

The evolution of BIM

Adam Bennett, highways consultancy lead at Costain, discusses the evolution of BIM

What may now seem a distant memory; in 2011 the government's Construction Strategy announced the requirement for the implementation of level 2 BIM compliance for all centrally procured public sector projects by 2016. Following the recent passing of the deadline on 4 April 2016, the highways industry has come a long way, becoming increasingly collaborative and innovative in the way customers and the supply chain have worked together to not only meet government requirements, but to fully embrace BIM and realise the benefits it can bring. There has been a radical realisation that deploying BIM in a practical way can actually bring benefits to infrastructure clients and suppliers. The path has not been easy, so what have been the most significant challenges faced by the industry and where is the future of BIM heading?

Challenges

The word BIM - Building Information Modelling

In infrastructure this has been the biggest issue facing the complete understanding and adoption, it's just a name but as soon as you say building, many in infrastructure automatically shut off and we get the response -"infrastructure is different". Well it's not; at the heart of BIM is the right, accessible information to make informed decisions. We all need information and BIM is a method of 'joining the dots' to enhance value, not just the deployment of 3D models. This is why we have been working with clients such as Highways England who have deemed it Better Information Management and Transport for London (TfL), Information Management and Modelling. When we ask, what information do you need to make your decisions, and then provide an elevated

means of doing this it's amazing how it strikes a chord.

The culture of data not being a valuable asset

The technology is out there and with the right integrated solutions and data management techniques, such as data exchange, or geospatial mapping it's all possible as several of the key supply chains are proving. It's about winning hearts and minds that data isn't a scary thing, can be trusted, and is something that is a vital asset to business. How many times has everyone spotted a simple mistake in a spreadsheet and the faith in that entire data set is gone?

The future

The integration with asset management

BIM and asset management are getting ever closer (in-fact they are the same thing when you peel away the layers). However, they both have their heritage, uniqueness and avid supporters. Trying to break down that BIM, asset management, GIS, Internet of Things, big data and so on, are all ultimately trying to drive the same agenda - having open, accessible informed decisions being made by clients, the public and systems themselves. Sometimes we as an industry get too hung up on what we call things, or who owns what but if we can get through that barrier and understand that we are all pushing in the same direction, further efficiencies will be delivered back to the economy.



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narrow. However, for some reason in infrastructure we think it's different. Yes there are differences but the principles are the same, standardise, rapid installation with minimum maintenance intervention allowing whole life value. Why can we not have a standard suite of solutions which can be dropped into solutions, then simulate the design, construction and maintenance of these millions of times using system thinking to ensure we have the optimal methods. Through digital method statements we can then improve safety on site by removing workers from the road side, and have them being more of a digitally enabled workforce. When you start to integrate machine learning and automated decision making things start to get really exciting.

Conclusion

BIM has had a demonstrably positive impact, allowing organisations to engage in ways that had previously not been possible and has driven efficiencies across the industry. It is no longer a niche area which sits as a separate entity, but is becoming embedded within the culture of both customers and the supply chain. Whilst BIM level 2 compliance requirements may have been met, this is only the beginning of what is an exciting future for BIM and the benefits it can bring to us all. It is something I am certainly looking forward to shaping and leading to deliver significant benefits. ☺

The standardisation of solutions and system thinking

The ability for the use of standard component libraries of solutions is quite common nowadays, particularly in the pharmaceutical and off shore oil platforms, this is because they are repetitious and the window of installation and maintenance is quite

