





Geocart headquarters & locations of operations



EUROPE



- Potenza (HQ)
- Rome
- Carpi



- Bucharest



Operations

NORTH & SOUTH AMERICA



- Fortaleza



- Montreal



More than 30 years of experience in infrastructure & environment monitoring




PIPELINE



RAILWAYS AND
HIGHWAYS



POWERLINES



GROUND,
VEGETATION,
FOREST AND
WATER BASIN
ANALYSIS

ABOUT US

INTEGRATED SERVICE

SECTORS OF APPLICATION

INTEGRATED SERVICE 

An integrated approach that covers the entire process chain
and the asset management cycle



An integrated approach that covers the entire process chain and the asset management cycle

Value Proposition

Design & production of multi-sensors systems for data acquisition

Data processing techniques



Software & tools

Main products & services



Orthophotos & oblique photos



Satellite data



Digital cartography



Thermal & spectral imaging



3D models



Software & app



Web GIS



14

AVIONIC PARTNERS



10

FLIGHT CREWS



20

MAIN CLIENTS



10

INTERNATIONAL
PROJECTS



130.000 KM/Y

FLOWN KM/YEAR
FOR CORRIDOR MAPPING



1 PB

ACQUIRED AND PROCESSED
DATA/YEAR

An integrated approach that covers the entire process chain
and the asset management cycle

Geocart's competitive advantage is to use its EO background, in the fields of engineering and ICT, to translate ideas into projects and transform client needs into customized solutions

Deep knowledge of the inspections industry

- 25+ years of experience in the field of surveying (terrestrial & aerial), satellite remote sensing and geomatics
- 20+ years of experience in the field of airborne inspections and over 1,000,000 km inspected

Design and integration of aircraft payload

- CIRO (Computer Integration for Remote Observation), a flexible detection system
- MAPPING, an airborne multi-sensor platform
- CTBTO multi-sensor platform for United Nations Commission

SW platform (cloud or local) for data management and visualization

- Design and implementation of various tools to enable the visualization and management of data provided to clients: visualization of major vector and raster formats, export of 3D models in BIM format, 2D spatial overlay and 3D of raster and vector formats

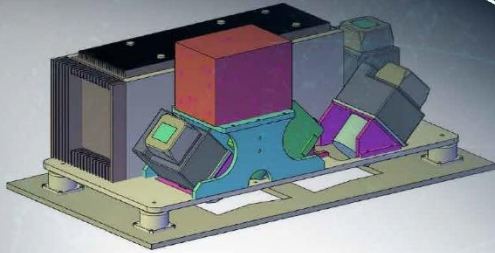
Ability to innovate the massive data processing

- Design and implementation of several tools for Terrasolid applications to automate data processing: automatic detection of "critical" distances, calculation of state change and vector representation of catenaries, calculation models of vectoral data for first approximation distances



