

## Knowledge Transfer Partnerships

### KTP BENEFITS

Knowledge Transfer Partnerships are designed to benefit everyone involved

- 🔄 Businesses will acquire new knowledge and expertise
- 🔄 KTP Associates will gain business-based experience and personal and professional development opportunities
- 🔄 Universities, colleges or research organisations will bring their experience to enhance the business relevance of their research and teaching

### Knowledge Transfer Partnerships

Accelerating business innovation; a Technology Strategy Board programme

<http://www.ktponline.org.uk>

## WITAN LTD KTP HELPS SME TO MANUFACTURE SUCCESS FROM EFFICIENCY CHANGES

### ABOUT THIS CASE STUDY

This Knowledge Transfer Partnership (KTP) brought about the successful collaboration between Cardiff University and Wiltan Ltd. The aim was to establish an in-house technical department for the development, quality testing and customer liaison of wound core electrical steel cores.

### ABOUT THE SPONSOR

The Technology Strategy Board is a business-led organisation established by the Government. Its mission is to accelerate research into, and development and exploitation of, technology and innovation for the benefit of UK business - building economic growth and quality of life.

### FAST FACTS

- 🔄 KTP has established an in-house technical department
- 🔄 KTP has implemented an integrated model for manufacturing systems
- 🔄 Leaner and more efficient use of resources and tighter production control
- 🔄 Overall profit before tax over the three-year period, after completion of the project, has risen by £388,000
- 🔄 Associate has gained experience and engineering expertise
- 🔄 The University has benefited from new projects, papers and research

## The Company



Gareth Lewis, KTP Associate

“The KTP programme has provided great improvements to the operation of the Company and a streamlined system which is already delivering growth and increased profits.”

Zouhair Itani, Managing Director, Wiltan Ltd

**Wiltan Ltd was founded in 1985 and is a small-to-medium-sized (SME) manufacturing company based in Pontypool, Wales. With a reputation for quality and precision, Wiltan has expertise in both electrical and mechanical engineering through the manufacture and supply of magnetic strip wound cores for the transformer industry.**

### ABOUT THE PROJECT

Wiltan Ltd recognised that in a complex manufacturing environment there are gains to be made from greater process control

and efficiencies, as long as any changes do not affect manufacturing functionality. As part of its approach to ‘leaner’ manufacturing, the Company wanted to establish an in-house technical department for its wound core electrical steel cores. This would reduce the costs involved in sub-contracting and establish more specialist knowledge within the Company.

### BENEFITS

The KTP project involved a review of practices, benchmarking exercises and analyses of the use of raw materials and of

returns. The project covered a greater remit than originally intended. Instead of focusing on separate development projects such as dedicated test equipment for E-cores, the KTP was able to bring about a more fundamental streamlining of processes, and to provide greater improvements in data control, scheduling and quality.

This approach has brought a wealth of benefits to the Company. By applying an integrated model, the Company has been able to improve stock control, reduce the costs of sub-contracting, enhance its responsiveness to orders and tighten its process control.

Using specialised software to help monitor process control, there are improvements in the purchase of electrical steel which is the key raw material. At a time when the price of electrical steel has been rising steeply,

greater accuracy over stock control and purchasing has helped Wiltan Ltd to reduce annual raw material costs by about £650,000.

With a greater understanding of procedures and more data, the Company has been able to reduce potential problems and mistakes. This has meant less expense from time and money spent on remarking or reworking parts. In addition, customer relations have been strengthened by the technical support and knowledge embedded within the new technical department.

The KTP project has been a marked success. With the new in-house technical department and greater efficiencies, the Company has enjoyed an increase in sales turnover of more than £300,000. The KTP has also improved the Company's exports and the export percentage by value is now

40%. Overall profit before tax, over the three-year period after completion of the project, has risen by £388,000, particularly as a result of a reduction in stock levels and fewer returns.

## RESULTS

- 🌀 KTP has established an in-house technical department
- 🌀 KTP has implemented an integrated model for manufacturing systems
- 🌀 Leaner and more efficient use of resources and tighter production control
- 🌀 Immediate savings of £26,000 a year from reduced sub-contracting
- 🌀 Overall profit before tax, over the three-year period after completion of the project, has risen by £388,000

## The Associate

**“This KTP project has brought me confidence, experience and new technical skills in a supported and constructive placement. I would recommend KTP as a great way to fast track your career.”**

Gareth Lewis, KTP Associate

### BENEFITS

Working on a project within a busy manufacturing environment has proved invaluable experience for the Associate. He enjoyed using his academic background for problem-solving on the job, has gained confidence and has also acquired new skills in planning, project management, presentation and leadership by following an NVQ Level Four in Management.

The Associate has been able to acquire additional technical skills and knowledge such as statistics and data analysis methods and contributed towards a new manufacturing approach.

### RESULTS

- 🌀 Provided experience of a manufacturing environment
- 🌀 New technical skills and knowledge from practical problem-solving
- 🌀 Developed greater project management and planning skills
- 🌀 Placement has enhanced engineering competences and future career prospects

## The Academic Partner



**“The success of this project has helped to demonstrate the importance of Cardiff University as a significant centre of innovative research and industrial collaboration in magnetics.”**

Professor Tony Moses, Lead Academic, Wolfson Centre for Magnetism, Cardiff University

### BENEFITS

Academic staff have enhanced their knowledge of manufacturing systems within an SME affording insights into the practicalities of running an industrial business. The design, development and implementation of manufacturing systems have informed case study material, papers, courses and teaching. The University has been able to move from the conceptualisation of basic systems into the development of a new manufacturing paradigm. This work has contributed to the research status of both the Cardiff Business School's Lean Manufacturing Centre and the Wolfson Centre for Magnetism and cemented their constructive partnership, resulting in a successful joint application for a further KTP.

### RESULTS

- 🌀 Enhanced knowledge of manufacturing systems
- 🌀 The commercial development of a new manufacturing approach
- 🌀 Gained from a new manufacturing paradigm
- 🌀 Experience has provided teaching materials, papers and research projects