

Scout missions

Scout missions are a new element in ESA's Earth Observation Programme.

The idea is to prove new concepts using small satellites developed in a fast, agile manner, which add scientific value to data from current satellites.

The concepts can then be scaled up in larger missions.

The UK has won the competition to build and deliver the first two missions, which makes use of our strengths in building small satellites and our scientific expertise. These missions seek to deliver vital new information about our climate and environment in a new, faster, cheaper way.

Both missions are due for launch at the end of 2024.

Scout Mission: CubeMAP

Key features

The Scout [CubeMAP mission](#) will be a constellation of multiple separate CubeSats.

Its goal is to study, understand, and quantify processes in the tropical upper troposphere and stratosphere (UTS), particularly in the context of climate change and increased emissions in the tropics. The mission will provide insights on the composition of the UTS, study its variability, and its effects on climate and vice-versa.

In particular, the constellation will make observations in tropical and sub-tropical latitudes to observe aerosols and gases such as:

- water vapour
- carbon dioxide
- methane
- nitrous oxide

All of these play a key role in the greenhouse effect and climate change.

The mission is packed with novelty and innovation: a novel concept of measurement from a constellation is used to profile the atmosphere, for which the sun, the atmosphere and the satellite are aligned; and new instrument technologies enable miniaturisation and the use of nanosatellites.

The mission comprises three 12-litre cubesats, each carrying thermal infrared spectrometers, as well as a visible near-infrared hyperspectral solar disk imager as a secondary instrument.

UK involvement

The UK is the initiator and the scientific and payload lead of the mission.

With the contract now signed, GomSpace in Denmark will lead an industrial consortium to build CubeMAP. The consortium includes Rutherford Appleton Laboratory (RAL) in the UK, GomSpace in Luxembourg and in Sweden, Enpulsion in Austria, Hyperion in the Netherlands and Kongsberg Satellite Services (KSAT) in Norway.

Scout Mission: HydroGNSS

With funding from [ESA's Scout programme](#), Surrey Satellite Technology Ltd (SSTL) is building HydroGNSS, a 55kg small satellite to measure climate change variables.

Credit: SSTL

Key features

The HydroGNSS satellite will take measurements of key hydrological climate variables, using a technique called GNSS Reflectometry, including:

- soil moisture,
- freeze thaw state over permafrost,
- inundation and wetlands, and above ground biomass

The purpose is to measure parameters directly linked to [Essential Climate Variables](#) (ECV) – key indicators that are used to describe the Earth's changing climate on a global scale. Collectively, there are 54 ECVs which provide empirical evidence to support climate science and better predict future change. Of these, around 60% can be addressed by satellite data.

ECVs are specified by the Global Climate Observing System, a system that comprises the climate-relevant components of many contributing observing systems and networks.

Knowledge of these variables helps scientists understand climate change and the data is a valuable tool for many applications including weather modelling, ecology mapping, agricultural planning and flood preparedness.

Global Navigation Satellite System (GNSS) Reflectometry is a technique whereby signals from GPS satellites reflected off the land, ice and ocean and can be collected by a low-power receiver on a small satellite in low-Earth orbit, and used to yield important geophysical measurements.

Credit: SSTL

HydroGNSS paves the way for an affordable future constellation that can offer much more frequent, responsive measurements than is possible with traditional remote sensing satellite systems, offering a new ability to monitor very dynamic phenomena such as freeze and thaw cycles of permafrost and helping to fill the gaps in our monitoring of the Earth's vital signs for the future.

UK involvement

Led by Surrey Satellite Technology Ltd (SSTL), working closely with partners at Sapienza, Tor Vergata and IFAC-CNR in Italy, FMI in Finland, IEC/IEEC in Spain, National Oceanographic Centre (NOC) in UK, and University of Nottingham to tackle the scientific and technological challenges involved. The mission and satellite are designed, built and operated in the UK by Surrey Satellite Technology Ltd.

Indiana-UK: Mordaunt-Holcomb meeting, 27 April

News story

The Department for International Trade today welcomed the Governor of Indiana, Eric Holcomb, to the United Kingdom (27 April) to discuss strengthening trade.



