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# 09/23

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### ▲ Geotechnical specialists scale Brighton's chalk cliffs

A specialist team from CAN Geotechnical used rope access to work at a height of 30m (10 storeys) on Brighton's chalk cliffs to make the area safe after repeated rockfalls affected the Undercliff Walk.

### ► Underwater Loo Gardens

A temporary installation held inside London's 'super sewer' celebrated the positive environmental impact that the Thames Tideway Tunnel will have in the capital. The Loo Gardens were created with Joy Collective and featured hyperrealistic hand-painted flowers and sounds and scents of nature.



PA IMAGES/ALAMY STOCK PHOTO

Bouygues UK has appointed Katie Hathaway, one of the NFB's Top 100 Most Influential Women in Construction, as head of social value for Wales and the South West



## ◀ HS2's deep shaft in Little Missenden

Engineers have completed the excavation of five shafts that will provide ventilation and emergency access to the 16km Chiltern Tunnel. A 'headhouse' designed to resemble local farm buildings will be built on top of this shaft to house ventilation and safety equipment.



## ◀ CIOB president receives honorary doctorate

The University of Westminster awarded an honorary doctorate to Sandi Rhys Jones OBE (second from right) for her work promoting diversity and inclusion in construction. From left to right: Professor Andrew Linn, Professor Lynne Berry and Natalie Campbell MBE joined her at the ceremony.

## ◀ Granton gasholder's bell gets ripped apart

The bell that floated up as water filled the historic gasholder in Granton Waterfront, Edinburgh, has been taken apart to make way for restoration works. The City of Edinburgh Council plans to create a new multifunctional public space in the area as part of a wider £1.3bn regeneration project.



Interested in joining one of the CIOB  
Advisory Panels? Email: [policy@ciob.org.uk](mailto:policy@ciob.org.uk)

# Experts picked to chair CIOB Advisory Panels

Experienced line-up of specialist expertise will advise institute's policy team

**CIOB has assembled a coterie** of construction gurus to chair its new advisory panels.

The panels – sustainability, heritage, innovation, quality, health and safety, EDI, global and UK – provide expert knowledge on key policy priority areas in line with CIOB's corporate plan, at a global, national and regional level.

Eddie Tuttle, policy, external affairs and research director at CIOB, said: "The CIOB under its Royal Charter has a responsibility to promote the science and practice of building and construction for the benefit of society through education, research and engagement with the industry and the public.

"Members of the advisory panels are experts in their field with a wealth of knowledge and passion for influencing the built environment across all areas of the globe.

"Their support is invaluable in assisting us with developing and implementing strategies, policies and practice that tackle key policy issues including preparing responses to government consultations and parliamentary inquiries." ●



**Members of the advisory panels are experts in their field with a wealth of knowledge and passion for influencing the built environment across all areas of the globe.**  
Eddie Tuttle, CIOB

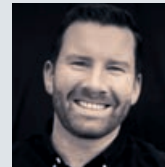
## Sustainability: Chris Gorse



Chris Gorse is professor of Construction Management and Engineering at Loughborough University, and a

long-standing CIOB member. He has a particular passion for enhancing ethics, standards and skills across the sector, furthering the CIOB's reach and impact, and has 35 years of industry and research experience.

## Global: Michael Gallagher



Michael Gallagher is development director with Royalton Group, which works in housebuilding across the UK

and Ireland. He has a long affiliation with CIOB, having joined as a student member in 2001 and is a past vice chair of the CIOB Europe Regional Hub.

## UK: Professor John Edwards



John Edwards is a practitioner consultant with specialist practice Edwards Hart and part time educator with

the Environment Study Centre and University of Wales. A member of CIOB for over three decades, he specialises in climate change, quality and building conservation.

## Heritage: Rebecca Thompson



Rebecca Thompson is the English Heritage senior estate manager for the North Territory, soon to join the team at St Paul's

Cathedral as director of property. Her passion and expertise are in the care, maintenance and restoration of historic buildings. She is a fellow and past president of CIOB.

## EDI: Chris Keast



Chris Keast is a CIOB fellow who had a successful career as a building surveyor, then moved into education at

Nottingham Trent University. Living with a life-limiting industrial disease, his work focuses on making the built environment accessible for people with disabilities.

## Innovation: Dave Philp



As chief value officer at Cohesive, Dave Philp is responsible for creating sustainable value for clients across their asset

life cycle. He was seconded in the UK Cabinet Office in 2011 as head of BIM implementation. He is a fellow of CIOB (and past trustee) plus ICE and RICS.

## Quality: Paul Nash



A past president and CIOB fellow, Paul Nash led the institute's Construction Quality Commission. He sits on the

Industry Safety Steering Group, which drives industry culture post Grenfell, and was appointed to the Building Advisory Committee, set up following the Building Safety Act in 2022.

## Health and safety: Steve Coppin



Steve Coppin has headed health and safety for various organisations including the Department of Work and Pensions. An

expert witness in numerous incident cases, he is also a respected speaker and adviser. He is a fellow of CIOB and the Association for Project Safety.



## Tilbury Douglas CEO becomes new CIOB vice president

Paul Gandy wants to use his new role as a platform to increase awareness of the social value brought by the built environment.

**The Chartered Institute of Building** has appointed the chief executive of Tilbury Douglas, Paul Gandy FCIQB, as its latest vice president.

Gandy began his career as a trainee engineer at Trollope and Colls in 1979. He then held senior executive positions at major contractors, including Lendlease, Balfour Beatty and Kier, before being appointed CEO of Tilbury Douglas in October 2019. He has previously served on the CIOB board of trustees and is currently an elected director of trade body Build UK.

Commenting on his appointment, Gandy said: "The privilege of

becoming a vice president of the CIOB is incredibly important to me. I love the construction industry and recognise that it has been extremely good to me over the 40-plus years that I have worked in it.

"I am excited to have the opportunity to give something back, in particular to help the industry face into the challenge of competency that has been so clearly highlighted by the Building Safety Act. As a professional institute for the construction industry, we can, and will, be at the centre of this important issue."

▲ Paul Gandy:  
"We need to break  
down barriers"

**The work we do is at the heart of resolving the carbon challenge the country faces, and we provide tremendous opportunities for employment and self-development**

Paul Gandy, CIOB



Gandy aims to spend his vice presidency raising awareness of the positive contribution that the sector, including thousands of CIOB members, brings to society.

He added: "The work we do is at the heart of resolving the carbon challenge the country faces, and we provide tremendous opportunities for employment and self-development. We however need to break down barriers to entry and career development that exist and help the profession be recognised for what it is – a rewarding place to work and one where our contribution leaves footprints for generations to come."

