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## PICASSO: The Golden CubeSat

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Led by the Belgian Institute for Space Aeronomy, the ESA-backed mission PICASSO (PICO-Satellite for Atmospheric and Space Science Observations) successfully launched its gold-plated satellite on an Arianespace Vega rocket in September 2020. PICASSO is a 3U CubeSat mission in collaboration with VTT Technical Research Center of Finland Ltd, AAC Clyde Space Ltd. (UK), and the CSL (Centre Spatial de Liège), Belgium. The commissioning of the two onboard scientific instruments is currently ongoing; once they are operational, PICASSO will be capable of providing scientific measurements of the Earth's atmosphere. VISION, proposed by BISA and developed by VTT, will retrieve vertical profiles of ozone and temperature by observing the Earth's atmospheric limb during orbital Sun occultation; and SLP, developed by BISA, will measure in situ plasma density and electron temperature together with the spacecraft potential.

Serving as a groundbreaking proof-of-concept, the PICASSO mission has taught valuable lessons about the advantages of CubeSat technology as well as its many complexities and challenges. These lessons learned, along with preliminary measurements from the two instruments, will be presented and discussed.