

.....IT'S

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**A survey from Construction IT Alliance (CITA) (2016) shows that a total of 90% of respondents reported that their awareness of BIM has improved to some degree in recent years.**

**Being aware of something is not the same as having “knowledge of” or “ability in” the selected subject matter.**

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**“BIM is a way of working”**

**It is a legitimate question to ask if the AEC industry in Ireland  
has knowledge and ability of BIM processes**

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**“BIM is technologies and process  ”**

**One of the key findings of this paper concluded that 100% of respondents of a survey conducted by the author have a stated use of 3D BIM Modelling Software with 86% of respondents using Revit.**

**Change is difficult in any industry where embedded practice is the result of considered decision making brought together from applied experience.**

**Change is difficult but not impossible**

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**The industry can transition to BIM just like  
it did in the wake of BC(A)R,**

**Organic change or Government enforced change?**

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**BIM Process requires a “roadmap” “a how to guide” The UK Gov has this in the form of PAS 1192 suite and supporting documents.**

**How many AEC Professionals have read the PAS 1192 suite of documents? And how many have understood it’s impact on their practice?**

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**In the absence of a BIM process roadmap in Ireland we refer to and use the UK PAS 1192 suite.**

**However, we do not have building contracts that support this specifically.**

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## **New Roles?**

**BIM Manager, BIM Co-ordinator, BIM Technician**

**Academic foundation for these new roles, helping to define the role and giving direction to industry.**

**“to do BIM, you bring knowledge from your domain and develop new skills.” Professionals who understand that their role is important in making the industry move forward to embrace BIM fully.**



## **BIM Adoption in Ireland**

**(there is a need to look behind the presented figures)**

**57 responses were obtained from a sample size of 97 targeted  
90% of respondents were at Director, Principal or Associate level  
57% of respondents reported that their awareness of BIM has  
improved in recent years and are using BIM  
33% saying they use BIM on some projects.  
90% claiming to have increased awareness of BIM**

## **BIM Adoption in Ireland**

**(there is a need to look behind the presented figures)**

**If this is compared to a survey carried out by the Institute of Structural Engineers in the UK which had a response rate of 750; it outlines that only 9% of Principals or Directors have received BIM training, with over 50% of those trained in BIM being graduate or technician level (Ravenscroft, 2016b).**

**The author prepared a survey targeted at a wider audience from Architecture and Engineering firms who advertised a BIM service. 50 targeted 23 responded**

**The questions required to cover the majority of aspects associated with the BIM process. These questions were divided up into 6 different sections: 1.Company Profile 2.Software 3.BIM Levels / Standards 4.Information Sharing 5.Documents 6.BIM Training**

**The primary objective of this paper was to identify whether or not the industry understands the processes behind BIM rather than just using its associated software.**

**“It is important to realise that Revit is not doing BIM, as Donoghue (2015) highlights that Revit is a tool that merely enables the BIM process”.**

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## **Key Findings**

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## Doc's and Procedures L1

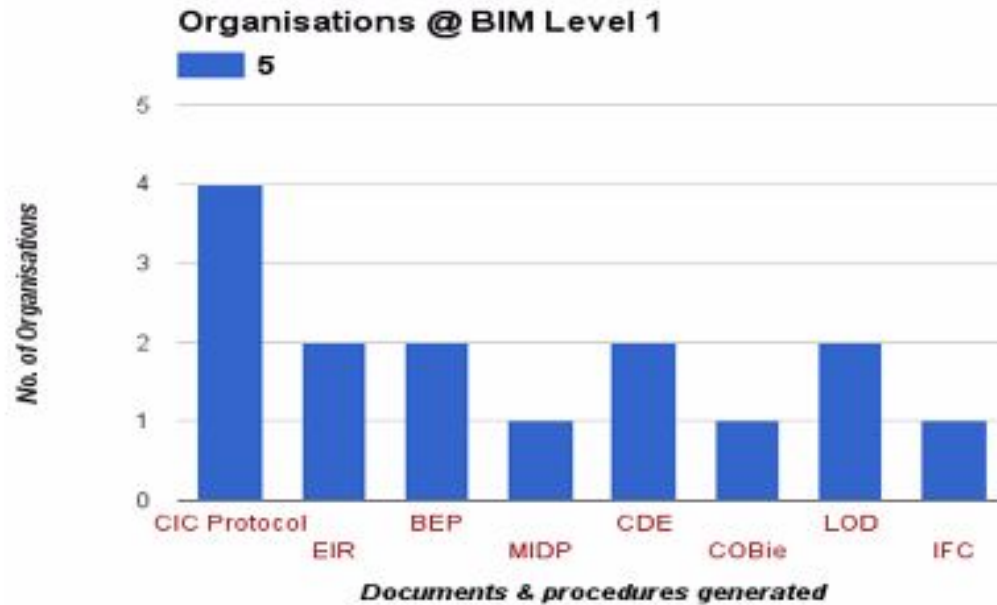


Figure 2 - Documents & procedures generated from BIM Level 1 firms. Adapted from targeted survey.

