

# How Will the Surveyor's Role Look in Ten Years' Time?



Over the next ten years, the surveyor's workflow will become quicker, safer and easier because of new technologies such as scanning, mobile mapping and UAS photogrammetry. Virtual layout, aided by the increasing use of augmented reality technologies, will require fewer physical stakes in the ground. Due to the transformation of the physical world into a digital one, digital twins will take centre stage, with surveyors called upon to convey meaningful information from the model back to the physical world.

Demand will increase for surveyors' expertise in time-based analysis of changing site conditions, such as monitoring installations for volume-changing and deformation analysis. Surveyors and mappers should also take heed of capital flows into the autonomous vehicle revolution. The tremendous amount of money pouring into that space will continue

to improve sensors, onboard processing and vehicle connectivity, essentially resulting in millions of mobile mapping units around the world. That data may provide an abundant resource for spatial information, yet also challenge surveyors to process it into something relevant to their applications.

With geospatial-centric data finding its way into more realms of business, surveyors will be needed to ensure data accurately represents the physical world. The layperson will struggle to identify and separate good data from bad, increasing the demand for surveyors – who are legally bound to provide data accuracy and quality. Cutting-edge surveyors will have invested in proven technologies to provide quicker and safer means for data capture, with scanning top of mind. Those who learn to master the powerful software programs used to extract data and automate processes will be most competitive. At the same time, the office-based side of the business will increase and field crews will be expected to understand a wider variety of data capture methods. GNSS and total stations will still have a solid core in day-to-day workflows, yet the growth of the other methods will be important too.

A decade from now, we will hopefully have turned our biggest headwind – finding good help – into a tailwind. Land surveying requires a broad skillset touching on numerous disciplines, and through educational initiatives and more outreach to the younger generation I'm optimistic that our industry will generate professionals with mathematics skills, technology capabilities, historical awareness, legal responsibilities and good personalities to boot.

*Chris Trevillian is marketing director of Trimble Inc.'s Geospatial GNSS division.*