Mobile Mapping System

Gispro have successfully implemented Land Based Mobile Mapping System (MMS/MLS). The system consists of Riegl laser scanners, digital videoscanners and ground-penetrating radar. Positioning and orienation are established using POS420 and GPS receivers with IMU and DMI, built onto a car.

The exact configuration is as follows:

- 3 laser scanners from Riegl. Two VZ-400 scanners are placed on the sides of the car and can be easily removed and used for static scanning. Between them there is a VQ-250 "Full Circle" scanner. These are currently the most advanced laser scanners in the world.
- 6 digital video cameras Arecont Vision allowing stereo vision in back direction and front or side direction. The angular orientation of the cameras can be adjusted, dependent on the aim of the project.
- Ground Penetrating Radar from IDS used for detection of underground cables and pipes and penetration of the surface
- Position and Orientation System POS 420 V4 LW from Applanix including: Two GPS receivers integrated with IMU (Inertial Measurement Unit) supported by DMI (odometer)

This is one of the most complete and versatile Land Based MMS/MLS worldwide. It is capable to acquire very high density point clouds (9000-10000 points/m^2) with the relative accuracy up to 10mm (absolute 30mm horizontal and 10mm vertical). The accuracy has been tested during the first two big projects conducted with the use of our Mobile Mapping System. GISPRO has already scan 120km section of A1 Highway and national road no.1. Soon the system will be tested on railroad tracks. The system will be presented on this year Intergeo in hall 1, booth 1.616.