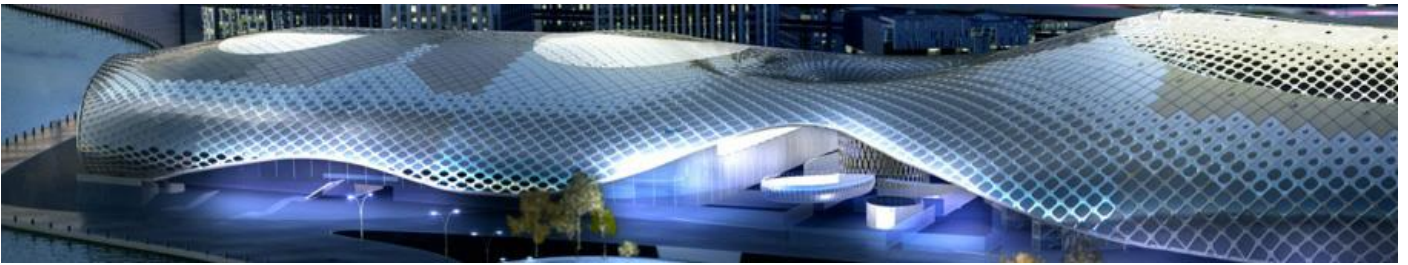


 **GRAITEC** Professional Services
Autodesk BIM Solutions

BIM Overview

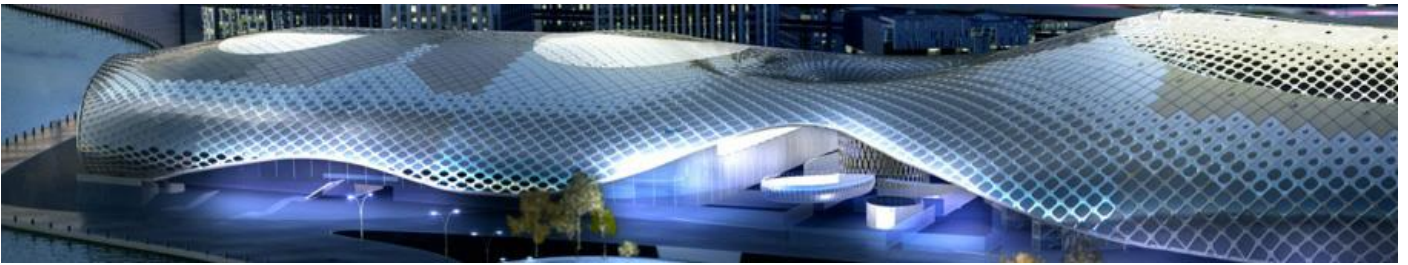




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Introduction

The term BIM (Building information Modelling) seems to have become the de-facto phrase for the construction industry in recent history, but as more businesses become aware of the term, many are still in a learning curve as to what BIM actually is and why Building Information Modelling has evolved.

Also more important to many before they start to investigate BIM in more detail, is to give themselves an understanding of what BIM actually means for them if they are a local architect, Construction Company or perhaps a construction product manufacturer.

The Graitec BIM white paper will help give you an informative high level overview of BIM in general and has a number of authority references to further white papers, Government publications, BIM articles and websites, so you can start to make informed business planning decisions about your future potential BIM adoption strategy.

