

# BIM




A Manufacturers Journey



# PERSONAL INTRODUCTION

- Lee Jones
- Design Manager - BIM @ Ideal Standard (UK) Ltd
- Qualified Mechanical Engineer and Architectural Technologist
- 20 Years Experience: Engineering, Project Management and Product Design
- Responsible for BIM implementation at Ideal Standard since 2013

# WHO ARE IDEAL STANDARD?

- We are an international manufacturer and supplier bathroom solutions
- We operate under many brands including UK names:   
- UK business is 200 years old. Originating in the home of pottery; Staffordshire England.
- We are responsible for many of the sanitary innovations taken for granted by everyone on a daily basis.

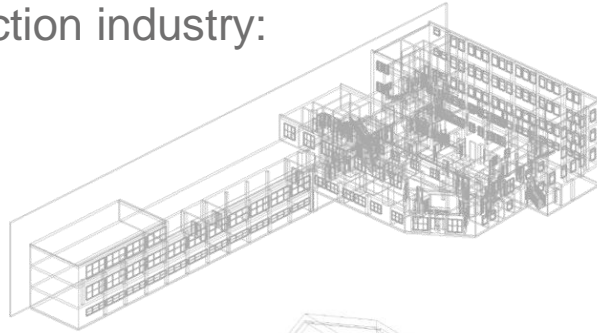


# OUR BIM JOURNEY

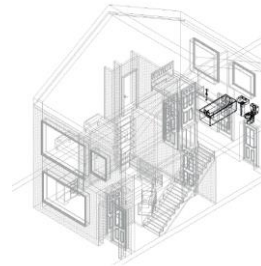
# WHY DID WE NEED TO ADOPT BIM?

- Aware of BIM since 2011 following Sir Francis Maude speech.
- We supply to the construction industry:

Commercial



Residential



# WHEN DID OUR JOURNEY BEGIN?

- We officially embarked upon our BIM journey in 2013.
- We were faced with two sink or swim challenges:
  - 1) Two major clients required BIM content in order to win a contract.
  - 2) A few architectural practices were starting to ask for content.

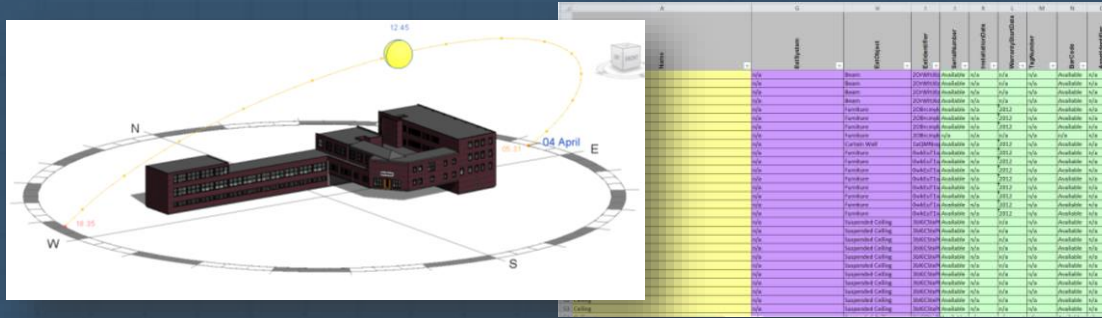
# WHAT DID WE HAVE TO UTILISE ALREADY?

- Getting stake holders on board. BIM offered a pathway to evolve into the digital age and at the end of a heavy recession, the means to stand out.
- We had already been working in 3D for around 15 years.
- We had access to structured data: [www.idealspec.co.uk](http://www.idealspec.co.uk)
- The foundations for BIM were already there...
- We just needed to understand how to assemble it.



# WHAT WAS A BIM MODEL?

- The most basic explanation; A virtual model of a building with embedded information relating to the design, construction and operation of that building.

