

# Knowledge Transfer Partnerships

## Case Study

### Nottingham Scientific Ltd and De Montfort University

*"The KTP offers a unique opportunity for SMEs to access the state-of-the-art facilities that exist in UK universities. Put simply, the average SME cannot afford to invest in these facilities in terms of capital and training costs."* **Mark Dumville, General Manager**

#### Background

Nottingham Scientific Ltd. (NSL) specialise in Global Navigation Satellite Systems (GNSS) applications development. GNSS facilitates improved safety of transport through the provision of accurate position and speed information of planes, vessels, trains and vehicles. GNSS offers significant benefits to the global environment e.g. reduced aircraft noise and pollution, and the potential to generate aircraft fuel savings of up to 12%.

The company needed to manage the hardware and software components of their products to ensure continuity of supply, the ability to control the development, and reduce manufacturing costs.

#### Objective

This 2 year project aimed to provide an in-house capability to design, develop and embed knowledge of Radio Frequency and Embedded Systems of a GNSS receiver for high-end applications.

#### Company benefits

As a direct result of the KTP and after just 12 months, the company secured a substantial contract work to support further development work in the aerospace and info-mobility sectors valued in the region of **£390k**. Another year on, and NSL are now in a position to sell the products developed during the project.

- Annual turnover increased by **£300k**
- New spin out company is forming to exploit the new technology, creating jobs in the East Midlands
- Won the prestigious Lord Stafford Award for Innovation in the East Midlands

#### Associate benefits

Two Associates have been involved in this project:

<b>Yacine Adane</b>	<b>Luis Tarazona-Duarte</b>
Senior Researcher	Now working at
Westminster University	Siemens, Germany

Both Associates have benefited enormously by being involved in the development of such a unique and technologically advanced piece of equipment, as well as producing two joint publications.

#### Receiving the Lord Stafford Award for Innovation



Dr Eric Goodyer, Dr Ashkenazi, Dr Mark Dumville, Yacine Adane, Michele Bavaro

#### University benefits

Dr Eric Goodyer, Lead Academic, reports on the benefits so far:

- New material relating to GNSS is now included in the Telematics modules at DMU
- New GNSS research funding secured
- Conference papers presented including the prestigious Toulouse Space Show
- A contract to investigate the viability of hydrogen fuel cars in Leicester City
- 2 x Research Grants awarded

DMU has been exposed to the commercial application of this basic research into RF devices and software defined radio. This will benefit teaching and research by feeding back the latest knowledge into the University.

*"The KTP programme provides a vibrant bridge between academia and industry that enables innovation and engineering research to be translated into successful products and services."*

**Dr Eric Goodyer, Lead Academic**

Engineering support for Software Defined Radio was provided by Dr John Gow, and for the RF design by Dr Chris Oxley.

#### Partnership outcomes

The project team recognised that the KTP has delivered way beyond what was initially envisaged. NSL and DMU continue to develop their ongoing working relationship which will include consultancy services, support and collaborations on projects of mutual interest. This project has raised the profile of the East Midlands as a **leading region in Europe for the exploitation of space technology**.

#### Get in touch

For more information about how we can help your business, call (0116) 250 6211 and speak to a member of the Knowledge Exchange Team, alternatively visit [dmu.ac.uk/ktp](http://dmu.ac.uk/ktp)

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