

**PROJECT:** The Golden Twins

**SCIENTIFIC DIRECTOR:** Ch. Ioannidis

**DURATION (MONTHS):** 24 months

**DEPARTMENT:** Department of Topography

**FINANCIER:** ESA

**DESCRIPTION:** GoldenTwins (GT) project proposes a comprehensive solution, using data from the Greek EO CubeSats (Helios and Selene) sensors, which offers the capability for continuous and timely monitoring of Greek islands, offering useful insights for private businesses, governmental agencies and municipalities, local authorities and NGO, in various sectors such as Tourist safety, Maritime Management, Economy, Environmental protection and Emergency monitoring. GT will be developed based on Open standards and Interfaces and will be expandable, formed around ESA Common Architecture, offering interoperability towards an open network of resources, facilitating easier access and more efficient exploitation of the rapidly growing body of EO. GT will be the first product platform to provide a combination of the highest temporal (up to 5 times revisit per day) and spatial (ranging from 1-10m) resolutions for the Greek commercial needs, starting from tourism-related needs in the Greek Islands. The participation of the Lab of Photogrammetry, NTUA, in the project concerns the development of SW services and SW maintenance and upgrades for Extreme Precipitation Events Monitoring. Fast monitoring of the aftereffects from an extreme precipitation event, such as coastal floods, subsequent debris flows, can help in detecting affected vital infrastructure, saving lives and properties and mitigating further damage. The service will provide subscribed users with change detection maps overlaying the critical infrastructure of the area, e.g., road network, buildings, key facilities.