

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 development opportunities
- 🔄 University, college or research organisation will bring their experience to enhance the business relevance of their research and teaching

A DTI Business Support Solution

HULLEY & KIRKWOOD LTD DESIGNS ON THE ENVIRONMENT WITH KTP

ABOUT THIS CASE STUDY

HULLEY & KIRKWOOD LTD IS ONE OF THE LEADING INDEPENDENT CONSULTING ENGINEERS IN THE UK. IT ENJOYED A SUCCESSFUL COLLABORATION WITH THE UNIVERSITY OF STRATHCLYDE FOR THIS KNOWLEDGE TRANSFER PARTNERSHIP (KTP). THE PROJECT PROVIDED THE INTEGRATION OF ENGINEERING AND ENVIRONMENTAL SIMULATION WITHIN THE DESIGN PROCESS ACROSS ALL OFFICES, IMPROVED ITS MANAGEMENT SYSTEMS AND ENHANCED INTERNAL COMMUNICATIONS.

ABOUT THE SPONSOR

THE ENGINEERING AND PHYSICAL SCIENCES RESEARCH COUNCIL (EPSRC) IS THE UK GOVERNMENT'S LEADING FUNDING AGENCY FOR RESEARCH AND TRAINING IN ENGINEERING AND THE PHYSICAL SCIENCES.

FAST FACTS

- 🔄 KTP initiated a successful use of simulation within the design process
- 🔄 Better communication and standardisation of information across offices
- 🔄 Greater quality of product design and improved market perception of company
- 🔄 Increase in turnover and profits over a three-year period
- 🔄 The University has benefited from greater links with an industrial partner
- 🔄 Academic and career development for the Associates

The Company



“The academic support from the KTP provided the catalyst needed to energise our projects and the energy to maintain the projects momentum to achieve a highly successful outcome for all parties involved.”

Simmy Telfer, Director, Hulley & Kirkwood Ltd

Hulley & Kirkwood Ltd is one of the leading independent mechanical and electrical building services consulting engineers in the UK. Based in Glasgow, it has offices in five major British cities and provides buildings ranging from residential to specialist commercial projects. Wherever possible, the company adopts a holistic and sustainable design approach to engineering.

ABOUT THE PROJECT

The company recognised the need to increase its versatility, particularly in respect to new energy-related legislation, by investigating the benefits of simulation to help inform its work with all building types. The KTP project enabled the company to embed simulation within its design process and also to improve communications and efficiency throughout its offices.

BENEFITS

With the help of the University of Strathclyde, Hulley & Kirkwood has been able to develop and integrate engineering and environmental simulation within the design process across all its offices. Procedures governing the deployment of simulation in practice have been set up in all offices to provide quality assurance. In addition a Group, with

representatives from all offices, has been set up to ensure that standardisation is maintained throughout the company. This group also fosters a culture of continual improvement to encourage the spread of new techniques and knowledge transfer.

Project-related communications have been stored on an improved database system and management information systems have been overhauled and integrated for greater efficiency. This may have contributed to the company's successful accreditation to ISO 9001 in 2004.

Hulley & Kirkwood has benefited from the improved links with the University. The success of the KTP partnership is shown in the increase in company turnover and profit. Introducing simulation and streamlining management systems has also brought an indirect achievement: a significant improvement within communications between offices.

RESULTS

- Company successfully instigated simulation within the design process
- Improved communications and a culture of organisational learning

- Greater quality of product through design
- Improved market perception of the company
- Increase in turnover of £2.34 million and in profits of £1.19 million over a three-year period
- The company carried out about £100,000 of additional fee earning work on simulation projects

The Associate

“The KTP provided the perfect setting for both me and the company to explore and develop a new range of skills and services to support the development of more sustainable design solutions.”

Bruce Elrick, KTP Associates

BENEFITS

Within their own disciplines, both Associates have worked to establish an integrated environmental simulation resource and an effective gateway within the design process to unify quality assured design procedures throughout the company.

Bruce Elrick concentrated on the development and application of simulation within the company and its availability to all offices. He has also extended the service available to include, for example, ECO Homes Assessment, BREAM Assessment, SAP Calculations and Daylight Factor Analysis.

Richard Grant was instrumental in using business systems analysis to develop and document the Gateway working techniques across all offices. He refined management procedures so that the databases were more integrated and effective.

- KTP has provided experience of management systems and simulation software
- Both Associates have gained commercial skills
- Academic prowess from publishing project-related papers
- Academic advancement enabling both Associates to complete MPhils
- Both Associates were employed by the company

The Academic Partner

“Participating in this KTP has been hugely beneficial and proven to be a very positive experience for everyone involved.

Specifically, it has allowed the university to apply and develop its research in a live company environment.”

Dr Avril Thomson, Department of Design, Manufacture and Engineering Management, University of Strathclyde



The University of Strathclyde provided two Associates for this KTP project one from two departments so as to best combine expertise in design and engineering management with energy and environmental systems.

BENEFITS

The University has enjoyed a successful collaboration that has strengthened inter-department links as well as involvement with an industrial partner. This has helped the University in running seminars and training initiatives. It has also contributed to the success of the University's research applications e.g. the DTI's Technology Award Scheme. In addition, the University's research reputation has benefited from published papers about the project.

RESULTS

- KTP has strengthened links between departments and with the company
- Extended the University's knowledge of commercial building services
- KTP has informed the work of other postgraduate students in their research
- University's research status enhanced by producing papers about the project
- Having an industrial partner has helped the University to success in research applications