



Corporate Plan  
**2022-25**

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





**UK Space Agency  
Corporate Plan**

2022-25



---

# Contents

Foreword	4
Our Value Proposition	6
Our Priorities	8
Wider UK Government space priorities	9
Delivery Timeline	19
Our Organisation and People	20
Our Approach to Delivery	22
Risk, Assurance and Governance	24
ESA and the 2022 Council of Ministers (CMIN 22)	25
Possible impacts on the UK Space Agency of the Russian invasion of Ukraine	25
Our Financial Plan	26

# Chief Executive

## Foreword



**Dr Paul Bate**  
Chief Executive

For decades, space science and technology have shaped how we live, work and understand our world - from satellite TV and navigation to smartphone apps and climate science.

Today, our way of life on Earth depends on space. Satellites help us to predict the weather, keep businesses connected and products moving, and monitor our planet's health. They underpin the UK's financial system and critical national infrastructure.

Tomorrow, space will help us to forge a greener, smarter and more inclusive society. Self-driving cars and smart cities will use satellite data to cut energy use. Spacecraft will repair and clean up after themselves. The first astronauts with disabilities and the first woman and person of colour to walk on the moon will inspire us to see the limitless possibilities of a career in science and engineering.

The National Space Strategy aims to seize these opportunities, to make the UK one of the world's most innovative and attractive space economies. It sets bold goals to grow and level up our economy, lead inspiring scientific discoveries, promote British values, protect our national interests and improve peoples' lives. This Corporate Plan describes how the UK Space Agency will work across Government, the space sector and internationally to deliver them.

We will catalyse investment into the sector, deliver missions and capabilities that meet UK needs, and champion space to investors, customers and the public. We will hold ourselves to account for our results, guided by a North Star Metric that monitors the value of investment and income we bring into the sector.

Kicking off an ambitious programme of work, 2022 should see the first small satellite launched from UK soil. The UK Space Agency's Spaceflight Programme has stimulated British innovation, attracted global investment and business, and inspired people around the UK.

This landmark event would not have been possible without our expert and dedicated UK Space Agency staff and partners. We will build on this and deliver a transformation programme that makes the Agency match-fit for the future, a great place to work for our staff and an expert partner to our sector.

We will face challenges. The UK space sector continued to operate throughout the Covid pandemic, creating around 3,000 new jobs in 2020. But the invasion of Ukraine and increasing cost of living have created new pressures.



We will continue to support our staff and sector in a changing world. By connecting our commitment to professional excellence with our dedication to staff wellbeing and development, we will get the best results for our people, our sector, and our planet's future in space.

Space is a team sport. This Corporate Plan sets out how we will play our full part in this expert, inspiring and future-defining team.

**Dr Paul Bate**  
Chief Executive of UK Space Agency

## Our Value Proposition

The National Space Strategy defines Government's ambition to make the UK one of the world's most innovative and attractive space economies. This corporate plan sets out how the UK Space Agency will help to deliver it.

Our Value Proposition describes the UK Space Agency's delivering of the National Space Strategy over the next three years. It was developed following engagement with UKSA colleagues and space stakeholders across the UK and internationally, and is based on what people told us they would most value from the Agency. Each of the elements is mutually reinforcing, with our priorities and programmes typically contributing to all three.

Together, they set out the Agency's role on the space team. We:

- **Catalyse investment**, by deploying our funding and resources to multiply the value of non-Government contracts and private capital secured by UK space organisations to maximise the space sector's long-term growth
- **Deliver missions and capabilities**, independently and with others, that use space science, technology and applications to meet national needs and help humanity to understand our universe.
- **Champion space**, encouraging other sectors to use space to deliver better services, tackle the climate emergency, inspire STEM education and lifelong learning, and advocate for sustainable space activities.



# CEO's **UK** Roadtrip



# Our Priorities

To achieve the greatest impact in these three areas, we will focus most of our resource behind eight delivery Priorities. They form the basis for our budget and programme plans, and help us to design the structure, skills, and operating model we need:



## Launch

Deliver the first small satellite launch from the UK in 2022, and a sustainable commercial UK launch market by 2030.



## Innovation

Deliver a step change in the UK's share of the fastest growing or highest-potential commercial space markets, by managing a portfolio of investments in high risk, high reward technologies and applications, supported by future-focused regulation.



## Earth observation

Deliver a portfolio of activities that ensures long-term value for money access to the data we need.



## Discovery

Manage frequent national and international space missions, short and long term, that strengthen UK capability in space science and engineering, and that offer opportunities for the UK to lead global discovery.



## LEO Capabilities

Use the UK's low Earth orbit assets to deliver transformative new capabilities, including in broadband, position, navigation and timing, and Earth observation.



## Levelling-up

Increase and spread space investment and jobs, by accelerating the growth of a connected network of local space clusters.



## Sustainability

Deliver capabilities to track objects in orbit and to reduce and remove debris; lead global regulation and standard-setting to make space activities more sustainable.



## Inspiration

Deliver a programme that inspires young people to pursue STEM education, attracts talent to the UK space sector, and demonstrates the benefits of space science, technology, and applications.

**Delivering our Priorities well depends on two enabling activities (Transformation and Relationships) that will transform our organisation and support our staff and stakeholders, in addition to the business-as-usual functions that ensure we comply with our legal, fiduciary and Parliamentary responsibilities.**



## Transformation

Transform the Agency into a delivery-focused organisation that puts its people first, is aligned to our Value Proposition and needs of our stakeholders, and is 'match fit' to achieve our priorities.



