



Newsletter N°5

June 2026

Discover the latest news
from the CARIOQA-PMP project!



TABLE OF CONTENTS



1. The **CARIOQA-PMP** project reaches a key milestone with the delivery of the Microwave Source to **CNES**

[Read more on page 3](#)



2. **CNES** welcomes HaDEA Director in the framework of EU space project meetings

[Read more on page 4](#)



3. Recap of the **CARIOQA-PMP** General Assembly in Munich, March 19 & 20

[Read more on page 5](#)



4. **CARIOQA** project member Célia Pelluet named to the Quantum 100

[Read more on page 6](#)



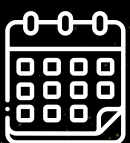
5. Launching the **CARIOQA** Industrial Partnerships Series

[Read more on page 7](#)



6. Presentation of project partners Teletel and Leonardo

[Read more on page 8](#)



7. Future events related to **CARIOQA PMP**

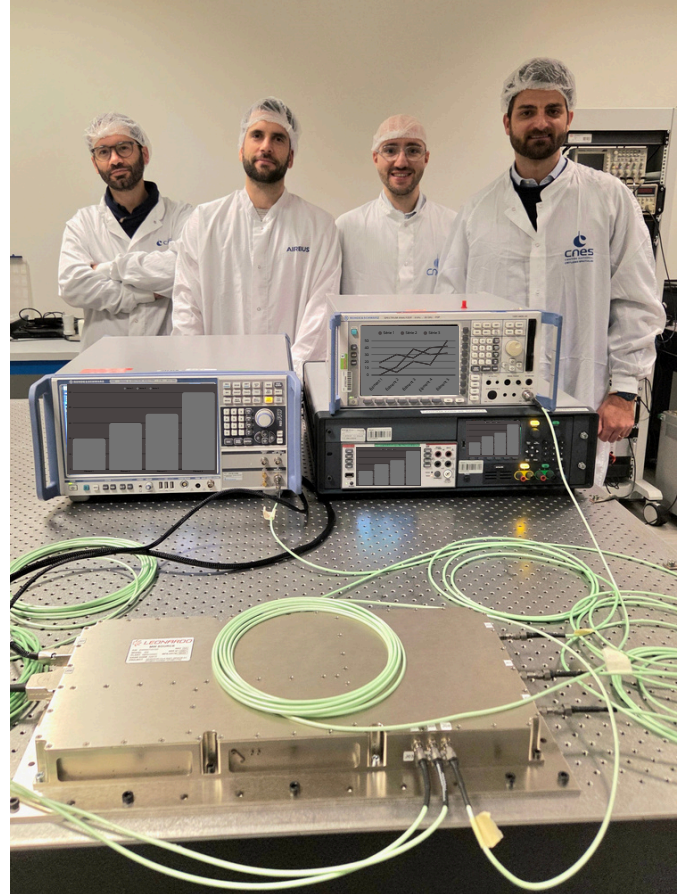
[Read more on page 9](#)

1. The CARIOQA-PMP project reaches a key milestone with the delivery of the Microwave Source to CNES

Following the successful completion of the tests in LEONARDO, the EM Microwave Source unit was delivered to CNES in Toulouse, where it will be used for upcoming system integration activities at the CNES Optical Laboratory. The delivery was attended by representatives from Airbus, responsible for the AIV (Assembly, Integration and Verification) activities, and CNES, as project leads, together with Leonardo's technical manager responsible for the Microwave Source unit.

This milestone represents the second step of the integration phase of the Engineering Model of the CARIOQA instrument. It also constitutes a significant achievement in terms of hardware feasibility, as reference and frequency-multiplication units capable of meeting such stringent performance requirements are not currently available on the space market.

For Leonardo, this result concludes the main activities of the CARIOQA-PMP phase and paves the way for Phase B of the programme, which has been underway since October 2025 and is expected to conclude in the second half of 2027.



Picture of the CARIOQA PMP partners with the test setup used to perform the test of Microwave Source EM

This achievement underlines Leonardo's continued commitment to advancing high-performance space technologies within the CARIOQA programme.

2. CNES welcomes HaDEA Director in the framework of EU space project meetings



CNES welcomed Marina Zanchi, Director of HaDEA, on 29 January as part of a series of meetings with representatives of several organisations participating in EU-funded projects in the space sector, including CARIOQA.

