

DOES THE CONSTRUCTION INDUSTRY NEED A CHANGE IN MINDSET BEFORE THERE CAN BE A CHANGE IN PRACTICE?

*The opportunities and challenges of the market from a roundtable
discussion amongst leading UK construction companies*

Attendees:

Cath Kenyon - Kaleida

Lee Bishton - Retroflo

Norman Oliver - N D Oliver & Co

David Wilkinson - Williams Tarr Construction

Harry Kaye - Amey

Details of event:

30th June 2015, Kaleida offices,

Trafford Park, Manchester



The Construction Roundtable



Increasing pressure to innovate

Rightly or wrongly, industry leaders are increasingly under pressure to 'embrace innovation'.

There are many drivers for this – increased efficiency, environmental targets, retaining the UK's position as a global market leader etc. However, practically speaking, embracing innovation is not without obstacles and risk.

With short term targets and uncertainties about ROI, can the construction industry really move forward and innovate at the rate needed to sustain the growth in the market forecasted and attract the people it needs?

In order to meet the targets of Construction 2025 and Digital Built Britain we need to address an existing mindset; one that is reluctant to innovate and resistant to change.



If we want an industry that embraces innovation, there needs to be a combination of client demand and contractors willing to invest. Not only that, but we need to actively engage with our young people in a language they understand, in order to communicate the range of opportunities available to them.

These issues were raised at our roundtable discussion as we talked around the topics that affect the industry and can perpetuate barriers to innovation. In the process we gathered real life, personal insight into the current market from key leaders.





At the start of this year, the Construction Skills Network reported the sector could grow by 2.5 percent over the period 2015-2019, but industry experts warned that a skills shortage could hinder the building boom.

According to the research 14,850 additional construction workers will be needed in the North West region alone over the next five years. All of our attendees acknowledged that the skills gap was a very real problem that would require a proactive approach.

"In the recession of 2008 we had to let a few people go and tended to keep on people with experience, so we have a big gap and haven't taken anyone on until last year. Now we've taken three graduates on as trainee surveyors and will train them up ourselves."

- Norman Oliver, N D Oliver & Co

David Wilkinson from Williams Tarr Construction explained that a lot of site managers are now in their fifties, so they are actively looking for assistant managers who are showing potential to put through the technical college route.

Nationally, more than 224,000 jobs will be created by 2019 as the sector expands, but with a lack of available skilled contractors, there is even more pressure on the industry to be lean, efficient, and embrace innovative new technology and systems that could support this growth. Despite this, there remains a reluctance to innovate.

"Nationally, more than 224,000 jobs will be created by 2019 as the sector expands..."



The government has long acknowledged that the construction industry is a sector that can deliver significant growth for the economy. One result of this was Construction 2025, a joint strategy from government and industry published in 2013, that would put Britain at the forefront of global construction.

Our discussions seemed to centre around the first two parts of the vision for construction in 2025:

- + An industry that attracts and retains a diverse group of multi-talented people... a sector of choice for young people...
- + A UK industry that leads the world in research and innovation, transformed by digital design, advanced materials and new technologies...

The full strategy can be downloaded from www.gov.uk/bis

If the industry is to meet the targets of Construction 2025 and maintain a leading position in the global market, the value of investing in new systems and people has to be clearly communicated and demonstrated by industry leaders.

The government can create external drivers and targets, but we would argue that real change needs to be driven from within the industry itself.



Having gathered the experience and opinions of our attendees, the proposed solutions centre around a two-fold approach; one where skills are built from the bottom up and innovation is driven and managed from the top down.



In response to the skills gap, Lee Bishton's company Retroflo, recognised that a proactive approach was needed.

"You can't easily get people with the right experience. There's a shortage out there. You've got to bring them through. Our attitude was 'let's get them in and teach them right'. We have a mechanical design and electrical apprentice, and not for cheap labour purposes, but because we believe in the best for them."

- Lee Bishton, Retroflo

In fact, a number of our attendees described a very positive experience with their own in-house apprentices.

"Bringing in new staff, young people, has motivated everybody. It's really worked well for us."

