## **QUEST - QUantum matErials for Sustainable Technologies**



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## Elettra 2.0: new advances in synchrotron radiation research

Tuesday, December 3, 2024 8:45 AM (30 minutes)

Elettra 2.0 represents the latest evolution of Italy's third-generation synchrotron radiation facility, which has served scientific and industrial communities since 1993. Approved by the Italian Government in 2017, the Elettra 2.0 project involves replacing the current machine with a low-emittance storage ring, marking a significant milestone in synchrotron research. With enhanced brightness and coherence, Elettra 2.0 offers exceptional possibilities for cutting-edge scientific research across diverse fields.

Over 40% of the project's budget is allocated to new beamline construction and upgrades. The diverse portfolio of beamlines will enable experiments in a wide range of photon energies, from a few tens of eV to several tens of keV. Researchers in fields such as physics, chemistry, biology, medicine, and cultural heritage will benefit from access to advanced experimental techniques. My presentation will start with an overview of the new machine's features, then discuss the capabilities of the beamlines and their potential for conducting advanced experimental research.

**Presenter:** Dr GREGORATTI, Luca (Elettra - Sincrotrone Trieste S.C.p.A.) **Session Classification:** Session 4