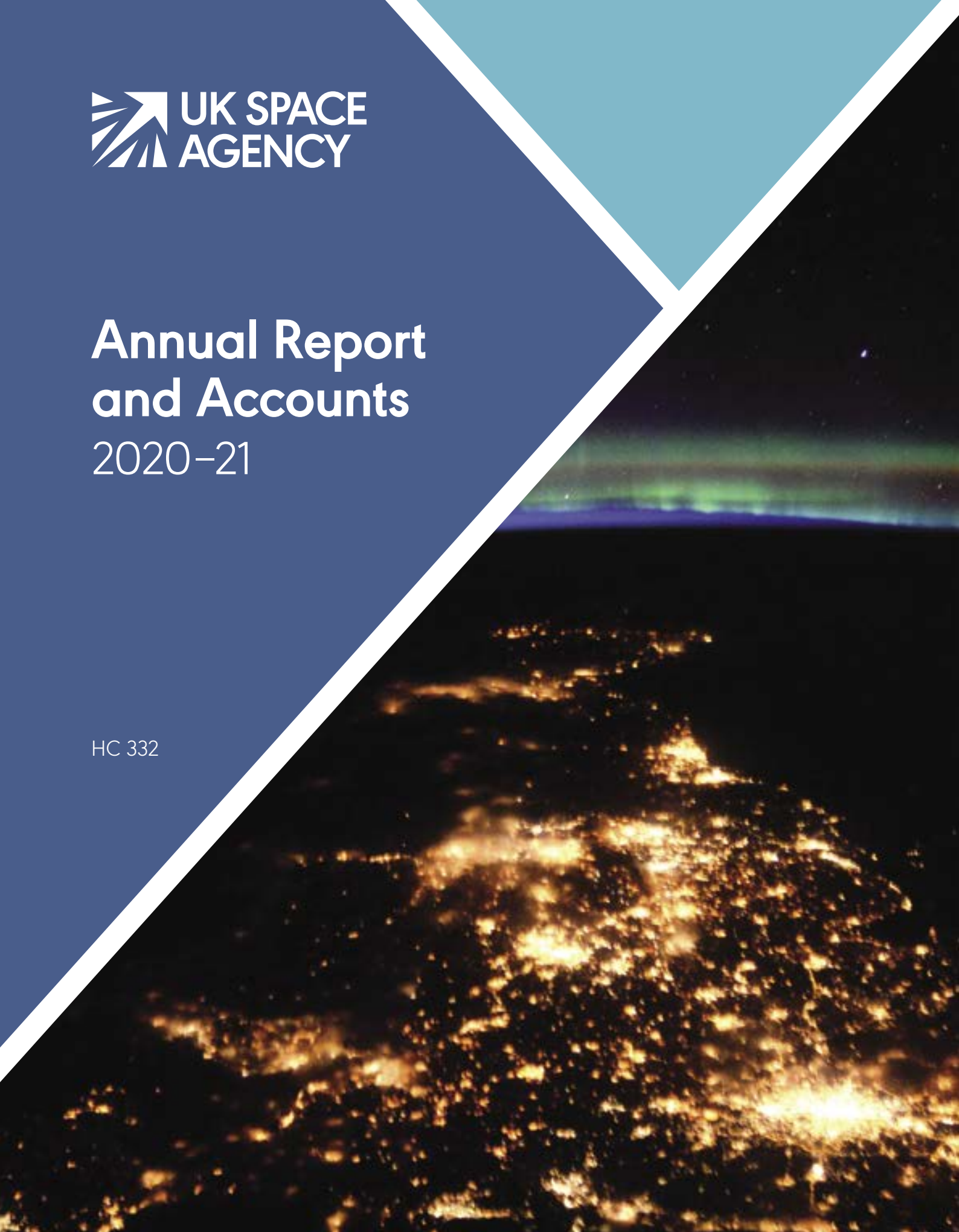
UK SPACE AGENCY

Annual Report and Accounts 2020–21

HC 332



We inspire and lead the UK in space, to benefit our planet and its people

UK Space Agency
Annual Report and Accounts
2020–21

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CHIEF EXECUTIVE'S STATEMENT

I am delighted to introduce our Annual Report and Accounts for 2020–21.

The vision I set out in our corporate plan for 2020–21 was threefold: to forge access to global opportunities with our key partner countries, to build on our current national space activities, and to support the UK's trade negotiations with the EU to ensure the best possible deal and promote UK leadership. We can report substantial success in these areas.

The UK has now secured a positive outcome for the space sector following our departure from the EU. UK companies will continue to be able to bid for EU funded Copernicus contracts and we will continue to receive Copernicus data, which is critical to our growing downstream Earth observation industry as well as access to critical SST services.

This was supported through increased engagement with both the UK space sector and our international partners, including the European Space Agency, with whom we continue to work on many exciting projects including ground-breaking initiatives to monitor climate change and clean up space debris. Alongside this, we are stepping up our bilateral relationships and exploring future trade opportunities across the world, not least with Australia and Japan.

2020–21 was of course a year of huge change. We transformed the way we work together, with new remote working tools and resources bringing positive and lasting chances to our ways of working as well as helping us overcome the immediate challenge of Covid-19. We engaged closely with industry through the creation of a sector bronze team which gathered data on the impact on Covid-19 on the space sector, and ensured the issues faced by the sector were reflected in appropriate guidance and support.

We provided the foundations for the National Space Council and subsequently reaffirmed the UK's commitment to a UK launch capability in 2022, supporting the move of Lockheed Martin's launch operations to the Shetlands and Virgin Orbit's plans for horizontal launch. This preparing of the ground for the UK to become Europe's small satellite launch destination of choice was further underpinned by the signing of the Technology Safeguards Agreement with the USA and the extensive public consultation on space regulation that has shaped the creation of new regulations that will become law later this summer.

We also launched a new Space Based Position, Navigation and Timing Programme (SBPP), building on the former UK GNSS programme to explore new ways to deliver vital satellite services in support of Critical National Infrastructure.

This year, our industry has continued to lead the way in spaceflight, exploration and the development of new technologies. This Spring's Perseverance Rover landings, the testing of new methods for space debris removal, the first results from the European Space Agency's UK-built Solar Orbiter, and the installation of new communications technologies on the International Space Station all testify to the international relevance and competitiveness of UK companies.

Finally, I am pleased to share a new mission statement for the UK Space Agency, which offers a clear vision for our purpose as we seek to extend the benefits of the UK's success in space to everyone in the UK.

We inspire and lead the UK in space, to benefit our planet and its people.

We will design and deliver programmes that implement government's strategy, including as a sponsor of national capabilities and an early-stage investor in space research and development. We promote the UK space sector's interests and achievements, make connections to join up industry and academia, and represent the UK in international space programmes.

Graham Turnock
Chief Executive and Accounting Officer
1 July 2021

To learn more about the UK Space Agency, scan the code or go to https://qrco.de/bcDiZT

STEERING BOARD CHAIR'S STATEMENT

The UK Space Agency has successfully dealt with a number of challenges this year.

Despite Covid-19, we are proud of our teams who have sustained operations, continued to lead the UK space sector and delivered planned space programmes. The UK's exit from the EU required us to develop new policy positions and step up to establish new UK sovereign capability. We have done both. As Covid struck, rather than delay, the Executive team decided to drive forward with the first year of our transformation programme. This was a courageous but correct decision which means we are a more agile organisation today, better able to take on the needs of an expanding portfolio of UK space activities. We will continue to build on transformation in 2021-22, strengthening our relationship with the new BEIS space policy team.

Together, these are significant and demanding objectives and I am very pleased with the progress that the Agency has made in meeting them. I am particularly struck by the way the response to challenge has clearly demonstrated the Agency values: United, Knowledgeable, Sharing and Ambitious. It is a great credit to everyone in the Agency that so much progress has been made on such a broad agenda in the midst of very uncertain and demanding times. Agency staff have shown a willingness to support and collaborate professionally with colleagues and that close teamwork has been evident across the Agency's many achievements during the past year.

The Steering Board and Executive leadership team continue also to evolve. I would like to recognise the contribution made by Prof. Malcolm Macdonald, a non-executive who departed our Board in December 2020. Malcolm's experience and wisdom has helped shape our strategy and also some of our important programmes. His insight of the space sector has ensured we keep asking the right questions. In January 2021, Dr Graham Turnock announced that he would be leaving the Space Agency later in the year. His successor, Dr Paul Bate, joins in September 2021 and I would like to recognise Graham's considerable achievements in growing the Agency's capabilities so significantly during his tenure and setting it firmly on the path towards a very bright future.

Looking to that future, the UK Space sector remains strong. The 2020 size and health study offered clear evidence of the continued expansion of the sector. There is much cause for optimism in the UK space sector with the Spaceflight Programme creating vertical and horizontal launch capability in the UK in the next couple of years. The new regulatory framework to enable that launch capability, and the new operating arrangements with the Civil Aviation Authority, will keep the UK at the forefront of responsible regulatory stewardship. And the launch of the National Space Innovation Programme in 2020-21, responding to the 2018 Space Growth Partnership's call for new ways to help the UK space sector exploit innovation opportunities, offers an exciting new opportunity to maximise the UK's growth potential.

2020-21 has been a challenging year for everyone, but the Space Agency is stronger today and we are repositioning ourselves to face the future stronger and confidently. Space is an exciting and inspiring sector to work in and the Agency is well placed to play a central role in realising the UK's strategic space ambitions.

Dr Sally Howes, OBE
Chair of the Steering Board
1 July 2021

GOALS AND PRIORITY AREAS HIGHLIGHTS in 2020–21

The UK Space Agency wants the UK to lead the new space age, with the benefits of space reaching everyone. We are developing a comprehensive UK space strategy to set a bold vision for the UK in space, and co-ordinate government investment in this growing industry. In the 2020–21 Corporate Plan, we set ourselves five strategic goals.

Growth

Drive and sustain UK space sector growth

Science

Deliver space-based infrastructure that enables world-class science

Capabilities

Ensure the UK government has access to capabilities that are integral to our national safety, security and Critical National Infrastructure

Global Influence

Increase the UK's global influence in science, security and trade through space

Great Place to Work

Ensure an effective UK Space Agency which is a great place to work, supported by strong governance

GROWTH

Drive and sustain UK space sector growth

The UK space sector is an economic success story, and has grown by more than 60 per cent since the UK Space Agency was established in 2010–11. It generates an income of £16.4 billion, employs 45,100 people, and supports a further £360 billion of economic activity through the use of satellite services.[1]

The UK Space Agency is driving this growth by seizing opportunities such as the falling cost of satellites and space technologies, and the increasing global demand for space services. The economic benefits will stretch across the entire United Kingdom, supporting the Government's commitment to level up by creating innovative businesses and high-skilled jobs, while boosting research and development as well as productivity.

Supporting Space Sector Growth across the Country

In 2020–21 we have increased activities which grow the space sector across the country and raise awareness of its potential. We have strengthened our partnership with the Satellite Applications Catapult to increase the technical support available to companies through its Centres of Excellence in the North East, South West and South Coast of England, and also to help bring together space hubs and clusters across the UK to share intelligence and opportunities.

In November 2020 we were pleased to announce the support we had provided in Wales, Scotland and Northern Ireland, alongside five locations in England, to develop local advocacy, leadership and growth plans for space, tailored to local strengths and opportunities. We look forward to working with these hubs as they implement their plans in 2021–22.

Recognising the vital role that our universities play in the sector, we were pleased to be able to provide additional support for the Space Research and Innovation Network for Technology (SPRINT) project, funded by Research England. It supports new collaborations between SMEs and five of our world-class universities, to translate university expertise into products and services.

The year culminated with the launch of a new support programme for entrepreneurs, start-ups, and scale- ups in the space sector. The programme, delivered by Entrepreneurial Spark and the University of Strathclyde, will support up to 150 entrepreneurs to better understand how they can grow or scale a space business.

National Space Innovation Programme

The new National Space Innovation Programme (NSIP) was developed and launched in 2020. The establishment of NSIP provided UKSA with a programme that focused on supporting the advancement of innovation in space technologies, products and services, as well as enabling strategically important international relationships. Following approval of the business case in early July 2020, two open funding opportunities were run whereby organisations within the UK were invited to submit project proposals and collaborations were encouraged. The first funding call in July focused on innovation (NSIP-National) with the second funding call in October having an international focus (NSIP-International). All proposals were reviewed by external assessors, and following proposal down-selection and due diligence, 27 project teams received grant co-funding to undertake their project work by 31 March 2021. The successful delivery of the NSIP pilot demonstrated the UK space sector's appetite for an innovation programme.

1 The Size and Health of the UK Space Industry 2020 – https://www.gov.uk/government/publications/uk-space-industry-size-and-health-report-2020

Space Applications

Space Applications remains one of the most interesting and exciting areas of the Agency's work. We support companies to use space data and assets to develop new and innovative business models and services that are used across the entire commercial landscape. Examples include agriculture, health, tourism, logistics, aviation, energy, finance, and risk management. Many of these businesses are SMEs that do not consider themselves to be "space companies" in the traditional sense. But they have seized the opportunity to exploit space to deliver innovative and cutting-edge solutions that will give them a market lead or disruptive new service that will expand their customer base and grow their business in new directions.

The Covid-19 pandemic has not stopped companies exploring what space can do for them. Over the past 12 months, 74 projects have been proposed even as people and businesses have adapted to new ways of working. The Applications team has continued to work with them and with ESA to ensure they are supported through the pandemic. Some fantastic projects have been supported, including:

- AWOL – Space Assets Integration for Sports Event Photography: https://www.gov.uk/government/news/new-space-service-to-revolutionise-photography-at-sporting-events
- Shotscope – Golf Data Intellect: https://business.esa.int/projects/golf-data-intellect
- McKenzie Intelligence Services – Global Events Observer: https://business.esa.int/projects/geo
- Urban Development Lab Ltd – Careview: https://www.gov.uk/government/news/satellite-powered-app-to-spot-loneliness-in-hotspots-in-uk-cities.

Infographic created by Pete Johnson UKSA

This infographic shows a map of companies we have supported under the Business Applications programme during 2020/2021. It reveals a vibrant and active downstream community that keeps the UK at the bleeding edge of the commercial exploitation of space data and services.

Space to Connect

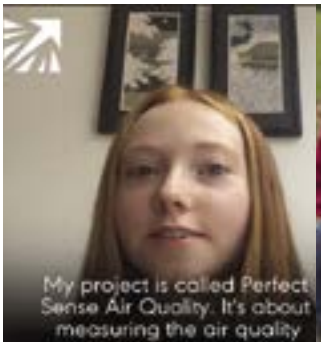
This year our annual Space to Connect Networking event for the downstream sector was held in a virtual format. There were over 1300 registered attendees from 35 countries, another year-on-year increase in attendance. There were ten sessions during the day, covering topics from disasters to hospitals and how to engage with the UK funding landscape. The 62 speakers included presenters live from South Africa, Fiji and Madagascar.

Chris Hall UKSA

Pete Johnson chairing the Disaster, Mitigation and Monitoring session at the Space to Connect conference

SatelLife Competition

The SatelLife competition invites young people aged 11–22 to think of ways that satellites can improve life here on Earth. It was another huge success. Ten winners shared a cash prize of £50,000, with four individual winners and six group winners. Ava Garside, a student from Leeds, was awarded the overall individual prize, receiving £6,000 for her pin badge which monitors air pollution.



UKSA

Ava Garside from the SatelLife Competition 2020

CropSafe

The CropSafe team: John McElhone, Micheál McLaughlin

Spaceflight

We have continued to drive forward the Government's Spaceflight Programme, which aims to enable the UK to achieve commercial small satellite launch capacity from 2022. This will create new jobs across the UK and attract significant investment into our rapidly-growing space sector.

In June 2020, we signed the US-UK Technology Safeguards Agreement. This paves the way for US companies to operate from UK spaceports and export space launch technology, enabling UK companies access to previously unavailable revenues and customers. We have continued to work with international partners to develop strong global relationships, including a Memorandum of Understanding with the Faroe Islands to secure its support for UK launch activities.

In July we launched a public consultation into regulations to enable safe and sustainable spaceflight launches to operate from the UK, building on the UK's reputation for high regulatory standards. This was followed by a public consultation on Liabilities, Insurance and Charging. A single Government response to both consultations was published in Spring 2021.

In addition, we approved Lockheed Martin's plans to transfer its satellite launch operations from Space Hub Sutherland to Shetland Space Centre. The move will enhance the UK's existing vertical launch capability by providing a complementary offer from multiple spaceports. Space Hub Sutherland became the first of the UK's proposed spaceport sites to receive planning permission, and Lockheed Martin signed a contract with US-based ABL Space Systems to supply the launch vehicle for its pathfinder launch from Shetland. Finally, Virgin Orbit successfully completed first full orbital launch of its LauncherOne rocket in the US. The same technology will be used to achieve launch from Spaceport Cornwall in 2022.

These achievements bring commercial launch from the UK one step closer, and further our position as Europe's most attractive destination for spaceflight activities.

Chief Engineer's Team

The Chief Engineer's Team (CET) is the key technical stakeholder on a variety of programmes across the UK Space Agency. Its primary roles are to support the development of the regulatory framework for launch, and to perform the technical assessment of orbital missions that are to be licensed in the UK.

The team continues to provide leadership at key international forums such as the Science and Technical Sub-Committee and the Inter-Agency Space Debris Coordination Committee of the United Nations Committee on the Peaceful Uses of Outer Space. The Government has identified its intention for the Civil Aviation Authority (CAA) to be the future home of the Space Regulator. As part of this transition, experts from the CET will move to the CAA to provide continuity in technical assessments and to provide a solid base on which the new Regulatory team can be established.

In recognition of the need for an enduring technical presence in UKSA, the recruitment of a new engineering team to support the delivery of the UKSA project portfolio was initiated in December 2020. Once established, the team will provide additional technical oversight and assurance to UKSA projects, and will eventually allow the agency to perform internal feasibility studies.

Telecoms

The Telecommunications team has supported industry and academia with co-funded grants of over €100m (£85m), managing over 100 requests for funding – more than the previous three years combined. Supported initiatives include:

- A battery-powered Internet of Things (IoT) terminal with a 5-year life
- The development of smallsats, with a number of partner companies
- The digitisation of space, with the development of digital payloads and optical modules and the further development of a new generation of ground segment
- A further €20,000,000 was committed to two new multinational partner programmes.

UKSA also undertook its first joint call with the Department for Digital, Media, Culture and Sport (DCMS) to support space-based 5G for transport and logistics, integrating space into the wider telecommunications infrastructure and helping meet societal needs and cross-Government initiatives.

Technology

Strong UK use of ESA's General Support Technology Programme (GSTP) has continued in the year, with more start-up companies being supported. The highlight for 2020-21 has been support for the development of new propulsion technologies for satellites, particularly advances that grow UK capabilities in low-cost chemical fuel engines and

electric thrusters. At the same time, activities and plans to support the technologies that will be needed for future hypersonic and re-entry vehicles have also been supported. Mission studies to develop novel new satellites have also progressed well. They include the exciting prospect of operation in very low earth orbit that could radically cut the cost of high-definition imagery of the Earth. There has been a continued increase in interest from industry including start-ups and SMEs, with 86 requests for support being received this year.

The National Propulsion Test Facility for UK industry and academia, based at the Westcott Space Cluster and funded via GSTP, is nearing completion. Preliminary engine firings have demonstrated the start of full use, which is anticipated over the coming year. The project has been developed in partnership with NAMMO Westcott Ltd, who are making their own complementary small test facilities available for general use as part of the project plan.

This year the UK Space Agency has stepped up its involvement in the development of international standards that benefit UK industry, with an emphasis on regulating space debris and on new space operations in the following areas:

- On-orbit servicing standards for the future development of space debris removal, spacecraft refuelling etc
- Space Traffic Management: here we are exploring cross-Whitehall interest in proposed standards, where there could be a conflict between European and US-derived design
- COTS (Commercial Off The Shelf) regimes, where we are helping the UK to gain leadership in a myriad of technologies for the near future.

Legislation and Regulation

In 2020–21, we continued our engagement with industry and stakeholders on the regulatory framework, through plenary sessions to discuss and inform developing policy, and by publishing three public consultations. Two public consultations ran in Summer and Autumn 2020, on the draft regulations and guidance material that will provide a framework for commercial space launches to take place from the UK.

The Government issued its response in March 2021, enabling the process of laying secondary legislation before Parliament to begin. A public consultation on draft guidance to the regulator on environmental objectives relating to the exercise of its functions under the Space Industry Act 2018 was published in February and closed on 24 March 2021. The Government will issue its response to this consultation in late Spring 2021. We anticipate that most of the secondary legislation will be in place in Summer 2021, although this will be dependent on factors such as the availability of Parliamentary time.

Work has been progressing throughout the year on the frameworks and capabilities needed to enable the new regulator to receive licence applications, following the Government's intention to appoint the Civil Aviation Authority as the UK Space Regulator.

Lucy Stock, NAMMO

Building progress for the NSPTF at Westcott

UKSA

Part of the new National Space Propulsion Test Facility

Science

Deliver space-based infrastructure that enables world-class science

From exploring our Solar System to mapping the galaxy, the UK is furthering human knowledge and our understanding of our place in the Universe.

The UK is a world leader in space science, designing, developing and operating spacecraft that operate in the most challenging environments imaginable, and harnessing space data and observations.

UKSA works nationally, through the European Space Agency, and in partnership with others around the world. It funds new science, exploration and technology, enhancing human knowledge and inspiring the next generation of scientists and engineers.

ColKa Integration on the ISS

The Agency funded the UK's first major industrial contribution to the International Space Station, installed during a spacewalk in January 2021.

ColKa, the 'Columbus Ka-band Terminal', will revolutionise the ability of scientists in the UK and Europe to access the results of their space-based experiments, on every subject from the effects of radiation on seeds to biomining research. The results will help unlock benefits for all of us, from understanding how our bodies and muscles age to furthering our understanding of illnesses such as cancer and Parkinson's Disease.

This giant leap forward for research carried out in the Columbus module will allow astronauts and researchers to benefit from a dedicated link back to Earth at home-broadband speeds. Current results are returned to Earth on a hard drive. It can take months to receive, and data is sometimes lost in transit. The new terminal will enable results to be delivered to scientists just a day or two after the data is recorded. They will be able to process information more quickly and adjust experiments if they see problems with the data, such as an unclear image.

The data will be transmitted to a ground station at Harwell Campus in Oxfordshire, near ESA's European Centre for Space Applications and Telecommunications. From there it will be transferred to the Columbus Control Centre and to user centres across Europe, with the service expected to start in September 2021.

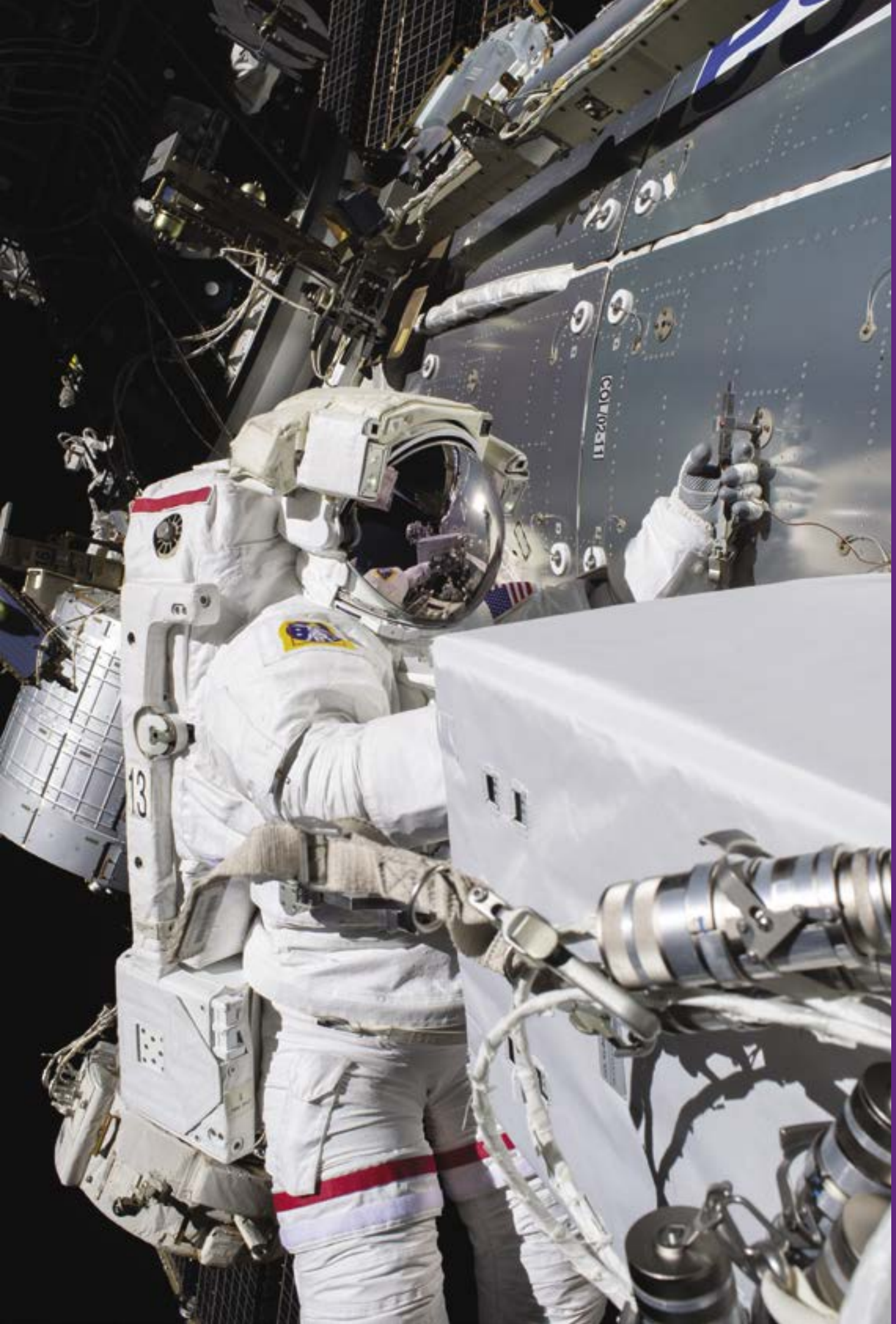
The contract for ColKa was awarded to MDA UK following the UK Space Agency's investment of £40m in ESA's space exploration programme in 2012. In November 2019 the UK committed £180 million to the European Space Agency's global exploration programme. As well as the planned lunar gateway and lunar communications, it will involve bringing back the first samples from Mars and supporting the US ambition to have a sustainable presence on the Moon.

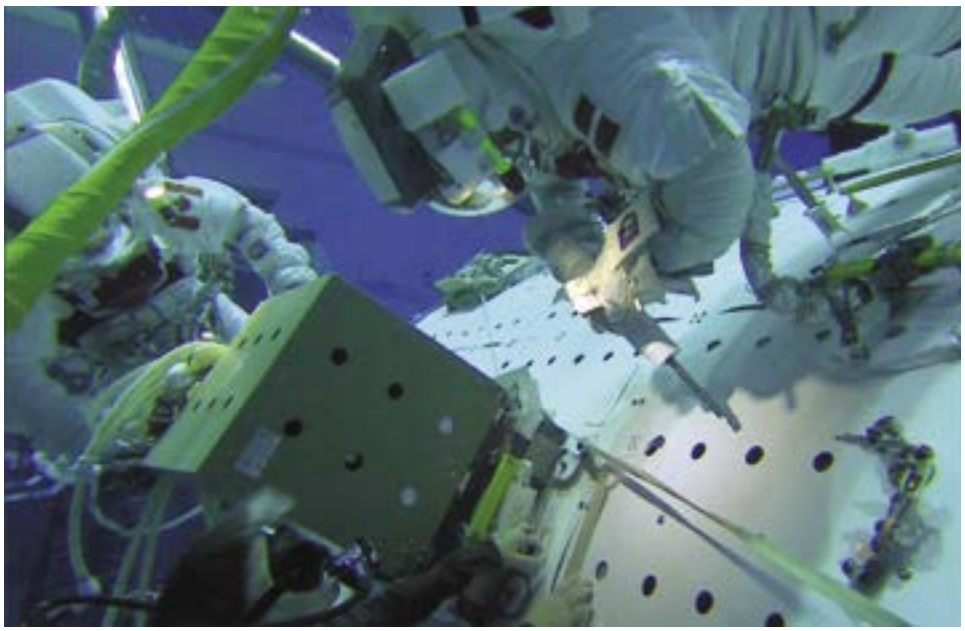
To date, UK scientists have been involved in 17 experiments on the ISS, and 33 others that are currently being developed and readied for future flight. In total, more than 2,700 investigations from researchers in 108 countries have been accomplished aboard the orbiting facility.

See https://www.flickr.com/photos/libbyjackson/galleries/72157718272408883/ for a collection of ColKa photos.

Right: NASA astronaut Mike Hopkins installing ColKa outside the Columbus lab on the ISS

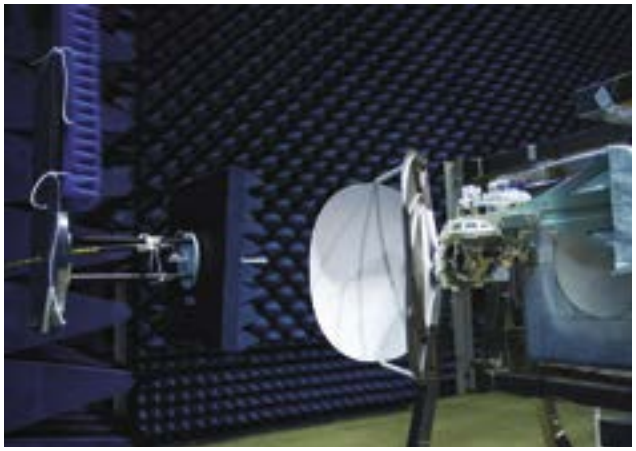
NASA





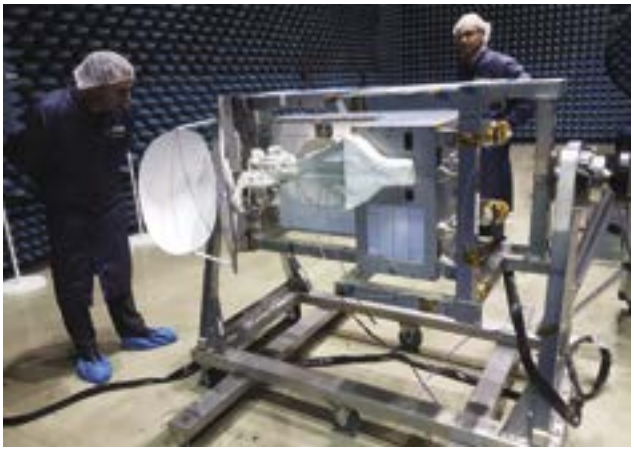
NASA EVA NBL

ESA astronaut Andreas Mogensen is seen in this image practising the installation of CoLka, the Columbus Ka-band terminal, on the ISS. It will enable faster communication with Europe. The image shows a 'dress rehearsal' in the Neutral Buoyancy Lab at NASA's Johnson Space Center in Houston, Texas in 2018. Andreas served as ground Intra-Vehicular crew member, directing astronauts Mike Hopkins and Victor Glover through the installation of the fridge-sized device from NASA's mission control.



ESA – M. Cowan

The ColKa antenna during testing



ESA

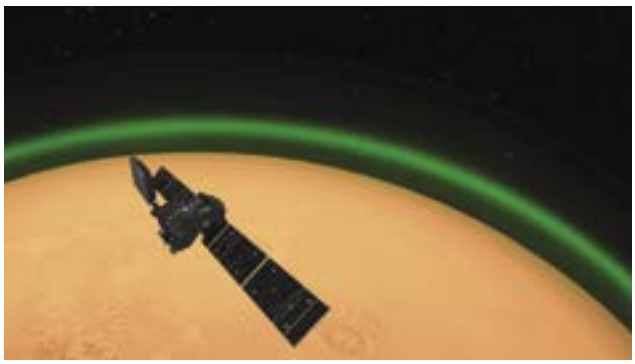
The communications antenna for the Columbus module on the International Space Station undergoes testing prior to launch

Mars Science Highlights

The ExoMars Trace Gas Orbiter (TGO) has discovered hydrogen chloride for the first time on Mars. This is the first detection of a halogen gas in the atmosphere of Mars, and represents a new chemical cycle to understand. This gas was detected at distant locations at the same time, and so was unlikely to be caused by volcanism. It is thought to signify an entirely new surface-atmosphere interaction driven by the dust seasons on Mars, and which is being investigated by Oxford University.

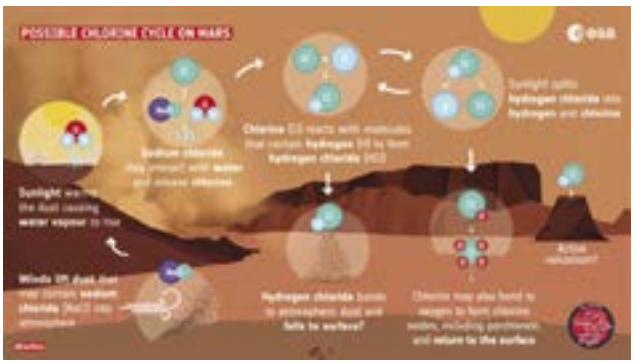
Investigations at the Open University have discovered that features seen on Mars' surface and so far attributed to volcanic activity could in fact be mud flows. Using a special chamber that can recreate the cold temperature and low atmospheric pressure on Mars, they found that the skin of the mud freezes, but the momentum of the fluid mud inside breaks through at weak points. This gives it a similar look to Pahoehoe lava flow. When they increased the temperature to 20°C, a hot day on Mars, the mud boiled vigorously.

