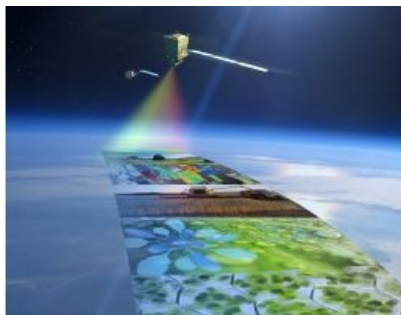


5 Ways the World Depends on Geomatics



Where would we be without geomatics nowadays? There are so many ways in which modern life relies heavily on mapping and surveying professionals that it's hard to imagine a world without geospatial technology, writes *GIM International's* Wim van Wegen. In agriculture, for example, geospatial data and technology helps farmers to increase their yields and feed the growing world

population. Other applications include mining, urban planning to create 'smart' cities, and mobile mapping. Last but not least, self-driving vehicles – regarded by many as the future of transportation – won't get far without geomatics technologies. Read on for some inspiring examples from everyday life that would not be possible without our beautiful profession.

Advancing Smart Farming Thanks to Geospatial Technologies

The Netherlands' agricultural exports have hit a new high. In 2016, a record EUR85 billion worth of farming products were shipped around the globe, making the country (with an area of only 41,543 square kilometres!) the second-largest exporting nation in the world. Precision agriculture, also known as 'smart farming', is likely to further boost these export activities significantly in the coming years, as geospatial technologies help farmers to continue to increase their production. [Read on...](#)



Remote sensing: Satellite-derived information will lead to better insight into plant health and stress. This is of particular relevance since the growing global population is placing increasing demands on the production of food and animal feed.

Surveying in the Mining Sector

Geospatial data forms the foundation of mining. The rapidly evolving innovations in the geomatics sector are bringing previously unforeseen opportunities that will provide a major boost, both to mining surveyors and the mining industry as a whole. Read on for an article which starts with some history – after all, we should never forget where we came from. It then goes on to present a general outline of surveying in the mining industry, with a focus on the survey equipment and the technologies that are being used today. [Read on...](#)

Geomatics Makes Smart Cities a Reality

Today, the main use of 3D building models is for visualisation purposes. However, such models also have huge potential for supporting the 'smart city' concept. Disaster management, 3D cadastres, energy assessment, noise & pollution monitoring and visibility analysis could all benefit from enriched 3D building models. To demonstrate this potential, this article presents three case studies in which 3D building models have been enriched with non-spatial data. The datasets can be visualised and managed online within a web-GIS platform. [Read on...](#)

The Impressive Contribution of Geomatics to Autonomous Driving

Since Karl Benz was granted a patent for his first internal combustion engine in 1879, the automotive industry has changed substantially. Or has it? The main principle remains the same: cars still have four wheels, a petrol- or diesel-powered engine – electric cars are still underrepresented and so far there are just a few hydrogen cars publicly available in select markets – and they still need to be driven by a human being. However, a major change is just around the corner: self-driving vehicles. And they won't get far without geomatics technologies. [Read on...](#)



Mobile mapping solutions are a good example of how geospatial technology drives us forward.

Mobile Mapping: Visualisation of the Environment

CycloMedia is a renowned mapping company specialised in large-scale and systematic visualisations of environments. Its headquarters are situated in The Netherlands, a country that is an excellent testing ground for continuous innovation in mobile mapping solutions. GIM

International's Wim van Wegen took to the highway and headed south to the old town of Zaltbommel to talk with Frank Pauli, CEO of the developer of advanced camera and image processing techniques. [Read on...](#)

<https://www.gim-international.com/content/news/5-ways-the-world-depends-on-geomatics>
