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BIM Really Can Be a Team Sport



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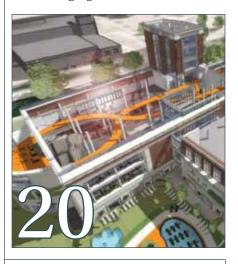
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On the cover: The Fondation Louis Vuitton, a new art museum in Paris, is pushing the limits of BIM technology and demonstrates how BIM, enabled by a cloud-based file management and project collaboration platform, can help large distributed teams work together. The 3D cover image, produced by Digital ProjectTM, shows the façade of the Fondation Louis Vuitton.

BIM in the United Kingdom

By Nicholas Nisbet

IN THE SPRING EDITION OF THE *JOURNAL OF BUILDING Information Modeling*, I covered the building information modeling (BIM) strategy employed by the government of the United Kingdom (UK). Now, a year after the strategy was launched, I will take a look at the implementation.

The UK government's construction strategy covers far more than just BIM or "shared structured information," as we prefer to say. It is built on the premise that Central Government must be a better client. This intention has been developed into eight areas of focus:

One, to publish the government's planned construction pipeline—no, it is not a conduit for hot air but a pledge to make sure the industry can see the type and scale of projects that may be available in the near future. Initially, the information provided was too scant but it has improved and whilst there can be no certainty, it has been rated a simple but effective success.

Two, to develop core competencies of client-related skills within Whitehall [Whitehall refers to the overall British governmental administration]. This involves being more consistent and sophisticated in contractual methods. As with any learning program, this will take time to bear fruit.

Three, to exploit cost benchmarking. While seven spending departments have published their cost benchmarks, the emphasis on comparing cost, carbon and value (both in capital and life cycle terms) should act as a call to arms for the deployment of consistent standards across the industry. The institutions have yet to respond in a coherent manner. As the early-stage design pilot projects get underway, we can hope to see some results.

Four, to promote efficiency and make the workload more accessible to small and medium-sized enterprises. This work stream has focused on introducing project bank accounts that give greater transparency for the dispersal of funds and reduce the pressure on subcontractors from delayed cash flow. This is being complemented by the adoption of a standard pre-qualification questionnaire (called PAS-91) so that this aspect of the overhead of tendering is reduced. The Highways Agency is leading this roll-out.

Five, to exploit frameworks (shortlists of pre-approved tenderers) that should encourage construction sector innovation, collaboration and business improvement.

Six, to examine new procurement methods. Three new routes have been defined and are being trialed.

Seven, to address whole life costing and carbon. This program has had its tribulations, as have all "green" initiatives at a time of recession. The lack of reliable back-history of data means that most assessments have to be done from first principals, which is costly. A new generation of applications—such as iCIM, which is an interoperable Carbon Information Modelling tool from AEC3, the University of Northumbria, BSRIA, Faithful and Gould, RIBA

Enterprises, Autodesk and the University of Bath, or the IMPACT program (Integrated Material Profile And Costing Tool), from BRE Global and Integrated Environmental Solutions, may be needed to make these ideas accessible.

Eight, the much talked-about BIM mandate is being rolled out through a series of pilot projects. The first is for the building of new prison facilities at Cookham Wood, Kent. The project was already well underway when the design team agreed to produce a Construction Operations Building information exchange (COBie) at the end of the design development stage. A draft CO-Bie requirement was produced and a simple example worked up to guide the team, who were soon publishing their own guidance on this "drop." The team used a version of the Autodesk Revit COBie add-on and it rapidly became apparent that there was a need for more skill and accuracy in both the design team and the tools. The COBie was included in the tender documents and all of the contracting consortiums within the framework successfully submitted their bids along with their response to the design in COBie files. The tender assessment team used both manual inspection and some automatic reports to assess the CO-Bie submissions as part of the design criteria. The contract has now been awarded and we look forward to seeing the next "drop" before the year end. Handover will occur in 2013. We are now collating the lessons learned and updating the guidance (www. bimtaskgroup.org/cobie-uk-2012). Meanwhile, the second pilot is introducing COBie just prior to handover and a third, which is a refurbishment, is just starting out.

The UK government's construction strategy covers far more than just BIM or "shared structured information," as we prefer to say. It is built on the premise that Central Government must be a better client.

So, is the strategy working? Yes, in spite of the recession, or perhaps because of it, the industry has shown that it can respond. On July 2, 2012, the government and the journal, *Building*, cohosted a one-day conference. In their assessments, the journalists analyzed the workstreams and gave the BIM workstreams an exciting 9 out of 10. The Minister in charge, Francis Maude, included BIM when he applauded the fundamental change. It even got a mention on the BBC evening news.

Nicholas Nisbet is the Technical Coordinator for the buildingSMART UKI chapter and a member of the buildingSMART model support group.