

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>

B9 ENERGY O&M LTD MORE ENERGY, LESS WASTE

ABOUT THIS CASE STUDY

In this Knowledge Transfer Partnership (KTP), Northern Irish company B9 Energy O&M Ltd worked with the QUESTOR Centre to determine the optimum method of commercially-enhancing the quantity of energy available from waste using anaerobic digestion technology, thereby extending the Company's capabilities and enabling it to develop its energy from waste business.

ABOUT THE SPONSORS

Invest Northern Ireland is Northern Ireland's main economic development organisation, working to increase wealth and prosperity by delivering expertise and resources to accelerate the creation and growth of businesses.

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

- 🔄 Company positioned at the forefront of technological developments in anaerobic digestion
- 🔄 Acknowledged expertise within the field, leading to involvement in large-scale developments of advanced anaerobic digestion
- 🔄 Sales turnover predicted to increase by £6 million within three years
- 🔄 A new company was launched to take forward renewable energy from waste projects
- 🔄 Significant positive impact on research for the Academic Partner
- 🔄 Extensive product and business development experience and a senior position with the new company for the Associate

The Company



"The numerous organisations we became involved with as a result of this KTP have provided 'third-party endorsement' of the level of knowledge and expertise we have built in this field, such endorsement is particularly valuable to new market entrant like ourselves."

Robert Brennan, Business Development Director, B9 Energy

B9 Energy O&M Ltd is part of the B9 Energy Group, which focuses on clean energy technologies. It was formed in 1994 to provide operation and maintenance services for three wind farms developed by B9 Energy Services Ltd in Northern Ireland. The Company has grown to be a major competitor in the industry, currently operating and maintaining over 540 turbines at 38 wind farms across the UK, in the Republic of Ireland and in Canada.

KTP Associate Dr David McKee was instrumental in developing B9 Energy's energy from waste portfolio

ABOUT THE PROJECT

For several years B9 Energy had recognised the potential of treating organic wastes to generate renewable energy, with research identifying anaerobic digestion (AD) as the most sustainable and cost-effective generic technology available. The Company was looking to establish itself in this new and expanding energy from waste market, and needed to build its knowledge and expertise. This KTP was set up to develop and prototype pre-treatment methods to optimise energy production from organic materials, using AD technology, enabling B9 Energy to develop its energy from waste business.

BENEFITS

This successful collaboration has achieved all of its aims, establishing B9 Energy as a market leader in enhanced AD and positioning it for significant growth in the energy from waste market. B9 Energy has acquired new knowledge and expertise, giving it the competitive edge as it enters a new market. The additional and credible operational capabilities delivered through the project have already led to the Company's direct involvement in a number of large-scale AD projects.

A new venture, B9 Organic Energy Ltd, has been formed to take forward renewable energy from organic waste projects, including the commercialisation of the enhanced AD

system developed under the KTP project. Sales potential is high for the market-leading products and services on offer, with turnover expected to increase by up to £6 million within three years, trebling profits.

RESULTS

- 🌀 New knowledge and market-leading capabilities embedded in the Company
- 🌀 Acknowledged expertise within the field, leading to involvement in several large-scale advanced AD developments
- 🌀 Significant growth in sales and profits predicted
- 🌀 Separate energy from waste company formed, maximising market exploitation opportunities

The Associate

"I personally feel that the KTP has been very successful. The experience I have gained in product and business development will prove invaluable during the rest of my career."

Dr David McKee, KTP Associate

This KTP was fortunate in attracting strong interest from high calibre graduates for the Associate role, and the appointment of David McKee, who was completing his doctorate, proved to be an excellent decision.

BENEFITS

As Associate on this highly successful KTP, David has gained a valuable insight into the renewable energy industry, along with hands-on experience of developing a new product that will enhance the AD process. He has also been involved in setting up a new business to further develop B9 Energy's energy from waste portfolio, building useful skills and expertise.

The work also presented David with many opportunities to make useful contacts, and to apply and enhance his project management and presentation skills. His capability, enthusiasm and ongoing commitment were rewarded with the position of Technical Director within the new business.

RESULTS

- 🌀 Valuable insight into industry and developing new businesses
- 🌀 Employed as Technical Director of B9 Organic Energy Ltd

The Academic Partner

"Working with B9 Energy has greatly enhanced our knowledge of anaerobic digestion and other renewable

technologies. It has allowed us to meet other academic collaborators, building useful relationships that has strengthened our research and already attracted new funding."

Dr Elaine Groom, General Manager, QUESTOR Centre, Queen's University Belfast



Queen's University
Belfast

This KTP project was led by Dr Elaine Groom and Dr Ciaran Prunty of the QUESTOR Centre, Europe's only Industry/University Co-operative Research Centre. Established in 1989 at Queen's University Belfast, the Centre provides member companies and organisations with a world-class environmental research programme focused on their specific needs.

BENEFITS

Working with B9 Energy has enabled QUESTOR staff to update their knowledge of AD, and to develop an in-depth knowledge of the legislative drivers making the process attractive and economically-viable. The Centre's research into AD has been reinvigorated, resulting in innovative ideas on how to increase the efficiency of the AD process to maximise net energy production. In addition, many new research collaborations have been developed, boosting grant proposals.

RESULTS

- 🌀 Reinvigorated research on AD
- 🌀 Waste treatment processes to be incorporated into course material
- 🌀 B9 Energy joined the QUESTOR Centre as a member organisation, aiding research development
- 🌀 Positive publicity through promotion of results