

# £1 million in contracts awarded to enhance the UK's space capabilities

- £1 million overall funding allocated to five innovative organisations to develop space technologies
- Funding achieved through the Space to Innovate Campaign – Bravo Drop, a joint collaboration between the Defence Science and Technology Laboratory (Dstl) UK Space Agency and Defence and Security Accelerator
- The Space to Innovate Campaign aims to find and fund solutions to major space hurdles to promote space resilience and operational effectiveness
- The Space to Innovate Campaign – Bravo Drop is the second 'challenge drop' as part of the Space to Innovate Campaign

The [Defence Science and Technology Laboratory](#) (Dstl), [UK Space Agency](#) and Defence and [Security Accelerator](#) (DASA) are pleased to announce that five innovators have won £1 million in funding to develop technologies for the space domain.

The funding was achieved as a result of [Space to Innovate Campaign – Bravo Drop](#) which invited innovators to submit their innovative technologies and solutions to help overcome the following challenge areas:

## **Challenge 1: Novel sensing and Intelligence, Surveillance & Reconnaissance (ISR) technologies**

This challenge sought to develop technologies and demonstrations of novel sensing modes for the space domain for military and intelligence applications; both space-to-ground and space-to-space.

## **Challenge 2: Novel approaches to improve signal-to-noise performance of space-related communications, sensing, identification or tracking capabilities**

This challenge sought to identify novel technologies, techniques, processes or algorithms that offer improvements to the overall signal-to-noise characteristics of electromagnetic systems used for Defence and / or Security space domain applications.

**Air-Vice Marshal Paul Godfrey, Commander, UK Space Command, said:**

“This is an exciting time for the UK's space sector. It's great to see companies across the union continuously challenging the norms and improving the UK's ability to operate effectively and safely in space through innovative technologies.

“Bravo Drop is the next part in the collaboration between Government, Defence, and industry and is crucial to our mission to make space safe, secure, and sustainable for all generations.”

**Dr Mike O'Callaghan, Dstl Space Programme Manager, said:**

"This is a hugely exciting time for Dstl with the launch of two satellite missions from the UK later this year. Accelerating the development of these technologies could enhance future space operations and contribute to improved space domain awareness, as well as more secure communications. We look forward to working with all the winners."

## **Blast off to the winners**

Five projects have been awarded Space to Innovate Campaign – Bravo Drop funding to fast-track their novel ideas. The winners are:

### **AltaRange Ltd**

Bravo Drop funding: £117,700

AltaRange Ltd's project aims to demonstrate the technical and commercial viability of a Space Surveillance and Tracking (SST) service for next generation space operations involving spacecraft in proximity to one another, to enable better in-space reconnaissance and spacecraft monitoring.

### **Slipstream Engineering Design Ltd**

Bravo Drop funding: £ 199,054

This project aims to deliver an Adaptive Radio Platform (ARP) for space applications through the development and integration of a Software Defined Radio (SDR). This will enable flexible radio products that focus on efficient technologies which are power and spectrum scalable.

### **Fraunhofer UK Research Ltd and Fraunhofer Centre for Applied Photonics**

Bravo Drop funding: £318,152

This project aims to develop innovative robust, high-reliability and low-SWaP (size, weight and power) hybrid photonic integrated circuits (PICs), which will enable technology for space-based optical clocks and quantum sensors.

### **Astroscale**

Bravo Drop funding: £ 196,466

Astroscale's project aims to determine the utility of hyperspectral imaging/multispectral imaging (HSI/MSI) capability for novel space-to-space (S2S) imaging applications, which is essential for intelligence gathering and threat assessment.

### **AVoptics Ltd**

Bravo Drop funding: £195,920

This project aims to develop a novel, high-gain and low-noise optical photodetector material to realise higher-speed/longer-range Free Space

Optical Communication (FSOC) links, to enable inter-satellite and satellite-to-platform high bandwidth communication.

## **What is the Space to Innovate Campaign?**

The space domain, which includes satellites and space-based services, is vital to modern life, enabling a range of civilian and military activities. Any form of disturbance to UK space capabilities, whether that is natural or intentional, can cause a severe disruption to UK prosperity.

