

Government backs UK companies tackling dangerous 'space junk'

- Currently there are approximately 160 million objects in orbit – mainly debris – which could collide with satellites vital to services we use every day
- UK Space Agency and Ministry of Defence sign formal agreement to work together on monitoring threats and hazards in orbit

Seven pioneering projects which will develop new sensor technology or artificial intelligence to monitor hazardous space debris, have been announced today by the UK Space Agency.

The UK Space Agency and Ministry of Defence have also announced the next step in their joint initiative to enhance the UK's awareness of events in space.

Estimates of the amount of space debris in orbit vary, from around 900,000 pieces of space junk larger than 1cm to over 160 million orbital objects in total. Only a fraction of this debris can currently be tracked and avoided by working satellites. The UK has a significant opportunity to benefit from the new age of satellite megaconstellations – vast networks made up of hundreds or even thousands of spacecraft – so it is more important than ever to effectively track this debris.

Today's investments will help bolster the UK's capabilities to track this space junk and monitor the risks of potentially dangerous collisions with satellites or even the crewed International Space Station.

Projects backed today include Lift Me Off who will develop and test machine learning algorithms to distinguish between satellites and space debris, and Fujitsu who are combining machine learning and quantum inspired processing to improve mission planning to remove debris.

Two companies, Deimos and Northern Space and Security, will develop new optical sensors to track space objects from the UK whilst Andor, based in Northern Ireland, will enhance their astronomy camera to track and map ever smaller sized debris.

D-Orbit UK

D-Orbit UK will use a space-based sensor on their recently launched satellite platform to capture images of space objects and couple this with Passive Bistatic radar techniques developed by the University of Strathclyde.

Finally, new satellite laser ranging technologies will be researched by Lumi

Space to precisely track smaller space objects.

Last year there was a close call in which a £100 million spacecraft operated by the European Space Agency (ESA) had to light up its thrusters to dodge a satellite. A clash between the spacecraft was far from certain, but the trajectories posed enough of a threat that ESA concluded that they need to manoeuvre the spacecraft out of harm's way.

Business Secretary Alok Sharma said:

Millions of pieces of space junk orbiting the earth present a significant threat to UK satellite systems which provide the vital services that we all take for granted – from mobile communications to weather forecasting.

By developing new AI and sensor technology, the seven pioneering space projects we are backing today will significantly strengthen the UK's capabilities to monitor these hazardous space objects, helping to create new jobs and protect the services we rely on in our everyday lives.

Graham Turnock, Chief Executive of the UK Space Agency said:

People probably do not realise just how cluttered space is. You would never let a car drive down a motorway full of broken glass and wreckages, and yet this is what satellites and the space station have to navigate every day in their orbital lanes.

In this new age of space megaconstellations the UK has an unmissable opportunity to lead the way in monitoring and tackling this space junk. This funding will help us grasp this opportunity and in doing so create sought after expertise and new high skill jobs across the country.

The funding coincides with the signing of a partnership agreement between the Ministry of Defence and UK Space Agency to work together on space domain awareness. This civil and military collaboration aims to bring together data and analysis from defence, civil and commercial space users to better understand what is happening in orbit to ensure the safety and security of UK licensed satellites.

Building on the UK's current efforts, which has seen the UK Space Agency and RAF analysts working together since 2016, this agreement will further improve our space domain awareness capabilities.

It could also provide opportunities to work alongside global allies, such as the US, to support our continued work to enhance space sustainability and maintain the UK space industry as a global leader.

The UK is already a world-leader in small satellite technology, telecommunications, robotics and Earth observation, and our universities host some of the best minds in the world for space science. Space surveillance and tracking (SST) is a growing international market which space consultants [Euroconsult](#) and [London Economics](#) forecast could potentially reach over £100 million.

ENDS

Projects in detail

Note: Confirmation of projects led by Andor and Lumi Space are still subject to final agreement

Lumi Space

Lumi Space are working on photonic technologies for ranging and characterisation of space objects, from satellites down to space debris. Satellite laser ranging is an ideal method for precise tracking of space objects, and innovations developed by Lumi enable high-performance, low-cost systems to do this. This project is for continuation of Lumi R&D.

Deimos

This project focuses on the design, prototyping and demonstration of a Low-Cost LEO Optical Surveillance Sensor. The core work is an integrated processing board to conduct all necessary image calibration and data extraction operations used as a standalone or multiple-aperture "multiple-eye" design. A '40x40 squared degrees one-eye' prototype will be built together with the software systems to control and process the images and will be demonstrated during an observation campaign. In the final solution, '9 eyes' will be combined.

