From: Stefan Mordue

Sent: Monday, June 6, 2016 10:23 AM To: Sara Asmussen <saras@bygst.dk>

Subject: RE: Aarhus Denmark - BIM UK 2016 | Information

Hi Sara

I would like to discuss and explain COBie, as it it not widely known in Denmark – we use IFC models. The COBie templates are especially interesting, do they set a standard for what should be delivered for each asset, or are they just examples?

The UK Government mandated the use of COBie but not IFC. COBie is just a Model View Definition (MVD) of the IFC schema that looks specifically at Facilities management Hand over information. A few years ago we wrote a report looking at creating COBie information from an IFC File.

https://www.thenbs.com/knowledge/ifc-cobie-report-2012

COBie is concerned with 'Managed Assets' only.

I wrote a short article here: http://www.bimplus.co.uk/management/deconstru5cting-co3bie-us-army-des3igners-desktops/

The COBie UK 2012 templates that you mention have now been superseded by our COBie standard which is BS 1192:4.

Here is an article I wrote on BS 1192 : 4 http://old.thenbs.com/topics/bim/articles/how-will-bs-1192-4-and-cobie-affect-you.asp

And what comes after COBie? Actual IFC models?

The UK BIM Task force have devised the UK Maturity Model, developed by Mark Bew and Mervyn Richards. Instantly recognisable by is wedge shape, it has been a useful diagram for the supply chain to identify what it is to deliver and the competences required while the client can understand what the supply chain is offering. In essence it is all about communicating expectations. The wedge was also an ideal diagram to not only highlight the current standards of the time, but also to document future standards, guides and classification systems that would be required in the future and that were part of the B/555 Roadmap to be shown in context of the maturity levels.

Level 0 is defined as unmanaged CAD. This is likely to be 2D, with information being shared by traditional paper drawings or in some instances, digitally via PDF, essentially separate sources of information covering basic asset information. Level 1 is a mix of 2D and 3D information using BS 1192 with a collaboration tool providing a common data environment.

Level 2, which was mandated in April, is described as collaborative BIM. Federated model information within a Common data environment. The new Government website www.bim-level2.org provides a one stop shop access to the Level 2 standards.

Level 3, is yet to be defined and will form part of the Digital Built Britain Strategy. It will be centered around open standards such as IFC, IFD and IDM. This is known as 'integrated BIM' or iBIM. The concept of everyone contributing to a single model using web services.

http://digital-built-britain.com/

Also I would like to discuss the basis for the BIM efforts in Britain – it seems to me that you have widely accepted common standards like Uniclass and the RICS New rules of measurement, which obviously makes the transition to BIM easier.

From the outset, the UK Government adopted a 'Push-Pull' strategy, when it came to BIM adoption. It was recommended by the BIM Working Group in a report to the Government



Construction Client group in 2011 that over the next five years it would support the 'push' supply side of the industry to enable all players to reach a minimum performance in the area of BIM (now known as level 2) by providing standards, guides and training that would support a simple delivery.

This would be balanced by a 'pull' from the client side to specify, collect and use the derived information in a value adding way over a similar timescale. The aim was for the client to be very specific about what information it was asking of the supply chain and when that information is to be delivered.

The new Government website http://bim-level2.org/ has all the supporting documents which are free for industry to use.

Finally I would like to discuss the estimate of the 20% efficiency stretch – and how you expect Lean and new contract models like IPD to contribute.

When the Government mentioned 20% savings in the construction strategy of 2011,BIM was just one component of achieving this. It also mentioned other things such as new methods of procurement and Soft Landings. The main cost savings are within the running and operational costs of the asset and so I think we will now see a big shift towards considering whole life cycle costing from the outset. A key document is BS 8536-1 2015 which gives recommendations for briefing. It aims to get the owner/operator and FM team involved early so that they can contribute to the design process and also ensure they are getting the information that they require (and also in a format that they want).

All the best Stefan