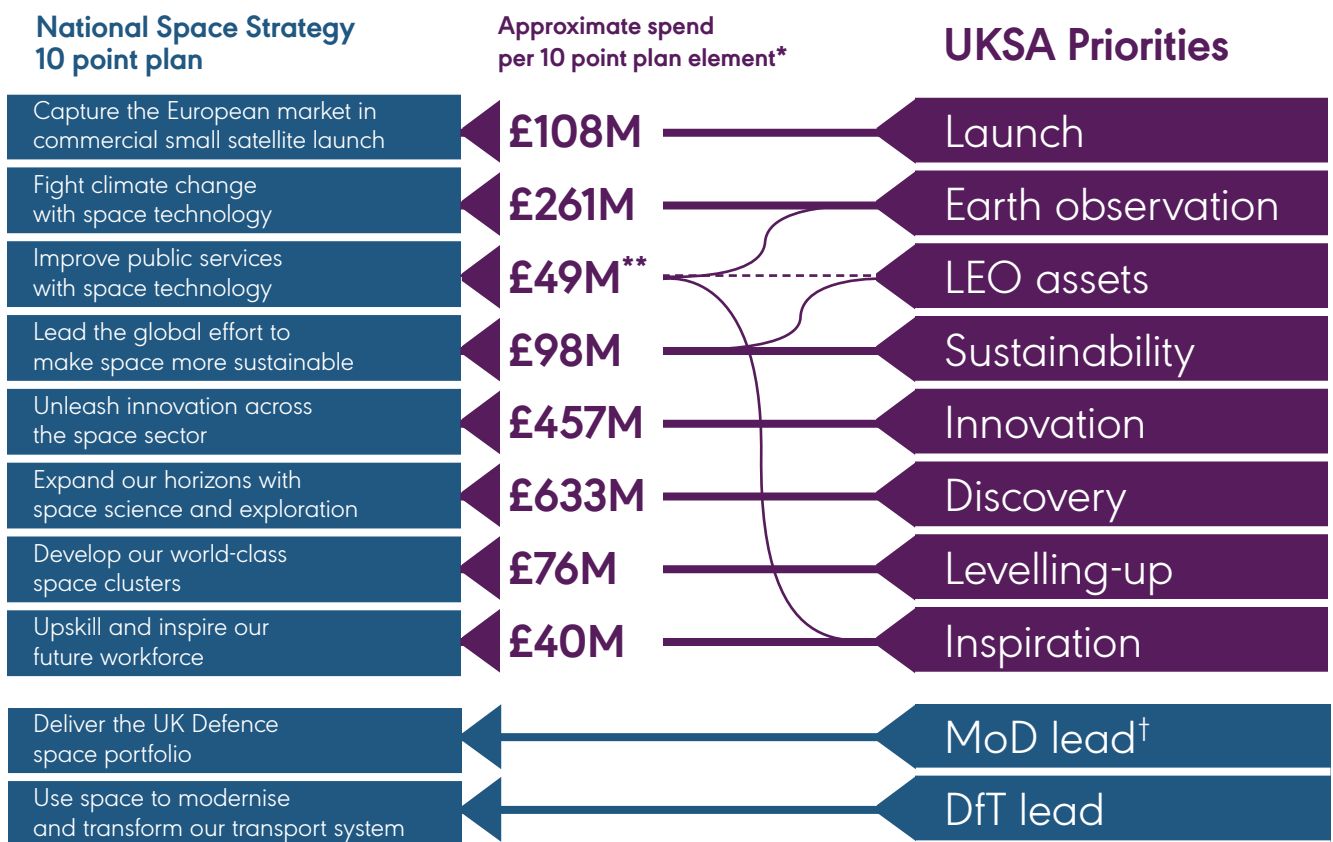
## Relationships

Build and manage strong relationships with key space investors, suppliers and customers, that deepen our mutual insight and confidence, and help us to together deliver the National Space Strategy.

# Wider UK Government space priorities

Our Priorities focus UK Space Agency resource at the activities that best catalyse investment into the UK space sector, deliver capabilities and missions that meet UK needs and help us understand our Universe, and champion the benefits of space to investors, customers and the next generation of scientists and engineers.

Through these priorities, the UK Space Agency will support cross-Government activity to deliver the initial commitments in the NSS 10 Point Plan.



\* Figures shown here represent direct costs excluding Agency operating costs and are indicative, as many of UKSA's programmes cut across multiple aspects of the 10 point plan.

\*\* £49M includes Earth observation and Inspiration figures.

† Working with the Ministry of Defence (MoD) and Space Command, we are looking to establish dual-use capabilities across a range of sectors including EO and Space Domain Awareness.



## Launch

**NSS 10 point plan commitment:** Capture the European market in commercial small satellite launch.

**UKSA value proposition:** Deliver space capabilities and missions.

We will achieve the first small satellite launch from Europe in 2022 and aim to help the UK become the leading provider of commercial small satellite launch services in Europe by 2030.

For 30 years, the UK's pioneering work on small satellite technology has revolutionised the industry. Small satellites have cut the cost of space research and services, opening access to more students, scientists and entrepreneurs. New businesses like OneWeb are using constellations of hundreds of small satellites to provide global connectivity.

This means that global demand for small satellite launch<sup>1</sup> is growing fast. In 2012, small satellites made up 1% of the total mass of satellites launched. By 2019 it was 11%<sup>2</sup>. This is creating high value commercial opportunities: launch services are worth a potential £3.8 billion to the UK economy over the next decade<sup>3</sup>.

To grow and level up our space economy, the NSS aims to make

the UK a leading destination for UK launch. By delivering capabilities to launch small satellites from UK spaceports, UKSA will make the UK a one-stop-shop for satellite services, attracting new business and investment from around the world. We will create highly skilled jobs across the UK, levelling up opportunities from Cornwall to Scotland.

**Over the next three years, UKSA's Spaceflight Programme will:**

- Deliver three pathfinder UK launches with Virgin Orbit from Cornwall in 2022, and with ABL from the Shetland Islands and Orbex from Sutherland in 2023.
- Co-fund the development of critical launch infrastructure and technology, including accelerating growth

of launch service providers and commercial spaceports, as well as research and development on new launch technologies.

- Manage international agreements with other governments, governing the impact of UK launch activity on other nations' interests.
- Raise awareness of UK launch activities to inspire new STEM students and professionals, and space customers and investors.

1 Total launch payloads weighing less than 1000kg.

2 *Smallsats by the numbers 2020*, Bryce Space and Technology (2020).

3 <https://www.gov.uk/government/news/britain-competes-for-the-launch-of-an-estimated-2000-satellites-by-2030>

Orbex





## Earth Observation

**NSS 10 point plan commitment:** Fight climate change with space technology; improve public services with space technology.

