



THE DEFINITIVE GUIDE TO

Growing your architecture firm with BIM



Grow with BIM

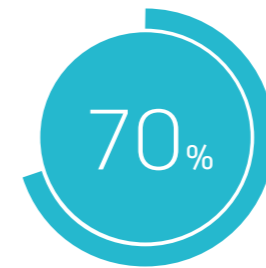
Whether their architecture firm has adopted Building Information Modeling (BIM) or not, most firm leaders understand that the BIM process has changed the way buildings are planned, designed, constructed, and operated. The impact of BIM on projects is measurable, with project timescales reduced by as much as 15 percent.¹ But BIM is also visible in the bottom lines of firms – helping them to grow and thrive.

¹ Saxon, Richard G., [Growth Through BIM](#), Construction Industry Council, 2013

But what is BIM?

With BIM, design teams develop an intelligent 3D model of their project that lets them gain a deeper understanding of how a building will perform while they work. Architects and engineers who use BIM get more done in less time thanks to connected, interoperable workflows and more efficient analysis, collaboration, and visualisation.

In contrast, CAD-based 2D designs lack the intelligence that enables the efficiency and quality gains seen in the BIM process.



of firms that have adopted BIM say it has given them a competitive advantage.

Make BIM a catalyst for growth – and increased profitability

This guide takes you through the business benefits of BIM, showing how firms like yours have turned new capabilities into opportunity.

You'll learn about the ways BIM can make your business stronger and more competitive.



“We are moving from a phase where early adopters led the way, to one of BIM becoming the norm ... adopting BIM may be less risky and more cost-effective than not doing so.”

Adrian Malleson – Head of Research,
Analysis and Forecasting, NBS ²

INTRODUCTION

Full or barely BIM?

Architecture firms have implemented BIM to varying degrees. Some start with simply modelling their designs in 3D instead of drafting them in 2D. Working in 3D enables them to better visualise their designs, which, in turn, supports improved decision-making. They also automatically generate construction documents as an output of the model, dramatically speeding up the documentation process.

But the firms that see the most benefits go much deeper than just visualisation and documentation creation. They rely on BIM to improve coordination with MEP and structural design models, drive multidisciplinary collaboration, and expand their scope of services.

When BIM touches the whole project – and everyone on the extended team – you save time, increase quality, and reduce risk even more than with limited approaches.



BIM for all

BIM is more entrenched at large firms than smaller ones – you would be forgiven for thinking that the “B” in BIM stands for “big”. While smaller firms have historically trailed larger firms in moving away from CAD-based workflows, proven benefits to the bottom line have contributed to BIM being widely considered as the new standard of practice among architecture firms of all sizes.

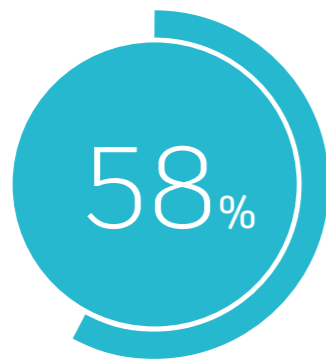
Some leaders at smaller firms may not think that the benefits of BIM, such as time savings and error reduction, will make up for the learning curve and adoption costs. Not so. Fewer errors and task automation can help offset some of the adoption effort and provide an early taste of the profitability-enhancing productivity gains that come with BIM experience.

The state of BIM adoption in the UK

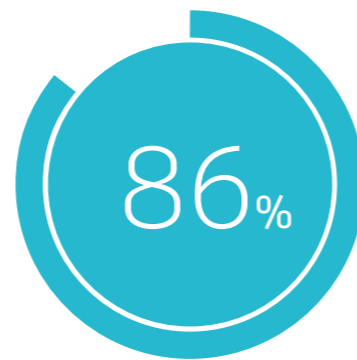
BIM adoption is being driven by the government BIM Level 2 mandate which was introduced for all publically funded projects over £5 million procured in England and Wales since April 2016.

