

Over £200 million boost to upgrade UK labs to help scientists tackle COVID-19 and cut emissions

- UK science facilities to be upgraded with £213 million government investment enabling researchers to respond to global challenges such as COVID-19 and climate change
- new world class equipment includes supercomputers in Cardiff to track infectious diseases, airborne sensors in London to monitor greenhouse gas emissions and a unique floating offshore wind testing lab at the University of Plymouth
- part of government's flagship Research and Development (R&D) Roadmap which committed to making the UK the best place in the world for scientists and researchers to live and work

Super computers to track infectious diseases and a first-of-its kind floating offshore wind testing lab are among the world class facilities that UK researchers will gain access to, thanks to a major £213 million government investment to upgrade the UK's scientific infrastructure.

Announced today (Wednesday 6 January) by Science Minister Amanda Solloway, the investment will equip the UK's leading scientists, universities and research institutes with new state-of-the-art equipment to drive forward exceptional research that will help the UK respond to major challenges, including the COVID-19 pandemic and achieving net zero carbon emissions by 2050.

The £213 million pot includes £27 million for researchers at 43 of the UK's Medical Research Institutes across all corners of the UK providing them with access and upgrades to cutting edge equipment including ultra-high performing computers and microscopes. This will enable researchers to detect and model disease in more detail than ever before, helping the UK respond to COVID-19 and boosting resilience for future pandemics, as well as other diseases such as cancer and dementia.

The multi-million-pound investment will also provide researchers across the country with facilities to test innovative technologies to cut carbon emissions, such as a floating offshore wind turbine testing facility at the University of Plymouth, autonomous marine robotics trialled in Southampton to monitor the health of the southern oceans, as well as airborne sensors in London to monitor greenhouse gas emissions.

Other facilities to receive financial backing includes a unique 'blast diagnostics' laboratory at the University of Sheffield, which will test the UK's ability to respond to the use of explosives in terrorist attacks.

The investment will ensure the UK is the best place in the world for scientists, researchers and entrepreneurs to live and work, while continuing

to attract scientific talent from across the globe.

Science Minister Amanda Solloway said:

The response from UK scientists and researchers to coronavirus has been nothing short of phenomenal. We need to match this excellence by ensuring scientific facilities are truly world class, so scientists can continue carrying out life-changing research for years to come as we build back better from the pandemic.

From the world's most detailed telescopes tracking disease to airborne drones monitoring greenhouse gas emissions, our investment will enhance the tools available to our most ambitious innovators across the country. By doing so, scientists and researchers will be able to drive forward extraordinary research that will enable the UK to respond to global challenges such as achieving net zero carbon emissions by 2050.

The £213 million investment, delivered through the government's World Class Labs funding scheme and made through 7 of UK Research and Innovation's (UKRI) research councils, covers investments in all disciplines from physical sciences to arts and humanities.

Facilities to benefit from the investment include:

- **£29 million to upgrade and replace UK scientific equipment:** upgrading and purchasing core equipment for the use of researchers across the UK. This will equip medical researchers at 43 of the UK's Medical Research Institutes, such as in Birmingham, Glasgow and Cardiff with state-of-the-art research equipment, including new high-performance computers and telescopes to study disease. It will also replace equipment that has been donated to COVID-19 research
- **£25 million to support the installation of highly sophisticated testing facilities at leading UK universities:** This includes a first of a kind offshore floating wind turbine testing facility at the University of Plymouth, and a 'blast diagnostics' laboratory at the University of Sheffield, which will test the UK's ability to respond to the use of explosives in terrorist attacks. Funding will also support new equipment at a multi-disciplinary X-ray facility at the University of Liverpool, helping scientists to understand how carbon dioxide interacts with sandstone rocks, in order to develop improved ways of undertaking carbon capture and storage to mitigate greenhouse gas emissions
- **£34 million for data and digital research infrastructure:** Upgrading the UK's digital research capabilities will enable some of the country's brightest minds to conduct pioneering analytical research that will help inform long term policy decisions. For example, urban data centres in Glasgow, Liverpool and Oxford will receive new hardware to pursue research that will show how COVID-19 has affected social and economic activity in different parts of the UK. Meanwhile, the University of Essex will be backed to conduct a large-scale household survey to

understand how the pandemic has affected issues such as home schooling and family relationships

- **£33.5 million to upgrade facilities of UK scientific councils:** This will include a £20 million investment for the Science and Technology Facilities Council (STFC) to upgrade laboratory infrastructure at its sites in Oxford, Cheshire, Cleveland and Edinburgh. This will enable the Council to continue developing flagship projects covering a range of topics, from pre-launch satellite testing to the search for dark matter
- **£15 million for the Capability for Collections Fund (CapCo):** investment will renew and upgrade the most vulnerable research facilities across the UK within galleries, libraries, archives and museums. It will focus on conservation and heritage, modernising these spaces which will help serve local communities for generations

The Exchequer Secretary to the Treasury, Kemi Badenoch, said:

This investment in state of the art science and research facilities will help the UK's world-leading scientists deliver life-changing research, from tackling infectious diseases and COVID-19, to delivering Net Zero.

It's vital we continue to innovate to drive our economic recovery and level up the country.

Professor Ottoline Leyser, Chief Executive of UKRI said:

Research and innovation infrastructure is key to delivering the government's R&D Roadmap, with some of the most innovative ideas with transformative R&D potential requiring access to leading-edge infrastructures, including national research facilities, equipment and instrumentation, networks of technologies and digital infrastructures, and knowledge-based resources such as collections and museums.

Outstanding infrastructure helps to convene talent from the public and private sectors and across disciplines to tackle society's most complex challenges. It acts as a magnet for researchers and innovators internationally, contributes to local and national economies, and generates knowledge and capability critical to UK policy, security and wellbeing.

The funding forms part of a £300 million commitment to upgrade scientific infrastructure across the UK, made by Business Secretary Alok Sharma, as part of the government's ambitious [R&D Roadmap](#) published in July 2020.

See the [full list of investments](#).