

The impact of NPL and the National Measurement System

Modern industrialised economies rely on a comprehensive measurement system which forms the backbone of free and open trade, supports innovation and encourages the spread of new technology.

The Department for Science, Innovation and Technology (DSIT) provides funding for the UK National Measurement System (NMS). The bulk of this funding goes to three laboratories dedicated to world class measurement science that supports the public sector and businesses. Collectively, NPL, NML (hosted at LGC) and NEL are the three major NMS laboratories.

Did you know...?



The UK spends **£58.3 billion** each year on making measurements, with **6.3%** of the UK workforce in occupations that involve taking measurements.

[see reference 1]



The NMS maintains the primary standards that underpin a distributed system for the certification of calibrations, and for ensuring comparability to corresponding standards around the world. This is delivered to over **74,000 firms** via a network of calibration laboratories.

[see reference 2]

NPL's NMS impact

Research

We collaborate with over **500 academic institutions** and other National Measurement Institutes to produce over **400 journal papers** each year.

[see reference 3]



Traceability & Standards

We supply around **400 unique measurement services** and reference materials to over **390 UK-based firms** and other overseas customers.

The NMS laboratories earn an annual income of **£15 million** from the sales of measurement services.

The NMS laboratories work closely with the British Standards Institute (BSI), and other international forums for standardisation, to update measurement protocols found within standards.

[see reference 3]



Innovation

We collaborate with more than **630 UK based firms** on innovation projects.

In addition, around **370 firms** can attribute **£539 million** in turnover to sales of new and improved products that would have not otherwise existed.

[see reference 2]



Knowledge Transfer

We engage with roughly **550 firms** annually, through e-learning, and events. We are supporting the next generation of measurement scientists by hosting **320 students and apprentices** as they start their careers.



NMS impact at a glance

Employment

A sample of 360 NMS regularly supported firms* add **6.3 employees** annually, and pay an annual wage premium of **£4,080** to each additional worker.

*firms which received support at least once per year for 5 out of 6 years in a 6-year period

[see reference 4 and 5]



NMS impact generates a direct economic benefit amounting to **£142 million** and a **minimum total benefit*** of **£426 million** per annum.

*direct plus indirect benefits

[see reference 5]



A **net-benefit of £254 million*** and a net-return of **270%** is attributable to NMS impact.

*after accounting for public and private costs

[see reference 5]

This economic impact was obtained from a sample of **360 NPL's regularly supported firms** from a recent econometric analysis.

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