Lift Me Off

The project is concerned with developing machine learning algorithms for in-orbit detection and classification of satellites and space debris using a combination of space-based sensors and artificial intelligence. The technology will be able to distinguish between satellites operating nominally and anomalously together with understanding the composition of space debris on-orbit. A prototype test bed with representative sensors, electronics and algorithms will be built to experimentally develop the concept and techniques which can be later scaled up to an end-to-end autonomous algorithm for detection of anomalous behaviour that can, similarly to air traffic control, raise warnings based on live information.

D-Orbit

D-Orbit UK will exploit a new capability to enable routine, targeted space-based LEO SST observations using D-Orbit's ION Satellite Carrier Vessel, a platform with a multi-year lifetime and propulsion capability, to offer an unprecedented opportunity to observe debris both passively and actively. ION star trackers will be repurposed to capture images of space objects for

processing on board and on ground, coupled with Passive Bistatic radar techniques developed by the University of Strathclyde, which uses third party illuminators to characterise resident space objects. NORSS will process, associate, integrate and support the commercialisation of the data within wider SST services.

Fujitsu

Fujitsu, in conjunction with its partners, Astroscale, the University of Glasgow and Amazon Web Services (AWS), are undertaking a project to develop a proof of value to make space debris removal missions more commercially viable using its open innovation methodology. It will be evaluating how to optimise trajectory planning for multi-debris removal missions. Fujitsu is bringing together its ground-breaking quantum inspired optimisation services, which benchmark studies prove are up to 10,000 times faster than traditional computers, along with a 40 year heritage in space in Japan. In combination with Astroscale's space debris removal expertise, the University of Glasgow's space research capabilities and AWS Cloud and Machine Learning services, the project will support the UK's ambition to grow its share of the global space market to 10% by 2030.

The project involves the industrial research to rapidly design and deploy an extremely low-cost prototype optical camera system to track objects in Low Earth Orbit. Designed from the ground up, the sensor will be competitive with radar observations for providing both UK independent space surveillance and tracking data and characterisation data of objects. The project is split into 6 phases and once deployed the camera will perform a live observation campaign acquiring positional and photometry data on space objects culminating with a validation exercise against a real-world experimental debris removal mission operated by Astroscale.

Andor

Detection of Low Earth Orbit debris of smaller sizes is of increasing importance due to the ongoing increases in quantities of both Satellites and potentially satellite destroying in-orbit debris. Traditional CCD cameras have a significant (40 second) read out 'dead time' which considerably limits their application in detection of small in-orbit debris. The proposed project is intended to make significant improvements to Andor's Balor very large area (17 megapixel / 70mm diagonal) scientific CMOS camera. Balor is ideal for large sky surveys that measure photometric and astrometric variability across timescales ranging from milliseconds to tens of seconds. The proposed project will significantly increase Balor's sensitivity resulting in considerably faster imaging and/or enabling the tracking of smaller in-orbit debris.

A report by Dr Mark Hilborne (King's Space Security Research Group) and Dr Mark Presley (MAP Analytica), called [Towards a UK space surveillance policy](#), has been published by the King's Policy Institute. It positions a UK space surveillance policy and examines the utility of a nationally assured space surveillance capability.

TUI UK to complete refunds by the end of the month

The Competition and Markets Authority (CMA) has been investigating TUI UK after receiving thousands of complaints from people that they were not receiving refunds for their cancelled holidays within 14 days. Consumer protection law requires refunds within 14 days.

TUI UK has engaged constructively with the CMA throughout the investigation and while the vast majority of people have already received their refunds or rebooked during the CMA's investigation, any outstanding refund requests for people who had their package holiday cancelled as a result of coronavirus (COVID-19) will be paid by 30 September 2020.

Some customers may have accepted Refund Credit Notes. It is important they know they are entitled to a cash refund as an alternative. TUI UK has now agreed to contact customers who have an unused credit note, to let them know they can convert it to a refund, which will be paid within 14 days.

The CMA wants to ensure that TUI UK meets its obligation to pay refunds on time in the future. Therefore, TUI UK will report regularly to the CMA over the coming year on the time it has taken to refund customers

These commitments apply to all of TUI UK's different businesses that offer package holidays, including First Choice, First Choice Holidays, Marella Cruises, Crystal Ski, Crystal, TUI Scene, TUI Lakes & Mountains and Skytours.