The Space to Innovate Campaign seeks proposals that can maintain the UK's freedom of action in the space domain by developing future space technologies that enhance and protect space military and civil potential.

The campaign format is unique from other DASA competitions and comprises space-related challenges that are released periodically.

## **What happened in the Space to Innovate Campaign – Alpha Drop competition?**

The Space to Innovate Campaign – Bravo Drop follows on from the Alpha Drop, where £1.6 million worth of contracts were awarded to:

- EESE, University of Birmingham
- Goonhilly Earth Station Limited
- Spectra Medical Limited
- University of Warwick
- University of Strathclyde
- 14 AI Innovation LLP
- University of Strathclyde
- Rocket Communications

The Space to Innovate Campaign – Alpha Drop aimed to identify visualisation tools to enable space operators to exploit information gathered from multiple data sources, and novel methods for characterising objects in space and their intent. [Learn more here.](#)

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## **[British Embassy Reykjavik launches Icelandic children's book](#)**

On 31 August 2022, the British Embassy in Iceland will be launching the first ever Icelandic children's book about careers of the future.

The book aims to inspire the next generation with amazing careers they've never even heard of, as well as teach them that everyone is equal.

Written for children aged 5 to 12 years old, 'Tæknitröll og íseldfjöll' (Technical Trolls and Ice Volcanos) introduces children to what will be some of the most interesting and important careers in Iceland over the next 20 years.

With advances in quantum computing, robotics, nanotechnology and space travel, there will be a huge variety of opportunities opening up in the future. 'Tæknitröll og íseldfjöll' introduces children to 30 exciting careers, from arctic scientist to aquaculture entrepreneur, cobot matcher to telesurgeon.

This new book also highlights diversity, equality and inclusion, 3 values that the [Foreign Commonwealth and Development Office \(FCDO\)](#) is working hard to place at the forefront of British foreign policy.

Studies have shown that children as young as 5 years old think that people who look less similar to themselves are less kind, and that girls aren't as clever as boys. This book is full of diverse characters and aims to break down these stereotypes at the earliest possible age.

It shows children a variety of characters that all have different backgrounds and stories to tell, just like in real life. By including LGBTQ+, different genders and skin tones, physical differences and disabilities and mental health, it shows children that everyone is equal.

The book was written by Dr Bryony Mathew, British Ambassador to Iceland, and published by the British Embassy in Reykjavik. The embassy will be giving out 1,000 copies of the book to children, teachers, schools and libraries across Iceland, helping to further strengthen UK-Iceland relations while inspiring Iceland's next generation.

The embassy has also produced an electronic version of the book.

Download the Tæknitröll og íseldfjöll eBook for free:

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## [WIPO General Assemblies: UK Statement on Ukraine's Intellectual Property System](#)

Chair,

The UK fully supports the statement delivered by Ukraine on behalf of 53 co-sponsors, introducing Item 19, Assistance and Support for Ukraine's Innovation and Creativity Sector and Intellectual Property System, circulated as A/63/8. The intent of this proposal is to respond to an unfolding disaster

and ensure that Ukraine's innovation community receives the support that it so urgently needs as soon as possible. The proposal is specific to the needs of Ukraine, at this critical time.

WIPO is mandated to enable innovation and creativity for the benefit of all, including by supporting the effective protection of intellectual property around the world. WIPO exists to develop a balanced and accessible international intellectual property system, which rewards creativity, stimulates innovation and contributes to economic development.

Chair, the invasion of Ukraine is having a profound impact on the ability of Ukrainian citizens and businesses to benefit from the global IP system. Attacks on the systems and infrastructure which enable creativity and economic development are incompatible with the spirit of WIPO.

Before the invasion, Ukraine was a regional Science & Technology powerhouse. The technology sector accounted for 4% of the country's GDP and Ukraine was home to around 5,000 IT companies and 285,000 IT specialists. Science and Technology has already played a role in boosting Ukraine's defensive effort. From international crypto donations, to companies like Uber and AirBnB using their platforms to help to those forced to flee violence.

