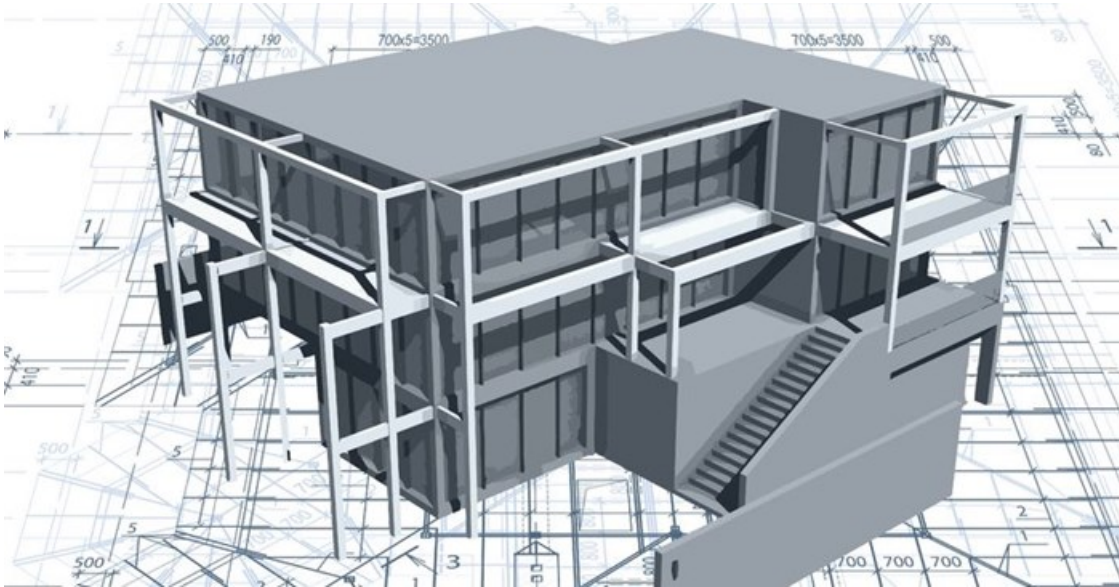


# Sparking business change with building information modelling

By [Thabo Ndlela](#)

21 Feb 2017

Construction and contracting companies in the UK and many other markets are driving transformation of their businesses with a concept called building information modelling (BIM). With the massive construction projects underway across South Africa, the country's construction sector should be paying attention to this new trend.



© Mariya Ermolaeva – [123RF.com](#)

Government spending has dipped following the construction boom leading up to FIFA World Cup 2010, but it is worth noting that government and public agencies invested more than R1tn in infrastructure between 2009 and 2014. Infrastructure is a key pillar of the National Development Plan, and South Africa is now investing more than R1bn per working day in infrastructure, including schools, housing, and water pipelines.

In the UK, the government will require all project and asset information, documentation and data on its projects to be BIM-compliant by 2016. The UK government has taken a data-driven approach to changing how the construction and contracting industry works. The goal is to make both construction and assets more efficient to reduce upfront and operational through life costs.

## Better management and use of information

What has already become clear in that process is that BIM is not about buying a 3D modelling product. It is really about better management and use of information across all stages of an asset's life. It involves the integration of processes, information and technologies. It is more about changing the way we do business and embracing continuous improvement based on a more integrated systems approach.

BIM is driving a move away from primarily document-driven processes to an integrated data-driven approach. The adoption of more sophisticated information inputs enables organisations – and potentially entire supply chains – to move away from isolated business processes, with their corresponding information silos, to processes that are integrated throughout the whole design, construction and asset management lifecycle.

The data-driven approach drives significant process efficiencies at three levels: within construction and contracting companies themselves, throughout the supply chain more generally, and in the ongoing management of the assets that are constructed.

## **Integrated systems approach**

This requires an integrated systems approach that supports accurate and timely information management across business processes like tendering, estimating, design, program management, procurement, construction, sub contract, plant and equipment, materials management, risk, progress, cost control, quality, health and safety, asset and facilities management, document management, human resources and finance.

Even if we don't see BIM mandated by the South African government in the short term, the industry can still learn from the UK experience about the changes that more pervasive use of technology will bring. Many of the changes that need to take place are cultural, including:

- A need to invest in innovation and education.
- Embracing new ideas from the younger generation.
- Learning from other industries (e.g. lean construction, workface planning).
- Encouraging a collaborative and open culture and eliminating the fear of sharing data.
- Challenging traditional ways of working (e.g. bill of quantities based contracts).

Of course, there is nothing to stop companies adopting BIM right now. However, the current lack of BIM skills and expertise mean the benefits to early adopters are not as great as what would result from the UK scenario where the government kick-starts innovation and the benefits of the initial investment flow to the entire economy. Action on BIM on the part of the South African government's would spark much needed innovation and change in our industry with benefits to the economy as a whole.

## **ABOUT THE AUTHOR**

Thabo Ndlela is non-executive director of IFS South Africa.

For more, visit: <https://www.bizcommunity.com>