

# Best Practices for Adopting 3D Laser Scanning and Mobile Mapping

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## SUMMARY

In the era of the Fourth Industrial Revolution and rapid technological advancement, surveyors are challenged to adapt their skills and practices to efficiently produce and manage precise geospatial data. Adopting 3D laser scanning and mobile mapping have become increasingly essential as prevalent solutions for achieving efficient, accurate and safe data collection, but they require adoption and adherence to best practices. As technology continues to advance, the criteria for defining best practices have evolved. Additionally, the surveying industry is facing a considerable shortage of skilled professionals, a factor that substantially affects technology choices for data acquisition and management. How can surveyors leverage the latest generation of automation to improve efficiency and maximise safety without compromising accuracy? Which tasks during all phases of the surveying project can be effectively replaced with technology, and which ones still require the finely tuned skills of surveyors' involvement? How can surveyors successfully streamline and scale their operations without second-guessing the results? This paper addresses these questions raised by ongoing technological innovation. Real-world examples illustrate how modern surveying and engineering firms should approach client interactions, project planning, data collection, QA/QC, reporting, deliverables, and more.

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