Caroline Gumble, chief executive of CIOB, said: "I am looking forward to working with Paul and to welcoming him, not just as our new vice president, but as the 122nd CIOB president, taking on the role in 2025.

"Paul has a depth of experience which will make him a valuable addition to our team and I know that he will offer leadership and the benefit of his expertise to the CIOB community and the wider sector, at a time of change and challenges for this important industry."

Gandy will become the 122nd president of CIOB in 2025, following on from Mike Kagioglou FCIQB, who will succeed the current president, Sandi Rhys Jones OBE, FCIQB in summer 2024. ●

# CIOB People

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## #PPEthatfits: Why current PPE provision fails minoritised groups

Anjali Pindoria tells **Cristina Lago** why construction PPE is not only failing females but also men from minoritised ethnic and faith backgrounds

The launch of CIOB's #PPEthatfits campaign highlighted the shortage of personal protective equipment for female workers in construction. But inadequate PPE provision is not just a gender issue and many men who do not fit the Caucasian men model for which PPE is primarily designed are also being left out.

"We are making a lot of noise for females but what about all other people who have different requirements because of their ethnic, cultural or religious backgrounds?" asks Anjali Pindoria, senior projects surveyor at carpentry subcontractor Avi Contracts, who sits on the CIOB EDI advisory panel and is a London rep for CIOB Tomorrow's Leaders.

In the carpentry trade, workers must be clean-shaven to wear respiratory protective equipment. RPE masks rely on a good seal against the face to work properly and avoid contaminated air passing through the gaps. Facial hair, including stubble and beards, makes it impossible to get a good seal of the mask to the face.

This, however, can be at odds with some cultural or religious practices. Men of the Sikh faith, for example, are required not to trim their hair or beard as part of their religion. Another article of the Sikh faith (kesh) asks them to keep their hair uncut and wear a turban.

Turban-wearing Sikhs have been exempted from wearing hard hats

▲ Anjali Pindoria:  
"Industry-wide  
discussions need  
to take place"

on construction sites since the introduction of the Employment Act 1989. This exception was extended to all workplaces in 2015, a move welcomed by the Sikh Council UK.

Although there are alternative forms of RPE available for people with facial hair, they are expensive, heavy and require big storage boxes, says Pindoria: "In addition to the mandatory five-point PPE [hard hat, high-vis vest, steel-toecapped boots, gloves and safety goggles], operatives would be required to adjust to wearing additional RPE."

"There are also many additional factors such as site logistics that need to be addressed so that appropriate RPE can be practical. I strongly believe industry-wide education and discussions on site logistics and storage especially need to take place."

Pindoria says that the lack of RPE masks for workers with beards is not only problematic for health and safety but also from an inclusion point of view: some of the people who grow a beard, such as Sikhs, do it for religious or cultural reasons and might get bullied for it.

She adds: "The voice of minority groups needs to be heard around the table." ●

**You can read the full interview with Anjali Pindoria on CIOBpeople.com.**

### About #PPEthatfits

CIOB launched the #PPEthatfits campaign in July to raise awareness around the lack of inclusive PPE in construction. It encourages contractors and suppliers to provide PPE that is suitable for every worker and addresses gender, religious, medical and cultural requirements. To get involved, email [cristina.lago@atompublishing.co.uk](mailto:cristina.lago@atompublishing.co.uk) or post your support on social media using the hashtag #PPEthatfits.

# Building Safety Regulator



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**Time is running out**  
to register high-rise  
residential buildings



**It is now a legal requirement in England to register high-rise residential buildings.**

All buildings that are at least 7 floors high, or 18 metres tall or higher and contain two or more residential units must be registered with the Building Safety Regulator by **1 October 2023**.

**Register now**

# Which green collar jobs are most in demand?

Construction needs a holistic approach to net zero if it wants to meet its targets, writes **Pablo Cristi Worm**



This June was the hottest on record – but as the impact of global warming becomes increasingly obvious, there is a risk that UK construction's progress towards net zero targets could be impeded by a lack of capability in the market.

So-called 'green collar' labour shortages are pronounced and are having impacts on the deliverability

of sustainable projects. A recent report by the European Heat Pump Association, the body representing Europe's heat pump industry in Brussels, found a lack of skilled workers as one of the main barriers to heat pump installation.

Data gathered as part of Turner & Townsend's latest *International Construction Market Survey 2023* shows that seven UK regions do not feel they have the green skills to deliver on the carbon

Seven UK regions do not feel they have the green skills to deliver on the carbon reduction that is needed, and six of nine say they do not have the supply chain capability

reduction that is needed, and six say they do not have the supply chain capability. At the same time, every region is reporting that they expect to see more projects having to increase their net zero commitments, raising questions about how such commitments will be delivered.

Although there is still optimism – six regions expect capacity to increase in the coming years – the green skills shortage is still reported as the main driver holding back investment in net zero.

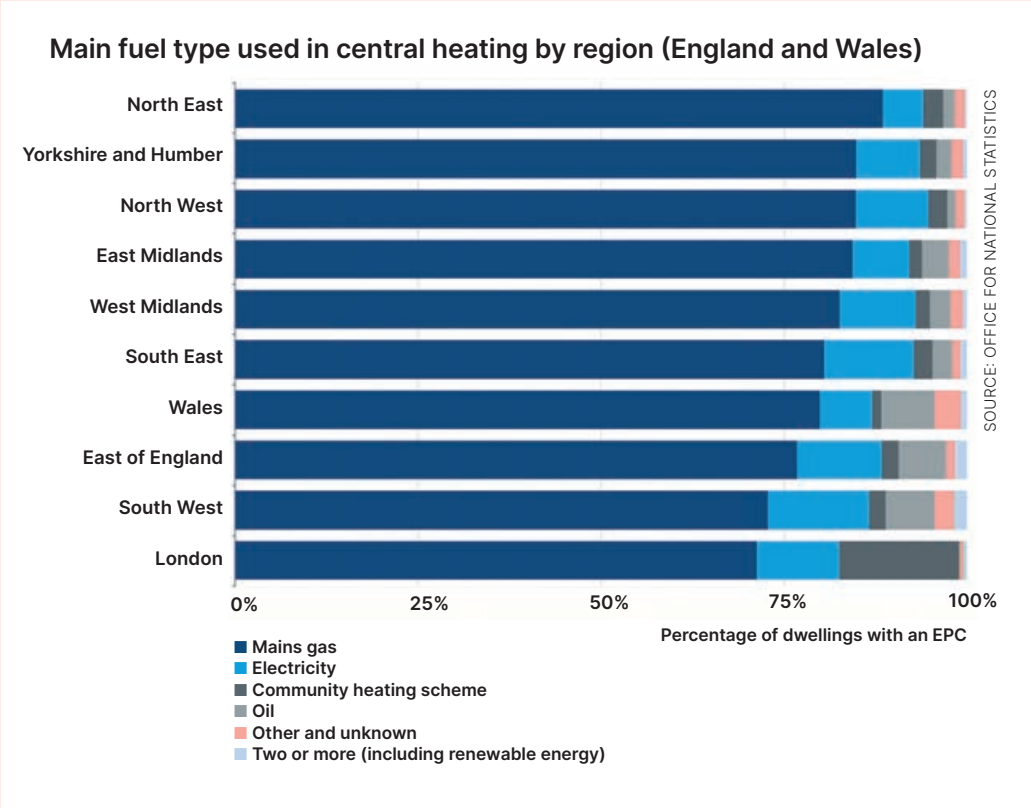
**Impact of the skills crisis on net zero targets**