INTRODUCTION

But it's the long-term business value of BIM that firms of every size need to consider. Clients want their projects to enjoy the benefits of BIM. These satisfied clients lead to more repeat business and referrals. BIM also helps firms collaborate better and more quickly with consultants, which can enhance margins. And the capabilities that BIM enables let firms of all sizes expand the number of billable services offered. **Just as importantly, smaller firms that use BIM will not be at a disadvantage when competing for work against firms that have adopted BIM.**



of UK Architects reported that they were using BIM but adoption is fast growing



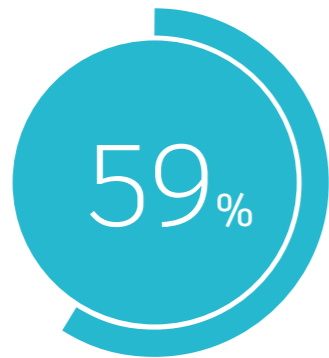
of firms expected to be using BIM within the year



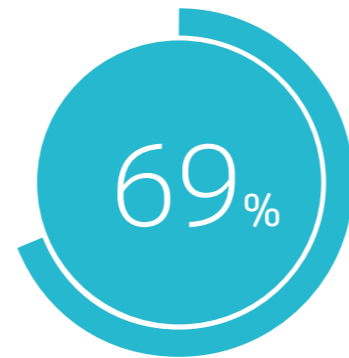
of firms expected to be using BIM within three years

Win more work

Winning work is the cornerstone of success. For architecture firms, winning work, especially from new clients, typically means triumphing in a competitive bidding process. BIM can help you stand out when you pitch your firm to clients. Your peers – and competitors – are already using BIM to win work.



of UK Architects using BIM believe it improves client outcomes



believe that clients will increasingly insist on it being used on their projects

WINNING WORK

The time savings and quality gains of BIM translate directly into value for clients. All clients want their projects to progress on schedule, and they definitely want a quality outcome. It's easy to explain to clients how the accurate BIM model supports those goals. The model lets you reduce the risk of clashes and streamlines collaboration. It also contributes to more accurate scheduling, project planning, and budget estimation. And here's a win every owner wants: fewer change orders.

You'll also be able to wow clients – especially those new to BIM – with realistic visualisations. Explain to potential clients that, during the design process, visualisations will help you communicate design intent and help them make better-informed decisions.

BIM visualisations help you reduce the risk of your client's expectations being incongruent with reality. And well-informed clients are happier, easier-to-manage clients.



“The ability to describe and analyse in 3D what is a complex building structurally, spatially and in terms of building services has been a massive benefit. The use of a 3D federated model allowed a more coordinated design with more errors identified on the screen before they reached site, which inevitably saved time and money.”

Thomas Sheehan – Associate Architect,
Stride Treglown³

WINNING WORK

“BIM ensures that we give ourselves a competitive ‘edge’. It has enabled us to win and deliver larger projects with more efficient ‘in-house’ resources, as well as providing improved clarity of design for clients.”

Jonathan Munkley – BIM Manager, Niven Architects ⁴



Why owners want BIM

With BIM, your clients get a more accurate view of their projects – from start to finish. Owners who’ve experienced BIM appreciate what it does for them.

A recent report found that 80 percent of UK owner operators using BIM are positive in their overall assessment of its benefits.⁵

⁵ McGraw Hill Construction, [SmartMarket Report: The Business Value of BIM for Owners](#), 2014

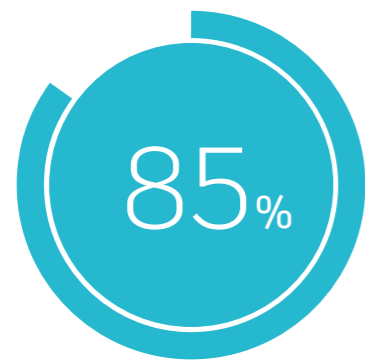
⁶ BIM+, [Case study: Berewood Primary School](#), 2015



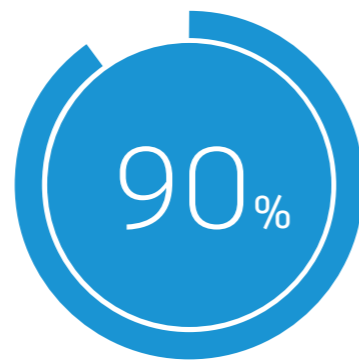
“With more experience in BIM, the council expects to reduce construction time on projects – having the information correctly modelled should significantly reduce the risk factor, and getting other consultants up to speed with BIM will further improve efficiencies.”

