



Enagás and SATLANTIS start calibration tests on microsatellite cameras to detect emissions

- The calibration tests of SATLANTIS high-precision optics, which will be inserted in the first microsatellites for the detection of emissions on Earth from space, are being carried out on the test bench of the Enagás Metrology and Innovation Centre
- This Enagás and SATLANTIS project represents a technological breakthrough that contributes to meeting decarbonisation targets

Madrid, 17 May 2021. Enagás and SATLANTIS are carrying out calibration tests of high-precision optics, which will be inserted into a constellation of space microsatellites, known by the acronym GEISAT (Greenhouse Gases). These optical instruments are used to detect and quantify methane emissions on Earth.

The tests will be performed using simulated emissions in controlled flows. They are part of the technological drive towards achieving the goals of decarbonisation and energy transition. The tests are carried out at the Enagás Metrology and Innovation Centre's test bench and use technology developed from SATLANTIS, a leading Basque microsatellite Earth observation company in which Enagás has an ownership interest.

During the tests, Enagás professionals qualified in the use of instruments for detecting and measuring methane emissions monitor the results with the technologies that Enagás uses during its LDAR (*Leak Detection and Repair*) campaigns.

Enagás, through its subsidiary Enagás Emprende, took part in a capital increase of 14 million euros for SATLANTIS in April.

As part of this strategic alliance, Enagás and SATLANTIS have signed a technical collaboration agreement. One of the key parts of the agreement is the calibration of the optics that SATLANTIS has developed, and which can be used to detect and measure emissions from space.

So far, no satellite has been able to do so as precisely as with SATLANTIS's technology. The European Commission has recognised this initiative through its Copernicus Earth Observation Programme.

These calibration tests are part of the first phase of strategic projects, alongside other technology partners, which have been submitted to the Government's calls for proposals for the Recovery, Transformation and Resilience Plan. As these projects progress, they will have a significant impact, not only through decarbonisation, but also through creating jobs for skilled workers.

At its Metrology and Innovation Centre in Zaragoza, Enagás has a test bench for methane emissions and methane-hydrogen mixtures, which allows different technologies to be verified and tested. This instrumentation was already used in 2019 to carry out a pioneering project at European level of the GERG (*The European Gas Research Group*).



The company has reduced its greenhouse gas emissions by 63.2% between 2014 and 2020, and has committed to further reducing its methane emissions in line with the "Global Methane Alliance" initiative led by UNEP (*United Nations Environment Programme*). Enagás has more than 50 specific projects to improve energy efficiency and has recently announced that it is bringing forward its commitment to be carbon neutral to 2040.

In order to meet these objectives and obtain the "Gold Standard" for reporting methane emissions under the OGMP 2.0 initiative, of which Enagás is a member and in which the European Commission and UNEP are partners, it is essential to improve the accuracy of methane emissions quantification.

SATLANTIS is building the GEISAT satellite, which will be the most accurate satellite on the planet at locating the origin of methane emission sources. This tool, which is at the disposal of the European Commission and the United Nations, is a unique opportunity for world leadership of an advanced Spanish technology that combines astrophysics, optics, artificial intelligence and space engineering. Next month, in Texas, SATLANTIS will begin initial measurements of the leaks via microsatellite, through its US subsidiary SATLANTIS LLC.

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