Across the UK, skills in particular demand include insulation, heat pump and window installers – who are at the heart of badly needed efforts to retrofit the nation's building stock.

Figures from the UK Green Building Council's *Net Zero Whole Life Carbon Roadmap* reveal that 48% of emissions from the built environment are produced by energy usage within the existing housing stock.

To reduce this and reach our 2050 net zero target, the nation needs to urgently decarbonise UK heating systems. No UK region has more than 0.07% of homes heated solely by renewable methods.

Yet again, the question of capacity rears its head. To hit the government's target of installing 600,000 heat pumps this year alone, the industry requires around 150,000 additional skilled heating engineers, according to the Heating and Hotwater Industry Council (HHIC). Two-thirds of these would need to be new entrants to the industry.



Percentage of household spending in 2023 going on fuel and lighting, up from 3.5% in 2019

7.8

More coordinated intervention is needed, where the sector works with local government and education providers to develop the training needed and meet future demand

**Changing the mindset**  
To tackle this green skills and capacity shortage in the short and long terms, the built environment needs to think holistically, beyond just the raw numbers in the qualified and trained labour force.

One element of this is strategic planning and collaboration to ensure that multiple projects can progress in an aligned way without both drawing from the same local labour pool at the same time.

More coordinated intervention is also needed, where the sector works with local government and education providers to develop the training needed and meet future demand.

Additionally, to truly prioritise sustainability, the industry must shift its whole perspective on carbon. A plan focused on reducing carbon should no longer be viewed as an increase in cost, but rather carbon should be measured as a second currency, where efficiency adds to the overall value of the construction project.

Seeing the true worth of sustainability is essential to encouraging investment both in projects and in training the green skills needed to deliver them.

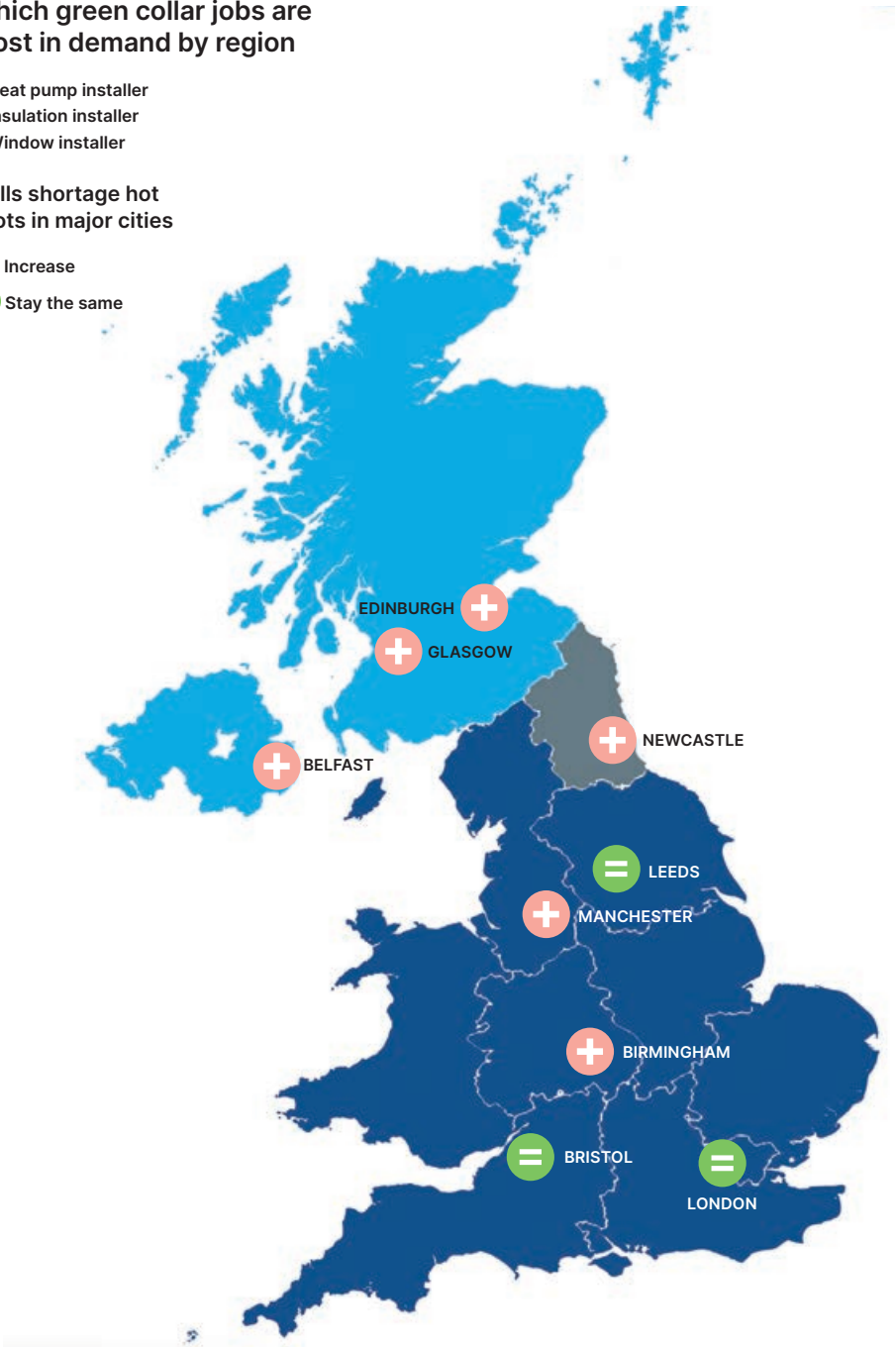
Pablo Cristi Worm is a senior economist at Turner & Townsend.

