"Diversification into sandwich manufacturing has contributed significantly to our profitability, increasing turnover by 10% and giving us a real competitive edge. Emma’s enthusiastic approach has ensured we now have a fully operational, externally accredited technical function that will enable us to secure further market share."

Sue Pullin, Director, Pullins (Bakers) Ltd

Pullins Bakers Ltd, based in Yatton near Bristol, was established in 1925 by Thomas George Pullin and remain a good example of a high quality, traditional family owned bakery. However such businesses find their margins under increasing pressure from the major supermarkets and have to consider ways of improving profitability and competitiveness in order to survive and grow. To this end Pullins has diversified into sandwich manufacturing to improve their gross margin and reduce the risks associated with competing in a contracting traditional market. Early indications showed this to be a successful strategy, with Pullins supplying an area covering Bristol, Bath, Somerset and South Gloucestershire. The company’s management team realised that new disciplines and technical skills in areas such as process automation were essential in order to cope with the challenges of moving from ambient stable products to ‘high care’ chilled product manufacture. Recognising that a significant barrier to achieving this was their current lack of internal processes, quality systems and technical expertise, they approached the University of Plymouth’s Knowledge Transfer Partnerships team. With the appointment of Food Studies graduate Emma Wells, working in collaboration with Dr. Victor Kuri, a university expert in Food Quality, the team strategically planned and implemented a 2-year KTP project designed to meet specific company objectives.

A review of Quality Management Systems (QMS) including Hazard Analysis and Critical Control Points (HACCP) for existing and new products began with Emma establishing new methodologies and procedures. She formalised the HACCP system by leading a multidisciplinary team and setting up a dedicated technical function within the company. Ultimately this gained them the British Retail Consortium (BRC) standard accreditation which provided the platform for securing the necessary further accreditation to supply sandwich retailers and comply with standards required for the British Sandwich Association (BSA). Gaining BRC and BSA accreditation has given Pullins a real competitive edge, particularly when tendering to organisations such as North Somerset, Bath and Bristol NHS Trusts, Universities of Bath and West of England, Budgens, Bristol City Council as well as T & A Symonds’ Smiles brand.

The success of Pullins prize winning sandwich operation led to further company expansion, particularly their chilled and ambient storage capacity. Significant investment was made in converting the old shop on site to accommodate new bakery and sandwich process equipment and facilities, which Emma helped design, including a computerised batch control system for the continual improvement of their manufacturing infrastructure. During her KTP project Emma was given increasing responsibility for purchasing, product costing and staff training in addition to her company-wide technical management duties. She was also the primary interface with the regulatory agencies, fronting their audits and inspections.
PROJECT OBJECTIVES DEFINED

- Review and establish Quality Management Systems (QMS) including Hazard Analysis and Critical Control Points (HACCP) for existing and new products
- Attain British Retail Consortium (BRC) and British Sandwich Association (BSA) accreditation
- Assess and improve equipment performance of bread and cake making processes and determine factors affecting product shelf stability
- Review and develop process layout and safety of bread, cake and sandwich production processes including sandwich packaging systems
- Establish a new product development system and manage a new product development programme
- Enhance the skills and knowledge of the staff

THE BENEFITS OF THIS KTP PARTNERSHIP

To the Company:

- The establishment of a fully operational, technical function within the company
- A fully accredited Quality Management System satisfying both BRC and BSA quality standards that has enhanced customer confidence and gained market share
- A more professional approach to sales and technical development
- A more focused approach to customer selection and account management (cost benefit analysis)
- A formalised new product development system and an expanding new product development portfolio
- An improved sandwich production process and capability leading to an increase in turnover of 10%
- Enhanced supply chain management
- A formal training structure established for company staff
- Internal cultural change embedded alongside diversification from traditional bakery manufacture to the ‘high care’ sector of sandwich making
- Press coverage in specialist trade media such as an article in British Baker

To the Associate:

- Experience of leading a major technical project key to the company’s competitiveness and future business growth
- Experience in negotiating and relationship building with staff, customers and academic research staff
- Greater understanding of regulatory agencies’ requirements, acting as the primary interface and fronting audits and inspections
- Increased responsibility for purchasing, product costing and staff training
- Gained NVQ Level 4 in Management and progression towards a MSc qualification
- Guest lectured to honours undergraduates on the technicalities of sandwich production
- Accepted the position of Technical Manager at Pullins Bakers Ltd

To the University:

- Increased knowledge in the technical and commercial aspects of bakery and sandwich manufacture
- Industrial links raising the profile of the School of Biological Sciences knowledge transfer experience
- Project funding and contribution to RAE research activities
- 3 student undergraduate projects established
- Development of valuable new case study material, contributing to the university’s reputation for teaching excellence
- Published research papers

For further information on Knowledge Transfer Partnerships and other University services contact:

Research and Innovation, University of Plymouth, Drake Circus, Plymouth, Devon PL4 8AA

Business Enquiry Service: t+44(0) 800 052 5600 f+44(0) 1752 233505

Businessservices@plymouth.ac.uk

www.plymouth.ac.uk/businessservices www.ktponline.org.uk

April 2006