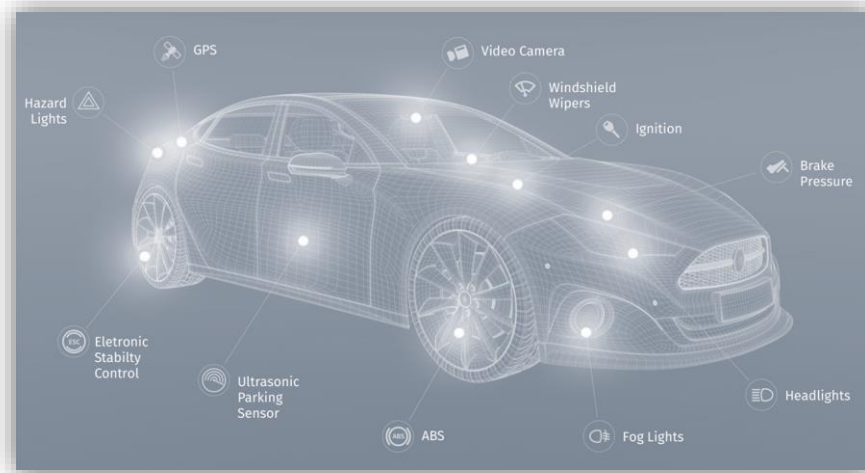


- It was clear this information could only come from the manufacturers!
- BIM offers the intelligence to perform analysis of pretty much any aspect of building design, if the data exists.



# BIM TAKES INFLUENCE FROM OTHER SECTORS...

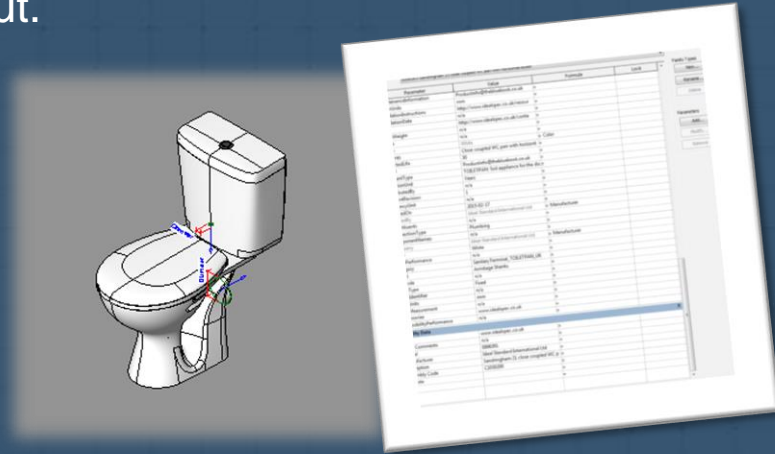
- Imagine the BIM model as a car made up of components from 100's of suppliers. The vehicle manufacturer must know every little detail of each component and it's performance before anything is even specified, let alone built or tested. It is the responsibility of the suppliers to provide this data.



(Image source: What Car? Magazine)

# WHY SHOULD WE BUILD WITH LESS CONSIDERATION?

- This is what manufacturer sourced BIM components offer to an architectural specifier. All the data, all aligned and all correct before any procurement or site works are carried out.



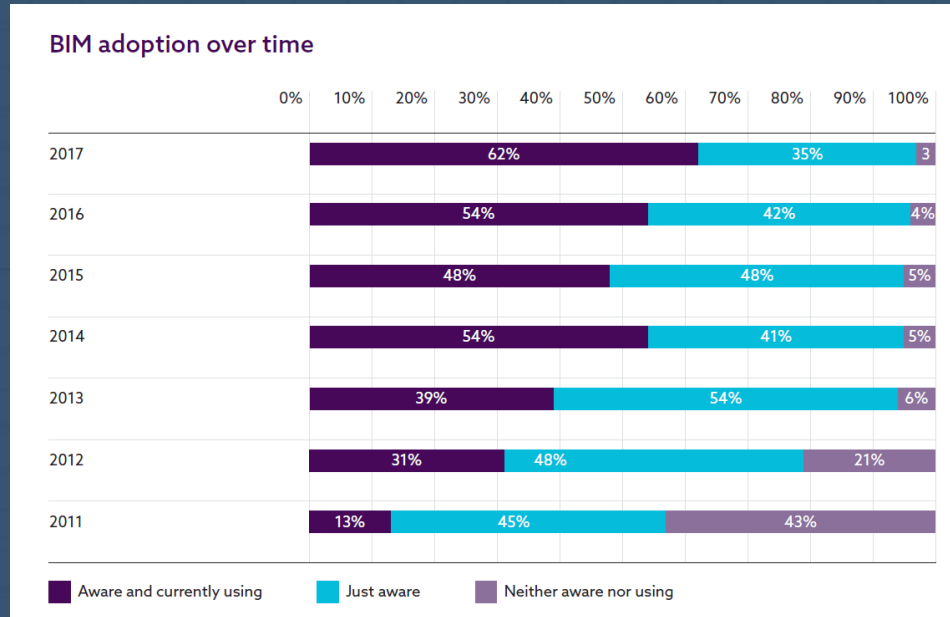
- Once the fundamentals were understood, the real work began...