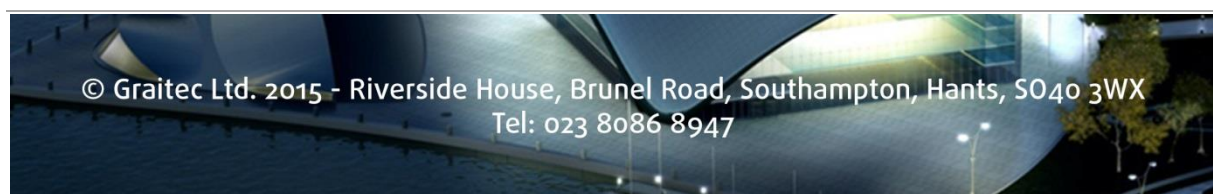
Where BIM Began

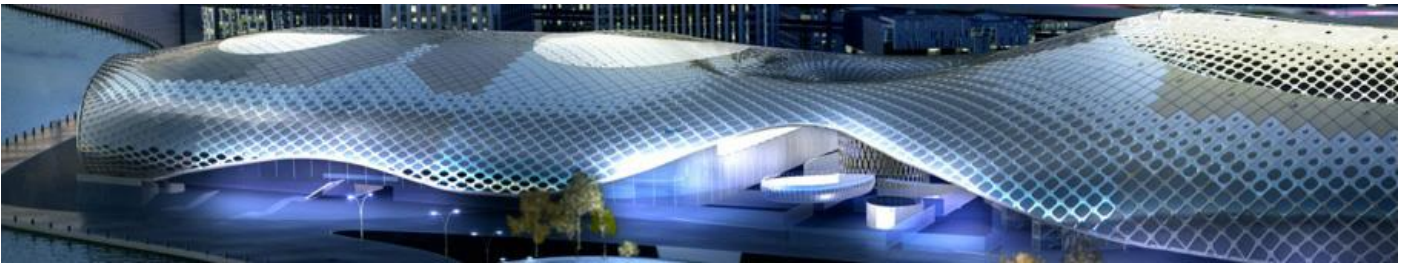
The term BIM or building information was first invented by Autodesk back in 2002 to describe a model centric process that could potentially drive massive cost reductions and a host of associated benefits to a wide audience of businesses involved in the AEC industry.

This cradle to grave 3D model centric workflow whilst being a relatively new paradigm to the construction industry, was already widely adopted and very well established in the manufacturing arena in the guise of digital prototyping.

Manufacturing companies due to expanding global competition were driven to adopt an adapt to survive mentality and deliver projects to far tighter timescales and at reduced cost, but at the same time these businesses still needed to remain profitable.

So as a result of market pressures, manufacturing sector processes literally evolved to take advantage of 3D model centric technology and Digital Prototyping became an industry standard that continues to evolve to this day.





Construction Processes Evolve

The construction industry is now undergoing a similar evolution of its own as construction projects are becoming global and the whole industry is under extreme pressure to deliver innovative and sustainable construction projects at far lower costs than ever before.

Autodesk technology tools such as the Autodesk Design Suites are also continually evolving to help construction professionals take maximum advantage of BIM methodologies with extended toolsets design to enhance BIM workflows and collaborate more effectively in the cloud.

BIM in the Private and Public Sector

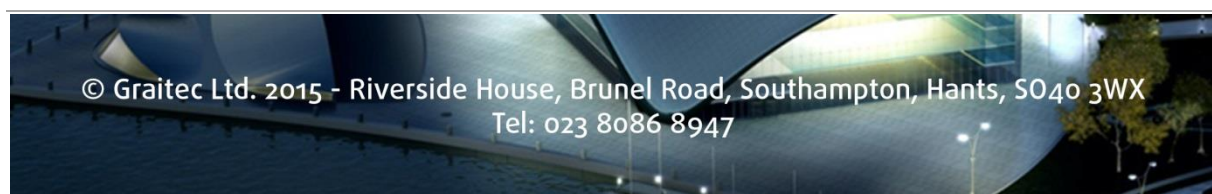
Building owners in the private sector are becoming increasingly savvy to technology and not surprisingly (given potential construction project cost savings) are increasingly starting to stipulate the use of BIM (building information modelling) workflows and deliverables not only for the construction phase, but for the buildings on-going life cycle and for forward management of assets.

Not every construction project will require full BIM workflows of course, but the 3D model centric approach also delivers innumerable benefits so should not be ignored even on non BIM related projects (see [Revit is not just for BIM](#)).

But it is not only the private sector that is driving the adoption of BIM (in the UK and across the world), the UK government is also driving BIM (building information modelling) adoption on an accelerating basis on a number of different fronts and for a variety of economic reasons.