Which green collar jobs are most in demand by region

- Heat pump installer
- Insulation installer
- Window installer

Skills shortage hot spots in major cities

- ⊕ Increase
- = Stay the same





**Caroline Gumble**  
CIOB

# Teaching excellence at the CIOB Academic Summit

CIOB goes back to school with a virtual conference bringing together academia and the wider built environment, writes **Caroline Gumble**



**It's another busy year for CIOB, with** a full calendar of events, including our Academic Summit being held in a couple of weeks. I am delighted we are holding this event again, not least because links between industry and academia are so important – particularly so in an industry in which innovation and digitalisation are increasingly present.

In my role, I talk to a lot of our members who are also academics and we often discuss the need to encourage, develop and maintain links between industry and academia. Earlier this year, I was invited to speak at the Annual Associated Schools of Construction International Conference in Liverpool. It was a great opportunity

▲ A positive experience as a student will keep the pipeline of new talent flowing

to bring people together to discuss the skills gap, the need for high-quality education and the importance of staying in touch with industry developments. I felt there was a deep commitment to deliver for the next generation of construction professionals.

There are many reasons to ensure that quality in construction education must remain on the agenda, but there are two main themes that emerge when talking to built environment academics.

The first is absolutely critical for the future of our industry and it is simply to ensure that those who decide to undertake a built environment course have a positive experience and then go on to join the

**High-quality education and training can support the CIOB goal of delivering high standards and professionalism across the sector**

industry. A positive experience as a construction student will help keep the pipeline of new talent flowing.

The second is that high-quality education and training can support the CIOB goal of delivering high standards and professionalism across the built environment sector. We want to deliver on our public interest remit and ensure that construction and built environment professionals have access to relevant, good quality, expert-led materials and resources.

What I hope attendees will get from our Academic Summit is insight into some of the current hot topics including ethics, quality and safety, the skills gap, sustainability and wellbeing. The agenda has been shaped to support collaborations and the sharing of research and best practice.

Among the highlights there is also an opportunity to hear from CIOB's senior vice president, Professor Mike Kagioglou, talking about modern professionalism, the headline theme in our corporate plan. I am looking forward to hearing from Mike and all other speakers – I hope you can join us online on 12 September. ●

**Caroline Gumble is CEO of CIOB.**

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# Feedback

A selection of readers' comments about news and issues in the industry from across the CIOB community



## CIOB People 28/07

### Cladding removal: concerns raised over skills pipeline

RE Blackmore-Squires MCI0B

As a retired engineer and quantity surveyor with many years of experience working in the cladding industry, I hope the training given is only of the highest quality.

Attention to every detail is paramount, including sourcing of materials, detailing of methods, on-hand skill training, pre-inspection of the materials, equipment

and tools, resourcing, planning, timing and sequencing.

Leadership, good staff and detailed control of quality finance and programme will be required at every stage.

It must be seen that taxpayers' money is spent wisely and for the permanent betterment of the built environment.

## CM 25/07

### M&S Oxford Street ruling: how did Gove reach his decision?

Sara Carruthers MCI0B  
If the Westminster government is serious about giving adequate weight to the heritage value and embodied energy of a development, it needs to address the disparity in VAT between new build and refurbishment urgently. It is easier to justify a new build financially when you start off with a 20% discount on construction costs.

## CM 26/06

### New CIOB president says collaboration her priority for year in office

Trevor Patterson FCI0B  
I very much welcome a focus on collaboration. For too long our industry has seen profits extracted from the supply chain, leading to underpriced contracts and challenges around quality and timeliness. Building collaborative expert teams will bring benefits to clients, wider society and construction professionals.

Mike Smith MCI0B

The collaboration theme follows up on Michael Foy's year, where he focused on the client and produced the client guide.

We need to get client and government recognition of the existence of the CIOB and what we can bring to the

table. For all too long we get sided with the 'builder' bad press and with Grenfell still haunting the industry and no outcome yet.

Getting a process where CIOB members and the institute stand with the other professional institutions, and not below, would be a great achievement.

## BIMplus 20/06

### Why we need to know more about BIM job roles and pay

Max Muncaster MCI0B  
As a former design manager, this role seems to be underappreciated in the UK, and muddled by competing interests. Its potential to unlock the productivity problem, alongside BIM professionals, is misunderstood. I feel that design managers and design coordinators experience the same issue. Let's push for more clarity.

I am now helping Oxford Brookes University expand the training provision at MSc level, with new modules to add to the BIM in Practice and People, Leadership and Organisation modules.

These will be available on the new MSc course in industrialised construction, in which we are at last offering modules in design management and modern methods of construction.

@ Share your views on the latest industry issues by posting comments online at [www.constructionmanagement.co.uk](http://www.constructionmanagement.co.uk) or by emailing the editor at [construction-management@atompublishing.co.uk](mailto:construction-management@atompublishing.co.uk)

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# Is construction ready for AI?

The annual Construction Management and BIMplus survey sought your views on the year's hot topic: artificial intelligence – is it construction's friend or foe? **Justin Stanton** reports

**F**orms of artificial intelligence (AI) are prevalent in all walks of life and business, and the technology is edging its way into construction and the built environment. At the turn of the year, ChatGPT seized the headlines (including in the February edition of *CM*), but by early summer well-known tech industry leaders were likening the unregulated growth of AI to the monstrous Skynet in the *Terminator* movies. Even Tom Cruise had to face off against AI in this summer's *Mission: Impossible* movie.

Given its reputation for being behind the technology adoption curve, where does this leave construction and its relationship with AI?

The headline results of our survey reveal an industry keen to investigate the benefits of AI: nearly two-thirds of the respondents can see the positives. Nearly a third said they thought AI could improve productivity, while nearly a tenth thought AI could improve safety, and nearly a quarter supported the statement: "AI doesn't worry me – let's embrace it."

The biggest concern about the impact of AI was, not unexpectedly, the loss of jobs: an eighth of respondents cited this. Nearly the same number were also concerned about the ethics of AI. Less than a tenth were worried about how AI's role will impact contracts and contract law.

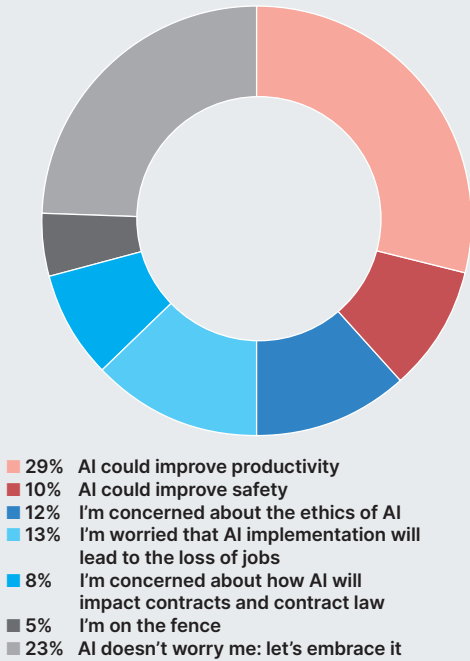
**Nearly a third thought that AI could improve productivity, while nearly a tenth thought AI could improve safety, and nearly a quarter supported the statement: 'AI doesn't worry me – let's embrace it'**

The verbatim responses represented the full spectrum of hopes and fears, from evangelists to naysayers. One very positive respondent said: "AI is the future and the sooner we embrace its potential, the better we can cope with all the changes in the industry."

