Government launches consultation on national Cyber-Physical Infrastructure

Today (Wednesday 2 March), the government has launched a <u>consultation on a national Cyber-Physical Infrastructure</u>, an ecosystem of increasingly connected digital and physical systems with the potential to help accelerate innovation and secure the UK's status as an innovation nation and a science superpower.

Advanced cyber-physical systems that sit across the digital and physical worlds are increasingly part of our everyday lives and economy.

Uses range from autonomous agriculture drones and collaborative robots working with factory operators, to reducing congestion in our urban traffic systems and planning responses to extreme weather events for our critical infrastructure.

This consultation explores the opportunities and challenges presented by the increasingly connected application of these systems, and how ecosystems of this technology could help UK innovators to reduce cost and risk to rapidly prototype, test, develop and implement ideas.

Through this consultation, the government is seeking challenge and insight from stakeholders including industry, academia, institutions and the wider public sector.

Science Minister George Freeman said:

The UK is emerging from the last few turbulent years with a more resilient and sustainable economic model — putting science, research and innovation at the heart of our post-Brexit vision for Global Britain's role in the world.

Increasingly, advanced and connected digital and physical technologies are providing us with new tools to help us better predict and respond to future global challenges; drive UK leadership in science and research; and better commercialise innovations.

This consultation is a key step to realising these benefits for the UK, and I look forward to receiving guiding challenges and insights from the community.

The consultation has been informed by engagement with over 100 organisations to date supported by Digital Catapult, and builds upon the Robotics Growth Partnership's recently published independent <u>Vision for Cyber-Physical Infrastructure</u>.

A national capability in Cyber-Physical Infrastructure would build upon and complement several other national strategies including the <u>National Data</u> <u>Strategy</u>, <u>National Cyber Strategy</u> 2022, the <u>AI Strategy</u>, <u>Innovation Strategy</u> and <u>10 Point Plan for a Green Industrial Revolution</u>.

The consultation will be open for 10 weeks, closing on 11 May 2022.

UK's £30M partnership with GSMA helping people in humanitarian crises with mobile and digital assistance

The UK will commit a further £15.5 million to the GSMA Mobile for Humanitarian (M4H) Innovation Programme, bringing the total amount given by the UK to the M4H programme to £30 million since 2017.

The move enables the GSMA's vital work to deliver mobile and digital humanitarian assistance to those most in need.

It will help the GSMA M4H programme to reach over 17 million people facing global humanitarian crises such as displacement and hunger by 2025. By using new and proven technologies, we can help the world's most vulnerable people during times of crisis.

The GSMA M4H programme has already helped over 8 million with life-enhancing and lifesaving mobile enabled services, helping them to prepare for, respond to, and recover from disasters. With 274 million in people in need of humanitarian assistance globally, this work is urgently needed.

In a speech at MWC22 Barcelona, the UK's Minister for Africa, Vicky Ford said:

Thanks to UK funding, GSMA's programme has served over 8 million people with life-enhancing mobile-enabled services in humanitarian preparedness, response, and recovery.

I am delighted to announce that the UK has committed a further £15.5 million to scale-up the GSMA's humanitarian work, so that we can reach over 17 million vulnerable people with digital humanitarian solutions.

It is clear to me, that if we are to address the devastating

situation facing millions of people around the world in need of humanitarian assistance and protection, partnerships between the humanitarian and private sectors are essential.

The partnership between the Foreign, Commonwealth & Development Office (FCDO) and the GSMA M4H Innovation Programme will enable the FCDO to remain at the forefront of humanitarian interventions over the next three years.

The M4H Programme will build partnerships with the private sector and the global humanitarian community to benefit a total of 17.3 million people with mobile-enabled humanitarian preparedness, response, and recovery.

GSMA's Chief Regulatory Officer, John Giusti, said:

When disaster strikes, it's the world's most vulnerable people who carry the greatest burden and suffer the greatest hardships, from displacement and financial devastation to loss of life. In these moments of crisis, mobile connectivity is a lifeline.

We must continue our efforts to ensure digital technology provides those affected by disaster with the ability to communicate with loved ones and receive essential information and services.

We thank the UK's FCDO for its continued leadership and support in helping to reach the people who need mobile services the most.

The next phase of M4H will focus on five recognised humanitarian trends that mobile-enabled services have a role in addressing: increased demand for humanitarian cash and voucher assistance; increased frequency and intensity of natural hazard disasters; increased number of forcibly displaced people; increased global hunger and food insecurity; and the climate emergency.

New mobile-enabled technologies have already been used to avert humanitarian disaster and address the humanitarian need. The M4H Programme has helped:

- 200,000 Rwandan refugees and 500,000 people from marginalised groups to get better access to humanitarian cash and voucher assistance via mobile money
- Provide communities in Haiti with tailored, interactive information to help them prepare for and respond to extreme weather events. This platform has since been used to provide COVID-19 health information.
- Develop the digital ecosystem in Ethiopia, Burundi, and Nigeria,

supporting mobile-enabled cash distribution. For those in crisis, it is a pathway to financial inclusion, dignity, and choice.