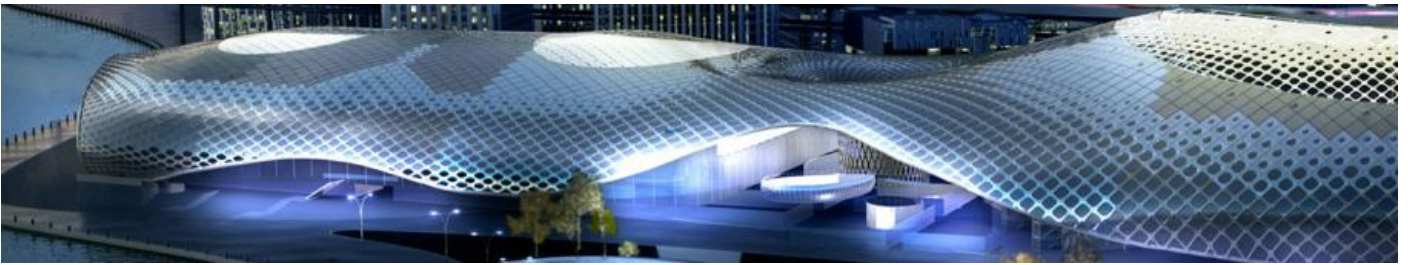
The government's own BIM programme got under way mid-2011 following guidance from the [Construction Industry Council](#) and also the governments [Building Information Modelling Task Group](#) which produced a comprehensive Building Information Modelling (BIM) Working Party Strategy Paper ([download here](#))

The task group brings together expertise from industry, government, public sector, institutes and academia, to accelerate the wider adoption of BIM technologies and processes across both the private and public sectors and also to aid the construction supply chain (see [BIM for manufacturers not just construction](#)).



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HM Government also produced via the [Department for Business Innovation & Skills](#) an industrial strategy for BIM (Building Information Modelling) which outlines their findings as well as detailing their BIM program for the UK

The government BIM program has a three cornered strategy which clearly lays out the government's own action plan which are to:

- 1) FULLY COMMIT TO THE EXISTING BIS BIM PROGRAMME TO CREATE CRITICAL MASS
- 2) AIM FOR GROWTH
- 3) HELP CREATE THE FUTURE BY CONTINUALLY DEVELOPING OUR CAPABILITIES.

The full government BIM industrial strategy report can [be downloaded from here](#) and is a recommended read.

Whilst economic growth and UK technology development will not be the prime focus of many business owners considering the ramifications or necessity of adopting BIM in the first instance, the government's plan to fully commit and create critical mass for BIM should be.

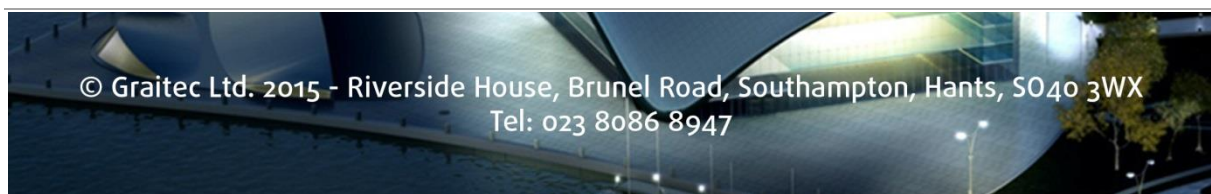
Especially as this ensures that the Governments mandate can be fulfilled and they meet their target to ensure that public sector centrally procured construction projects will be delivered using BIM by 2016.

BIM is also seen by the government as a "significant tool" for them to achieve their own internal cost reduction targets on capital projects of between 15-20% by the year 2015.

BIM is Here to Stay

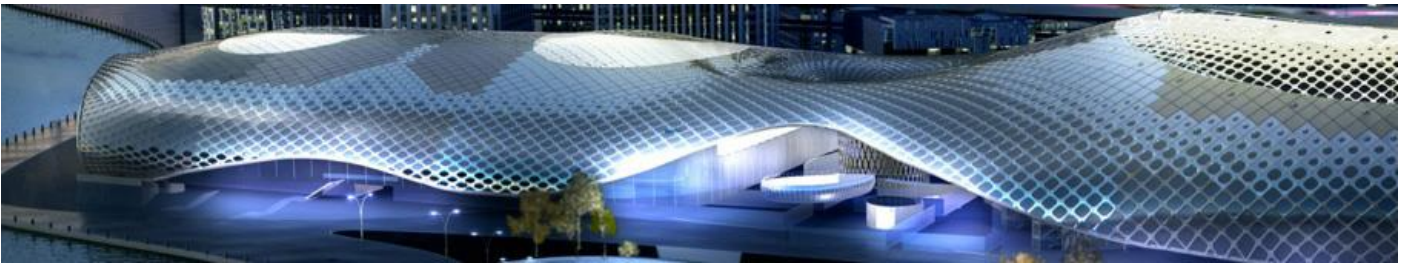
The increased adoption of BIM in the private sector and the Government mandate for the adoption and delivery of capital projects in BIM alone should be a clear marker in the sand for the future of BIM.