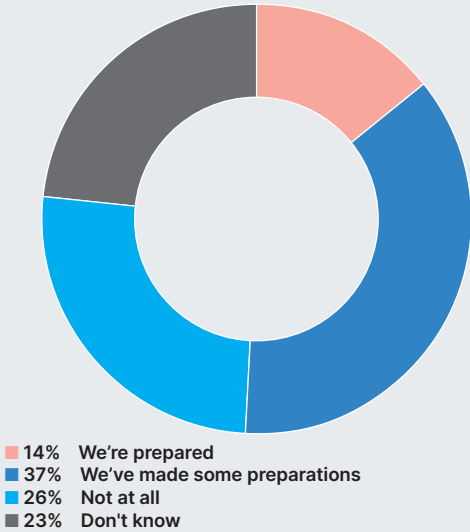
Another noted: "AI will improve productivity in the industry. A few jobs may be lost, but this does not mean unemployment will increase: this is where human upskilling will be required and jobs will then be created in fields where it's not possible for AI to work."

One respondent focused on the volume of data that projects now produce and the safeguards required: "The amount of data to be processed is increasing almost exponentially. This flood can no longer be processed by humans and requires machine support. We must not close our minds to such new technologies! Rather, we must actively define the standards, check their output quality alternately and not trust them blindly. The final decision must also remain with the human being in the future!" ►

Which of the following reflects your thoughts about AI's role in construction?



How prepared are you for the golden thread?



Can AI replace lawyers on construction contracts? See p54



Among those not convinced of AI's place, one respondent reflected: "Just because there is a technological alternative does not mean it is better."

Among the most pithy negative responses was this: "It's up there with driverless cars. Nuclear war anyone?"

Among other technologies already benefiting construction or expected to deliver benefits in the future, tablets and smart phones on site were the most popular: 82% of respondents ranked them four or five out of five for beneficial impact.

Also popular were: design for manufacture and assembly (71.5%); 5G on site (68%); drones (67.5%); and digital twins (60%).

#### Information mismanagement?

Debates about technology can appear too focused on the far future: what then of the near future? The survey also addressed preparations for the golden thread. Nearly a sixth (14.3%) said they are prepared for the golden thread, while more than a third (36.8%) said they have made some preparations. A little worryingly, fully a quarter are not prepared at all. The remainder of respondents were unsure.

Given that the golden thread affects all parts of the supply chain, it is again more than a little alarming to report that less than a third

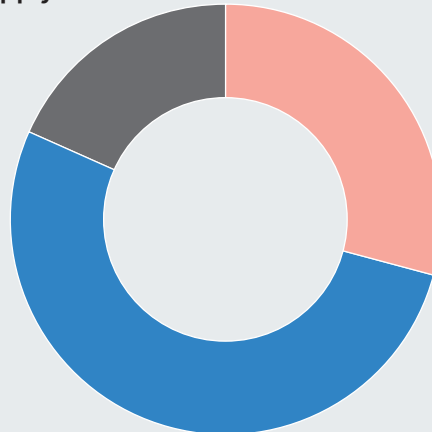
(29.3%) of respondents are satisfied with their supply chain's information management processes. Indeed, more than half are not satisfied.

One respondent said: "The supply chain is nowhere near ready for this. Most are only just getting to grips with tablets."

Another noted the clash between what the golden thread calls for and what the industry has historically produced: "Everyone is focused on structured data. Our recent work demonstrates that projects communicate in unstructured ways with 80%-plus

**One respondent said: 'The supply chain is nowhere near ready for this. Most are only just getting to grips with tablets'**

#### Are you satisfied with the information management processes in your supply chain?



29.3% Yes 52.6% No 18.1% Not sure

of all communication coming from those sources. Bringing together both is the key to unlocking projects."

One respondent highlighted the changes to roles and responsibilities arising from the Building Safety Act: "The input of the new principal designer under the Act must not interfere with or lessen the impact that the construction team's design manager can have on commissioning, handover and the golden thread. Design manager competence will obviously have to be recognised. The CIOB can lead on this."

Another respondent pointed out that construction is already operating with processes akin to the golden thread in safety-critical industrial sectors: "We have been doing safety cases and creating golden threads in nuclear, aviation, chemical process industries and to a limited extent rail infrastructure.

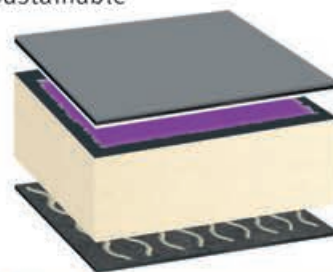
"I don't feel the built environment sector in general has explored and taken on board what has been learnt from other areas, something Dame Judith Hackitt seemed to envisage. Myself and colleagues have raised this at conferences and webinars, yet feel sidelined."

**For more on AI in construction, register for the Digital Construction Summit panel debate on the topic on 11 September. Go to [www.digitalconstructionsummit.co.uk](http://www.digitalconstructionsummit.co.uk).**

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# Smart thinking in Sydney

Laing O'Rourke CIOB member **Colin McCarthy** explains how an ingenious temporary platform solution helped upgrade a Sydney train station



**N**ecessity is the mother of invention, and it has helped our team deliver a first for Australia.

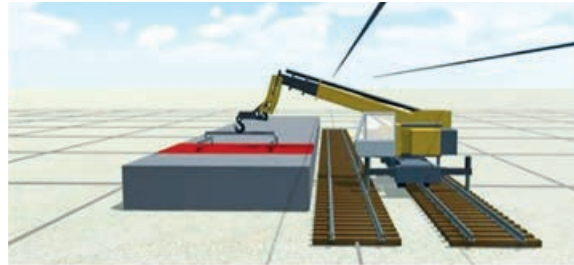
Transport for Tomorrow, a partnership between Laing O'Rourke, KBR and Transport for New South Wales (NSW), has pioneered the use of a temporary, modular railway platform surfaced with fibre-reinforced polymer (FRP) to help with a station upgrade.

