

Intergeo 2009: ALS, TLS and MLS

Intergeo 2009 took place in Karlsruhe from 22nd to 24th September with a conference and trade-fair. And despite the ongoing credit crunch, this fifteenth Intergeo exceeded all expectations of the organisers, the German Association of Surveying - German Society for Geodesy, Geoinformation and Land Management (DVW) and HINTE GmbH. If you missed Intergeo 2009, or are still dizzy from the cacophony of colours, lights and company names bombarding you from the 475 exhibitors this year crammed into apparently ever shrinking stands, you have only to remember three abbreviations that we feel shaped the lead theme of this year's show: Airborne Laser Scanning (ALS), Terrestrial Laser Scanning (TLS) and Mobile Laser Scanning (MLS).

There was a further rise in numbers of international visitors among the 16,000 total; 22% came from abroad, more than two hundred of whom international geodesy students. German participants numbered 1,450 and companies showing their products on the trade floor came from over thirty countries. These figures underline the global value and importance of Intergeo as the premier international geomatics industry forum.

A large number of stands displayed ALS, TLS and MLS system hard- and software, evidencing the increasing significance of scanning techniques. Most striking at this year's show was the rapid development in MLS systems. Last year in Bremen there were already a number of cars, a quad, and even a Segway, crammed with equipment; these were mainly prototypes. This year we counted no fewer than seventeen cars, some mounted with a tailor-made configuration of instruments such as Optech's LYNX Mobile Mapper. But the first ready-to-use systems were also to be found on the Topcon and Riegl stands. Topcon's vehicle-mounted IP-S2 3D precision-mapping and survey system combines dual-frequency GNSS positioning with inertial measurement to precisely position laser-scanning and digital-imaging data. Data collected using 3D laser scanners and/or cameras is integrated, time stamped and geo-referenced by an IP-S2 control box. The compact design of the RIEGL VMX-250 consists of a roof-carrier-mounted platform with two RIEGL VQ-250 scanners, INS and mounting points for digital cameras or video equipment. In either case, all you need now is a car with a roof rack!

Road and off-road vehicles may also be replaced by other moving platforms like boats and trains. Railways have the advantage of a known track, for which Metronome Automation GmbH presented its Helicontrol, a product used with the FARO Photon Laser Scanner in the Helical mode. The laser scanner is moved during setting on a user-defined rover system, during which the scan process generates a 'sampling screw line (Helix)': useful, among other things, for railway clearance detection.

The development of laser-scanning techniques, especially MLS, became a self-evident necessity with growth in traffic volumes. Last month's feature 'Revolution in Highway Surveying' showed how a surveyor measuring a cross-section of highway using a level and rod will become a thing of the past. The 'classical' survey crew with theodolite and a level will be consigned to the construction site, while mapping is carried out using all kinds of remote-sensing techniques.

At the end of the day, Intergeo is a surveyors' party; the place where they treat visitors to the latest models of instruments with spiralling specifications from manufacturers in every corner of the globe. The established order, Leica, Trimble, Topcon/Sokkia, Pentax, were this year joined by many others, including companies from Asia like CHC, South, Horizon and Kolida, all presenting very interesting instruments. And not forgotten guests at the party were prisms, rods, poles, tripods, tapes, and every kind of small device.

The Congress

The congress language was German, making it inaccessible to many international visitors. This in contrast to the programme in the 'Trends and Media forum', which included a number of very interesting lectures held in English. Congress was opened by Karl Friedrich-Thöne, our last month's interviewee, who entertained his audience with a remark passed on from a firm, to the effect that the geodetic profession nowadays had to be 'cool and sexy'. He went on to announce that more new students registered for geodesy in Germany in 2007 and 2008 than in preceding years. Keynote speaker Willi Zimmermann, guru in the field of land management and governance, took his capacity audience on a journey through countries whose difficulties included conflict, refugees and natural disasters. The fact that geodesists no longer comprise an exclusive club was highlighted by the presentations on architectural surveying and facility management.