The ultraviolet and visible spectrometer on the TGO, built at the Open University, is being used to study the Martian atmosphere. It has discovered a green glow around Mars caused by sunlight freeing one of the oxygen atoms in carbon dioxide. The transition of this atom causes the green glow. This effect can be used to study the changing height of the atmosphere, information needed to help improve the design of entry and descent systems for Mars landers.



Green glow ESA

ExoMars Trace Gas Orbiter



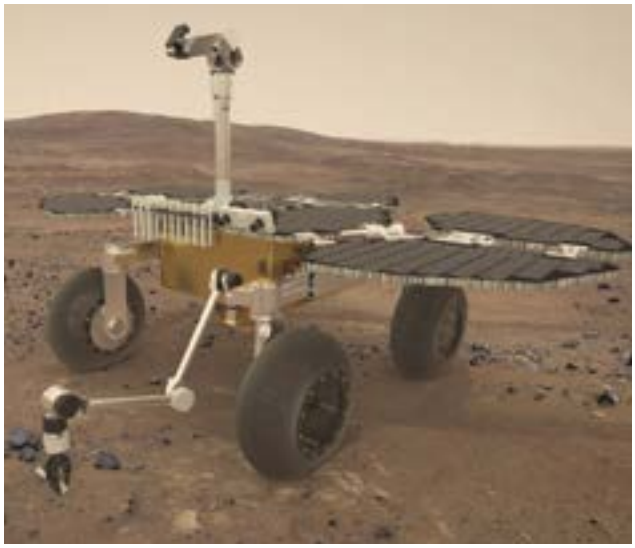
ESA

HCl cycle on Mars

UK Wins Prime of Mars Sample Return Fetch Rover

Airbus Defence and Space has won the ESA contract to design the Sample Fetch Rover for the international endeavour to collect samples of Mars and bring them back to Earth.

NASA's Perseverance rover is the first step of this mission. It will leave 31 pen-sized tubes containing pristine samples on the Martian surface. The fetch rover will be launched at the earliest in 2026. After arrival on Mars it will have to travel hundreds of metres a day navigating autonomously over sometimes difficult terrain as it searches for and retrieves the sample tubes left by Perseverance. It will carry the tubes back for loading into a sample container within the waiting NASA Mars Ascent Vehicle. The Mars Ascent Vehicle will then launch from the surface and put the sample container into orbit about Mars to be collected by ESA's Earth Return Orbiter.



ESA

Sample Fetch Rover

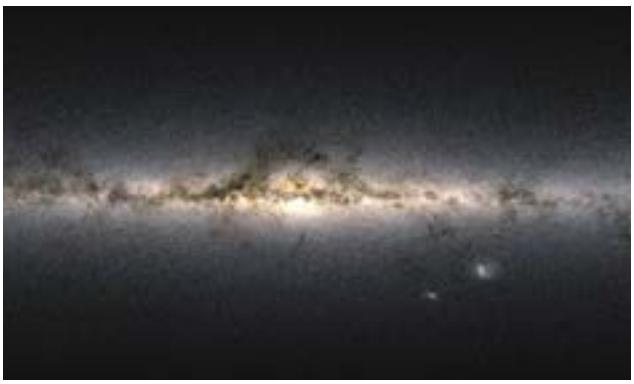
GAIA

In December 2020, the latest Gaia data set was published, forming the first part of its third release. Based on 34 months of mission data, it includes astrometric data (positions, proper motions, parallaxes) and photometric data (magnitudes, colours) for around 1.8 billion stars.

UK researchers funded by UKSA and UKRI-STFC, (the Science and Technology Facilities Council) are a central part of the Gaia Data Processing and Analysis Consortium (DPAC) which processes and validates the data collected from the Gaia satellite, as it orbits the Sun at a distance 1.5 million km further out than the Earth.

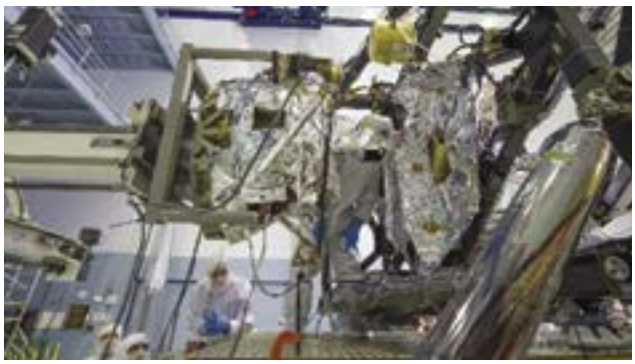
With accuracy equivalent to measuring the thickness of hair at a distance of more than 2000km, these new data have reinforced Gaia's role of fundamentally underpinning modern astrophysics, enabling the most detailed analysis of our stellar neighbourhood and supporting key investigations into the origin and future of our galaxy.

UK Space Agency and STFC funding has supported academic teams at the Institute of Astronomy in Cambridge, the Institute for Astronomy (IfA) in Edinburgh, Mullard Space Science Laboratory (part of University College London) and the University of Leicester.



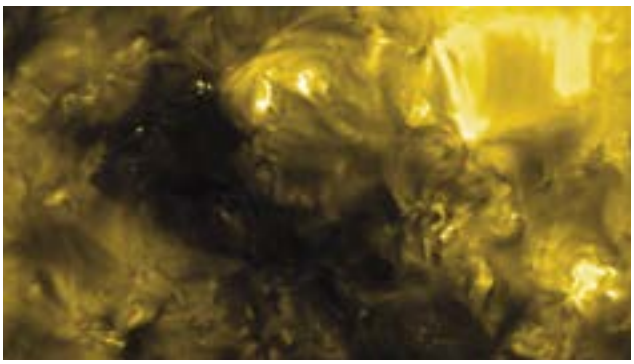
ESA/Gaia/DPAC

Data from more than 1.8 billion stars have been used to create this map of the entire sky.



NASA/Chris Gunn

Installation of MIRI into the instrument module



Solar Orbiter/EUI Team (ESA & NASA); CSL, IAS, MPS, PMOD/WRC, ROB, UCL/MSSL

Solar Orbiter's first views of the Sun

UK led instrument set for 2021 launch onboard NASA's James Webb Space Telescope (JWST)

Since 1996, NASA and ESA, along with the Canadian Space Agency, have collaborated on designing and constructing the James Webb Space Telescope (JWST), widely considered a follow-up mission to the hugely successful Hubble Space Telescope. JWST will study the universe's first stars and galaxies, and examine the physical and chemical properties of solar systems.

Through UKSA, the UK leads the European Consortium building the Mid InfraRed Instrument (MIRI) for the JWST. This includes scientific leadership on MIRI, the instrument design, and management of the overall consortium. The UK was also responsible for the construction of the instrument, and the quality control to ensure that it can operate as intended and cope with the harsh conditions of space.

Securing a leading role on this prestigious mission ensures that UK scientists remain at the forefront of global space science research. The number of proposals from across the UK astronomy community to secure JWST observation time is double that of the nearest European country, and the highest after the US.

NASA now is targeting October 31, 2021, for the launch of the mission from French Guiana. As the successor to Hubble, Webb is expected to generate even more astonishing images of our Universe, inspiring the uptake of STEM subjects and the next generation of UK researchers and engineers.

Solar Orbiter Returns First Data

In February 2020 the ESA Solar Orbiter mission was launched from Cape Canaveral, heading for a rendezvous with our nearest star, the Sun. Built in Stevenage by Airbus, and flying science instruments backed by £20 million of UK Space Agency funding, Solar Orbiter provides images of the Sun from inside the orbit of its nearest planet, Mercury, and closer than ever before.

During June 2020, Solar Orbiter made its first close pass to the sun. Recorded at a distance of just over 77 million km, miniature solar flares, labelled 'campfires', were revealed for the first time all over the star's surface. As a brand-new discovery, their link to larger flares and other dynamics will require further investigation. But for the mission to capture this new phenomenon before its science operations phase formally begins in late 2021 is an exciting hint of things to come.

The UK Space Agency has enabled UK academics to hold instrument leadership roles on this key mission with the Solar Wind Analyser and the Magnetometer, which will directly experience the in-situ nature of the solar wind, as well as involvement in a spectroscopic and an ultraviolet imager which will study the origins of the particles on the Sun's surface.

Solar Orbiter will help scientists piece together the Sun's atmospheric layers. This knowledge is vital for our understanding of space weather events, which can disrupt and damage satellites and infrastructure on Earth that our mobile phones, transport, GPS signals and electricity networks rely on.

Capabilities

Ensure that the UK government has access to capabilities that are integral to our national safety, security and Critical National Infrastructure

Space is fundamental to society and underpins our daily lives. Due to our increasing reliance on space, the UK government has designated it a Critical National Infrastructure sector and recognises risks such as space weather and space debris.

The UK Space Agency is committed to using space technology to protect our way of life, the space environment, and to meeting our responsibilities under UN treaties. We are developing advanced sovereign capabilities and using space as a force for good.

Space Security

In 2020–21, we progressed our ambitious programme to build resilience in the sector. We have done this by increasing our understanding of the UK's critical space functions and services, assessed the security of supply chains, and mapped interdependencies and supply risks with other sectors.

We published the Space Cyber Security Framework, containing guidelines for cyber security, risk and incident monitoring, supported by a series of positively-received workshops. These are the first steps to building a domestically and internationally agreed approach to cyber resilience.

We developed our response and recovery capability, progressed the work on a range of scenarios, conducted training, and exercised responses to orbital conjunction events. The next steps will expand the scope of the response and of the exercises, involving industry, wider government and international partners.

We continued to revitalise the Space Information Exchange, a dedicated security and resilience forum, and launched the Spaceports Security Working Group to support the development of launch services from UK soil.

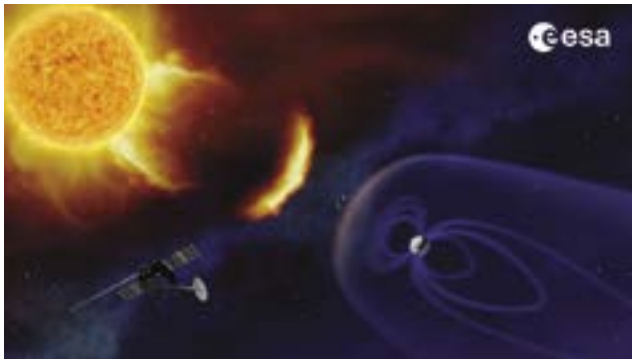
But we cannot do this work alone. We engage with the Centre for the Protection of the National Infrastructure (CPNI) and the National Cyber Security Centre (NCSC) for key subject expertise. We share best practice and coordinate with the department for Business, Enterprise, and Industrial Strategy (BEIS), and have worked with colleagues (including BEIS, the Met Office and the Space Environment Impacts Expert Group) to refresh the severe space weather strategy, and with the Department for Transport (DfT) and Civil Aviation Authority (CAA) on licensing and security regulations.

For the UK's use of radio wave spectrum, we have continued to support our sector interests and provided technical and regulatory advice as needed, engaging with the Department for Digital, Culture, Media and Sport (DCMS), the Office of Communications (Ofcom), Ministry of Defence (MoD) and others to influence domestic and international policy, securing our interests and facilitating growth. Progress is being made in promoting UK interests within the International Telecommunications Union, the European Conference of Postal and Telecommunications and Intra-Space Agency spectrum groups.

We have refocused our work to drive forward the European Space Agency Space Safety programme, aiming to build sustainable resilience to severe space weather and in-orbit debris through 'cornerstone' missions such as Lagrange (space weather monitoring), Adrios (debris removal) and Cream (autonomous collision avoidance). We have supported sector bids for ESA programme work, ensuring a strong industrial return on investment and bolstering domestic capabilities.

We have continued to advise on the security aspects of foreign investment into UK registered companies, and contributed to the National Security and Investment Bill to ensure it covers national security concerns connected to space. We have ensured that the risk and

threat landscape is reflected in national strategic documents and provided expert support to industry capability assessments, license applications and export control reviews. Finally, we are refreshing the National Space Security Policy, a cross-cutting policy aiming to protect the sector and enable continued safe and secure access to space-based services.



European Space Agency

Lagrange Mission

Space-Based Positioning Navigation and Timing Programme (SBPP)

The Space-Based Positioning Navigation and Timing Programme (SBPP) was launched within the UK Space Agency in October 2020. It is directed by the Prime Minister and Secretary of State for BEIS to explore innovative alternatives to deliver satellite navigation and timing services to the UK from space. These Positioning, Navigation and Timing (PNT) services are critical for electricity networks, communications systems, and the maritime, aviation, finance and defence sectors, as well as being an indispensable aid for personal navigation via our smartphones.

SBPP follows on from the work of the UK Global Navigation Satellite System (GNSS) Programme, which concluded successfully in September 2020. It developed outline plans for a conventional PNT satellite system as an alternative to the US GPS or EU Galileo systems. SBPP is building on this work to consider a broader set of innovative ideas for securing global space-based PNT services to meet public, government and industry needs.

SBPP is progressing well and quickly. It has engaged across Government to understand and deliver against the nation's PNT requirements now and in the future. In November 2020, responses to a Request for Information consultation with industry and academia were received, providing innovative ideas for space-based PNT resilience solutions that will provide a value-for-money capability to the country and international partners. SBPP will develop viable concepts in 2021 prior to a preferred recommended solution being proposed in November 2021.

At the end of November 2020, the Infrastructure and Projects Authority (IPA) agreed that SBPP should be included in the Government Major Projects Portfolio (GMPP). This is a significant event for SBPP and a first for the UK Space Agency, recognising the importance of SBPP alongside other major government programmes.

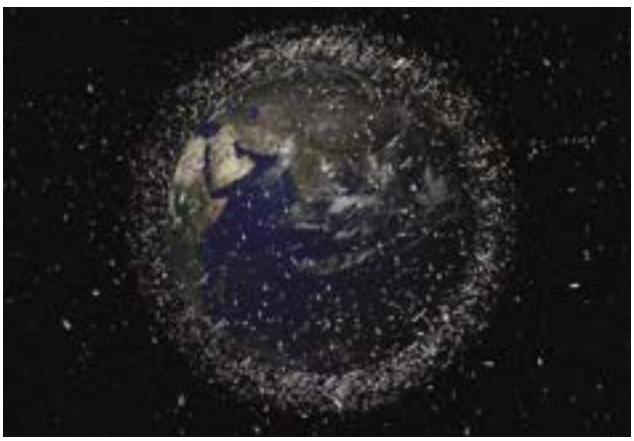
Work from SBPP will boost the UK's already thriving space industry and expertise whilst paving the way for a more 'Global Britain,' bolstering UK interests with greater independence from foreign systems.

UK Space Surveillance and Tracking

On 1st January 2021, the UK Space Agency formally established a national Space Surveillance and Tracking (SST) service. Working with the Royal Air Force, a team of analysts use bespoke software to predict potential collisions in orbit between satellites and space debris. This new national capability was established to replace a previous EU programme that we co-founded in 2015.

Avoiding collisions in orbit is vital to protecting the satellites we depend on every day to deliver services such as data, mapping and communications. The number of satellites reaching space is expected to rise sharply over the next decade as more companies and nations launch new services. These satellites will join the estimated 19 million pieces of space debris already in orbit, consisting of items such as old rockets and even astronaut gloves.

As the sheer amount of debris and satellites in orbit continues to grow, orbital congestion is rapidly becoming unsustainable. The UK's new space surveillance and tracking service will help to avoid crashes in space and to prevent the problem getting any worse.



ESA

Debris objects in low-Earth orbit (artist's impression)

Global Influence

Increase the UK's global influence in science, security and trade through space

We continue to build on our strong international relationships. Through organisations such as the European Space Agency, and through bilateral projects with countries all over the world, the UK can harness global opportunities, access world-class facilities and take part in inspiring missions for a fraction of their total cost, generating a significant return on investment.

Space is essential for improving our understanding of global issues, including climate change, and for tackling them using satellites and data services. We run a world-leading programme of space projects for sustainable development, to support developing countries and generate opportunities for the UK space sector.

ESA

Inspired by Tim photo – Minister Solloway with; Jan Worner, ESA Director General; Elodie Viau, Director of Telecommunications and Integrated Applications and Head of ECSAT; Tim Peake, British ESA Astronaut; Alice Bunn, UK Space Agency International Director

European Space Agency (ESA)

On 10 December 2020, UK science Minister Amanda Solloway visited the European Centre for Space Applications and Telecommunications (ECSAT), a European Space Agency facility at Harwell Campus. ECSAT is one of the UK's leading sites for science and technology, and the visit concluded with a tour of the space facilities at Harwell as part of the celebrations of the fifth anniversary of British ESA astronaut Tim Peake's launch into space. The visit marked the official launch of the "Inspired by Tim" event that asked people to share their stories of how his mission inspired them.

ESA Space Council

In December 2020, the UK joined other ESA and EU Member States to approve a joint resolution on 'Orientations on the European contribution in establishing key principles for the global space economy' at the ESA/EU Space Council, held both in Brussels and virtually. Minister Solloway added her words of celebration to those of other countries in welcoming this collaborative approach to opening and exploiting new opportunities for the benefit of the European Space sector and for industries of ESA or EU member states.

Implementation of programmes from Space 19+

Covid-19's impact on Space 19+ programmes, ESA's "next generation" of key projects, was minimised because many were at the feasibility or inception phase. Most could be undertaken through online home working. Although they are still in their early days, progress was made on:

- L5 Space weather mission: rescoped, and most ESA member states likely to contribute at the next ESA Ministerial meeting (CMIN 22). A welcome prime for Airbus
- Truths mission: feasibility study started and is on track to be presented as a full proposal at CMIN22
- UK science is now leading three of the last four ESA Earth Explorer missions

- UK positioned to win contracts on the Fetch Rover to Mars
- Commercial Space Transportation Service: programme agreed first grants, and demand far outstripping available funds.

International Space Programme

NSIP was announced in March 2020 to support innovation in the UK's space sector. The international element of the NSIP is the first fund dedicated to supporting the UK space sector's innovation through collaboration with international partners that contributes to UK science, security and prosperity.

The funding will support UK companies and organisations working with the likes of the National Aeronautics and Space Administration (NASA) and space agencies from Canada, Japan and Italy.

Artemis Accords

The UK Space Agency signed the Artemis Accords on October 13, 2020 on behalf of Her Majesty's Government, during the virtual International Astronautical Congress. Other signatories include NASA and the space agencies of Japan, Australia, Canada, Italy, Luxembourg and UAE. NASA's Artemis programme aims to land the first woman and the next man on the Moon by 2024. The Accords promote collaboration between commercial and international partners to achieve a sustainable presence on the lunar surface as a steppingstone to the first human mission to Mars.

The Artemis Accords embody an ambitious and collaborative approach to the future of space exploration, and add to the existing international cooperation of which UKSA is proud to be part. The international collaboration envisioned under the Artemis Accords ranges from space science to exploration and research. It supports an even stronger relationship between the UK and the US, as well as providing a strong basis for further collective effort amongst international partners.

International Partnership Programme (IPP)

A National Map of Forests and Land Use was launched by the Forestry Commission of Ghana in January 2021. It is a key outcome of a project called Forests 2020, led by Ecometrica and supported by our award-winning 'space for sustainable development' initiative, the International Partnership Programme. Its launch marked a significant milestone in Ghana's commitment to build world-class Earth observation expertise, and was the culmination of a three-year project.

The launch of the map is the latest in a series of initiatives to enhance sustainability across Ghana's key agricultural commodities such as cocoa, and aims to end deforestation while promoting forest restoration and protection throughout supply chains. It has been formally adopted as a national product for use in climate reporting and zero-deforestation supply chains in the forest sector and for commodity exports.

Forests 2020 aims to improve the accuracy of satellite-based detection of forest change, including deforestation and degradation, and also collaborates with Kenya, Indonesia, Brazil, Colombia, Mexico and Belize.

CommonSensing Project

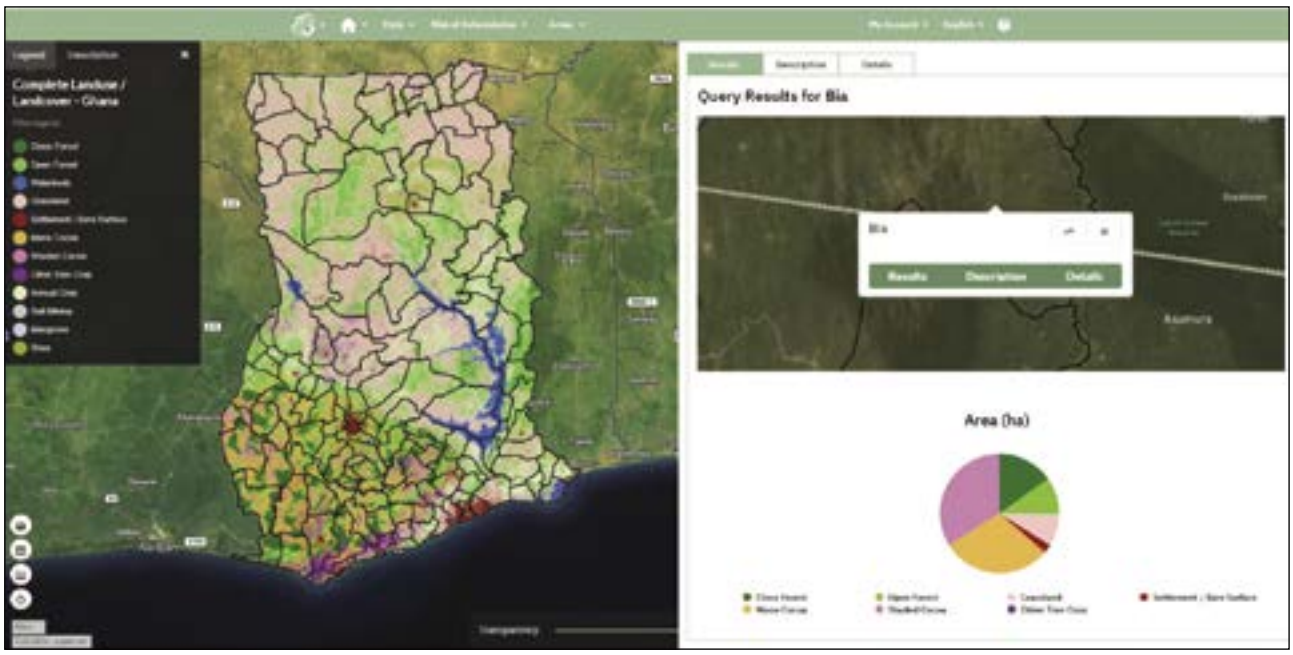
When Cyclone Harold struck Pacific island nations in April 2020, the 'CommonSensing' project – funded by our International Partnership Programme – was able to act quickly to provide maps and analysis reports to its partners to support disaster relief efforts.

This rapid mapping and analysis work was carried out in conjunction with the project lead, the United Nations' Institute of Training and Research's (UNITAR) Operational Satellite Applications Programme (UNOSAT). UNOSAT specialises in post-disaster damage mapping. It activated the International Charter on Space and Major Disasters as well as Its own Rapid Mapping Service. This prompt action resulted in thousands of damaged buildings being identified.

CommonSensing uses satellite remote sensing technology to help Fiji, Solomon Islands and Vanuatu with improved food security, disaster risk reduction, and better access to international climate finance. Consortium partners include the Satellite Applications Catapult, the Commonwealth Secretariat and the University of Portsmouth.

GEO (Group on Earth Observations) Awards

In November 2020, our International Partnership Programme won the GEO (Group on Earth Observations) Sustainable Development Goals Award. In its second year, the GEO awards programme, led by the EO4SDG initiative, looks to celebrate productivity, innovation, novelty, and exemplary efforts in the use of Earth observations for sustainable development.



Forestry Commission of Ghana (displayed on the Ecometrica platform)

Map of land use in Ghana developed by the Forests 2020 project

An IPP project called D-MOSS also picked up a GEO award, for its pioneering dengue fever forecasting system. Led by HR Wallingford, D-MOSS uses Earth Observation datasets to look at rainfall, temperature, humidity, soil moisture, land use and population density, combining these with seasonal climate forecasts and a hydrological model to predict the likelihood of future dengue epidemics up to six months in advance. D-MOSS has been used in Vietnam since 2019 and is now being made available to Sri Lanka and Malaysia.

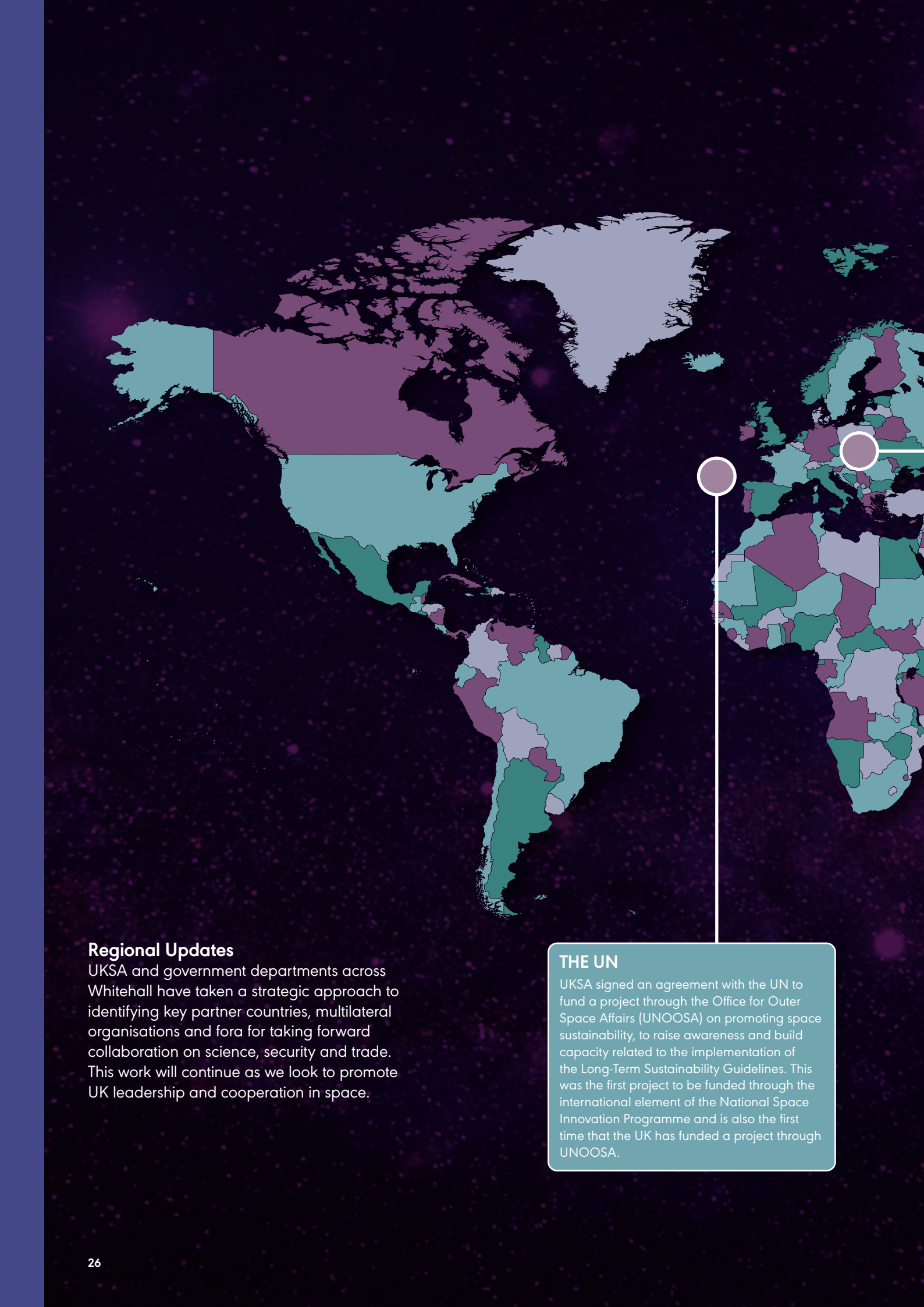
The GEO awards complemented two Financial Times/International Finance Corporation Transformational Business Awards given to IPP's Forests 2020 project in July, including one for Excellence in Climate Solutions.

GEO Secretariat

2020 GEO SDG Award certificate presented to UK Space Agency for IPP

Earth Observation and Climate

The UK Space Agency is at the heart of many of the core activities which underpin the growing Earth Observation and Climate sector. We are working to ensure that new technologies and mission ideas are developed, to build missions in collaboration with our international partners, and to inspire the next generation of students to join the EO sector in the UK.

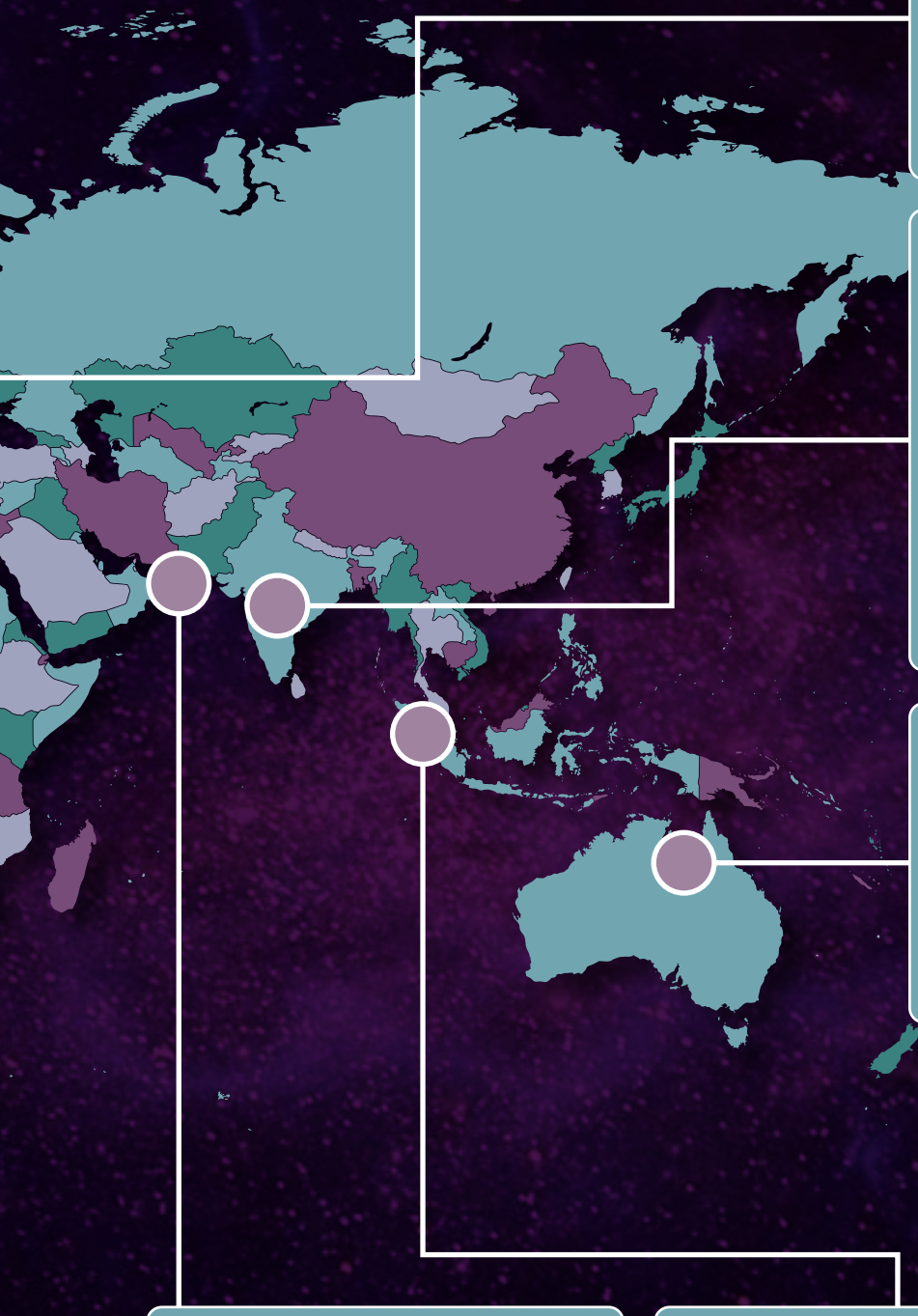


Regional Updates

UKSA and government departments across Whitehall have taken a strategic approach to identifying key partner countries, multilateral organisations and fora for taking forward collaboration on science, security and trade. This work will continue as we look to promote UK leadership and cooperation in space.

THE UN

UKSA signed an agreement with the UN to fund a project through the Office for Outer Space Affairs (UNOOSA) on promoting space sustainability, to raise awareness and build capacity related to the implementation of the Long-Term Sustainability Guidelines. This was the first project to be funded through the international element of the National Space Innovation Programme and is also the first time that the UK has funded a project through UNOOSA.



