

**STARTED AT: 01/09/2024**

**NAME OF THE PROJECT: The Golden Twins**

**SHORT NAME: The Golden Twins**

**PROGRAM: InCubed**

**DURATION: 24 months**

**ALL ABOUT THE PROJECT: <https://incubed.esa.int/portfolio/the-golden-twins/>**



**SUMMARY:** The "Golden Twins" project under ESA's InCubed program, aims to establish a system-agnostic, multi-mission hosting Earth Observation (EO) platform addressing the unique challenges of Greece's islands. Focused on forest fire monitoring, extreme precipitation events, and maritime safety, the platform provides real-time high-resolution data-driven insights to enhance disaster preparedness, decision making, rapid response, and environmental protection. Key problems include the need for rapid detection and response to forest fires as well as risk and post-event damage assessments, timely safety alerts for extreme precipitation events and post-event monitoring of floods, debris accumulation and damage assessments, and comprehensive vessel tracking even in areas with limited AIS data, all corresponding to three respective services: i) Fire Monitoring, ii) Extreme Precipitation Events monitoring and iii) Vessel monitoring. Utilizing data from Greek CubeSat missions, Sentinel satellites, and Copernicus contributing missions, Golden Twins combines high-resolution imaging with advanced AI analytics to deliver actionable insights for key sectors such as tourism, maritime, and insurance, fostering innovation and creating a commercial EO solution that complements Greece's national space initiatives. The system is designed with an open, scalable architecture to support all future LEO satellite missions to meet the growing demands for accurate, location-specific insights. The platform's scalability, interoperability, and alignment with international standards, enhances its capacity to address Greece's unique environmental, safety, and economic challenges. Through collaboration with academic and industrial partners, the project's success and its contribution to sustainable development and resilience is ensured.

**Geosystems Hellas S.A.** is leading the coordination and management of the overall development activities, ensuring all technical and business aspects align with the project timeline and deliverables, and finally the successful delivery of the GT platform. Additionally, Geosystems Hellas oversees the development of the Vessel Monitoring service. Furthermore, the company leverages its expertise in Earth Observation (EO) and data-driven decision-making systems, geospatial data, and satellite technologies to coordinate the designing and implementation of the platform, collaborating with partners to ensure platform efficiency and smooth integration of all system components. Lastly, Geosystems Hellas is responsible for all marketing and commercialization activities, being the sole owner of the final product.

*The **Golden Twins** project is funded through **ESA – European Space Agency's InCubed (Investing in Industrial Innovation)** program.*

**PRIME CONTRACTOR:**



**SUBCONTRACTORS:**



ARISTOTLE  
UNIVERSITY OF  
THESSALONIKI



HELLENIC REPUBLIC  
National and Kapodistrian  
University of Athens  
EST. 1837

