

## **NPL's approach to an HEI challenge**

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Higher Education Institutions (HEIs) are facing interesting challenges. There are dramatic changes in their funding mechanisms and policy initiatives that seek to maximise the economic and social benefits of their high quality research outputs.

They are questioning their strategies with important choices to be made to demonstrate effective knowledge transfer and impact from research – particularly with the increased importance of HEBCIS metrics in determining the level of public funding available for their KT activities.

The National Physical Laboratory is a National Science and Technology Laboratory for business that - like HEIs – plays a key role in the UK's national innovation infrastructure.

It uses public and private investments to develop and apply the UK's National Measurement System in order to generate socio-economic benefit to the UK.

NPL is firmly embedded in maximizing the transfer of knowledge across a range of government, academic and industry programmes; actively delivering the heart of the Etkowitz triple helix model.

NPL Knowledge Services provide knowledge transfer services for its own research outputs and on a contracted basis for other organisations, including HEIs. The outcomes required from this range of knowledge exchange activities cover the spectrum of commercial gain through to public good.

Can our distinctive position and approach to knowledge exchange provide opportunities to enhance the impact to the mutual benefit of all participants? Our experience shows that, yes, significant mutual benefits can be delivered from leveraging the synergies between separate knowledge exchange (KE) activities. This is particularly true when exploiting our “network of networks” to the benefit of all, as described in the following examples.

### **Innovation Networks**

NPL Knowledge Services is able to draw on extensive experience of delivering a growing range of innovation networks :- including the Measurement Network as part of the National Measurement System and including two Knowledge Transfer Networks (KTNs) on behalf of the Technology Strategy Board – the Sensors and Instrumentation KTN and the Location and Timing KTN. Then there is the management of the Association of Independent Research and Technology Organisations (AIRTO), which NPL manages on behalf of the AIRTO Board.

As an example of the impact of this work, the Sensors and Instrumentation KTN, has:

- Involved 2,366 organisations including HEIs, providing links between numerous companies within the UK as well as internationally.
- Built an expert team of Technology Translators who have worked to secure funding deals for members to the value of £97million over the past 4.5 years

#### Surrey Knowledge Transfer Account

For the University of Surrey, simply generating new knowledge has never been enough. It strives to generate impact through the transfer of knowledge, fostering the environment in which this is valued and encouraged just as much as the generation of original research results.

The Surrey Knowledge Transfer Account (KTA), sponsored by the Engineering and Physical Sciences Research Council (EPSRC), is a key part of this approach. It aims to maximise the exploitation of over £50m of 5 and 5\* rated research funded by the EPSRC and generated by the academics at the university.

The KTA is delivered in partnership with the National Physical Laboratory (NPL) to provide collaboration on two levels:

- With NPL - benefiting from their demonstrable experience in delivering R&D programmes that generate impact
- With providers and users of research outputs - co-developing solutions collaboratively, leveraging NPL's technological know-how and the innovation networks described above, along with extensive expertise in engaging with organisations to make a difference to their operations

Since its inception 18 months ago, the KTA has changed opinions and practices of businesses and academics about the need to work more closely with each other. Providing 110 targeted knowledge exchange activities has led to 39 university-business collaborations that would not otherwise have happened, providing impacts that span the creation of new business opportunities for companies through to potentially improving the quality of life for citizens.

This is helping Surrey achieve greater income from contract research, consultancy and the use of their world-leading facilities i.e. enhancing their performance of the metrics proposed for the allocation of Higher Education Innovation Fund.

#### **Innovation benefits all - what about you?**

To summarise, NPL's distinctive position and approach to knowledge exchange is demonstrably enabling us to innovate in the delivery of KE services. This is enabling our partners; clients and participants to benefit significantly from

economies of scale and scope offered by the increasing range and reach of our innovation network services.

This is particularly pertinent to all of us in the current environment of changing funding models and economic pressures to do more with less in order to provide increased return on investments.

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