Minister of State at the Department for International Trade, the Rt Hon Penny Mordaunt MP, is pleased to welcome the Governor of Indiana, Eric Holcomb, to the United Kingdom today, 27 April. Minister Mordaunt and Governor Holcomb are pleased to announce that the UK and Indiana are in the final stages of negotiating a trade and economic development Memorandum of Understanding (MOU). Building upon the strong existing relationship between the UK and Indiana, the MOU enshrines the political will on both sides to enhance bilateral cooperation across economic development and trade and investment issues in the interests of UK and Indiana business. The MOU will have tangible benefits for both parties, aiming to remove barriers to trade and investment and increase opportunities for UK and Indiana businesses to invest and create jobs. Building on the UK's COP26 Presidency, we will include provisions on low emissions technology development and broad sustainability goals. Provisions on innovation and regulatory cooperation will look to future-proof cooperation on disruptive technologies and the sharing of best practices around resilient regulatory frameworks. A section on workforce

development will aim to deliver accessible and inclusive workforce training and opportunities, acknowledging the shift towards a low carbon economy and collaborating on transitioning workers to adapt to new technologies and sustain communities. There will be a focus across a range of priority sectors, both where the UK and Indiana already collaborate and where there is opportunity to do more. Minister Mordaunt and Governor Holcomb note the good progress on negotiations to date, and look forward to formally signing the MOU at the Indiana Global Economic Summit in May. They affirm their commitment to working closely with each other to implement and build upon this agreement through regular dialogue and cooperation.

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[Regulators promote competition across sectors in 2021 to 2022](#)

Competition law in the UK is enforced by the Competition and Markets Authority (CMA), the nation's primary competition authority, and, in certain sectors, by the relevant regulators.

In order for the regime to work effectively, there are rules on how the CMA and the sector regulators work together, which are known as the 'concurrency' arrangements.

Sectors covered by these arrangements account for approximately 25% of UK GDP and include services that most people use every day, such as communications, energy and water. This year's report is issued against the background of increasing concerns about the cost of living, following the economic shocks caused by the global Covid-19 pandemic and the invasion of Ukraine.

The report outlines how the CMA and other regulators have been working to promote competition and improve their collective ability to enforce the law. It also considers new challenges, like shortages and shipping bottlenecks, which have emerged over the past year as the global economy recovered from the effects of the Covid-19 pandemic.

Highlights of the 2021 to 2022 report include:

- 5 cases were brought to a close, including the PSR's first infringement decision which led to fines totalling more than £33 million
- 3 investigations – led by the CMA, Ofgem and Ofwat – resulted in firms signing formal commitments to improve their practices
- 4 new investigations were launched –in the digital advertising, electric vehicle charging and financial services sectors

The report also shows how the concurrency arrangements allow the regulators to help each other on a range of matters, including technical advice on specific markets and procedural guidance in competition investigations.

Andrea Coscelli, CMA Chief Executive, said:

This year, as we began to recover from the impacts of Covid-19, we also faced new challenges. The energy crisis and the invasion of Ukraine shook the world and have contributed to a sharp rise in the cost of living.

During difficult times, effective cooperation between authorities is especially important to help ensure that essential services are working well for the millions of people who depend on them.

By promoting healthy and competitive markets, we can help make sure households benefit from fair prices, good choice and quality services.

I'm pleased with the positive outcomes our joined-up approach has brought this year – and I'm confident that the UK's competition authorities will continue to help people get a fair deal.

Read the Annual Concurrency Report 2022.

1. The sector regulators involved in the concurrency arrangements alongside the CMA are: Civil Aviation Authority (CAA), Office of Communications (Ofcom), Gas and Electricity Markets Authority (Ofgem), Financial Conduct Authority (FCA), Payment Systems Regulator (PSR), NHS Improvement (NHSI), Office of Rail and Road (ORR), Water Services Regulation Authority (Ofwat) and Northern Ireland Authority for Utility Regulation (NIAUR).
2. For media enquiries, contact the CMA press office on 020 3738 6460 or press@cma.gov.uk.

