

## CARIOQA-PMP mid-term meetings in Brussels



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To secure the leadership of the European Union on quantum technology in space, the ambition of CARIOQA-PMP is, first and foremost, to prepare a Quantum Pathfinder Mission for space gravimetry to be launched before the end of the decade. The overarching goal of this Quantum Pathfinder Mission will focus on the operation of a complete quantum gravimeter/accelerometer and the characterization of its performance and limitations in space. The developed quantum sensor for space application will be a powerful tool to gain vital knowledge about the underlying processes and causalities of the climate change on a global scale.

**On October 08-11, 2024, the CARIOQA-PMP consortium gathered in Brussels for a four-day meeting, marking 20 months of collaboration and innovation. The events included the Critical Design Review (CDR) and Reporting Review meetings, as well as a stakeholders co-creation Post-Pathfinder Roadmap Workshop.**

The first 3 days were dedicated to the CDR and the Reporting Review of the CARIOQA-PMP project and took place at the European Commission headquarters. This key milestone brought together consortium members, the project officer Dr. Simon Silvio Conticello, and external evaluators to assess the project's progress and address its most pressing challenges.

Following the various presentations, the feedback from the experts was very positive, noting good progress in the various project activities and, above all, greater coherence between scientific activities and those relating to the EM development. The good cohesion between the different teams was also noted.

The fourth day, October 11<sup>th</sup>, was dedicated to the stakeholders co-creation Post-Pathfinder Roadmap Workshop and held at the Covent Garden Building, Brussels. This event marked a key milestone in the project's development, bringing together key stakeholders to review the roadmap's status and shape the next steps. This workshop marks an important step in shaping the future path towards a European quantum space gravimetry mission after the launch of a CARIOQA pathfinder mission around 2030. In the workshop, key risks and recommendations for a post pathfinder mission were identified from technical, programmatic, economic and societal perspectives. The participation of different European stakeholders contributes to harmonizing the roadmap within the European programmatic framework. The workshop featured presentations from EU and ESA, group discussions on the basis of a draft summary roadmap, and concluded with a summary of the discussion results.

*CARIOQA-PMP brings together leading players from five EU countries. These include experts in satellite instrument development (Airbus, EXAIL, TELETEL, LEONARDO), in quantum sensing (LUH, SYRTE, LP2N, LCAR, ONERA, FORTH), space geodesy, Earth sciences and users of gravity field data (LUH, TUM, POLIMI, DTU), as well as impact maximization and impact assessment experts (PRAXI Network/FORTH, G.A.C. Group). The pathfinder mission preparation is coordinated by the French and German space agencies CNES and DLR under CNES lead.*


## THE CARIOQA-PMP CONSORTIUM



## STAY IN TOUCH

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