Geocart's Best Practice in Powerline Inspection Activities

INSTALLATION AND ADAPTATION TO DIFFERENT SCENARIOS AND MULTIPLE CARRIERS



DESIGN OF INTEGRATED MULTI-SENSOR PLATFORM

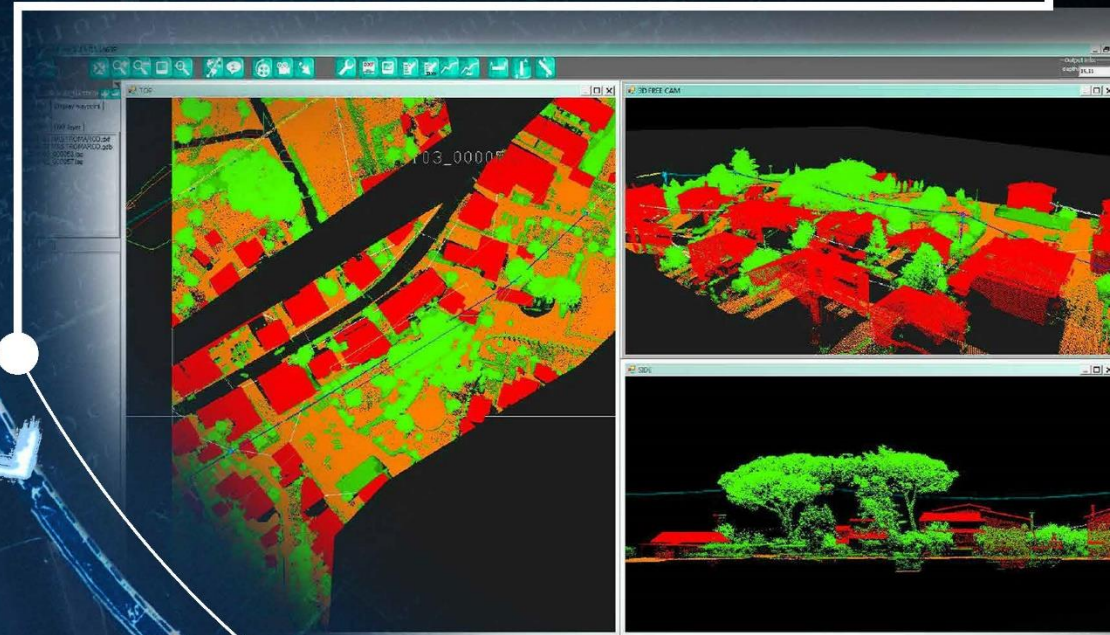
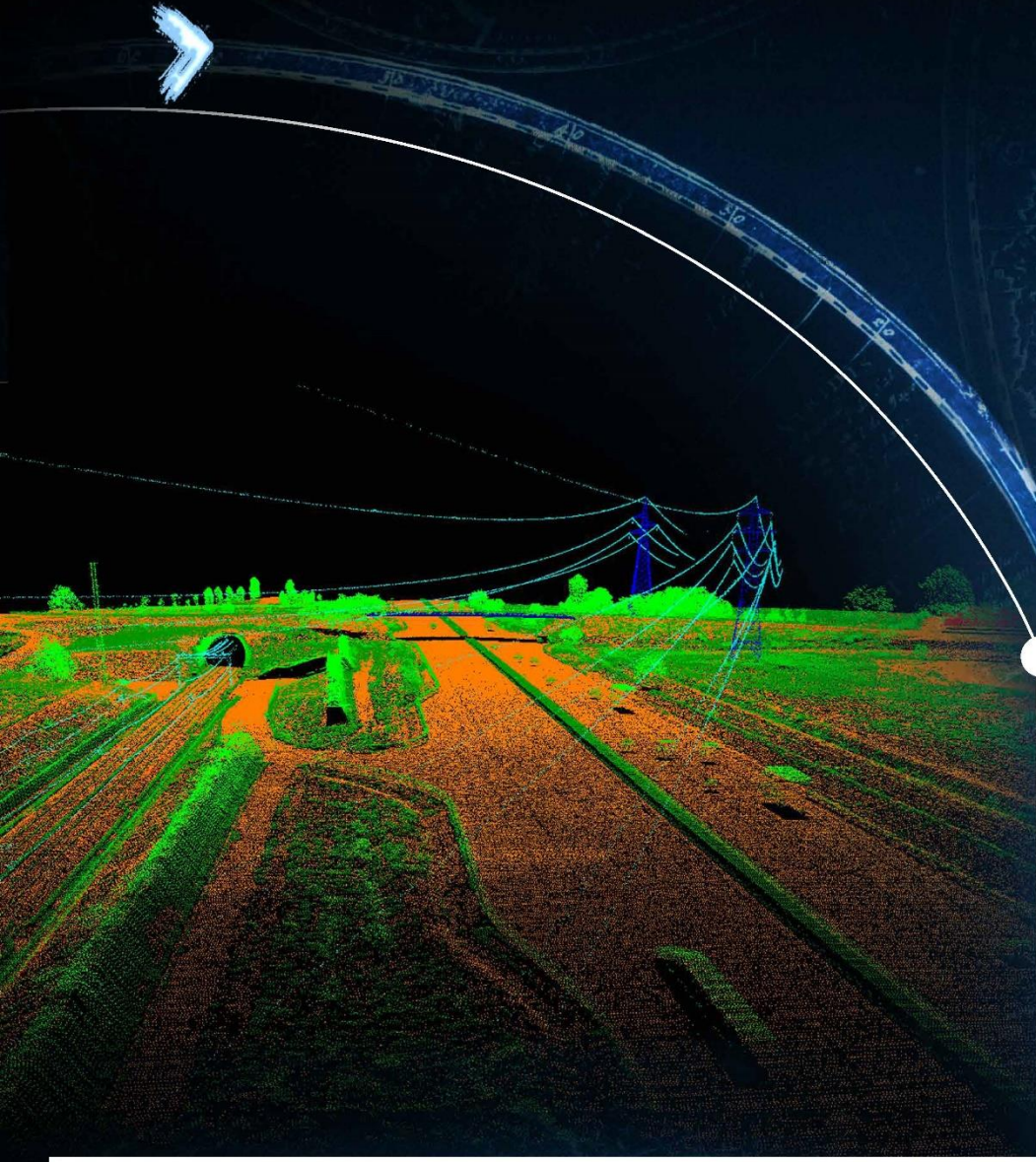


