

A flexible MMS for the Friuli Venezia Giulia Region

Client

The Forest Department of the Friuli Venezia Giulia Region, launched a call for tender for a Mobile Mapping System, won by Siteco Informatica srl.

Project Goal:

The Forest Operational Survey Department, using its engineering staff, wanted to catalog and update the forest roads, in order to develop maintenance programs and create a road inventory. To achieve this goal, it made a tender for the supply of a very versatile Mobile Mapping System, that allowed the administration to update dynamically its land integrated system.

Project Development

The Forest Department developed an innovative project aiming at optimizing the timing relating to the operational phase of surveying, implementing new methodologies and new types of data. These enhancements affected also the data output procedures.

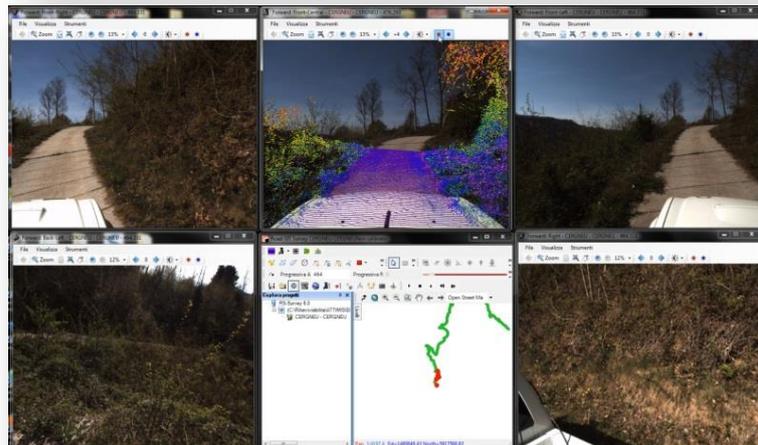


The implementation of the Mobile Mapping System developed by Siteco, allowed the region department staff to carry out a mobile survey, with accuracies that ranged from a few centimeters (in the case of ordinary roads with a good GNSS signal), to sub metric values (in the case of forest tracks where the GNSS signal was absent even for several minutes).

The survey provided the detection and the geometric measurement of all the elements of the forest track, and the creation of an associated imagery database, which allowed a visual inspection of the places and the infrastructures.

The integration of geometric and multimedia data allowed the use of GIS tools for management, maintenance and update operations.

Thanks to the implementation of WEBGIS tools, the collected data were made immediately available in a public area and accessible through the Internet.



A very flexible Mobile Mapping System

Thanks to its flexible configuration, the system can be mounted in the back of a pick-up or on a Quad and travel through narrow and steep forest roads, carrying out road and path surveys and monitor the state of repair.

The MMS is equipped as follows:

- Applanix POSLV 220 positioning system
- Z+F 5010C laser-scanner(s), that can be used also in static mode for specific inspections, for example, in the case of landslides
- 6 high resolution Basler cameras (2Mpx)
- In the Pickup configuration, a front bar with 3 additional high-resolution Basler cameras that help improving the front view
- In the Quad configuration, two lithium batteries assure the power supply for a minimum autonomy of 5-6 hours
- In the Quad configuration, the MMS Road-Scanner is controlled through a robust touch screen tablet installed on a support, designed by the Operational Survey Department. This tool does not affect the vehicle driving and allows the operator to manage the survey operations with simple finger movements.