Czech-UK Space Industry Day

UKSA co-organised a Czech-UK Space Industry Day with CzechInvest, Czech Ministry of Transport, Harwell Space Cluster, UK Space and others to establish long-term business collaboration. The event featured keynote presentations followed by 85 bilateral meetings. Co-operation in the Space sector presents a business opportunity for the UK, which will be explored in follow-up activity.

India

In the past 24 months, UKSA, alongside the Department for International Trade (DIT), has delivered the first ever space focused trade mission to India, which included facility visits, Business-to-Business networking, workshops and access to the Indian government. In addition to this, UKSA in collaboration with the Foreign, Commonwealth and Development Office (FCDO), created the first HM trade Commissioner (HMTC) led Cross-Whitehall working group focused on the Space sector, which seeks to ensure a more collaborative and coherent approach to the Indian space sector by Her Majesty's Government.

UK–Australia Space Bridge

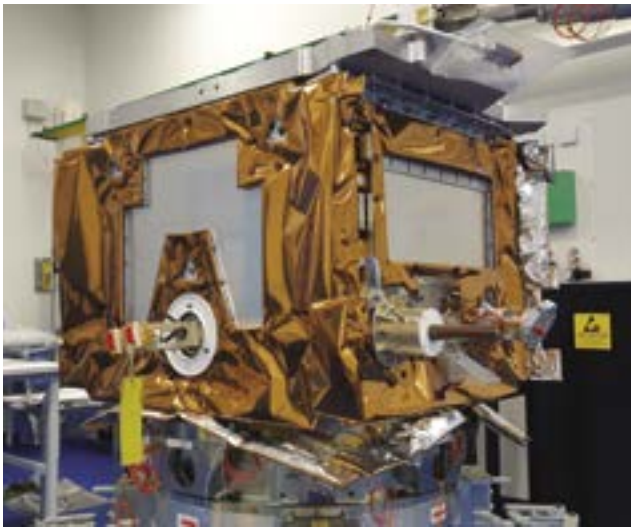
UKSA announced the completion of negotiations for the UK–Australia Space Bridge, a world-first initiative designed to establish new cooperation mechanisms across the UK and Australian space sectors. The Space Bridge will unlock improved access to trade, investment and academic research opportunities, support and advice to businesses and new innovative bilateral collaborations.

UAE

Graham Turnock met with the Chair of the UAE space agency, Sarah Al Amiri, to discuss how to improve UK/UAE collaboration in space, and how to increase the presence of UKspace in the UAE.

Singapore

In the past 24 months, UKSA, alongside UKspace, has led the UK's largest space delegation of over thirty UK delegates to Singapore for a week long programme of engagement, supported by the Science, Technology, and Facilities Council, RAL SPACE, the British High Commission in Singapore and UKspace.



Mr Sébastien Hortard from ADS

PCS delivered by RAL Space, and used to support MicroCarb CO_2 measurement instrument calibration and targeted local measurements in orbit.

The Space 4 Climate partnership, chaired by our EO and Climate team, has grown its funders and membership over the year, and established itself as the place to coordinate the EO sector's input to space-enabled action for climate change.

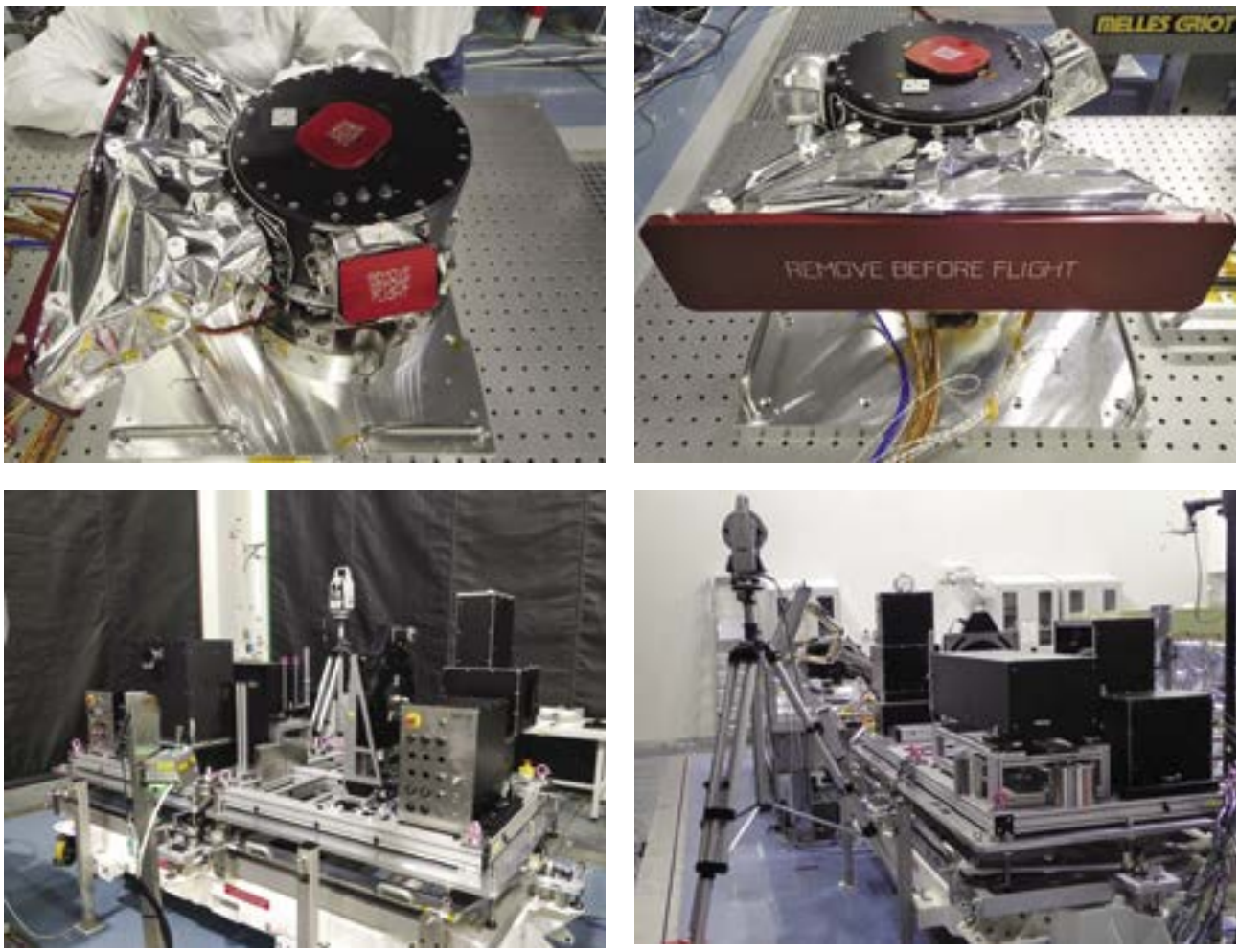
Working within the European Space Agency, the UK small sat and science community showed great ambition in the SCOUT Mission challenge, demonstrating that it is possible to use new space systems to do excellent science at a fraction of the cost of the traditional Earth Explorers. The first proposal selected for implementation, Earth System Processes Monitored in the Atmosphere by a Constellation of CubeSats, (EPS-MACCS) is an industrial consortium led by Denmark-based GomSpace, and includes an instrument built in the UK.

After securing funding for the first phase of the Traceable Radiometry Underpinning Terrestrial and Helio Studies (TRUTHS) mission in November 2019, ESA has broken all records to rapidly secure the industrial consortium after an open competition, and to establish the Mission Advisory Group, with strong UK science and user representation, to ensure that this UK-devised mission gains the expertise it requires from the global community to reach its goals.

Despite Covid-19, the UK and French teams working on the Microcarb satellite have reached some significant milestones. The Assembly, Integration and Testing phase was initiated, and two key components built in the UK were shipped to CNES in Toulouse, – the Optical Ground Support Equipment (OSGE) and the Pointing and Calibration System (PCS). The UK has delivered the first version of DPU, the Data Processing Unit.

A major success was the Defence Science and Technology Laboratory's (DSTL) demonstration of the use of Novasar's S- Band SAR imagery and analytical tools.

In autumn 2020, a further highlight was to welcome the first cohort of students to start their doctoral studies as part of the Satellite Data in Environmental Science – Centre for Doctoral Training (SENSE) programme. This Earth Observation CDT is an exciting new centre delivered by the Universities of Edinburgh and Leeds and funded by the Natural Environment Research Council and the UK Space Agency. It will train 50 PhD students over the next four years to tackle cross-disciplinary environmental problems, by applying state-of-the-art data science methods to the deluge of satellite data collected each day. The postgraduates will be supervised by a consortium of world-leading UK scientists, with topics developed with the help of the UK's most innovative spatial data companies. Training this new generation of industry-experienced satellite data specialists



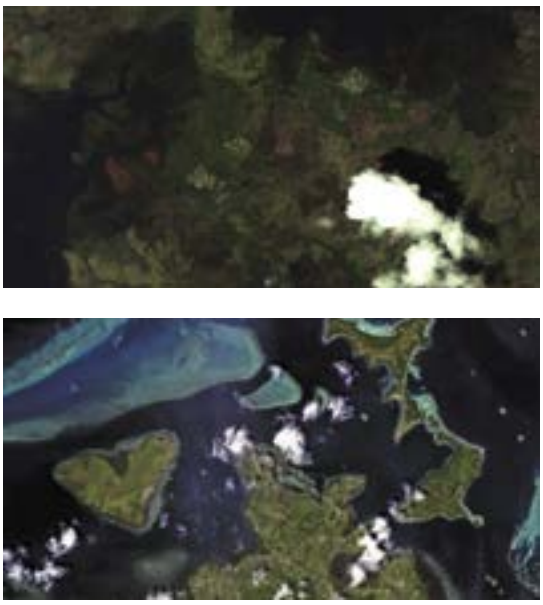
Mr Sébastien Hartard from ADS

OGSE, delivered by NPL, will be used to characterise and calibrate the MicroCarb CO_2 Measurement Instrument on the ground. The final two images show the front of the telescope, part of OGSE, set up at NPL.

supports the growing strategic importance of remote sensing within the UK space sector, and enhances the UK's profile as an international leader in Earth Observation science.

The Disaster Charter

The UK's membership of the charter continues to provide vital satellite data to support relief efforts following natural and technological disasters around the world. On behalf of UKSA, Airbus was called to respond to the Charter on 55 occasions. 123 images were processed, 38 of which were delivered to the Charter, along with an additional 32 archive images. We have recently reached agreement to supply the Charter with Airbus' Vision-1 imagery, which offers high resolution in the panchromatic and multispectral bands. Vision-1 imagery was recently used as part of Call 794, which covered a storm, hurricane and flash flood in Viti Levu, Vanua Levu and Ovalau Islands in Fiji. Analysis of the imagery showed the extent to which local houses were damaged, allowing intelligence of the scenes to be distributed appropriately. The quality of this imagery received positive feedback from the UN's Institute of Training and Research (UNITAR), emphasising the importance of our contribution to this global work.



Vision-1 © Airbus Defence and Space Limited 2020

Disaster Charter: Call 794 - Fiji

Great Place to Work

Ensuring an effective UK Space Agency which is a great place to work, living the Agency's values (to be United, Knowledgeable, Sharing and Ambitious), and delivering the Proteus Programme

The UK Space Agency is one of the most exciting places to work in government. We're a unique government agency, supporting projects that are literally out of this world.

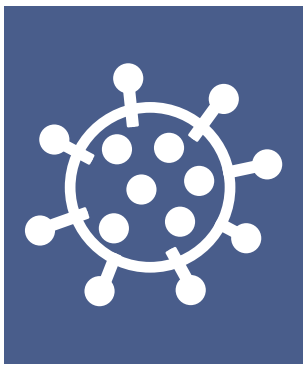
We want to foster a culture which supports our people in their efforts, while becoming a more adaptable Agency that leads the UK towards its future space ambitions through the Proteus Programme.

Proteus Transformation Programme

In 2020-21, the Agency invested in its future capabilities and people with the Proteus Transformation Programme. The programme is intended to create an adaptable Agency which does the basics brilliantly and is a better place to work for everyone. Our people are our most important asset, and we have enhanced our approaches to them with desired behaviours and cultural changes, so that people are better engaged, supported and valued. To enable the Agency to manage its growing portfolio, a dedicated Portfolio Office has been scoped and implemented and will ensure work is prioritised and resourced effectively and efficiently. The Proteus Transformation programme has now completed, and across the Agency, teams have developed Centres of Excellence providing standardised approaches, guidance and ways of working for key organisational activities.
We completed the preparatory work to create a Front Door to ensure we engage effectively with our stakeholders.

Human Resources

Over the past year, our HR team and our staff volunteer groups have delivered outcomes outlined in our People Plan. Our focus has been on leadership, managing through change, Learning and Development, and Respect and Compassion. The positive impact this has had on our people was reflected in our Civil Service People Survey results. We have increased our HR capability, with the introduction of a dedicated Strategy team who are responsible for Learning, Development, Diversity and Inclusion (D&I) and Wellbeing of staff for the Agency. This has enabled an increased focus on learning and development, with a range of products available for staff. In addition, we have transformed face-to-face training to run digitally. This change has been supplemented by other initiatives to help career progression, including use of the BEIS talent programme. The D&I and Wellbeing team operate across the organisation and are continually looking for ways of ensuring that all staff feel included and that wellbeing remains paramount. Like other organisations, the HR team responded quickly to Covid-19, adapting policies to ensure the Agency could continue to operate with a remote workforce.



Covid-19 (Response to pandemic)

Due to the impacts of Covid-19, we narrowed the scope of our priorities to support our staff and the sector more widely. Internally we prioritised the health and wellbeing of our staff, and reprioritised our work to allocate available resources to our short-term priorities whilst planning for the longer term.

In response to the Covid pandemic, the UK Space Agency rapidly established a cross-Agency Team to understand Covid impacts and ensure the resilience of the sector.

The team provided highly responsive support that flexed according to the phases of the pandemic to ensure that we gathered and shared sector intelligence and responded to requests for situation reports from central Government – including daily reporting over the Christmas period.

As part of this function, our resilience team worked closely across the sector to understand and report the impact on our Critical National Infrastructure of Covid-related staff absences in the sector, and across Government to ensure sector CNI needs were reflected in policy development and approach.

The Agency also worked with UKspace (the industry trade body), the Space Academic Network and across Government to regularly survey the sector and presented the resulting dashboards back to the sector and into Government. The Agency also established a team to respond directly to sector queries, and funded UKspace to develop a sector-focused Covid portal (https://www.ukspace.org/covid19/) to ensure that information to support the sector was available from a single location. Support was also provided through the Satellite Finance Network to enable advice to smaller businesses.

ESA Covid-19 Response

Early on in the Covid-19 pandemic, UKSA worked with ESA to ensure that the £374m we invest with ESA every year was being maximised to support UK industry. We worked to ensure continuity in ESA programmes, adaptation to online ways of working, and swift and efficient support measures for industry. These measures included:

- ESA published new guidelines to support industry by ensuring continuity in the decision-making process, the issuing of invitation to tenders and requests for quotations, and swift evaluation of offers and placing of contracts
- ESA worked to ensure that payments by ESA arrived quickly, and put in place a dedicated measure for SMEs that in some instances provided advance payments of up to 50% of contract values
- ESA set up a dedicated Covid-19 helpline to ensure that problems with contracts could be dealt with in a timely manner.

ESA itself also adapted to home working – even directing the BepiColombo fly-past of the Earth remotely in early April 2020.

ESA also redirected existing programmes to helping with Covid-19. A call for projects on 'Space helping UK on Covid-19 and other pandemics,' carried out in cooperation with UKSA, facilitated the deployment of solutions to help alleviate the stress on UK healthcare resulting from the Covid-19 outbreak. Projects under this call were typically appraised and started within six weeks.

Working with the Sector – the Space Growth Partnership (SGP) and Sector Support through the Covid-19 Pandemic

This Government's partnership with our inspirational space sector has been at the heart of its success. The Space Growth Partnership brings together the UK's space industry, research base and government to drive our collective ambition for Sector growth, and for increasing commercial and public sector use of space services in the UK to deliver economic and social benefits. As part of its membership of the Partnership, UKSA has supported cross-Sector efforts to mitigate the impact of Covid-19 on the UK space Sector. It has collected and analysed data on the health of the Sector and assessed ways of supporting it as it emerges from the pandemic.

The Sector looks well positioned to drive economic recovery and help the UK build back from the challenges of the pandemic. Its contributions may include improved connectivity, the greater use of space to monitor and mitigate climate change, and developing a leading position in the emerging in-space economy. This includes mega-constellations as well as assembly, manufacturing and servicing in space. We are supporting Partnership activities such as assessing the potential impact of innovative public procurement, and a review of the National Space Innovation Programme. We have provided financial support to the UKspace Trade Association, the Space Academic Network, and the Satellite Finance Network, to enable them to run essential new activities that have supported space companies and universities to monitor the impact of the pandemic.

Applications Response to the Covid-19 Crisis

Our strong relationship with NHS England resulted in their contacting us as soon as Covid-19 hit, to explore how space applications could support the national response to the pandemic. ESA and UKSA worked together to understand the requirements from NHS England, and then to implement the fastest contracting process ESA has delivered in applications, getting worthy applications from submission to contract in six weeks.

This cooperation delivered innovative solutions including apps to encourage social distancing, drone deliveries of healthcare supplies, and identifying people who are isolated and vulnerable in order to help councils prioritise their resources. The ways of working required were new, and were positively adopted on both sides. They are now being used to improve the whole ESA Business Applications Programme for the benefit of industry and academia.

Space Security

The Space Security team launched the UK Space Agency's Covid-19 response early in the pandemic, supporting the sector throughout. The team ensured that our critical services and workforce were recognised in legislation, monitoring absence and supporting access to asymptomatic testing for key workers.

Skyports Ltd

Loading medical supplies onto a drone

Apian

Drone developed as part of project in support of NHS

EU Exit

International: UK-EU Trade Agreement

As part of the UK-EU Trade and Co-operation Agreement, the UK reached an agreement in principle to continue to participate in the Copernicus component of the EU Space Programme. The UK has a strong track record of involvement in Copernicus, and the agreement allows the UK space industry to continue to play a critical role in the development and delivery of the programme. This will support the government's ambitions to grow the space sector and to underpin our world-leading climate science capability.

Along with participation in Copernicus, the UK secured an agreement in principle for continued access to services from the EU Space Surveillance and Tracking programme. This will help protect space assets from risks of collision with other objects, and provide accurate data on debris re-entering the atmosphere. These agreements are subject to the finalisation of the EU Space Regulation, which sets out formally how the EU Space Programme will operate from 2021-27.

UK Space Surveillance and Tracking

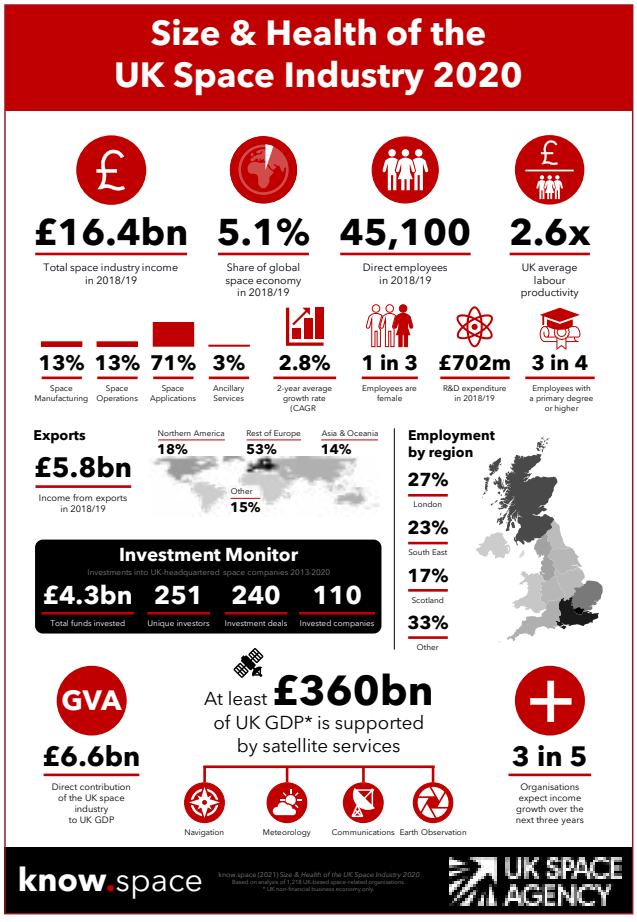
On 1st January 2021 the UK Space Agency formally established a national Space Surveillance and Tracking (SST) service. Working closely with the Royal Air Force, a team of analysts uses bespoke software to predict potential collisions in orbit between satellites and space debris. This new national capability was established to replace a previous EU programme which we co-founded in 2015.

External Landscape

The National Space Council

As space has become increasingly central to UK life, a new Cabinet Committee, chaired by the Prime Minister, has been established to co-ordinate Government space policy. The National Space Council (NSpC) considers issues concerning prosperity, diplomacy and national security in, through and from space.

The Government has committed to introducing a new National Space Strategy to set a compelling vision for the UK's future in space. The UK Space Agency has worked with teams across Government and the sector to take it forward.



The strategy will be informed by the latest report on the *Size and Health of the UK Space Industry*, completed in March 2021, and published in May 2021. This long-running series tracks changes in the UK space industry.

At least 3 in 4 of the survey respondents (76%) cited support and engagement with the UK Space Agency as a key enabler for commercial success. We are planning to collect more data in future to understand the overall value UKSA provides across a range of indicators.

National Space Strategy

In light of the increasing role of space in our lives, economy and government the distribution of space functions across Whitehall has been reviewed and the Department for Business, Energy and Industrial Strategy will oversee responsibility for strategy and high-level policy. This will support the coordination of the UK's first ever National Space Strategy, which will bring long-term strategic and commercial benefits to the UK. The UK Space Agency will continue to lead major programmes to support the first UK space launches, pioneer satellite innovation, and foster space hubs across the country, and will play a key role in supporting BEIS for overall strategy.

Communications and Outreach

Communications

The space sector's achievements have continued to inspire the country this year. UK Space Agency communications in 2020–21 have showcased UK space leadership, ranging from UK scientists mapping our galaxy in 3D through the Gaia mission, to space-enabled drone technology supporting the NHS response to Covid-19.

Space missions have captured imaginations across the nation, supported by our popular social media activities. During the first national lockdown, our "Tim Talks Space" series of live conversations with astronaut Tim Peake received over 27,000 views online. We continued the conversation in December with the launch of our #InspiredByTim campaign. Here the public shared memories of Tim's historic time on the International Space Station to mark the fifth anniversary of his Principia mission.

We have also achieved high interest in space news across more traditional media. As the Solar Orbiter captured the closest images ever taken of the Sun, Agency staff interviews led to more than 80 pieces of media coverage, reaching an audience of 24 million people.

Education and Skills

The year has been challenging for all face-to-face educational activities. With most science centres closed for long periods and their staff furloughed or laid off, the Destination Space programme of space workshops and meet-the-expert activities has made less headway this year than planned. However, the Association for Science and Discovery Centres has still managed to exceed its target and involve 210,000 children of 5-14 years old (250,000 including digital engagements) in 13 centres around the UK over the whole two-year programme, focused on topics such as Launch UK, Mars exploration and the James Webb Telescope.

In contrast, online activities have been more successful, meeting the needs of schools and teachers for online resources, virtual training and remote careers events. Many resources have been repurposed to help parents teaching at home. In particular, the Space Education Resource Office (ESERO-UK) reports 91,000 downloads of space resources (compared with 48,000 the previous year) and a 10% increase in teacher professional development to 1228 days. Other funded partners such as the National Space Academy and the Scout Association delivered much of their programme remotely, developing new techniques and ensuring that science and technology remain in the minds of young people.

ESERO-UK runs the new One Million Interactions programme on our behalf in partnership with the Careers and Enterprise Company. It has already signed up 590 space professionals, who have between them carried out 293,000 engagements in the first year – a number boosted somewhat by the ability to deliver activities online. The Agency also helped to engage young people virtually with a popular series of livestreamed interviews with Tim Peake, alongside experts covering a range of space topics.

Equally pleasing is the success of the Space Placements in Industry (SPIN) programme, run by the Agency in partnership with the Space Applications Catapult. This year 55 students were given eight or more weeks of internship with a range of companies across the space sector. Despite the majority taking place remotely, the quality of projects remained high, and students reported good experiences.

Among its efforts to improve skills in the workforce, the Agency has convened a new Space Skills Advisory Panel, reporting to the Space Sector Council, to advise on skills issues and to shape initiatives. It has also carried out a Space Skills Survey to provide the evidence needed to inform policy, in particular for the development of the proposed National Space Skills Institute. This new organisation is intended to increase the number, range and quality of learning opportunities for workers in, and moving to, the space sector.

OUR PEOPLE

The Agency continues to recognise that our most important resource is our people, and we continually strive to invest in our workforce to ensure that we have the right people in the right place with the right skills and support. The increased focus on space, and the requirement for the Agency to deliver more has seen a further increase in headcount over the past year.

As highlighted in previous reports, we are now measured as an entity in our own right rather than a subset of the Department for Business, Energy and Industrial Strategy against the 2020 Civil Service People Survey (CSPS). We obtained an employee engagement index (EEI) of 65%. This was an increase of 5% from the previous survey, which shows real progress. It is also testament to our leadership, as Covid-19 saw the workforce operate from home. The EEI is shaped by five individual questions as well as measuring responses to nine key themes as shown in the table below.

People Survey Results	**2020 Result**	2019 Result	Change +/- %
My Work	78%	77%	+1%
Organisational Objectives and Purpose	72%	62%	+10%
My Manager	68%	62%	+6%
My Team	80%	74%	+6%
Learning and Development	44%	44%	No change
Inclusion and Fair Treatment	75%	70%	+5%
Resources and Workload	64%	60%	+4%
Pay and Benefits	37%	31%	+6%
Leadership and Managing Change	52%	32%	+20%
EEI Index	65%	60%	+5%

The % figure above represents the positive number of responses to the theme by year and then the difference between surveys. So for example, in 2020 for Leadership and Managing Change 52% of the respondents declared that they either strongly agreed or agreed with the theme questions. This was an increase of 20% from the previous year.

We were pleased to see that all themes, with the exception of Learning and Development, which remained static, showed an improvement. We developed an Action Survey People Plan and concentrated on four key themes; Leadership, Managing Through Change, Learning and Career Development and Respect and Compassion. We are maintaining these themes through 2021–22. They were endorsed by our Steering Board, and we shall continue to work with our People Group to ensure that the Agency becomes a great place to work. We have started the process through the development of our People Strategy, due to be published in May 2021.

The interaction between the Proteus, HR and our People has created new initiatives within our People and Culture section, by redefining our Values and how we live them. Together with reshaping Performance Management and Development , we are encouraged by the work delivered under the "Our People" element of the Agency Transformation programme and can see real progress across a range of People initiatives.

OUR FINANCES

A key Agency financial objective is to outturn between +0% and -1% of the financial target.

In compliance with the budgeting regime, the Agency was required throughout the year to advise BEIS of its total forecast net expenditure for the year end, in line with the requirements from HM Treasury to adhere as closely as possible to the forecast.

The Agency's financial objective only applies to Departmental Expenditure Limit (DEL) budget lines as movements in the Annually Managed Expenditure (AME) budgets are outside the control of management.

The Agency's 2020–21 final DEL outturn including EU Exit ring-fenced budgets was £2.958 million (equivalent to 0.6%) below the revised financial target.

The table below includes the details of the budget, revised financial target agreed with BEIS and outturn against each ring-fenced budget line. The reported variance is the difference between outturn and revised financial target.

Table 1: *UKSA Outturn 2020-21*

UKSA Outturn	**2020–21**			
	Budget £000	**Revised financial target £000**	**Outturn £000**	**(Surplus)/ Deficit £000**
Admin DEL	4,946	4,946	4,939	(7)
Programme DEL	227,023	220,017	218,584	(1,433)
Capital DEL	220,738	213,650	213,536	(114)
Global Challenges Research Fund	23,238	21,607	21,177	(430)
National Productivity Investment Fund	33,443	15,918	15,935	17
National Space Innovation Programme	15,000	11,371	10,642	(729)
Total DEL	**524,388**	**487,509**	**484,813**	**(2,696)**
EU Exit – UK Global Navigation Satellite System ring-fenced budget	18,200	16,224	16,224	-
EU Exit – Space-Based PNT Programme ring-fenced budget	11,437	8,048	7,875	(173)
EU Exit – National Space Operations Capability	4,000	3,960	3,939	(21)
EU Exit – Position, Navigation and Timing	500	359	240	(119)
EU Exit – EU Support	1,900	1,844	1,895	51
Total EU Exit	**36,037**	**30,435**	**30,173**	**(262)**
Total DEL and EU Exit	**560,425**	**517,944**	**514,986**	**(2,958)**
Non-ring-fenced AME	763	1,200	847	(353)
Ring-fenced AME – forward contract revaluations	1,570	1,570	5,062	3,492
Total AME	**2,333**	**2,770**	**5,909**	**3,139**
Total Outturn	**562,758**	**520,714**	**520,895**	**181**

Table 2: UKSA outturn and annual accounts reconciliation 2020–21

UKSA outturn and annual accounts reconciliation	2020–21
	£000
Net operating expenditure[i]	515,233
Direct capital[ii]	600
Notional movements in revaluation reserve[iii]	5,062
Total Outturn	**520,895**
Revised financial target	520,714
Variance	**181**

Notes:
(i) Taken from the Statement of comprehensive net expenditure for the year ended 31 March 2021.
(ii) Relates to the purchase of intangible assets included in the EU Exit – SBPP ring-fenced budget.
(iii) Relates to notional losses on revaluation of forward exchange contracts in 2020-21.

Covid-19 Impact on Operations and Programme Delivery

£2.6 million was made available to fund a number of projects to develop space-enabled technology in a joint initiative with the European Space Agency (ESA) in support of NHS England.[2]

During 2020-21, a number of programmes and activities were impacted by global and national travel restrictions resulting in underspends against planned activity. The Agency worked closely with grant recipients to monitor and manage impact on spend and milestones.

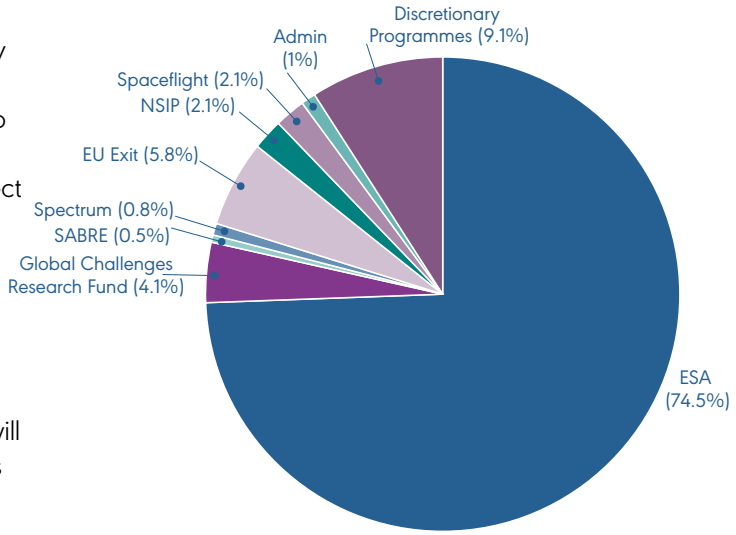
Foreign Exchange Hedging Impact of ESA Commitments

In November 2019, at the ESA Council of Ministers meeting, the Agency committed over £1.8 billion to ESA for the period of 2020 to 2025. To aid budgetary certainty, the Agency manages a portfolio of foreign exchange forward contracts. In 2020–21, the portfolio consisted of six contracts, four of which matured during the year. These financial instruments are subject to significant variances in their underlying fair value measured as at 31 March 2021, which resulted in recognised notional revaluation losses of £5.1 million. These movements are outside the control of management and are therefore classified as AME. As at 31 March 2021, the Agency had two remaining contracts within its portfolio. The Agency will be looking to place new forward exchange contracts during 2021–22.

More information about the forward exchange contracts can be found in Note 7 to the Financial Statements, Other financial assets and liabilities, on page 112 and Note 12.1, Other financial commitments, on page 115.

Ring-fences and Discretionary Spend

The Agency receives funding from BEIS. When spending restrictions are put against a particular budget line, this is referred to as a ring-fenced budget. In line with the HMT Consolidated budgeting guidance, the Agency is not permitted to switch funding between ring-fences which therefore restricts the Agency's ability to manage funding flexibly across its portfolio of activity. The graph below details the 2020–21 outturn, split by the various ring-fences imposed by BEIS through our allocation. The remaining 9.1% of the UKSA allocation represents spend on discretionary programmes.



2 https://www.gov.uk/government/news/uk-space-technologies-to-boost-nhs-coronavirus-response

How we spent our 2020–21 DEL and EU Exit budget

The table above includes delivery costs; therefore, the figures are not directly comparable to those in the Note 4 to the Financial Statements, Total Expenditure, on page 110.