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## Doc's and Procedures L2

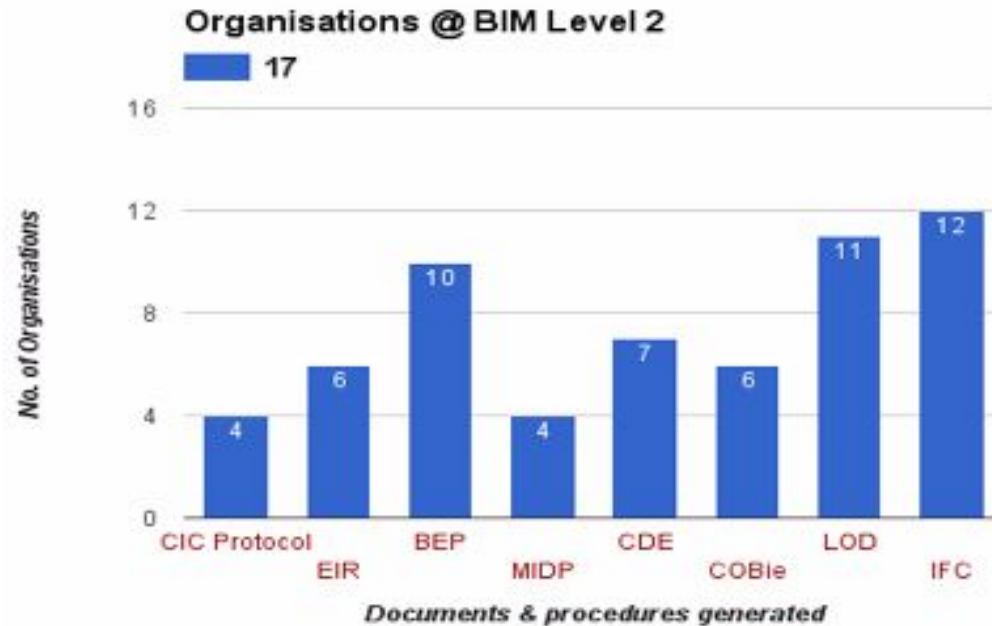
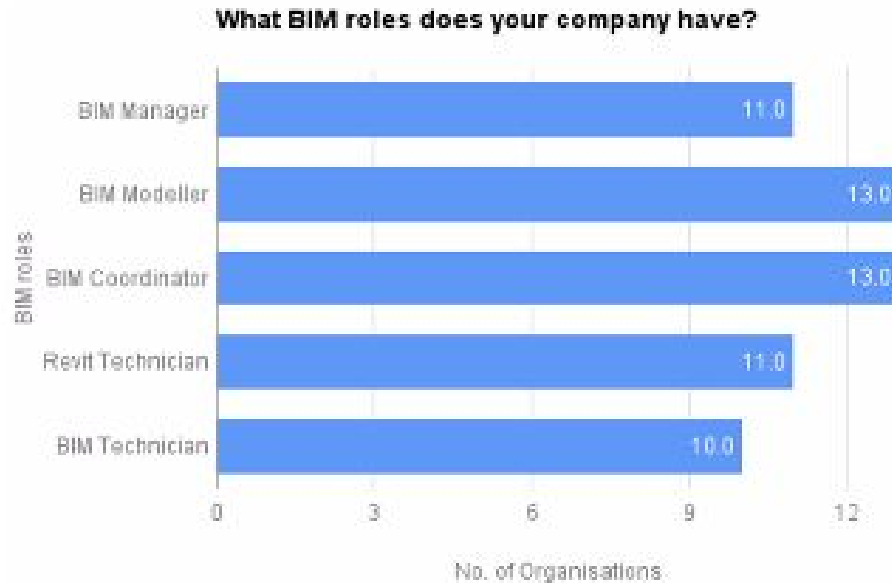


Figure 3 - Documents & procedures generated from BIM Level 2 firms. Adapted from targeted survey.

