

## Creative Apparel Sewing the seeds of sustainable growth

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A clothing manufacturer, supported by Made Smarter, is embarking on a digital transformation journey to support a more sustainable approach to growth.

Creative Apparel Limited (CAL), based in Stockport, is building a new state of the art factory one mile away from its current base.

It is investing in full factory digitalisation where a central IT system drives and measures smart machinery, linking production through to its customers and supply chain.

Renewable energy sources including rainwater harvesting, solar power, air-source heating and eco fans will support the introduction of modern, high tech machinery to enable a more sustainable approach to production.

Its ambition is to quadruple production capacity, increase productivity by 30%, and reduce waste by 20%.

Managing Director Phil Millar believes putting technology at the heart of growth plans will increase CAL's turnover fourfold within five years, and create 50 new high value jobs.

Made Smarter is supporting CAL with two essential projects.

The first is a data and systems integration project to automate the process from receiving orders right through to production management and dispatch.

The second project is the development of a bespoke software which uses artificial intelligence (AI) tools to respond quicker and more effectively to fast fashion trends.

Phil said: “The fast fashion industry suffers from a reputation as one of the most damaging to the environment due to the amount of waste generated during the production process and the throw-away nature of many of the products.

“We want to help address that by becoming a leader for change in the sector by putting sustainability at the heart of our production processes.

“By introducing digital technology and tools that reduce waste and consume less energy we want to prove that you can help save the planet and can save money.

“Accessing support from Made Smarter is helping us accelerate faster towards our vision.”

### The Challenge and Opportunity

Established in 1988, CAL is a manufacturer of branded workwear and promotional clothing, specialising in garment processing and finishing methods such as screen printing and embroidery.

Each week its 90 staff produce around 50,000 items of clothing for fast fashion customers across the UK.

In order to increase production capacity and be more responsive to the evolving fast fashion industry demands of lower volume runs, each containing a number of different finishing processes, CAL is building a new factory which is enabled for greater flexibility for continuous improvement.

The new factory offers an opportunity to significantly improve how it fulfils orders by introducing a fully automated digital process.

Phil explained: “The current system means that multiple orders can arrive from some customers on one single template and then must be manually separated and input into our system. Because our suppliers have minimum order runs we are often forced to over-buy. It is very inefficient.

“Manually inputting data from the original order can take well over a day which leads to inefficiencies and errors, and as a result, lost turnover and profit. This significantly inhibits growth and can result in dissatisfied customers.”

Another key challenge for CAL is responding to rapidly changing fashion trends.

Because of the nature of the fast fashion phenomenon the manufacturing sector can be out of sync with trends and generate a lot of waste.

To move closer to the market and reduce waste CAL is proposing to use AI to track and monitor trends and flag market change.

### The Solutions

Made Smarter is supporting CAL to invest in its new software to integrate incoming orders directly into its production management system, and translate them into usable data for processing.

The system will break the orders down so they can be automatically issued to multiple suppliers to find the best prices and ensure available capacity, then place orders automatically.

It will also track the orders as they are received at the factory, before reassembling on completion of manufacture ready for dispatch.

A second project supported by Made Smarter is for a new piece of software that will collect fashion trend data from key social media influencers and other sources. It will identify and tag ‘useful’ elements which are filtered and displayed to the design team to see in real time.

The AI creates a virtuous circle whereby the more it is used the better its results will be.

### The Benefits

The digitalisation of the new ordering process will speed up the process from a one-day turnaround to almost instantaneous order placing.

This will increase productivity and volumes substantially.

Removing human intervention, optimising procurement and removing the need to hold stock will reduce production costs by £100,000 a year, CAL estimates.

A closer integration with its supply chain will increase accuracy, reducing lead times and reducing costs for all parties.

By investing in AI software CAL aims to reduce waste by 20% per year by eliminating the production of non-sellable products.

The project will provide the base data that allows CAL's creative team to more accurately predict designs that will be accepted by fast



fashion retailers and substantially increase sales as retailers recognise the company's track record for producing sellable, and on-trend designs.

CAL aims to have 90% of its designs accepted by its customers and improve time to market, design to production, from one week to six hours.

Phil explained: “We rely on tacit knowledge and predictive work when deciding what to manufacture and sell to retailers. This results in a loss in sales revenue when we realise a fashion trend mid to late in its cycle.

“If we can predict cycles in their incubation, we can use intelligent manufacturing to sell a product throughout an entire cycle. The ability to identify, sort and analyse vast amounts of data will allow us to present designs to customers that have a very high probability of acceptance.

“This project will ensure that the garments produced by CAL reach the market at a point when demand for the styles they represent are rising. Once that optimal point has passed production will stop so waste will be reduced.”

### The Future

CAL's digital transformation strategy includes a wide range of innovative proposals to improve efficiency and drive up productivity.

Alongside the factory development and new machinery, CAL is investing in cultural change to ensure employees are fully competent to operate within the newly digitalised environment.

“This isn't just about buying new machinery, but it's about getting the best out of this technology, understanding how to optimise the flow of garments through the factory during the manufacturing process,” Phil said. “Our vision will result in a huge cultural shift within our organisation, and we are committed to bringing our workforce along on the journey, upskilling them and creating high value jobs. It's an exciting time for CAL and we are grateful to Made Smarter for supporting the journey.”