**UKSA value proposition:** Deliver space capabilities and missions.

We will grow the UK's Earth observation capabilities, to provide the data and skills we need to drive prosperity and scientific discovery, and fight climate change.

Climate change threatens our way of life. If we do not limit global warming to 1.5°C above pre-industrial levels, we will see more extreme weather, failed crops and rising sea levels driving millions from their homes. The UK is already taking action, through a Net Zero Strategy that will help us to end the UK's contribution to climate change. Space plays a vital role in this. Monitoring three quarters of key climate variables recommended by the Global Climate Observation Committee requires data from satellites.

These Earth observation satellites also support other services that are a growing part of our lives and work: from forecasting weather to monitoring crops. Earth observation and climate services are worth a potential £15 billion globally over the next decade<sup>4</sup>. To drive growth and scientific discovery, and harness space technologies to protect our planet, the NSS aims to keep the UK

at the forefront of Earth observation technology. The UK is already home to a world-leading Earth observation sector. By delivering new missions and supporting research, UKSA will help them to develop the technologies, skills and infrastructure they need to stay competitive and lead global efforts to protect our planet.

### Over the next three years, UKSA's Earth observation programmes will:

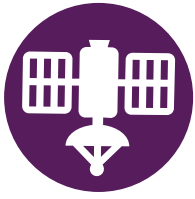
- Deliver the Microcarb mission with CNES, the French space agency, to monitor fluxes in carbon dioxide: a leading cause of climate change.
- Help UK organisations to collaborate on global research and development in Earth observation through ESA programmes.
- Support research and development in new Earth observation technologies, including through the Centre for Earth Observation Instrumentation.
- Provide leadership in using space technology and data to tackle climate change, chairing the Space4Climate group of leading UK experts and representing the UK in global fora like the Committee on Earth Observation Satellites.

UKSA are working closely with BEIS and Defra to consider how best to support the Earth Observation sector in the event the UK does not associate to the EU's Copernicus programme.

<sup>4</sup> The global market for space-based climate services is expected to reach 15 billion euro by 2030, with the UK share being approximately 1.5 billion euros based on the current market share which has been estimated to be 10.3 per cent. (Routes to market report 08-Satellite Technologies for Climate Risk Services, Innovate UK, pg 15.)

Earth view from space

Getty Images



## Low Earth Orbit (LEO) Capabilities

**NSS 10 point plan commitment:** Unleash innovation across the space sector; improve public services with space technology.

**UKSA value proposition:** Deliver space capabilities and missions.

We will maximise the potential of the UK's capabilities in LEO and become a global leader in development and use of LEO technology.

Orbits close to the Earth offer unique advantages. Their close proximity is especially useful for high resolution satellite imaging, while new developments in using very large constellations of small satellites in LEO mean they can create a "net" around the world to offer complete low-latency communications and broadband connectivity.

The UK already manufactures many of the satellites destined for LEO, and has invested \$500m in the satellite internet business OneWeb, which aims to provide broadband services from a 648-satellite constellation in LEO.

To grow the space economy, the NSS highlights the importance of growing the UK share of markets like satellite and payload manufacture, communications, and satellite broadband. By exploring new ways to maximise the value the UK gets from the satellites we build and operate in LEO, UKSA will accelerate sector growth, and help businesses to provide valuable space-enabled public and consumer services.

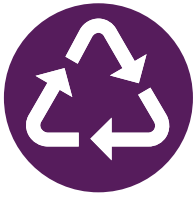
### In the next three years, UKSA will:

- Conduct a scoping exercise to understand how the Agency can maximise the benefits of the UK's capabilities.
- Subject to policy direction, resources and funding, support the uptake and advancement of strategic UK LEO capabilities.

*International Space Station (ISS)  
Orbiting Earth in Space*

Getty Images





## Space Safety and Sustainability

**NSS 10 point plan commitment:** Lead the global effort to make space more sustainable.

**UKSA value proposition:** Deliver space capabilities and missions.

We will deliver capabilities to track objects in orbit and reduce or remove debris, and lead global regulation and best practice to make space activities more sustainable.

The UK's critical national infrastructure depends on space. Satellites are integral to essential public and consumer services: satellite timing signals underpin financial transactions, satellite navigation helps to transport goods around the world, and satellite communications keep emergency services connected. Losing access to position, navigation and timing satellites for less than a week could cost an estimated £5bn.

But satellites face growing risks. Space is getting more congested, with hard-to-track debris that could destroy a satellite. Extreme space weather, like solar flares, could also damage satellite systems and disrupt services on the ground. Companies in the UK and around the world are responding, with new services to extend satellite life by repairing them in space and removing the debris that threatens them - potentially worth an estimated \$1bn to the UK by the end of 2030<sup>5</sup>.

The NSS aims to protect and defend our national interests in and through space. By delivering capabilities to maintain satellites in-orbit, track objects in the sky and monitor the effects of space weather, UKSA will safeguard our critical space assets and make space sustainable for future generations.

### Over the next three years, UKSA's Space Safety and Sustainability programmes will:

- Continue to operate our Space Surveillance and Tracking service, to warn of possible collisions between satellites and debris, the re-entry of debris into Earth's atmosphere, and events that could cause debris.
- Work with the Ministry of Defence to deliver a new civil and defence National Space Operations Centre, to strengthen our capability to track space objects and provide information to industry.
- Develop the Vigil mission, working with ESA to build and launch a new spacecraft that will monitor potentially harmful space weather.
- Explore options to launch a UK mission to capture and remove debris from low Earth Orbit by 2026.
- Take a leading role in global dialogue about responsible behaviour in space and promote best practice, including with ESA and the UN.

*Space debris orbiting Earth.*

Getty Images





## Innovation

**NSS 10 point plan commitment:** Unleash innovation across the space sector.

**UKSA value proposition:** Catalyse investment.

We will catalyse investment in the UK space sector by supporting the innovations that help our businesses to build their share of the fastest growing or highest potential commercial space markets.

Space science, exploration and business are powered by innovation, turning new ideas into mission-ready instruments and marketable digital applications. The UK has been at the cutting-edge of pioneering technologies for decades - from small satellites and compact antennae, to the science and instruments behind the new James Webb Space Telescope.

