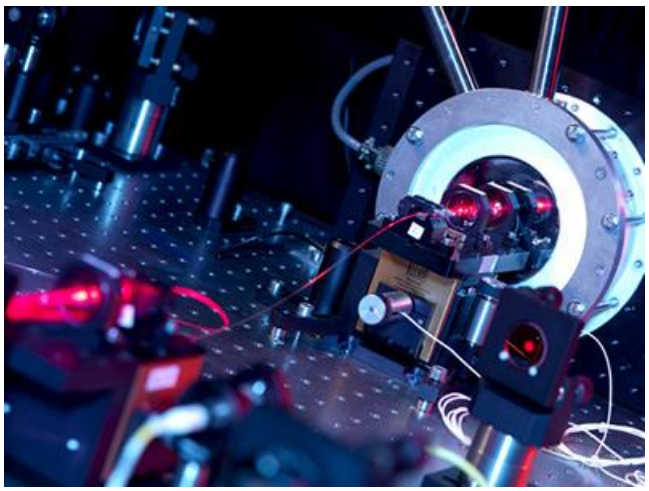
A new Advanced Metrology Laboratory at NPL

David Willetts, Minister of State for Universities and Science, has announced a £25 million investment in a new Advanced Metrology Laboratory at the National Physical Laboratory (NPL).



Metrology, the science of measurement, underpins virtually every aspect of our daily lives, helping to ensure quality and safety, keep us healthy, innovate and grow the economy. In industry, measurements are crucial for manufacturing, process control, communications and transport, to ensure fair trade but also to remain competitive.

The Minister announced the new investment in a speech on Thursday 24 January 2013 at the Policy Exchange think tank in London, where he discussed how the UK could become world leaders in eight future technologies and the role of government in promoting and financially supporting these industries.

In the speech, David Willets said: "I can today announce we are providing an extra £25 million to build a state-of-the-art laboratory for cutting edge measurement research. The creation of advanced facilities at the National Physical Laboratory in Teddington will allow scientists there to undertake leading edge research in key nano and quantum metrology (measurement science) programmes."

This investment in measurement science will extend the UK's capabilities and build upon NPL's world-leading expertise in the areas of high-accuracy optical clocks and graphene characterisation. It will also facilitate interaction between NPL and industry, universities and other collaborators to help support growth in the UK through cutting-edge technological development and application.

The wave-like nature of matter described in quantum physics leads to properties that could be exploited by many new disruptive technologies, for example, quantum information processing and innovative electronic and magnetic materials. Metrology is essential in providing the capabilities to monitor and design these systems and validate results from scientific experiments. It is also essential for taking the results from scientific research and translating them into commercial applications. Indeed, NPL has been at the forefront of commercialising the new 'wonder-material' graphene.

The new facility at NPL will house an estimated 20 laboratories, for around 40 scientists, specially designed for high precision metrology. This unique facility will provide a tightly controlled research environment with stable temperature and humidity levels and minimised interference from

vibration (direct and acoustic), and electrical and magnetic fields. The design will also comply with best practice in sustainability and energy use.

This investment in NPL's work and the further development of the site at Teddington is especially welcome in light of David Willetts' announcement in December 2012 on NPL's future; seeking a strategic partnership between the Department for Business, Innovations and Skills (BIS) and one or more national or international academic partners or applied science organisations to secure NPL's long-term operation. It will also play a pivotal role in the creation of a new postgraduate research institute at NPL.

The returns to the UK economy from government investment in measurement science are proven to be significant. Net benefits from the Advanced Metrology Laboratory are likely to be in excess of £500 million.

Find out more about the Advanced Metrology Laboratory

Read David Willetts' speech in full

For more information, please contact Fiona Auty