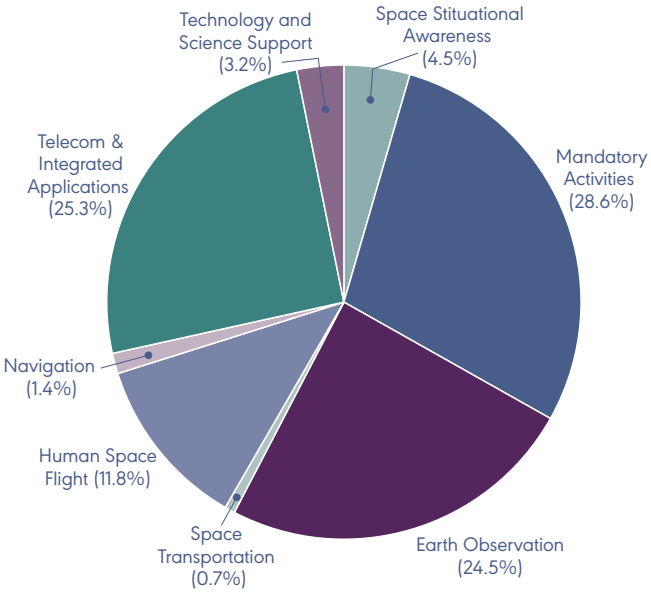
Detailed Spending Breakdown

European Space Agency

During the reporting period, the Agency subscriptions to ESA totalled £384.27 million. The Agency's commitments to ESA are agreed at Council of Ministers meetings, scheduled every two to four years. The most recent meeting was held in November 2019 where the UK announced it will invest on average £374 million per year[3] to deliver international space programmes over the next five years. This investment secured UK involvement in international space missions and the development of new technologies, including:

- Building the Lunar Gateway, a new space station orbiting the moon
- Returning the first samples from Mars
- New satellites to help us understand climate change
- An early warning system for solar storms
- Research in space technology to deliver high-speed mobile technology such as 5G and satellite broadband services around the world
- Removing space debris to prevent collisions in space.

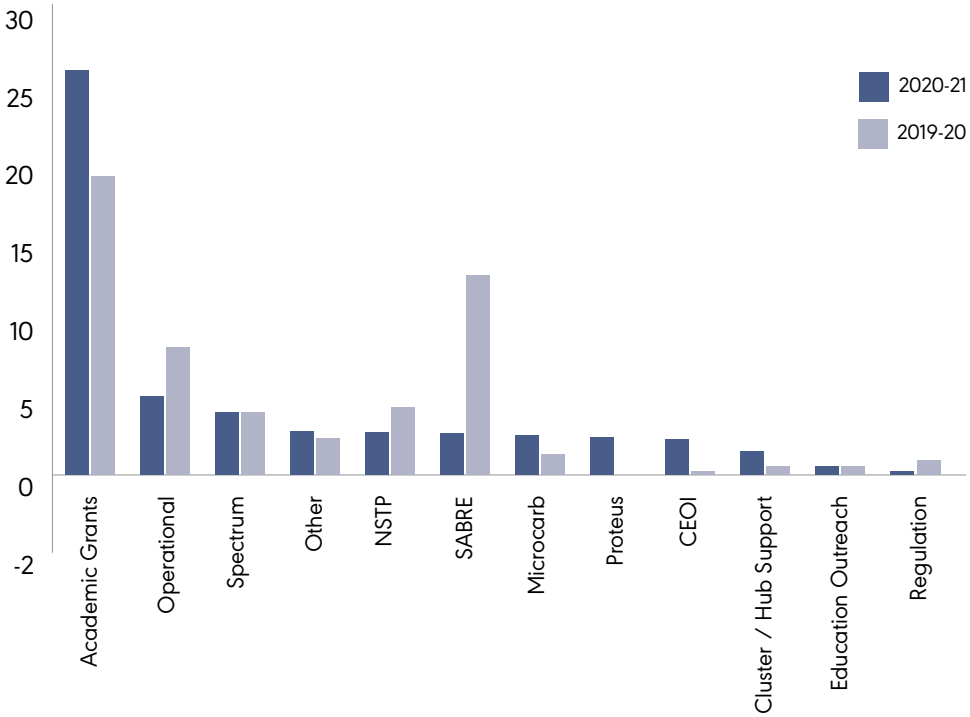
The CMIN19 subscriptions portfolio can be summarised into eight key categories shown on the right.



3 Sterling equivalent of Euro subscriptions pre inflation and subject to exchange rate movement as at 2019 indices

National Programme

Including delivery costs, a total of £52.8 million was spent on the National Programme during the reporting period covering a multitude of different projects and initiatives. 2020–21 spend on National Programmes, including prior year comparatives, can be summarised into the below key programmes and other spend categories.



Global Challenges Research Fund (GCRF)

The GCRF funds the International Partnership Programme (IPP) and is a ring-fenced Official Development Assistance (ODA) budget. IPP delivers an international development programme across the globe, and successfully managed to deliver on majority of the 2020-21 programme's planned activities and mitigated those impacted by Covid related travel restrictions.

Space-Based PNT Programme (SBPP)

During the year, the GNSS programme completed, and its outturn broadly matched its budget. The SBPP started in October 2020 but has underspent in year as a result of delays in completing its recruitment and letting support contracts. The next key milestone for the SBPP programme is the delivery of the outline business case due in late 2021.

Spaceflight Programme

Spaceflight is the predominant element within the NPIF budget. In 2020–21, we continued to drive the UK to achieving commercial small satellite launch in 2022 with the successful delivery of studies in year. Covid-19 impacts have been the main driver for underspends against planned activity during the reporting period. While some milestones were reprofiled into the financial year 2021-22, the date for planned first launch from the UK in 2022 remains on track.

National Space Innovation Programme (NSIP)

Launched in March 2020, NSIP undertook a broad range of National and International projects. The programme underspend reflects the delay in the final 2020-21 programme budget being confirmed and the impact this had on the timing of the competitive call process and industry's ability to complete planned activity in year.

EU Exit

Following the UK's decision on 23 June 2016 to exit the EU, the Agency has spent £30.2 million during the reporting period (2019–20: £28.8 million). The increased spend from previous year was driven by the commencement of the National Space Operations Capability (NSPOC) programme.

Admin

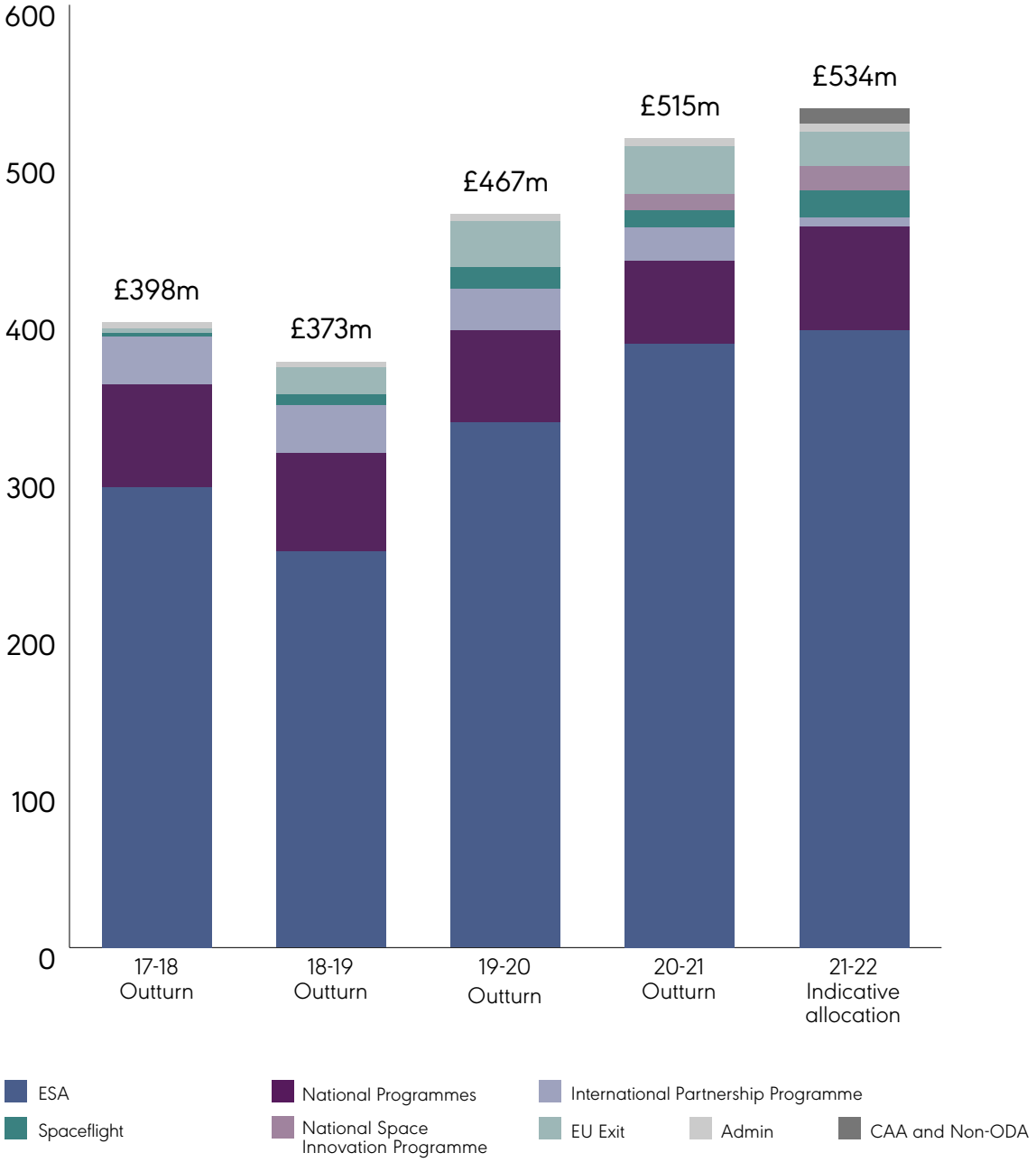
In 2020-21, administrative costs amounted to £4.9 million which was in line with the Agency's admin budget (2019–20: £4.7 million).

5–Year Expenditure Trend

The Agency has seen an increase in expenditure of £136 million, as seen through the 5–year spending profile since 2017-18. This additional funding has allowed the Agency to expand its subscriptions to ESA, increase its funding to the national programme and resource space programmes related to EU Exit activities. Due to the nature of space science, expenditure on such programmes is managed across multi-year profiles.

The graph below shows the historic expenditure trend from 2017–18 to 2020–21, and the relative share of the overall allocation across ring-fenced budgets.

The Agency's 2020–21 indicative budget allocation is also shown below. Future years funding will be confirmed as part of the BEIS SR21 settlement planned to conclude in 2021.



PERFORMANCE ANALYSIS

HOW WE HAVE PERFORMED

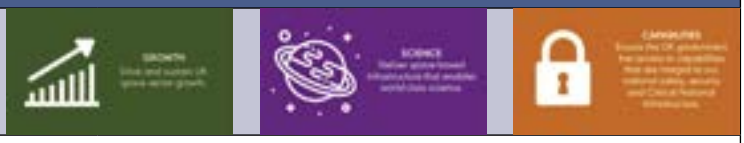
The Agency set challenging targets for its delivery in 2020–21, and performance against these targets was measured monthly through detailed performance reports. These were analysed by our Executive Board and scrutinised by our Steering Board, Audit Committee and BEIS Sponsor Team.

In our 2020–21 Corporate Plan, we detailed eight KPIs which were our priorities for the 2020–21 financial year. A summary of the in-year performance against each KPI is shown in the table below with a RAG rating given as at 31 March 2021. Note that some of the KPIs relate to longer-term activity that spans multiple years.

KPI – Covid-19

We will ensure the UK Space sector is as resilient as possible to the effects of the Covid-19 pandemic in order to protect Critical National Infrastructure, ensure capability and maintain and continue economic growth.

Contributes to Strategic Goals:



Success Measures

1. Sector satisfaction with UKSA response measured by sector survey response
2. Sector requirements are adequately reflected in Government policy design, taking into account in particular the designation of Space as Critical National Infrastructure

How We Performed

As a result of the Covid pandemic, the UK Space Agency rapidly established a cross-Agency Team to understand Covid impacts and ensure the resilience of the sector.

The team provided highly responsive support that flexed according to the phases of the pandemic to ensure that we gathered and shared sector intelligence and responded to requests for situation reports from central Government – including daily reporting over the Christmas period.

As part of this function, our resilience team worked closely across the sector to understand and report the impact on our Critical National Infrastructure of Covid-related staff absences in the sector, and worked closely across Government to ensure sector CNI needs were reflected in policy development and approach.

The Agency also worked with UKspace (the industry trade body), the Space Academic Network and across Government to regularly survey the sector and presented the resulting dashboards back to the sector and into Government. The Agency also established a team to respond directly to sector queries, and funded UKspace to develop a sector-focused Covid portal (https://www.ukspace.org/covid19/) to ensure that information to support the sector was available from a single location. Support was also provided through the Satellite Finance Network to enable advice to smaller businesses.

Compared to other sectors, the space sector coped relatively well with the pandemic, with a relatively low number of staff furloughed or made redundant. The Agency escalated to BEIS' early concerns around some aspects of the business support schemes, and these were subsequently modified in some cases.

We have conducted a lessons-identified exercise to see where the Agency responded well – and where our response could have been improved – and are seeking opportunities to embed best practice in to the Agency. For example, as the nation recovers from the pandemic, we anticipate continuing some light touch monitoring of the sector as a more regular supplement to our formal sector size and health survey to ensure that we can understand and respond to longer term impacts. And we will ensure that a team and activity can be rapidly re-established to support the sector should the situation significantly worsen.

KPI – Transformation

We will identify, design and implement Phase 1 elements of the UKSA transformation programme in 20–21.

Contributes to Strategic Goals:

Success Measures

1. Committed transformation projects identified from design phase are implemented on schedule by March 2021
2. People Survey scores showed further improvement and reflected on change management, highlighting staff awareness and engagement in Transformation

How We Performed

The Transformation Programme has delivered key components of the four identified projects; a Portfolio Office, Centres of Excellence, Front Door Engagements, and People & Culture. The new Portfolio Office launched its Initial Operating Capability on April 1st 2021, providing standardised views and reporting across all the Agency's activities. Six Centres of Excellence were launched by the end of March 21, or shortly thereafter, providing standardised approaches, policies and support for Agency staff on Finance, Commercial, Knowledge & Information Management, Evidence and Analysis, Stakeholder Engagement and Comms, Programme and Project Management. A Point of Contact tool has also been launched supporting the 'Front Door Engagement Project' as a precursor to a larger Engagement Project.

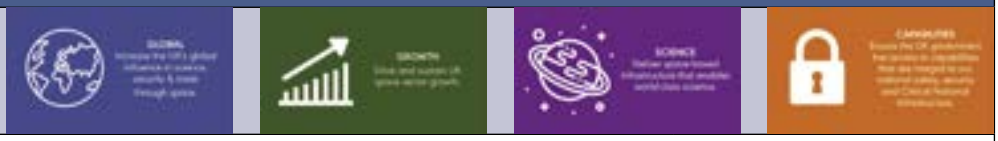
Our staff have been engaged with the Transformation Projects through virtual teams and an active staff forum. This has supported work on People and Culture aligning behaviours and values, recognising success and supporting staff development. In the 2021 People Survey, a 20% improvement in 'Managing Change' was evidenced.

KPI – National Space Innovation Programme (National)

We will set up and deliver pilots for new national and international programmes.

We will support the establishment of innovative technology, products and services in the UK's space sector.

Contributes to Strategic Goals:



Success Measures

1. Sector appetite programme is demonstrated – fundable projects that have passed peer review exceed the available budget by a factor of greater than 1.5
2. Programme delivery is successful – all selected project milestones are delivered by March 2021 and to budget

How We Performed

The pilot programme was developed and launched successfully. Following approval of the business case in Q1, the National Space Innovation Programme (NSIP) was launched in early Q2.

The NSIP-National call for project proposals opened in July 2020. Organisations were invited to submit ideas for developing their innovative products, services or technologies in either of two core thematic areas: '*Earth Observation to Tackle Climate Change*', and '*Ubiquitous Communications for Enterprise, Consumers and Government*'.

Following the external peer review of proposals, 22 projects received grant co-funding – 15 under the Earth Observation theme, and seven under the Ubiquitous Communications theme. All project teams had to work within compressed timescales, but each completed their projects within the 2020–21 FY.

We also established Monitoring & Evaluation frameworks for NSIP. In March 2021, we began collecting data to identify the benefits and impacts of the programme to use as supporting evidence to upscale NSIP in financial years.

The achievements of the pilot programme FY20–21 demonstrated the sector appetite for NSIP.

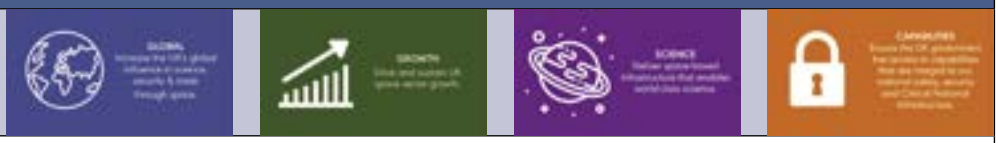
KPI - International Partnership Programme

We will deliver a space-enabled Overseas Development Aid-compliant programme that provides a measurable and sustainable economic or societal benefit to its beneficiaries.

Select, invest, monitor and oversee projects to create innovative and sustainable systems or services which will:

1. Deliver an economic or societal benefit to the lives of those living in developing countries, in alignment with UK aid strategy
2. Grow the UK space applications sector, in alignment with UKSA strategy

Contributes to Strategic Goals:



Success Measures

Call three projects discovery phase defined, commissioned and completed on time

Delivery of Call 1&2 projects has been partially met, with 10 projects left to complete in 2021–22 due to Covid delays

How We Performed

Twenty one of the Call one and two projects have now successfully completed to budget. We are taking forward a further suite of projects into 2021–22 which suffered programme delays due to covid restrictions.

Ten Call 3 projects have successfully completed their discovery phase to budget and on time. Due to the recent Spending Review rounds, we are unable to proceed to the delivery phase of these programmes at this time.

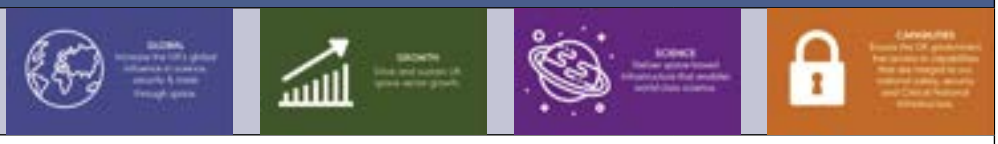
The programme is starting to show promising initial results in long term sustainability and impact, with several projects securing overseas contracts to provide real on-the-ground benefit in several countries.

The programme is now transitioning into an evaluation phase to properly assess project and programmatic impact on delivering to the UK aid strategy and in growing the UK applications sector.

KPI – Strategy – Produce a National Space Strategy

We will play a leading role in the production of a UK Space Strategy which co-ordinates Government action to achieve our shared ambition for space.

Contributes to Strategic Goals:



Success Measures

Supported establishment of the National Space Council and its strategic decision making

Developed policies and initiatives to deliver upon the strategic vision of the National Space Council and the needs of UK Government within the National Space Strategy

How We Performed

UKSA has played a key role in new national space governance, enabling the creation of the National Space Council in June 2020.

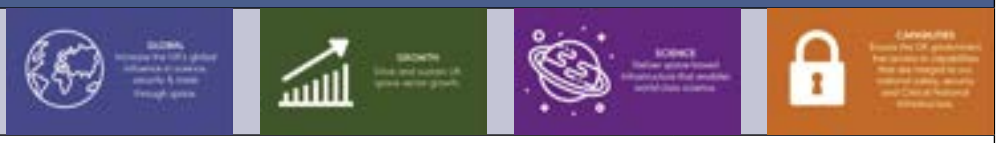
UKSA has supported the National Space Council to co-ordinate space policy, and helped to develop a national space strategy, which the Government aims to publish in summer 2021.

The strategy will build on the Government's Integrated Review of Security, Defence, Development and Foreign Policy, and on engagement with experts in the sector and across Government, to set a new vision for the UK in space.

KPI – Spaceflight Programme

We will create the foundation capabilities and regulatory regime needed to enable the UK to achieve the economic benefits of a UK spaceflight market by 2030, where activities are safe, secure and sustainable.

Contributes to Strategic Goals:



Success Measures

1. A public consultation is launched in 2020 for enabling secondary legislation and associated guidance for safe, secure and sustainable spaceflight activities (completed)
2. Bilateral agreements are put in place with neighbouring countries to facilitate launch from the UK

How We Performed

The UK Spaceflight Programme aims to establish commercial vertical and horizontal small satellite launch from UK spaceports from 2022.

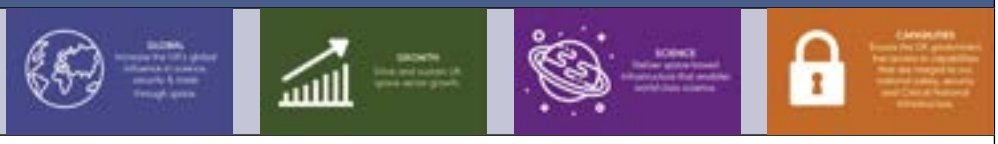
Over the past year we have made significant steps to drive forward our launch ambitions and further our position as Europe's most attractive destination for spaceflight activities. For example:

- We approved Lockheed Martin's plans to transfer its satellite launch operations from Space Hub Sutherland to Shetland Space Centre – enhancing the UK's existing vertical launch capability by providing a complementary offer across multiple spaceports
- In June 2020, we signed the US-UK Technology Safeguards Agreement, paving the way for US companies to operate from UK spaceports and export space launch technology
- We have continued to work with international partners to develop strong global relationships, including a Memorandum of Understanding with the Faroe Islands to secure their support for UK launch activities
- In January 2021 Virgin Orbit achieved a successful launch of LauncherOne, the same technology that will be used to launch from Spaceport Cornwall in 2022
- Furthermore, in March 2021 the Government published its response to the Public Consultation into the draft Space Industry Regulations and these will now be laid before Parliament. Our outcome-focussed regulatory framework is set to be the most modern space legislation in the world, with a focus on safety and the flexibility to support the pace of innovation.

KPI – ESA

We will achieve best value from our UK investment in ESA contributions.

Contributes to Strategic Goals:



Success Measures

Measures are being worked up against the UK Space Agency results framework and include rates of return, science citations and skills and jobs.

How We Performed

A comprehensive evaluation of the UK's investment with ESA has started and produced its first deliverable, the inception report, that sets out all the metrics that will be used to measure the outcome and impacts of ESA investment.

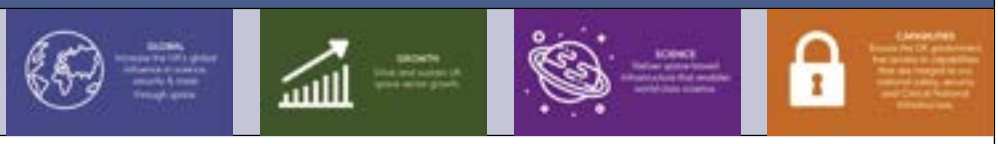
Ministers have given a clear steer that they value our investment with ESA and are looking at how ESA programmes deliver key priorities of the National Space Strategy. Scenarios for investment with ESA have been developed that look at what is achievable at different levels of affordability and these will feed into the 2022 Comprehensive Spending Review.

ESA has appointed a new Director General (from 1st of March 2021) and one of his key acts has been to try and finalise the Financial Framework Partnership Agreement between ESA and the EU.

KPI – PNT Capability

We will provide options for the UK to deliver a space-based Position Navigation and Timing (PNT) capability enabling an enhanced PNT resilience and wider national space capabilities.

Contributes to Strategic Goals:



Success Measures

Deliver an Outline Business Case by November 2021 that sets out Government's options to deliver a space-based PNT capability.

Define the customer requirements for a space-based PNT capability (March 2021).

Develop a broad range of technical solution concepts that could deliver a PNT capability (March 2021).

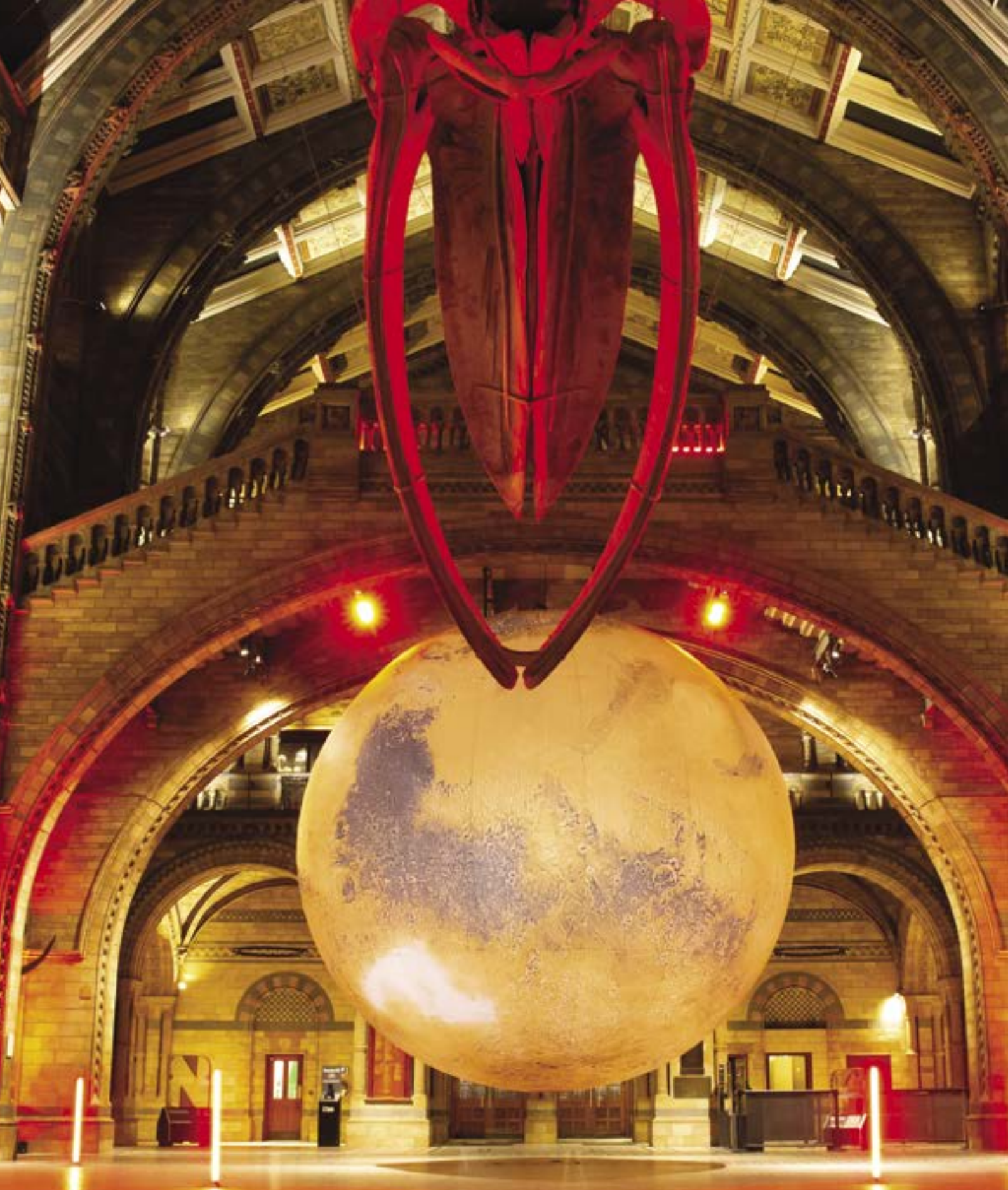
How We Performed

The programme successfully passed Control Points 1 and 2 in December 2020 and March 2021 respectively, meeting a set of agreed criteria to pass each of these points. It continues through its broad range of activities to down-select technical and commercial options and prepare its Outline Business Case (OBC); it is on track to deliver this by November 2021.

The Requirements Elicitation Project completed its activities in March 2021 and the resulting Key User Requirements, User Requirements and Use Cases have now been endorsed across government as part of the endorsed PNT Strategy.

A Request for Information to identify ideas for the broadest range of options for a space-based PNT capability elicited 20 solution ideas from industry, and a further 15 were provided from stakeholders. From these, SBPP has identified about 10 concepts for further assessment over the summer of 2021. The outcome of this project will be to provide 4-6 costed options in the OBC and a complete Cost Effectiveness Analysis recommending a preferred option.

Ingmar Kamalagharan, UKSA



The 7m diameter Mars artwork, created by artist Luke Jerram as part of the Destination Space programme, filmed at the Natural History Museum during lockdown in February 2021 to highlight the UK's involvement in the NASA Perseverance mission and as a resource for space education and career activities.

ACCOUNTABILITY REPORT

AUDIT COMMITTEE CHAIR REPORT

I was appointed Chair of the Audit Committee on 1st June 2021. However, I have discussed and agreed this statement with my predecessor Clive Tucker, who served as Chair of the Audit Committee throughout the reporting period. The Agency would like to thank Clive for his chairmanship of the Audit Committee during his tenure.

In this financial year we have continued our focus on the effectiveness of the Agency's systems and controls, and on supporting evidence behind the Agency's assurance statements of internal control.

We have again examined the work of our internal auditors on significant areas of our activities, including our transformation programme, certain of our project programmes, certain of our financial controls, our treatment of IR35 and business and financial planning. All of these are detailed elsewhere in this statement. However, we were pleased to note that the overall level of assurance received from our internal auditors was given as "moderate," marking a distinct improvement in the course of the year, and including individual opinions with a "substantial" assurance rating. Where, in respect of our transformation programme, the assurance finding was "limited" (and in other areas where deficiencies were identified), we have discussed with the management team how they intend to implement recommendations to improve matters. We were pleased with the continued success in implementing actions from previous years with closure either accomplished during this year, or planned for the financial year 2021–22.

During the course of the year, we noted and encouraged the work undertaken by the management team in developing a revised and improved approach to corporate planning and risk management, including working on a revised risk appetite statement, which we will wish to see completed in the financial year 2021–22. Similarly, work has continued on the mapping of assurance actions, which we believe will, when complete, enable more complete oversight of such actions and their consequences, as well as a revised approach to supporting the Director's annual assurance statements of internal control, which will involve implementation of a new process, to ensure less subjectivity and so give the committee greater confidence that we are focusing attention on areas of potential weakness.

We have been pleased to note that the Agency and its staff have responded well to the severe business disruption caused by Covid-19, seeing an effective and rapid implementation of the Agency's business continuity plans in this connection, and notwithstanding this we have encouraged management to review business continuity plans as part of the future internal audit programme.

Shrinivas Honap
Chair of the Audit Committee
1 July 2021

DIRECTORS' REPORT

We have an effective corporate governance framework in place to ensure that we continue to deliver against our purpose and vision.

In last year's Accounting Officer's conclusion, I highlighted internal control improvements planned for 2020–21. I am pleased to report that the Agency has made satisfactory progress in meeting these goals.

Stronger oversight by the Executive Board of the Agency's 2020–21 internal audit programme, identification of emergent cross-cutting audit themes, timely implementation of agreed audit recommendations.

We have introduced a quarterly update to the Executive Board with GIAA in attendance. At this meeting, we provide EB with a joint GIAA/ UKSA update, including the status of actions from completed audits, and the status of the audit plan. EB considers final report findings and recommendations, and is advised of progress in planning upcoming audits. We have analysed and identified cross-cutting trends that were raised in previous audits. We are using these findings to feed into upcoming audits with lead sponsors and those engaged in fieldwork.

The Executive have clear visibility of action progress with owners accountable for timely closure. There is regular liaison with GIAA to monitor and agree the evidence to support closure decisions.

Consideration of most appropriate means of securing audit support, including for specialist requirements.

GIAA has developed a 3-year audit plan to assist with audit planning and with identifying areas that have not been audited for some time. There has been engagement with Operations EB and Audit Committee on this plan. In addition to the formal audit plan, for specialist requirements GIAA can also be engaged in an advisory capacity for reviews (without an audit opinion), and if appropriate additional assistance can be sought from external, suitably qualified and experienced organisations.

We have also made use of a wider range of independent assurance mechanisms to monitor the health of key programmes.

Developing greater cohesion to our RIDDOR reporting processes across all three Agency locations.

We have further developed the skills of the wider UKSA Security Team with additional training in H&S (IOSH Supervising Safely Course) to support the ongoing development of H&S across the Agency. To improve RIDDOR reporting, we have agreed with BEIS that the Agency will have access to their new accident & injury reporting application - called Velocity. This is being tested for both usability and operability with UKSA IT, and will be implemented in Q2 2021–22. The Velocity system will provide a common reporting process across all UKSA sites and access to meaningful management information on H&S. We can also share findings with BEIS H&S.

Review the Agency's approach to risk management, focusing on strategy, the Agency's risk appetite, and the training undertaken by risk owners.

We have reviewed and refreshed our risk management policy, framework and appetite statement which were approved by the Executive Board on 4th June 2021. The risk policy clearly articulates why risk management is important to the Agency. The risk framework provides guidance on how we identify, assess, manage and report on risks. The risk appetite statement (RAS) identifies the risk parameters the Agency is willing to operate within against the 14 risk categories in the HMT Orange Book.

Risk training was delivered to board members and risk owners and a new Risk Working Group was established to identify and spread best practice within the Agency.

