

PRESS RELEASE

Optical bench for the FLEX satellite, a new SENER contract in an ESA mission

Madrid (Spain), May 17, 2018 – The engineering and technology group [SENER](#) has won the contract to develop the optical bench for the main instrument of the European Space Agency (ESA) satellite [FLEX](#), an acronym for 'Fluorescence Explorer'. This is the eighth member of the ESA's Earth Explorer family, which is scheduled for launch in 2022.

The optical bench or IOMS (Instrument Optical Module Structure) includes the Optical Bench Assembly (OBA), which houses and supports the optical instruments, and the thermal hardware (THW), responsible for keeping the module at a controlled temperature. The IOMS measures 1,089 mm (length) x 997 mm (width) x 467 mm (height) and weighs 57.1 kg. It allows the module's temperature to be controlled, during operation of the instrument, at $22\pm 1^{\circ}\text{C}$ (22°C with an oscillation of $\pm 1^{\circ}\text{C}$), and also features calibration, decontamination, and survival modes with different thermal requirements.

As IOMS responsible, SENER will carry out the design, manufacture and test of this structure, with the project scheduled to run from 2018 until delivery of the equipment to the client in 2020. It is worth mentioning that SENER has developed equipment similar to the FLEX OBA for other space missions such as Herschel, SEOSat/ Ingenio, Sentinel 5 and Proba 3.

The 'Fluorescence Explorer', or FLEX, will monitor the health of the Earth's vegetation, measuring from space the weak fluorescence given off by plants when they convert sunlight, water and carbon dioxide into organic material, something that has not been possible until now.

FLEX will fly in tandem with one of the Sentinel-3 satellites of the Copernicus program, on which [SENER has also participated](#), to make use of its optical and thermal sensors and provide an integrated set of data.

This new contract adds up to SENER's numerous projects successfully carried out for the Space sector, where the company has [more than 50 years](#) of activity and is a key player. To date, SENER has handed more than 275 systems and equipment for satellites and space vehicles for space agencies in the US (NASA), Europe (ESA), Japan (JAXA) and Russia (Roscosmos), with 100 %reliability. SENER is one of the leading companies in the ESA's science programs through its engineering contributions; SENER has taken part in more than half of these missions.

About SENER

SENER is a private engineering and technology business group founded in 1956. Its aim is to offer its clients the most advanced technological solutions and to achieve international recognition based on its independence and commitment to innovation and quality. SENER has almost 2,500 professionals across its centres in Algeria, Argentina, Brazil, South Korea, Chile, China, Colombia, the United Arab Emirates, Spain, the United States, Morocco, Mexico, Poland, Portugal, the United Kingdom and South Africa. The group's operating revenue exceeded 910 million Euros (2016 data).

SENER brings together its own Engineering and Construction activities with industrial holdings in companies working in the field of Energy & Environment. In the field of Engineering and Construction, SENER has become a leading company worldwide in the fields of Aerospace; Infrastructure and Transport; Renewables, Power, Oil & Gas; and Marine.

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