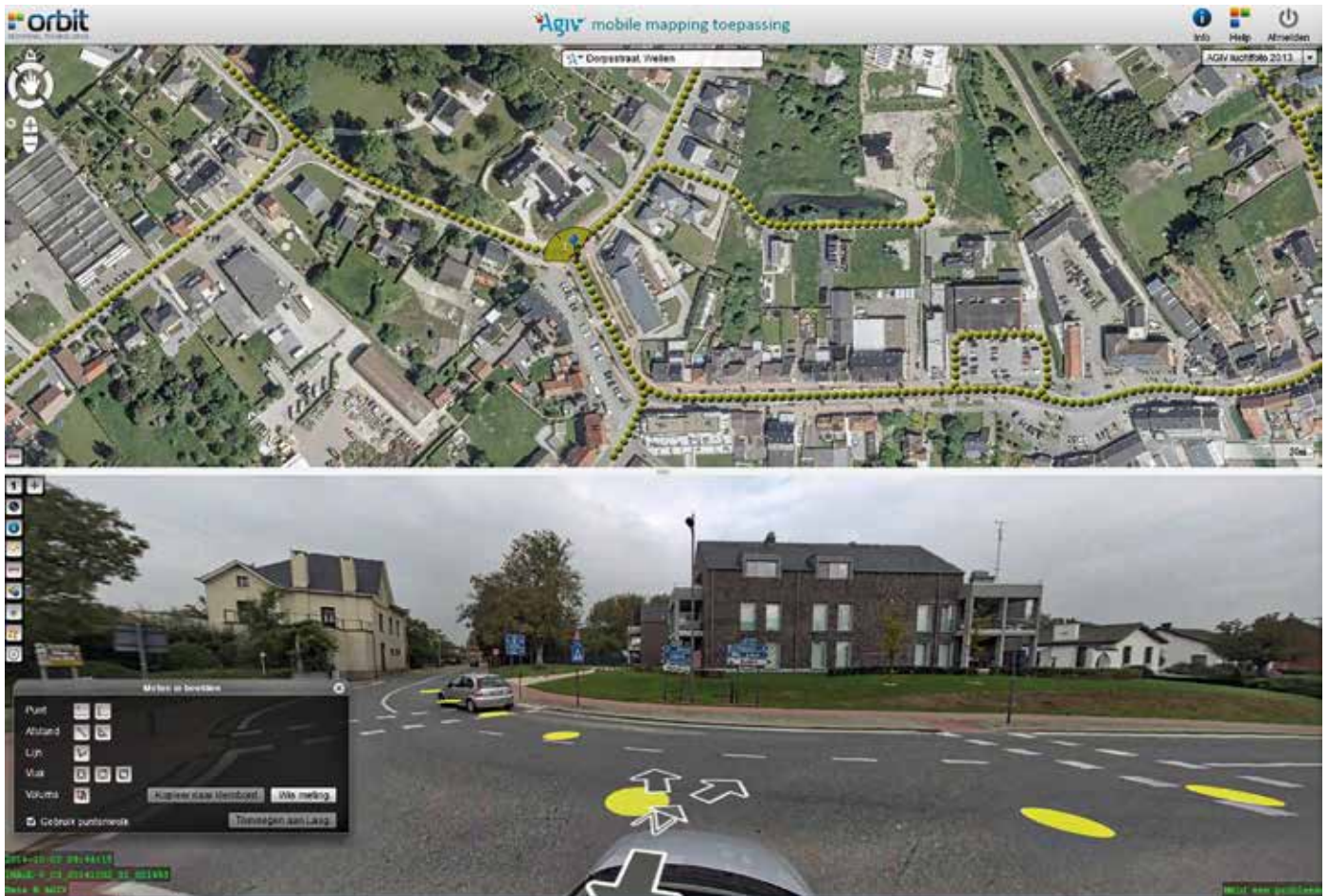


TENDERING UP TO DATE WITH TECHNOLOGY AND LEGISLATION

BASED ON A SUCCESSFUL FIRST ROUND IN 2008-2010, AND ON POPULAR DEMAND, THE FLANDERS GEOGRAPHICAL INFORMATION AGENCY (FGIA) HAS DECIDED TO TENDER A SECOND ROUND OF MOBILE MAPPING, COVERING ALL ISSUES LEARNED FROM ROUND ONE.



FGIA's Mobile Mapping portal

Improved points of attention were the coverage of all roads, provisioning the data for all government bodies, and a pre-arranged agreement with the privacy commission covering all privacy related issues at once. From the technical side, FGIA has chosen to keep up with the evolution and has organized a pre-tender RFI to assemble valuable information about the variations in quality, precision, capture speed, sensors, data volume,

usability and deployment of data by contemporary mobile mapping solutions. FGIA started well prepared and well informed on this project.

The tender was won in July 2014 by Image-V, a joint venture between Teccon and Grontmij. The job required the acquisition of spherical imagery and LiDAR data for all 65,000 kilometres of roads in Flanders. Image-V started operations with four vehicles. The

project initially covers a two year period in which all data acquisition and publishing must be completed. Options to extend this project, subject to FGIA decisions, can be lifted.

Acquisition

The acquisition requires the combination of high resolution images and 3D-point clouds to allow for detailed observations and measurements. It also requires the blurring of privacy-

sensitive areas on the imagery, being faces and license plates. Within two years, all data must be brought online. As a supplement, the data collected in the first round must be brought online as well in the same application, so users can access new and historic data in one go. To do so, the historic data must comply with the same privacy prescriptions, hence processed for faces and license plates.

For production, Image-V uses Topcon IP-S2 hardware systems and Orbit MM Content Manager software. As subcontractor, Orbit GT assisted in the blurring process and the production workflow.

Maximum use

The Flemish Government and the FGIA have set up this project in such way that a maximum use can be achieved with a minimum of efforts for all government audiences. The online solution has been made available for all partners within the Flemish GSDI-community, predominantly public and semi-public regional and local authorities. However, due to additional privacy restrictions, it is yet not available for the general public. All government personnel can, after a simple and single registration with the FGIA, access the data free of charge and without any additional restrictions on its use.

Online disclosure

The data are disclosed via multiple channels, provided by Orbit GT: (1) a secured online application allowing for browsing the images, comparing



Image-V cars fully equipped with Topcon IP-S2 systems

temporal series, performing detailed measurements and basic feature extraction, built with the Orbit MM Publisher SDK; (2) the same SDK supporting the integration of the online functionalities within the users business processes, workflows and environment, available to develop plugins; and (3) a mobile app for iOS devices for consultancy.

Overall, 12 to 13 million images will be collected of each 8,000 by 4,000 pixels resolution, totalling a volume of 120 TB. When adding the LiDAR data and historic series, the data hosting effort is estimated at 250 TB by the end of the job.

More information on the product can be found at (in Dutch): <https://www.agiv.be/producten/mobilemapping>

The mission of the Flanders Geographical Information Agency (FGIA), a regional governmental institution, is to ensure optimal use of geographical information in Flanders by working out solutions that can be integrated by governmental bodies, companies and the general public. Flanders is the largest region of Belgium.

The '360°-beeldendatabank Vlaanderen' is Flanders' mobile mapping solution, managed by the FGIA. Mobile mapping data is considered a valuable tool for a more efficient and effective management of the public domain. Applications are found on different levels of government, both local and regional, and within a multitude of domains including but not restricted to asset management, housing, environment, tourism, and public safety.



Instant comparison: left image is 2010, right image is 2015 clearly showing the change in infrastructure

About the author

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