

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>

LAS RECYCLING LTD KTP HELPS COMMISSION A NEW MATERIALS RECOVERY FACILITY IN WEST WALES

ABOUT THIS CASE STUDY

In this Knowledge Transfer Partnership (KTP), LAS Recycling Ltd worked with the School of Engineering at Cardiff University to enhance and extend its sustainable development, in the context of changing waste legislation. Work included the design and commissioning of a new materials recovery facility, to increase throughput capability.

ABOUT THE SPONSORS

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.

The Welsh Assembly Government (WAG) is responsible for developing and implementing policies and programmes for all issues that have been devolved to Wales, including rural affairs, education, environment, health and transport.

FAST FACTS

- 🔄 New materials recovery facility in operation, enhancing waste management capabilities
- 🔄 Increased throughput and recovery rates, with up to 50% of processed household waste now diverted from landfill
- 🔄 Turnover increased by over £340,000 through higher sales and better quality recyclates
- 🔄 The Academic Partner acquired much useful data and presented work at several key conferences, enhancing the profile of academics and the University
- 🔄 The Associate gained technical and project management skills, and valuable professional experience in the field of waste management
- 🔄 Won Welsh Regional Best Partnership KTP Award 2009 for project

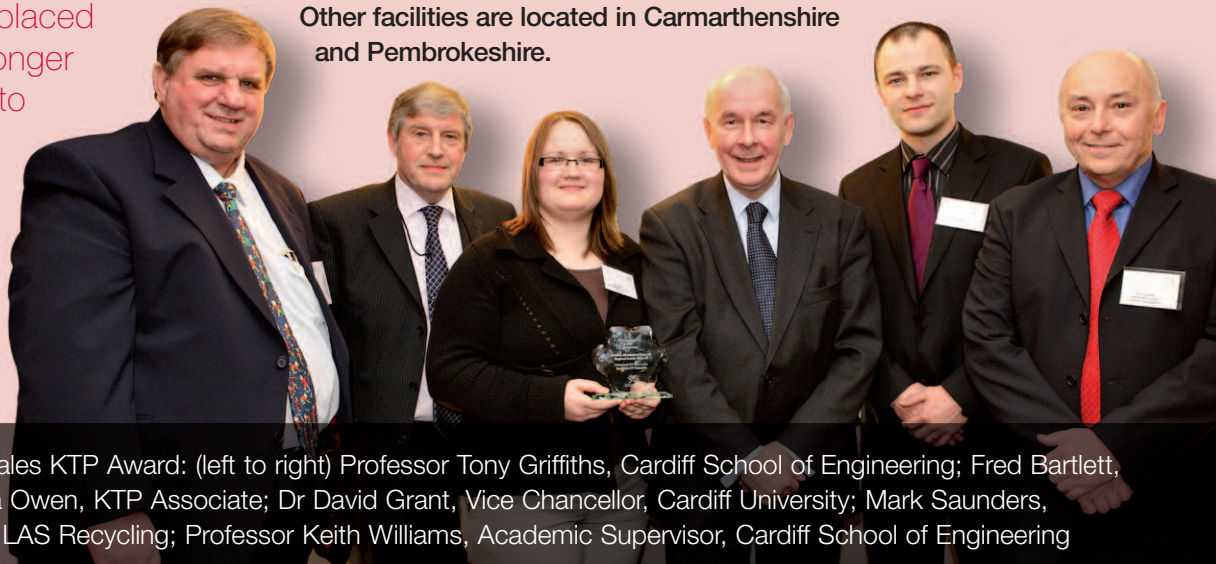
The Company

“The new facility designed with the help of the School of Engineering has placed us in a much stronger position to react to changes within our industry.”

Chris Saunders,
Managing Director,
LAS Recycling Ltd

Founded in 1962, LAS Recycling Ltd is a family-owned and operated business. Originally an agricultural company, the Company diversified into waste management in the 1980s and now operates waste disposal and waste recycling divisions. Its main site in Lampeter is a licensed Waste Transfer Station and also houses a civic amenity site.

Other facilities are located in Carmarthenshire and Pembrokeshire.