The global space economy could be worth \$490 billion by 2030<sup>5</sup>. As more countries join the international space community and multinational technology companies expand into space data and services, UK businesses must harness new materials, methods and models to attract investment and win business.

The NSS aims to grow the UK space economy, worth £16.5bn in 2020<sup>6</sup>, by unleashing innovation in areas of existing UK strength, in high-growth markets, and in the new markets on the horizon. By helping the sector to develop disruptive products and services, UKSA will create high skilled jobs, accelerate business growth, and multiply private investment and contracts - helping to meet Government's target to invest 2.4% of UK GDP in research by 2027.

**Over the next three years, UKSA's Innovation programmes will:**

- Focus on catalysing investment in the UK, including by using our funding to attract private sector investment into our space sector.

- Support sector-led developments of innovative technologies and applications that will attract the most investment and high value contracts to the UK.
- Help UK organisations to collaborate on global research and development in satellite telecommunications, Earth observation, and position, navigation and timing technologies, through national and ESA programmes that deliver high economic return to the UK.
- Build on our UK-Australia Space Bridge to explore other options to partner directly with other nations on research and development projects, exchanging our expertise to develop new space solutions.

*The James Webb space telescope mirror seen in full bloom.*

NASA/Chris Gunn



5 National Space Strategy, HM Government (2021)

6 Size and Health of the UK Space Industry, BryceTech (2022)





## Discovery

**NSS 10 point plan commitment:** Expand our horizons with space science and exploration.

**UKSA value proposition:** Deliver space capabilities and missions.

We will maintain the UK’s position as a global leader in space science and exploration missions that answer fundamental questions about the Universe and open new frontiers for humans to live and work.

UK scientists and engineers are a part of today’s most exciting space missions. They have helped to send spacecraft to study the sun and Mercury, built rovers to explore Mars, run experiments on the International Space Station, and provided science and instruments for the most powerful telescope ever launched into space.

Commercial space services are helping to transform space science and exploration, as companies join with national space agencies, as well as working independently, to build space stations, and support humanity’s return to the moon and first steps on Mars.

The NSS sets a high ambition for the UK to continue to lead pioneering scientific discovery and inspire the

nation. By continuing to deliver lead UK roles in complex and ambitious space missions, UKSA will help the sector to develop their workforce, invest in skills and facilities, and advance their technologies.

**Over the next three years, UKSA’s Discovery programmes will:**

- Join new multinational experiments on the International Space Station and develop our national capability - with new particle vibration experiments launching in 2022.
- Work with ESA to launch the Euclid mission to study dark energy, and JUICE mission to explore Jupiter and its icy moons, both lifting off in 2023/24 with UK-led instruments on board.

- Develop ARIEL, ESA’s Atmospheric Remote-sensing Infrared Exoplanet Large survey. The UK is leading on mission science and the consortium developing instruments.
- Lead the 2023 Lunar Trailblazer mission, working with ESA to study water on the Moon.
- Partner directly with individual nations on bilateral science missions that pool our expertise and resource to unlock new discoveries.
- Work with ESA to find an affordable solution to launch ExoMars this decade.

*ESA astronaut Matthias Maurer installs the MicroAge experiment in the Kubik facility in the Columbus Module on the International Space Station.*

ESA/NASA





## Levelling -up

**NSS 10 point plan commitment:** Develop our world-class space clusters; improve public services with space technology.

**UKSA value proposition:** Catalyse investment.

We will help level up the UK space economy, accelerating growth, jobs and value across the country and strengthening the Union.

The Levelling Up White Paper sets Government's mission to give everyone the opportunity to flourish, wherever they live. It commits to end the UK's geographical inequality, using innovation and entrepreneurship to drive growth across the country.

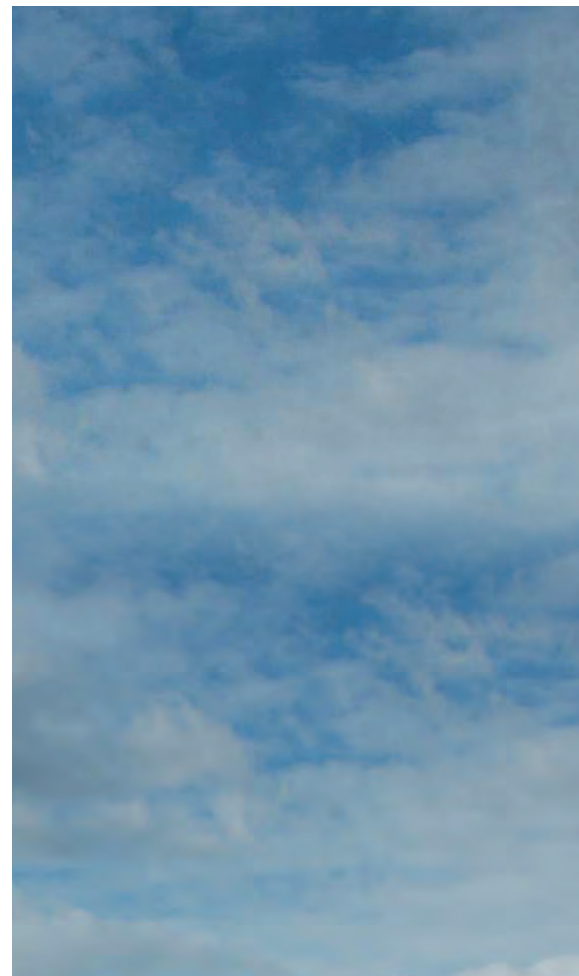
Like other industries, the UK space sector's activities have been heavily concentrated in a small number of locations. In 2020, 48% of space jobs were based in London and the South East<sup>7</sup>. But space can also be an important tool for change. Spaceports have been a powerful levelling-up agent, creating new high-skilled jobs in Cornwall and Scotland. And, supported by UKSA, new space clusters have announced plans to support prosperity across local communities.

The NSS goal to grow and level-up the space economy makes clear that we must support the sector to develop more opportunities outside of its traditional heartlands. By accelerating the growth of a local space clusters, we will multiply and spread space investment and jobs.