# RESEARCH

- Understanding BIM level 2 and relevant standards such as PAS1192
- COBie
- Other data requirements such as IFC
- Software formats
- What did our clients want?

# THEN...

- Things were difficult to define in 2013 as industry knowledge was few.



(Source: NBS National BIM Report 2017)

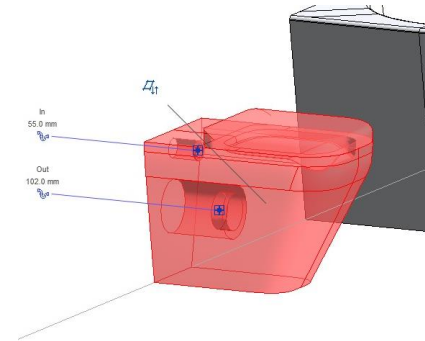
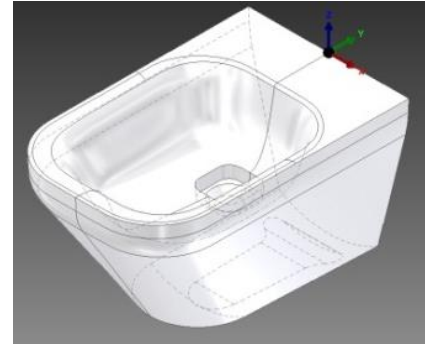
# NOW...

- UK BIM Alliance. ([www.ukbimalliance.org](http://www.ukbimalliance.org))
- BIM4M2 represent the manufacturing industry for BIM. ([www.bim4m2.co.uk](http://www.bim4m2.co.uk))
- The NBS National BIM Library has a multitude of free downloads ([www.nationalbimlibrary.com](http://www.nationalbimlibrary.com))



# CONTENT DEVELOPMENT

- We started with the geometry. As we already had a good understanding of 3D CAD.
- Object intelligence was then given focus.



# CONTENT DEVELOPMENT CONTINUED.

- Data was next on the agenda and this is the area which was both more time consuming and important to get right.

	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
1	Model	ModelNumber	ModelReference	Name	NBSCertification	NBSDescription	NBSNote	NBSOfficeMasterTag	NBSReference	NBSTypeID	NettWeight	NominalDepth	NominalHeight
2													
3													
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- We used the NBS shared parameters file to populate our product data into the models.

	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
1	Model	ModelNumber	ModelReference	Name	NBSCertification	NBSDescription	NBSNote	NBSOfficeMasterTag	NBSReference	NBSTypeID	NettWeight	NominalDepth	NominalHeight
2	A6463AA	A6463AA		Showers_Tresa_A6463AA_Sottini	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	6.29 Kg		0
3	A6452AA	A6452AA		Showers_Velino_A6452AA_Sottini	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	0.19 Kg	60	0
4	E1950AA	E1950AA		Alchemy washbasin mixer 1 hole single lever, click cartridge, pop-up waste	n/a	Water supply fittings for wash basins and troughs	n/a	n/a	45-35-70/371	n/a	2.1 Kg		135
5	A6453AA	A6453AA		Basento slim built-in thermostatic shower mixer	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	3.2 Kg	228	75
6	A6454AA	A6454AA		Basento slim oval built-in thermostatic shower mixer with diverter	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	3.2 Kg	228	69
7	A6455AA	A6455AA		Basento slim oval built-in thermostatic bath shower mixer	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	3.2 Kg	228	69
8	A6456AA	A6456AA		Basento slim square built-in thermostatic shower mixer	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	3.2 Kg		80
9	A6457AA	A6457AA		Basento slim square built-in thermostatic shower mixer with diverter	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	3.2 Kg	185	80
10	A6458AA	A6458AA		Basento slim square built-in thermostatic bath shower mixer	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	3.2 Kg	185	80
11	A6538AA	A6538AA		Basento oval thermostatic built-in 3 control bath shower mixer	n/a	Shower mixers	n/a	n/a	45-35-70/335	n/a	6.5 Kg		76