- Norman Oliver, N D Oliver & Co

"We have a couple of apprentices who have been absolutely brilliant. They've paid for themselves in their first year. We're going to continue to build our skills from the bottom up. There are some really bright young people out there."

- Cath Kenyon, Kaleida

As the government pledges to create 3 million apprenticeships by 2020, the construction industry will have to attract the right people into them. In order to do that, the industry needs to engage with young people in the places that they're already engaged, and inspire them.

"We do open days for colleges on site, but the students are already on construction courses. It's very difficult to get a young person on site due to health and safety. You have to engage with them on social media platforms."

- David Wilkinson, Williams Tarr Construction

Cath Kenyon agreed that the industry needed to get the message out there, that "these are the opportunities available and these are the skills we need. Young people need to hear it, along with their parents and senior leaders within education."

From Twitter through to BIM, it was felt that the industry was slower in embracing digital technologies than it needed to be. With staff who survived the recession now all eight years older, any reluctance to digital needed challenging.

"We need to get everyone to a level playing field where we are all digitally savvy."

- Alex Jones, National BIM Manager, Interserve

It is clear that some staff members are still relying on their computer literate colleagues. Yes, there should be a sharing of skills and support, but a reliance on other staff members to help manage newer systems is not sustainable.

"As an individual, you should be looking to up-skill yourself and change how you behave."

- Harry Kaye, Amey



When trying to introduce an invention that would create a more efficient system, Lee Bishton from Retroflo met with resistance. He encountered responses from subcontractors such as “Oh, no. I’m not paid to touch that.” There was an unwillingness to engage with the new technology and resistance from a heightened sense of job protection. There was fear that this new invention would mean a loss of work amongst those who were troubleshooting the old one.

Lee Bishton argues that before there can be a change in practice “there needs to be a change in mindset”.

Construction 2025 raised the issue that public perception of the industry needed a fundamental change, but we were quickly acknowledging that more important than this, a change in mindset was needed within the industry first and foremost.

Harry Kaye went on to suggest that:

“The wrong people have been allowed to make the decisions. Innovation or change needs to be managed and driven from the top down.”

- Harry Kaye, Amey

In conversations around innovation and new systems, BIM has been the dominant theme for the last five years. The conversation continues with Digital Built Britain, the government’s BIM Level 3 strategic plan. The adoption of BIM is perhaps a good barometer for where we are with innovation in general.

In the same way that Harry Kaye exclaimed: “Clients say they want innovation, and then they put obstacles in the way”, Richard Saxon, BIM consultant recently commented: “the reality is that client willingness on BIM is patchy” – and that’s with a wealth of support and backing from the government.

James Eaton, Global Head of Digital Engineering at Laing O’Rourke, in a recent article explained how contractors have worked hard to bring BIM into its business practices and that they still had a lot of work to do.

“You work to get people over the hump, and once most people are over it, the masses follow. Well, we don’t yet have most of our people over the hump.”

- James Eaton, Laing O’Rourke



Organisations like Constructing Excellence exist to see the industry excel and recognise BIM and innovation in general as an essential part of this. It supported the vision of Construction 2025 but Paul Wilkinson argued that it didn't go far enough.

"The successful businesses of tomorrow will break through the current industry ceiling, making radical changes and building collaborative business relationships so they can deliver exceptional performance.

This is not achieved by focusing on technology, it is achieved by radically overhauling existing structures, processes and cultures, driving out waste, creating the collaborative conditions to nurture innovations, and having supply chains focus on what delivers best value."

- Paul Wilkinson, Constructing Excellence

The verdict on Digital Built Britain seems to be that it's ambitious, but perhaps that is the approach we need.

"The challenge is it requires adversarial construction to be turned on its head and truly collaborate processes to be adopted. This is only likely with an informed client who manages its contracts rather than leaving it to the 'professional' team at risk of just delivering the same old same old."

- Duncan Reed, Process Manager, Tekla

Again, the strategy will only succeed with client backing and contractors willing to invest and take risk. The question remains whether the industry is strong enough and can attract the people it needs.





