

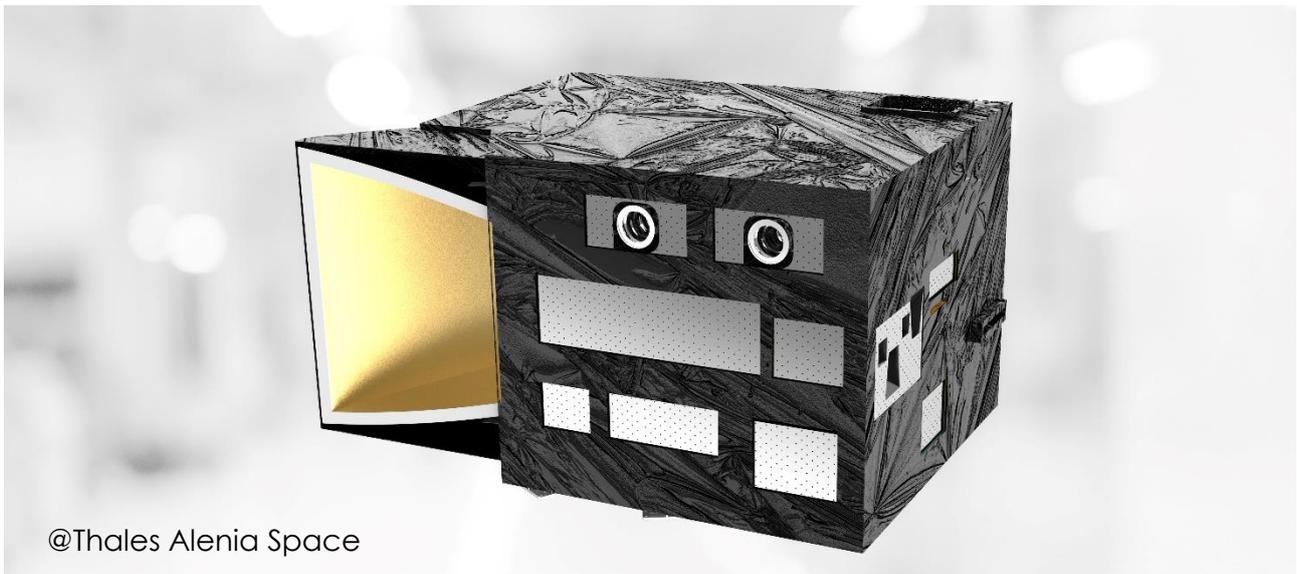
Paris, February 2, 2021

PRESS RELEASE

AEROSPACE - CO2M MISSION

Bertin signs a new contract with Thales Alenia Space for the supply of ground test equipment

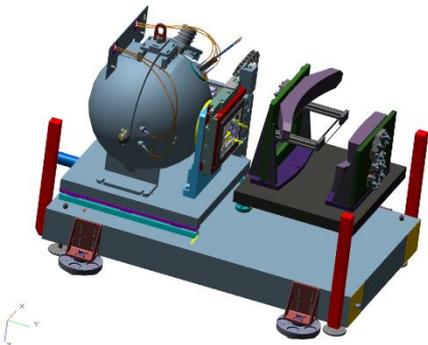
Bertin Technologies has been selected by Thales Alenia Space, a joint venture between Thales (67 %) and Leonardo (33 %), for both design and supply of ground test equipment to assess the performances of the embedded spectrometer of the CO2M mission. This spectrometer will allow to measure atmospheric carbon dioxide emissions from human activity. The European Union will then acquire a unique and independent source of information to evaluate the efficiency of political actions, follow their impact on the decarbonization of Europe, and rise to the national challenges of emission reduction.



CO2M mission's instrument of the Copernicus Programme

Bertin Technologies, a CNIM group company, announces that it has been selected by Thales Alenia Space to design and supply calibration test benches aiming at assessing the optical performances of the embedded spectrometer CO2I of the CO2M mission (*more information below*). Being the partner of key European players, Bertin Technologies has an established expertise in the development of optical test benches and embedded systems for the space industry, that it recently applied to the MTG* and MUSIS program**.

