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# ONLY 'NICE TO HAVE'?

## MOBILE GIS IS STILL AN AFTERTHOUGHT FOR TOO MANY ORGANISATIONS WHO HAVEN'T REALISED THE QUICK BENEFITS THEY COULD GAIN FROM IT

On the face of it, Mobile GIS should be a no-brainer. You have field staff who need to take measurements. Mobile phones and tablets now have more power than a PC had a decade ago and connectivity better than some people's home broadband connection. There's simple yet powerful GIS software available on practically whatever mobile device to gather data. How hard should it be to reach for this 'low-hanging fruit' and roll out Mobile GIS to them?

Yet, as Mobile GIS developer Matt Sheehan recently found, it's still something that escapes some organisations. Matt reports that when talking with a customer last month, he asked how they were progressing with their mobile GIS roll out. They responded: "That is way down our priority list, we are still trying to move to our new cloud-based GIS platform." Mobile is a 'nice to have'... once all the other GIS pieces have been assembled.

This issue, we hope to show that thanks to the advent of many new geospatial technologies, Mobile GIS's benefits are becoming so great, it should be indispensable to any organisation with a field staff.

The International Civil Aviation Organization sets policies and standards for the safe, efficient and sustainable operation of global civil aviation. The ICAO specifications for airports are exacting. There are details about everything from runway dimensions and materials down to aircraft parking spaces and placement of lights and signs in the airfield. It's essential for airports to comply with the ICAO and national regulations. Loss of certification could cause civil aviation to drop off, which would result in serious economic losses to the region served by the airport.

To meet these different requirements, Timisoara Traian Vuia International Airport in Romania tasked mobile mapping company Gauss with gathering the necessary geospatial data. One of the end results is a database that airport staff can view using free software, so they can provide data quickly to officials. You can find out more on page 28, where Erik Dahlberg reports on the project.

Mobile LiDAR, in which LiDAR is mounted on a vehicle so that it can capture data

quickly, was just one of the technologies Gauss used in Romania, but it's seeing use all round the world, particularly in transport. Able to acquire huge amounts of data quickly for use by those in field, that very benefit is also its biggest drawback, with organisations often finding their systems overloaded and their staff overwhelmed by the sheer amount of data available.

On page 34, Ted Knaak looks at the workflows needed in transport planning to use mobile LiDAR successfully without encountering bottlenecks. His mantra: manage, assess, extract.

By contrast, Daw Tsai's mantra is 'measure, compute and communicate'. On page 38, Tsai looks at how the Internet of Things and modern rugged tablets are transforming Mobile GIS to enable real-time field data management possible. He considers how 4G, GNSS and long-range Bluetooth can work in conjunction with cloud applications to automate many surveying tasks, resulting in updates to asset databases as they occur. He also looks at two applications in agriculture and utility management that are already seeing success.

I think the evidence for the value of Mobile GIS is persuasive, so if your organisation hasn't already implemented it, I hope you're able to change decision-makers' minds! And on page 32, Matt Sheehan provides some useful advice for them as they embark on their Mobile GIS journey. In Matt's experience, there are five crucial stages to follow in developing a Mobile GIS that everyone should follow to avoid pitfalls and unnecessary expense. Best of all, these steps can be used any time you want to update your systems.

I hope you enjoy the issue and that it inspires you in your own work.

*If you have a comment or wish to express your views on anything in this issue or in the world of geospatial information, then please email me at robertbuckley@geoconnexion.com with Letter to the Editor in the Subject line. Please start your email with Dear Editor and the chances are your letter will appear in the Letters to the Editor page*