meeting with our key stakeholders, including Anuradha, to learn about the company and our processes and our aspirations, and they then produced a digital roadmap."

The Benefits

Anuradha wrote a software programme which has been implemented by the business and members of staff have received training to understand the digital technology which has been introduced.

She added: "We started finding out what we needed in terms of assistance or just sensors and hardware.

"Fred scoped out the system that we needed and we then selected how much benefit we would get from each one so that we could make the right decision because it was a large investment. It was a critical decision. That recommendation gave us the confidence that we were getting the right system."

Fred Wray, Senior Advisor, Digital Transformation at the MTC who are one of Made Smarter's strategic partners, said: "Protaform is the perfect example of a British manufacturer who have grown through high-quality delivery of their products and a good reputation within the industry.

"The challenge was to enable them to use the data from the shop floor intelligently to make proactive decisions, employ more people, and to be smart about the funding opportunities that are available.

"Failure in a digital transformation project is often due to some degree of poor scoping at the start of a project.

"That's where Made Smarter comes in. Some companies need a lot of help, other companies already have some digital capability. Protaform was among these, but they needed help with how to protect their business. When there's capital expenditure, there's a risk and Made Smarter was able to help de-risk their purchase and maximise the likelihood of success.

The Future

Protaform is now planning to recruit staff in digital transfer management as well as construct an extract paint dispensing room.

Pete said: "Capacity planning will take us light years on in the future. Work orders will be completed quicker and we will be able to use the data to see where there's a gap in our productivity.

"We have been quoting standard lead times without knowing if this information is correct. MATICS will give us real-time operational efficiency which is going to be the key because we will be more aware of our capacity.

"The digital processes we have put in place will futureproof our business. Made Smarter has ensured we have had long-term assistance with our KTP because we needed a long-term employee.

"Anuradha has a different set of skills to everyone else that works within the business and none of this would have happened without her. This is her day job whereas for anyone else, they would have been fitting it in between all their other tasks.

"We have a strategic plan in place for continuous growth and we are feeling confident of reaching our targets."

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SUCCESS STORY