









End-to-end solutions for asset and infrastructure management

AWARE provides **end-to-end solutions and services** for the management of assets, infrastructure, territorial and smart cities. Early identification of asset anomalies, the detection of activities and changes in critical areas, quality of life and environmental parameters, are all crucial information that **AWARE delivers to support decision-makers in their day-to-day tasks**.

The day-to-day management of **dams, bridges, mining areas, airports, pipelines, oil platforms, archaeological sites, and cities** can all benefit from the integrated approach and tools provided by AWARE. In fact, the platform provides accurate, high-precision positioning analysis **using proprietary PSP-IFSAR satellite interferometry and GNSS services**, Change Detection, Third Party Interference detection services, thematic cartography, and high-resolution 3D models. AWARE's reports are available through its **mobile app, web portal and ERSI technology** and the platform also provides analysis tools for extracting information from geospatial data and products.

USERS

 OIL & GAS COMPANIES	 RAIL AND ROAD TRANSPORTATION	 PUBLIC ADMINISTRATION FOR ENVIRONMENTAL AND CULTURAL HERITAGE
 ENGINEERING AND GENERAL CONTRACTORS	 UTILITY AND INFRASTRUCTURE	 MINING COMPANIES

CAPABILITIES

 CLOUD PROCESSING & SERVICES	 MULTISOURCE INTEGRATION	 HISTORICAL EVOLUTION AND MONITORING
 AI AND BIG DATA ANALYSIS	 TOOLS AND STATISTICS	 MILLIMETRE PRECISION



SERVICES

AWARE uses an integrated, **multiscale, multisource and multitemporal** approach to offer solutions that improve the management of infrastructure and critical assets, support city planning and control, lower the impact of human activities on the environment, and, in general, optimise operations and support the decision-making process.

DEFORMATION ANALYSIS

Identifying deformation and landslides at an early stage is crucial to plan maintenance activities and inspections and to prevent major events. The PSP-IFSAR proprietary algorithm enables **high quality, millimetre precision, high density InSAR analysis** (historical and monitoring) for slow deformations, including high resolution analysis with **COSMO-SkyMed**. Continuous monitoring can be also set up through GNSS-based services for critical situations or critical assets.



CHANGE DETECTION AND ENCROACHMENT ANALYSIS

Keeping track of the surroundings of an infrastructure can be vital to guarantee safe operations. **AWARE** provides **multitemporal analysis based on optical/radar satellite, aerial and drone data** to identify changes in the territory: vegetation along railways or toxic dumps close to aqueducts are just a couple of **AWARE's** basic services.

ADVANCED MAPPING

Through the **AWARE** platform, it is possible to access the advanced **mapping services**, responding to the territory's specific requirement characterisation for planning new infrastructure: estimated population impact analysis, transport infrastructure inventory, flooding risk maps, Land Cover Change Map supporting the Sustainable management of natural resources, etc.



3D ENGINE

AWARE provides a **high-performance 3D engine** that allows analysis of high-resolution 3D models generated by **satellite, aircraft and RPAS**.



WEBPORTAL - APP MOBILE - ESRI BASED TOOL



A SUITE OF SOLUTIONS, BASED ON:

- Ground motion analysis
- Change detection analysis
- Specific thematic cartography
- Multisource integration
- 3D modelling
- CSK data for high resolution analysis

