

BIM is about to shake up industrial design

IMAGINE A PROVEN TECHNOLOGY THAT REDUCES FAILURE COSTS, ELIMINATES UNBUDGETED DESIGN CHANGES AND SHORTENS CONSTRUCTION TIME. ACTUALLY, YOU DON'T HAVE TO IMAGINE. BIM (BUILDING INFORMATION MODELING) IS HERE ALREADY, AND IT'S ABOUT TIME COMPANIES IN INDUSTRY ENJOYED THE SIGNIFICANT BENEFITS.

BIM is relatively new in the industrial building sector, but has for several years been proving its worth in sectors such as residential and utility building. Frontrunners in industry and industrial construction are embracing it, as they have with other new technologies such as 3D printing, cloud computing and Big Data.

What is BIM?

So what exactly is BIM? Dave Koomen, BIM specialist within Tebodin: 'It is a method that views design, construction and operation as a whole: the life cycle approach. We collect a large but smart selection of data about a project and use it to create models. These models give clients an overview of what to expect from their new assets. This allows them to make strategic design choices – at a very early stage and with great financial security.'

Traditional construction relies on 2D drawings like printed reports for information sharing. With BIM, the number of dimensions can go up to 6. It adds dimensions to design, communication and strategic planning.

Thinking in dimensions

3D digital models of a building or plant allow clients and project teams to view a design as if it has been built already, much more so than any flat picture can. The aspect time makes it 4D. The construction process can then be viewed as a digitized video: very useful in planning construction, procurement and logistics, and for detecting and preventing clashes between sub-schedules or design elements. Adding the cost aspect makes it 5D: financial data about the elements of construction, and the consequences of a design change can be visible in a matter of hours. Strategic decisions

regarding maintenance can be made by adding maintenance data, making the project 6D.

Unprecedented basis

Dave: 'At the start of any project, some aspects of the operational and maintenance stages are available. Record them in the model, add data as you go along during construction and operation and you have an unprecedented basis for effective and cost-efficient maintenance planning. You can literally predict the life cycle of assets.'

Dave's advice to clients: 'Make sure you and those you choose to work with are up to date on BIM. Add technological progress to your criteria in judging proposals. In the end, it won't be the cheapest who survive. It will be the smartest.' ■



Dave Koomen