

# Knowledge Transfer Partnerships

## Knowledge Transfer Partnerships

### Key Benefits

- Knowledge Transfer Partnerships are designed to benefit everyone involved
- Firms are solving strategic challenges and long-term problems by drawing on the expertise of the knowledge base
- KTP Associates gain business-based experience and personal and professional development opportunities
- Universities, colleges or research organisations bring their experience to enhance the business relevance of their research and teaching

Knowledge Transfer Partnerships  
Accelerating business innovation:  
an Innovate UK programme

<http://ktp.innovateuk.org/>

## Royston Diesel Power

### Data driven change in the marine sector

#### About this Case Study

Royston sell, supply, install and maintain diesel engines and generators. To make best use of the massive amount of data generated by their “enginei” product, Royston collaborated on this interdisciplinary KTP with Newcastle University’s School of Marine Science and Technology, and Industrial Statistics Research Unit.

#### About the Sponsor

KTP is primarily funded and managed by Innovate UK. It supports UK businesses wanting to improve their competitiveness, productivity and performance by accessing the knowledge and expertise available within UK Universities and Colleges. 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

- Continued collaboration via a three year funded Innovate UKSi project
- Discussions ongoing over a potential third KTP between the partners
- Development of a new bespoke consultancy business model
- Commercialisation of work on the KTP will lead to increased sales value of £1.75m
- Upskilling of existing staff and creation of new job roles at Royston
- Significant culture changes at Royston including improved internal communications

## The Company

“This is our second KTP and therefore relationships have been established which allowed the company to move from a mechanical engine repair background to a consultancy business with an R&D arm - enhanced with further Innovate UK support.”

Shervin Younessi, Technical Manager, Royston Diesel Power

#### About the project

The previous KTP between the partners helped develop Royston’s comprehensive ‘real time’ fuel consumption monitoring and management solution, “enginei”. The Company and University undertook a second KTP to develop the use of statistical and data mining techniques in order to enhance “enginei”.

The growing interest in big data around the world put Royston in an ideal position to exploit the massive amount of data generated by “enginei”, as well as their in-house testing facilities and customers.

Royston’s customers face an increasing number of regulations surrounding climate change and the need to control emissions. As a result, data related to shipping parameters, such as speed

over ground, GPS position, power and fuel consumption has increased in value.



KTP Associate Zaman conducting engine tests at Royston.

We work with  
**Innovate UK**

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## The Company

### Benefits

As a result of the KTP, Royston have embedded within their business the capability to perform data analytics. This has improved existing products, and as a result opened up new market opportunities. Royston have also developed a bespoke consultancy offering, which will allow them to “sell intelligence”. This new arm of the Company will operate in parallel to their current business model.

Royston’s “enginei” product is central to their strategic aims, with the KTP playing a vital part in its advancement. Improvements to the product have given Royston the capability to better analyse their data gathering techniques, providing the foundation for further enhancements. Customer data and feedback will be used to further develop “enginei”, using a methodology developed by the Associate while conducting a survey that included a pilot questionnaire. The methods employed now underpin the company’s new scientific approach to statistical analysis.

### Results

- Creation of “Project Engineer” role
- Expansion of business offerings
- Improved communications to customers
- Maximisation of product capabilities
- Marketing materials including brochures

## The Associate

“KTP allowed me to continue my academic and professional development while spearheading a commercial, strategically important project. I was delighted to be given the opportunity to continue working at Royston.”

Mr. Ibna Zaman, KTP Associate

### Benefits

Work undertaken as part of the KTP formed the basis for an MPhil. At the end of the project, Royston extended his employment and agreed to fund an additional year’s study, allowing him to convert the MPhil into a PhD, which will receive continued support and supervision from the academic team.

The Associate made excellent use of the development budget to attend a wide range of training courses and conferences. This allowed him to expand his knowledge in areas key to the project’s success, as well as contributing to his professional development. His network of colleagues also grew, widening the exposure of the KTP’s results.

### Results

- Continued employment at Royston
- Working towards a PhD
- Supervised student projects
- Conference attendance
- Excellent use of training budget

## The Academic Partner

“The KTP provided an effective mechanism for exploring a new area of big data analytics. It helped develop new products that give clarity to operations that enable progress to meet emissions regulations”

Dr Kayvan Pazouki, Dr Shirley Coleman & Dr Rose Norman, Newcastle University

### Benefits

The KTP formed the basis for the first collaboration between the University’s School of Marine Science and Technology and Industrial Statistics Research Unit, which presented an opportunity to develop a new research theme investigating data analytics in the shipping sector. Work has been shared with a number of academic colleagues, expanding the impact of the research.

The KTP provided excellent examples of the real world use of data analytics and their incorporation in the operation of marine engineering systems.

Outcomes have been presented at a range of conferences, leading to a collaboration with the University of Naples. Work on the KTP will feed into a REF 2020 Impact Case Study.

### Results

- Impact Case Study for REF 2020
- High quality publications and conferences
- Student projects
- Continued collaboration
- Increased network of colleagues



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