Initially installed in June 2021 at Waterfall Station on the Illawarra line serving Sydney, the temporary platform was removed on approximately five occasions to enable construction activity to be completed in short opportunity windows and replaced for customer usage over a two-year period.

It may not sound very exciting, but the use of a light and manoeuvrable platform at an operational station was a major feat.

Transport for Tomorrow is delivering station, infrastructure and rail corridor upgrades between Sydney CBD and the south coast as part of a programme commissioned by Transport for NSW.

Construction activities have included: installing a new retaining wall along the corridor boundary to widen the rail corridor and provide more tracks; rearranging tracks on the western side to create a stabling yard; building a new staff amenity block; and connecting a footbridge.



▲ The temporary FRP-surfaced platform could easily be removed for access

◀ The platform was durable enough not to degrade with heavy use

All this had to be done while the station stayed open for regular passenger services.

### The challenge

An area of platform, covering about 100 sq m, had to go to enable access to the ground underneath for the installation of new footbridge foundations among other things.

However, as trains and passengers were still using the station, access to the end of the platform had to be maintained. Therefore, a temporary platform replacement that could easily be removed to facilitate work in limited possession windows, over a prolonged period, was needed.

It had to look like a permanent platform and be durable enough to not degrade over time and in heavy use, mitigating potential issues for the travelling public or station staff.

With help from engineer ADG, a temporary, removable platform was designed, 1.6m in height, surfaced with a fibre-reinforced-polymer deck supplied by Treadwell. It was modular, comprising five separate



**It was light enough to remove and replace quickly with small craneage. The team was able to get in and do what needed to be done with minimal disruption**

parts, with a temporary propping system supplied by Acrow.

Put together, it was structurally compliant and light enough to remove and replace quickly with small craneage. That meant the team was able to get in and do what needed to be done with minimal disruption.

The temporary platform did its job across a two-year period and has since been replaced with a new permanent concrete platform at Waterfall Station.

**Colin McCarthy is project manager for the Waterfall Stabling Yard and Platform Extension Project being delivered by Transport for Tomorrow, a partnership comprising Laing O'Rourke, KBR and Transport for NSW.**



# Increasing carbon literacy in the C-suite

Sustainability awareness is gaining momentum across built environment C-suites but progress in reducing construction's carbon footprint remains slow. Tech firm Cohesive and CIOB assembled a panel of experts, including low carbon working group Zero, to discuss how digital tools can help a faster transition towards net zero. **CM** reports

**T**he construction sector is responsible for 12% of all global carbon emissions: the equivalent of five billion tonnes of CO<sub>2</sub> per year.

With the 2011 Government Construction Strategy – which introduced BIM and five years later

made it mandatory on centrally procured public contracts – the industry was given a framework for a more sustainable future.

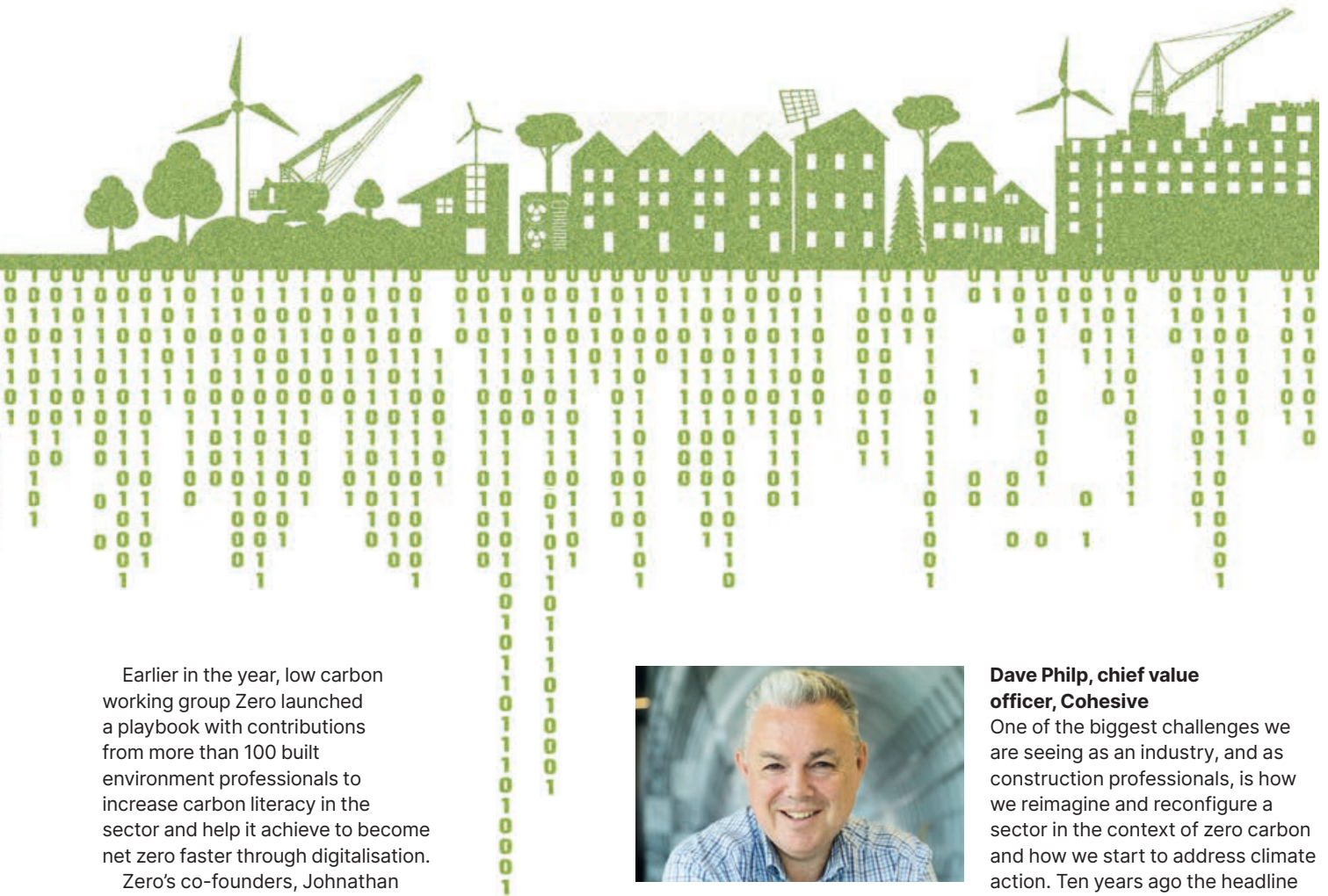
Paul Morrell, the first government chief construction adviser and author of that report, was one of the panellists at a round table hosted

recently by Cohesive to look at digital's role in cutting carbon. He noted that, although the political environment has changed, the fundamental challenge remains the same: "There is a need for urgent action," he said.