An advisory review of risk maturity was carried out by GIAA (see page 72 for further information).

A review of the processes used to produce the Agency's financial forecasts to ensure they remain as accurate as reasonably possible.

A revised forecasting timetable is in place and a new management information pack was introduced in 2020–21 to highlight areas of financial risk and opportunity. In addition, the COFO holds quarterly reviews with Directors to discuss financial performance, the CEO is briefed monthly on the Agency's forecast position, and a discussion is held monthly at EB of the Agency's forecasting performance.

A review of our processes for declaring and recording Declarations of Interest of Senior Staff and Non-Executive Members.

We have reviewed and assured the process, and all NEMs and Agency staff are required to declare interests appropriately.

Review the Agency's IR35 processes to assure continued compliance with HMRC policies.

In 2020-21, the Agency set up a virtual contingent labour team to lead on implementation of a revised IR35 policy and to embed streamlined internal processes, share best practice and upskill key staff within the Agency. As a result, the Agency was fully prepared for the IR35 changes coming into effect from 6 April 2021.

GIAA conducted a mid-year audit of IR35 processes, and whilst the overall audit rating was assessed as Moderate, GIAA rated the Agency's IR35 policy as an exemplar of best practice (see page 70 for further information).

Graham Turnock
Chief Executive and Accounting Officer
1 July 2021

CORPORATE GOVERNANCE

Our Leadership

The Agency Steering Board has continued to provide strategic leadership for the Agency in delivering its objectives through scrutiny, advice and challenge. The Board's non-executive members bring a wide range of experience, covering industry, academia, legal, and finance. Our Chair, Dr Sally Howes, OBE was appointed in April 2019.

Non-Executive Members

Dr Sally Howes, OBE
Chair of the Steering Board

Appointed in May 2019.

Sally started her career in the space industry and later served as Director General of the national trade association for aerospace. She moved into a commercial position with MOD and then joined the leadership team of the National Audit Office. She holds a range of consulting and non-executive position specialising in digital transformation and cyber security, chairs the Surrey Research Park for the University of Surrey and is a Professor of Practice and Director of INDEX, the University of Exeter's research centre for the digital economy. In 2019 she was awarded an honorary fellowship of the Association for Project Management.

Clive Tucker
Member of the Steering Board and Chair of the Audit Committee

Appointed in December 2014.

Clive is a solicitor and until 2010 was a corporate partner of international law firm Ashurst LLP where among other transactions he advised on satellite procurement, acquisitions, financing and regulatory matters.

Dr Dame Frances Saunders, DBE, CB
Member of the Steering Board and Audit Committee and Agency's independent nominated whistleblowing officer

Appointed in December 2014.

Following a variety of research and science and technology management roles within government, Frances' Civil Service career culminated with her appointment as Chief Executive of the Defence Science and Technology Laboratory (DSTL) from 2006-2012. She holds a range of non-executive roles in science and engineering organisations including UKRI/STFC and the Royal Academy of Engineering, where she is a Fellow. She has a particular interest stimulating innovation and research impact and is on the Physics Panel for REF 2021.

Keira Shepperson
Member of the Audit Committee

Appointed in May 2018.

Keira is currently Director, Future Fund at the British Business Bank, which was one of the Government's Covid-19 support schemes. The Bank is a government-owned business development bank dedicated to making finance markets work better for smaller businesses. She previously held several finance roles at the Foreign and Commonwealth Office, the Department for International Development and Audit Scotland.

Our Leadership

In May 2021, Dr Dame Frances Saunders, DBE, CB and Clive Tucker came to the end of their appointments as Non-Executive members. A new Audit Committee Chair, Shrinivas Honap, and new Steering Board members Peter Watkins CB, CBE, Dr Fiona Rayment and Dr Kevin Shaw have been appointed from 1st June 2021.

Non-Executive Members

Allison Brown
Trainee Board Member

Trainee Board Member of the Steering Board and Audit Committee, joined January 2020 through the BEIS Open Boards Mentoring scheme. She is currently Director of Finance and Business Systems at UK Atomic Energy Authority, which researches fusion energy and related technologies, with the aim of positioning the UK as a leader in sustainable nuclear energy. A qualified finance professional with broad senior experience in scientific research, manufacturing and telecommunication sectors.

Leaver 2020–21

Prof Malcolm Macdonald
Non-Executive Member of the Steering Board

Left December 2020.

A professional space technology engineer, academic and director, Malcolm is Professor and Chair of Space Technology at the University of Strathclyde, and Director of the Scottish Centre of Excellence in Satellite Applications (SoXSA). He is an acknowledged expert in space research who has worked in industry, academia, and government, is a Fellow of the Royal Aeronautical Society, and an Associate Fellow of the American Institute of Aeronautics and Astronautics.

Executive Board Members

Our Executive team provides day-to-day leadership and management. It ensures that we operate efficiently and effectively, regularly reviewing performance and managing risks, and monitoring business delivery and financial performance.

Dr Graham Turnock
Chief Executive

Graham has been Chief Executive of The UK Space agency since 2017. He holds a PhD in Physics from Cambridge University and a diploma in public administration from the École Nationale d'Administration (ENA). While at the Agency he has focused on delivery of the UK Launch programme, EU exit negotiations and establishment of the National Space Council. Outside of work he is a trustee of the Youth Hostels Association and a keen cyclist.

Ian Annett
Deputy Chief Executive

Ian joined the UK Space Agency in January 2020 as Deputy CEO for Programme Delivery, responsible for overseeing major national space programmes including Spaceflight, Regulatory Control and UK GNSS. Prior to this he was Assistant Chief of Staff for Information Warfare and Chief Information Officer for the Royal Navy, where he was responsible for development, delivery and deployment of Royal Navy information, intelligence and communication capabilities, including satellite communications, networks, electronic warfare and cyber.

Peter Finn
Chief Operating and Finance Officer and Security, Information and Risk Officer (SIRO)

Peter joined the Agency in February 2014. Peter is responsible for the UK Space Agency's operational performance, financial management and risk and assurance.

Catherine Mealing-Jones
Director of Growth

Catherine joined the Agency in January 2012. Catherine is responsible for the UK Space Agency's work to deliver the innovation and business environment which will grow and sustain the national capabilities required to meet the UK's space ambitions. She represents the UK Space Agency on the Space Growth Partnership Board.

Executive Team

Matthew Archer
Director of Commercial Spaceflight and the Government's Spaceflight Programme

Matthew formally took up the post of Director in October 2020 and has a strong understanding of the UK space sector and government ambitions, having previously led the UK Space Agency's EU exit negotiations and advised on UK Government's acquisition of OneWeb. Commercial Spaceflight and the Government's Spaceflight Programme aim to enable the UK to achieve a commercial small satellite launch from 2022. Prior to joining the Agency in 2018, Matt developed HM Revenue and Customs' strategy for business customers and successfully delivered a number of digital transformation projects.

Claire Barcham
Director of Strategy

Claire qualified as a solicitor before joining UK government in 2009, and has held posts in the Department for Health, Home Office and HM Revenue & Customs. Claire joined the UK Space Agency in 2016 and the programme of work to enable space launch from the UK. In January 2020 Claire was appointed as Director of Space Strategy.

Sarah Boyall
Director of Regulation

Sarah took up the role in October 2020 and is responsible for developing the regime to enable launch from the UK under the Space Industry Act 2018, and the ongoing licensing of orbital operations under the Outer Space Act 1986. A former journalist, since joining the UK Space Agency in 2017 Sarah has also led work to create secondary legislation under the Space Industry Act 2018 and worked on international space programmes as part of the International directorate.

Dr Alice Bunn
Director of International

Alice is the International Director at the Agency, responsible for increasing the UK's global influence in science, security and trade through space. She leads teams responsible for ensuring international competitiveness through developing world class skills in the UK space sector; international engagement through multilateral and bilateral frameworks for science, security and trade; and delivering the security and resilience of the UK's infrastructure and space applications.

Alice is head of the UK delegation to the European Space Agency; sits on the Board of Directors at the US Space Foundation; is co-chair of the World Economic Forum Future Council on space technology; and is a fellow and Council member of the Royal Aeronautical Society.

Alice has a PhD in Metallurgy from Darwin College, University of Cambridge.

Executive Team

Prof Chris Castelli
Director of Programmes

Joined the Agency in November 2011 and was appointed as Director of Programmes from November 2014. Chris leads the Agency's involvement with ESA on space science, technology and exploratory missions and manages the Agency's national programmes. He was appointed Visiting Professor to the Open University in Jan 2019.

Rachel Gardner-Poole
Director of ODD

Rachel was seconded to the UK Space Agency from the Civil Aviation Authority in October 2020 where she was Head of General Aviation, responsible for the safe and effective regulation of recreational aviation in the UK. Prior to this she was the Portfolio Director, and established a new department to deliver change and IT projects, and has also led a number of transformation programmes throughout her career. Her experience has primarily been in military and commercial aviation, both in the public and private sector. Rachel is a Chartered Mathematician and has been involved in the charity sector for over 20 years and co-founded Projects Delivering Hope to help the South Sudanese.

Tim Guy
Director of SBPP

Tim joined UKSA from Transformation Programme Director at the Planning Inspectorate, where he was responsible for wholesale change across people, process and technology and implemented a range of digital public services using Agile. He has held Director roles with the GB Smart Metering Programme in DECC, and the Border Systems Programme in the Home Office. He has delivered a range of large-scale transformational change, technology and agile delivery programmes during his 10 years in the Civil Service.

Executive Board Member Leavers 2020–21

Natalie Golding
Director of Organisational Development

Left in September 2020, succeeded by Rachel Gardner-Poole.

Colin Macleod
Director of Regulation

In September 2020 the regulatory responsibility for space moved from the Agency to the Civil Aviation Authority. Colin was appointed by the CAA to continue the work there. He was succeeded by Sarah Boyall who is director for the responsibilities that remained within the Agency.

Emma Floyd
Director of Commercial Spaceflight

Left in June 2020, succeeded by Matthew Archer.

STATEMENT OF ACCOUNTING OFFICER'S RESPONSIBILITIES

Under the Government Resources and Accounts Act 2000, the Secretary of State with the consent of HM Treasury has directed the Agency to prepare for each financial year a statement of accounts in the form and on the basis set out in the Accounts Direction. The accounts are prepared on an accruals basis and must give a true and fair view of the UK Space Agency and of its income and expenditure, Statement of Financial Position and cash flows for the financial year.

In preparing the accounts, the Accounting Officer is required to comply with the requirements of the Government Financial Reporting Manual and, in particular, to:

- Observe the Accounts Direction issued by the HM Treasury, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis
- Make judgements and estimates on a reasonable basis
- State whether applicable accounting standards as set out in the Government Financial Reporting Manual have been followed, and disclose and explain any material departures in the financial statements
- Prepare the financial statements on a going-concern basis
- Confirm that the Annual Report and Accounts as a whole are fair, balanced and understandable and take personal responsibility for the Annual Report and Accounts and the judgements.

The Department for Business, Energy and Industrial Strategy (BEIS) has appointed the Chief Executive as Accounting Officer of the Agency. The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which the Accounting Officer is answerable, for keeping proper records and safeguarding the Agency's assets, are set out in Managing Public Money published by the HM Treasury.

As the Accounting Officer, I have taken all the steps that I ought to have taken to make myself aware of any relevant audit information and to establish that the Agency's auditors are aware of that information. So far as I am aware, there is no relevant audit information of which the auditors are unaware.

Graham Turnock
Chief Executive and Accounting Officer
1 July 2021

GOVERNANCE STATEMENT

As Chief Executive and Accounting Officer, I am required to produce an annual governance statement. I have signed this statement after satisfying myself that there are no material ongoing governance issues affecting the Agency that I should declare within this statement.

Corporate Governance

This governance statement sets out the governance, risk management and internal control arrangements for the Agency. It applies to the financial year 1 April 2020 to 31 March 2021 and up to the date of approval of the Annual Report and Accounts. I am supported in my role as Accounting Officer by a governance framework which includes the Agency's Boards, Committees and Senior Management. In forming my assessment, I have examined:

- Board and committee effectiveness in managing all material risks
- The policies in place impacting on risks
- The work of internal audit and programme assurance, the IPA gateway review of SBPP, and opinions expressed by external audit in the form of their management letter
- The assessments of my individual directors in the Director's Annual Assurance Statements of Internal Control (DAASIC) providing an overall rating of a Moderate level of assurance
- The way in which the Agency has responded to external events.

Legal Status

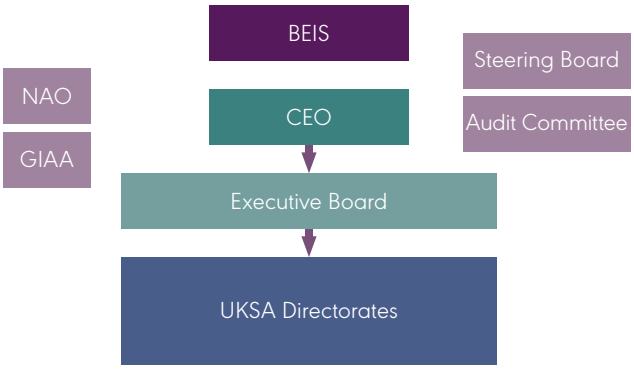
The Agency is an Executive Agency of the Department for Business, Energy and Industrial Strategy (BEIS) and does not have a separate legal status outside of BEIS. Therefore, in order to enter into contracts, delegated powers are conferred on the Agency by the Permanent Secretary. In the event of a contract being entered into, the Agency is a 'Contracting Authority' on behalf of the Secretary of State for BEIS, which is the 'Authority.'

Governance Structure

The Agency is accountable to Parliament for the funds it expends through our parent department, Business, Energy & Industrial Strategy ("BEIS"). Parliament monitors and influences the Agency through its Select Committees and the Parliamentary Ombudsman.

The Agency's working relationship and lines of accountability with BEIS are defined in its Framework Agreement, the annual Corporate Plan, Allocation Letter(s) and Letter(s) of Delegated Authority made to the Chief Executive as Accounting Officer. These documents are subject to periodic review. The Agency is also held to account through regular performance reviews with our BEIS sponsor team. These reviews help ensure active engagement and a transparent relationship with our parent department.

Between August and October 2020, the Government conducted a review led by BEIS to consider the current distribution of space functions across Government and consider options for change.



Steering Board

The role of the Agency's Steering Board is to advise the Secretary of State and Ministers on the strategic direction of the Agency, through the Director General of Industrial Strategy, Science & Innovation at BEIS.

The Steering Board is advisory to the Chief Executive and the Executive Directors on the operation and development of the Agency. The Steering Board fulfils this aspect using the benefit of their collective experience through advice and constructive challenge.

During 2020–21 the Steering Board met five times. All Steering Board meetings remained quorate throughout the year i.e. three or more of the members were in attendance including the Chairperson, or his or her representative, a Non-Executive Member, a representative from BEIS and the Chief Executive or, in their absence, an authorised deputy. The Chair, Dr. Sally Howes attended all meetings. A review of Steering Board performance was held in September 2020.

Audit Committee

The Steering Board has established an Audit Committee which provides assurance to the Chief Executive to assist in fulfilling their Accounting Officer responsibilities. The Audit Committee monitors performance against targets, and risks, within the strategic objectives set out in the Agency's Corporate Plan. The Chair of the Audit Committee reports to the Steering Board

The Audit Committee consists of three non-executive members (NEMs) one BEIS appointee, the Chief Executive and the Agency's SIRO. Meetings are attended by the Agency's Executive Board members as required, the representatives from the Government Internal Audit Agency (GIAA), and the NAO. Meetings are open to other Steering Board members to attend. During 2020–21 the Chair of the Steering Board, Dr Sally Howes, attended all Audit Committee meetings as an invited attendee.

The Audit Committee generally meets on a quarterly basis but can meet more frequently to deal with exceptional matters. Five meetings were held during 2020–21, one of which was an ad-hoc meeting. All Audit Committee meetings were quorate.

Board and Committee attendance 1 April 2020 to 31 March 2021

Board Member	Steering Board	Audit Committee
Sally Howes (SB Chair)	5 (5)	See note
Clive Tucker (AC Chair)	5 (5)	5 (5)
Graham Turnock (CEO)	5 (5)	5 (5)
Peter Finn (SIRO)	5 (5)	5 (5)
Frances Saunders (NEM)	5 (5)	5 (5)
Malcolm Macdonald (NEM)	4 (4)	n/a
Keira Shepperson (NEM)	n/a	5 (5)
Allison Brown	5 (5)	5 (5)
BEIS Sponsor Team Representatives	5 (5)	4 (5)

Figures in brackets denote the total number of meetings that could have been attended by the individual as a Member based on when they commenced their role. Sally Howes (SB Chair) attended 5/5 Audit Committee meetings as an invited attendee.

The members of the Steering Board and Audit Committee, their Terms of Reference and the summarised minutes of meeting discussions are available on the Agency's website:

www.gov.uk/government/organisations/uk-space-agency/about/our-governance

Executive Board

The Executive Board, chaired by the Chief Executive, manages the day-to-day operations and activity of the Agency, including the provision of policy advice to ministers. The Executive Board convenes twice monthly to make decisions and oversee high-level business planning, financial, risk and management issues. In 2020, the Executive Board segregated topics into Strategic or Operations, with one meeting each month focusing on each area. As part of the 2020 revision, composition of the Board was revised.[4] The Executive Board receives advice and guidance from the Steering Board and Audit Committee. The Executive Board is responsible for overseeing standards, values and controls within the Agency.

Board Member	Strategic Board	Operations Board
Graham Turnock (CEO)	11 (12)	11 (12)
Ian Annett (Deputy CEO)	12 (12)	10 (12)
Catherine Mealing-Jones	12 (12)	11 (12)
Peter Finn	11 (12)	11 (12)

4 EB Members noted in table, all other Directors have a standing invitation as attendees.

CONTROL ACTIVITIES

Our control activities aim to ensure that the policies and procedures governing the organisation and our governance arrangements are efficient and effective.

Annual Review of Effectiveness of Internal Controls

As Accounting Officer, I have responsibility for maintaining a sound system of internal control that supports the achievement of the Agency's policies, aims and objectives, whilst safeguarding the public funds and departmental assets for which I am personally accountable. This is done in accordance with the responsibilities assigned to me in HM Treasury's 'Managing Public Money', and the requirements set out in my appointment as the Agency Accounting Officer, including the delegation of financial authority from BEIS. My review is informed by a range of key processes and documents including: Director's Annual Assurance Statements of Internal Control; the annual internal audit programme; the Agency's assurance framework and internal procedures; the Agency's risk appetite; and the external audit Management Letter.

Bought-in Services

The Agency recognises that some reliance is placed on third party service providers, either when such services are provided by other public-sector organisations as part of pan-government initiatives, or from private sector organisations where the relevant technical expertise is not available within the Agency or wider Government.

Third party service providers are detailed in Appendix 1.

Grant Administration

Non-academic grant payments made under the National Programme are managed by the Agency through UK SBS. Academic grants are administered by UKRI on the Agency's behalf as part of the UKRI grants system. The governance of Agency managed grants is carefully structured by the Agency to include:

- Fair and open themed calls for applicants to bid into for funding in accordance with the UKSA Corporate Grant Policy and the Government Standards for General Grants
- Advisory panels to provide financial, technical and impartial scrutiny and advice on which applications to fund, in accordance with the published evaluation criteria
- Due diligence undertaken on proposed grant funded projects including value for money assessment, financial standing, and technical and commercial viability in accordance with the UKSA Corporate Grant Policy and Subsidy rules
- Programme staff monitor grant recipient performance in delivering project milestones, qualitatively assess output deliverables and scrutinise claims for grant funding to ensure that grant funded projects remain on track, change is controlled, and sound financial controls are in place
- An independent annual audit of accounts to provide assurance that funds have been expended in accordance with the terms of the Grant Funding Agreement.

The Agency continues to work in alignment with the Government Functional Standard for Grants administration (GovS 015: Grants).

Payment Policy

It is government policy to pay 90% of undisputed and valid invoices from SMEs within five days and for 100% of all undisputed and valid invoices to be paid within 30 days.

During 2020–21, UKSBS processed 1,799 invoices (7,071 in 2019–20) on behalf of the Agency with 84.66% of payments made within five working days of UKSBS receiving the invoice (93.41% in 2019–20) and 98.33% within 30 days (98.81% in 2019–20). In line with guidance published by the Cabinet Office in April 2019, from 2019-20 the prompt payment calculation includes supplier invoices and individual Government Procurement Card (GPC) transactions.

The 5-day percentage figures in 2020–21 are just under the target. This is primarily due to changes in the mix of transactions caused by the Covid-19 pandemic.

A similar effect has been seen across most other government departments and we would expect this figure to increase again in 2021–22. Performance against the 30-day target has been maintained at a high level.

International Subscriptions

The UK was one of the founding members when the European Space Agency (ESA) was established on 30 May 1975 and was a member of predecessor organisations (ELDO and ESRO) from 1964. ESA is a non-governmental organisation which has European Union (EU) and non-EU members.

The Agency budget for ESA programmes is approximately £374m a year and this is made up of a mandatory element (for the science programme and the basic activities programme) and a series of programmes where the UK chooses its participation levels. These programmes include research into telecommunications, Earth Observation programmes, robotic and human space exploration, space safety and security (including space weather), technology, navigation innovation and commercial spaceflight services. For all ESA programmes, UK industry and academia benefit from contracts awarded in proportion to the overall subscription (in a process called geo-return).

The Agency's subscriptions to ESA are determined at Councils at Ministerial level which are held periodically. The last Ministerial Council took place in November 2019, setting ESA subscription levels for a period of five years.

The Agency actively oversees spending of these subscriptions through its membership of all ESA governance committees and project oversight boards. In addition, ESA's financial accounts are subject to independent audit.

Openness and Transparency

The Agency is subject to the Freedom of Information Act 2000 and the Environmental Information Regulations 2004. In 2020–21, we responded to 52 requests, 51 of which were answered within the statutory time limits. An internal review investigated the reasons why one request was not responded to within the statutory time limit, and remedial action has been taken to avoid recurrence.

Business Continuity and Disaster Recovery

The UK Space Agency has a bespoke Business Continuity Plan. This was successfully activated in the business response to Covid-19.

The Covid-19 pandemic was a significant business continuity event. Throughout 2020–21, staff were communicated with proactively in the light of developing Government advice, and they have successfully and effectively worked from home for the duration of the pandemic, having been supplied with the necessary equipment to facilitate remote access.

Gold, Silver and Bronze commands have operated throughout the period, and a robust communications plan was rolled out through regular bulletins, with the latest news, what it meant for staff, and a particular focus on wellbeing.

Lessons learned during the Covid period have been collated and will form part of a planned review of the Business Continuity Plan along with well-developed plans for an eventual return to the office, and for how future Agency working practices may have changed in light of these new ways of working.

General Data Protection Regulation (GDPR)

With the UK leaving the EU, the UK General Data Protection Regulations (UK GDPR) now becomes the UK's data privacy law that governs the processing of personal data by the Agency. In 2020–21 Agency staff reported one data breach to the BEIS Data Protection Officer. This case involved human error where internal recruitment personal data was emailed to the wrong recipient, and was promptly rectified. Mandatory UK GDPR staff training continues to be applied for all staff.

Health and Safety

During 2020–21, there were no reportable injuries within the Agency under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013.

UKSA is introducing a common accident reporting application (Velocity) across all Agency offices which will allow better scrutiny and analysis of incidents, leading to improved staff safety instruction and information.

Given the exceptional circumstances placed on staff during this period, the Agency was able to support staff by ensuring they were provided with the right equipment to allow them to continue to work safely from home. This included suitable monitors, keyboards and chairs.

The Mental Health and Wellbeing of our people are key priorities for the Agency, and the challenging landscape of 2020–21, as a result of the pandemic, has resulted in the implementation of creative solutions to help meet the needs of our people. Leading this effort is the Diversity, Inclusion (D&I) and Wellbeing team which was established in 2020 and has been delivering a number of initiatives to help raise awareness and address issues around Wellbeing. Some of the initiatives delivered are activities to mark important events on the D&I calendar, guidance notes on key topics, refurbishment of the Mental Health and Wellbeing Hub and Wellbeing surveys.

Information Security

The Agency's core IT provision is managed and delivered by BEIS through the Cirrus programme, which ensures security controls are in place. Our overarching security policy and procedural framework governing this IT provision is set by BEIS. In 2020–21, Agency staff reported one mobile phone lost. Security advice for staff during this period was focused on keeping them safe while working online and raising awareness in identifying phishing emails and SMS scams. A phishing exercise was conducted to establish staff baseline knowledge of the increased risk of phishing from remote working. Following this exercise, targeted awareness training was delivered across the Agency. New staff security inductions and presentations at team meetings remain a key part of establishing a security culture in the Agency.

Anti-bribery and Anti-corruption

No cases of bribery or corruption were identified within the Agency in 2020–21.

We have continued working with BEIS to maintain standards and implement best practice. The Agency fully adopted the BEIS policy on gifts, hospitality, bribery and corruption which was refreshed last year. The Agency maintains a Gifts and Hospitality register to record on a quarterly basis gifts and hospitality over a value of £15 and any reciprocal gifts received. The Agency's register is submitted to BEIS for independent scrutiny by the BEIS Counter Fraud team.

The Civil Service Code (https://www.gov.uk/government/publications/civil-service-code) states that civil servants must not accept gifts or hospitality or receive other benefits from anyone which might reasonably be seen to compromise their personal judgement or integrity. All Agency employees are fully aware that they must not accept offers of gifts or hospitality without considering whether it would be both legal and proper to do so, and without seeking appropriate clearance if required to do so.

During 2020-21, the Agency has continued to require all staff to declare whether any reportable gifts or hospitality has been received, including submissions of nil returns. This allows monitoring of submitted declarations by all staff. Non-compliance is reported to the relevant EB member.

Counter-Fraud

No instances of fraud were identified within the Agency in 2020–21.

The Agency's control environment is managed across three lines of defence. The UKSBS finance team, UKSBS and BEIS together provide independent oversight in the prevention and detection of fraud. Any transactions that are deemed to be unusual are reported to the Agency's finance team.

Counter-fraud continues to be promoted by the finance team through workshops, internal communications, and the availability of training. This includes annual mandatory training provided by the Civil Service Learning platform for all staff and additional training tailored for line managers. Bespoke training was also provided to front line staff in high-risk areas, staff with financial delegation and staff in back office functions, such as finance, commercial and business managers.

Communications activity is ongoing. The Agency participated in the National Fraud Awareness week, supported by internal communications. The Agency participated in the BEIS Counter Fraud network meetings to share best practice across the BEIS family of partner organisations.

The Agency continued to align with the Cabinet Office Government Functional Standard for Counter Fraud (GovS 013). The Agency conducted a series of counter-fraud risk assessments in high-risk areas and refreshed its counter-fraud risk register accordingly. A revised Counter Fraud Strategy was endorsed by the EB and Audit Committee including an action plan of improvement objectives for 2021–22.

Conflicts of Interest

All staff must comply with the Civil Service Code and BEIS standards of conduct. Any outside employment, business interests and financial interests or political activities must be declared and approved by a Director. The Agency's executive and non-executive directors are required to provide declarations of private, professional and commercial interests, which are maintained on a register of interests. At each Board meeting the directors are reminded to declare any potential conflict of interest in the business of the meeting.

We have continued to engage with the BEIS sponsor team to develop and implement a process which is in accord with BEIS requirements.

Whistleblowing and Raising Concern Policy

The Agency follows the BEIS Whistleblowing and Raising Concern Policy, which has been aligned with the latest version of the Civil Service Employee Policy (CSEP) and includes information about the Whistleblowing Hotline. There was one instance of whistleblowing under this policy in 2020-21. This was investigated and closed, with no further action identified.

Tax Arrangements for Public Sector Appointees

In line with the Alexander Review (2012) recommendations, all Senior Civil Servants and Non-Executive Members are paid through formal payroll resulting in appropriate tax and National Insurance contributions being deducted at source.

The Agency is required to determine the Employment Status for tax purposes of all off-payroll workers, typically contractors, to ensure full compliance with the IR35 legislation. If an off-payroll engagement is deemed in scope of IR35, the Agency ensures that tax and national insurance contributions are deducted at source.

In 2020-21, the Agency set up a virtual contingent labour team to lead on implementation of the revised IR35 policy and to embed streamlined internal processes, share best practice and upskill key staff within the Agency. As a result, the Agency considers it is fully prepared for the IR35 changes coming into effect from 6 April 2021.

Implementation of the Macpherson Review of Quality Assurance (QA) of Government Analytical Models

UKSA analysis and research quality assurance follows The Aqua Book (guidance on producing quality analysis for government) which is the implementation of the Macpherson Review recommendations.

ASSURANCE

Director's Annual Assurance Statements of Internal Control (DAASIC)

DAASICs allows the Agency to review the evidence of the effectiveness of its internal control framework in each of its directorates. In 2020–21 the assurance process was extensively reworked to help identify and focus on key control issues and a new control area, Programmes and Projects, introduced to reflect an increasing emphasis on Agency means of delivery. The Agency also introduced new subject matter expert review of director self-assessments to better evidence and support the assurance statements.

Directors were asked to ensure that within their areas of responsibility there are measures that:

- Underpin the reliability of financial and other information
- Achieve compliance with internal policies and external legislation and regulations
- Ensure the development, implementation and monitoring of controls which manage the risks for which they are the lead director.

Directors provided an Agency-defined assurance level of substantial, moderate, limited, or unsatisfactory over the adequacy and appropriateness of key internal controls within their area of responsibility. This covered 46 key controls, categorised into 11 control areas. A summary of the UKSA aggregated ratings, after moderation undertaken by subject matter experts, is set out below:

Control Area	Overall Assurance Rating
1.Financial Control	Moderate
2. Knowledge and Information Management	Moderate
3. Human Resources	Moderate
4. Health and Safety	Moderate
5. Engaging with Users/Promotion of Science	Substantial
6. Planning and Performance	Moderate
7. Awarding and Managing Grant Funding	Moderate
8. Business Agreements	Moderate
9. External Regulation and Statute	Moderate
10. Delivery	Substantial
11. Programmes and Projects	Moderate

Notes:

Substantial Assurance is a sound system of internal control likely to achieve the system objectives and which is operating effectively in practice.

Moderate Assurance is a basically sound system of internal control, but where there are a few weaknesses that may put achievement of some system objectives at risk but not considered to be sufficient to significantly undermine the general control environment.

Limited Assurance is a system of internal control that is satisfactory in part, but which contains a number of weaknesses that are likely to undermine the achievement of system objectives and leave it vulnerable to material error/abuse or threatening risk.

Unsatisfactory Assurance is a system of internal control containing fundamental weaknesses creating serious doubts over the achievement of system objectives and leaving it vulnerable to significant error/abuse.

Overall, the assurance evidence suggests an overall Agency control framework rating of Moderate. No critical areas of weakness were identified.

The Agency has identified a number of areas where controls can be improved from this DAASICs report, and plans to implement those improvements prior to the next 2021–22 DAASICs review.

Internal Audit and Assurance

Internal audit was provided independently by the Government Internal Audit Agency (GIAA). GIAA reports annually to the Accounting Officer. The cost of internal audits undertaken during 2020–21 was £99,521.25 (2019–20: £71,560). No remuneration was paid to the internal auditors in respect of non-audit work during 2020–21.

The internal audit assurance programme is managed by GIAA and developed annually in consultation with the Agency and its Audit Committee. The recommendations arising from these audits, and their subsequent management plans, are scrutinised by the Executive Board, Audit Committee, and as appropriate by the Steering Board. A summary of the audit outcomes is provided below.

In agreeing the 2020–21 audit programme with GIAA, the Agency initiated a number of audits on areas where it believed the effectiveness of controls could be improved. Seven audits were subsequently undertaken by GIAA, and their reports identified a number of areas where management controls could be further strengthened.

No misappropriation, or risk of misappropriation, of funds was identified by GIAA as part of any of these audits.

The Agency takes all audit recommendations seriously. Action plans are developed to address the findings of all audits where the Agency received, and accepted recommendations, and the Agency is committed to implementing these. Further details can be found in the table on page 74.

The audit of the Organisational Transformation project, Proteus, resulted in GIAA assessing it as having Limited assurance. The Agency took a conscious decision to have this project audited early during its discovery phase, to ensure that all issues were identified and incorporated into the delivery plan.

In addition, GIAA undertook two advisory reviews for which recommendations were not made and an assurance rating not provided. GIAA suggestions for improvement are now being implemented in advance of 2021–22 audits in these areas.

Advisory Review of Risk Maturity

GIAA encouraged a review of the current Corporate risk register and supporting registers in light of the refreshed documentation, to ensure risks and mitigating controls are appropriately documented, assessed, addressed and escalated. A risk working group has been set up to include a risk champion for each directorate; the proposed risk champion model will help to improve operational efficiency and share best practice across the Agency.

Advisory Review of Finance Function

GIAA suggested that the next steps in the developing the function should include utilising the Finance Centre of Excellence as a platform to deliver the expected benefits of the FDP and support ongoing transformation in a growing organisation. Additionally, linked to the outcome of CSR21, UKSA finance should engage with stakeholders to determine the future operating model.

Overall, the Agency received a Moderate assurance from GIAA in its audit conclusion. A summary of the audit work undertaken during 2020–21 is shown overleaf.

