Measurement for Recovery (M4R)

Building confidence in the future by supporting companies to recover and grow.

Accelerate the development of new innovations to fight Covid-19

Solve business problems holding back new products and services

Help UK industry build back better

The M4R programme, led by the National Physical Laboratory (NPL), was developed to help UK companies gain access to the expertise and resource of the UK's leading measurement science experts, to help them recover and grow in the challenging economic environment resulting from the Covid-19 pandemic. The programme was designed with agility in mind, enabling businesses to apply for vital support in a matter of minutes, and receive a response from a scientific expert within a few days. M4R provides quick and easy access to expertise from the UK's network of national measurement laboratories and allows innovative businesses, some of which have never had access to external R&D support, to benefit from world-leading measurement facilities and expertise.

Early analysis* of applicant feedback indicates that:

- **80%** of applicants have been from micro or small businesses
- **62%** anticipate an **improved product**
- **42%** expect to **create new products**
- **33%** will **improve their processes**
- **17%** will **upgrade their services**
- **70%** believe they **could not have obtained funding elsewhere**
- Without M4R **44%** **of projects would not have gone ahead**
- For projects that would, **91%** **of companies believe M4R accelerated delivery**
- **£2.5M** of company in kind resource contributed to projects
- **100%** would **recommend M4R**

Delivering commercial impact

M4R was designed to help remove barriers to the commercialisation of new innovations, increase investment in UK companies providing solutions to the pandemic, and fast-track development of new products and services.

Many of the businesses supported are working to address global challenges in life sciences, renewable energy, and data – with significant potential to boost the UK economy and address societal challenges.

70% of companies said their **commercial opportunity has greatly or moderately increased as a result of their M4R project**

63% of participants expect to see **increased sales in new or existing markets as a result of their M4R project**

64% of companies expect to **secure more investment for their project from either external investment or internal sources**

32% of participants expect to see **reduced costs through decreased production or material costs as a result of the M4R work**

"The value of M4R to our business is incalculable, the support critical for the development of the new products, helping us to survive."

"The M4R programme has enabled us to put more intelligence into our processes, which has significantly reduced the lead time and costs of new product introduction."

"M4R has given us an opportunity to test our new products when there were no other options."

Supporting businesses across the UK

Over 600 businesses from across the UK are being supported by M4R to address a range of issues including design, manufacturing, production and processing, regulatory compliance, and product development.

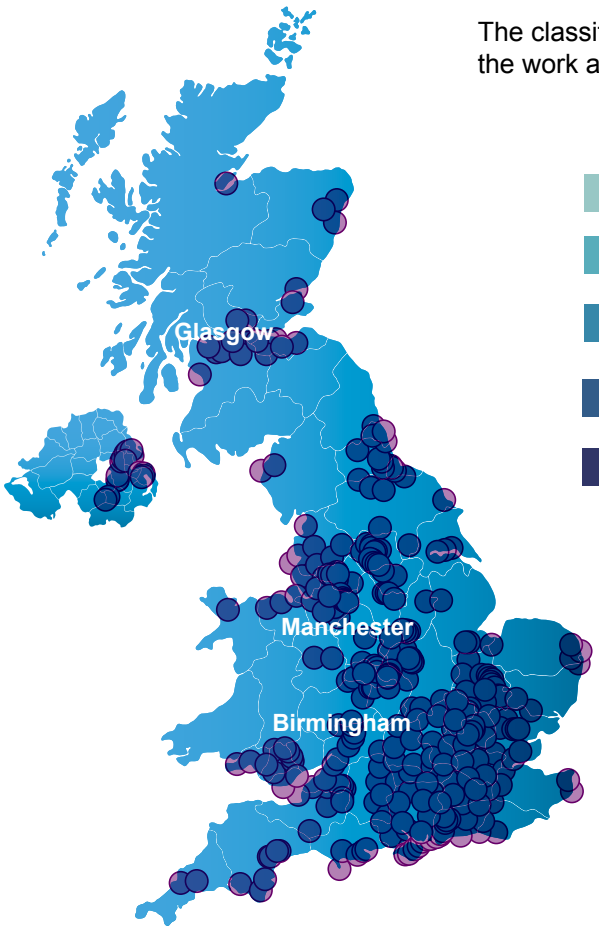
The programme has enabled them to accelerate innovation, uncover efficiencies and bring confidence to decision making and investment. M4R has helped drive growth for UK industry in a challenging economic climate caused by the pandemic.