Today's announcement follows significant action by the CMA on cancellations in the holiday sector. It has written to over 100 package holiday businesses to remind them of their obligations to comply with consumer protection law and has opened investigations into a number of operators.

The CMA understands that the pandemic has created extraordinary pressure for travel companies, including TUI UK. However, customers who had their holidays cancelled due to coronavirus must be treated fairly and receive their refunds promptly. It is essential that all businesses comply with consumer protection law so that people are not being left out of pocket. The [CMA published guidance](#) for businesses earlier this year to help them understand their legal obligations.

Andrea Coscelli, the CMA's Chief Executive, said:

It's absolutely essential that people have trust and confidence when booking package holidays and know that if a cancellation is necessary as a result of coronavirus, businesses will give them a full, prompt refund. The CMA's action ensures that TUI UK customers

will get their refunds by the end of the month.

The CMA is continuing to investigate package holiday firms in the context of the COVID-19 crisis. If we find that businesses are not complying with consumer protection law, we will not hesitate to take further action.

Further information can be found on [the case page](#).

[British High Commission hosts roundtable on International Day of Democracy.](#)

World news story

The British High Commission hosted a roundtable discussion to demonstrate the UK's support for democracy in Pakistan, and to mark the International Day of Democracy.



The event, chaired by the British High Commission's Political Counsellor, Iona Thomas, brought together a range of experts from civil society, legal organisations and academics.

The British High Commission holds democratic values in the highest regard and support democracy because the UK believes it is the system of government that best allows for individual freedom and is the fairest way to govern human societies and states.

The list of those attending were: Harris Khalique – Secretary General, Human Rights Commission of Pakistan, Oves Anwar – Director Research Society of International Law, Sadaf Khan – Co-Founder and Director, Media Matters for Democracy, Imaan Mazari – Lawyer and academic at Quaid-e-Azam University.

Political Counsellor Iona Thomas, OBE, said:

This vision of democracy and human rights remains central to the newly constituted Foreign Commonwealth and Development Office (FCDO) as of 2 Sept, harnessing the best of what were formerly FCO and DFID to be a force for good in the world.

We continue to strive towards the ideals of democracy and human rights in Pakistan, a country with immense potential. Supporting both the vibrant civil society as well as the Government of Pakistan through our various programmes on these themes, the UK continues to be a longstanding friend of Pakistan.

For further information

For updates on the British High Commission, please follow our social media channels:

Contact
British High Commission, Islamabad
Tel: 0300 500 5306

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Motorcycle insurance broker merger raises competition concerns

Ardonagh Group Limited (Ardonagh), which operates the Carole Nash and Swinton brands, and Bennetts Motorcycling Services Limited (Bennetts) are the 2 leading distributors of motorcycle insurance to private customers in the UK.

Ardonagh announced in February 2020 that it had agreed a £26 million deal to acquire Bennetts. The deal would establish Ardonagh as by far the largest supplier in the market, at 3 times the size of its next largest competitor.

Following its Phase 1 investigation, the Competition and Markets Authority (CMA) found that Ardonagh and Bennetts compete closely at present. The CMA also found that the merged company would face only limited competition from other much smaller suppliers, such as Bikesure, MCE and Hastings, as well as a range of other smaller brokers.

While the increased use of price comparison websites (PCWs) has had a positive impact on competition in recent years, the CMA found that Ardonagh

and Bennetts hold a significant incumbency advantage in the market. The 2 businesses are less exposed to price competition on PCWs than other suppliers as they make more of their sales directly to customers or through renewals.

Using evidence of recent market trends, the CMA found that the increased use of PCWs has not materially affected the 2 businesses' market-leading positions in the UK in recent years or helped any smaller players to grow significantly over this period.

Colin Raftery, CMA Senior Director, said:

Over one million motorcyclists in the UK rely on good value and high-quality insurance to keep them on the road and to provide an effective safety net when things go wrong.

We're concerned that Ardonagh buying up its most important competitor could lead to a lack of competition in the market, resulting in a worse deal for customers across the UK when they next come to renew their policies.

Ardonagh and Bennetts now have 5 working days to offer any undertakings to address the CMA's concerns. If they do not do so, the merger will be referred for an in-depth Phase 2 investigation.

For more information, please visit the [Ardonagh/Bennetts merger inquiry case page](#).

For media enquiries, contact the CMA press office on 020 3738 6460 or press@cma.gov.uk.

