

UK secures £1.84 billion investment for ESA programmes with support for Earth Observation sector

- UK government commits £1.84 billion for important space programmes at this year's European Space Agency Council of Ministers meeting, held in Paris
- the investment will cover a range of programmes from space sustainability to supporting the UK-built Rosalind Franklin Mars Rover
- up to £200 million has also been committed to support the Earth observation sector as the EU continues to delay association to the Copernicus programme

Science, Research & Innovation Minister George Freeman, who led the successful negotiations in Paris with the UK Space Agency, has secured record commitments to grow the UK space sector and deliver on National Space Strategy ambitions, an increase on previous investments made in 2019.

The landmark deal includes:

- important UK investment of £315 million in Earth observation and climate programmes: a 45% increase, deploying funds set aside for Copernicus participation to support the sector while EU programme association continues to face delays
- ESA commitment to the UK-built Rosalind Franklin Mars Rover, which is set to launch to Mars in 2028, with UK industry set to play a leading role in developing a new landing platform
- UK leadership in space sustainability via satellite management, maintenance and retrieval to support UK ambitions to lead in global space sustainability regulation and innovation
- leading UK involvement in commercially focused programmes, including communications and navigation, driving further innovation in the satellite industry
- UK leadership in the Vigil space weather mission, which will travel to a point in deep space known as L5 and give advance warning of dangerous solar storms, enhancing and securing observational capabilities, while supporting expertise such as that delivered by the UK Met Office's Space Weather Operations Centre
- enabling the UK to set the standards for satellite climate measurements, with funding secured for further development of the TRUTHS mission, which was first proposed by scientists at the National Physical Laboratory to deliver a 10x increase in the accuracy of climate measurements

As a founding member of ESA, which is independent of the EU, the UK's space and commercial satellite sector will play a leading role in future international missions and innovative commercial programmes. There are over

47,000 jobs in the UK space sector, which generates an estimated £16.5 billion every year.

Satellites provide vital insight into the climate and our environment, and the UK committed in the National Space Strategy to remaining at the forefront of Earth observation technology. New investments will allow the UK to work with ESA to use space to fight climate change and deliver programmes that support our national interest.

UK Science, Research & Innovation Minister George Freeman said:

The rapidly growing global commercial space sector is driving a new space race for geopolitical and commercial soft-power. This is the frontline of our science superpower mission.

Space is a fundamentally collaborative endeavour, so the European Space Agency Council of Ministers was an important opportunity to deepen our international relationships with the goal of advancing space technology for the benefit of all.

I'm delighted to return from the meeting with such a strong package of commitments, as well as being able to provide support for our outstanding Earth observation sector, to protect it from the uncertainty caused as a result of the EU's delays, as we continue seeking Copernicus association.

These new investments will support the ongoing growth of the UK space and commercial satellite sector – creating new jobs around the UK from Cornwall to the North of Scotland – and securing UK leadership in space sustainability. They will put our scientists and engineers at the forefront of some of the world's most important missions and programmes which drive transformational innovation.

The UK committed £615 million to ESA's core space science budget, securing opportunities for UK companies to bid for high-value contracts and establishing new scientific leadership roles for UK universities. Upcoming ESA science missions range from hunting for rocky Earth-like planets outside our solar system (Plato) to sending the first gravitational wave observatory into space (LISA).

The UK space sector will benefit from the following commitments:

- £217 million towards the global exploration programme, supporting robotic missions to Mars and contributing to the Artemis Moon programme, including the Argonaut (European Large Logistics Lander), Gateway space station and commercial lunar communications systems
- £206 million for telecommunications programmes, building on the success of the European Centre for Space Applications and Telecommunications in Harwell, to enable faster 5G and future 6G connectivity, develop new optical and quantum communications systems, and support constellations

of Low Earth Orbit satellites

- £111 million to bolster space safety and security, improving forecasting and building resilience to dangerous space weather, protecting critical national infrastructure, tackling the growing challenge of space debris and catalysing growth and further investment in high-potential areas including in-orbit satellite servicing and manufacturing
- £71 million to back new technologies, helping smaller businesses develop new ideas and products, reducing reliance on non-European nations for important electrical and electronic components, supporting emerging areas such as space-based solar power, and creating radioisotope heat and power systems derived from nuclear waste, to fuel a new generation of missions

Through our investments in ESA, we are taking part in a range of ambitious programmes that will help keep the UK at the forefront of Earth observation technology and knowhow. This includes investment in Aeolus-2, ESA Digital Twin Earth and InCubed-2, as well as additional, targeted funding in TRUTHS and the FutureEO programme. The package of measures delivered through ESA, as part of a wider programme of support for the UK's Earth Observation sector totals £122 million.

Additional investments include over £30 million on satellite navigation innovations and £13 million to support commercial spaceflight, as we countdown to the first satellite launches from UK soil.

Dr Paul Bate, CEO of the UK Space Agency, said:

From protecting our own planet to exploring new worlds, we invest in these programmes because they benefit humanity and deliver a strong return to the UK economy.

Our membership of ESA adds significant firepower to our national space ambitions, complementing the UK Space Agency's work to catalyse investment, deliver new missions and capabilities, and champion the power of space for businesses and people across the country.

Taken together, this represents the most ambitious and comprehensive package of investments with ESA ever. This also comes following last week's fiscal statement last week, in which the Chancellor pledged to maintain the UK's commitment to increasing R&D investment to £20 billion per year in 2024 to 2025.

Copernicus and Earth Observation

These investments come in the context of continued delays from the EU in agreeing the UK's association to the EU research programmes, including the Copernicus Earth Observation programme.

The Earth observation sector has suffered instability as a result of this

uncertainty, which is why the government has announced a package of up to £200 million in support today, deployed as part of the funding initially allocated to EU programme association, and which has not been utilised for this purpose for 2 years given the ongoing delays.

A £122 million segment of the package has been committed to 5 of ESA's outstanding programmes, with a further £66 million being allocated to 12 UK-led projects.

The package covers a robust range of national and international projects across all facets of the sector, from gathering and processing, to the application of, Earth observation data. There is a strong focus on climate and meteorological science, building on the UK's significant strengths in this area, while delivering direct benefit to the UK economy and supporting our shared global ambition to combat climate change.

See [more information on the Copernicus mitigation package](#).

Notes to editors

1. All subscriptions to ESA programmes are made in euros so GBP figures are subject to foreign exchange rates.
2. The total investment figure includes £378 million to manage inflationary impacts and volatility in foreign exchange rates.