AERIAL AND TERRESTRIAL
SURVEY AND INSPECTION



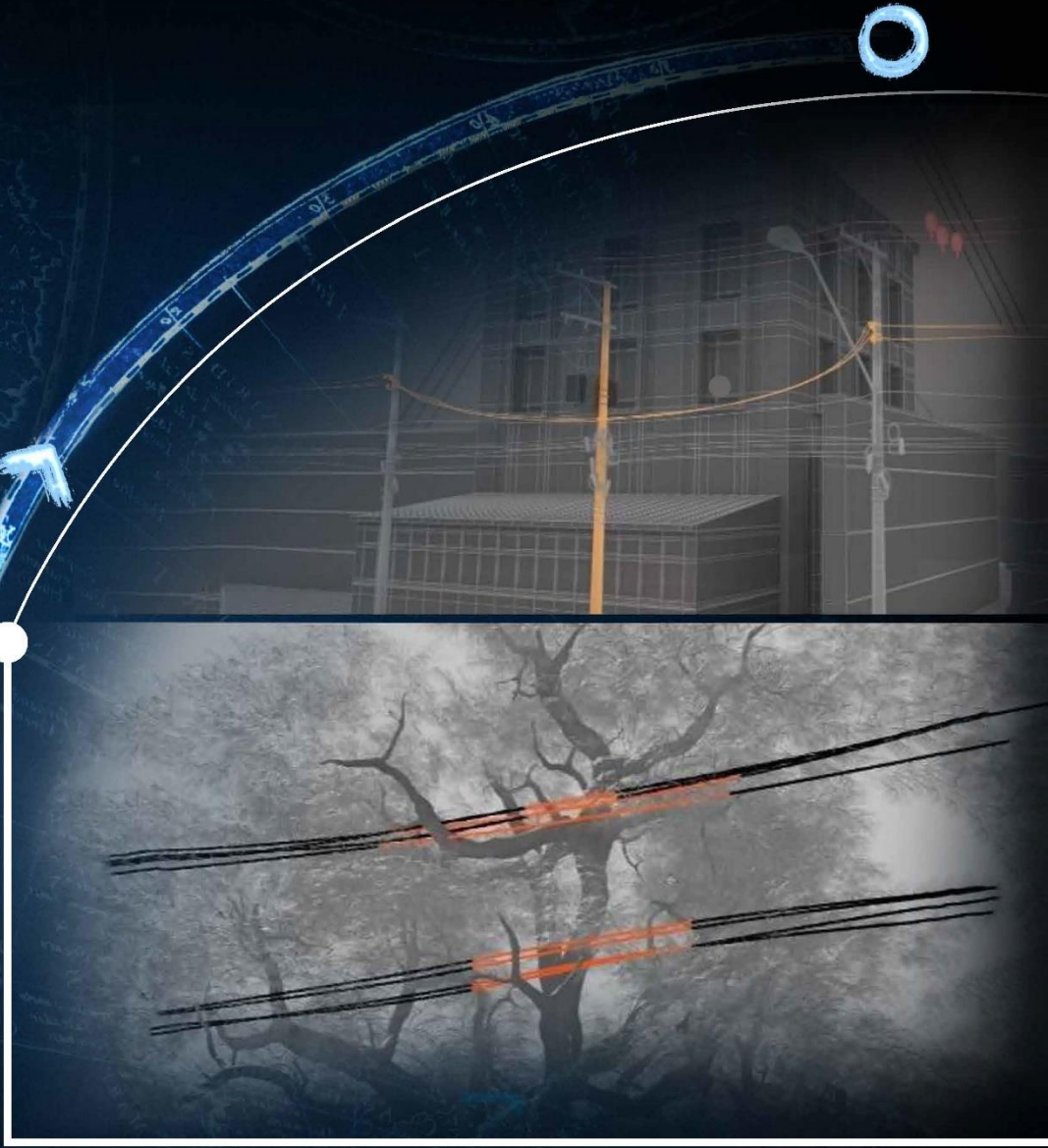
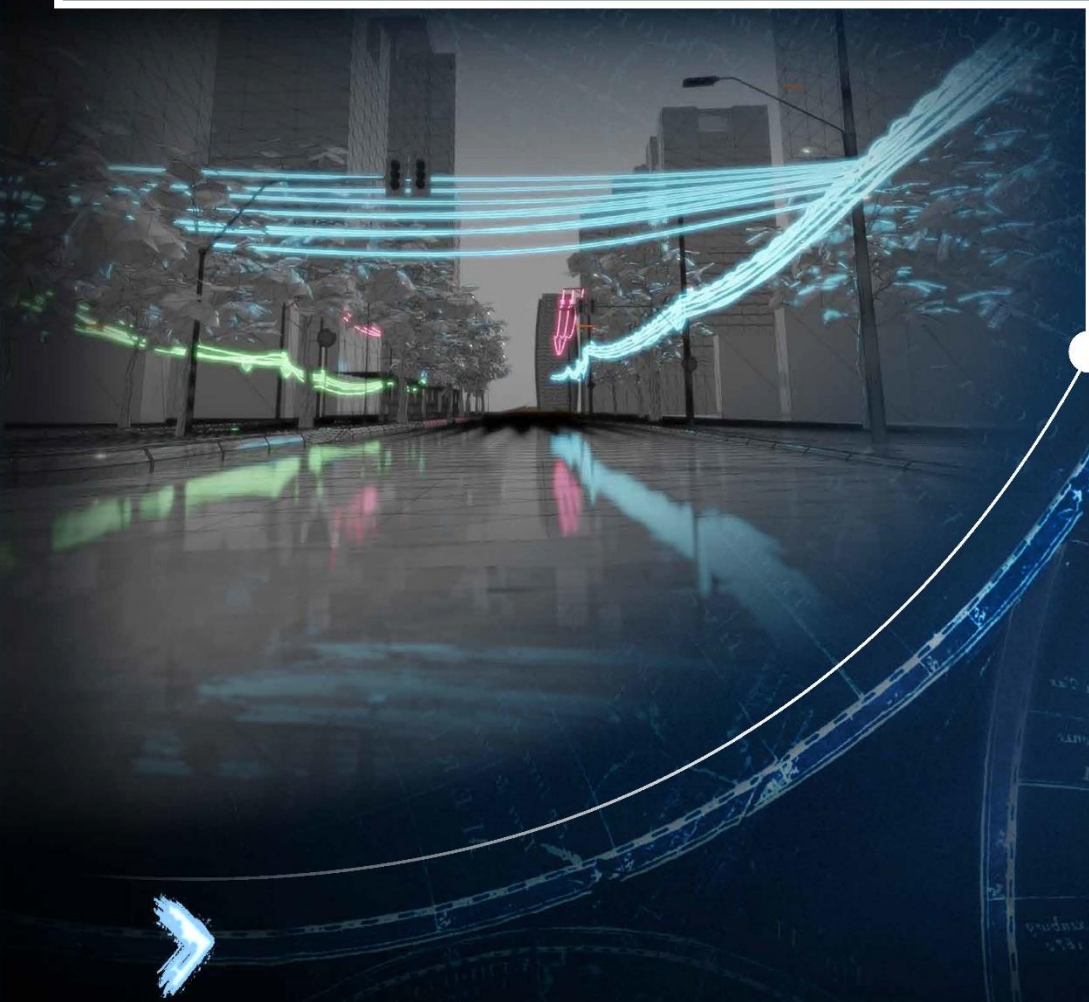
ANALYSIS OF SATELLITE DATA