The sector will also be vital to Ukraine's long-term resilience and recovery. It will be a platform on which, Ukraine can rebound – providing jobs, attracting investment and developing next-generation technology.

The UK recognises the importance of the science and tech sector, supported by on the international IP ecosystem, and the role WIPO and individual Member States can play.

Since March, for Ukrainian customers and rights holders, the UK IP Office has used the maximum flexibility available in law to consider requests for extensions of time, reinstatements and restorations. We have also recognised communications are difficult, and in some cases impossible, at this time in Ukraine. We continue to send all of our communications electronically when possible and for customers where we only hold a postal address we are arranging an alternative method of communication when those customers are able and ready to contact us.

The UK government also announced a further package of measures in late June.

For example, more than 130 Ukrainian academics are supported under the 'Researchers at Risk' programme which launched in March. A total of GBP 12.8 million will allow the programme to expand significantly to meet demand. The Researchers at Risk scheme enables Ukrainian academics to continue their research, helping Ukraine to preserve its research and innovation ecosystem. We believe that this will enable the country to rebuild and prosper.

The UK Government also provides funding to support Ukrainian academic institutions. The project aims to establish more than 100 long-term, sustainable partnerships to support Ukrainian institutions, students and researchers during the current conflict and beyond. 79 UK universities have

already signed up to the scheme..

The UK government's support for the 'Re.Build' conference, organised by the Founders Forum, is enabling the UK's most innovative tech companies to contribute to Ukraine's recovery in the most effective way.

While the UK has made these and other efforts on a bilateral basis, we also believe that in the multilateral space, there are positive actions that WIPO can undertake to support the innovation landscape in the Ukraine. Examples of such actions were clearly set out in the statement by Ukraine and in the proposal A/63/8 which we support and co-sponsor.

Chair, the UN General Assembly resolution of 2 March 2022 urges the immediate peaceful resolution of the conflict in Ukraine and calls on member states and international organisations to play their part.

Accordingly, a majority of international organisations, including specialised agencies, have convened discussions on the impacts of the war, and taken decisions in support of the de-escalation of the conflict and rebuilding of key sectors of Ukraine's economy. WIPO too should make its unique contribution to this global effort.

Chair, we regret that procedural attempts, including a calling a vote, were deployed earlier in this session to prevent a discussion on this matter, and we welcome these attempts were overcome. We call on all Member States to commit to supporting IP and innovation systems in vulnerable countries and deliver that commitment through agreeing proposal A/63/8 focusing on targeted technical assistance that is urgently needed in and required by Ukraine.

Thank you, Chair.

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## **[The ICIBI has commenced a monitoring review of ePassport gates](#)**

News story

The review will examine the Home Office's progress against the recommendations made in the previous inspection report on ePassport gates (June 2020 – January 2021).



The Independent Chief Inspector of Borders and Immigration (ICIBI) has commenced a monitoring review of ePassport gates, examining:

- The role of the monitoring officer
- The delivery of training for front-line officers
- Recording of safeguarding concerns

The review will examine the Home Office's progress relating to previous recommendations from '[An inspection of ePassport gates \(June 2020 – January 2021\)](#)', to:

- Deliver the Protecting the Vulnerable (PTV) training to all public-facing Border Force staff during 2021
- Deliver the classroom-based Behavioural Detection (BD) training to all roving officers
- Ensure that staff performing the monitoring officer role do so for a maximum of one hour at a time, in line with guidance
- Implement a system to record details when passengers are stopped due to safeguarding concerns, including the circumstances in which vulnerable passengers are identified, the role of the officer who identified the passenger and whether the passenger was eligible to use, or was trying to use, the gates

The team will visit East Midlands, London City and Stansted airports and will also issue a survey to Border Force staff.

Launching the review, David Neal said,

While this review was not included in my [2022-2023 inspection plan](#), the plan does include scope for re-inspections or unannounced inspections to reflect in-year developments and areas of emerging interest.

The inspection team anticipate reporting to the Home Secretary by August 2022.