### In the next three years, UKSA's Levelling-Up programmes will:

- Offer guidance and support to help space organisations to cluster, work together and exchange knowledge.
- Reduce barriers to entry for start-ups and SMEs, and attract new companies to join the sector, including through the Innovation support outlined above.
- Invest in research, development and infrastructure projects that help organisations to start and scale-up across the country.
- The National Programme will also be bolstered by a new Space Clusters and Infrastructure Fund (SCIF), which will be used to develop new space sector infrastructure and innovation opportunities around the UK while also supporting the North Star metric to maximise space investment.

<sup>7</sup> *Size and Health of the UK Space Industry*, BryceTech (2022)



Virgin Orbit

Virgin





## Inspiration

**NSS 10 point plan commitment:** Upskill and inspire our future workforce.

**UKSA value proposition:** Champion space.

We will champion the benefits of space products and services, ensure space careers are accessible to all, and inspire and train future generations of entrepreneurs and thinkers.

Space is an extraordinary home to unparalleled discoveries and dynamic new businesses. But it can also feel remote and inaccessible. Government has an important responsibility to raise awareness of the opportunities and challenges in space, to champion its value to customers and investors, and to spark interest in STEM education and careers.

The UK space workforce is highly skilled and growing, rising to 47,000 in 2020<sup>8</sup>. But space organisations have reported challenges in recruiting in-demand skills including those which are not technical<sup>9</sup>, while a recent space census highlighted that women and trans people, carers, ethnic minorities, people with disabilities, and those from less advantaged socio-economic backgrounds are under-represented<sup>10</sup>.

The NSS makes clear that a skilled and diverse workforce is vital to the sector's success. Its future growth also depends on new customers and investors from other parts of the economy. By raising public awareness, educating future STEM professionals, and connecting space organisations with customers and investors, UKSA will create a pipeline of talent and investment.

### In the next three years, UKSA's Inspiration programmes will:

- Raise awareness across society of the importance of space derived data and services and how they influence their daily lives, educating business as well as the population at large about how the medium of space can help to tackle the challenges facing the economy and society as a whole.
- Scale up and ensure that all young people have access to inspiring space resources which will help them to understand how STEM subjects increase their life opportunities and their understanding of subjects as diverse as the health of our planet, and how humans age.
- Ensure that the resources we deliver are designed to help to increase the number of young people, especially girls and those from disadvantaged backgrounds, who study STEM subjects at primary, secondary and tertiary levels.
- Improve access to the skilled people that the sector needs to diversify and grow sustainably, regularly surveying its needs, signposting and highlighting the accessibility of careers in the sector to professionals in other sectors, ensuring that professionals can find relevant training, and supporting internships, fellowships, scholarships and bursaries at all levels.

<sup>8</sup> *Size and Health of the UK Space Industry*, BryceTech (2022)

<sup>9</sup> *Space Sector Skills Survey 2020*, BMG Research (2021)

<sup>10</sup> *2020 Space Census*, Space Skills Alliance (2021)

*NASA's Interstellar Mapping and Acceleration Probe, or IMAP, will help us better understand the nature of interplanetary space, which is dominated by a constant flow of particles from the Sun called the solar wind.*

NASA/GSFC/SDO



---

## Internal priorities

Delivering our priorities depends on two critical enablers – transformation and relationships – as we transform our organisation, support each other, and manage our stakeholders.

---



### Transformation

---

This critical enabler will transform the Agency into a delivery-focused organisation that is a great place to work via the Integrated Transformation Programme.

Our transformation activities include: an organisational redesign as part of the development of a Target Operating Model (TOM); the implementation of effective and efficient processes; continued deployment of our People Strategy with an additional focus on culture and capability enhancements; improving the maturity of our Portfolio Office; and developing our capability for performance reporting, risk management, the provision of assurance, and effective governance.

---



### Relationships

---

The Agency will build and manage strong relationships with key space investors, suppliers, and customers. These relationships will serve to deepen our mutual insights and confidence, and help us to collectively deliver the NSS and catalyse investment into the sector.

We will achieve this through consideration of the available investment options open to programme teams across the agency, piloting new tools and approaches such as working with the TOM team to design an Agency that adopts an Account Management approach, conducting market engagement to secure buy-in from industry, and working closely with cross-Whitehall teams to develop the required organisational frameworks to support the delivery of investment ambitions.

This priority also supports our international teams to expand UK partnerships with other space-faring nations in order to attract new investment into the UK economy.