GEOCART DATA VISUALISATION SYSTEM FOR DATA ANALYSIS AND DISPLAY TO SUPPORT ASSET MANAGEMENT



ANALYSIS AND PROCESSING
OF ACQUIRED DATA

DIGITAL TWIN CREATION OF ASSETS



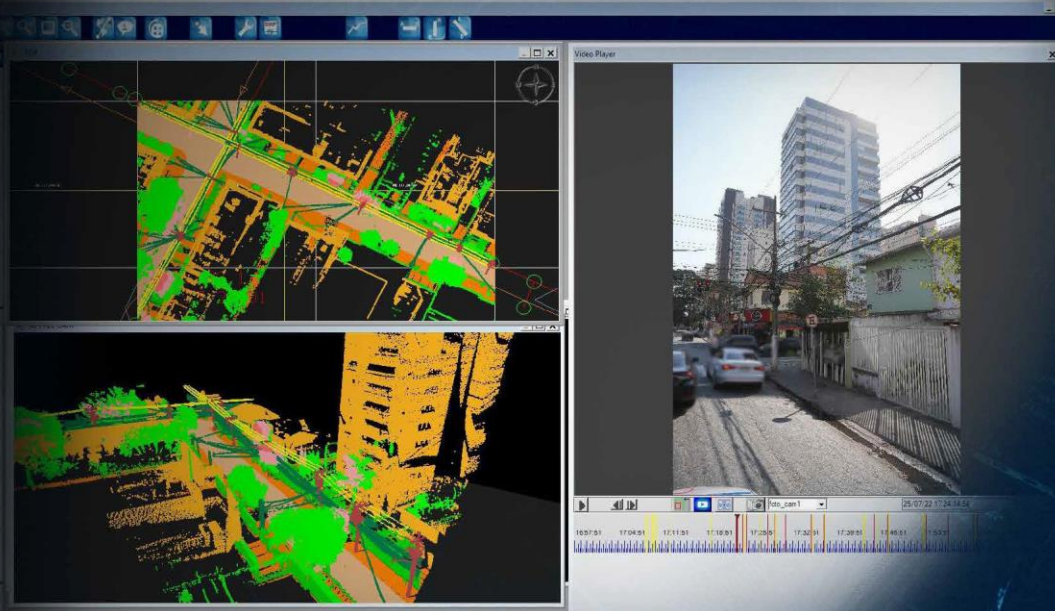
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POWERLINE

CUSTOMER NEEDS

Geocart is an important tool in the portfolio of solutions available to utilities in the integrated asset management challenge.

Our mission is to make sure that our clients gain in-depth knowledge of the current and forecast status of assets by performing accurate infrastructure monitoring and identifying potential critical issues and interferences.





GEOVIEWER
SOFTWARE



GEO3D INSPECTION
WEB-BASED VIEWER



BIM BASED SOLUTIONS



POWERLINE

CUSTOMER NEEDS

We offer our clients the ability to virtually navigate their infrastructure and rely on a comprehensive information dashboard to ensure proper asset management and effective decision making:

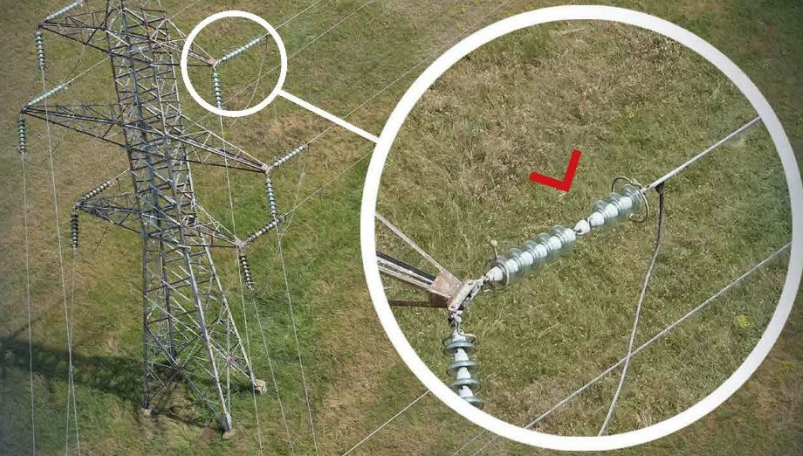
- Complete and detailed overview of the power lines for optimizing maintenance plans and improving service quality and continuity indices.
- Monitoring of the structural conditions of towers, poles and wires to improve asset lifecycle management and to manage and plan the aging process of the network.
- Detecting of dangerous objects (buildings and vegetation breaching the minimum clearance from wires).
- Creation or updating of the cadastral database of the electricity network.
- Gain information and analysis to make short-term, emergency response decisions or plan long-term strategies.
- Reduce maintenance costs.