CMA helps NHS secure price and supply commitment for cancer drugs

News story

The CMA has worked to ensure that pharmaceutical company Aspen's commitments to reduce prices for life-saving cancer medicines can be enforced in the UK following its exit from the European Union.



The European Commission opened an investigation into Aspen in 2017 to investigate concerns that the company had engaged in excessive pricing for 6 off-patent cancer medicines. Last year the European Commission accepted commitments by Aspen to reduce prices for the 6 medicines to address these concerns.

As a result, Aspen reduced its prices across Europe – including in the UK – by an average of approximately 73%. In addition, Aspen guaranteed the supply of the 6 cancer medicines for a period of 5 years, and, for an additional 5-year period, will either continue to supply or make its marketing authorisation available to other suppliers. This means that over the 10-year period, Aspen cannot charge more than the price set out in the commitments.

Although these commitments were offered while the UK was a part of the European Union, the commitments became legally binding under EU law after the UK was no longer part of the EU.

The CMA has now assisted the NHS to secure binding undertakings from Aspen, under the law of England and Wales, which enshrine the UK elements of the commitments and are enforceable by UK courts, including in relation to the supply of these drugs in Northern Ireland and Scotland. This means that the NHS will have effective mechanisms to monitor and ensure compliance by Aspen following the UK's exit from the EU.

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[New 'fraud squad' will crack down on criminals who steal taxpayer money](#)

- The Chancellor has announced that a new fraud squad, recruited from data analytics experts and leading economic crime investigators, will crack down on criminal gangs who rip off the taxpayer.

- Operational in July and based in the Cabinet Office, the new £25 million “Public Sector Fraud Authority” will double funding for the Government’s central counter fraud capacity.
- More details of the new fraud squad will be confirmed at the first meeting of the Chancellor chaired Efficiencies and Value for Money Committee today.

Rishi Sunak will unveil the new Public Sector Fraud Authority, which will be up and running by July, doubling the Government’s central counter fraud capacity.

The new body will recruit leading data analytics experts and economic crime investigators to recover money stolen from Covid support schemes and spot suspicious companies and people seeking Government contracts. Counter fraud experts will also mount mandatory inspections on Whitehall programmes to uncover vulnerabilities.

Chancellor of the Exchequer, Rishi Sunak said:

We will chase down fraudsters who rip off the taxpayer. This elite fraud squad, backed by £25 million, will ensure the latest counter fraud techniques are being used to track down these criminals.

People are rightly furious that fraudsters took advantage of our vital Covid support schemes, and we are acting to make sure they pay the price.

Minister for Brexit Opportunities and Government Efficiency, Jacob Rees-Mogg said:

Hardworking taxpayers must and will be protected. Anyone who tries to defraud the public purse will know that we as a government are coming for them and we are going to put them behind bars.

Recruitment for the Chief Executive of the Public Sector Fraud Authority will start in the coming weeks, with candidates picked from leading counter fraud experts. The new CEO will answer directly to the Chancellor and the Minister for Brexit Opportunities and Government Efficiency.

Mr Sunak will unveil details of the new counter fraud squad when he chairs the first meeting of the government’s new Efficiencies and Value for Money Committee later today, set up at the request of the Prime Minister.

At the committee the Chancellor will also launch the Government’s Plan for Protecting the Taxpayer to cut waste by slashing the Government’s property bill, doubling the NHS efficiencies target, reducing non-front line civil service head count, as well as “quango” budgets and cracking down on fraud

and error.

The committee is chaired by the Chancellor and deputy co-chaired by Simon Clarke, Chief Secretary to the Treasury and Jacob Rees-Mogg, Minister for Brexit Opportunities and Government Efficiency.

The full membership of the committee, confirmed today, is Steve Barclay, Chancellor of the Duchy of Lancaster, Oliver Dowden, Minister without Portfolio and Michael Ellis, Paymaster General and Minister for the Cabinet Office.