# CO2SAT

## The world's first satellite designed to detect, measure and monitor point source emissions of carbon dioxide (CO2)

Artists Impression of CO2Sat

The global climate is changing, driven by man-made emissions of Greenhouse Gases (GHG's). The largest contributor by far is CO2, accounting for **around 76 percent** of total greenhouse gas emissions.

There is widespread acceptance amongst governments, industry and indeed society as a whole that emissions need to reduce.

Initiatives to slow down the rate of global warming are vital. New standards are being devised and adopted to support the drive to Net Zero, but how can success be measured and where should activities be focused to achieve the best results?

**Detection, measurement and monitoring of CO2 emissions,** at the source point, is a critical requirement if organisations are to understand their emissions profiles and develop strategies to reduce them.

CO2Sat is planned as a constellation of satellites to deliver this capability – providing consistent, frequent and accurate measurement at a global scale.

The concept is being developed by a Bahrain/UK team comprising of Geospatial Insight, Kanoo Energy, the Bahrain National Space Science Agency (NSSA) and the University of Leicester, with initial supporting funding from the UK Space Agency.

**CO2Sat aims to provide emissions measurements at unparalleled levels of accuracy and detail – target design parameters are a spatial resolution of 25m and a minimum detection threshold of better than 1,500 kg/hour emission rate. Launch of the first satellite is planned for 2025-26.**

**The CO2Sat team is engaging with thought leaders in the sector to determine key user needs to shape the design and deployment plans – we'd love to talk to you!**

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