

# BIM for Tier1 contractors



As the sector considers the benefits BIM can offer and works to understand the implications and repercussions of the significant change it will drive, we explore the impact of BIM on the fit out sector.

In this second of the series we ask, what will BIM mean for Tier 1 contractors? Does the industry have the right culture in place to deliver fit out in BIM? How big a driver for change is it? Do clients know what they want from BIM or is there a level of education involved in the process? And who should undertake this?

**David Philp, head of BIM, Mace Group**



'There has been a cultural shift in the fit out sector, one of acceptance of industry change and better collaboration between stakeholders. BIM and good quality data is now a must have as opposed to a nice to

have. However it is worth noting that BIM thrives best when supported by a contractual arrangement that supports a collaborative culture.

It is in everyone's interest that the Tier 2 and 3 supply chains have BIM capabilities that align with the client and main contractors' information needs. We feel it is more important that we invest in time and training. At Mace we are undertaking a series of initiatives such as our Q5 BIM awareness sessions, supply chain upskilling via our Mace Business School and our offer, Mace BIM Consultancy services, through a certified training scheme in conjunction with Glasgow Caledonian University.

I don't think BIM brings value, but it enables better, more innovative ways of working at all stages of the asset lifecycle. The fit out sector needs to reevaluate the way it works and be seen to be more technologically advanced, more efficient and aligned with early adopters in the main construction arena. It is our opinion that change is good; for fit out clients and their supply chain.'

**Fred Mills, procurement manager, Osborne**



'BIM itself is a relatively small part of the Government's Construction Strategy, but its success depends on numerous other factors that have been industry issues for many years. By encouraging the industry to

adopt BIM, the Government is forcing us to address problems such as communication, working in silos, risk transfer, adversity and earlier engagement of the Tier 1-3 supply chains. BIM won't solve all these problems on its own, but it will certainly start the conversations.

Everyone will benefit. Clients will benefit from more efficient built assets, while providers in the Tier 1-3 supply chain will benefit from higher project output and increased turnover. I also believe that the built assets our industry delivers will become more closely aligned to our customer's briefs, better enabling them to operate at their best.

I also think the supply chain should be expected to contribute to the model, where appropriate. Certain trades within the supply chain such as structural steel and M&E, or fit out trades such as ceilings, partitions or fixed furniture will be able to make strong contributions. Some other trades just aren't appropriate to link into the model at this time.

**Mark Norton, design manager (M&E), Structuretone**



'BIM is a good agent for change, with the correct understanding of what can be achieved in normal project timescales. It has the potential to influence and reorder our whole method of working a project, from

cradle to grave.

Some clients are aware to a degree, of what they want from BIM, some are not. I think we have a duty to educate and explore the potential of BIM from a client perspective, not only for efficiency of design, time and financial savings but also for legacy information such as FM record data, which would be live and up to date and could be for the duration of the building.

I believe there is a crossover between PAS1192:2 and PAS1192:3 for fit out. You cannot rely on just one. They go hand in hand to deliver a fit out project. However, in time, evolution of the working processes and the documents may change this.

Tier 1 contractors aren't too big to take on the culture changes required, but the change has to be driven from both sides of the fence. So from top down and from bottom up in the project pecking order. It has to be a full team effort to be effective.'

**Neil Thompson, principle BIM integrator, Balfour Beatty UK**



'I believe we need to use BIM as a platform for innovation. Fit out has reached a point where the fast pace is offset against a low margin, so the sector simply can't remain competitive without innovation.

New technology integration is needed that helps deal with information to run businesses more effectively and in turn handle information from clients and other third parties too.

Undoubtedly there is no value in setting unrealistic targets for our suppliers without helping equip them to deliver on those. At Balfour Beatty the philosophy that 'we are only as good as our supply chain', means we need to effectively support those suppliers via our Academy.

There is scope within BIM to effect two types of innovation. Firstly developments in the processes used to run our businesses will aid the symbiotic growth of both contractor and suppliers' organisations. Secondly the development of improved products and systems will enhance not only the quality of materials used, but also the level of information available to clients. Ultimately they will be handed a building that has its own information infrastructure behind the physical space itself - ready to inform adaptations to change as and when it is needed.'

**Neil Pike, head of sustainability, MS Fitout**

'BIM is probably one of the biggest and most fundamental change models we've ever seen. I have not witnessed an opportunity that offers such radical change in 25 years of being in the industry. I hope we are now able to maximize the benefits.

Some clients are very educated when it comes to BIM but I take the view that every client is unique and so all have different aspirations. I really do not think end clients fully understand what a refreshed process will bring in terms of benefits financially, in the efficiencies it will deliver and for the longer term lifecycle of buildings.

I do not see it as any one particular segment's job to educate when it comes to BIM. Its success depends on everyone being brought into the process. All tiers, including suppliers need to buy into the process and

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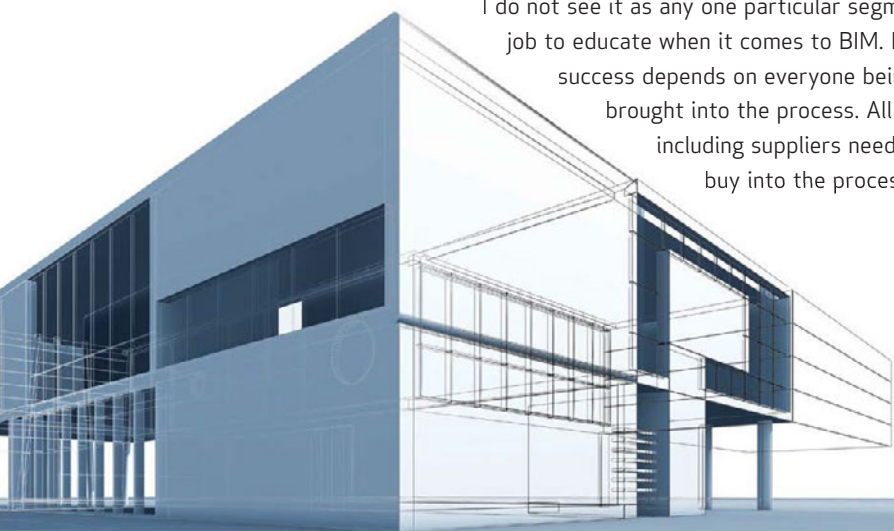
**against a low margin, so the**