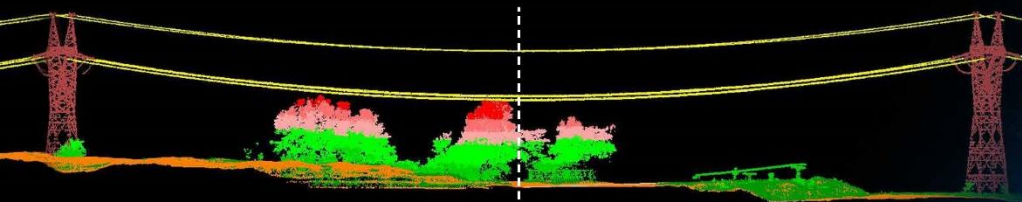
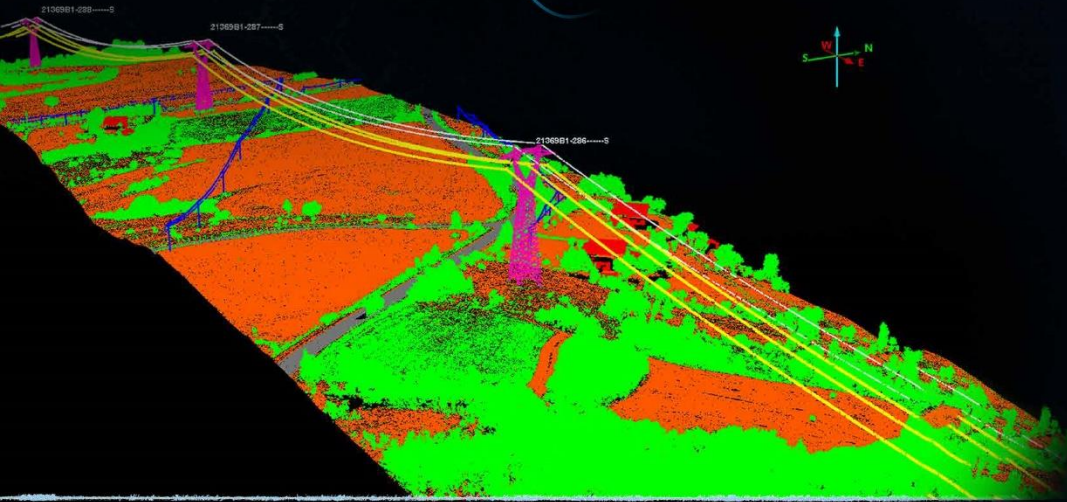
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POWERLINE

BENEFITS & VALUES DELIVERED

- Quick data acquisition, processing and analysis.
- Georeferenced and accurate data.
- In the same flight, acquisition of the 3D model data, visible and thermal images, anomalies.
- Detailed representation of the inspected corridors for maintenance or design issues.
- Supply of customized user-friendly SW GeoVIEWER.