[More domestic abuse charities to benefit from government funding boost](#)

- Further 25 domestic abuse charities will receive emergency funding
- Almost £10 million has now been allocated to 166 charities and service providers
- Funding to deliver over 1500 additional beds to support more victims and their children

Minister for Rough Sleeping and Housing Kelly Tolhurst MP has today (16 September 2020) announced that a [further 25 charities will receive a share of £1 million boost](#) as part of the government's £10 million emergency fund to

support domestic abuse victims and their families during the pandemic.

This emergency funding will support those providers facing the most difficulties during the pandemic and help to provide over 1,500 new beds and re-open 344 bed-spaces.

This is part of a wider £76 million package of government support for the most vulnerable in society during the pandemic.

The government remains steadfast in its commitment to tackling domestic abuse. The flagship Domestic Abuse Bill, currently before Parliament, places a new duty on councils to provide safe accommodation for victims and their children in England.

Projects receiving funding include:

- **The London Black Women's Project:** working since to protect, promote and develop the rights and resources of BAME women and children affected by domestic abuse from across London.
- **Salford Women's Aid:** providing temporary accommodation to women and children fleeing domestic violence across the Greater Manchester area.
- **Roshini Birmingham:** working to protect BAME communities affected by domestic abuse including forced marriage and honour based abuse, including through a 24 hour, multilingual help line.

Minister for Rough Sleeping and Housing Kelly Tolhurst MP said:

Our £10 million COVID-19 Emergency Support Fund is providing the support needed so that services can meet additional pressures during the pandemic.

We will continue to engage with the sector to ensure victims and their children can access support including ensuring that councils provide safe accommodation for those that need it.

Beverly Williams, Chair of Amadudu said:

MHCLG funding has been vital during the pandemic. The funding has enabled women from black and minority ethnic communities to receive a quality service and support during this difficult time.

Our staff team has been able to continue to meet essential needs of women and children. We are very grateful for the funding we received.

Recognising this need from victims and in close engagement with the sector and the domestic abuse commissioner, MHCLG announced an emergency fund on 7 May to keep services up and running during the pandemic, as well as to open more beds to support more victims and their children.

When the bids were assessed, extra weight was given to applications from organisations providing specialist support, with over a third of those who were successful in their applications were specialist service providers, supporting diverse groups, such as BAME and LGBT victims.

BAME communities sometimes face cultural pressures such as forced marriage, female genital mutilation, language barriers and honour-based abuse. Specialist providers tailor support to women and children affected by these issues.

The [Domestic Abuse Bill](#) has entered the House of Lords and moves towards Royal Assent later this year. Subject to the successful passage of the Domestic Abuse Bill, from April 2021 a new duty will be placed on Tier 1 local authorities to provide support to victims of domestic abuse and their children within safe accommodation in England.

The new legal duty will provide clarity over governance and accountability and put in place a clear framework for needs assessment, commissioning and reporting on outcomes so that all victims of domestic abuse and their children have access to the right support when they need it.

We have already provided £3.7 billion of additional funding to local authorities to relieve pressures on local services and support the most vulnerable including domestic abuse victims.

We encourage services who have extended their provision to engage with their local authority to discuss the available support for the 6 months period between 1 November and 1 April 2021 when the new duty is expected to commence.

In the meantime, there is flexibility for providers into winter as successful bidders will have the option to spend their grant beyond the previous deadline of 31 October 2020, and up to 31 March 2021, provided they gain formal agreement from the Department.

On 2 May the government announced a £76 million package of support to ensure the most vulnerable in society get the support they need during the pandemic. This includes £28 million to help survivors of domestic abuse and their children, of which MHCLG announced a £10 million fund for safe accommodation services.

Since 2014 we've invested £80 million in safe accommodation services to support victims of domestic abuse, including the £10 million COVID-19 Emergency Support Fund for charities providing refuge (which was part of a £28 million government package to help domestic abuse survivors during the pandemic).

Government recognises the need for victims from minority groups and those with complex needs to be able to access specialist support when they need it and as such we have given special consideration to applications for the £10 million fund from services that provide support to particular groups such as, but not limited to, BAME, LGBT and victims with disabilities.

A [public awareness campaign #YouAreNotAlone](#) was launched highlighting sources of support and that anyone is at risk of, or experiencing, domestic abuse, is still able to leave and seek refuge.

Based on Women's Aid Annual Audit (2020), in the year ending May 2019 there were 3,914 refuge bed spaces in the UK. That's a 12.5% increase since 2010.

