

Knowledge Transfer Partnerships at London South Bank University

What is KTP?

Knowledge Transfer Partnerships (KTPs) are government funded programmes designed to help businesses improve their competitiveness and productivity through the better use of the knowledge, technology and skills available within UK Universities. Our academic team working at the interface between academia and business maintain strong links with employers, professional bodies and public and private sector enterprises making them ideal for these partnerships.

Benefits of KTP

The company or organisation gets:

- Associate 2-3 years full time with qualifications and experience required by your company
- Associate works in your company on your projects
- Specialist expertise and technical advice from LSBU
- LSBU academics work closely with the Associate to implement company goals
- **Budgets include** employment costs, training, travel and equipment

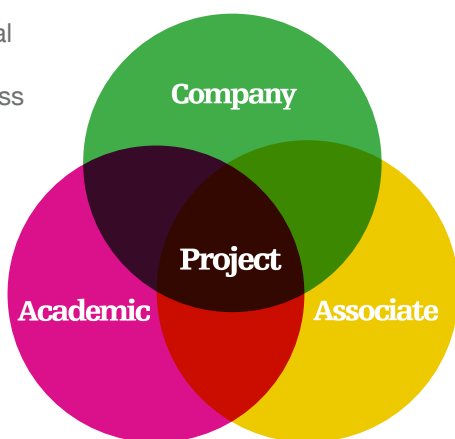
Your Project

At the heart of every Knowledge Transfer Partnership scheme is a project with specific strategic objectives. A high-quality graduate (a KTP Associate), supported by the academic expertise at LSBU, will work exclusively on the project at the company to deliver tangible results.

In order to apply for a KTP a company must have a project in mind that needs external knowledge to develop and is of strategic importance to the business. It must also have a commercial edge and see a healthy return on funding.

Company
needs additional expertise to improve business

Academic
provides expertise and assists with implementing the goals of the company



Project
created by company to improve business

Associate
experienced graduate works for company to carry out project



Centre for Knowledge Transfer

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Knowledge Transfer Partnerships

All Partnerships received financial support from the Knowledge Transfer Partnerships programmes (KTP). KTP aims to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK knowledge base. KTP is funded by Technology Strategy Board along with other Government funding organisations.

Centre for Knowledge Transfer

Energy & Environment

- Combined Heat and Power Systems
- Renewable Energy Systems
- Energy Efficiency and Sustainability
- Building Design and Operation
- Investment Appraisal For Sustainable Technologies
- Renewable Energy In Buildings
- Low and Zero Carbon Technologies
- Carbon Footprinting
- Feasibility Studies
- Energy Monitoring and Targeting
- Energy Supply and Conservation
- Transport Studies

When Universities and
Business work together
good things can happen...

Energy and Environment

London South Bank University has extensive experience and expertise in the field of energy use in the built environment. In particular, renewable technologies, energy efficiency and sustainability in buildings, investment appraisal for sustainable technologies

and building design and operation. LSBU is one of the UK's leading teaching and research centre on low and zero carbon technologies, recently celebrating 60 years as the National College in this sector.

LSBU has a dedicated Centre for Efficient and Renewable Energy in Buildings (CEREB). The centre is a resource for training, research and demonstration of efficient and renewable energy in buildings, which through its activities creates links with many businesses.

What is responsible for 10% of greenhouse gas emissions?

The current 'hot topic', ironically enough, for the **Institute of Refrigeration (IOR)**, is the growing sensitivity from its members regarding the environmental impact of medium and large scale refrigeration systems. Historically, owners of commercial and industrial refrigeration equipment have not considered leakage to be an issue worthy of major investment, as most systems continue to function (albeit inefficiently) even when subject to leakage.

Commercial cooling systems use about 16% of the UK's electricity and are responsible for around 10% of greenhouse gas emissions. The leakage of refrigerant gases from equipment also contributes significantly to this. However a recent European Regulation has been introduced on F-Gases (the most common refrigerants) which places a legal obligation on the equipment users to check and record leakage and to reduce it where technically and economically feasible.

The IOR recognised that a system which is subject to high levels of refrigerant leakage has a high global warming impact and operates less efficiently and less reliably. It has therefore called upon the expertise based at LSBU for some sound technical advice from Professor Graeme Maidment and Dr Issa Chaer.

A KTP project led by Associate David Cowan is now responsible for assisting equipment owners to reduce the leakage and environmental impact of their systems. The project, REAL Zero, has undertaken site surveys of different types of refrigeration systems and used the results to develop a range of information, tools, training materials and a CPD certified training and assessment scheme. This will help equipment designers,

installers, operators and maintainers to understand better the environmental and financial impact of refrigerant leakage.