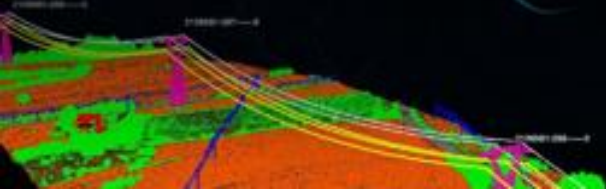




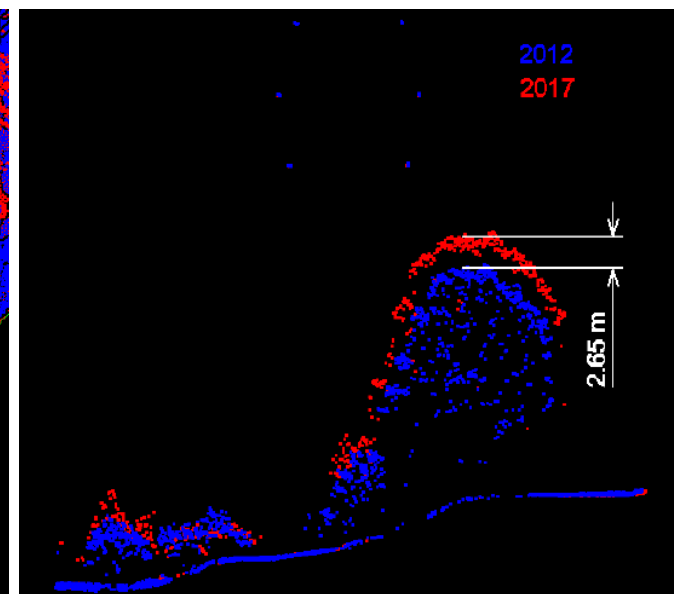
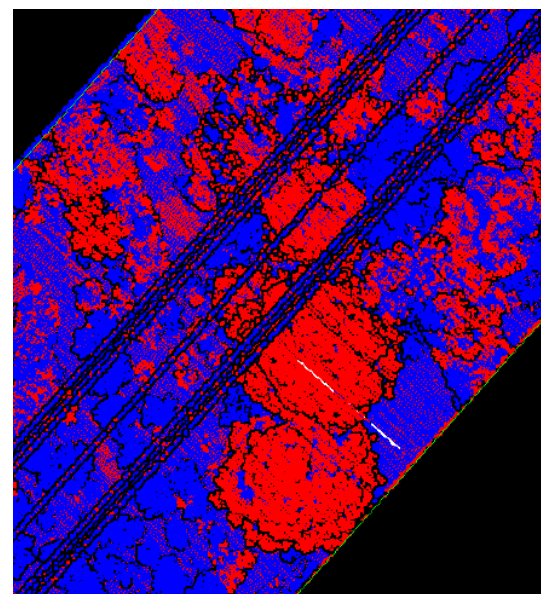
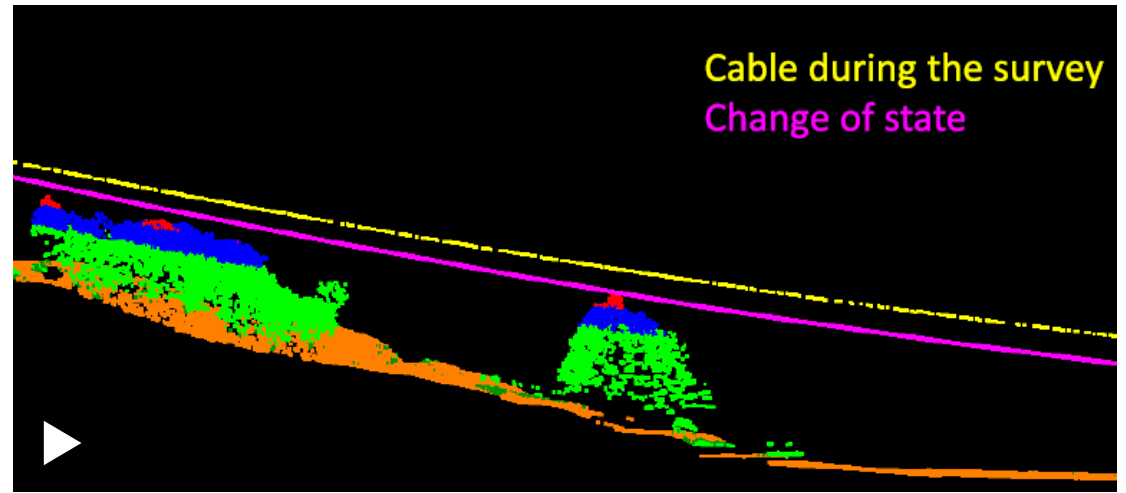
POWERLINE

OUTPUTS

- Classified Point Clouds
- Digital Orthophoto
- Digital Terrain Model
- Catenary profile
- Thermal warnings
- Clearance
- Vegetation management
- 3D Mapping
- Component anomalies
- Cadastre and Database



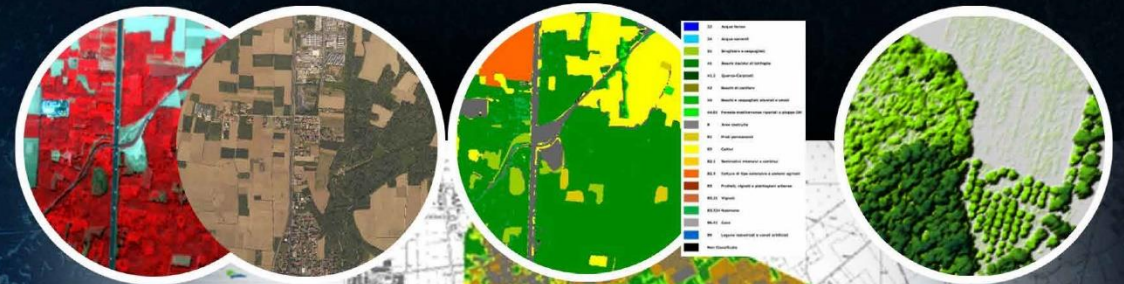
Predictive Maintenance for Vegetation Management



GROUND, VEGETATION, FOREST AND WATER BASIN ANALYSIS

CUSTOMER NEEDS

- Analyze the state of the vegetation before, during and after the construction of a new asset to monitor the environmental impact of the new infrastructure on agricultural crops and forests.
- Accurately geolocalize the vegetation maps in order to observe the possible evolution of degenerative phenomena.



Blue	Water
Light Blue	Ice
Dark Blue	Shadows & Topography
Green	Vegetation
Yellow	Urban
Orange	Soil
Red	Rock
Black	Clouds





GROUND, VEGETATION, FOREST AND WATER BASIN ANALYSIS

BENEFITS & VALUES DELIVERED

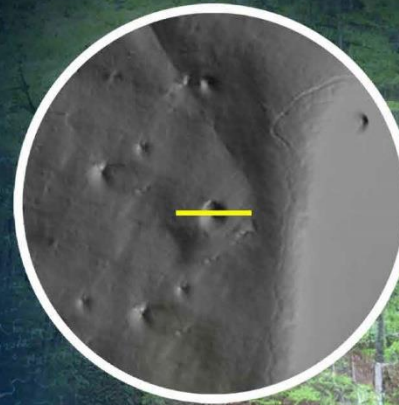
- Quick and non-destructive method to detect and characterize vegetation and soil properties.
- Georeferenced and accurate maps to estimate the quality of vegetation and the quantity of biomass, measuring photosynthetic activity (Biotopes; NVDI Normalized Difference Vegetation Index, NDVI; Leaf Area Index, LAI; Canopy Height Model, CHM).

