



# University collaboration brings new business opportunities in the nuclear industry



Dr Tom Deakin,  
Group Research Director

## Introducing LabLogic Systems Ltd

LabLogic Systems Ltd is a manufacturer of instrumentation and software to the Life Science, PET/Nuclear Medicine and Radiation Safety sectors. The company is part of the LabLogic Group that specialises in the detection and measurement of radioactivity.

## LabLogic and the MD Club

Dr Tom Deakin, Group Research Director at LabLogic, has been a member of the MD Club since 2015. Research and Development are part of the company's core business and the MD Club has provided an ideal opportunity to connect with academic and industry experts in specialist fields.

For example, at one event Dr Deakin met with the directors of FIRMA Engineering, a company in Doncaster specialising in engineering design and analysis for various industrial applications, including nuclear. This has led to both firms submitting a joint grant application to Innovate UK, to carry out cutting-edge research to make nuclear decommissioning more efficient.

// The MD Club offers a unique meeting place for a business like ours. At LabLogic, R&D plays an important role for our product development and it is invaluable to have a networking group like this, where I can meet or be signposted to both academic and industry specialists in areas such as nuclear medicine and radiation sensing."

## Academic and industry collaborations

### Exchanging expertise with mutual benefits

LabLogic has a successful track record of working with Professor Lee Thompson from the University of Sheffield's Department of Physics and Astronomy on projects to support the company's innovation programme. This has enabled LabLogic to harness world-class expertise and specialist facilities for joint collaborations with the University.

Benefits gained from these collaborations include:

- Together they have been able to develop a specialist injection-moulded plastic material for nuclear security and related industrial applications. This has enabled the business to establish a UK supply chain for materials that previously could only be supplied from overseas.





- The material has also been sold for fundamental physics research and education applications.
- LabLogic match-funded an STFC Impact Acceleration Account project which later led to a 'Hot Article' in the Lab on a Chip journal.

### Testing the commercial viability of specialist products

Through three Knowledge Transfer Partnerships (KTPs) with the University of Sheffield, LabLogic has been able to prototype new concepts for bringing specialist products in radiation detection to market. KTPs are partly government-funded partnerships between businesses and universities, which aim to help businesses innovate and grow.

In 2009, Dr Tom Deakin joined LabLogic as a KTP associate and he is now Research Director for the LabLogic Group. The ten-year research and development partnership has facilitated new opportunities in the nuclear and healthcare industries and led to significant business growth. LabLogic's turnover has increased significantly from £11M in 2014 to over £18M in 2019 and profits have similarly increased.

### Tapping into a specialist talent pool

Since 2003, research projects, internships and placements for undergraduate and post-graduate students from the University of Sheffield and Sheffield Hallam University, have proved highly successful for LabLogic.

From marketing to physics and engineering, the business has tapped into specialist talent pools for a variety of business activities. Often these have been part or fully funded with commercial advantages for the business.

The business has recruited four current, full-time members of staff from both Sheffield universities thanks to talent brought into the company through the RISE graduate programme and the Sheffield Hallam Internship Scheme.

Dr Deakin discusses the benefits of working with the universities:

// A customer usually has a problem that we need to solve. Using university talent we're able to test the commercial viability of concepts for new products. We've benefitted hugely by having these extra resources."

// A strong and dynamic relationship with both universities continues to flourish. PhD funding has been awarded to Professor Lee Thompson for a funded studentship. This will assist LabLogic in pushing the boundaries in research and development for nuclear-related industries."