"We presented a paper on the REAL Zero project at an international workshop in Paris this year and are also reviewing opportunities for international collaboration. I really feel we are making good progress towards our shared objectives," says David.

"We took on a KTP project in order to raise awareness and increase our knowledge of refrigerant leakage," comments Miriam Rodway, Company Supervisor at the IOR. "We wanted to take a scientific approach to investigating emissions and then translate this knowledge into a series of practical tools to help those who use refrigeration equipment to reduce refrigerant leakage."

The new IOR products and services will become a sustainable business activity and income stream. This will mean equipment owners can improve their operations and IOR members can enhance their professional development and consulting activities. ♦



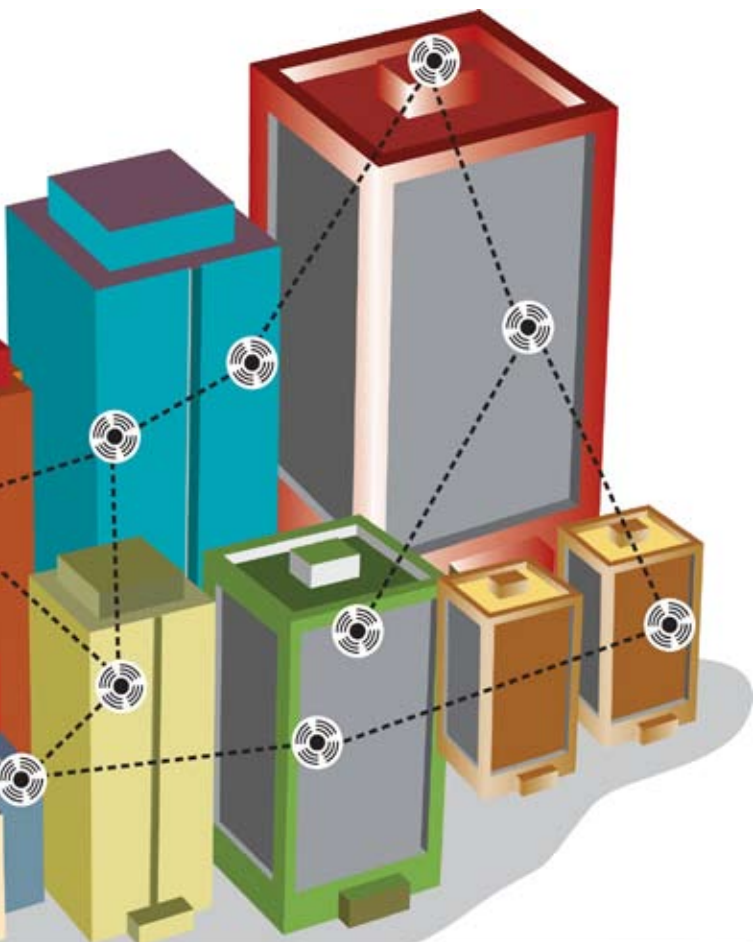
Time to save energy

In order to meet its ambitious growth targets **Building Sustainability** developed a new monitoring and management software tool, the Workplace Footprint Tracker.

The management and measurement of energy use in the workplace in recent years has unsurprisingly become a top priority. Behavioural change of building occupants towards their own energy use is paramount if deep cuts in CO2 emissions are to be achieved. "The problem our customers were experiencing is that they had limited visibility of how they were consuming energy and therefore did not understand where to invest in energy reduction initiatives," comments Christine Taylor, Head of Research at Building Sustainability.

The challenge in significantly reducing energy consumption in buildings through behavioural change is massive reports KTP Associate Estelle Jackson. "We need to engage employees through visual feedback on digital signage, thus encouraging personal control and accountability." This unique system provides individual workers with real-time information on how their work styles and behaviour impacts the building performance.

LSBU academics Professors Tony Day and Paul Brown, have been instrumental in this project. ♦



A Carbon Smart move for office recycling company

Paper Round, London's largest office recycling company is undertaking a KTP with LSBU to develop an innovative set of environmental services in order to offset carbon emissions in offices by the better use of technology and through organisational and behavioural change.

The Carbon Smart service offers businesses the opportunity to have their systems assessed, gaining energy consumption feedback and recommendations for changes to reduce their carbon footprints.

Working alongside the academics at LSBU is a fantastic opportunity for Paper Round which lacks detailed knowledge about evaluating available low carbon technologies, assessing energy usage in buildings and implementing technical changes within offices. LSBU academic Phil Jones said the project would have effective impacts for SMEs across the board. "This service encourages energy effectiveness and carbon reductions and efficiency. It is a project with many benefits for many parties," comments Phil. ♦