625 applicants have received advice from an expert, of which 78% have led to a collaborative R&D project.

625
received advice from an expert

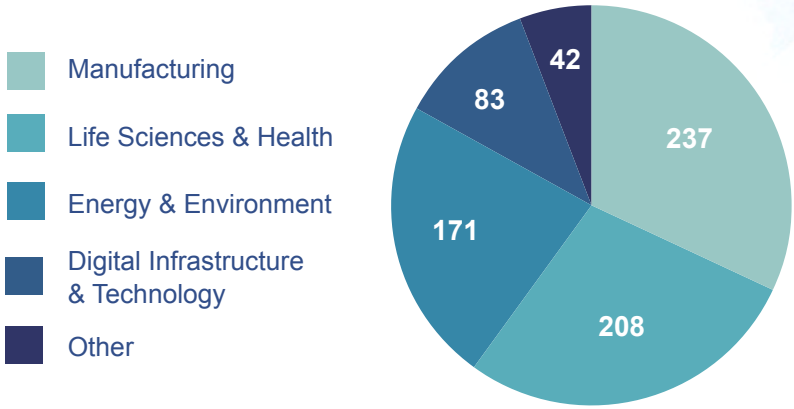
487
collaborative projects agreed

90%
of companies reporting a financial benefit



Delivering innovation and growth across industry

The classification of applications into high level challenges illustrates how the work aligns to government priority areas.



Levelling up the UK

The map of M4R applicants highlights the broad coverage across the UK, aligning with major centres of commercial activity and population distribution.

Making a tangible difference to businesses

Improving 5G at sea.

JET Engineering System Solutions looked to optimise their industry-leading marinised 5G capability to have the first operationally deployed 5G data buoy in the UK.The maritime environment is operationally complex for any technology and there are two key challenges specific to the effective use of 5G communications at sea. The first is the effect of sea state negatively impacting 5G performance, as the relationship between wave height and communication is presently unknown. The second is how to optimise use of the limited amount of electric power self-generated by 5G connected platforms that are deployed remotely and for extended durations. NPL successfully helped to accurately define and provide improved solutions to help mitigate these challenges.

"The NPL assistance has helped us understand the options that will rapidly develop our product family and help us continue to grow our business rapidly and agilely. The product enhancements proposed are expected to increase our communication range by 300%. We genuinely believe that our objectives of delivering a step-change capability for high bandwidth comms at sea will ultimately benefit everybody, in terms of improved safety, security, environmental protection, and genuine sustainability."

* Image courtesy of Jet Engineering System Solutions

Accelerating investment in renewable energy, aiding the green recovery, and supporting the UK's commitment to reaching net zero by 2050.

Lambda Energy Ltd, based in Cambridge, is developing a spectral conversion coating for application onto new build and retrofit solar PV panels, which increases electrical output by up to 10%. In previous tests the test rig was giving off a number of errors and therefore Lambda needed NPL and the M4R programme to help reduce the errors and address the source of variability.

"NPL's M4R programme and expertise was invaluable in helping to accelerate development. When securing investment and stakeholder engagement, it is critically important to have results that are accurate. Without that you will create doubt and slow down the adoption of a solution."

M4R is led by NPL in partnership with National Measurement Laboratories from the National Measurement System. The programme is funded by the Department for Business, Energy & Industrial Strategy (BEIS).

To find out more visit: npl.co.uk/measurement-for-recovery

*Self-reported data from 300 companies that participated in the M4R programme and completed an evaluation interview (95% response rate). Figures are based on where a 'yes' or 'no' response was provided.

NPL NML Design Unit Gear Technology NIBSC TÜV SÜD National Engineering Laboratory Department for Business, Energy & Industrial Strategy

FUNDED BY BEIS