



THE UNIVERSITY *of* EDINBURGH

News Release

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Satellite project to track greenhouse gases

Scientists are preparing for the launch of a UK-French satellite that will measure greenhouse gases in the atmosphere, following official endorsement of the project.

The probe, due to launch in 2020, will orbit the Earth to monitor and characterise the flow of carbon dioxide gas from natural and man-made sources and its absorption by the atmosphere, ocean, and land.

Researchers at the Universities of Edinburgh and Leicester, affiliated to the UK National Centre for Earth Observation (NCEO), will work on the project, called MicroCarb, together with the UK Space Agency and its French counterpart, the Centre National des Etudes Spatiales (CNES).

This will be the first European mission to characterise greenhouse gas fluxes on Earth's surface and gauge how much carbon is being absorbed by its oceans and forests.

The University of Edinburgh contribution is to interpret the CO₂ data collected by MicroCarb so the information can be used to quantify geographical emissions and uptake of CO₂.

Excess greenhouse gases in the atmosphere result in warmer global-mean surface temperatures. Research suggests that as temperatures continue to rise, the impact on Earth will intensify.

Researchers hope their study will aid understanding of the mechanisms behind the movements of CO₂, their seasonal variations, and how these processes are likely to evolve.

The satellite will determine the concentration of gases at extreme precision with high spatial resolution.

MicroCarb will enable the UK Space Agency and CNES to determine whether targets in the Paris Agreement are reached.

The UK is investing £10 million in the initiative to provide key components and services for the MicroCarb satellite.

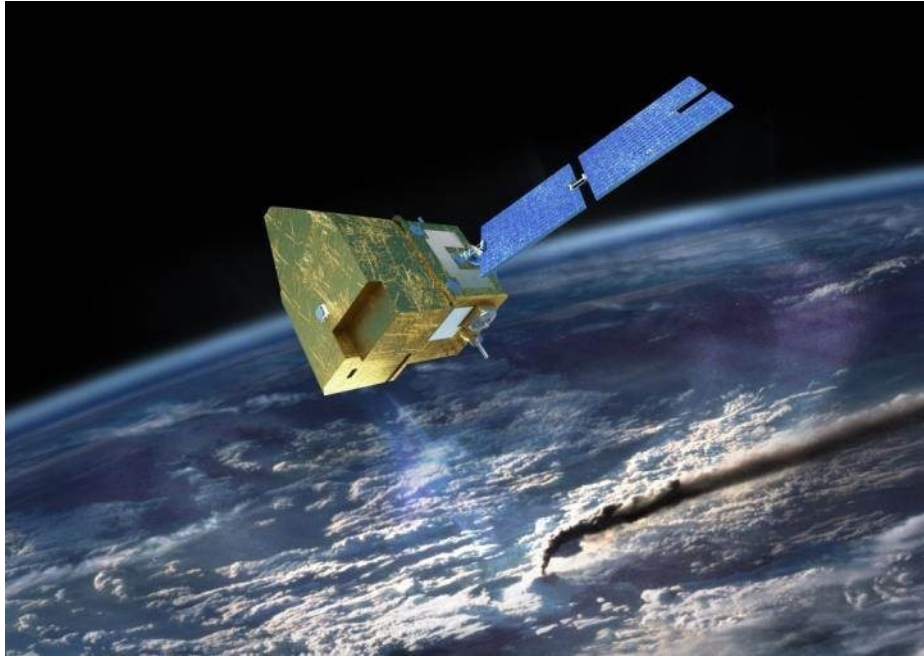
The UKSA's Director of Growth, Catherine Mealing-Jones, and CNES President, Jean-Yves Le Gall, signed a cooperation agreement at the French Ambassador's Residence in London.

Ranked among the top universities in the world

They were witnessed by Jo Johnson, the Minister of State for Universities, Science, Research and Innovation, and France's Ambassador to the UK, Sylvie Bermann.

Jo Johnson, Universities and Science Minister, said: "UK collaboration with France on MicroCarb provides an excellent platform to demonstrate cutting-edge British science, our commitment to climate policy, and a productive relationship with a key European partner.

Professor Paul Palmer, School of GeoSciences, University of Edinburgh, said: "MicroCarb is an essential step in understanding the exchanges of greenhouse gases in the global environment. We hope this will deliver valuable data to aid our understanding of Earth's changing climate, and inform effective mitigation strategies."



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