

# Design, delivery, and maintenance - important issues with using BIM

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*Industry keynote address*

*Keywords:* BIM, BIM cost versus value, BIM in practice, BIM in design delivery and maintenance

Skanska are now established users of software to animate how architecture, structure and services will fit together on a project plan. They are now finding new uses for it, and it is clear that they can demonstrate real savings in cost and improve the robustness of their timescales. The presenter will draw on hands-on experiences in recent construction projects with using BIM technologies and highlight important issues especially those dealing with costs versus benefits.

The presentation will cover practical issues relating to the technical uses of BIM in the design, delivery, and maintenance of buildings. The presentation will start by defining what is BIM and what is the Skanska definition of BIM. It will then tackle the subject within the contexts of design, delivery and maintenance of buildings.

In the design aspect, the presentation will attempt to address the following issues:

Standards, Processes and People Issues

Model server approach / concurrent design

Interoperability

Design change management

Model checking and standards compliance

Green issues

BIM and Design Agreements

PI Insurance

The changing currency of design - models, material lists and views not drawings

The potential change in design services - add more value by exploring more options or reduced fees?

Lifecycle Optioneering

The effect of the rise of touch screen computing on design development - a new way to interact with the Client?

In the delivery aspect, the presentation will attempt to address the following issues:

BIM enabled forms of Contract - NEC3 or JCT CE?

Productivity - Skanska research

Industrialisation / standardisation / preassembly

Configuration management - how many have I got? Where are they? And, what's my risk?

Less drawings more models

Handheld computing

Bills of Quantities from 3D models  
4D Planning  
Safety BIM  
RFID and barcodes  
Progress Monitoring  
Monthly valuations  
Commissioning  
Compliance - Laser scanning

In the maintenance aspect, the presentation will attempt to address the following issues:

Health & Safety File and Operations and Maintenance Manuals  
Post Occupancy Evaluation - The Building Black Box  
Integration of CAFM with BIM  
BIM as the route map for O&M  
Feedback loops for Lifecycle Costing and Analysis  
Asset coding protocols and FM Standards  
Capture and management of existing assets - inventory BIM

The presentation will then assess the cost versus the value of using BIM and emphasize the paramount importance of meeting the design intentions and satisfying the client.