

CASE STUDY:

MILBANK CONCRETE PRODUCTS



IfM ECS worked with Milbank Concrete Products, a manufacturer of precast concrete products, as part of the PrISMS programme to:

- ▶ define the business growth strategy
- ▶ implement an innovation process to support the growth strategy
- ▶ increase revenues by 10% per annum
- ▶ reduce electricity consumption and energy bills by 20%
- ▶ optimise existing factory and yard layouts
- ▶ increase manufacturing capacity by 10%
- ▶ maintain existing jobs and increase staff levels by 5%



Milbank Concrete Products is a leading manufacturer of high-quality precast concrete products. It was set up in 1947 to design and produce precast flooring units. It is family owned and operated and employs more than 160 staff from its base in Earls Colne, Essex.

Precast concrete is the most commonly used building material in the world – it is cast in a carefully controlled factory environment and is not affected by variable site conditions. In terms of sustainability, precast units can be recycled at the end of their life.

Milbank's range includes both hollowcore and beam-and-block floors, staircases and spiral stairs, balconies and landings, ground beams, silage clamps and components for stadia and sea defences.

Services to clients include estimating, design, manufacturing, installation and technical support for its wide range of products. Customers range from leading construction firms to people building their own home. Milbank works with contractors in the civil engineering, rail, road and environmental sectors.

Milbank continues to invest in new plant and equipment, including a new casting machine which produces more consistent floor units and also reduces waste.

In January 2015 the firm launched a new website, allowing customers to download product information and access tools and calculators to aid product design.

Working with IfM ECS

IfM ECS initially worked with the firm's board to define the business strategy. It was agreed to focus on innovation to boost business growth.

IfM ECS ran a creativity workshop with 11 key staff in which 100 new ideas for products and services were generated. The team used leading tools including the Sustainable Product Design Toolkit and the Eco-ideationTool, which use the principles of sustainability in new product and process innovation.

The 100 ideas were distilled to a handful of the most promising ones in a rigorous selection process. These were further subjected to a feasibility study using tools and techniques developed at the IfM.

These exercises helped the company to identify a shortlist of distinctive products and services to help it grow, taking account of sustainability from the outset, with four ideas taken forward to the product development stage.

Senior members of staff benefited from coaching in the implementation of new product development. Milbank now has a broader mix of products and markets and expects much of its future growth to come from new products and services.

Specialist advice on energy usage and environmental impact was provided by Ecopare, a project partner of IfM ECS in PrISMS. This helped the firm to substantially reduce its electricity consumption and energy bills – and it also inspired a review of practices to further reduce the firm's environmental impact.

A student supervised by one of the IfM ECS team assessed factory and yard layouts. This project and the purchase of a new casting machine are among the measures being implemented to help the company towards its aim of increasing its manufacturing capacity by 10%.

PrISMS

The PrISMS (Practical & Innovative Solutions for Manufacturing Sustainability) programme aims to transform the growth prospects of 50 start-ups and 70 smaller manufacturers across the Eastern Region – creating more than 140 new jobs and safeguarding many more. The programme is funded by the European Regional Development Fund (ERDF), with match funding from the EPSRC Centre for Innovative Manufacturing in Industrial Sustainability, ideaSpace and IfM Education and Consultancy Services (IfM ECS) and supported by 11 county and district councils in the region. It is managed and delivered by IfM ECS, which bases its methods on research at the University of Cambridge's Institute for Manufacturing (IfM). For more information visit www.ifm.eng.cam.ac.uk/services/prisms

IfM ECS

IfM Education and Consultancy Services works with companies of all sizes to help create and capture value and with national and regional governments to support and grow their industrial sectors. It does this by transferring the new ideas and approaches developed by researchers at the Institute for Manufacturing (IfM) through a programme of education and consultancy services. IfM ECS is owned by the University of Cambridge. Its profits are gifted to the University to fund future research activities. For more details on its work with SMEs visit www.ifm.eng.cam.ac.uk/services/overview/sme/

ERDF

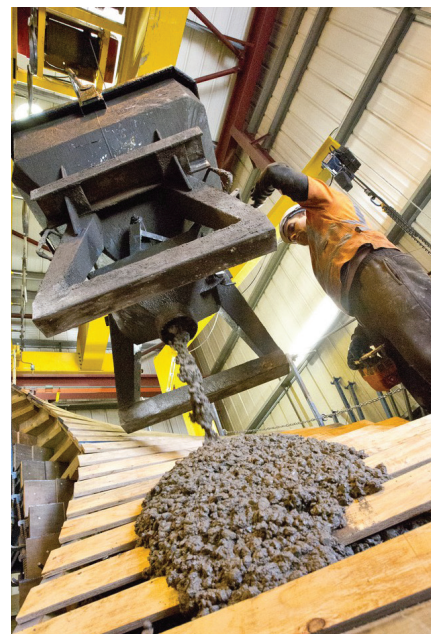
PrISMS is part-financed by the East of England European Regional Development Fund (ERDF) Programme 2007-2013. The Department for Communities and Local Government is the managing authority for ERDF in England, which is one of the funds established by the European Commission to help local areas stimulate their local development by investing in projects which will support local businesses and create jobs. The East of England ERDF programme (covering Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk) supports low carbon economic growth and has allocated approximately €95 million.

Growth through innovation

IfM ECS worked closely with the firm to make innovation central to its plans for business growth by putting an innovation process in place to identify new product and service opportunities.

These interventions, and the results they have brought about, are detailed below.

- **Business strategy:** Directors have prioritised the firm's key challenges and defined a growth strategy
- **Jobs created:** The assistance provided has helped to strengthen the firm and maintain 160 jobs. Staff levels have risen from 156 in May 2013 to 164 in January 2015, an increase of 5%
- **Financial improvements:** Turnover has increased by 10% per annum and this is forecast to continue in the short term, along with improved profitability
- **Implementing an innovation process:** A process has been implemented to help the company generate ideas for products and services that will help it to grow. This process used tools developed at the IfM to focus on sustainability. Four ideas have been taken forward to the product development stage
- **Improved staff skills:** Support and coaching has provided staff with new skills in innovation and new product development
- **Broader mix of products and services:** The firm now has a more distinctive and compelling portfolio of goods and services, minimising its risk in the event of a downturn in the housing and construction sectors
- **Investment in new equipment:** A new concrete casting machine produces more consistent floor units, offers greater flexibility in casting units of differing depths and it reduces the amount of waste. The firm has also added to its fleet of vehicles and re-branded them
- **Optimising factory and yard layouts:** A supervised student project proposed new factory and yard layouts which are being implemented to provide operational improvements
- **Increased manufacturing capacity:** Improvements to plant and layouts have helped to increase manufacturing capacity by 10%



- **Energy savings:** Changes made after an energy assessment are leading to a reduction in electricity consumption of 20% and reducing energy bills by 20%. The firm has reviewed its operations and practices to further reduce its environmental impact
- **New company website launch:** The user-friendly website launched in early 2015 offers customers detailed product information, downloads, case studies, online tools and calculators.

Andy Mayne, managing director, said: "Working with IfM ECS on our strategy and how innovation plays a vital role gave us added vision and direction along with creating a platform for our valued staff to broadcast their ideas.

"The full documented review of our energy usage carried out by Ecopare, a project partner in PrISMS, gave us a clear insight into what was needed to reduce our energy usage and, therefore, reduce our costs.

"The benefits of this work also inspired us to pursue and obtain accreditation of ISO 14001:2004, where we reviewed our whole operation and practices to not only save money but reduce further our impact on the environment."

- For more on Milbank Concrete Products visit www.milbank.co.uk

MILBANK

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