Summary of Internal Audit work undertaken in 2020–21

Audit Scope	Audit opinion
Business and Financial Planning	Substantial
Government Procurement Card – (GPC)	Substantial
Action plan response to People Survey	Moderate
ESA (Commercial Space Transportation Services)	Moderate
Review of IR35 – Contractors/Contingent Labour	Moderate
Review of Major Programme, National Space Innovation	Moderate
Review of Major Project, Internal Organisational Transformation (Proteus)	Limited
Review of Risk Maturity	Advisory
Review of Finance Function – Advisory Assessment	Advisory

Assurance key	GIAA assurance definitions
Substantial	The framework of Governance, Risk Management and Control is adequate and effective
Moderate	Some improvements are required to enhance the adequacy and effectiveness of the framework of Governance, Risk Management and Control
Limited	There are significant weaknesses in the framework of Governance, Risk Management and Control such that it could become inadequate
Unsatisfactory	There are fundamental weaknesses in the framework of Governance, Risk Management and Control such that it is inadequate and ineffective or is likely to fail
Advisory	Advisory work on risk and control issues driven by risk-based planning, typically on areas where risk and control are not in existence or well established (this could relate to new systems or to areas undergoing significant change where there is no system of internal control)

Outstanding Audit Recommendations from Previous Financial Years. Figures as at 31 March 2021

The outstanding audit actions from previous years relate to 2019–20 only. Three were closed in April 2021 and the remaining two are due for closure by 30 June 2021. Of the outstanding actions from 2020–21, one more was closed in April 2021, three are pending confirmation of closure, and ten are pending submission of evidence for closure by 30 June 2021. Six are not yet due for closure.

Year	Prior year recommendations	2020–21
Number of audits with outstanding actions	3	6
Actions cleared in 2020–21	48	20
Actions still outstanding	5	20
Details of audits with outstanding actions	Business Continuity Planning Corporate Dashboard Reporting Space Flight Programme	Review of Action Planning in response to People Survey Review of IR35 contractors Review of performance of programmes – NSIP Review of Business and Financial Planning Commercial Space Transportation Services Programme (CSTS) Review of Key Financial Controls - Government Procurement Card (GPC)

Infrastructure & Projects Authority (IPA) Gateway Review SBPP

The SBPP Programme was subject to an Infrastructure and Project Authority Project Assessment Review in February 2021. It gave a delivery confidence assessment of amber and made three critical and five essential recommendations. These findings and recommendations have since been circulated to all relevant parties and actions are in the process of being addressed as a priority. Plans are in place for these to be reviewed monthly and reported to the Programme Board.

Risk Management

Risk management is about identifying risks that could occur, deciding what activity is required to influence the chance of them happening, and then managing that activity. In achieving our objectives,

Pre 2021 Risk Category	Risk Appetite	Mapping to the new risk appetite
Operations	**Cautious**	No change
Financial exposure	**Cautious**	No change
Reputation	**Open**	Risk Appetite revised
Legal	**Averse**	No change
Information	**Minimalist**	Subsumed into new Safety & Security category

we will inevitably expose ourselves to risk, in the form of negative threats, or positive opportunities, and we must ensure that we maintain control over our risk exposure as much as practicably possible.

In December 2020 the Agency appointed a risk manager to help mature risk management in the Agency and refresh its risk appetite. The risk appetite was previously based on five risk categories which were subsequently aligned with BEIS's eight risk categories and approved by the Executive Board on 27th January 2021. The table below shows how the five risk categories transferred across to the new appetite statement.

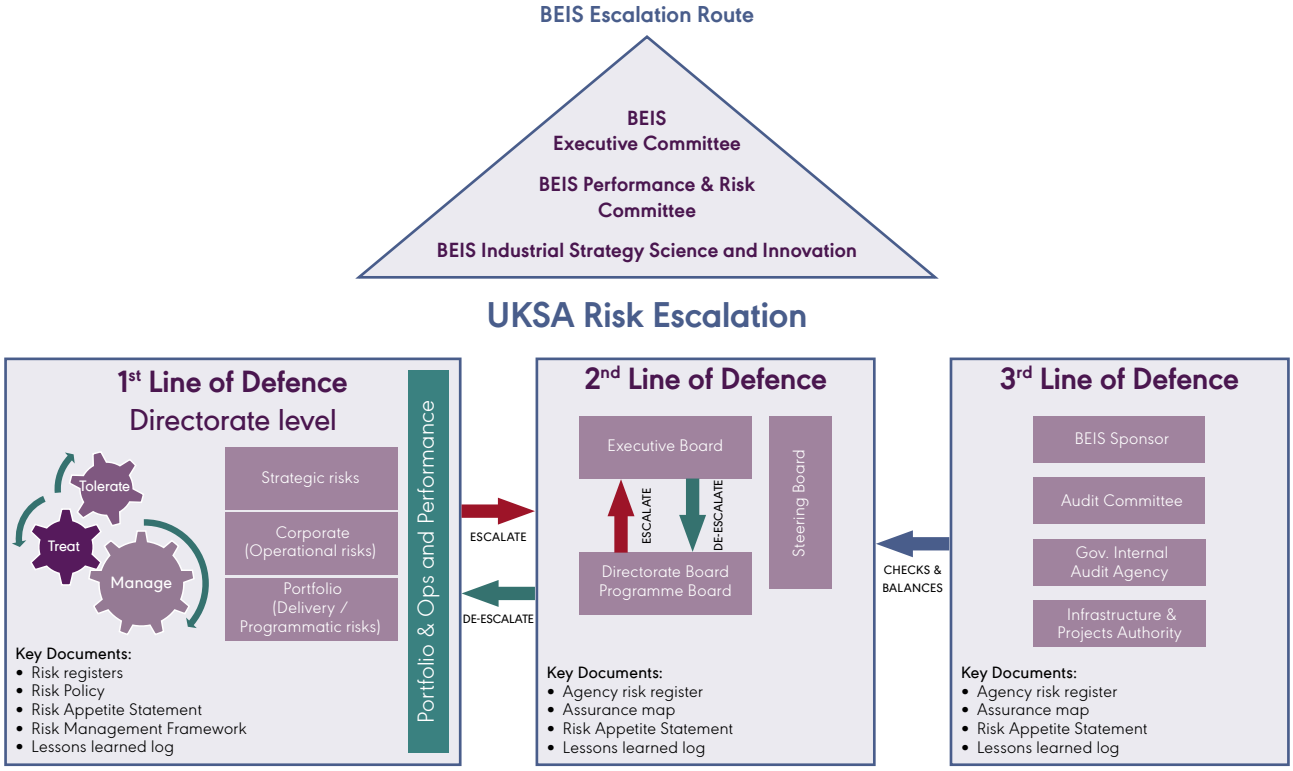
The Risk Appetite Statement will be further developed in 2021-22, with six additional risk categories from the HMT Orange Book as recommended by the Audit Committee on 4th February 2021.

We have established guidelines and criteria that allow us to formalise the way in which we identify, assess, address, record and review our risks. Our risk management is conducted at three levels, with escalation/de-escalation between them when appropriate (see diagram below):

- **Projects and Programmes (Risks that may impact on project or programme objectives)**
  Project and programme managers populate risk registers and use these to inform regular conclusions around the status of their projects and programmes

- **Directorate Risks (Risks that may impact on delivery of Directorate objectives)**
  Directors review their Directorate Risk Registers monthly, considering the Agency's risk appetite, and providing advice and guidance on appropriate actions as required

- **Corporate Risk Register (Risks that may impact on delivery of Agency objectives)**
  The Executive Board assesses the Corporate Risk Register monthly. Audit Committee and Steering Board review the Corporate Risk Register at each of their meetings.



The Agency Risk Appetite across eight risk categories is as follows:

Risk Category	Risk Appetite	Service Provided
Strategic Delivery	**Open**	The Agency's portfolio continues to grow, change and operate at international, national and local delivery levels, working alongside industry. The Agency aims to be innovative and to consider a higher risk approach to successfully deliver its objectives.
Financial Exposure	**Cautious**	We will only tolerate financial risks which are rated as Low or below and may choose to mitigate some of these.
Policy	**Open**	We seek to capitalise on potential policy opportunities beneficial to society that delivers Value for Money outcomes. The Agency is willing to consider all potential options and choose the one most likely to result in successful delivery of its Programmes. However, the Agency recognises there are potential risks that may impact policy design due to changes in the political, legislation and external parameters.
Operations	**Cautious**	We based this on three risk sub-categories: errors, non-compliance and poor operational performance.
Safety & Security	**Averse & Minimalist**	The Agency has an averse (very low) risk appetite in relation to compliance with Health & Safety laws and regulations and a minimalist (low) risk appetite in relation to all Health & Safety risks. In addition the Agency has a minimalist (low) risk appetite in relation to IT/Cyber Security risks, including security (access and permissions to systems), control of assets (movement and disposal of IT), Business Continuity (cyber-attack) and data (integrity, availability & confidentiality and unintended release). The Agency also has an averse (very low) risk appetite in relation to compliance with data protection and privacy laws and regulations (GDPR).
People & Culture	**Minimalist & Cautious**	Our risk appetite is 'Minimalist' for People and 'Cautious' for Culture. The way our people are managed falls mainly involves operating in accordance with Civil Service HR Polices through our relationship with BEIS and the Sponsorship team via the Framework Document. The Transformation Programme (Proteus) has provided an opportunity to look at the culture of the organisation and explore new ways of working to deliver and create a culture that feels right going forward.
Reputation	**Minimalist & Cautious**	Our risk appetite is currently appetite 'Cautious' towards our ambition and policies and 'Minimalist' on codes of conduct. The Prime Minister has high ambition for the UK in space and there is growing recognition that space can be a driving power behind our economy, science, defence and global relationships. There is an opportunity for the Agency to benefit from a higher profile with stakeholders and the public. However, a higher profile creates a greater likelihood that, should any of the other risks identified in this statement materialise, they would harm the Agency's or Government's reputation.
Legal	**Averse**	We will not pursue actions which are plainly unlawful or cannot be supported by a respectable argument.

Our Executive Board recognises that it may not be possible to fully eliminate risk. Indeed, it may not be economically viable to do so. Therefore we need to understand the amount of risk we are willing to accept, tolerate and or mitigate it. This is reflected in the Agency's risk appetite statement, which was agreed by the Executive Board in January 2021, and subsequently approved by the Steering Board. Risk Appetite Definitions are detailed in Appendix 2.

External Audit

In 2020–21, the National Audit Office outsourced the audit of the Agency's Financial Statements to EY, whilst retaining the overall responsibility of certifying the accounts. The final management letter has been received which raised no material issues that will have implications for internal control.

Accounting Officer's Conclusion

As Chief Executive, I am assured that the Agency has appropriate levels of internal control and governance to manage the business, consistent with my responsibilities as the Accounting Officer. I have been provided with evidence of:

- Board and committee effectiveness in managing risks, finance and operational performance;
- The policies in place impacting on risks such as counter-fraud, bribery, conflicts of interest and whistleblowing;
- The work of internal audit, which in 2020–21 awarded the Agency an overall Moderate assurance;
- The assessments of my individual directors in the DAASIC providing an overall rating of Moderate.

Equally, I am confident from the evidence provided by my Chief Operating and Financial Officer (COFO) and the assurance from the external auditors that the accounts for the year ended 31 March 2021 are a true and fair reflection of the organisation and accord with Treasury guidance. I conclude that the Agency has satisfactory governance and risk management systems in place to safeguard public money.

Whilst the Agency will continue to focus on assurance processes, I recognise we have a number of assurance goals. In particular we will be creating a new overarching approach to risk and assurance which will be supported by the new portfolio office we are putting in place through our Proteus transformation programme. My review has identified the following internal control and governance improvements that the Agency will address during 2021-22:

- **Counter-fraud and whistleblowing:** We will further develop and enhance the Agency's counter-fraud capability;
- **Risk management:** We will implement the suggestions arising from the risk advisory audit and embed the new Agency risk policy, appetite and framework;
- **DAASICs and IAAP:** We will implement the agreed recommendations arising from the 2020–21 DAASICs review, and supported by the new portfolio office, develop an integrated assurance plan for the Agency across major programmes and corporate assurance activities;
- **Business Continuity Plan:** We will update the Agency's BCP, in particular to incorporate lessons identified from the Covid-19 pandemic. The revised BCP will be presented to EB for approval and be subject to regular review and testing;
- **Agency Transformation:** We will continue to develop and embed the Agency's transformation, building on the work of the Proteus programme.

Delivering against these in 2021–22 will enable the Agency to build upon the good progress made over the last year and keep the Agency moving towards its aspiration of achieving a 'substantial' level of assurance in the future.

Graham Turnock
Chief Executive and Accounting Officer
1 July 2021

REMUNERATION AND STAFF REPORT

REMUNERATION AND STAFF REPORT

Senior Civil Service remuneration policy

Remuneration Policy

The remuneration arrangements for Senior Civil Servants (SCS) are set by the Prime Minister following independent advice from the Senior Salaries Review Body (SSRB).

The Review Body takes account of the evidence it receives about wider economic considerations and the affordability of its recommendations. Further information about the work of the Review Body can be found at: www.gov.uk/government/organisations/review-body-on-senior-salaries

Performance and Reward

The Senior Civil Service pay system consists of relative performance assessments. The highest performing individuals in BEIS were awarded a non-consolidated performance reward for their performance against objectives in 2019-20 which was paid in 2020–21. These performance awards varied in amount within an overall cost envelope of 2% of the departmental SCS pay budget. As part of the 2020 SCS Pay Award, an annual flat rate base pay increase was applied for the SCS1 and SCS2 pay grades of £1,500 and £1,900 respectively (2019-20: £1,250 and £1,350). No base pay increases were paid to those subject to poor performance procedure.

In 2020–21, government departments were also given a one-off discretion to make in-year non-consolidated award payments to recognise outstanding contribution. This was available for up to 40% of eligible departmental SCS staff.

Further information about the performance and reward arrangements for Senior Civil Servants can be found at: www.gov.uk/government/collections/senior-civil-service-performance-management-and-reward

Service Contracts

The Constitutional Reform and Governance Act 2010 requires Civil Service appointments to be made on merit based on fair and open competition. The Recruitment Principles published by the Civil Service Commission also specify the circumstances when appointments may be made otherwise.

Unless otherwise stated below, the officials covered by this report hold appointments which are open-ended. Early termination, other than for misconduct, would result in the individual receiving compensation as set out in the Civil Service Compensation Scheme. The notice period for all Senior Civil Servants covered by this report is in line with the Civil Service terms and conditions.

Further information about the work of the Civil Service Commission can be found at: https://civilservicecommission.independent.gov.uk/

Audited Information

Salary and pension entitlements

The following table shows the remuneration of Executive Board members during 2020–21, including the details of their salary and pension entitlements. All Board members are Senior Civil Servants.

Table 1: Remuneration of Executive Board members 2020–21

Name	Salary[i] in bands of £5,000		Performance reward payments[ii] in bands of £5,000		Benefits in kind to nearest £100		Pension benefits[iii] to nearest £1,000		Single total figure of remuneration in bands of £5,000	
	2020–21	2019–20	**2020–21**	2019–20	**2020–21**	2019–20	**2020–21**	2019–20	**2020-21**	2019–20
Ian Annett[iv]	**115 - 1 20**	25 - 30	**-**	-	**-**	-	**-**	-	**115 - 120**	25 - 30
Tim Guy[v]	**110 - 115**	0 - 5	**0 - 5**	-	**-**	-	**43**	2	**150 - 155**	5 - 10
Graham Turnock[vi]	**90 - 95**	90 - 95	**-**	-	**-**	-	**46**	36	**135 - 140**	125 - 130
Claire Barcham	**75 - 80**	70 - 75	**5 - 10**	5 - 10	**-**	-	**30**	30	**115 - 120**	110 - 115
Chris Castelli	**75 - 80**	70 - 75	**-**	-	**-**	-	**30**	29	**105 - 110**	100 - 105
Catherine Mealing-Jones	**70 - 75**	70 - 75	**-**	-	**-**	-	**26**	29	**95 - 100**	100 - 105
Peter Finn	**70 - 75**	70 - 75	**-**	-	**-**	-	**26**	29	**95 - 100**	100 - 105
Alice Bunn	**55 - 60**	50 - 55	**5 - 10**	5 - 10	**-**	-	**27**	24	**85 - 90**	85 - 90
Colin Macleod[vii]	**45 - 50**	35 - 40	**0 - 5**	-	**-**	-	**43**	16	**90 - 95**	50 - 55
Natalie Golding[viii]	**25 - 30**	5 - 10	**-**	-	**-**	-	**12**	2	**35 - 40**	5 - 10
Emma Floyd[ix]	**15 - 20**	10 - 15	**-**	-	**-**	-	**6**	6	**20 - 25**	15 - 20
Andrew Tims[x]	**10 - 15**	70 - 75	**-**	0 - 5	**-**	-	**9**	100	**20 - 25**	175 - 180

Notes:

(i) Salary levels disclosed have been recorded on an actual basis.

(ii) Performance rewards are non-consolidated payments.

(iii) The value of pension benefits accrued during the year is calculated by MyCSP as (the real increase in pension multiplied by 20) plus (the real increase in any lump sum) less (the contributions made by the individual). The real increase excludes increases due to inflation or any increases or decreases due to a transfer of pension rights.

(iv) Ian Annett was appointed as Deputy CEO for Project Delivery from 6 January 2020. His annualised salary in 2019–20 would have been £115-120k.

(v) Through fair and open competition, Tim Guy was appointed as the UK Global Satellite System Programme (GNSS) Director from 16 March 2020. His annualised salary in 2019-20 would have been £105-110k. Following the closure of GNSS programme, Tim Guy became Director of Space Based Positioning, Navigation and Timing Programme (SBPP).

(vi) On 13 January 2021 Graham Turnock announced that he will step down as CEO of the Agency during 2021. His initial contract was for a fixed term period up to 31 March 2021, this has been extended to provide continuity until a new CEO is appointed.

(vii) Colin Macleod, Interim Director of Regulation, left the Agency on 8 November 2020. His annualised salary in 2020-21 would have been £70-75k.

(viii) Natalie Golding, Director of Organisational Design and Development, left the Agency on 9 August 2020. Her annualised salary in 2020-21 would have been £75-80k.

(ix) Emma Floyd, Director of New Commercial Space, left the Agency on 14 June 2020. Her annualised salary in 2020-21 would have been £70-75k.

(x) Andrew Tims, UK GNSS Deputy Senior Officer, left the Agency on 31 May 2020. His annualised salary in 2020-21 would have been £70-75k.

(xi) The composition of the Executive Board was reviewed in September 2020 and the membership was reduced to CEO, Deputy CEO, Chief Operating and Finance Officer and Director of Growth. Since September 2020, all other executive directors are standing attendees who hold no voting rights. Directors who are not members of the EB and were appointed after the revised EB membership came into effect are not disclosed in the above table.

Salary

Salary includes gross salary, overtime, London weighting or allowances, recruitment and retention allowances, private office allowances, ex-gratia payments and any other allowances or payments to the extent that it is subject to UK taxation. This report is based on accrued payments made by the Agency and thus recorded in these accounts. The payment of legitimate expenses is not part of the salary.

Bonuses

Bonuses are non-consolidated award payments, based on performance levels attained and are made as part of the appraisal process.

Benefits in kind

The monetary value of benefits in kind covers any benefits provided by the Agency and treated by HM Revenue & Customs as a taxable emolument. No Senior Civil Servant covered by this report received any benefits in kind during the year.

Single total figure of remuneration

Single total figure of remuneration includes salary, non-consolidated performance-related pay, benefits in kind, compensation payments and pension benefits accrued during the reporting period. It does not include severance payments; employer pension contributions; the cash equivalent transfer value of pensions; and the payment of legitimate expenses.

Fair pay disclosures

The Agency is required to disclose the relationship between the remuneration of the highest paid director in the Agency and the median remuneration of the Agency's workforce.

	2020–21	2019–20
Band of Highest Paid Director's Total Remuneration[i]	**£115 - 120k**	£115 - 120k
Median Total Remuneration[ii]	**£46,038**	£48,100
Ratio	**2.55**	2.44

Notes:

(i) The highest paid director in 2020-21 was Ian Annett, the Deputy Chief Executive Officer for Programme Delivery (2019-20: Ian Annett).

(ii) The median calculation is based on the full-time equivalent staff at 31 March 2021 on an annualised basis.

The banded remuneration of the highest paid director in the Agency in 2020-21 was £115,000 to £120,000 (2019-20: £115,000 to £120,000). This was 2.55 times (2019–20: 2.44 times) the median remuneration of the workforce, which was £46,038 (2019–20: £48,100).

Remuneration in the Agency ranged from £24,570 to £117,350 (2019-20: £23,900 to £117,000).

Total remuneration includes full year equivalent salary, non-consolidated performance related pay, benefits in kind as well as severance payments. It does not include employer pension contributions and the cash equivalent transfer value of pensions.

Pension Benefits

Civil Service Pensions
Pension benefits are provided through the Civil Service pension arrangements. From 1 April 2015 Cabinet Office introduced a new pension scheme for civil servants, alpha. This new scheme is set out in the Public Service (Civil Service and Others) Pension Scheme (CSOPS) regulations. It provides benefits on a career average basis with a normal pension age equal to the member's State Pension Age (or 65 if higher). From that date, all newly appointed employees and the majority of existing employees joined alpha.

Prior to 1 April 2015, employees participated in the Principal Civil Service Pension Scheme (PCSPS). The PCSPS operates four defined benefit schemes: three providing benefits on a final salary basis (classic, premium or classic plus) with a normal pension age of 60; and one providing benefits on a whole career basis (nuvos) with a normal pension age of 65. The PCSPS is now closed to new members.

These statutory arrangements are unfunded, with the cost of benefits met by monies voted by Parliament each year. Pensions payable under classic, premium, classic plus, nuvos and alpha are increased annually in line with Pensions Increase legislation. Existing members of the PCSPS who were within 10 years of their normal pension age on 1 April 2012 remained in the PCSPS after 1 April 2015. Those who were between 10 years and 13 years and 5 months from their normal pension age on 1 April 2012 will switch into alpha sometime between 1 June 2015 and 1 February 2022. All members who switch to alpha have their PCSPS benefits 'banked', with those with earlier benefits in one of the final salary sections of the PCSPS having those benefits based on their final salary when they leave alpha.

Members joining from October 2002 may opt for either the appropriate defined benefit arrangement or a 'money purchase' stakeholder pension with an employer contribution (partnership pension account).

Employee contributions are salary-related and range between 4.6% and 8.05% of actual pensionable earnings regardless of whether members are in classic, classic plus, premium, nuvos or alpha. Benefits in classic accrue at the rate of 1/80th of final pensionable earnings for each year of service. In addition, a lump sum equivalent to three years initial pension is payable on retirement. For premium, benefits accrue at the rate of 1/60th of final pensionable earnings for each year of service.

Unlike classic, there is no automatic lump sum. Classic plus is essentially a hybrid with benefits for service before 1 October 2002 calculated broadly as per classic and benefits for service from October 2002 worked out as in premium. In nuvos a member builds up a pension based on his pensionable earnings during their period of scheme membership. At the end of the scheme year (31 March) the member's earned pension account is credited with 2.3% of their pensionable earnings in that scheme year and the accrued pension is uprated in line with Pensions Increase legislation. Benefits in alpha build up in a similar way to nuvos, except that the accrual rate in 2.32%. In all cases members may opt to commute pension for a lump sum up to the limits set by the Finance Act 2004.

The partnership pension account is a stakeholder pension arrangement. From 1 September 2018, Legal & General are the new stakeholder pension provider for the Civil Service (prior to 1 September 2018 the provider was Standard Life). The employer makes a basic contribution of between 8% and 14.75% (depending on the age of the employee at the beginning of the tax year) into a stakeholder pension product. The employee does not have to contribute, but where they do make contributions, the employer will match these up to a limit of 3% of pensionable earnings (in addition to the employer's basic age-related contribution). Employers also contribute a further 0.5% of pensionable earnings to cover the cost of centrally provided risk benefit cover such as death in service and ill health retirement referred to as mini- Accruing Superannuation Liability Charges (mini- ASLCs).

The accrued pension quoted is the pension the member is entitled to receive when they reach pension age, or immediately on ceasing to be an active member of the scheme if they are already at or over pension age. Pension age is 60 for members of classic, premium and classic plus, 65 for members of nuvos, and the higher of 65 or State Pension Age for members of alpha.

All sections of the PCSPS and CSOPS schemes have provision for death and medical retirement benefits. Anyone entitled to be covered by these schemes is also covered by the Civil Service Injury Benefit Scheme in the event of sustaining an injury at work. Further details about the Civil Service pension arrangements can be found at the website www.civilservicepensionscheme.org.uk

Table 2: Pension benefits of Executive Board members 2020–21[i]
All Executive Board Members are SCS

Name	Accrued pension at pension age as at 31/3/2021 and (if applicable) related lump sum in bands of £5,000	Pension increase in real terms and (if applicable) related lump sum at pension age in bands of £2,500	CETV at 31/3/2021 to the nearest £1,000	CETV at 31/3/2020 to the nearest £1,000	Real increase in the CETV as funded by the employer, to the nearest £1,000	Employer contribution to partnership pension account to the nearest £100
Ian Annett[ii]	-	-	-	-	-	17,300
Tim Guy	30 - 35	2.5 - 5	433	382	26	-
Graham Turnock	35 - 40 plus a lump sum of 75 - 80	2.5 - 5 plus a lump sum of 0 - 2.5	702	646	29	-
Claire Barcham	15 - 20	0 - 2.5	148	128	10	-
Chris Castelli	10 - 15	0 - 2.5	222	191	18	-
Catherine Mealing-Jones	30 - 35 plus a lump sum of 65 - 70	0 - 2.5	613	577	14	-
Peter Finn	35 - 40 plus a lump sum of 70 - 75	0 - 2.5	634	597	13	-
Alice Bunn	25 - 30	0 - 2.5	306	279	13	-
Colin Macleod	25 - 30 plus a lump sum of 5 - 10	0 - 2.5 plus a lump sum of 0 - 2.5	401	359	29	-
Natalie Golding	20 - 25	0 - 2.5	242	228	5	-
Emma Floyd	20 - 25	0 - 2.5	259	255	2	-
Andrew Tims	35 - 40 plus a lump sum of 110 - 115	0 - 2.5 plus a lump sum of 0 - 2.5	864	855	7	-

Notes:

(i) The pension figures quoted show pension earned in PCSPS and CSOPS (alpha) as appropriate. Where the Executive Board member has benefits in both the PCSPS and CSOPS the figure quoted is the combined value of their benefits in the two schemes.

(ii) Ian Annett opted to have a partnership pension account rather than join the Civil Service pension scheme.

Real increase in pension and lump sum

Real increase in pension and lump sum represents the increase in the value of the pension over the year after considering the effect of inflation.

Cash Equivalent Transfer Values

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capitalised value of the pension scheme benefits accrued by a member at a particular point in time. The benefits valued are the member's accrued benefits and any contingent spouse's pension payable from the scheme.
A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another pension scheme or arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme. The pension figures shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies.

The figures include the value of any pension benefit in another scheme or arrangement which the member has transferred to the Civil Service pension arrangements. They also include any additional pension benefit accrued to the member as a result of their buying additional pension benefits at their own cost.

CETVs are worked out within the guidelines and framework prescribed by the Institute and Faculty of Actuaries and do not take account of any actual or potential reduction to benefits resulting from Lifetime Allowance Tax, which may be due when pension benefits are taken.

Real increase in CETV

This reflects the increase in CETV that is funded by the employer. It does not include the increase in accrued pension due to inflation, contributions paid by the employee (including the value of any benefits transferred from another pension scheme or arrangement) and uses common market valuation factors for the start and end of the period.

Remuneration of Steering Board and Audit Committee Non-Executive Members

Appointments to the Agency's Steering Board and Audit Committee are made by BEIS Ministers, in accordance with the Commissioner for Public Appointments' Code of Practice for Ministerial Appointments to Partner Organisations.

In line with the other governance boards within the BEIS family of partner organisations, from 1 April 2013 the Agency's non-executive members receive an honorarium of £6,000 per annum. Sally Howes receives an additional honorarium of £4,000 per annum for her role as the Chair of Steering Board.

Non-executive members are also reimbursed for any legitimate expenses incurred on behalf of the Agency. Their remuneration is subject to tax deductions at source.

Table 3: Remuneration of Steering Board and Audit Committee Non-Executive Members 2020–21

Non-Executive Member	Position	Period of Appointment	Honoraria	
			2020–21 £000	2019–20 £000
Sally Howes[(i)]	Chair of Steering Board	April 2019–March 2022	**10**	10
Clive Tucker[(ii)]	Chair of Audit Committee	Dec 2014–May 2021	**6**	6
Frances Saunders[(ii)]	Non-Executive	Dec 2014–May 2021	**6**	6
Malcolm MacDonald[(iii)]	Non-Executive	July 2017–Dec 2020	**4.5**	6
Keira Shepperson[(iv)]	Non-Executive	May 2018–Sep 2022	**Nil**	Nil
Alison Brown[(v)]	Trainee Board Member	Jan 2020–June 2021	**Nil**	Nil

Notes:

(i) Sally Howes was appointed as Chair of Steering Board with effect from 1 April 2019 for a period of 3 years.

(ii) Following reappointment for a second three-year term from 1 December 2017, memberships for Clive Tucker and Frances Saunders were further extended to 31 May 2021 due to Covid-19 disruptions and the additional challenges it presented to recruitment.

(iii) Malcolm Macdonald's tenure ended 30 December 2020.

(iv) Keira Shepperson initially joined the Audit Committee as an independent member with effect from 1 May 2018 for a period of 3 years. She was re-appointed for a second term for a period of 17 months. She is an employee at the British Business Bank. She is not remunerated for her work as honorarium is not payable to members who are civil servants, employees of the UK Space Agency or full-time employees of organisations whose funds are derived from Votes of Parliament.

(v) Alison Brown joined the Steering Board and Audit Committee as a trainee board member with effect from January 2020 for a period of one year. This has since been extended to July 2021. She is an employee at the UK Atomic Energy Authority. She is not remunerated for her work as honorarium is not payable to members who are civil servants, employees of the UK Space Agency or full-time employees of organisations whose funds are derived from Votes of Parliament.

Staff Report

The Agency's employees are eligible to be members of the Principal Civil Service Pension Scheme (PCSPS) and Public Service (Civil Service and Others) Pension Scheme (CSOPS) known as alpha which came into force from 1 April 2015. Many PCSPS members transferred into alpha on that date, while others will transfer into it over the next few years. The PCSPS is now closed to new members.

In this document, the term 'Scheme' covers both PCSPS and CSOPS arrangements.

The Scheme is an unfunded, defined benefit, contributory, public service occupational pension scheme in which the UK Space Agency is unable to identify its share of the underlying assets and liabilities.

The Scheme is subject to periodic actuary valuations. Contributions are paid both by employers and employees at a combined level, determined by the scheme actuary, sufficient to meet the liabilities being built up by the active membership (as adjusted to reflect any surplus or shortfall in the Scheme).

The scheme actuary reviews employer contributions every four years following a full scheme valuation.

The last full actuarial valuation was carried out as at 31 March 2016 and determined that from 1 April 2019 the average employer contribution would increase to 27.3% of pensionable earnings. The contribution rates are set to meet the cost of the benefits accruing during 2020-21 to be paid when the member retires, and not the benefits paid during this period to existing pensioners.

More information can be found at the Civil Service Pensions website at:
www.civilservicepensionscheme.org.uk

During 2020-21, employer contributions of £3,101,821 were payable to the Scheme (2019-20: £2,504,052) at one of four rates in the range 26.6% to 30.3% of pensionable earnings (2019-20: 26.6% to 30.3%), based on salary bands.

Under the Partnership scheme employees have the option of opening a partnership pension account with Legal & General. Stakeholder pensions are a type of personal pension with employer contributions which are age related and from 1 October 2015 range from 8% to 14.75% of pensionable earnings (3% to 12.5% up to 30 September 2015). Employee contributions are voluntary, and unlimited, and are matched by employer contributions up to 3% of pensionable earnings (the maximum possible employer contribution therefore is 17.75%). During 2020-21, employer contributions of £31,536 were payable to partnership pension providers (2019–20: £11,710). There were no prepaid contributions at 31 March 2021.

In addition, employer mini-ASLC contributions of £1,144 (2019–20: £332), from 1 October 2015, set at 0.5% of pensionable pay regardless of salary bands (0.8% up to 30 September 2015), were payable to the Scheme during 2020–21 for provision of risk benefits to those employees opting for partnership pension arrangements. These contributions cover the cost of the future provision of lump sum benefits on death in service or ill-health retirement of these employees.

No employee (2019–20: none) retired early on ill-health grounds, therefore there were no additional pension liabilities accrued during the reporting period (2019–20: none).

There was one case of other departure costs of £50-£100k paid during the year (2019–20: none). No redundancy costs were paid in 2020–21 and 2019–20.

Table 4: Analysis of staff costs and average number of persons

The Agency has continued to grow in order to deliver on its projects and programmes which is reflected in the tables below.