# Delivery Timeline

		2022/23	2023/24	2024/25
Launch	Phase 1	<ul style="list-style-type: none"> <li>1st UK Horizontal Launch (Virgin Orbit, Cornwall Spaceport)</li> <li>Investment in launch technologies - subject to OBC approval</li> </ul>	<ul style="list-style-type: none"> <li>1st Vertical Launch (ABL, SaxaVord Spaceport) - including launch of OMV</li> <li>2nd Vertical Launch (Orbex, Sutherland Spaceport)</li> <li>CSTS: Skyrora 1st and 2nd Stage test complete, Orbex demonstration of responsive payload integration, D-Orbit Launch of InOrbitNow service, Space Forge Demonstration of reusable on-demand microgravity service.</li> </ul>	
	Phase 2	<ul style="list-style-type: none"> <li>Outline Business Case PIC/HMT approval</li> </ul>	<ul style="list-style-type: none"> <li>Further launch sector investments - subject to FBC approval</li> </ul>	<ul style="list-style-type: none"> <li>Further launch sector investments - subject to FBC approval</li> </ul>
Earth Observation		<ul style="list-style-type: none"> <li>CEOI new contract secured</li> <li>CEOI call for technology projects</li> <li>Microcarb instrument arrives in UK</li> <li>SWOT Launch</li> <li>Space 4 Climate/Space Climate Observatory call</li> <li>Data Architecture requirements agreed</li> </ul>	<ul style="list-style-type: none"> <li>CEOI call for technology projects</li> <li>S4C Call</li> </ul>	<ul style="list-style-type: none"> <li>Microcarb launched</li> <li>ESA missions (CMin22 funding dependent)</li> <li>CEOI new contract secured</li> <li>CEOI call for technology projects</li> <li>S4C call</li> </ul>
Space safety and sustainability		<ul style="list-style-type: none"> <li>Active Debris Removal (ADR) Full Business Case approved</li> </ul>	<ul style="list-style-type: none"> <li>NSpOC Full Business Case approved</li> </ul>	<ul style="list-style-type: none"> <li>Additional NSSA go live</li> </ul>
Innovation		<ul style="list-style-type: none"> <li>NSIP Full Business Case approved</li> <li>1st NSIP funding calls opened</li> <li>Final selection of major partnership proposals for CMin22</li> <li>International Bilateral Fund Business Case approved</li> </ul>	<ul style="list-style-type: none"> <li>NSIP projects selected in 22/23 underway</li> <li>2nd NSIP funding calls opened - projects identified and underway</li> <li>Launch International Bilateral funded projects</li> </ul>	<ul style="list-style-type: none"> <li>Conclusion of NSIP projects</li> <li>Monitoring &amp; Evaluation of NSIP completed</li> <li>Delivery of International Bilateral projects</li> </ul>
Discovery		<ul style="list-style-type: none"> <li>1st UK instrument on the Moon</li> <li>Adoption of UK proposed Comet Interceptor mission by ESA Member States</li> <li>Full Business Case approved for £30M investment in UK leadership of Ariel exoplanet mission</li> <li>Selection of first instruments to be funded through the new Science and Exploration Bilateral Programme</li> <li>Completion of the Particle Vibration Experiment for the ISS</li> <li>Selection of next tranche of UK ISS experiments</li> <li>UK participation in new ESA Fast Class and Medium Class mission candidates reviewed</li> <li>Preliminary Design Review of UK led Ariel science payload</li> <li>UK institutes play central role in third full data release from ESA's Gaia mission</li> <li>James Webb Space Telescope, and its UK built MIRI instrument, begin full science operations</li> </ul>	<ul style="list-style-type: none"> <li>Funding agreed for UK teams to compete in study phases of new ESA Fast Class and Medium Class Science mission candidates</li> <li>UK contributions to ESA's Euclid dark matter ready for launch</li> <li>Launch of UK built Magnetometer instrument, on board ESA's JUICE mission to study Jupiter's moons</li> <li>Flight model of UK built Soft X-Ray Imager instrument delivered to ESA's SMILE mission</li> <li>Annual Exploration Science Call undertaken</li> <li>Critical Design Review for MSR Earth Return Orbiter</li> <li>Delivery of Ariel payload Structural Model</li> <li>Critical Design Review of UK led Ariel payload to finalise its flight design</li> <li>Progression of Science and Exploration Bilateral Programme projects</li> <li>Adoption of ESA gravitational wave mission LISA, business case approval of UK hardware and science data leadership roles</li> </ul>	<ul style="list-style-type: none"> <li>Build of ISS experiments completed</li> <li>Provisional Design Review for the first European Large Logistics Lander (EL3)mission</li> <li>Launch of the Halo Lunar Communications System to the Gateway</li> <li>Flight of the European Mass Spectrometer on the LUPEX mission</li> <li>Launch of Lunar Pathfinder</li> <li>Launch of UK led ESA Science mission SMILE</li> <li>Deliveries of Science and Exploration Bilateral Programme projects</li> <li>Completion of Ariel payload Engineering Model</li> <li>Critical Design Reviews of Ariel payload and spacecraft, and beginning of payload flight hardware subsystem deliveries</li> </ul>
Low Earth Orbit		<ul style="list-style-type: none"> <li>Conduct scoping exercise to understand possible opportunities</li> </ul>	<ul style="list-style-type: none"> <li>tbc</li> </ul>	<ul style="list-style-type: none"> <li>tbc</li> </ul>
Levelling-up		<ul style="list-style-type: none"> <li>SCIF Outline Business Case approved - SCIF funding call launched</li> <li>Local Growth Programme - Space Cluster development call launched, and projects selected</li> </ul>	<ul style="list-style-type: none"> <li>SCIF Full Business Case approved - SCIF grants signed</li> <li>Fund Space Cluster development projects, through Local Growth Programme</li> </ul>	<ul style="list-style-type: none"> <li>Conclusion of SCIF projects</li> <li>Conclusion of Space Cluster development projects</li> </ul>
Inspiration		<ul style="list-style-type: none"> <li>National Space Skills Institute (NSSI) Briefing event</li> <li>Interim - Education and skills programme</li> <li>Championing Space programme (business engagement) Business Case approved</li> </ul>	<ul style="list-style-type: none"> <li>Inspiration Full Business Case approved (Inspire, Learn, Skills)</li> <li>Championing Space programme (business engagement) funded projects</li> </ul>	

ESA COUNCIL OF MINISTERS

# Our Organisation and People

Delivering our Value Proposition requires a delivery-focused organisation that is a great place to work. We want to foster a kind, inclusive and diverse Agency that is representative of the communities we serve. This means building a respectful and positive workplace culture in which our colleagues feel safe to be themselves and are empowered to deliver the UK's ambitions in space, whilst fulfilling their potential through clear goals and intent.

## Civil Service People Survey 2021

The 2021 Civil Service People Survey (CSPS) ran from 28 September to 3 November and we were measured as an Agency in our own right. The UK Space Agency (UKSA) participation rate was 84%, which is slightly lower than last year (86%) but significantly higher than the overall Civil Service response rate of 62%.

The Employee Engagement Index (EEI) score was 62%; this is a decrease of 3% from the previous year which shows there is work to do on engagement overall.

### Issues and Actions:

Although it is encouraging to see the scores have increased in four of 9 EEI themes (My Manager, My Team, Inclusion and Fair Treatment, Resources and Workload) we recognise that we need to double our efforts to understand the underlying issues and effectively address the concerns of staff in the other five themes (My Work, Organisational, My Team, Learning & Development, Objectives & Purpose, Pay & Benefits and Leadership & Change) where the following scores are lower than last year:

- In the past 12 months 15% of Agency staff reported they had been discriminated against,
- and 19% reported bullying and harassment (3% higher than 2020).

