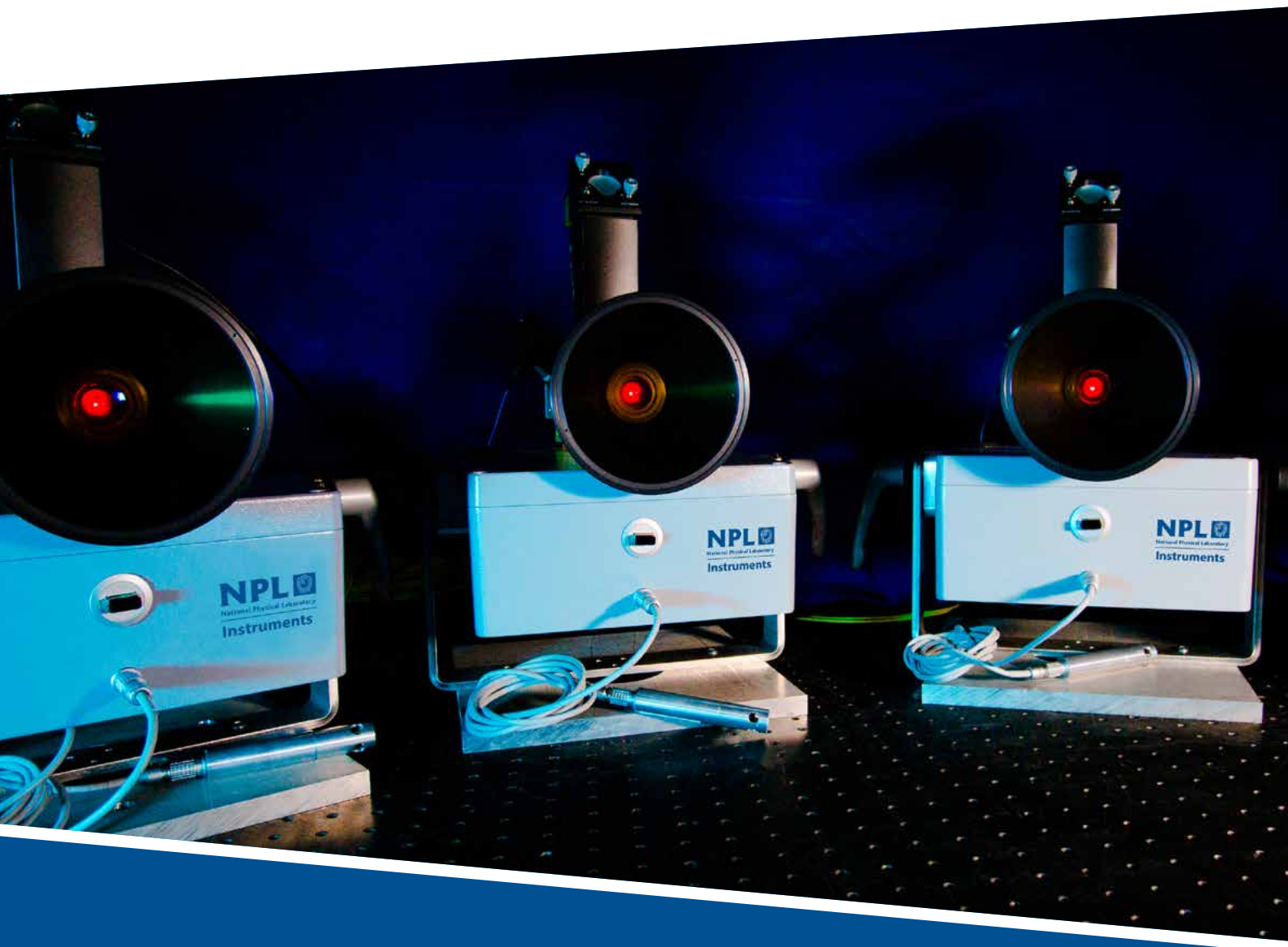




National Physical Laboratory

Instruments

Confidence through traceability



www.npl.co.uk/instruments

Confidence through traceability

Artefacts | Instruments | Facilities

The National Physical Laboratory (NPL) develops highly-accurate metrology instruments, sensors and artefacts. The majority of industrial processes and instruments rely on measurement.

NPL works with customers who demand absolute confidence in their measurements and sensing applications. In support of such technology and industries, NPL has developed and applied instruments, standards and methodologies to provide traceable measurements across a broad range of disciplines. The range of instruments we can provide extends from bespoke systems designed to meet specific measurement requirements to standard artefacts and complete metrology systems based on those operated at NPL.

Applications of our instruments span all sectors including:

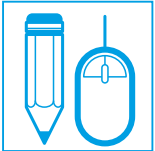
- **Advanced Manufacturing**
- **Aerospace, Defence & Security**
- **Communications**
- **Digital Economy**
- **Energy**
- **Environment**
- **Healthcare**
- **Science**
- **Space**



Bespoke Instrument Development

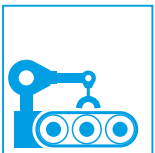
Design | Develop | Deliver

NPL Instruments is a business unit of the UK's National Measurement Institute (NMI). It designs, manufactures and delivers innovative technical solutions based on state-of-the-art measurement science and precision engineering expertise.



