

C-TEC boosts productivity and cuts waste with warehouse digital transformation

A leading UK manufacturer of fire alarm and life safety systems is unlocking growth through digital adoption, supported by Made Smarter.

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Peter Butterworth
Manufacturing Operations
Director at C-TEC.



C-TEC, based in Wigan, has replaced manual, paper-based inventory processes with a cloud-based software solution which enables real-time stock management and dramatically improves efficiency and accuracy.

The £40,000 project, supported by a £20,000 grant from Made Smarter, has increased productivity by 25%, eliminated dispatch errors and cut out paper waste, supporting C-TEC's sustainability goals.

The project has also laid the foundation for scaling operations, introducing new, disruptive fire safety products, and creating four new jobs.

"Made Smarter didn't just help us identify a problem, they gave us the confidence and support to act on it," said Peter Butterworth, Manufacturing Operations Director at C-TEC. "Their backing enabled us to accelerate our digital transformation, eliminate inefficiencies, and build a smarter, more scalable operation ready for the future. It's been a genuine turning point for our business."

The Challenge

C-TEC started life above a restaurant in 1981, just a few doors down from Wigan entrepreneur Dave Whelan's first sports shop. Fast-forward four decades, and the small, family-run business has grown into a £25m manufacturer of world-class life safety systems, exporting to over 80 countries.

From its Wigan headquarters, C-TEC's 195-strong team manufactures a vast range of open-protocol fire detection and fire alarm systems, evacuation alert systems, call systems, disabled refuge systems and hearing assistance systems. Just a few miles up the road, the company has a dedicated

R&D centre of 25 engineers driving product innovation.

As an independent company, C-TEC has remained agile in the face of change. The Grenfell Tower tragedy marked a turning point for the fire safety industry, and C-TEC responded by accelerating development of smarter, more connected systems, enhancing functionality for monitoring, and evacuation beyond compliance standards.

That focus on innovation has opened doors to projects such as high-rise developments, stadia, hotels, hospitals and shopping complexes.

C-TEC has achieved outstanding year-on-year growth by investing in its systems, people, and processes. However, as operational success began to outpace its warehouse capabilities, the company identified a need for change.

A digital transformation workshop delivered through the Made Smarter programme revealed key challenges: high product variety and volume, reliance on manual stock handling, and paper-based inventory control processes were contributing to errors, inefficiencies, and bottlenecks.

"We've got around 9,000 part numbers across finished goods, sub-assemblies, and raw materials," said Peter. "It's a complex operation. Too much of our warehousing was manual, error-prone, and paper-heavy. We needed to improve traceability, stock control, and reporting to support future growth."

The Solution

To address these challenges, C-TEC invested in IFS's Warehouse Data Collection (WaDaCo) solution, which integrates seamlessly with the

existing IFS ERP system, digitising manual warehouse processes from goods-in to customer despatch. The solution automates inventory transactions and eliminates rekeying errors, enabling faster, more accurate operations.

At the heart of the system are mobile barcode scanners and handheld PDAs. These allow warehouse staff to interact with the ERP in real time, whether picking, kitting, or performing stock checks, without needing to return to static workstations or using printed pick lists.

Barcode scanning and labelling have been automated across all inventory types and storage zones, enabling real-time inventory updates directly within the ERP system.

WaDaCo is also compatible with supplier systems and supports future supply chain integration.

The Benefits

The move to digital has delivered immediate, measurable results.

C-TEC's warehouse team has increased productivity by 25%, processing 250 line items a day, up from 200, without increasing headcount. Dispatch accuracy has improved significantly, while manual entry errors have been virtually eliminated.

Sustainability gains have followed. By eliminating printed pick lists, previously up to 80 sheets of paper per day, the business has saved the equivalent of nearly four mature trees. This supports C-TEC's net zero ambitions and strengthens its position with public sector clients increasingly focused on ESG credentials.

"That's a lot of paper we're no longer using," Peter explained. "When you scale it up over a year, it's significant. From an environmental point of view, it's a win."



"It's essential we can demonstrate our sustainability efforts, whether it's the solar panels we've installed or the systems we've integrated to eliminate waste."

A major strength of the project has been company-wide involvement, from warehouse staff to IT. 14 employees have already been trained in the new system and upskilled in digital tools.

"That inclusive approach meant smoother implementation and better adoption," said Peter. "It's not just about software, it's about culture. While the tasks are simpler, our people are getting familiar with digital systems. They've gained confidence. They're quicker. More accurate. And they've got the data they need at their fingertips."

WaDaCo is also futureproofed for growth, helping C-TEC scale output, launch new products, and maintain quality and traceability as volumes increase.

Over the next three years, the project is expected to create four new roles in warehouse operations.

The Future

While Made Smarter's support has accelerated C-TEC's data and systems integration, the business is also investing in enhanced manufacturing capability, improved process control, and automation.

That collective effort is paving the way for the next generation of disruptive products designed to lead the fire safety industry into a smarter, more connected future. This includes its award-winning CAST-PRO combined fire detector and alarm device.

"It's not about one flashy investment," Peter said. "We've got a team of 25 R&D engineers working on products that will lead the industry over the next decade. Our job is to make sure our operations are ready to deliver them."