David Neal

Independent Chief Inspector of Borders and Immigration, July 2022

## Chancellor Nadhim Zahawi sets out post-Brexit transformation of UK financial services

- In his first official speech as Chancellor, Nadhim Zahawi set out ambitious plans to capitalise on the benefits of Brexit and transform the UK financial services sector.
- At Mansion House this evening, Nadhim Zahawi confirmed that the government will introduce legislation tomorrow (20 July) to repeal hundreds of pieces of EU retained law governing the sector – so that it can be replaced with an agile and coherent regime fit for the UK.
- He also set out measures to boost consumer protection, embrace technological innovation, and further enhance the growth and competitiveness of UK financial services.

Plans to seize the benefits of Brexit by revoking EU retained law governing financial services were set out by Chancellor of the Exchequer Nadhim Zahawi in his first speech as Chancellor, at Mansion House this evening (19th July).

These will be replaced with a coherent, agile and internationally respected approach to regulation which is fit for the UK.

The Chancellor confirmed that the Financial Services and Markets Bill will be introduced tomorrow (20th July) – the most significant piece of financial services legislation for over a decade.

The Bill will implement the government's vision for the sector to be open, green, technologically advanced and globally competitive – while maintaining high levels of consumer protection.

The Chancellor also used his first speech to set out his core three priorities for the coming months; first, delivering a coordinated, responsible approach to controlling inflation, secondly, delivering the government's promise to create the conditions for a private sector recovery, and thirdly, delivering on our vision for financial services.

### **Chancellor of the Exchequer, Nadhim Zahawi said:**

“The British people can rest assured that we are getting on and delivering the benefits of Brexit.

“The measures I have announced tonight will unleash growth across our financial services sector and will allow us to unlock tens of billions of



pounds of investment into the UK economy.

“Consumers will remain protected, with legislation ensuring that victims of scams can be compensated while also acting to protect access to cash for the millions of people that rely on it.”

The Financial Services and Markets Bill will enable the reform of Solvency II, which could lead to a reduction in excessive capital buffers and give insurers more flexibility to invest in long-term assets like infrastructure. It will also increase the competitiveness of the UK’s wholesale capital markets, and reinforces our position as a leading centre for technology by supporting the safe adoption of certain types of stablecoins as a means of payment.

The financial regulators will also have greater responsibility for setting the rules that govern UK financial services, and for the first time, they will be given a new secondary objective to promote growth and competitiveness of the sector. This will complement their existing objectives ensuring the safety and soundness of firms, protecting and enhancing the integrity of the UK financial system, promoting competition in the interests of consumers, and ensuring that consumers receive an appropriate degree of protection .

The Chancellor set out that the Bill will include new measures to increase regulators accountability; and confirmed that any further powers to intervene in financial regulation in the public interest, so called “call-in” powers, are under consideration.

Following the publication of the Bill, the City of London and HM Treasury will also publish the first annual State of the Sector report. This publication brings the voices of industry and government together in one place, and affirms support for the government’s vision for the sector – with the UK’s approach to regulation being favoured by 31% of senior executives – more than anywhere in the world. The report also highlights the financial sectors’ importance to the UK economy, supporting 2.3 million jobs – with two thirds of those outside of London – and contributing £1 in every £10 to the UK’s economic output.

The Chancellor also set out steps to make the UK one of the most attractive places in the world for firms to list and access the finance they need to grow – accepting all of the recommendations for government from the independent Austin Review into Secondary Capital Raising – the process listed firms use to raise further capital.

As part of this, the Chancellor appointed Sir Douglas Flint to Chair the Digitisation Taskforce recommended by the Review, which will drive the modernisation of the UK shareholding framework and eliminate paper share certificates to improve efficiency. The government will also streamline the capital raising process by reforming the Companies Act to shorten rights issues and the processes around them.

To further embrace new technology and innovation, the Chancellor confirmed that the government will take forward work to understand the application of

Distributed Ledger Technology to the lifecycle of a UK sovereign debt instrument, helping us to better understand the potential benefits of this technology while also supporting innovation in the wider financial services sector.

The Chancellor made clear that the government will always be on the side of consumers by confirming plans to legislate to safeguard access to cash for a generation, and enabling the Payments Systems regulator to reimburse victims of Authorised Push Payment fraud – which stood at almost £600 million in 2021.