	2020-21			2019-20		
	Permanently employed £000	**Other £000**	**Total £000**	Permanently employed £000	Other £000	Total £000
Wages and salaries	11,557	-	11,557	9,352	-	9,352
Social security costs	1,285	-	1,285	1,044	-	1,044
Other pension costs	3,134	-	3,134	2,516	-	2,516
Subtotal	**15,976**	**-**	**15,976**	12,912	-	12,912
Add cost of inwards secondments	-	187	187	-	174	174
Less recoveries in respect of outward secondments	-	-	-	-	(16)	(16)
Total staff costs	**15,976**	**187**	**16,163**	12,912	159	13,070
	FTE	**FTE**	**FTE**	FTE	FTE	FTE
Average number of persons employed[i, ii]	**239.8**	**2.6**	**242.4**	210.2	2.2	212.4

Notes:

(i) There have been no FTE outward secondees (none in 2019-20) when the Agency's staff have been seconded to other organisations.

(ii) In addition to the 2.6 FTE inward secondees in the above table (2.2 FTE in 2019-20), the Agency also benefited from an average of 0.4 FTE inward secondees (4.1 FTE in 2019-20) provided at nil cost by other government organisations and industry as part of their staff development programme.

Unaudited Information on Recruitment Policies
Recruitment Position for UK Space Agency – 2020–21

Number of recruitment campaigns run in 2020-21	129

Total number of applicants: 3421		
	Civil Service Internal: 1324	External: 2097

Potential posts available: 146		Total posts filled: 114		
	UKSA Internal on Promotion:	UKSA Internal on Lateral Transfer:	From OGDs:	External:
	14	11	68	21

Number of posts filled on:	Permanent Basis:	89
	Loan Basis:	4
	Other: Fixed Term	21

Time to Hire:	
On average we fill our posts within:	106 calendar days
The average target for Civil Service to fill is:	123.6 calendar days

Off Payroll Engagements

The tables below present data on our off-payroll engagements. Off-payroll engagements refer to workers who are paid off-payroll, without deducting tax and national insurance at source, typically contractors.

Highly paid off-payroll worker engagements as at 31 March 2021, earning £245 per day or greater. Of which, the number that existed for UK Space Agency	
No. of existing engagements as of 31 Mar 2021	32
< 1 year (1 Apr 20 to 30 Mar 21)	19
Between 1 and 2 years (31 Mar 19 to 30 Mar 20)	10
Between 2 and 3 years (31 Mar 18 to 30 Mar 19)	3
Between 3 and 4 years (31 Mar 17 to 30 Mar 18)	0
4 or more years (earliest date to 30 Mar 17)	0

All highly paid off-payroll workers engaged at any point during the year ended 31 March 2021, earning £245 per day or greater at UK Space Agency	
No. of off-payroll workers engaged during the year ended 31 March 2021	45
Of which: Not subject to off-payroll legislation	0
Of which: Subject to off-payroll legislation and determined as in-scope of IR35	36
Of which: Subject to off-payroll legislation and determined as out-of-scope of IR35	9
No. of engagements reassessed for compliance or assurance purposes during the year	7
Of which: No. of engagements that saw a change to IR35 status following review	0

For any off-payroll engagements of board member and/or senior officials with significant financial responsibility, between 1 April 2020 and 31 March 2021 at UK Space Agency	
No. of off-payroll engagements of board members, and/or, senior officials with significant financial responsibility, during the financial year	0
Total No. of individuals on payroll and off-payroll that have been deemed "board members and/or senior officials with significant financial responsibility", during the financial year. This figure should include both on payroll and off-payroll engagements	14
For each individual included in column T, please provide details of: 1) the exceptional circumstances that led to each of these engagements 2) length of time each of these exceptional engagements lasted	N/A

Consultancy costs of £7,626,954 were incurred during 2020-21 (2019–20: £2,081,714).
The cost of contingent labour during the year was £3,335,541 (2019–20: £2,593,556).

Remuneration Policy

The remuneration policy adopted by the UK Space Agency is in line with the BEIS departmental policy. The Agency implemented the 2020 pay award in line with the increases approved. This was effective from 1 August 2020.

The Agency operates an In-Year Award Scheme which is a cash and non-cash bonus scheme for individual payments recommended by line managers and colleagues for specific projects or outstanding pieces of work. These are managed by Directors and awarded quarterly following directorate panels. These payments are non-consolidated and the maximum amount available is capped to 0.6% of the total annual pay bill (excluding SCS pay). During 2020–21 we issued 235 awards at a cost of £138,250 (in 2019–20 we issued 163 awards totalling £102,750).

Staff Composition

The internal Workforce Planning Committee plays a key part in ensuring that the Agency has both the capacity and capability to deliver the aims and objectives of the Agency.

We have continued to source specialist skills where necessary to support frontline delivery and fill business critical posts whilst maintaining the Agency's headcount at a sustainable level.

UK Space Agency grades	**2020-21**		2019-20	
	Actual number	**% of workforce**	Actual number	% of workforce
Administrative Assistants and Administrative Officers	1	0.37%	1	0.39%
Executive Officers	18	6.71%	14	5.57%
Higher Executive Officers and Senior Executive Officers	124	46.26%	112	44.62%
Grade 7/6	114	42.53%	109	43.42%
Senior Civil Servants[(i)]	11	4.10%	15	5.97%

Note:

(i) Includes 1 SCS on Temporary Promotion as at 31 March 2021.

Equality, Diversity and Inclusion

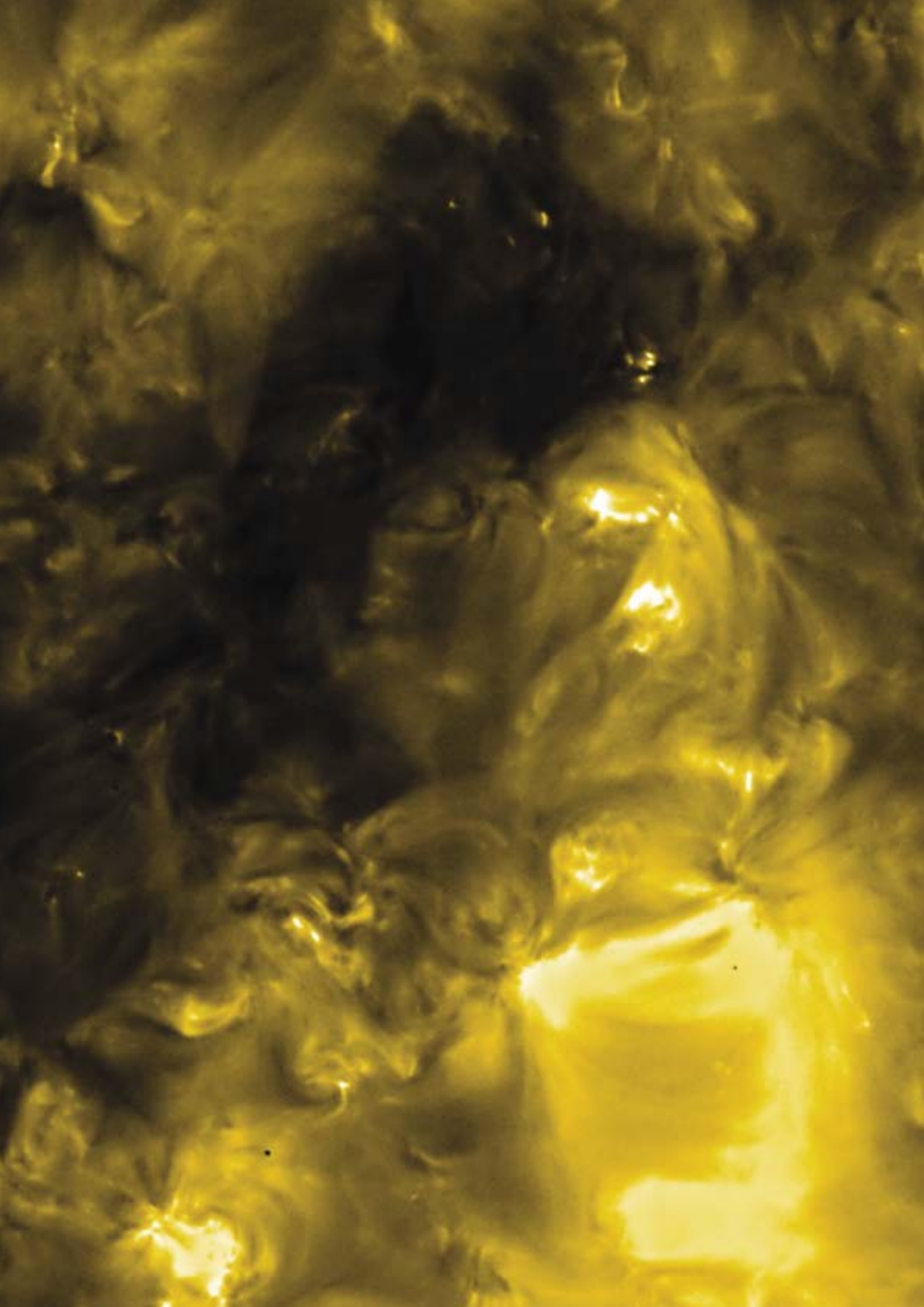
The UK Space Agency is fully committed to providing equal opportunities for all staff. The Agency follows the Civil Service guidelines, ensuring that all staff have equality of opportunity on the basis of their suitability and skills, without discrimination on the basis of age, disability, gender, flexible working, marital status, sexual orientation, race, colour, nationality, ethnic or national origin or religious belief. In 2020 we augmented HR by introducing a dedicated D&I and Well-being team. This team provides Agency oversight working with our Staff Networks (D&I, Women's Network, LGBTQ+). We also renewed our corporate membership to Women in Aerospace.

	2020–21		2019–20	
Workforce Statistics	**Actual number**	**% of workforce**	Actual number	% of workforce
Gender Male	142	53%	131	52%
Gender Female	126	47%	120	48%
Working Pattern Full-time	254	94%	246	98%
Working Pattern Part-time	14	6%	5	2%
Disability Yes	18	6.71%	7	3%
Disability No	122	45.52%	74	29%
Disability Prefer not to say/unknown	128	47.76%	170	68%
Ethnicity White-English	106	39.55%	46	18.32%
Ethnicity White-Irish	2	0.74%	1	0.40%
Ethnicity White-Welsh	4	1.49%	1	0.40%
Ethnicity White-Scottish	5	1.86%	2	0.80%
Ethnicity White-Polish	1	0.37%	-	-
Ethnicity Black-African	3	1.11%	1	0.40%
Ethnicity Black–Black, Black Scottish, Black British	1	0.37%	1	0.40%
Ethnicity Black-Caribbean	2	0.74%	-	-
Ethnicity Black - Any other Background	1	0.37%	-	-
Ethnicity Asian-Indian	4	1.49%	1	0.40%
Ethnicity Asian-Bangladeshi	1	0.37%	-	-
Ethnicity Pakistani	1	0.37%	-	-
Ethnicity White and Black Caribbean	3	1.11%	2	0.80%
Ethnicity White and Asian	2	0.74%	-	-
Ethnicity Other White Background	17	6.34%	9	3.58%
Ethnicity Other Asian Background	6	2.23%	1	0.40%
Ethnicity Mixed - Any other mixed background	5	1.86%	1	0.40%
Ethnicity Prefer not to say/unknown	109	40.67%	185	73.70%

Workforce diversity (Executive Board only)	**2020–21** % declared	2019–20 % declared
Black and minority ethnic	0	0
Women	45	54
Disabled/Prefer not to say	9	38
Working pattern - part-time	9	16

Sickness Absence

In the 12-month period April 2020–March 2021 the average working days lost though recorded sickness absence was 5.9 days per employee absent through sickness. In the same period April 2019–March 2020 average working days lost through recorded sickness absence was 7.5 days per employee absent though sickness. The decrease is attributable to increased Line Management actions and to resolving some long-term absence cases which had impacted on the Average Working Days Lost last year.



PARLIAMENTARY ACCOUNTABILTY AND AUDIT

PARLIAMENTARY ACCOUNTABILITY AND AUDIT

These pages present information about the Agency that is useful to readers for accountability and decision-making purposes that is not covered elsewhere in the report.

Our Chief Executive is personally accountable to Parliament for our performance. Our financial statements are subject to audit by the Comptroller and Auditor General, who heads up the National Audit Office and is responsible for scrutinising public spending and safeguarding the interests of taxpayers on behalf of Parliament. The Comptroller and Auditor General's audit certification is presented on page 94.

Regularity of expenditure (audited)

Fees and charges income

The Outer Space Act 1986 is the legal basis for regulation of activities in outer space carried out by organisations or individuals established in the United Kingdom or one of its Overseas Territories or Crown Dependencies. It confers licensing and other powers on the Secretary of State for Business, Energy and Industrial Strategy acting through the Agency. In 2020-21, the total statutory licence fees collected by the Agency amounted to £487,500 (2019-20: £221,000). More information can be found in Note 5 to the Financial Statements, Income from operating activities, on page 111.

Losses and special payments

During the reporting period, the Agency incurred realised exchange rate losses of £434,816 as a result of fluctuations in exchange rates. These losses were made in the course of normal business activity and were outside the control of management. More information can be found in Note 4 to the Financial Statements, Total operating expenditure, on page 110.

There were no other reportable losses or special payments incurred in 2020-21.

Remote contingent liabilities

Under international (UN) convention, the UK Government is ultimately liable for third party costs from accidental damage arising from UK space activities. To manage the risk to the Government, the Outer Space Act 1986 requires licensees to indemnify HMG against any proven third-party costs. In March 2015, the Outer Space Act 1986 was amended to cap the previously unlimited liability to indemnify HMG for licenced activities.

The cap is set at €60 million for standard missions and can be increased for higher risk missions. This amendment came into force from 1 October 2015 and was designed to adequately balance the risk to the UK Government whilst ensuring UK space operators remain competitive internationally. There is a requirement on licensees to obtain third party liability insurance (set at €60 million for standard missions) for the duration of the licenced activity, with the UK Government a named beneficiary.

The UK Government is therefore exposed to a potential liability for third party costs which are not recoverable from the licensee. This liability is unquantifiable at the time of reporting.

THE CERTIFICATE AND REPORT OF THE COMPTROLLER AND AUDITOR GENERAL TO THE HOUSE OF COMMONS

Opinion on financial statements

I certify that I have audited the financial statements of the UK Space Agency for the year ended 31 March 2021 under the Government Resources and Accounts Act 2000. The financial statements comprise: Statements of Comprehensive Net Expenditure, Financial Position, Cash Flows, Changes in Taxpayers' Equity; and the related notes, including the significant accounting policies. These financial statements have been prepared under the accounting policies set out within them. The financial reporting framework that has been applied in their preparation is applicable law and international accounting standards as interpreted by HM Treasury's Government Financial Reporting Manual.

I have also audited the information in the Accountability Report that is described in that report as having been audited.

In my opinion, the financial statements:

- give a true and fair view of the state of the UK Space Agency's affairs as at 31 March 2021 and of the UK Space Agency's net expenditure for the year then ended; and
- have been properly prepared in accordance with the Government Resources and Accounts Act 2000 and HM Treasury directions issued thereunder.

Opinion on regularity

In my opinion, in all material respects the income and expenditure recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Basis for opinions

I conducted my audit in accordance with International Standards on Auditing (ISAs) (UK), applicable law and Practice Note 10 'Audit of Financial Statements of Public Sector Entities in the United Kingdom'. My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of my certificate.

Those standards require me and my staff to comply with the Financial Reporting Council's Revised Ethical Standard 2019. I have also elected to apply the ethical standards relevant to listed entities. I am independent of the UK Space Agency in accordance with the ethical requirements that are relevant to my audit of the financial statements in the UK. My staff and I have fulfilled our other ethical responsibilities in accordance with these requirements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Conclusions relating to going concern

In auditing the financial statements, I have concluded that the UK Space Agency's use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work I have performed, I have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the UK Space Agency's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

My responsibilities and the responsibilities of the Accounting Officer with respect to going concern are described in the relevant sections of this certificate.

The going concern basis of accounting for the UK Space Agency is adopted in consideration of the requirements set out in HM Treasury's Government Reporting Manual, which require entities to adopt the going concern basis of accounting in the preparation of the financial statements where it anticipated that the services which they provide will continue into the future.

Other information

The other information comprises information included in the Annual Report, but does not include the parts of the Accountability Report described in that report as having been audited, the financial statements and my auditor's certificate thereon. The Accounting Officer is responsible for the other information. My opinion on the financial statements does not cover the other information and except to the extent otherwise explicitly stated in my certificate, I do not express any form of assurance conclusion thereon. In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If I identify such material inconsistencies or apparent material misstatements, I am required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact.

I have nothing to report in this regard.

Opinion on other matters

In my opinion, based on the work undertaken in the course of the audit:

- the parts of the Accountability Report to be audited have been properly prepared in accordance with HM Treasury directions made under the Government Resources and Accounts Act 2000; and
- the information given in the Performance and Accountability Reports for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which I report by exception

In the light of the knowledge and understanding of the UK Space Agency and its environment obtained in the course of the audit, I have not identified material misstatements in the Performance Report and Accountability Report. I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- adequate accounting records have not been kept or returns adequate for my audit have not been received from branches not visited by my staff; or
- the financial statements and the parts of the Accountability Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of remuneration specified by HM Treasury's Government Financial Reporting Manual are not made; or
- I have not received all of the information and explanations I require for my audit; or
- the Governance Statement does not reflect compliance with HM Treasury's guidance.

Responsibilities of the Accounting Officer for the financial statements

As explained more fully in the Statement of Accounting Officer's Responsibilities, the Chief Executive as Accounting Officer is responsible for:

- the preparation of the financial statements in accordance with the applicable financial reporting framework and for being satisfied that they give a true and fair view;
- internal controls as the Chief Executive as Accounting Officer determines is necessary to enable the preparation of financial statement to be free from material misstatement, whether due to fraud or error.
- assessing the UK Space Agency's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Chief Executive as Accounting Officer anticipates that the services provided by UK Space Agency will not continue to be provided in the future.

Auditor's responsibilities for the audit of the financial statements

My responsibility is to audit, certify and report on the financial statements in accordance with the Government Resources and Accounts Act 2000.

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a certificate that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

I design procedures in line with my responsibilities, outlined above, to detect material misstatements in respect of non-compliance with laws and regulation, including fraud.

My procedures included the following:

- Inquiring of management, UK Space Agency's internal audit function and those charged with governance, including obtaining and reviewing supporting documentation relating to the UK Space Agency's policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud; and
  - the internal controls established to mitigate risks related to fraud or non-compliance with laws and regulations including the UK Space Agency's controls relating to the Outer Space Act 1986, the Space Industry Act 2018, the Space Industry Regulations 2020, the Spaceflight Activities (Investigation of Spaceflight Accidents) Regulations 2020 and the Space Industry (Appeals) Regulations 2020;
- discussing among the engagement team regarding how and where fraud might occur in the financial statements and any potential indicators of fraud. As part of this discussion, I identified potential for fraud in the following areas: revenue recognition and posting of unusual journals; and
- obtaining an understanding of UK Space Agency's framework of authority as well as other legal and regulatory frameworks that the UK Space Agency operates in, focusing on those laws and regulations that had a direct effect on the financial statements or that had a fundamental effect on the operations of the UK Space Agency. The key laws and regulations I considered in this context included the Government Resources and Accounts Act 2000, Managing Public Money, Employment Law, tax Legislation.

In addition to the above, my procedures to respond to identified risks included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with relevant laws and regulations discussed above;
- enquiring of management, the Audit Committee and in-house legal counsel concerning actual and potential litigation and claims;
- reading minutes of meetings of those charged with governance and the Board; and
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

I also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members including internal specialists and significant component audit teams and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

A further description of my responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of my certificate.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the income and expenditure reported in the financial statements have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Report

I have no observations to make on these financial statements.

Gareth Davies
Comptroller and Auditor General
National Audit Office
157-197 Buckingham Palace Road
Victoria
London
SW1W 9SP

7 July 2021

Our Annual Report and Accounts 2020–21

Our Annual Report and Accounts are presented to Parliament following certification of our financial statements by the Comptroller and Auditor General to the House of Commons (see page 94). The cost of the audit was £40,000. No remuneration was paid to the external auditors in respect of non-audit work in 2020–21.

The Chair of the Audit Committee endorsed this report on 1 July 2021. Our Annual Report and Accounts is prepared in accordance with the Government Financial Report Manual (FReM), Managing Public Money and any applicable HM Treasury (HMT) instructions.

I believe that the information we have presented in our Performance Report (pages 42–48) provides a fair, balanced and understandable analysis of our performance. As required, I have signed and dated our Performance Report on page 54, as well as signing here our Accountability Report, which meets our key accountability requirements to Parliament.

Our fully audited financial statements follow in the rest of this document, which give a true and fair view of the Agency's state of affairs and of its comprehensive net expenditure, changes in taxpayers' equity and cash flows. I have signed our Statement of Financial Position on page 101.

Graham Turnock
Chief Executive and Accounting Officer
1 July 2021

ACCOUNTS

FINANCIAL STATEMENTS

Statement of Comprehensive Net Expenditure for the year ended 31 March 2021

	Note	2020–21	2019–20
		£000	£000
Income from operating activities	5	(2,018)	(1,785)
Total operating income		**(2,018)**	(1,785)
Staff costs	3	16,163	13,070
International subscriptions, grants and other funding	4	465,690	421,982
Technical contracts and contract management	4	28,971	27,369
Expected credit losses written back		(14)	-
Provision expense	15	-	770
Provision written back	15	(385)	-
Other operating expenditure	4	6,826	8,045
Total operating expenditure		**517,251**	471,236
Net operating expenditure		**515,233**	469,451
Other comprehensive net expenditure			
Items which will not be reclassified to net operating costs			
Net gain released on the disposal of cash flow hedges[i]	4,7	10,582	18,442
Items which may be reclassified subsequently to net operating costs:			
Net loss/(gain) on revaluation of cash flow hedges[ii]	7	5,062	(6,567)
Total comprehensive net expenditure for the year ended 31 March 2021		**530,877**	481,326

Notes:

(i) The reported gains on disposal of cash flow hedges are notional gains which represent the total cumulative unrealised gains for the disposed contracts previously recognised in the revaluation reserve. More information can be found in Note 4 – Total Expenditure and Note 7 – Other financial assets and liabilities.

(ii) The reported losses on revaluation of forward exchange contracts in 2020–21 are notional losses caused by a decrease in the fair value of the contracts held at 31 March 2021 compared to the fair value of contracts held at 31 March 2020. The UK Space Agency abides by the HM Treasury and BEIS group rules relating to hedging. More information can be found in Note 7 – Other financial assets and liabilities.

The notes on pages 104–118 form part of these financial statements.

Statement of Financial Position for the year ended 31 March 2021

	Note	31 March 2021	31 March 2020
		£000	£000
Non-current assets			
Intangible assets	6	600	-
Other financial assets	7	-	242
Total non-current assets		**600**	242
Current assets			
Trade & other receivables	8	57,410	61,451
Other financial assets	7	-	8,770
Cash & cash equivalents	9	11,514	15,576
Total current assets		**68,924**	85,797
Total assets		**69,524**	86,039
Current liabilities			
Trade & other payables	10	57,858	60,783
Other financial liabilities	7	6,664	-
Total current liabilities		**64,522**	60,783
Total assets less current liabilities		**5,002**	25,256
Non-current liabilities			
Provisions	15	385	770
Other financial liabilities	7	-	32
Total non-current liabilities		**385**	802
Total assets less total liabilities		**4,617**	24,454
Taxpayers' equity and other reserves			
General fund		11,281	15,474
Revaluation reserve		(6,664)	8,980
Total equity		**4,617**	24,454

The notes on pages 104–118 form part of these financial statements.

Graham Turnock
Chief Executive and Accounting Officer
1 July 2021

Statement of Cash Flows for the year ended 31 March 2021

	Note	2020–21	2019–20
		£000	£000
Cash flows from operating activities			
Net operating expenditure for the year	SoCNE	(515,233)	(469,451)
Adjustments for non cash transactions – auditor's remuneration	4	40	40
Decrease/(Increase) in trade and other receivables	8	4,041	(13,303)
(Decrease)/Increase in trade and other payables	10	(2,925)	19,498
Use of provisions	15	(385)	770
Net cash outflow from operating activities		**(514,462)**	(462,446)
Cash flows from investing activities			
Purchase of non-financial assets - intangibles	6	(600)	-
Net cash outflow from inversting activities		**(600)**	-
Cash flows from financing activities			
Net parliamentary funding – drawn down		511,000	467,000
Net financing		**511,000**	467,000
Net (Decrease)/Increase in cash and cash equivalents in the period		**(4,062)**	4,554
Cash and cash equivalents at the beginning of the period	9	15,576	11,022
Cash and cash equivalents at the end of the period	9	11,514	15,576

The notes on pages 104–118 form part of these financial statements.

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2021

2020–21	General fund[i]	Revaluation reserve[ii]	Total
	£000	£000	£000
Balance at 01 April 2020	**15,474**	**8,980**	**24,454**
Net Parliamentary Funding – drawn down	511,000	-	511,000
Net operating expenditure for the year	(515,233)	-	(515,233)
Non-cash adjustments:			
Non-cash charges – auditor's remuneration	40	-	40
Movements in reserves:			
Disposals	-	(10,582)	(10,582)
Revaluations	-	(5,062)	(5,062)
Balance at 31 March 2021	**11,281**	**(6,664)**	**4,617**

2019–20	General fund[(i)]	Revaluation reserve[(ii)]	Total
	£000	£000	£000
Balance at 01 April 2019	17,885	20,855	38,740
Net Parliamentary Funding – drawn down	467,000	-	467,000
Net operating expenditure for the year	(469,451)	-	(469,451)
Non-cash adjustments:			
Non-cash charges – auditor's remuneration	40	-	40
Movements in reserves:			
Disposals	-	(18,442)	(18,442)
Revaluations	-	6,567	6,567
Balance at 31 March 2020	15,474	8,980	24,454

Notes:

(i) The general fund is used to support the on-going operations of the Agency and represents the investment made by the Agency or parent Department.

(ii) The revaluation reserve represents the decrease of value of financial derivatives in relation to the cashflow hedge instruments.

The notes on pages 104–118 form part of these financial statements.

NOTES TO THE FINANCIAL STATEMENT FOR THE YEAR

1. Statement of Accounting Policies

1.1 Basis of accounting

These financial statements have been prepared in accordance with the 2020–21 Government Financial Reporting Manual (FReM), as set out in a statutory Accounts Direction issued pursuant to section 7(2) of the Government Resources and Accounts Act 2000.

The accounting policies contained in the FReM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context. Where the FReM permits a choice of accounting policy, the accounting policy which is judged to be most appropriate to the particular circumstances of the UK Space Agency for the purpose of giving a true and fair view has been selected. The particular policies adopted by the Agency are described below. They have been applied consistently in dealing with items that are considered material in relation to the accounts.

1.2 Going concern

The financial statements cover the activities of the UK Space Agency and are prepared on a going concern basis. In line with the 2020–21 FReM guidance on IAS 1 interpretation of going concern for the public sector non-trading entity, the Directors are satisfied that the 2020–21 financial statements have been prepared on a going concern basis. The Directors have assessed the financial position as at 31 March 2021, giving consideration to the impact of Covid-19 and the anticipated continuation of the statutory basis of the Agency's services, and are content not to doubt the Agency's continuing existence for 2021–22 and beyond. The UK Space Agency is an Executive Agency of the Department for Business, Energy and Industrial Strategy (BEIS), and the Department has agreed 2021–22 budget for the Agency. Moreover, the department's estimates and forward plans include provision for the Agency's continuation beyond 2021–22. It has therefore been considered appropriate to prepare these accounts on a going concern basis.

1.3 Accounting convention

These accounts have been prepared under the historical cost convention modified to account for the revaluation of financial assets and financial liabilities.

1.4 Presentational currency

The financial statements are presented in pounds sterling and all values are rounded to the nearest thousand pounds (£'000). The functional currency of the Agency is pounds sterling.

1.5 Intangible non-current assets

Intangible non-current assets are capitalised if they are intended for use on a continuing basis and their original carrying value, on an individual or asset pool basis, exceeds the capitalisation threshold of £10,000. Where there is an active market, the valuation is derived from the active market. Where there is no active market, intangible non-current assets are valued at depreciated replacement cost as Agency's intangible non-current assets are not income-generating and do not therefore have value in use. They are amortised on a straight-line basis over the following periods:

Patents, licences and royalties	15 years

1.6 Financial instruments

The Agency recognises and measures financial instruments in accordance with IFRS 9 Financial Instruments as interpreted by the FReM for public sector.

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial assets and financial liabilities are recognised in the Statement of Financial Position when the Agency becomes a party to the contractual provisions of an instrument.

The fair value of financial instruments is determined by reference to quoted market prices where an active market exists for the trade of these instruments. The fair value of financial instruments which are not traded in an active market is determined using generally accepted valuation techniques, including estimated discounted cash flows.

Financial assets are de-recognised when the rights to receive future cash flows have expired or are transferred and the Agency has transferred substantially all the risks and rewards of ownership. Financial liabilities are de-recognised when the obligation is discharged, cancelled or expires.

1.6.1 Financial assets

In accordance with IFRS 9 Financial Instruments, the Agency classifies financial assets into the following categories:

- Amortised cost
- Fair value through other comprehensive income (FVOCI); and
- Fair value through profit or loss (FVTPL).

The classification of financial assets is based on the business model in which a financial asset is managed and its contractual cash flow characteristics.

IFRS 9 introduced some key changes to impairment of financial assets. The new impairment model is forward looking and is based on expected credit loss (ECL) model which applies to the following financial assets:

- Financial assets measured at amortised cost;
- Trade receivables, contract assets and lease receivables;
- FVOCI loans; and
- Financial guarantees.

1.6.2 Financial liabilities

In accordance with IFRS 9 Financial Instruments, the Agency classifies financial liabilities as either:

- Amortised cost, or
- Fair value through profit or loss (FVTPL).

Financial liabilities are measured at amortised cost unless either:

- The financial liability is held for trading (i.e. it is held with principal purpose of selling or repurchasing it in the near term), therefore it must be measured at FVTPL; or
- The Agency elects to measure the financial liability at FVTPL.

1.7 Hedge accounting under IFRS 9 Financial Instruments

Derivative financial instruments comprise forward contracts held to hedge the Agency's exposure to foreign currency risk. They are designated as cash flow hedges. The effective portion of change in the fair value is recognised in equity. The gain or loss relating to the ineffective portion is recognised immediately in the Statement of Comprehensive Net Expenditure. Amounts accumulated in equity are recycled to the Statement of Comprehensive Net Expenditure in the periods when the hedged item affects the Statement of Comprehensive Net Expenditure.

Financial instruments held to hedge foreign currency risk exposures are designated as cash flow hedges if the criteria for applying cash flow hedge accounting under IFRS 9 are met. If the criteria are not met, such as when a forecast transaction is no longer expected to occur, the forward contract is accounted for as a financial instrument held for trading purposes and any cumulative gain or loss that was reported in taxpayer's equity is immediately transferred to the Statement of Comprehensive Net Expenditure.

The Agency does not hold or issue derivative financial instruments for trading purposes.

1.8 Operating income

Operating income is income that relates directly to the operating activities of the Agency and is measured at the fair value of consideration received or receivable and is shown net of trade discounts; value added tax and other taxes. It comprises, principally, statutory licence fees for activities covered by the Outer Space Act (OSA) 1986; co-funding income from other public sector bodies; grant funding from the EU; and charges for services provided, on a full cost basis, to external customers. Operating income is recorded in accordance with IFRS 15.

For the licensing income stream, the Agency considers performance obligation to be satisfied on delivery of the OSA licence or application decision to the licensee. Contract liabilities (deferred income) relate to the consideration received from licensees in advance of the performance obligation.

1.9 Grants payable and receivable

Grants payable are recognised in the period in which the grant recipient carries out the activity that creates an entitlement to grant. Recognition of entitlement varies according to the details of individual schemes and the terms of the offers made. Unpaid and unclaimed grants are charged to the Statement of Comprehensive Net Expenditure on the basis of estimates of claims not received and are included in accruals in the Statement of Financial Position.

1.10 Ownership of equipment purchased by research grant

Equipment that has been purchased by an Institution with research grant funds supplied by the Agency belongs to that Institution. Through the Conditions of Grant applied to funded institutions, the Agency

reserves the right to determine how such equipment shall be disposed of and how any disposal proceeds are to be utilised. Such equipment is excluded from these financial statements.

1.11 Insurance

As an Executive Agency of the Department for Business, Energy and Industrial Strategy (BEIS), the Agency, along with other public bodies of the Departmental group, do not generally insure. Insurance will only be obtained on items which, with the agreement of the Department, require it due to the risks involved. Insurance premiums are charged to the Statement of Comprehensive Net Expenditure. Staff travelling overseas on business are covered by the Department's insurance policy for any medical costs incurred abroad, but are expected to take out their own travel insurance policy to cover any loss or damage to personal property. Claims directly related to business property are considered under BEIS expenses policy guidelines.

1.12 Foreign exchange

Transactions that are denominated in a foreign currency are translated into pound sterling at the rate of exchange prevailing on the date of each transaction unless covered by a forward exchange contract. Monetary assets and liabilities denominated in foreign currencies at the Statement of Financial Position date are translated at the rates of exchange ruling at that date. These translation differences are recognised in the Statement of Comprehensive Net Expenditure.

