UK BIM FRAMEWORK

BIM to IM

"Things haven't changed technically, but the description has evolved to improve understanding and engage more parts of industry."

In this paper, Casey Rutland and Fiona Moore explain the shift in focus and subtle language changes in how we describe 'why' people involved in delivering and managing assets in the built and natural environment should implement BIM.

The Challenge

The UK BIM Alliance has a vision. Our vision is to create a built and natural environment sector that is transformed by being able to exploit purpose driven data.

It's a considerable ambition, and we have the energy and enthusiasm to deliver it, but, whether we like to admit it or not, as a sector we have experienced many challenges to making BIM 'business as usual'. There are many contributing factors to this, not least of which is the 'image' of BIM - which seems evoke reactions very similar to that of Marmite[1]!

Anyone who is familiar with the UK's standards for BIM, from the original British Standards suite to the new ISO and UK BIM Framework, understands that BIM has always been about life cycle information management - making sure we have a defined process for specifying, procuring, delivering, assuring, storing, presenting and exploiting whole life information. These are activities all of us undertake every day of our working lives, despite the poor information management we experience – poor information management that results in errors, poor environmental and health & safety outcomes, lack of trust, wasted time and money, to name just a few of the problems that need to be addressed.

This focus on information management is illustrated by the international standards, which refer to 'Information management using building information modelling', with the objective being information management, and Building Information Modelling (BIM) being the tool.

The problem is that when those who don't have a good grasp of the standards come across the acronym BIM they expect a 3D model, due, in part, to the way BIM has been promoted historically. This leads people to think that BIM is only a design collaboration and visualisation tool. This then leads others within the industry to think BIM has nothing to do with them, namely Cost Consultants, Lawyers, Surveyors, Clients, FM & OM and Product Manufacturers etc.

The opportunities being missed are huge.

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[1] This paper is not sponsored by Marmite!

We have therefore acknowledged an important fact; what we've been doing hasn't worked as well as we had hoped, and we're not just referring to the work of the UK BIM Alliance, but many of those who have been promoting the use of BIM over the years. Convincing stakeholders to 'do BIM' because it's better (it is), or because there's a UK Government mandate (there is), just hasn't resulted in the traction and change needed.

We should also perhaps consider the risk of continuing with the same approach (as we have) – do we risk continuing with this considerable effort for insufficient demonstrable change? Or worse still, will the fundamentals of current and near future digital working be seen as irrelevant or outdated when the next initiative comes along?

The way forward

This isn't a case for re-definition, far from it, as we know the international standards still refer to BIM as we know/knew it. However, we can re-focus; by instead focusing on the outcome of information management, instead of the tool, we widen the audience to include infrastructure, product manufacturers, non-built natural asset managers, and many more.

But that still leaves the lingering impression that 'Information Modelling' is purely for those in the industry for whom 3D visualisation is part of their daily work. So, by shifting our primary focus from Modelling to Management, we swiftly appeal to everyone.

Indeed, much of this evolution has happened already. The current British Standards are adoptions of the International Standards which refer to Information Management[2]. The UK Government's Transforming Infrastructure Performance: Roadmap to 2030[3] mentions Information Management 37 times, as well as containing the Information Management Mandate[4], replacing the UK BIM Mandate that began in with the 2011 Government Construction Strategy and the 2016 deadline. The Construction Playbook[5] (Government Guidance on sourcing and contracting public works projects and programmes) also refers to the importance of Information Management to achieving better outcomes.

"But I don't work with or for the UK Government!" we hear you say… - you, along with many others, may not, but the fact is that the work of Government in this area has driven advances in the sector's digital adoption, perhaps not as fast or as thoroughly as was hoped, but it has. The proof of this lies in how our standards, skills and experiences are being exported and replicated around the world, driven by the fact that better information management helps all individuals, businesses, and projects – especially once they're working to a standard process.

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[2] https://www.iso.org/standard/68078.html

[3] https://www.gov.uk/government/publications/transforming-infrastructure-performance-roadmap-to-2030/transforming-infrastructure-performance-roadmap-to-2030

[4] https://www.gov.uk/government/publications/transforming-infrastructure-performance-roadmap-to-2030/transforming-infrastructure-performance-roadmap-to-2030#annex-b-information-management-mandate

[5] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/941536/The_Construction_Playbook.pdf

The Value

In organisations where knowledge of Information Management has advanced, quality assured appropriate information is increasingly being understood to be a significant asset, whereas BIM, with its perceived 3D model focus, has been seen as a cost.

Information Management is also seen to have greater connection with other digital initiatives and is viewed favourably among those advancing initiatives such as Digital Twins, ConTech (construction technology), PropTech (property technology), IoT (Internet of Things), Machine Learning & Artificial Intelligence, Robotics and Smart(anything!).

Whilst it's relatively easy to explain how good information management will result in a structured dataset, providing data relating to asset identification, performance (requirements and supply), embodied carbon, health & safety etc, the same cannot be said about BIM, with its image holding back that understanding.

Next Steps

We're not leaving 'BIM' behind, but we are evolving how we describe it.

What we're looking to achieve is a wider understanding, acceptance and uptake of the principles of BIM in the industry. We need to develop new ways of communicating with different audiences using their language. It's the same message communicated differently.

The focus needs to be that Information Management using BIM can help to solve real-world problems. Problems such as demonstrating embodied carbon and in-use carbon calculations to prove that we can achieve sustainability targets. Problems such as demonstrating that there is a clear audit trail of how residential buildings were designed, specified and built, to protect human lives. Problems such as demonstrating that asset management decisions support organisational objectives, via a 'line of sight[6]'

Put simply, experience has shown us that changing the message from 'Building Information Modelling' to 'Information Management' and speaking about an audiences' daily challenges, engages many more people from a much wider cross-section of industry.

As we said earlier, we are ALL Information Managers, let's get better at it.

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[6] https://www.cdbb.cam.ac.uk/research/digital-built-environment/line-sight-asset-management-methodology-support-organisational