Presentation of the Wales KTP Award: (left to right) Professor Tony Griffiths, Cardiff School of Engineering; Fred Bartlett, LAS Recycling; Dr Nia Owen, KTP Associate; Dr David Grant, Vice Chancellor, Cardiff University; Mark Saunders, Company Supervisor, LAS Recycling; Professor Keith Williams, Academic Supervisor, Cardiff School of Engineering

ABOUT THE PROJECT

LAS Recycling was aware of the need to update its facilities to meet with changing industry needs and waste legislation, and had installed a pilot-scale materials recovery facility (MRF) at its Lampeter site to separate recyclable materials during waste processing. The Company wanted to replace it with a full-scale plant, to increase throughput capability and enable it to treat a wider range of waste feed types, thereby positioning it for sustainable future growth. This KTP with Cardiff University was initiated to help LAS achieve its aim.

BENEFITS

Overall the KTP has been a great success, delivering measurable benefits to all involved. A new MRF

has been designed and commissioned, and is now in full operation, providing LAS with greatly enhanced waste management facilities and placing it in a much stronger position to react to changes within the waste management industry.

Visits to similar plants in the UK, Europe and the USA, waste technology reviews and waste composition analyses ensured the design encompassed best practice and fully met current and anticipated needs. The facility can process a wide range of feed materials, sourcing dry recyclates from household, commercial and industrial waste. Efficiency improvements have increased throughput and recovery rates, some 46,000 tonnes/year of municipal solid

waste can be processed, diverting up to 50% from landfill. Turnover has increased by over £341,000/year through increased sales and improved recyclate quality, boosting profits.

RESULTS

- 🌀 New MRF designed and built, providing enhanced waste management facilities
- 🌀 Five-fold increase in throughput and the ability to process a wider range of waste feeds
- 🌀 Improved recycling performance for Ceridigion County Council, raising the profile of LAS as a leading player in the Welsh waste management field
- 🌀 Valuable data on waste feed composition, enabling accurate recovery targets to be set

The Associate

“The KTP was a fantastic experience and I would recommend the scheme to others. I developed a range of new skills which, coupled with the experience, will serve me well in my future career.”

Nia Owen, KTP Associate

Nia Owen applied her extensive knowledge of environmental engineering to good effect as Associate on this KTP.

BENEFITS

Nia has had a significant positive impact on LAS Recycling. She was directly involved in the design, building, commissioning and initial operation of the MRF, with her work helping to deliver the optimum performance. Taking advantage of the many training opportunities available, Nia has been able to build her general management skills and to learn more about writing articles and papers, the latter proving useful in her contributions to several conference papers detailing project work.

Through the work, Nia has enhanced her technical and project management skills, and gained valuable professional experience in the field of waste management. She also developed many useful contacts, which will serve her well in her future career in the waste industry.

RESULTS

- 🌀 Enhanced technical and professional skills
- 🌀 Progressed towards PhD
- 🌀 Contributed to several conference papers
- 🌀 Made useful industry contacts

The Academic Partner

“This KTP has been so beneficial to all involved. We have gained a valuable insight into the waste management problems faced by local authorities today, and have also had the opportunity to gather much useful data which can be fed back into our teaching.”

Professor Keith Williams, School of Engineering, Cardiff University

The School of Engineering at Cardiff University worked with LAS Recycling to deliver this KTP, with Professors Keith Williams and Tony Griffiths leading the work.

BENEFITS

Involvement in this KTP has enhanced the national and international standing of both Lead Academics, through presentation of the work at key conferences in the UK and overseas. It has also provided them with a valuable insight into the waste management problems facing local authorities today, and much useful data on waste composition, MRF performance and the impact of waste legislation. These data have fed into teaching, through case studies prepared for various undergraduate and postgraduate courses. Research has been boosted, with the relationship with LAS contributing to the School's successful bid for funding to evaluate the role of biomass in the Welsh energy generation portfolio.

RESULTS

- 🌀 Enhanced standing of Lead Academics
- 🌀 Positive publicity for School of Engineering resulting from the project's success
- 🌀 Strong relationship with LAS, continuing through a biomass project