The panel agreed that a crucial issue in achieving progress is metrics: if construction wants to move forward, it needs to change its mindset on how it measures performance and outcomes. They emphasised the need for a balanced scorecard approach that considers multiple factors such as cost, social value, carbon and biodiversity.

However, panellists warned about the dangers of greenwashing and the need to engage younger and 'digitally native' generations in the discourse.

In association with **Cohesive**



Earlier in the year, low carbon working group Zero launched a playbook with contributions from more than 100 built environment professionals to increase carbon literacy in the sector and help it achieve to become net zero faster through digitalisation.

Zero's co-founders, Johnathan Munkley and Matthew Jackson, who joined the panel discussion, noted that although the playbook is "knowingly imperfect", it is "action-orientated" and "a place to start the conversation".


The panel concluded on a sobering note made by one of the panellists: during the one-and-a-half hour discussion, the construction industry had produced 850,000 tonnes of CO<sub>2</sub>.



**Dave Philp, chief value officer, Cohesive**

One of the biggest challenges we are seeing as an industry, and as construction professionals, is how we reimagine and reconfigure a sector in the context of zero carbon and how we start to address climate action. Ten years ago the headline would be 'we need to talk about BIM'. Today it is 'we need to talk about our planet'.

We need to talk about ESG (environmental, social and corporate governance) and what it means in the context of digitisation, and how can it help the built environment transition to net zero. We need a metrics-based approach in the baseline context but also for the whole-life performance of assets as well. ►

 **Ten years ago the headline would be 'we need to talk about BIM'. Today it is 'we need to talk about our planet'**

Dave Philp, Cohesive



**Paul Morrell OBE, chartered quantity surveyor and former chief construction adviser to the government**

Although the political environment is very different from that when government introduced its BIM mandate in 2010, the challenges remain the same: there's a need for urgent action. Action or the lack of it is where the two pieces of work I was involved in over a decade ago diverge.

The announcement of the BIM mandate was no longer a case of whether or even when – but rather of how. It stimulated both the construction and software markets. The general principle was that the path to progress would converge without stifling innovation.

Digitalisation provides us with the means to make the relevant calculations to understand how much carbon there is in construction and how we can get rid of it. It helps us decide between refurbishment and redevelopment.



**Paul Dodd, head of infrastructure technology and improving delivery, Scottish Futures Trust**

The step change that we are seeing in the industry is around the diligence and scrutiny of thinking about the approach to measurement of performance, both qualitative and quantitative – not just the soft stuff but also the hard.

As Lord Kelvin said: "If you can't measure it, you can't improve it." In doing that, the industry can move to a place where it creates the conditions to allow for digital to flourish.

The same challenges that may be happening within the ESG space are probably similar to what our industry has been looking to address for a while through information management. I think the same challenges are there, sitting around standards and information management: what are we measuring, why are we measuring and how we can measure it.

“  
There are a lot of organisations in the industry that don't get digital and how important it is to drive sustainability in the global sense

**Paul Morrell, former government adviser**



**Eddie Tuttle, director of policy, research and public affairs, Chartered Institute of Building**

At CIOB we have seen a change in prioritisation among the discussions that our members are having. We launched the Carbon Action 2050 initiative after Paul Morrell's report.

I think our industry tends to at times do the same thing, repeat the same processes and develop the same products. From the CIOB perspective, ESG and sustainability are among our top three priorities. They are well developed into our corporate plan and a big part of what we do in terms of external affairs.

When it comes to BIM, there's still a perception that it's a product as opposed to a way of working. There are a lot of organisations in the industry that don't get digital and how important it is to drive sustainability in the global sense.

I don't think the measurement argument around sustainability is yet fully understood. There's a role here for us as a chartered body to work with members and the industry towards understanding what it means in practice.



**Melissa Zanocco OBE,**  
**head of programmes,**  
**Infrastructure Client Group**

BIM is about transformation of the industry – a change of mindset. Instead of talking about ESG, we should be talking about better outcomes for people and nature. And, rather than talking about carbon, we should be talking about the global systemic challenges facing us.

I'm a bit suspicious of the term ESG: Is it a buzzword? Is it greenwashing? There's climate change and there's mitigation and adaptation. A lot of people don't know that we have already exceeded the limits in biodiversity whereas we've already got a few years to go with carbon.

We brought everyone together to define our vision for the built environment: that the explicit purpose of the built environment is to enable people and nature to flourish together for generations. When you are looking at global systemic challenges, you need everybody to work together. Systemic challenges all impact each other: if you improve biodiversity, you usually decrease carbon.

  
**Rather than  
talking about  
carbon, we  
should be  
talking about  
the global  
systemic  
challenges  
facing us**

**Melissa Zanocco,**  
**Infrastructure  
Client Group**



**Keith Waller, programme director,**  
**Construction Innovation Hub**

We need to have 'value surveyors' in the industry. Instead of measuring bricks laid and concrete poured, we should also be measuring how much carbon has been reduced, how much social value has been added to a project, the outcomes delivered...

We should be thinking about how we measure those things as a key element of what we do in construction. We're going to be focusing on small tactical interventions where we have an opportunity, with digital tools and a focus as a society, on delivering better outcomes from the huge investment we make in the built environment. We can then start to measure value in a way that really supports the built environment.

We should be striving towards initiatives that demonstrate lower carbon in production, and lower waste. But we also want to support that with macroeconomic thinking that says: if we have got a large pipeline of schools and homes to build, how do we do it in a way that is sustainable but also supports UK businesses to thrive?



**Sara Edmonds, head of citizen  
engagement, Built Environment –  
Smarter Transformation**

Environmental scientist Donella Meadows said that we measure what we care about and we care about what we measure.

These conversations can be very exciting but also quite frustrating at times. This frustration can happen when the wording in the systems, such as procurement, is aspirational.

Sometimes you get exactly what you had before. The words are not necessarily infiltrating as much within the belief structures of people and how it resonates with them.

This particularly happens in the retrofit space. There's a huge community-driven movement and initiatives springing up out of frustration for the lack of anything happening from the top-down side.

But, mark my words: the future of construction must be in the retrofit space. And that needs to be a revolution across the country in a very different way from the way that we've seen it happen so far.