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## Role Adoption



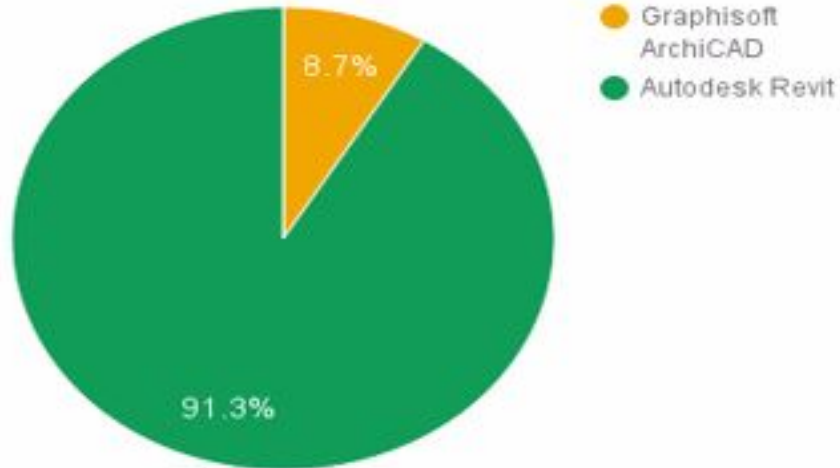
*Figure 5 - Roles within organisations. Adapted from targeted survey.*



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**BIM Authoring Software Preference**

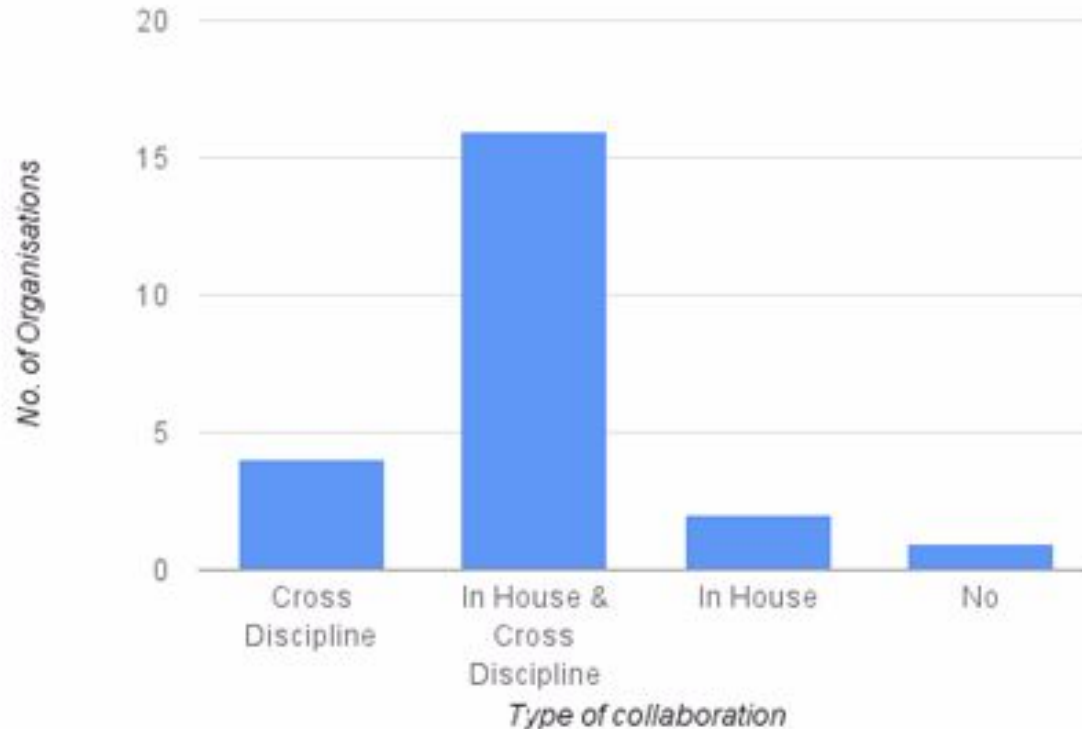
**Primarily, what 3D software does your company use?**