The visit provided an opportunity to present CNES and to give a comprehensive overview of the CARIOQA project, its objectives and its current development status. Discussions focused on the mission's technical progress and upcoming milestones.

A key highlight of the programme was a tour of the laboratory where the CARIOQA-PMP Engineering Model (EM) is currently being integrated, offering a first-hand view of the work carried out by the teams.

Marina Zanchi was accompanied by Simon Conticello, CARIOQA Program Officer at HaDEA.

The delegation was received by Caroline Laurent, Director of Orbital Systems and Applications at CNES, and Christine Fallet, Project Coordinator of the CARIOQA PMP, PHA and PHB projects.

The visit provided an opportunity for constructive exchanges and reaffirmed the strong cooperation between CNES and HaDEA in advancing EU-funded space initiatives such as CARIOQA.

3. Recap of the CARIOQA-PMP General Assembly in Munich, 19 & 20 March



The CARIOQA PMP General Assembly took place on 19–20 March 2026 at the Technical University of Munich (TUM), bringing together technical, research and industry partners from across Europe - CNES, DLR, Leibniz University, DTU National Space Institute, SYRTE, LP2N, ONERA, POLIMI, Airbus, EXAIL, LEONARDO, Teletel, FORTH/PRAXI, and GAC.

Over the two days, participants reviewed progress across work packages and discussed mission scenarios, subsystem developments, dissemination strategies, legal and financial aspects, and upcoming implementation phases. Simon Conticello, the CARIOQA Mission Program Officer from the European Commission's HaDEA, was also present; a strong signal of the European Commission's support for the CARIOQA mission and its commitment to accompanying the consortium through the critical phases of its implementation.

During the meeting, a second webinar entitled "Quantum Sensors: From Ground to Space" explored pathways for translating advanced laboratory quantum sensing technologies into deployable instruments for future Earth observation and space-based gravimetry missions. Chaired by Thomas Lévêque (CNES), the webinar featured a discussion between Naceur Gaaloul (Leibniz University Hannover, Germany), Stephan Seidel (Airbus), and Lisa Wörner, member of the Scientific and Technical Advisory Board (STAB).

A recording of the webinar is available on the CARIOQA Youtube channel:

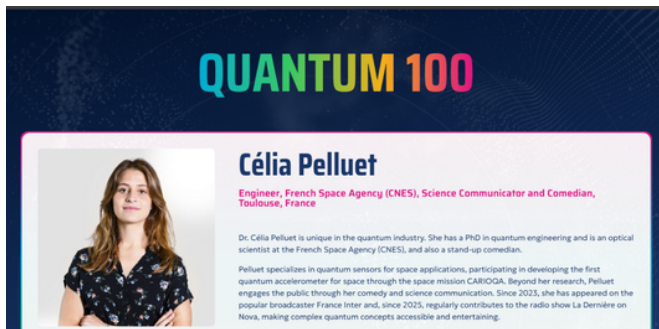


CARIOQA-PMP
EXPERT TALKS WEBINAR #2
QUANTUM SENSORS: FROM
GROUND TO SPACE



4. CARIOQA project member Célia Pelluet named to the Quantum 100

The year 2025 was designated by UNESCO as the International Year of Quantum Science and Technology (IYQ 2025), marking the centenary of quantum mechanics. This global initiative aimed to highlight the scientific, technological and societal advances driven by quantum science, while promoting education, international cooperation and public awareness of its real-world applications.



Within this framework, the Quantum 100 project showcases 100 influential figures shaping the quantum ecosystem, spanning research, industry, entrepreneurship, education and culture. Among them is Célia Pelluet, an optical and quantum sensor engineer at CNES and an active science communicator.

Célia Pelluet stands out for her unique dual profile, combining cutting-edge scientific expertise with a strong commitment to science outreach. At CNES, she is involved in the development of the first quantum accelerometer to be operated in space, as part of the CARIOQA mission.

Alongside her research activities, Célia is deeply engaged in science communication, drawing on her background as a stage performer to make complex scientific concepts accessible, engaging and impactful. She is also a strong advocate for gender equality in STEM, an engagement recognised in 2023 with the L'Oréal-UNESCO Young Talents Award, which honours both her research achievements and her contribution to scientific outreach.