The Agency is undertaking focused activities to understand and deal with these specific issues.

The significant changes brought on by the pandemic, as well as other organisational factors, have no doubt impacted on the survey results. However, we continue to work in collaboration with our Trade Unions and Staff Networks to address the concerns of staff through the delivery of the People Strategy launched in June 2021.

The introduction of new initiatives such as the UKSA Wellbeing Standards, Learning & Development and Lunch & Learn sessions, Reverse Mentoring and the Leadership Development Programme highlight a few examples of what has already been delivered. UKSA acknowledges however that it is clear that there is much more it must and should do to make working the UK Space Agency a great experience for everyone.

This year, the Agency is embarking on an 18-month Integrated Transformation Programme (ITP) that is aimed at transforming the Agency into a delivery-focused organisation that is aligned to our Value Proposition and ensures the efficient and effective delivery of our Priorities. Our strategy for working in a post-Covid Hybrid world will be a key element of the programme and we will look at improvements across people, place, and technology. The ITP will be co-designed with our people – equality, diversity, inclusion – and the psychological safety of staff will be a key marker of success.

We will invest further in leadership and management, in line with the Civil Service Leadership Statement, and we will use the annual Civil Service People Survey and other feedback mechanisms to assess and improve staff engagement. We will continue to improve our human resources processes, so that we can support a more flexible and agile workforce that meets the needs of our people and the organisation. As we come out of the disruption caused by the Covid-19 pandemic, supporting our people to adjust to new hybrid ways of working is a key priority.



## How we organise ourselves

The ITP, one of our two internal priorities, will give the Agency the right processes, capabilities, structure, and systems to deliver our Value Proposition efficiently and effectively in a great work environment.

Our strategy for working in a hybrid post-Covid world will be a key element of the programme, and will involve improvements across people, places, and technology. We will ensure that we will optimise the benefits for all of our staff, while minimising any negative impact, paying particular attention to equality, diversity and inclusion.

## People and culture

The People Strategy sets out our priorities for developing and supporting our staff, and how we look to achieve them. It will help the Agency to attract, recruit, retain, develop and motivate a high-performing, diverse workforce which is able to deliver our priorities. We want to ensure that our people have the right tools and skills, but also that we are well-led and managed, in a safe and healthy environment. The Strategy spotlights equality, diversity, inclusion and wellbeing as key business priorities.

We will achieve this by:

- Ensuring that the needs of our people are met, especially by embedding hybrid working that allows our colleagues to operate in flexible, innovative and inclusive ways.
- Ensuring that our people have the skills, support and learning opportunities to develop in and beyond their current roles.
- Encouraging continuous improvement through the bespoke UKSA Leadership Development Programme, reverse mentoring, and other learning activities.
- Further developing our approach to talent and succession planning, to ensure we are recognising business-critical roles and nurturing people with the skills and potential to fill them in the future.
- Promoting and embedding policies and practices that focus on the health and wellbeing of our people, to embed a wellness culture in the Agency and create a healthy working environment for all.

- Ensuring that the Integrated Transformation Programme is designed and delivered with our people and specifically with our staff networks.
- Placing a greater focus on monitoring engagement and sentiment across the Agency, to gauge real-time feedback on our policies, practices and initiatives each year.

Fundamental to delivering the Agency's priorities and critical enablers are our people. In line with government-wide headcount reduction expectations, the Agency has been set a provisional target headcount of 310 by the end of the Spending Review period. Whilst this target is challenging, teams across our Agency are working together to ensure we can achieve it by ensuring that:

- The Agency's staffing profile is focused on delivering our Value Proposition and Priorities,
- The Workforce resourcing is closely monitored, planned, and controlled over the entire CSR cycle,
- The Agency works closely with ESA and other partners to deliver work not possible at a National level due to headcount constraints, and;
- That any new proposed projects or programmes are prioritised against our current workload and other work is deprioritised instead.

# Our Approach to Delivery

The **Steering Board** is our top level of governance, and links to other Agency committees with the responsibilities described below. It consists of the Chief Executive, Senior Information Risk Officer, BEIS Director General or their representative, and five independent members, including the Chair.

**The Board** provides guidance to the Chief Executive and the senior executive team on the operation and development of the UK Space Agency. The Steering Board is responsible for the scrutiny and challenge of strategic and operational issues, including corporate planning; performance and risk; the development of the Agency's corporate plan, annual report and accounts; alignment with the National Space Strategy (NSS), BEIS and wider Government objectives; risks to the Agency and its management; major business developments which imply a significant change in the Agency's role and activities; financial performance and accountability; and Agency capability and plans for the future. The UK Space Agency Audit and Risk Committee has been established by the UKSA Steering Board. It has no executive powers. Its functions are to ensure propriety and accountability of public funds through monitoring and promoting financial reporting and discipline. The Committee's role is to support the Chief Executive in his/her role as Accounting Officer.

**The Executive Committee** (ExCo) has collective responsibility for supporting the Chief Executive in running the Agency's operations. It is currently made up of Executive Directors from Directorates within the Agency, appointed by the Chief Executive. Certain strategic and operational decisions are reserved to the Chief Executive.

**The Delivery Board** ensures that UKSA's programmes delivers the Agency's 8 delivery Priorities and that progress is achieved against our North Star Metric and other key indicators. It is responsible for delivering the totality of all externally facing priorities endorsed by ExCo, whereas ExCo has responsibility for monitoring and improving the overall performance of the Agency and managing enabling activities.

The Portfolio Office team supports ExCo and the Delivery Board by reporting data which allows progress against our metrics and indicators to be evidenced, and escalations to be raised to support evidence-based decision making.

## Monitoring our results

The Agency's Value Proposition and Priorities shape our financial and organisational plans. They help to design the structure we need to achieve them, and the people we need for success.

We will be accountable for our results through a framework of SMART<sup>11</sup> metrics set at organisational and programme level. At the organisational level, the Steering Board, Executive Committee and Delivery Board will monitor the Agency's progress to meet targets set against a small number of metrics that assess:

**1) How well we are delivering our Value Proposition. We will monitor improvements in three key metrics and assess each Priority's contributions to them where relevant:**

- a. The total value of investment and contract revenue the UK Space Agency helps the UK space sector to raise. This is our **North Star Metric**: the most important measure we use to ensure we remain on course.
- b. Our confidence that Agency programmes to deliver missions and capabilities will realise their benefits.
- c. The amount of time members of the public spend participating in the Agency's activities to champion space.



**2) Our organisation's health. We will monitor:**

- a. Improvements in how far staff report feeling engaged by their work
- b. Reductions in the level of bullying and harassment staff report
- c. Reductions in the level of discrimination staff report
- d. Compliance with targets to spend our annual budget.

**3) Our transformation programme. We will monitor:**

- a. Our confidence that the programme's first phase (May-August 2022) will be completed to time, quality and cost.
- b. Improvements in how far staff report feeling confident that change is managed well in the UK Space Agency.
- c. The financial benefits realised as a result of our transformation.
- d. Our confidence that the UK Space Agency's new organisation design will be completed to time, quality and cost.

In addition, specific milestones and metrics for the programmes that deliver our eight Priorities will help us to monitor their progress and impact.

*11 Specific, Measurable, Achievable, Relevant, Timely*



# Risk, Assurance and Governance

In order to underpin the delivery of our Value Proposition and Priorities, the Agency is increasing the maturity of its approach to managing Risk, Assurance and Governance (RAG). A project within the Integrated Transformation Programme is bringing these functions together, with a single plan and approach.

## **Risk**

Risk is managed in line with the Agency's Risk Management Policy, Risk Appetite Statement and Risk Management Framework. Maturing the Agency's Risk Management will mean that risks to the Agency's operational and delivery performance are effectively managed and assured, with timely decision making. The Corporate Risk Register received endorsement from its Audit and Risk Assurance Committee (ARAC) in March 2022, and the risks will be tested through regular horizon-scanning workshops. Each risk has a number of controls in place, and assurance is provided over each risk through monthly ExCo workshops. Risk owners also undertake their own monthly reviews, supported and assured by peers and Risk Champions. During FY2022/23, the risk approach will be extended to include Delivery Sub-Portfolio Risks, defined and managed through the Delivery Board, and Programme Risks, defined and managed through Programme Boards. The Risk Logs will be moved to a SharePoint-based risk management system in line with the approach adopted by BEIS. Their adoption will improve the accessibility of data for monitoring, decision-making, and assurance.

## **Assurance**

As with risk, assurance will be matured through an Assurance Maturity matrix which sets out current and target maturity levels. The priority is to establish the appropriate Framework, Strategy, Policy, and Processes for assurance. These will allow the Agency to identify appropriate assurance activities which support the highest return on investment and our transformation to an effective Delivery Agency.

## **Governance**

The Integrated Transformation Programme is the vehicle by which we review existing Agency governance against the evolving Target Operating Model (TOM), making recommendations and implementing them where necessary. This will include the Internal Governance Framework and all governance activities supporting it. The size of this activity will depend on the scale of change as we move to a new TOM.

# ESA and the 2022 Council of Ministers (CMIN 22)

As set out in the NSS, the European Space Agency (ESA) will remain a close multilateral partner for the UK. It provides a unique platform for sharing knowledge, technical expertise, and resources to achieve shared goals, while amplifying the UK's voice within global space endeavours.

November 2022 will see the next ESA Council of Ministers (CMIN 22) take place. Here the UK, along with the other Member States, will look to invest in the next evolution of ESA missions and programmes.

The UK Space Agency is responsible for developing the UK's investment strategy and business case for the meeting, which will be submitted for approval by both BEIS and HM Treasury. In line with the National Space Strategy, the UK will be looking to achieve an outcome that delivers UK roles in large science missions and in cutting-edge technology. We will seek to use this outcome to build our national space capability.

## Possible impacts on the UK Space Agency of

### the Russian invasion of Ukraine

The Agency is working with its partners to assess how Russia's attack on Ukraine affects the UK's space interests. At the time of writing in May 2022, there were many uncertainties arising from this fast-moving situation.

Russia's war in Ukraine is a massive geopolitical event and may lead the UK to reappraise its approach to international cooperation in space.

Its most immediate effect has been on the second mission of the ESA/Roscosmos ExoMars project. The proposed launch, which would have used a Russian rocket to launch the UK-built Rosalind Franklin rover in 2022, has been cancelled. We are working with our international partners to explore other options.

Mars launch windows occur only every two years. A realistic launch date for a mission with no Russian elements is 2028.

# Our Financial Plan

## UK Space Agency Budget Allocations 2022/25

The Spending Review committed Government to record levels of investment in the UK's research base over the next three years, with total R&D spending in 2024/25 set to increase by £5bn to £20bn. This is the largest-ever space R&D budget. Across the CSR period, £39.8bn has been allocated to BEIS partner organisations.

The Spending Review covers three years from 2022/2023. A total of £1.750bn is allocated to UKSA by BEIS. This means that UKSA's annual budget will grow to £602m by 2024/25.

A significant proportion of UKSA's allocation continues to be subscribed to ESA programmes, which total £1.190bn over the period. Discussion of the ESA programme for the November 2022 Council of Ministers continues and involves BEIS and UKSA policy teams.

The funding profile is shown in the table below, with the Agency's planned spending in the eight priority areas (after allocation of cross-cutting activities and corporate costs between priorities).



UKSA Spending review allocation	22/23 £'M	23/24 £'M	24/25 £'M	Total £'M
<b>Total CSR Allocation</b>	<b>544</b>	<b>600</b>	<b>606</b>	<b>1,750</b>
<b>Allocated to following priorities;</b>				
Discovery	234	225	206	665
Earth Observation	103	91	81	275
Innovation	149	176	153	478
Inspiration	1	18	22	41
Launch	27	29	55	112
Levelling Up	4	25	48	77
Sustainability	26	36	40	102
*Low Earth Orbit				
<b>Total Programme</b>	<b>544</b>	<b>600</b>	<b>606</b>	<b>1,750</b>

\* UKSA programme for LEO, during this period is primarily focussed on policy development, however should additional funding and staffing resource become available, a delivery programme will be brought forward.