*Figure 6 - 3D Software use. Adapted from targeted survey.*

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**Collaborative BIM**



*Figure 7 - Collaborative use of 3D software. Adapted from targeted survey.*

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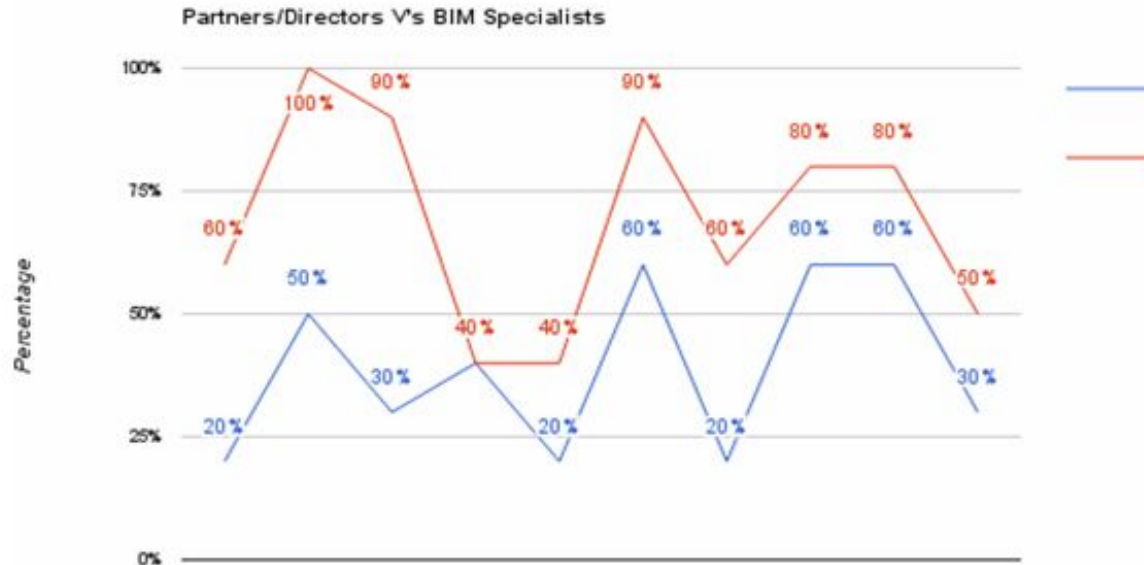
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- **Much of the findings would correlate with the literature in regards to software use. However, a major barrier highlighted in the literature suggests that cost is a main issue with buying software; however, the targeted survey reveals that all respondents are using BIM's associated 3D software.**
- **These findings would affirm the initial prediction that the processes associated with BIM are less understood.**
- **The results highlight that the majority of respondents are aware of the many processes involved, but have yet to implement them into their BIM projects.**

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## Who has the BIM Knowledge?



*Processes/Documents produced on BIM projects*

Figure 8 - graph outlining the comparisons between senior partners/directors versus BIM specialists. Adapted from targeted survey.

## Conclusions

Existing surveys have acknowledged BIM adoption, but have failed to dig deeper in order to understand what aspects of these processes are implemented.

Firms offering BIM services in Ireland possess no reference documents or standards and instead refer to UK suite of PAS 1192 standards.

The results of this targeted survey show that our industry as a whole is a long way off in understanding the processes behind BIM Level 2, never mind BIM Level 3.

Changes to training methods are required in order to make industry aware that BIM is much more than just the use of software.

More care is needed to promote BIM in the right context to reduce the misunderstanding of what doing BIM is.

Documents and information management formats associated with BIM Level 2 require specialised training in themselves.

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## **Conclusions:**

**The heavy focus on software within training courses and seminars “may” have misled a lot of the industry into thinking that software is the main aspect of BIM.**

**Macdonald et al. (2013) acknowledge that BIM is not being adopted across industry due to education, misunderstanding and awareness of its processes.**

**This is in the Author's opinion one of two significant reasons why BIM adoption has plateaued. The second reason being the lack of multidisciplinary collaboration. This perhaps is a deeper rooted problem but is reliant on a developed understanding of BIM process.**

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## **Recommendations:**

A proposal for a solution to this problem is the use of lunchtime Continuing Professional Development (CPD) events. Many firms already participate in these and have proven results for organisations selling their technology, systems, products and processes.

- The same can apply for BIM processes

The market requires tailored specific CPDs at low cost or free which will bring pieces of knowledge in to build up the whole BIM picture to a firm. A number of structured CPD events could be proposed to firms to tackle areas the firms are less knowledgeable about, for example:

- Production and use of an EIR.
- Production and use of a BEP.
- Production and use of a MIDP.
- Setting up and managing a CDE.
- Breaking down the PAS suite of documents.
- Understanding COBie.
- Managing the DPoW.