1.13 Pensions

The Agency's staff are covered by the provisions of the Principal Civil Service Pension Scheme (PCSPS) and Civil Servants And Others Pension Scheme (CSOPS) as described in the Remuneration and Staff Report. Defined benefit schemes are unfunded. The Agency recognises the expected cost of these elements on a systematic and rational basis over the period during which it benefits from employees' services by payment to the PCSPS and CSOPS of amounts calculated on an accruing basis. Liability for payment of future benefits is a charge on the PCSPS/CSOPS. In respect of the defined contribution elements of the Schemes, the Agency recognises the contributions payable for the year.

Contributions to the defined benefit pension scheme are charged to the Statement of Comprehensive Net Expenditure in accordance with actuarial recommendations so as to spread the cost of the pensions over the employee's expected working lives. Further details of the pension schemes can be found on the Civil Service Pensions website at www.civilservicepensionscheme.org.uk

1.14 Employee benefits

In accordance with IAS 19 Employee Benefits, the Agency is required to recognise short-term employee benefits when an employee has rendered service in exchange for those benefits. Included in the financial statements is an accrual for the outstanding employee holiday entitlement at 31 March 2021 on an undiscounted basis.

1.15 Taxation

The Agency, as an Executive Agency of BEIS, is exempt from income and corporation tax by way of its Crown exemption.

Value Added Tax (VAT) is accounted for in the financial statements, in that amounts are shown net of VAT except:

- Irrecoverable VAT is charged to the Statement of Comprehensive Net Expenditure, and included under the relevant expenditure heading;
- Irrecoverable VAT on the purchase of an asset is included in additions.

The net amount due to, or from, HM Revenue and Customs in respect of VAT is included within other receivables and payables in the Statement of Financial Position.

1.16 Operating leases

Leases in which significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases.

Operating lease rentals are charged to the Statement of Comprehensive Net Expenditure on a straight-line basis over the term of the lease, in accordance with IAS 17 Leases. Any difference between amounts charged and amounts paid is treated as prepayments or accruals. The amounts payable in the future, disclosed in Note 13.1 Operating Leases, are not discounted.

Operating lease income is recognised in rental income on a straight line, undiscounted basis over the lease term.

1.17 Contingent liabilities

The Agency discloses contingent liabilities in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets. In the event that a contingent liability crystallises, it is expected that the parent department, BEIS, will fund this liability.

1.18 Provisions

A provision is recognised when it is probable that an outflow of economic benefits will be required to settle a present obligation (legal or constructive) that can be reliably measured and which results from a past event. Where the time value of money is material the provision is measured at present value using discount rates prescribed by HM Treasury. No provision presented in these financial statements has been discounted as the impact of the time value of money was deemed to be immaterial.

1.19 Reporting by operating segment

Under HM Treasury guidance in the FReM, the UK Space Agency is expected to meet the requirements of IFRS 8 Operating Segments to report information concerning operating segments where the criteria under IFRS 8 are met.

Although the Agency considers that its activities contribute to an overall mission within the same business environment, nevertheless there are separable operating segments on a geographical basis, namely National and International.
See Note 2 Statement of operating costs by operating segment for further detail.

1.20 Estimation techniques used and key judgements

The preparation of the Agency's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities, income and expenditure. The estimates and associated assumptions are based on historical experience and other factors, including expectations or future events that are believed to be reasonable under the circumstances, the results of which form the basis for making judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Uncertainty about these assumptions and estimates could result in outcomes that require an adjustment to the carrying value of the asset or liability. Where applicable these uncertainties are disclosed in the notes to the financial statements.

In accordance with IAS 8 Accounting Policies, Changes in Accounting Estimates and Accounting Policies, revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

The estimates and assumptions that have a risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are fluctuations in the fair value of financial assets/liabilities measured using forward market exchange rates. See Note 7 Other financial assets and liabilities for further information.

1.21 Changes in accounting policies

Accounting policies are unchanged compared to those in the 2019-20 Agency's financial statements.

1.22 Changes to International Financial Reporting Standards (IFRS) and 2020–21 Financial Reporting Manual (FReM)

1.22.1 Changes to IFRS

In accordance with the FReM, these financial statements apply EU adopted IFRS and Interpretations in place as at 1 January 2021. The following new standards will be adopted by the Agency in full, when they are applied in the FReM, unless the requirements are interpreted or adapted by the FReM:

IFRS 16 Leases

IFRS 16 Leases, will replace IAS 17 Leases and related IFRIC and SIC Interpretations. IFRS 16 was published by IASB in January 2016 with the aim of improving the financial reporting of leases. FReM has deferred implementation of this standard in the public sector until 1 April 2022 but early adoption is permitted from 1 April 2021. In line with the parent Department, the Agency has elected to adopt IFRS from 1 April 2021.

IFRS 16 represents a significant change in lessee accounting by removing the distinction between operating leases (off-statement of financial position financing) and finance leases (on-statement of financial position financing), and introducing a single lessee accounting model. IFRS 16 requires the recognition of all leases as finance leases with exemption given to low value leases and short-term leases, i.e. those with lease terms of less than 12 months as mandated by the FReM. This will result in the recognition of a right-to-use asset, measured at the present value of future lease payments, and a matching liability in the Statement of Financial Position.

Upon transition, the FReM has mandated the use of practical expedient in IFRS 16, which means the Agency only applies the standard to contracts which were previously identified as leases under IAS 17 and IFRIC 4. In addition, the FReM has also mandated that upon transition, the prior year comparatives

will not be restated and a cumulative catch up will be recognised in the Statement of Changes in Taxpayers' Equity along with opening balance transition adjustment in the SoFP to recognise the right of use assets and right of use liabilities.

The overall impact of the new accounting standard on the 2021-22 Statement of Comprehensive Net Expenditure (SoCNE) will be immaterial, whilst material right-to-use assets of circa £4.5 million and a corresponding right of use lease liabilities will be recognised in the SoFP from 1 April 2021. The expected impact is based on the value of operating leases the Agency had in place at 31 March 2021 (more information can be found in Note 13.1 Obligations under operating leases).

IFRS 17 Insurance Contracts
IFRS 17 Insurance Contracts, will replace IFRS 4 Insurance Contracts, and requires reporters to identify insurance contracts, and for those contracts recognise an insurance contract liability. The insurance contract liability is calculated as the present value of future insurance cashflows (the fulfilment cash flows) plus a subsequent risk adjustment. The IASB announced the deferral of IFRS 17 until 1 January 2023 and, therefore, the implementation timetable in the public sector is being extended to at least 1 April 2023. HMT are considering the application of IFRS 17 to the public sector in particular with respect of the practice of self-insurance across the public sector as an area that may be adapted for government bodies. The Agency is currently working closely with the parent Department to provide feedback on the impact of the IFRS 17 adoption as part of the HMT consultation.

1.22.2 Changes to the FReM

There were no changes adopted in the 2020–21 FReM.

2. Statement of Operating Costs by Operating Segment

The Agency has two main geographical segments namely, international and national, and it is on this basis that reportable segments have been identified.

Funding is received from BEIS to cover the cost of international subscriptions to the European Space Agency and the remainder of its programme work at a national level. National programme work includes being responsible for delivering aspects of specific project work in the UK as well as funding universities and companies to undertake various research and development activities.

The activities within the two segments are reported monthly to the Executive Board using a management accounts format which analyses at budget ring fences and is compared against funding allocations. This is further analysed at a directorate level enabling full financial control to be maintained.

The segments are separate for decision making purposes and there are no transactions between the two segments.

There have been no changes in segmental identification since the previous reporting period.

Statement of Financial Position analysis by segment is not reported to the Executive Board and, therefore, in accordance with IFRS 8 Operating Segments, is not disclosed in the financial statements.

	2020–21			2019–20		
	National segment	**International segment**	**Total**	National segment	International segment	Total
	£000	**£000**	**£000**	£000	£000	£000
Gross expenditure	128,815	388,436	517,251	134,461	336,775	471,236
Income	(996)	(1,022)	(2,018)	(277)	(1,508)	(1,785)
Net operating costs	**127,819**	**387,414**	**515,233**	134,184	335,267	469,451

Description of segments
The national segment mainly consists of expenditure on work undertaken within the UK either by the means of funding to research institutions or companies or expenditure on major national programmes.

The international segment mainly consists of expenditure with the European Space Agency in the form of subscriptions which are used to fund, along with subscriptions from other national governments, its various space programmes.

Central administrative and operational costs are reported under the national segment reflecting the way they are reported to the Executive Board.

3. Staff Costs

	2020–21	2019–20
	£000	£000
Wages and salaries	11,557	9,352
Social security costs	1,285	1,044
Other pension costs	3,134	2,516
Subtotal	**15,976**	12,912
Add cost of inward secondments	187	174
Less recoveries in respect of outward secondments	-	(16)
Total staff costs	**16,163**	13,070

Further analysis of staff costs, average number of persons employed and other relevant disclosures can be found in the Remuneration and Staff Report.

4. Total Operating Expenditure[i]

	Note	2020–21	2019–20
		£000	£000
International subscriptions			
European Space Agency (ESA)	(ii)	394,418	352,428
Recognised gain on forward exchange contracts		(10,582)	(18,442)
Net loss on foreign exchange spot rate (non-hedge)		435	234
Total ESA subscriptions		**384,271**	334,220
Other international subscriptions		9	-
Other international grants & payments			
French Space Agreement (CNES) bilateral agreements		2,557	1,292
ESA mandatory tax adjustment	(iii)	1,247	1,263
ESA ECSAT2 development		320	-
Other		32	-
National grants and other funding			
Academic grants	(iv)	25,895	19,626
International Partnership Programme		19,964	24,293
National Space Innovation Programme		10,571	-
Spaceflight Programme		6,293	12,196
Spectrum Charges		4,017	4,017
National Space Technology Programme		2,673	4,465
SABRE		2,494	13,123
JASON C/S		-	3,309
Other national programme grants and funding		5,347	4,178
Total subscriptions, grants and other funding		**465,690**	421,982
Technical contracts and contract management		**28,971**	27,369
Operational costs			
Temporary staff costs		3,336	2,580
Rentals under operating leases	(v)	1,088	1,038
Payments for departmental shared services	(vi)	1,062	907
Accommodation		488	1,099
Training and other staff costs		461	379
Travel and subsistence		92	1,260
Auditors remuneration (external)		40	40
Other		259	742
Total operational costs		**6,826**	8,045
Total operating expenditure	(i)	**501,487**	457,396

Notes:

(i) Total operating expenditure disclosed in SoCNE also includes staff costs as per Note 3 Staff costs and provision expense as per Note 15 Provisions for liabilities and charges.

(ii) The Agency pays an annual subscription to ESA in Euros. To manage our budgets effectively, the Agency entered into forward exchange contracts with the Bank of England to hedge about 67% of its total 2020-21 commitments to ESA. The total exposure at spot rate in 2020-21 would have been £394,418k.

(iii) The Agency is liable in accordance with Article 42 of the Coordinated Organisation's Pension Scheme Rules, for the amount of tax adjustment applicable to pensions borne by the Member State in which the recipient is subject to taxes on income. The 2020-21 tax liability of £1,247k (2019-20: £1,263k) relates to tax of the recipients in the United Kingdom for the European Space Agency.

(iv) Prior to the creation of the Agency the responsibility for provision of academic research grants was undertaken by the Science Technology and Facilities Council (STFC), now part of UK Research and Innovation (UKRI). Since 1 April 2011, such grants are the responsibility of the Agency. Due to the ongoing nature of some of the grants and the expertise that UKRI have in this area it has been agreed that UKRI would continue to maintain the process and make any necessary payments, recharging the Agency for the costs of such grants. The cost of maintaining and processing these payments is minimal and UKRI has agreed to undertake this activity on a nil cost basis. Therefore there is no charge for this activity to the Agency.

(v) The Agency entered into four operating lease agreements for office accommodation. See Note 13.1 Operating Leases for more information.

(vi) Payments for departmental shared services include the costs of centrally provided information technology and legal advice. From 1 April 2017 legal services are provided by the Government Legal Department via an SLA with BEIS. The overall charge for legal advice costs in 2020-21 was £287k (2019-20: £353k).

5. Income from Operating Activities

	Note	**2020–21**	2019–20
		£000	£000
EU SST Programme		1,023	1,165
Rental income	13.2	537	315
Outer Space Act 1986 licence fees		487	221
Other Income		(29)	84
Total		**2,018**	1,785

6. Intangible Assets

	Note	**2020–21**	2019–20
		£000	£000
Patents, licences and royalties	(i)		
Cost or valuation			
Balance at 01 April 2020		-	-
Additions		600	-
Balance at 31 March 2021		**600**	-
Amortisation			
Balance at 01 April 2020		-	-
Charged in year		-	-
Balance at 31 March 2021		**-**	-
Carrying value at 31 March 2021		**600**	-
Asset financing:			
Owned		600	
Carrying value at 31 March 2021		**600**	-

Note:

(i) During 2020-21, the Agency purchased specialist software. The software was not brought into full operational use and therefore no amortisation charges were recognised in these financial statements.

7. Other Financial Assets/Liabilities

The UK Space Agency has a number of derivative contracts that have been designated as cashflow hedges to better plan currency fluctuations in relation to its international subscriptions payable to the European Space Agency in Euros. These contracts are revalued at each year end based on the future forward market rates, as provided by the Bank of England, at that time. Any such revaluations at the year end therefore reflect unrealised gains and losses at that time.

The UK Space Agency uses forward exchange contracts as part of a balanced portfolio of hedges designed to control foreign currency risk in line with the level of risk appetite adopted by the Executive Board. The Agency is fully compliant with the BEIS departmental hedging policy, which forbids using financial instruments for speculative purposes. Hedging contracts may be placed with the Bank of England where the expected cost at the current exchange rate represents at least 2% of the total budget or the value of the transaction is greater than £2,000,000. The only form of hedging foreign currency risk allowed within the BEIS family of partner organisations is the use of forward contracts so as to provide greater budget certainty and therefore plan the future expenditure more effectively.

	Note	**2020–21**	2019–20
		£000	£000
Balance at 01 April 2020		8,980	20,855
Disposals (contracts settled in year)	(i)	(10,582)	(18,442)
Revaluation movement	(ii)	(5,062)	6,567
Balance at 31 March 2021		**(6,664)**	8,980
Non-current other financial assets		-	242
Current financial assets		-	8,770
Total other financial assets		**-**	9,012
Non-current other financial liabilities		-	(32)
Current financial liabilities		(6,664)	-
Total other financial liabilities		**(6,664)**	(32)
Total net other financial assets and liabilities		**(6,664)**	8,980
Net change in value of cash flow hedges impacting reserves	(iii)	**(15,644)**	(11,875)

Notes:

(i) The disposal value arose through the completion of four forward exchange contracts with settlement dates falling in the reporting period. This notional value represents the total cumulative unrealised (gain)/loss for each of these contracts previously recognised in the revaluation reserve and removed on completion.

(ii) Revaluation movement represents the difference in the fair value of the contracts still in place at 31 March 2020 and 31 March 2019. These contracts are for subscriptions payable up to 1 October 2021. The GBP to EUR forward rate moved from 1.12 to 1.17 during the year.

(iii) Further information on the reported change in the value of cash flow hedges can be found in the Statement of Changes in Taxpayers' Equity on page 103 under the Revaluation Reserve disclosures.

Cashflow hedge contracts

The hedge contract is designed to allow for cash flow planning and enables effective budgeting to align with the comprehensive spending reviews which are normally undertaken by the government every three years. The hedge contract is not designed to protect against currency risk which will result in an unrealised gain or loss arising each year end when hedges are revalued. On completion of the contract, there will be either an opportunity gained or lost resulting from the movement in the exchange rate. As this is outside management control, and in line with the HM Treasury's Consolidated Budgeting Guidance 2020–21, these gains and losses are only recognised under the resource annually managed expenditure (RAME) budgetary category.

During the reporting period the Agency maintained in total a hedge portfolio of six forward exchange contracts, four of which matured during the year. The outstanding two contracts will reach settlement between 1 June 2021 and 1 October 2021. The total cost of these contracts is £150,265,895 and as at 31 March 2021 fair value of all forward contracts held by the Agency was £143,602,465. There has been a negative movement on the revaluation reserve as at 31 March 2021 of (£6,663,430).

The fair value of forward exchange contracts is determined by comparing the contractually agreed cost on creation of the contract with the fair value of the contract translated at the future forward market rate provided by the Bank of England at close of trading on 31 March 2021 for the relevant forward exchange contracts' settlement dates. These are indicative rates only, and therefore in accordance with IFRS 13 Fair Value Measurements, the valuation inputs are classified as Level 2.

Credit risk
Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The UK Space Agency does not issue any loans, apart from staff loans, and does not have any outstanding loans. Any staff loans in issue are not material and do not present any credit risk to the organisation.

Liquidity risk
Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities. In common with other government agencies, the future financing of its liabilities is to be met by future funding from the parent department, namely the Department for Business, Energy and Industrial Strategy, which receives its funding by means of Supply, voted annually by Parliament. There is no reason to believe that future approvals will not be forthcoming, therefore, on this basis the UK Space Agency is not exposed to liquidity risks.

Market risk

Foreign currency risk
The UK Space Agency's exposure to foreign currency risk during the year was significant, though this was considerably mitigated by the use of cashflow hedge contracts. The expenditure on international subscriptions to the European Space Agency, in Euros, was made in three instalments during the year. The Agency aims to manage a portfolio of forward contracts to purchase Euros at approximately 80% of the annual subscription payable to ESA during a calendar year thereby fixing the exchange rate to be used. Depending on the movement of exchange rates and risk appetite, this percentage (coverage) can fluctuate by 10%. The remaining 10-30% is translated at the prevailing spot rate.

The Agency also has limited transactional currency exposure arising from occasional payments made in currencies other than sterling and through reimbursing foreign travel and subsistence costs for staff travelling to international bodies. Such transactions are translated at the prevailing spot rate and the amounts involved are not material.

Interest rate risk
The UK Space Agency does not invest or access funds from commercial sources. The UK Space Agency does not have any loans or contracts that are subject to interest rate fluctuation and is not subject to any interest rate risk.

The UK Space Agency does not participate in any market reliant activities and is not subject to market risk.

8. Trade Receivables and Other Current Assets

	Note	31 March 2021	31 March 2020
Trade and other receivables less than one year		**£000**	£000
Trade receivables		577	362
Other receivables		76	21
Prepayments & accrued income	(i)	57,140	60,708
VAT		(383)	360
Total		**57,410**	61,451

Note:

(i) Prepayments and accrued income include a prepayment made to the European Space Agency of £57,033k (2019-20: £59,018k).

9. Cash and Cash equivalents

	Note	31 March 2021	31 March 2020
		£000	£000
Cash and cash equivalents			
Balance at 1 April		15,576	11,022
Net change in cash and cash equivalents		(4,062)	4,554
Balance at 31 March		**11,514**	15,576
The following balances at 31 March were held at:			
Government Banking Service	(i)	**11,514**	15,576

Note:

(i) Included in the cash balance is £473,377 (2019-20: £473,377) held on behalf of the Ministry of Defence, who are third party beneficiary in the EU SST programme. This funding was received from the EU.

10. Trade Payables and Other Current Liabilities

	Note	31 March 2021	31 March 2020
		£000	£000
Trade and other payables less than one year			
Trade payables		1,240	1,779
Other payables		607	630
Accruals	(i)	54,905	56,938
Contract liabilities	(ii)	728	1,157
Deferred income		378	279
Total		**57,858**	60,783

Notes:

(i) Accruals include accrued expenditure in respect of National Programme (via UKRI) of £15,390k (2019–20: £11,506k); ESA of £7,778k (2019–20: £11,710k); Spaceflight Programme of £6,296k (2019–20: £7,364k); NSIP of £6,172k (2019-20: None); IPP of £2,923k (2019–20: £2,605k); SBPP of £2,137k (2019–20: None); NSTP of £556k (2019-20: £1,032k); SABRE of £435k (2019-20: 3,390k), NSPOC of £378k (2019-20: None); and GNSS of £308k (2019-20: £9,223k). The remaining balance of £12m is made up of other programmatic and operating expenditure accruals, including the employee benefits accrual in respect of untaken annual leave.

(ii) In accordance with IFRS15, contract liabilities of £728k were recognised with regards to OSA licence fees received in 2019–20 and 2020–21 for licences not yet issued as at 31 March 2021 (2019–20: £1,257k).

11. Capital Commitments

There were no capital commitments as at 31 March 2021 (2019-20: none).

12. Other Financial Commitments

12.1 International subscriptions commitments

The UK Space Agency has entered into non-cancellable forward contracts (which are not leases or PFI contracts), in connection with a financial instrument for hedging international subscription payments. The payments to which the Agency is committed, analysed by the period during which the commitment expires, are given below:

	31 March 2021	31 March 2020
ESA	**£000**	£000
Not later than one year	150,266	264,384
Later than one year and not later than five years	-	150,266
Total	**150,266**	414,650

12.2 Grants commitments

	31 March 2021	31 March 2020
	£000	£000
Not later than one year		
Spaceflight Programme	10,465	16,410
Academic Grant Commitments	9,843	19,643
International Partnership Programme	5,035	16,980
SABRE	210	2,614
	25,554	55,647
Later than one year and not later than five years		
Spaceflight Programme	1,170	6,264
Academic Grant Commitments	1,810	10,655
	2,979	16,918
Total	**28,533**	72,566

13. Operating Leases

13.1 Obligations under operating leases

Total future minimum lease payments under operating leases are given in the table below.

Obligations under operating leases for the following periods comprise:	31 March 2021 £000	31 March 2020 £000
Land:		
Not later than one year	39	-
Later than one year and not later than five years	158	-
Later than five years	395	-
	592	-
Buildings:		
Not later than one year	1,087	1,085
Later than one year and not later than five years	2,948	3,356
Later than five years	-	470
	4,035	4,911
Total	**4,627**	4,911

Notes:
In 2013-14, the Agency entered into a lease agreement with NATS (En Route) Plc for office accommodation at the NATS Swanwick Control Centre. The lease commenced on 7 January 2014 and will expire on 31 December 2030. There is no security of tenure after this date. The agreed initial rent charge was £83,745 per annum, which will be reviewed every five years and linked to the Retail Price Index (RPI). The base occupier's and tenant's charges were initially set at £359,609 per annum, and the landlord has the right to review these charges annually in line with the movements in RPI. In 2020–21, the total lease payments charged to the Statement of Comprehensive Net Expenditure were £514,789 (2019–20: £501,853).

On 1 October 2023, the Agency intends to exercise an early lease surrender option in line with the break clause in the lease agreement. The total minimum lease payments on an undiscounted basis up to that point are included in the above table. The total minimum lease payments on an undiscounted basis up to 31 December 2030 would amount to £5,748,300.

In August 2019, the Agency entered into a lease agreement with the Government Property Agency (GPA) for office accommodation at 10 Victoria Street, London, for the SBPP (formerly GNSS) programme staff. The lease commenced on 27 August 2019 and will expire on 18 February 2026. There is no security of tenure after this date. The agreed initial rent charge was £172,645 per annum which will be subject to annual indexation. The lease payments charged to the Statement of Comprehensive Net Expenditure were £171,936 (2019–20: £171,845).

In September 2019, the Agency entered into an additional lease agreement with the Government Property Agency (GPA) for office accommodation at 10 Victoria Street, London. The lease commenced on 30 September 2019 and will expire on 18 February 2026. There is no security of tenure after this date. The agreed initial rent charge was £364,820 per annum which will be subject to annual indexation. The lease payments charged to the Statement of Comprehensive Net Expenditure were £364,820 (2019–20: £335,149).

In April 2020, the Agency entered into a short-term lease agreement with Satellite Applications Catapult Limited for office accommodation at the Electron Building based within the Harwell Oxford campus for a lease term up to 31 March 2021 at the cost of £30,558 per annum. During the reporting period, the Agency exercised the option to extend the lease from 1 April 2021 to 31 March 2024. There is no security of tenure after this date.

In March 2021, the Agency entered into a lease agreement with BNP Paribas Depository Services for the land at Westcott site for a lease term of 15 years, with an early surrender option in March 2028. The agreed initial charge is £39,500 per annum (subject to review).

13.2 Operating leases granted

Total future minimum sublease income under non-cancellable operating subleases are given below:

	31 March 2021	31 March 2020
Buildings:	**£000**	£000
Not later than one year	518	517
Later than one year and not later than five years	800	1,206
Later than five years	-	-
Total	**1,318**	1,723

Note:

In 2020-21, the Agency granted an operating sublease to the Ministry of Defence (MoD). The The Memorandum of Terms of Occupation (MOTO) agreement mirrors the terms of the superior headlease with NATS and is for an agreed amount for a period of 9 years from 1 April 2020. The lease covers office accommodation rented from NATS (En Route) Plc. MoD have no security of tenure after the lease expires on 31 December 2030. In line with the Agency's intention to exercise the break clause on 1 October 2023, the future minimum lease payments up to that date have been disclosed in the above table. The total minimum lease payments on an undiscounted basis up to 31 December 2030 would amount to £5,748,277.

14. Head Office Accommodation

The UK Space Agency operates out of the UK Research and Innovation site in Swindon, which is owned by the UKRI on a joint tenancy agreement. All relevant costs are charged and recorded against operating costs as incurred. There are no capital commitments.

15. Provisions for Liabilities and Charges

	31 March 2021	31 March 2020
Dilapidations[i]	**£000**	£000
Balance at 1 April 2020	770	-
Provided in the year	-	770
Provisions not required written back	(385)	-
Provisions utilised in the year	-	-
Balance at 31 March 2021	**385**	770

Note:

(i) In 2013-14, the UK Space Agency entered into an operating lease with NATS (En Route) Plc for office accommodation for the Galileo Security Monitoring Centre (GSMC). At the end of the lease term in December 2030 or in the event of an early surrender of the lease, the Landlord has the contractual right to enforce the Agency to pay for costs of dilapidations which as at 31 March 2021 were estimated at £770,400. In 2020–21, the Agency entered into a MOTO agreement with the Ministry of Defence (MoD) for the premises at GSMC. MoD agreed to equally share the costs of dilapidations, therefore the dilapidations provision was reduced accordingly.

16. Related Party Transactions

During 2020–21, the UK Space Agency was an Executive Agency of the Department for Business, Energy and Industrial Strategy and BEIS was regarded as a related party with which the Agency had various material transactions. In addition, the back-office function for processing national grants was outsourced to UK Research and Innovation (UKRI), formerly the Science and Technology Facilities Council (STFC), which was also recognised as a related party. UKRI are an entity for which BEIS is regarded as the parent Department.

Employee benefits received by Agency's key management personnel are disclosed in the Remuneration and Staff Report on pages 79–90. In addition, the UK Space Agency made the following aggregated payments to third parties where Agency's directors and non-executive members are also senior members of staff:

Name	Position with related party	Description of transactions	Value of transactions £000
Frances Saunders	Member of the UKRI Science and Technology Facilities Council	Programme expenditure	**5,941**
Sally Howes	Transformation associate to Cabinet Office Infrastructure and Projects Authority	Programme expenditure, CO led cross departmental services and staff secondment charges	**1,892**
	Chair of Surrey Research Park at the University of Surrey	Programme expenditure	**2**
Chris Castelli	Professor at the Open University	Programme expenditure	**1,141**
Graham Turnock	Trustee for the National Space Centre	Programme expenditure	**100**

17. Events after the Reporting Period

There have been no events between the Statement of Financial Position date and the date the accounts were authorised for issue requiring an adjustment to the financial statements.

The date the accounts were authorised for issue is interpreted as the date of the Certificate and Report of the Comptroller and Auditor General.

APPENDIX 1

Organisation	Service Provided
UK Shared Business Services (UKSBS)	To support our business delivery, the Agency uses BEIS's partner organisation, UKSBS, to provide operational procurement, and transactional services in finance, payroll and human resources. The assurance on the internal control for each of these services is provided by BEIS as part of the Department's Shared Services Programme. The Government Internal Audit Agency (GIAA) is UKSBS's internal auditor. GIAA's internal audit reports provide input to UKSBS Executive Director's Quarterly Management Assurance letters to Accounting Officers. At the end of 2020-21, the overall assurance for UKSBS customer facing operations was assessed as Amber. Further narrative is available in the Governance Statement for UK SBS, which is published as part of its Annual Report and Accounts.
BEIS ICT services	The Agency uses BEIS's contracted provider for ICT. The assurance on the internal controls for these services is undertaken by BEIS.
Government Legal Department (GLD)	The Agency makes use of the services of GLD for the provision of the majority of legal advice sought by the Agency. The assurance on the internal control for these services is undertaken by BEIS as part of the Departmental Service Level Agreement with GLD.
Government Actuary's Department (GAD)	The Agency uses the GAD for actuarial analysis to help inform policy development where appropriate.
Health and Safety Executive's Science Division (HSE-SD)	The Agency uses the HSE-SD to undertake research and help shape development of regulations and guidance on safety management systems and risk analysis with respect to spaceflight activities in the UK. HSE is Britain's statutory regulator of occupational health and safety. They provide input to HMG across a wide range of issues from both a technical angle (using its extensive scientific capability), and a regulatory perspective. HSE-SD's relationship with the rest of HSE gives them a unique insight into the regulation of safety-critical and hazardous industries such as spaceflight. HSE-SD has a strong international reputation for high-quality, published research and worldwide collaboration on risk management. They are a designated World Health Organization Collaborating Centre for Occupational Health and Safety Research.
Government Recruitment Service (GRS)	To support the Agency's resourcing needs, we use GRS for delivering our recruitment and resourcing requirements. UKSA provides the information and GRS delivers the placing of job adverts on the CS Jobs Portal both for internal and external vacancies, together with information that supports the sifting and interview process and elements that support the on-boarding. Assurance is maintained on the effectiveness of the service being provided through the SLA, Management Information and meetings with the GRS Account Manager.
The Ministry of Justice	The MOJ's advisory service manages all Agency HR Casework. Assurance is maintained on the service through data received from Civil Service HR Casework through the BEIS single point of contact and regular client meetings with the Account Manager. In addition, feedback is provided as required by the Agency Mangers, who use the service to highlight any strengths or weakness that may need to be resolved.
UK Security Vetting (UKSV)	The Agency uses UKSV to provide all our National Security Vetting (NSV) requirements.

APPENDIX 2

Terminology	Risk Appetite Definitions
Averse	Avoidance of risk and uncertainty is a key organisational objective.
Minimalist	Preference for ultra-safe business delivery options that have a low degree of inherent risk and have a potential for only limited reward.
Cautious	Preference for safe delivery options that have a low degree of residual risk and may only have limited potential for reward.
Open	Willing to consider all potential options and willing to consider the one most likely to result in successful delivery.
Bold	Eager to be innovative and to choose activities offering potentially very high rewards even if these activities carry very high inherent risk.

GLOSSARY

AME	Annually Managed Expenditure	JWST	James Webb Space Telescope
ARAC	Audit and Risk Assurance Committee	KPI	Key Performance Indicator
ARTES	Advanced Research in Telecommunications Systems Programme	MoU	Memorandum of Understanding
ASLC	Accruing Superannuation Liability Charges	NAO	National Audit Office
BCM	Business Continuity Management	NASA	National Aeronautics and Space Administration
BEIS	Department for Business, Energy and Industrial Strategy	NCSC	National Cyber Security Centre
CAA	Civil Aviation Authority	NGO	Non-Governmental Organisation
CETV	Cash Equivalent Transfer Values	NSIP	National Space Innovation Programme
CSOPS	Public Service (Civil Service and Others Pension Scheme)	NSSI	National Space Skills Institute
CPNI	Centre for the Protection of National Infrastructure	NSTP	National Space Technology Programme
CNI	Critical National Infrastructure	ODA	Official Development Assistance
DAASIC	Director's Annual Assurance Statements of Internal Control	OSS	Oxford Space Systems
DEL	Departmental Expenditure Limits	PNT	Positioning, Navigation and Timing
DSTL	Defence Science and Technology Laboratory	PSA	Programme Support Activities
EB	Executive Board	PCSPS	Principal Civil Service Pension Scheme
ECSAT	European Centre for Satellite Applications and Telecommunications	SABRE	Synergistic Air-breathing Rocket Engine
EEI	Employee Engagement Index	STSC	Science and Technical Sub-Committee
ESA	European Space Agency	SAR	Synthetic Aperture Radar
EU	European Union	SCS	Senior Civil Service
FCDO	Foreign, Commonwealth and Development Office	SIRO	Security, Information and Risk Officer
FTE	Full-time equivalent	SLA	Service Level Agreement
GAD	Government Actuary's Department	SME	Small and Medium-sized Enterprise
GCRF	Global Challenges Research Fund	SoXSA	Scottish Centre of Excellence in Satellite Applications
GIAA	Government Internal Audit Agency	SPIN	Space Placements in Industry
GIS	Government Interview Scheme	SSC	Space Sector Council
GLD	Government Legal Department	SSGP	Space for Smarter Government Programme
GPC	Government Procurement Card	STEM	Science, technology, engineering, and mathematics
GSTP	General Support Technology Programme	SPINtern	Space Placements in INdustry intern
HSE	Health and Safety Executive	SPIN	Space Placements in Industry
IADC	Inter-Agency Space Debris Coordination Committee	STSC	Science and Technical Sub-Committee
ICAI	International Commission on Aid Impact	UN	United Nations
IPP	International Partnership Programme	UN COPUOS	United Nations Committee on the Peaceful Use of Outer Space
ISS	International Space Station		

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