• Reach parents and caregivers of Syrian children affected by displacement and conflict with digital, physio-social support.

Notes to Editors

 The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Find out more here & pressoffice@gsma.com

£260 million to boost healthcare research and manufacturing

- Up to £200 million committed by BEIS and DHSC to support NHS-led health research into diagnostics and treatment through new privacy-preserving platforms and clinical research services
- £60 million of new government funding will help expand life sciences manufacturing in the UK following the country's successful contribution to the worldwide vaccine rollout
- funding will support the Life Sciences Vision and government's levelling up agenda by supporting the creation of highly skilled jobs across the country and backing world-leading health research

Patients across the country are set to benefit from cutting edge medical advances and treatments as the government invests £260 million today (Wednesday 2 March) to support research and development, as well as the manufacturing of new drugs, devices and diagnostics.

Of the funding announced today, up to £200 million will be invested to enable research to better access NHS data through Trusted Research Environments and digital clinical trial services. This will make crucial data more securely and quickly available for research, while offering the highest levels of privacy. It will also ensure that the NHS will be able to deliver new lifesaving treatments to patients faster, and will support more diverse and inclusive clinical research to tackle health inequalities and improve patient care.

A further £60 million will support commercial-scale manufacturing investments by companies at the leading-edge of innovation, from cell and gene therapies and earlier and better diagnostic technologies, to medical devices.

The funding for manufacturing investments will be distributed through the new <u>Life Sciences Innovative Manufacturing Fund (LSIMF)</u>, following the success of the earlier Medicines and Diagnostics Manufacturing Transformation Fund.

The fund will help support the growth of the UK's world-leading life sciences sector while also supporting the government's levelling up agenda by creating jobs and ensuring the UK continues to be an attractive investment destination.

Business Secretary Kwasi Kwarteng said:

The past 2 years have shown just how important our fantastic medical and life sciences industry is for the UK not only in dealing with the pandemic, but also for the vital economic opportunities they create throughout the country.

By providing £260 million to boost UK medical manufacturing and medical research, we are ensuring the industry has the support it needs to improve patient outcomes and generate high-skilled jobs while building up Britain's manufacturing base in the process.

Health and Social Care Secretary Sajid Javid said:

NHS data is making the whole world safer and healthier and has been vital in saving thousands of lives during the COVID-19 pandemic.

This funding will ensure the UK can continue to help researchers access NHS data securely so patients can benefit from more innovative treatments faster.

I'm absolutely committed to boosting the UK's position as a world-leading research centre, transforming our health service and ensuring the NHS continues to deliver excellent care for patients.

The £200 million funding into the healthcare system will deliver on government commitments set out in the Life Sciences Vision, to harness NHS data to drive health research and innovation, building on pioneering work carried out during the pandemic to develop diagnostics and treatment for COVID-19.

This includes the RECOVERY trial which made use of NHS data through NHS DigiTrials and led to the discovery of Dexamethasone, the world's first proven treatment for COVID-19, in just 100 days, which has saved at least a million lives across the world.

By making it quicker and easier to set up and run clinical trials, this funding will also ensure the UK continues to be at the forefront of life sciences research. The new infrastructure will supercharge efforts to improve the nation's health and to deliver the Life Sciences Vision, including in

crucial areas such as cancer, cardiovascular medicine and mental health.

The UK has one of the strongest Medical and Life Sciences industries globally, with a turnover of over £88.9 billion, supporting 268,000 jobs across the country. As set out in the Life Sciences Vision, the government is committed to harnessing the UK's existing strengths to continue to attract large scale manufacturing and the well-paid job opportunities that come with it.

The pandemic further reinforced the importance of the UK's life sciences industry and of having a resilient UK-based medical manufacturing industry and supply chains, with the UK government investing hundreds of millions of pounds into manufacturing a successful vaccine through the work of the Vaccines Taskforce.

Today's manufacturing funding announcement is part of the government's ongoing commitment to the life sciences sector, with £354 million allocated to life sciences manufacturing through the Global Britain Investment Fund. This has also included funding to strengthen UK vaccine manufacturing resilience for the COVID response and potential future health emergencies, among other projects.

Science Minister George Freeman said:

UK leadership in the discovery of new diagnostics, devices and drugs — from gene therapy to digital stents — is now driving our work in new and advanced manufacturing of medical technologies.

Our new Life Sciences Innovative Manufacturing Fund will not only help further develop domestic medical manufacturing capabilities and enhance Britain's ability to respond to future pandemics, but will also help create well-paying, high-skilled jobs across the whole UK — a vital part of our plans for levelling up.