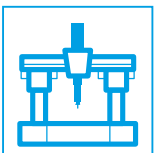
Design bespoke products

Bespoke instruments are designed by CAD conversant designers and mechatronic experts who validate engineered designs using finite element analysis (FEA) and modal analysis.



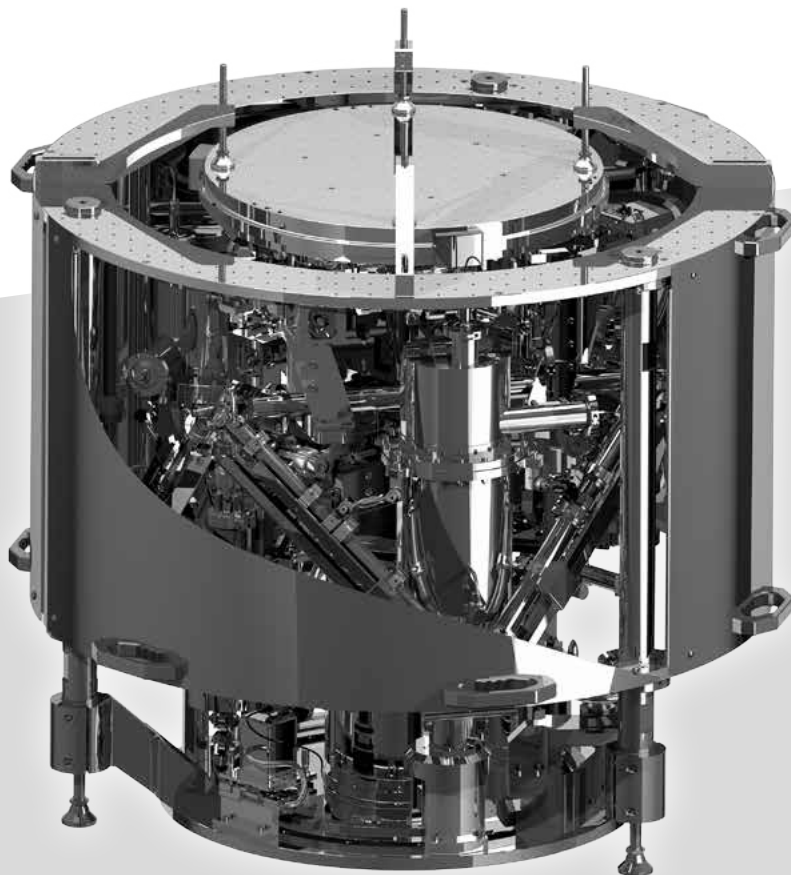
Develop highly-accurate instruments

Complete manufacturing capabilities to develop instruments made in the UK. Seamless communication between our instrument designers, precision engineers and system integrators is guaranteed.



Delivered in state-of-the-art facilities

Home to 388 laboratories with temperature-controlled facilities, clean rooms and an engineering workshop.



Underpinning measurement systems and international trade

Innovate | Trade | Compete

NPL maintains a wide portfolio of international research programmes that advance measurement science and underpin the International System of measurement (SI) units in the UK.

Instruments, based on those operated at NPL, are sold to industry, large science, NMIs, government and academic customers throughout the world. This supports the development of both national and international measurement infrastructure and enables scientific innovation. Our instruments offer an accurate and effective means of delivering traceability to national standards, which expedites regulation, innovation and industrial competitiveness, as well as enabling local and international trade.



Photo: Concept design for the world's most accurate mass realisation, the NPL next generation Kibble balance

Customer **support**

NPL provides technical support with each instrument delivery to build a productive long-term partnership.



NPL technicians are available to install instruments and a **user manual** is provided with instructions on day-to-day running and maintenance.



A **compliance report** is provided with each of our instruments, which includes a detailed description of the system's performance capabilities, quality assurance and traceability to international standards (where appropriate).



Post-delivery **technical support** is available through our Instruments Team at NPL, to ensure correct use and predictable service costs. Recommendations on spare parts and preventative maintenance ensure long-life performance.



Software delivered with instruments is verified to an appropriate Software Integrity Level, with optional bug-fixing and firmware updates, as required.



NPL provides **training packages** to help customers gain the maximum value and performance from the systems supplied.



LRQA-accredited ISO 9001 design and manufacturing process. All instruments are CE marked and tested against customer specifications before delivery.

About NPL

The National Physical Laboratory (NPL) is the UK's National Measurement Institute and a world leading centre of excellence in developing and applying the most accurate measurement standards. NPL responds to the economic and social challenges of government and businesses, translating scientific research to improve quality of life, introduce or improve products and processes, and to increase commercial competitive advantage.



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