With this new contract, Bertin Technologies will contribute to both control of atmospheric carbon dioxide emissions and reduction of greenhouse gas, and will then help to protect our environment.



Optical Ground Support Equipment
COBRA

The Optical Ground Support Equipment OGSE named COBRA will allow to analyze the optic capacities of CO2I and its detector, in terms of geometry and radiometry. It will also perform measurements on 4 different spectral bandwidths: Visible Infrared (VIS), Near InfraRed (NIR), Short-Wave InfraRed 1 (SWIR 1) and Short-Wave InfraRed 2 (SWIR 2).

As for Winlight System, Bertin' subsidiary specialized in high performance optical systems and components, it will supply the OGSE's collimators. These instruments will be able to simulate the lights coming from the infinity and to imitate a coherent space environment, in order to better calibrate the CO2I instrument.

The qualification and the delivery of the COBRA equipment are both scheduled for the first quarter of 2022, the mission's launch being planned in 2024.

CO2M mission: to better monitor carbon dioxide CO2 from man-made activity

The CO2M mission is part of the expansion of the Copernicus Programme, led by the European Space Agency ESA, in partnership with the European Commission. The flagship Copernicus Programme provides both Earth observation and in-situ data, along with a wide range of services for environmental monitoring and protection, climate monitoring, and natural disaster assessment, to improve the quality of life of European citizens. Those missions have been identified as high priorities to address the scientific, political and social aspects of climate change.

Aiming at performing atmospheric measurements, the CO2M mission is testament to Europe's will to better monitor the CO₂ emissions from fossil fuels, which have a profound impact on global climate, and to assess the efficiency of the adopted policy measures, along with their effect on the continent's decarbonization. Among the varied scientific instruments onboard the Sentinel satellites, the near infrared and short-infrared spectrometer CO2I will be dedicated to the measurement of the amount of nitrogen and carbon dioxide emitted by human activity on Earth.

Thales Alenia Space is responsible for the CO2M payload's development; OHB being the project's prime contractor.

***MTG:** Meteosat Third-Generation. A new generation of meteorological satellites to be exploited by EUMETSAT, comprising 4 imaging and 2 sounding satellites.

**** MUSIS Program** (Multinational Space-based Imaging System for Surveillance, Reconnaissance and Observation): European initiative to be equipped with high performance space-based platforms for Earth observation, through the creation of the Optical Space Component (under French leadership), 2 radar components (One German, one Italian), and one wide field optical component.

About BERTIN TECHNOLOGIES

BERTIN TECHNOLOGIES, subsidiary of CNIM Group, relies on its long history of innovation to develop, produce and market state-of-the-art systems and equipment worldwide. Among its 630 employees, there are 2/3 engineers and high-level managers. Its turnover amounts to nearly 92 million euros in 2019.

Its instrumentation business unit is dedicated to innovative measurement and sampling for challenging markets, such as:

- Space and big scientific instruments, with the acquisition of Winlight Systems in 2017, a company specialized in the design and supply of high-technology optical components.
- Defense, Security, and Safety (CBRN detection and identification, optronic surveillance, and multi sensors networks with the acquisition of Exensor Technology in 2017).
- Nuclear and Radiation protection Instrumentation (radon professional monitors, environmental radiation monitoring systems, radiation portal monitors, health physics devices).
- Lab Equipment (sample preparation, air sampler, cell imaging).

www.bertin-technologies.com

About CNIM

Founded in 1856, **CNIM** is a French equipment manufacturer and industrial contractor operating on a worldwide basis. The Group supplies products and services to major public and private sector organizations, local authorities and national governments in the Environment, Energy, Defense, and high technology markets. Technological innovation is at the core of the equipment and services designed and manufactured by the Group. They contribute to the production of cleaner and more competitive energy, to limiting the environmental impacts of industrial activities, to making sensitive facilities and infrastructures safer and protecting individuals and nation states. CNIM is listed on the Euronext exchange in Paris. It relies on a stable family-based majority shareholding structure committed to its development. The Group employs 2,800 members of staff and had revenues in 2019 of €588,4 million, 48,2% of which was for export.

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