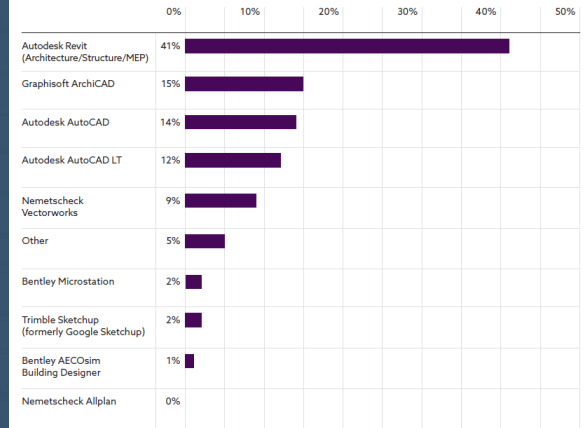




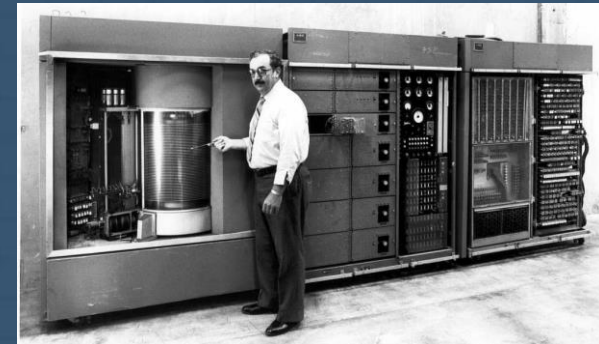
# LESSONS LEARNED

- File formats vary but some are more common than others.
- Structured data is critical.
- File size is important (for now).
- Be concerned with whom you deal with (PR BIM).
- Speak to those who have already taken your path.
- Geometry must be dimensionally accurate but form is not critical.

When producing drawings or models, which of the following tools do you mainly use?



(Source: NBS National BIM Report 2017)



- Though good modelling representation does have clear advantages if it truly reflects your product...



# THE NATIONAL BIM LIBRARY AND US.

- We self author our content.
- We host on third party sites including the NBS National BIM Library.
- All of our content submitted has passed the NBS BIM Object Standard.
- The NBS staff really know their stuff.
- National BIM library analytics = sales leads.

# WHAT WE HAVE ACHIEVED SO FAR WITH BIM.

- Gained a library of over 5000 products.
- Combined we receive around 40,000 downloads of our content per month.
- 20% of downloads are UK leads.
- Gained clients we did not have previously.
- Awarded soul supplier agreements.
- Strengthened bonds with organisations such as the NBS.
- Received a number of case studies on our BIM practice by leading industry piers.

# IMPLEMENTATION MILESTONES

2014

500+ UK SKUs created in Revit format.

Available upon Request

2015

1000+ SKUs created.

Now available online.

BIM4M2 supporter.

First external author to pass the NBS BIM Object standard

Autodesk & RIBA case studies

2016

3000+SKUs created.

Online exposure expanded.

Soul supplier agreements awarded.

UK BIM team expanded.

Other formats developed.

2017

5000+SKUs created.

Pan European BIM team implemented.

Files now available in Revit and ArchiCAD.

Downloads reach circa 40K/month.

# A GUIDE TO THE SHORE...

# PROS AND CONS

## PROS

- Access to new clients and projects
- Structured product data
- Low investment
- Business analytics

## CONS

- Which file format?
- Industry expertise is few
- Data element is complex
- Maintainable asset

# RE-CAP

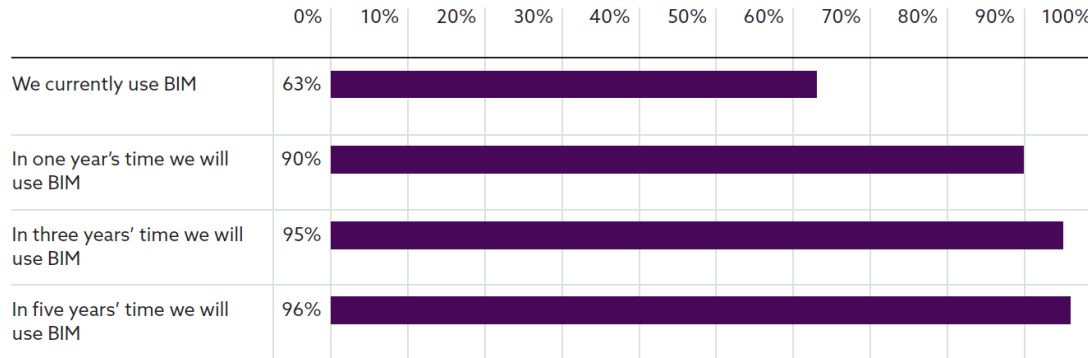
- Invest in the right software.
- Invest in the right people.
- Keep your file sizes small and your data big.
- Speak to those who 'truly' know.
- Trust your instincts.



# END NOTE.

- BIM is no longer a new topic, it will only evolve...
- We are still in the boom period of expansion.
- BIM Adoption will continue to grow for the next 5 years.

## How would you describe your organisation's future use of BIM?



(Source: NBS National BIM Report 2017)



Ideal Standard