Chair of The Medicines Manufacturing Industry Partnership (MMIP) Brian Henry said:

The Life Sciences Innovative Manufacturing Fund is an excellent development. Science has already created the next generation of vaccines and advanced therapies for patients, we want to see the UK take its place as a world-leading centre for manufacturing them.

The Fund will help boost the UK's attractiveness as a place for companies to invest in the latest technology, creating jobs and growth and making the UK a manufacturing as well as a science superpower.

Dr Ben Goldacre, Director of the DataLab, Nuffield Department of Primary Care Health Sciences, University of Oxford, said:

This funding announced today will drive forward the longstanding ambition to broaden access to NHS data while preserving patient privacy, by building secure Trusted Research Environments that support modern, transparent, efficient approaches to data analysis.

The Life Sciences Innovative Manufacturing Fund is the successor to the Medicines and Diagnostics Manufacturing Transformation Fund (MDMTF). It was also established to help grow and strengthen the UK's medicines and diagnostics manufacturing industry by encouraging companies to use new technologies, and to build or expand facilities throughout the country.

Companies awarded funding through the MDMTF, announced for the first time today, include:

- Ortho Clinicals Diagnostics UK, which will expand its innovative biological diagnostic product lines, at its Pencoed, Wales site
- Custom Pharmaceuticals Limited, which plans to build a new facility in Brighton that will create capacity to manufacture and develop difficult to handle, high potency medicines for the UK NHS and export biopharmaceuticals market
- Randox Laboratories, which will build a new large-scale manufacturing facility in Northern Ireland.

Ofsted to inspect delivery of Early Career Framework and National Professional Qualifications

Ofsted has today published its new framework and handbook for inspecting lead providers of the Department for Education's two new flagship professional development programmes for teachers, the early career framework (ECF) and the reformed suite of national professional qualifications (NPQs).

These new inspections will look at the quality of professional development and training and the effectiveness of leadership and management to determine the overall effectiveness of the lead provider.

The launch of these two programmes completes the golden thread of professional development for teachers, starting with effective initial teacher education (ITE) and then developing high-quality teachers and leaders at all stages of their careers.

Ofsted has worked closely with the sector to develop the approach to this new area of work. Inspections will give confidence to early career teachers and NPQ participants, school leaders and the DfE about the quality of the

training and professional development offered.

Inspections will begin in summer 2022, with monitoring visits to check that early implementation is on track. Monitoring visits will judge whether leaders are taking effective action to establish the new courses. From spring 2023, Ofsted will then carry out full inspections of each lead provider, a minimum of once every two academic years.

Chief Inspector Amanda Spielman said:

These two new programmes have the potential to transform the quality of training and professional development for teachers. They will support the government's plans to recruit, train and retain the highly skilled workforce needed to give pupils the best experience in education.

Our inspections of lead providers of the ECF and NPQs will make sure the programmes are of the highest quality and that teachers and school leaders are getting the best possible support.

In the first year of a lead provider's operation, Ofsted will conduct a lead provider monitoring visit (LPMV) to judge whether leaders are taking effective action to establish the new courses.

For full inspections, which will follow, Ofsted will judge providers on the quality of professional development and training and leadership and management.

Inspectors will use the following 4-point scale to grade the key judgement areas and the overall effectiveness judgement:

- grade 1: outstanding
- grade 2: good
- grade 3: requires improvement
- grade 4: inadequate

Ofsted inspectors will:

- only inspect DfE-funded lead providers
- visit a sample of delivery partners, ECTs and/or NPQ participants, mentors, induction tutors, and trainers to inform our assessment of a lead provider
- report on any failure to comply with the statutory requirements of the ECF
- comment on the quality of the mentor training programme

Ofsted inspectors will not:

- make judgements about individual ECTs, NPQ participants, delivery partners or mentors
- inspect ECF training in schools that deliver their own ECF-based

- induction (whether using the DfE accredited materials, or the ECF to design a school-based programme)
- make a judgement on the content of the ECF/NPQ programmes of education, which are set by the DfE, and approved by the EEF
- grade individual lessons taught by ECTs or NPQ participants, or sessions led by trainers or mentors
- consider the accuracy of NPQ summative assessments.

Over half a million trees set to be planted in our towns, cities and countryside

Hundreds of thousands of trees are set to be planted in communities across England as applications for the Local Authority Treescapes Fund and the Urban Tree Challenge Fund reopen today (Wednesday 2 March).

Over £9 million will be allocated to successful applicants across both funds, which will support tree planting efforts and improve the environment for future generations as we build back greener from the pandemic. Both funds form part of the Government's wider drive to treble tree planting rates across England by the end of this Parliament and plant 30,000 hectares of trees across the UK per year by 2025.