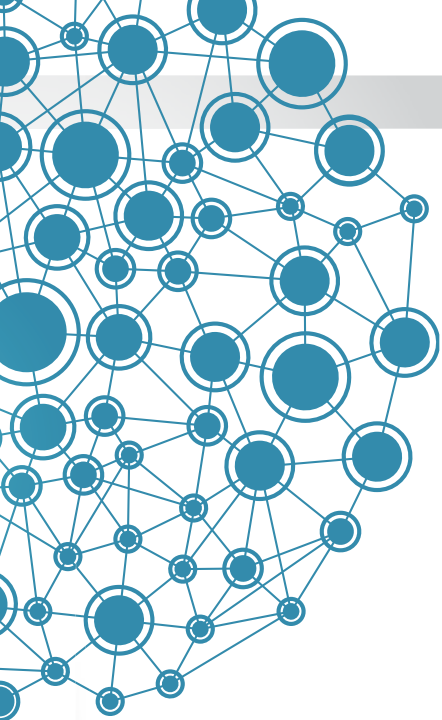
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I see all touch points as equally important. Within this context Tier 1 contractors need to be proactive in demonstrating the value of this alternative.

I don't think Tier 1 contractors are too big to take it on. If they embrace BIM effectively by challenging the work process, there is the opportunity to not just put their business ahead of the competition, but put it in a different place. The only way to achieve this is to embrace BIM and do different things.'





# FAQ

ALS technical manager Joe Cilia examines the impact of BIM on Tier 1 contractors

**“Training is the key component in any BIM investment, without the right understanding of the process changes required, any other investment is worthless.”**

Simon Rawlinson of EC Harris LLP and UK BIM Task Group said in his article in the February issue of Interiors Insight that BIM offers de-risked construction, but who benefits, and are Tier 1 contractors able to bring their supply chain along with them in this new collaborative environment?

**Are Tier 1 contractors just too big to take on the culture changes required to adopt BIM? And does the sector have the right culture in place to deliver fit out in BIM?**

Culture change is as big a part of BIM as any other decision in considering BIM. Contractors who have embraced the need to address this are already standing out from the crowd. And it's not just the more agile smaller contractors who are looking at culture change, the largest out there are leading the race to become fully BIM enabled because they have implemented change at all levels of the business and implementing it through BIM champions. However the change must be led from the top first.

**Should Tier 1 contractors help with the investment needed in the supply chain?**

Training is the key component in any BIM investment, without the right understanding of the process changes required, any other investment is worthless. BIM is seen as an opportunity by a growing number of Tier 1 contractors, not just in the public sector, but across the built environment, however this opportunity can't be exploited until the supply chain are trained and enabled to work in this new environment.

A number of contractors are setting up academy's, business schools and training schemes to train their supply chain, this investment along with the BID4Free initiative being developed by Tier 1 contractors and the BIM4FitOut group, will enable the Tier 2 and 3 contractors to engage with BIM at low cost.

**Is BIM a good agent for change?**

BIM is a good agent for change, and let's face it the industry has been looking for a non-adversarial and more collaborative environment to work in for a long time. It's not all there yet but it is certainly work in progress. PAS 1192:2 is setting the scene and as the standard is informed by experience it will mature, and this will make the changes to the contractual system of procurement.

**Who will benefit from the efficiencies?**

In an ideal world everyone in the supply chain will benefit, from having informed decisions in the design process that will reduce changes and delays on site, to reduced waste from building the project in a model rather than to a 1:1 scale on site.

Manufactures and specialist contractors will be involved much earlier in the process and their specialist knowledge and advice will make their job easier when the construction process starts.

**Should we expect the supply chain to be able to contribute to the model?**

In some disciplines such as mechanical air handling and structural steel work it is already expected that the supply chain should and will contribute to the model during the whole design process. In more straightforward elements such as lay in grid ceilings it may be as simple as providing manufacturers objects containing the right amount of data for that stage of the project. However as the project develops more input may be required on detailing; such as hanger positions and interface junctions with bulkheads. Specialist suppliers and contractors will become involved much earlier in the project, and this early involvement is designed to sort out issues in the design stages that will save time, materials and money when the project is in the delivery stage.

**Do clients know what they want from BIM yet and whose job is it to educate them?**

Some clients are simply asking for a BIM enabled project without knowing what the options and outputs really are yet, but as PAS1192:2 is understood by the client, and the information produced is used to manage the building or fit out, savvy clients will be detailing their expectations within an Employer's Information Requirements (EIR).

**Does PAS1192:2 work for the fit out sector, or will PAS1192:3 be the more common process as fit out and refurbishment happens more in built assets?**

PAS1192:2 is a process from producing the brief to completing and handing over the project or asset as it is known. This can be a new build, a fit out or refurbishment. PAS1192:3 will be used during the life of that asset to manage subsequent alterations and refurbishments, as well as monitor its performance and costs against its design targets. So as BIM is used more extensively we are likely to see fit out projects being processed using part 2 as well as part 3.

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