Allister Lewis – Senior Architect and BIM manager, Hampshire County Council Property Services ⁶

Owners find that



BIM visualisation enables a better understanding of proposed designs



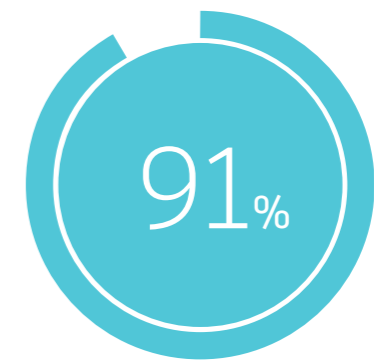
Use of BIM has a beneficial impact on control of construction costs



Use of BIM has a beneficial impact on project schedule



BIM analysis and simulation capabilities produce a more well-reasoned design



There are fewer problems during construction related to design errors, coordination issues or construction errors

Retain clients

After you win clients, you want to keep them. Once owners experience the benefits you can deliver with BIM, they're going to be reluctant to seek design help elsewhere. They're also more likely to refer peers to your firm. Clients approach projects with high quality expectations. When outcomes fail to meet those expectations, they're not likely to turn into repeat business.

Among BIM users, 49 percent perceived that BIM helps them retain clients.⁷ Of owners that use BIM on projects, a sky-high 93 percent feel that their projects meet their quality expectations.⁸ That same percentage of owners (93 percent) found that BIM actually improved the quality/function of the final design.⁹ For owners, time is money; and nearly half of owners found that BIM accelerated project completion by at least 5 percent.¹⁰



“Clients love the idea of viewing a 3D model so that they can be involved in the design at an early stage. They understand the concept and value of BIM because it helps them visualise the building much better than with 2D drawings.”

Tim Ball – Director, JHD Architects ¹¹

⁷ McGraw-Hill Construction, [SmartMarket Report: The Business Value of BIM in North America](#), 2012

⁸ McGraw-Hill Construction, [SmartMarket Report: Managing Uncertainty and Expectations in Building Design and Construction](#), 2014

⁹ Dodge Data and Analytics, [SmartMarket Report: Measuring the Impact of BIM on Complex Buildings](#), 2015

¹⁰ Ibid

¹¹ NBS, [National BIM Report](#), 2014

INCREASE QUALITY

Produce higher quality work

When you follow a BIM process, you develop an intelligent building model. That intelligence not only gives insight into how the building will perform, it also lets you make changes more quickly and easily.

The combination of deeper understanding and speed proves powerful as you refine your designs.

Whereas with a 2D process you might explore just a few options, BIM makes it easy to explore dozens – or even infinite possibilities – as you connect to more tools. Not sure of the best siting option? Tweak the position of the building iteratively. See how small and large changes affect factors like lighting. You can employ that same exploration as you make virtually every design decision.



INCREASE QUALITY

The 3D visualisations that are essential to the BIM process can also help you include more and better input from the client team. For instance, if you're designing nursing stations at a hospital, show the actual nurses the designs and get their feedback. They'll be able to easily visualise how the stations will look. The end result is a building designed with more understanding of how each choice contributes to a better outcome.

Start improving quality now

Getting started with BIM requires a few things. You'll need BIM software, an implementation plan, and a commitment from firm leaders like you. Put BIM into motion today by visiting our dedicated [resource centre](#) to help you start realising the benefits of BIM. The shift does require an investment of time and resources, but the payoff may be just three projects away. The *Growth Through BIM* report from the Construction Industry Council says: "Firms typically need three BIM-based projects under their belt before they can outperform previous practice."¹²

INCREASE QUALITY

“Historically, many Facilities Managers have been distant from the early stages of a construction project; BIM (including Soft Landings) ... offers the tantalising opportunity to completely integrate FM with Construction.

The benefits of the new way of working are now being demonstrated in real projects.”

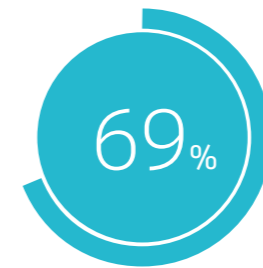
Kath Fontana – Managing Director, Technical Services, ISS¹³



Work better with consultants

You'll find that BIM powers smoother collaboration with consultants.

Together, you and your multidisciplinary project teams design using the same model. Everyone sees each other's work and accounts for it as they design. You coordinate as you go. Even contractors can join the process and contribute input on constructability from the earliest stages of the design process.



of BIM users felt that it improved collective understanding of design intent¹⁴

IMPROVE COLLABORATION

Architects who use BIM appreciate the results they see from closer collaboration with consultants. Among architects sharing and receiving BIM models from consultants, more than 50 percent rated the quality, accuracy, completeness, and usefulness of the models highly.¹⁵ And the quality shows on the construction site: 98 percent of contractors think that BIM improves the constructability of the final design.¹⁶



“Architecture firms of every size struggle with margins. BIM offers new avenues to improve profitability. Completing tasks faster helps, but the increased insight and control you see with the BIM process opens the door to an even larger opportunity. Firms that master BIM will find that they can begin to charge both for design work and for realising agreed-upon outcomes, such as design time or construction cost.”

Phil Bernstein – Vice President for
strategic industry relations, Autodesk

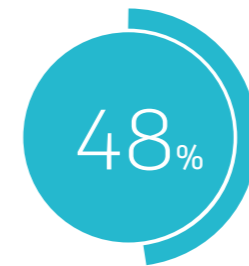
¹⁵ Ibid

¹⁶ Dodge data Analytics, [SmartMarket Report: Measuring the Impact of BIM on Complex Buildings](#), 2015

Expand billable services

Do more and your business grows. Winning new work and repeat clients are only the beginning. BIM lets you expand the scope of services you offer to all your clients. How? You harness the power of the intelligence within your building model – just like the 48 percent¹⁷ of architects who have used BIM to help them offer new services.

With BIM, you can readily offer services that you may be sending to outside consultants today. Take energy analysis as an example. You can analyse the energy use of your proposed design within BIM design tools or turn to speciality energy analysis tools that work with your model. You can also leverage models in the fabrication process, helping you bring a formerly outsourced process in-house.



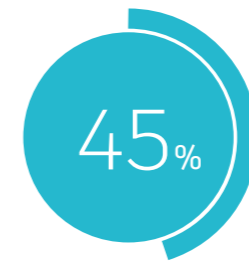
of architects have used BIM to offer new services

EXPAND SERVICES

Do your clients ever need photorealistic renderings to share with stakeholders or the public? Create them yourself from your design model. What's more, these same sophisticated models can play a role in your sales process later down the line, helping you impress clients with past results.

As projects wind down, offer to provide clients with an as-built record model of the building. These models help your clients operate and maintain their buildings more efficiently. Of architects that use BIM, 45 percent report that they frequently deliver an as-built record model.¹⁸

These models can be an on-going source of work, with your firm helping the owner keep the model current as the building changes.



of architects that use BIM, report that they frequently deliver an as-built record model

GAIN EFFICIENCY

Operate more efficiently

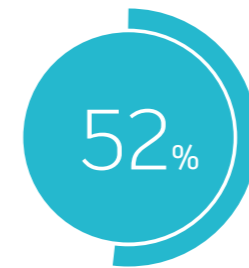
Some of the earliest adopters of BIM were attracted to the potential efficiency benefits. The intelligence of the BIM process made it easier for them to spot – and even avoid – errors and omissions. And the fact that changes rippled through the model automatically saved substantial time by eliminating many tedious tasks. For architects, these everyday BIM benefits lead to business value, especially for firms that do work on fixed fees. Time saved translates directly into enhanced margins, and fewer errors lead to reduced risk and rework.



GAIN EFFICIENCY

In the UK, 52 percent of architects using BIM say that it has brought them cost efficiencies on their projects, and 44 percent have found that it has increased their profitability.¹⁹

As BIM has evolved, the efficiency advantages have only gained momentum. Today's interoperable technologies reduce the need to remodel in order to work with preferred applications. And cloud-based services make it even easier and faster to share information across extended project teams.



of architects using BIM say that it has brought them cost efficiencies on their projects

CONCLUSION

Start your move to BIM

Ready to take the next step? Download a free copy of the [BIM Deployment Workbook](#) to see how BIM can help your firm realise all of the benefits discussed in this guide. **Make your move to a process that can help you operate more efficiently, win new business, and deliver higher quality work.**

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