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GROUND, VEGETATION, FOREST AND WATER BASIN ANALYSIS

OUTPUTS

- Map of NDVI Index
- Geocoded spectral (multi or hyper) data & ortophoto
- Biotopes Classification
- Classification based on shape factors
- CHM (Canopy Height Model)





RAILWAYS AND HIGHWAYS

CUSTOMER NEEDS

- Set up a detailed assets inventory of the railways and highway infrastructure, identifying the exact location of relevant objects.
- Develop a geodatabase to support the analysis of track conditions of the railways network by means of a Railways Management System (RMS).
- Supply a software solution to support the maintenance planning developed by railways and highway companies.
- Reduce maintenance costs.

RAILWAYS AND HIGHWAYS

BENEFITS & VALUES DELIVERED

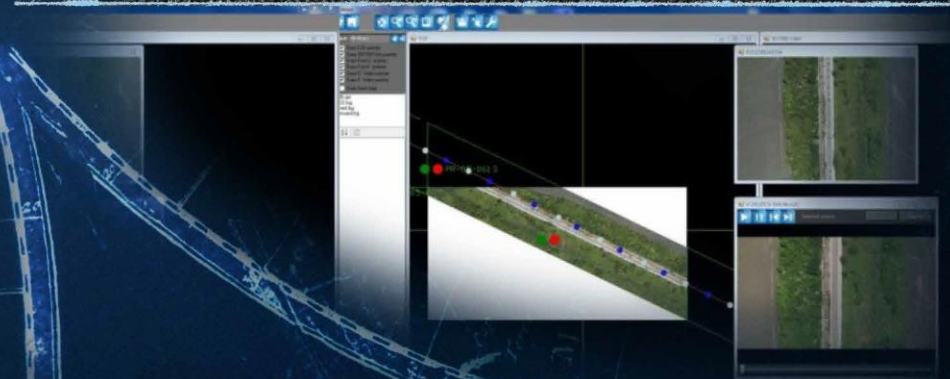
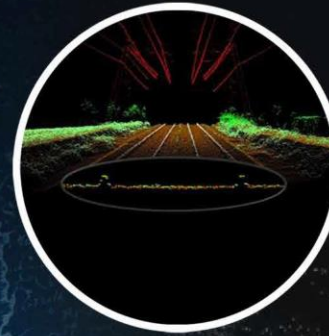
- Quick data acquisition, processing and analysis (Geocart has surveyed in 20 days more than 1,500 km of railways for the Serbian Railways).
- Georeferenced digital asset inventories.
- Supply of a unique user-friendly SW GeoVIEWER, that prevents the maintenance planner from having to go on field; the maintenance planner analyzes the track conditions visualizing digital data.

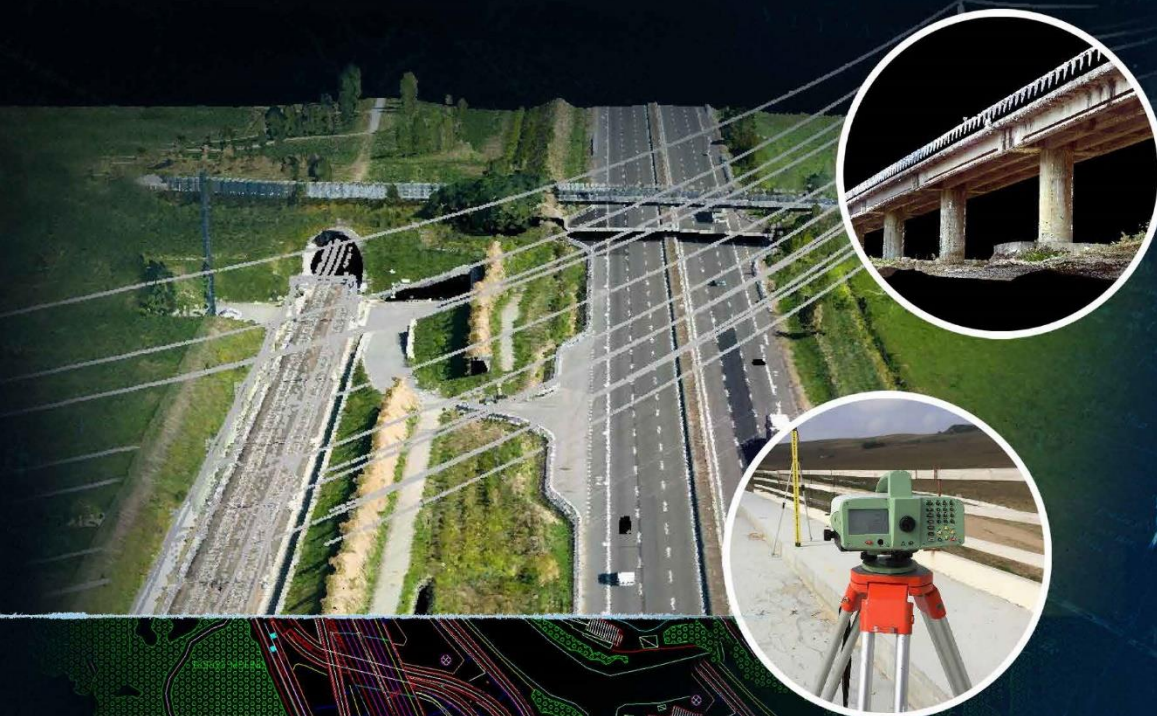
GEOVIEWER
SOFTWARE



GEOCART

SATELLITE AND SENSOR TECHNOLOGIES
FOR BRIDGE DIAGNOSTICS





RAILWAYS AND HIGHWAYS

OUTPUTS

- Classified point clouds
- Orthophoto
- Mobile mapping survey
- Panoramic images 360°
- Roads and Assets inventory
- Digital Terrain model
- GeoViewer software
- Digital templates
- Oblique images
- 3D cartography with XDATA
- Management software