By joining the Quantum 100 panel, Célia Pelluet helps to highlight the pioneering role of CNES in innovative quantum space missions, while increasing the visibility of women in science and showcasing the diversity of talents driving quantum innovation today. Her career path embodies the intersection of scientific excellence, creativity and societal engagement.

If you haven't seen it yet, discover Célia through her interview on the CARIOQA YouTube channel by clicking on the thumbnail below :



5. Launching the CARIOQA Industrial Partnerships series



1: TAS, ZARM, DLR and CNES teams in front of the Bremen Drop Tower. 2: Workshop in Niervano on the “Micro-Wave” with experts from TAS, CNES and LEONARDO. 3: Workshop in Gradignan on the “LASER S/System” with experts from TAS, CNES and EXAIL

The “CARIOQA Industrial Partnerships Series”, a new two-page publication highlighting the key industrial activities driving the CARIOQA-PHB project, has been launched.

The first issue focuses on a major milestone: a two-day co-engineering workshop held in Bremen. Bringing together teams from Thales Alenia Space, ZARM, DLR and CNES, the workshop was dedicated to advancing one of the project’s most critical elements: the Physics Package. As the core of the instrument, it contains the ultra-cold atoms and hosts the measurement process.

Building on this achievement, the second issue recaps two additional workshops held at the EXAIL facilities in Gradignan and the LEONARDO facilities in Niviano. These meetings focused on advancing two other key subsystems: the Microwave Subsystem and the Laser Subsystem.

As one of the instrument’s three main elements, the Microwave Subsystem plays a central role in ensuring the system’s overall performance and stability. Likewise, the Laser Subsystem is essential for trapping, cooling and manipulating the atoms throughout the measurement sequence, making it a key contributor to the instrument’s precision and reliability.

You can learn more about these workshops by consulting the associated PDFs:



[CLICK HERE TO DISCOVER THE ISSUES OF THE SERIES.](#)

6. Presentation of project partners Teletel and Leonardo

The logo for Teletel, featuring the word "teletel" in a bold, blue, lowercase sans-serif font.The logo for Leonardo, featuring a red stylized sunburst icon to the left of the word "LEONARDO" in a bold, red, uppercase sans-serif font.

TELETEL is a private software and hardware engineering SME based in Greece, founded in 1995, which specialises in the leading-edge areas of Space, Defence and Aeronautics. TELETEL is one of the most successful space companies in Greece, specialising in test equipment, EGSEs and flight software, having as customers most of the European space companies, but also several other customers in US, Japan & South Korea. TELETEL has already provided equipment and services in several space missions (ESA and non-ESA) such as Solar Orbiter, EUCLID, JUICE, PLATO, IASI-NG, MICROCARB, FLEX, ALTIUS, CSO, Galileo 2G, Copernicus LSTM/CRISTAL/CIMR, ARIEL, etc.

Within the framework of the CARIOQA-PMP project, TELETEL is responsible for the design, development, validation, and delivery of the Electrical Ground Support Equipment (EGSE), which simulates the Instrument Control and Power Unit (ICPU) used to control the instrument Engineering Model.

Leonardo is a leading global industrial group in the Aerospace, Defence and Security sector, with roots dating back to 1948 in Italy. Over the decades, the company has evolved through technological innovation and strategic consolidation to become one of the key players in the global high-tech industry. Today, Leonardo develops multi-domain capabilities in the Aerospace, Defence and Security sector. The company plays a prominent role in major international strategic programmes and is a trusted technological partner of governments, defence agencies, institutions and enterprises. Innovation, continuous research, digital manufacturing and sustainability are the cornerstones of Leonardo's business worldwide.

Within the framework of the project, Leonardo is responsible for the development of the Microwave Source Engineering Model.

7.Future events related to CARIOQA-PMP

Upcoming events :

30 June 2026 : A Stakeholder Co-Creation Workshop will be jointly hosted by DLR and GAC, bringing together key stakeholders to exchange perspectives, identify user needs and contribute to the development of the project.

6 October 2026 : The third CARIOQA webinar will take place in Toulouse and will focus on *The Impact – The Legacy of CARIOQA*, exploring the project's achievements, long-term contributions and future perspectives.





The **CARIOQA-PMP** team thanks you for
your interest in the project!



Funded by the European Union

Follow us:

