



Advanced manufacturing industries have moved further along the automation and digitisation pathway than other industry sectors. The automotive and manufacturing industries, well-known for developing advanced management methodologies such as Lean and Six Sigma, have used robotics and process automation for decades.

Across other sectors, there is less maturity when it comes to automation, digitisation, and business transformation. We are beginning to see many innovative initiatives using digital twins and BIM that address specific infrastructure management and delivery requirements. In sectors such as mining, it can depend on the size and wealth of the business – larger players invest more in industry 4.0 than smaller ones.

New production initiatives need to adopt digital transformation as their starting point. For example, one of Australia’s major renewable energy projects will work with industry partners to digitally enable and integrate a diverse range of data-driven business activities, including asset lifecycle management,

business intelligence and reporting, program monitoring and evaluation, community outreach and industry engagement and R&D programs.

Transformation of an entire business can be challenging for many reasons: the scale and complexity of some global companies mean costs of change are very high, so change needs to be strategically aligned and incremental.

In many cases, the workforce needs to develop new digital capabilities and skillsets. Inadequate attention to these factors inevitably means that full use is not made of the technology. This, in turn, limits project success and benefits realisation.