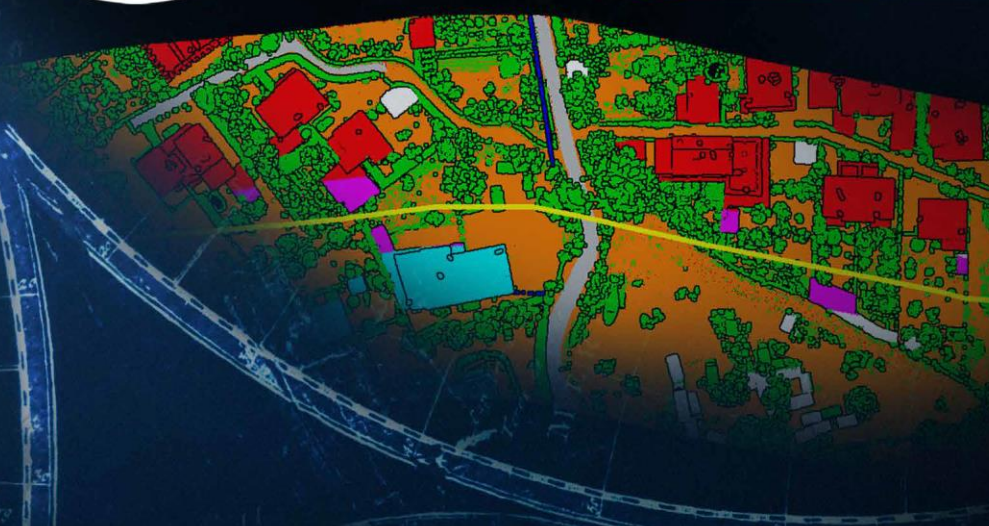
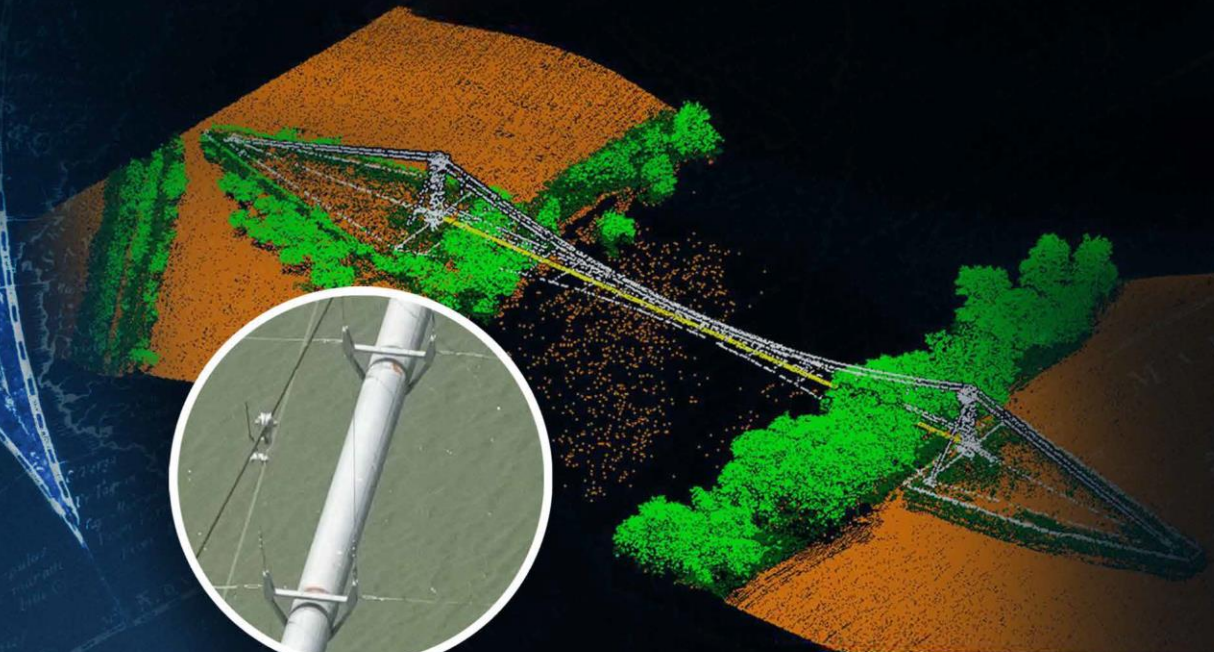
PIPELINE

- Route survey and pipeline inspections for area mapping and warnings detection.
- Quick data acquisition, processing and analysis.
- Georeferenced digital asset inventories.
- Supply of a unique user-friendly SW GeoVIEWER.

GEOCART
PIPELINE INSPECTIONS



GEO3D INSPECTION
WEB-BASED VIEWER





GEOCART
sensing innovation



www.geocartspa.it