

Intelect Improving efficiency and delivering growth through new technology

By investing in new technology we've delivered greater efficiencies, increased capacity in the business, and grown our competitive edge in the marketplace.

The award-winning mechanical and electrical engineering contractors - known for its strong health and safety record and continued investment in staff and equipment - invested in new, cutting-edge technology through Made Smarter Adoption North East to increase capacity in the company's in-house design team, and give the business a competitive edge.

Middlesbrough-based contractors, Intelect, have invested in a FARO Freestyle 2 Handheld Laser Scanner - the fastest portable 3D scanner on the market - to improve the efficiency and capacity of its in-house design team.

Jack Guy, Design Engineering Manager at Intelect, said: "Improving efficiencies, both for us and our clients, is a big part of why we've made this investment. We're now able to provide real time visualisations that clients can use for design or process purposes."

The Challenge

An increase in new customers and existing client projects saw demand for Intelect's six-strong, in-house design team rise. Detailed surveys for larger projects could often take weeks or even months to complete, which put significant time pressures on the business.

Jack explained: "We wanted to ensure our design team had the time to respond to all the work that was coming through. For us, it was essential that we found a way to use our resources more effectively, and find a new solution that would increase our efficiencies and our capacity as a department."

Aware of the role technology is playing in transforming the advanced manufacturing sector, Intelect attended a digital transformation workshop at Teesside University, where they found out more about the Made Smarter Adoption North East programme.

Jack said: "We came away with the knowledge of how we could use technology to our advantage, and how Made Smarter could help us achieve that."

The Solution

With grant funding support from Made Smarter Adoption North East, Intelect purchased a FARO Freestyle 2 Handheld Laser Scanner, which enables its design team to 3D laser scan hard to reach areas within 0.5mm of accuracy.

The technology provides a real time visualisation of a piece of equipment, machinery, or an area of a plant.

Jack added: "It enables us to see what we're scanning as we go, and we can do that in minutes. Prior to that, it would have all been done by hand, so it certainly makes the process quicker and easier for the team."

Previously the design team would have used pen and paper and a laser pointer to gather measurements. Now, the new technology allows them to scan and upload the layout directly to a software package where they can insert designs.

The new 3D scanner also helps identify any potential hazards and reduces the likelihood of human error. Jack said: "It allows us to foresee any issues or challenges before they become a problem."

The Benefit

One of the major improvements Intelect has seen as result of implementing the new technology is the level of efficiency it can provide to its clients. There is no longer the need to stop production or assembly lines for long periods of time, which for businesses operating in process industries can be very disruptive. By reducing time on site, there are also health and safety benefits to the new technology as well. Overall, it has expanded the capacity of the design team.

Jack continued: "Our team have more time to work on other projects now, so we've increased capacity within the business and we've also taken on an additional member of staff within the department too. It's also given us a competitive edge by having the fastest 3D scanner on the market. It's sets us apart from our competitors."

The ability to identify any potential problems or challenges before production is another major benefit for Intelect.

Jack added: "It means we're better positioned to handle any challenges we might face during the project. We're able to provide an even better quality of service."



The Future

Intelect expects to see demand for its new technology grow, with the company being able to offer the service as a bespoke solution, as well as part of a total turnkey (end to end) package.

The company has worked with many of its clients throughout the lifespan of the business, so it is committed to delivering the best service the market has to offer.

Jack explained: "We're continuously investing in the business, so eventually we'd like to combine our existing technology with VR and AR so clients can complete virtual walkthroughs of their projects. The future of technology will certainly be an exciting one."