Now in its second round, successful applicants to the Local Authority Treescapes Fund will be allocated a share of £5.4 million for the planting of up to 650,000 trees in 2022/23. Projects will support local authorities to establish trees in different ways, from natural regeneration (where trees are left to naturally develop) to traditional planting.

Community engagement is encouraged, and local authorities can bring together local residents, schools and environmental groups to restore trees in areas outside woodlands. These include riverbanks, parks, beside roads and footpaths, and within vacant community spaces — areas where treescapes are often highly degraded due to neglect or disease.

Trees make our towns and cities healthier and more pleasant places to be, helping to moderate temperatures, reduce pollution, decrease flood risk and improve people's quality of life. If successful, applicants to the fourth round of the Urban Tree Challenge Fund will be awarded a share of more than £3.8 million — enough to fund the planting of over 28,000 large trees in both urban areas, and where rural and urban areas meet. This funding aims to grow the number of trees in and around deprived urban areas to bring people from all socio-economic backgrounds closer to nature.

There are several key differences between the Local Authority Treescapes Fund

and the Urban Tree Challenge Fund. These include: * The Urban Tree Challenge Fund specifically funds projects planting new, large 'standard' trees, whilst Local Authority Treescapes Fund projects can plant trees of any size — although 'standard' trees in urban areas can only be planted where they are replacing trees that have been lost, for example due to disease. * Whilst both funds support tree planting in urban areas, the Local Authority Treescapes Fund also supports the planting of trees outside of woodlands in rural areas. * All projects supported through the Local Authority Treescapes Fund must be led by a local authority, whereas the Urban Tree Challenge Fund is also open to projects led by charities, community groups and other organisations.

A blog outlining these differences and offering guidance on how to apply for both funds has been published by the Forestry Commission. In addition, the Tree Council, in partnership with the Department for Environment, Food and Rural Affairs and the Forestry Commission, is holding a Q&A session offering guidance for local authorities on both funds.

Forestry Minister Lord Goldsmith said:

Everyone across the country deserves to benefit from the cleaner air and natural beauty that trees offer. This funding will support inspiring projects in England to level up people's access to nature, support our wider ambitions to treble tree planting rates by the end of this Parliament and achieve net zero by 2050.

Forestry Commission Chair Sir William Worsley said:

Together, these funds will help to promote resilient tree growth in England for generations to come, whilst simultaneously addressing the twin challenges of climate change and biodiversity loss.

Research shows that trees planted on streets in urban areas help to decrease antidepressant costs related to mental health issues by £16 million. We are therefore committed to expanding and protecting our nation's treescapes through schemes like these for the health, social and economic benefits they bring.

The benefits of being close to nature are well-documented and have been emphasised over the course of the pandemic. Evidence from Natural England shows that almost half the population say that they are enjoying more time outside than before the pandemic. It also found that approximately a third of those on the lowest incomes visited a natural space in a typical week during the pandemic, compared with almost 60% amongst those on high incomes.

Applications for both funds are now open until 31 May 2022.

For more information and to apply, go to: www.gov.uk/guidance/local-authority-treescapes-fund and

Case studies from previous successful applicants/rounds:

Local Authority Treescapes Fund:

- Blackburn with Darwen Borough Council, alongside a range of local authorities across the Pennine Lancashire districts and local NGOs including the Ribble Rivers Trust, received a grant through the Local Authority Treescapes Fund to plant approximately 40,000 trees, covering more than 31 hectares.
- The 135 chosen sites across Pennine Lancashire include green spaces in 40 schools and 95 community spaces, as well as new "urban microwoodlands" and a site adjacent to a new health centre.
- The project sought to promote outdoor activity and boost health and wellbeing for people of all ages, as well as to help tackle high levels of obesity found in some areas in Pennine Lancashire.
- Ellie Brown, of Ribble Rivers Trust, said: "Different partners have brought different things to the table...sharing knowledge, experience, and relationships really worked."
- Gwen Kinloch, Blackburn with Darwen Borough Council, said: "From my perspective, the LATF did trigger something. It perhaps wouldn't have happened and wouldn't have happened as quickly had the grant not been available. It is helping to inspire our next generations and start some really meaningful conversations."

Urban Tree Challenge Fund

- Slough Borough Council have planted over 8500 trees under the Urban Tree Challenge Fund. Through the delivery of diverse community-led tree planting projects, the Council have seen wider health and educational benefits to the general public, students and schools, stakeholders and community groups.
- Louise Handley at Slough Council said: "The funding from the Urban Tree Challenge Fund has allowed us to bring post-Covid initiatives to the most deprived areas of our community, which focus on up skilling for employment, active lifestyles, citizen science and volunteering. The design of the Urban Forest has facilitated a move away from close mown grass cutting regimes to one of biodiversity improvement and habitat creation. This initiative has the potential to reach all of Slough's population and its flora and fauna."