

PROJECT: Greek National Satellite Space Project: Axis 3-Land Monitoring Service

SCIENTIFIC DIRECTOR: Ch. Ioannidis

DURATION (MONTHS): 19 months

DEPARTMENT: Department of Topography

FINANCIER: Several

DESCRIPTION: The role of Lab. of Photogrammetry, NTUA, in the project concerns the “Land Use and Land Cover Mapping” and focuses on developing algorithms and methods for mapping and analyzing land use and land cover across Greece. This involves the collection and analysis of multisource satellite data, including data from the Greek National SmallSat Programme as well as Copernicus and Landsat missions. The classification algorithms will utilize advanced machine learning techniques to categorize the data into various land cover classes. The process also includes the pre-processing of satellite data, the fusion of information from multiple sources and feature extraction techniques. The resulting land use/land cover map will be aligned with the CLC+ classification system, offering high accuracy and up-to-date information. In addition to land cover classification, the project also focuses on change analysis, which involves detecting and analyzing temporal changes in land use over time. This will be achieved through the development of change detection algorithms utilizing time-series analysis to monitor and quantify changes in land cover. These tools will enable continuous tracking of landscape changes, supporting effective environmental monitoring and decision-making.