If you are in danger and unable to talk on the phone, call 999 and then either press 55 on a mobile when prompted or wait on a landline and you will be connected to a police call handler who will be able to assist you without you having to speak.

We have published [guidance for those in danger of domestic abuse](#) during the pandemic.

Case Studies of charities that have benefited from funding

1. OYA

Founded in 2016, OYA is a membership consortium by and for Black and Minority Ethnic organisations. Its members are dedicated to ending Violence Against Women and Girls (VAWG) and deliver frontline, capacity building and sustainability support services across London.

Several OYA members receive funding from MHCLG, including Latin American Women's Aid (LAWA) the only refuges for Latin American women surviving domestic violence and other forms of VAWG in London over the past 32 years, offering holistic and intersectional services, to BME woman and their and operates 3 refuges with 32 bed spaces.

Paola, a 40-year-old Colombian woman, arrived in one of LAWA's refuges soon after the lockdown started on April 2020 with her 2 children. She fled her home due to the domestic violence perpetrated by her husband who controlled most aspects of her life. Her husband violently prevented her from getting a National Insurance Number or pursuing any job, so she had little to no access to money. The abuse has been of a physical, emotional, sexual and financial nature and has also been directed towards her children.

Paola tried to leave her husband on 2 different occasions. However, she was taken back to the family home by the police, as her husband reported her missing and stated that she had severe mental health issues. Paola's spoken English was limited, and she did not know the UK legal system, she did not have any family or friends in the UK, and she did not have any connection with the wider community.

Paola decided to seek support and leave her abuser when he became abusive to her children. Given the level of violence and the additional challenges to reach out for support due to COVID (the abuser was always at home and more controlling than ever), it was very hard for Paola to find the opportunity to reach out for support. She had been in touch previously with a support group from the community which is how she initiated contact with Latin American Women's Aid (LAWA).

The London Black Women's Project (LBWP) provides specialist refuge accommodation for BME women from across London; with refuges located in Newham and Haringey. The LBWP operates 4 refuges, with 29 bed spaces, in Newham. MHCLG's emergency funding has enabled LBWP to open 16 new spaces in Newham and one refuge in Haringey, which has 4 spaces. LBWP also provides counselling for adult and young women, a free legal service, including support for migrant women and advocacy and advice.

The Ashiana Network is a charitable company led by BME women, developing and delivering specialist services for BME women and girls who have experienced or are at risk of VAWG, including harmful practices. Ashiana has over 30 years' experience in delivering a holistic range of services to South Asian, Turkish and Middle Eastern women fleeing violence. Ashiana is based in Waltham Forest running 3 refuges with a total of 21 bed spaces. 2 refuges are specifically for women affected by forced marriage.

Asha Projects is a dedicated specialist BME women's organisation run for and managed by local South Asian women, based in Lambeth, receiving referrals from all over London. Asha plays a crucial role and provide much needed support based on an understanding of sociocultural norms, values and issues relating to forms of violence against women and girls that are specific to South Asian communities. Asha operates from four sites – a resource centre and three refuges (safe accommodation) consisting of 19 bed spaces.

2. Anah Project

The Anah Project is a unique specialist accommodation, advice and crisis support provider for women and girls fleeing domestic abuse. They specialise in supporting women and girls from the BAME and refugee communities.

MHCLG emergency funding allowed Annah to bring on an additional staff member during the crisis. During lockdown, referrals and calls to their service had not only increased but had also become more complex. The extra member of staff allowed Annah to have more time to support current service users in the refuge.

MHCLG also funded IT equipment and mobile data which allowed for collaborative working and also ensured there was no disruption in support provided to service users, as staff and service users could communicate via mobile phone, safely and as regularly as needed.

3. Amadudu Refuge

MHCLG funding has enabled Amadudu Refuge to continue to provide key services, essential resources and support during the lockdown period. The pandemic has meant that additional staff hours were necessary as calls and enquiries for refuge space increased and particularly from women from BAME backgrounds.

Funding has allowed Amadudu to continue their work supporting women with complex issues including immigration, addiction, family court cases via electronic methods/preparation for resettlement and issues accessing benefits.

Amadudu have provided vital services to women and families during lockdown including providing culturally appropriate meals, food vouchers, hygiene packs, bedding, cleaning materials and educational resources for children with 11 children have and continue to be supported through the financial support of MHCLG's grant.

They've also been able to take on additional staff have enabled staff to focus on income generation from other sources to further support the needs of the families and equipment to enhance communication between staff and external stakeholders.