Thessaloniki (Greece), 3rd May 2023- **PARALIA is a new ambitious EU HORIZON Research and Innovation Actions Project launched at January 1st that aims to the development of fundamental innovations in the field of automotive and aerospace applications. PARALIA is funded under the HORIZON-CL4-2022-DIGITAL-EMERGING-01-03 Call. The project is coordinated by Aristotle University of Thessaloniki in Greece and will be running throughout the period of January 2023 to June 2026.**

The impressive milestones achieved in the on-going global race for highly automated or autonomous vehicles are setting the stage for major transformations across the transportation industry, led primary by the expected wide adoption of Level 2 and Level 3 automated driving systems in next-generation automotive vehicles, the forward-looking roadmaps of major technology vendors, predicting next generation consumer-centric fleets of robo-taxis and the growing maturity and expected proliferation of autonomous or Enchanted Flight Vision System-augmented Urban Air Mobility. Transforming however, these technological concepts into a tangible reality has been proven challenging, with recent studies urgently calling for a new-generation of integrated, cost-effective and multi-domain sensory systems, capable of providing to Machine Learning algorithms the required heterogenous environmental information in a low-energy envelope.

PARALIA aims to demonstrate breakthrough performance by enabling an agile, low-cost, and energy-efficient multi-sensor that combines RADAR and LiDAR technologies and by re-architecting the sensors ecosystem enabling ultra-high resolution at ultra-long distances crucial for current and futuristic automotive and aerospace applications.

PARALIA targets to a powerful common LiDAR/RADAR optical multibeam beamforming platform that will be developed based on the best-in-class multi-port linear optical operator architectures exploiting the mighty synergy of InP and SiN integration platforms.

PARALIA will highlight its versatile and scalable perspective and its broad market take-up credentials through the demonstrations of a new series of low-cost, energy-efficient and high-performance LiDAR/RADAR and multi-sensor modules for ultra-high resolution at ultra-long distances for current and futuristic automotive and aerospace applications.

The consortium is bringing together 6 leading industrial partners, and 3 top-ranked academic and research institutes in the PIC and Photonic Systems value chain. The project participants are the Aristotle University of Thessaloniki (Greece), Institute of Communication and Computer Systems (Greece), Argotech a.s (Czechia), Collins Aerospace Ireland (Ireland), LioniX International BV (Netherlands), SIKLU Communication LTD (Israel), Sivers Semiconductors (Sweden), VALEO Autoklimatizace K.S. (Czechia) and Fraunhofer Heinrich Hertz Institute (Germany).

PARALIA: *Photonic Multi-beam Beamforming Technology enabling RADAR/LiDAR Multisensor Fusion platforms for Aerospace and Automated Driving applications* (Project Number: 101093013)

For more information, please visit project's website: https://paralia-horizon.eu
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