Digital Built Britain seems to address more clearly what was a relatively small component of 2025, and that's the need for collaboration. In Construction 2025, the dominant term seems to be innovation, whereas in DBB, collaboration appears 36 times in the 48 page document.

We recognise that collaboration is a precursor to innovation, but in order for that to happen, again there needs to be a change in mindset and a change in the way the industry works and shares information.

In his recent article *Innovation in Construction*, Simon Murray references connectivity as a key enabler of innovation.

"Delivering a single project on time, within budget and to quality has become more important than connecting up all the people working on a series of similar projects to see if they can produce better solutions."

- Simon Murray, Director, Acumen7

Collaboration and innovation need to be perceived as a necessity, not as an added cost.

Collaboration between teams is only possible if those teams and the software they're using is able to talk to each other. Harry Kaye talked about the benefits of bespoke software.

"With bespoke, you have a system that is built for the needs of the company and also built for the needs of the client."

A company like Kaleida is able to provide a solution for this, as well as build tools that allow existing systems to talk to one another, but there must first be a commitment from companies to invest.

Only when the industry has been educated on the benefits of innovative systems and the value of taking on and training staff in those systems, will we see the type of collaborative work processes that can achieve the vision of 2025 and targets of Digital Built Britain.



The government clearly sees construction as an enabler of the wider economy, yet the industry faces continuing barriers to innovation and the targets set out by 2025. Yes, there needs to be a change in the public's perception of the construction industry, but just as important is the need for a change of mindset from within, driven from the top down.

Although there appears to be a reluctance towards innovation, we must remember, that construction, by its very nature is innovative. No two projects are the same and require creative problem solving and innovative thinking around planning, processes and people management on a practical and site level.

In 1997 Peter Byrne, owner of Byzak, was famously quoted as saying *"Why do I need email when I have a pencil?"* Fortunately, things have moved on and Byzak went on to embrace innovative bespoke IT solutions early on and were very successful. It's a story that illustrates that the technology may have changed, but the barriers still remain. In the case of Byzak, an initial reluctance was turned around once the company partnered with Kaleida (and now Peter can't live without email).

Innovation will require collaboration, and those driving it will need to clearly communicate the added value and ROI available. When we have a proactive, innovative and engaging industry, we will have one that continues to lead in the global market and attracts our young people to build the cities of tomorrow.





Construction 2025

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210099/bis-13-955-construction-2025-industrial-strategy.pdf

Constructing Excellence

Tinker with the tech or make big hairy audacious changes?

<http://constructingexcellence.org.uk/tinker-with-the-tech-or-make-big-hairy-audacious-changes/>

MEN

Construction industry comeback could deliver 25,000 north west jobs by 2018

<http://www.manchestereveningnews.co.uk/business/construction-industry-comeback-could-deliver-8520366>

CIOB Survey 2007

Innovation in Construction: Ideas are the currency of the future

<http://www.ciob.org/sites/default/files/Innovation%20in%20Construction.pdf>

CN plus

Digital Built Britain: The Verdict

<http://www.cnplus.co.uk/innovation/bim/digital-built-britain-the-verdict/8686369.article?blocktitle=BIM-in-depth&contentID=13797#.VazXJMZVhBc>

CN plus

BIM: Is construction truly ready and willing?

<http://www.cnplus.co.uk/innovation/bim/bim-is-construction-truly-ready-and-willing/8686367.article?blocktitle=BIM-in-depth&contentID=13797#.VazXJ8ZVhBc>

Innovation in Construction

Infrastructure Intelligence

<http://www.infrastructure-intelligence.com/article/mar-2015/innovation-construction>



THANK YOU

Kaleida would like to thank the key industry figures from Amey, Williams Tarr Construction, Retroflo and N D Oliver & Co, who participated in the roundtable discussion on 30th June 2015.

The session provided valuable insight into the common challenges across the industry with regard to innovation.

If you're an industry leader and are interested in participating in our next Construction Roundtable in September 2015, please contact marianna@kaleida.co.uk

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