

## CASE STUDY: DEVONSHIRE BAKERY

### THE BRIEF

Based in Cheshire, Devonshire Bakery is a family-run business that has been operating out of Frodsham, Runcorn and Weaverham for almost 100 years – here's how they found digital solutions to maximise outputs.

Priding itself on its rich heritage of baking, it produces a wide selection of bread, made by traditional methods, bulk fermentation and sourdough. In addition to its weekly selection, (white, wholemeal, multigrain, rye and French bread) Devonshire Bakery also produces speciality breads including sunflower and rye, ciabatta, fitty, spelt and low G.I. This can equate to over 200 different varieties of baked goods.

Devonshire Bakery is a forward-thinking business, constantly developing new products in order to keep up with current trends and always welcoming new ideas from customers and partners. This broad offering of products at Devonshire Bakery means it utilises several different ovens, machines, freezers and air conditioners.

It has been no secret that the cost-of-living crisis has posed new challenges for SMEs, like Devonshire Bakery, who rely on energy intensive machinery. Having multiple energy-intensive ovens in use most days, it means Devonshire Bakery is particularly exposed to volatility in the price of energy. Their management team was interested to learn more about how they could optimise their energy output, in particular how they could predict energy output to minimise or eliminate waste.

### THE APPROACH

Through CW4.0, the management team at Devonshire Bakery were introduced to Liverpool John Moores University's (LJMU) Research Engineers, educating them on some of the Industry 4.0 technologies that could benefit the business. Using the team's specialist knowledge, Devonshire Bakery were advised on some cost-effective approaches to energy maintenance.

The Research Engineering team at LJMU provided Devonshire Bakery with energy output tracking devices that could be connected to its equipment. The management team can use this live data to monitor in real time the energy usage of its equipment, making it easy to highlight times when there is waste.

### THE BENEFITS

Devonshire Bakery was pleased with the immediate reduction in energy costs. The team were able to identify energy inefficient machinery, such as their old ovens and walk in freezer, and replace them with more effective models.

Through the data provided, the management team was able to make informed decisions on how efficiently various pieces of apparatus were operating. By reducing frozen stock, altering the timing of machinery being switched on and increasing staff numbers at peak times, meant energy savings could be made throughout the working day.

Devonshire Bakery can now share accurate data with the wider team, collaborating with its wider team to identify other schedules that could be more energy efficient, whilst maintaining the high standards that the bakery has relied upon for so long.

*"The key for us was maintaining our high standards in customer service and end product, whilst introducing new technology to modernise our methods. Now having access to this data, we can make small changes that don't hamper the team's working day but can make the business big savings in energy costs."*

- Robert Crowther, Devonshire Bakery