This should also help to alleviate the doubt of many businesses in the construction arena who may still be sitting on the fence so to speak waiting to see where BIM is actually heading.



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BIM for Manufacturers



The widespread adoption of BIM and building information modelling processes and workflows also has a knock on effect for construction manufacturers too, as this means that much of the construction supply chain will need to be in a position to deliver BIM ready data as part of their project deliverables.

This is already being experienced with project delivery in BIM format being cited as key deliverables in project tender documents. The requirements for BIM for the construction supply chain has also been identified in the government's own industrial strategy document (see also [BIM for Manufacturing](#))

This has led to some manufacturers for construction seeing BIM as a threat and risk to future profitability, whilst others have or will see it as the cost of doing business in an evolving market, but at the same time a profit and growth opportunity for early adopters (see [BIM for manufacturing an emerging market](#)).

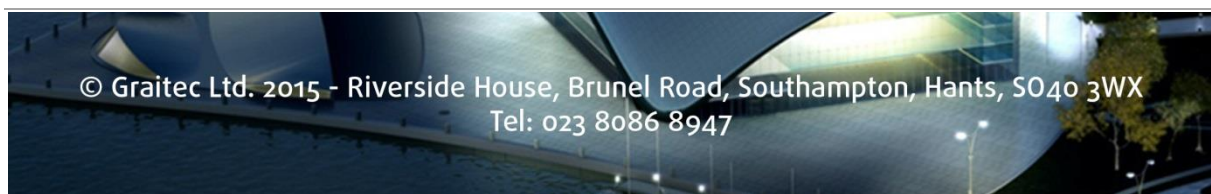
Whilst participation in BIM related projects is not mandatory for manufacturing for construction companies, given the current accelerating level of adoption of BIM, the government mandate and the fact that construction products represent around 40% of the value of UK construction output; building product manufacturers not meeting the growing needs of the market could quite easily experience a diminishing market share.

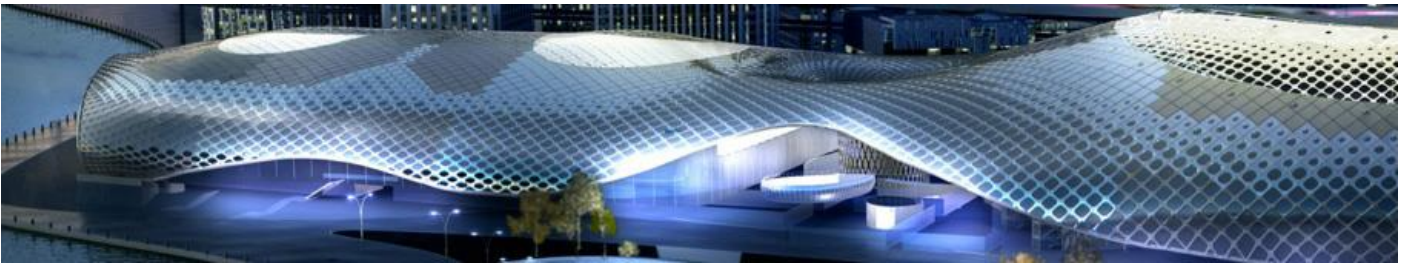
Summary

The on-going adoption and acceleration of BIM methodologies across construction projects in the private and public sector worldwide continues apace and BIM adoption is no longer in question in reality, as the debate has run its course.

Key players in industry have already planned, already adopted or are in the process enhancing their current BIM workflows and deliverables to maximise the benefits of adopting BIM.

Focus has already switched from should we adopt thinking to how can we best adopt planning, so inevitably it won't be too long before BIM will simply be the norm and the natural evolution of the construction process.





About Graitec

Graitec Ltd is highly respected and leading Autodesk reseller in the UK with over 25 years' experience of helping businesses improve their processes and profitability through the adoption of CAD technology.

The highly experienced Graitec team have a reputation for successfully helping local authorities, Architectural practices and manufacturing for construction supply chain companies with their adoption and roll out of BIM, as well as the creation of BIM ready content for specification.

If you would like to explore how Graitec can help your businesses please give us a call on **023 8086 8947**, drop us an e-mail at sales@graitec.co.uk or [visit our website](#)