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**DIGITAL  
CONSTRUCTION  
AWARDS**

# Best in tech

The most innovative built environment projects and people took centre stage at the 2023 Digital Construction Awards, organised by CIOB, DCW, CM and BIMplus, at The Brewery in London. Turn the page to find out who the winners were

**Sir Robert  
McALPINE**

**nima**

**BIMcollab®**

**GRAITEC**

**PROCORE™**

**Everwarm**  
Part of the Sureserve Group

**ZERO**



▼ The winning team from Sir Robert McAlpine, Purcell Architects and UK Parliament Strategic Estates received their trophy from Ollie Hughes of Digital Construction Week (front row, left), Rhys Lewis of Revizto (front row, second left) and Rob Beckett (far right)

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PHOTOGRAPHY: ASV PHOTOGRAPHY

# McAlpine's Elizabeth Tower makeover wins Project of the Year

Sir Robert McAlpine's glorious renovation of the iconic Elizabeth Tower in Westminster is the deserved winner of the Digital Construction Project of the Year accolade, sponsored by Revizto, for 2023

## Anyone passing through

Westminster in recent years could not fail to spot that one of its most famous landmarks was undergoing a major facelift.

After 160 years of pollution, weather and war damage, the Elizabeth Tower was in urgent need of an upgrade, and Sir Robert McAlpine was brought in to carry out extensive conservation work – underpinned by an incredibly complex and rigorous BIM strategy.

The five-year programme of work was the largest in the tower's history and included repairing and redecorating the cast iron roof, clock faces and high-level metalwork, repairing stonework and a comprehensive systems overhaul.

The BIM strategy had two key objectives: creation of a reliable digital asset register with both new and existing building fabric elements, plus creation of an asset information model for FM purposes.

Using drones and a point cloud survey, McAlpine's team were able to build a detailed model of the tower and capture information about assets in the facade and roof.

There are 3,433 components in the roof, all unique and it became clear that each would have to be removed and taken off site for restoration. McAlpine picked software provider Zutec to create a digital register to track assets as they moved through the construction process: removal, restoration off site, then reinstallation.

**Sir Robert McAlpine demonstrated use of different technologies to enable a complex restoration with reduced risks, and provided comprehensive data for both the project team and client**  
What the judges said

A dashboard collecting live data allowed the team to understand the works as they progressed.

The project required a complicated temporary works solution, with the tower cocooned in a 98m scaffold, which took six months to erect. This structure, on a site with a footprint of only 15 sq m and sandwiched between a busy road junction and Parliament, was designed in 3D prior to its assembly using McAlpine's in-house design team and its scaffolding supplier PHD Access.

On completion, McAlpine handed over the asset information models with COBie data, which cover the existing fabric and new maintainable assets that have been incorporated as part of the comprehensive systems resourcing. This will contribute to the eventual digital twin of the Palace of Westminster estate.

The knowledge gathered has been widely shared on industry forums and will inform BIM use on other conservation schemes.

Charlotte Claughton, senior project leader at UK Parliament Strategic Estates, Cristina Ruiz Nolasco, senior digital construction manager at Sir Robert McAlpine, and Andrew Dobson, partner at Purcell Architects, said: "It's been unique and a learning curve for everyone – the client, the design team and the trades. We've got now a good record of repairs that can be used for future works and refurbishment of the Houses of Parliament."

## Digital Construction Project of the Year shortlist

- The digital journey from construction through to facilities management, Symetri with Stepnell and the University of Worcester
- Conservation of Elizabeth Tower, Sir Robert McAlpine with UK Parliament Strategic Estates and Purcell Architects
- Park East, Buildots with Wates and Orbit Homes South
- The IMA digital pods, IMA Architects
- Water for Life Hampshire, Mott MacDonald with Southern Water, Stantec, AECOM, WSP and Arcadis
- 40 Leadenhall Street, Glider with Mace, Arcadis, Make Architects, M&G Real Estate, Nuveen



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**CONGRATULATIONS TO THE ELIZABETH TOWER**  
**Sir Robert McAlpine**

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[revizto.com](https://revizto.com)

▼ The winning team of Laminar Projects and EKFB received their trophy from Casey Rutland (second left) and host Rob Beckett (far right)



## EKFB and Laminar win Best Use of Data

Laminar Projects' approach to digital transformation for the EKFB JV, working on HS2 Phase 1, was a compelling winner of the Best Use of Data on a Project award, sponsored by nima

**On the complex HS2 project, data** was always going to be a challenge. First, there were many siloed systems across multiple organisations: three in the Eiffage, Kier, Ferrovial and BAM Nuttall (EKFB) joint venture, one from HS2 and another among the supply chain-controlled deliverables. This made informed decision-making extremely difficult.

Second, a system infrastructure was required to handle the high volumes of data generated. The EKFB team had been using SharePoint Lists, but it was not suitable for the HS2 project.

Third, existing processes had been developed using traditional, sequential ways of thinking rather than embedding digital technology

in the process from the start. This often generated additional work for people to administer or populate the various systems.

Fourth, Laminar wanted to avoid issues arising from poor data quality and control on such a large project.

Ultimately, Laminar built a cloud-based data warehouse (hosted on Azure) with live pipelines from data in the siloed project systems. This enabled timely access to the latest project information and was able to accommodate the high data volumes.

Via Power BI, project stakeholders can access interactive dashboards with information about how processes and key deliverables are progressing. The dashboards also highlight data inconsistencies.

This showed how a different approach to managing data, integrating data sets and applying a whole array of different technologies and capabilities is required. A comprehensive solution to a common problem, executed well

What the judges said

The benefits of Laminar's approach are impressive:

- Time saved through automation of data collection, report generation and improved key data access is estimated to provide project savings of 85 FTEs or £10.3m annually.
- The data warehouse has grown from three to 26 tables and increased data stored by a factor of 8.5. This provides a single source of truth across six project systems spanning three organisations.
- A single source of truth for data enables identification of inconsistencies and data errors, and has improved collaboration between teams. This is estimated to save 209 hours per week of people's time.
- Timeliness of information due to continuous collection is crucial in helping EKFB and its supply chain improve design coordination and identify process bottlenecks, minimising design errors and construction delays.

Lucy Rowsell, head of information management at EKFB JV, said: "It's a very user-friendly solution to put in place on a project which is absolutely vast in scale, so I'm very excited about winning tonight."

Stephen Herd, director of data and digital at Laminar Projects, added: "We are confident that our solution can be used more by other companies and projects within the construction industry."

### Best Use of Data on a Project shortlist

- Baird Family Hospital & ANCHOR Centre Aberdeen, Graham Construction with NHS Grampian
- Digital transformation for EKFB information management on HS2 Phase 1, Laminar Projects with EKFB (Eiffage, Kier, Ferrovial and BAM Nuttall)
- Information management tool, NG Bailey
- Royal Bournemouth Hospital, Buildots with IHP (Vinci Construction/Sir Robert McAlpine) and University Hospitals Dorset NHS Foundation Trust
- Skanska Costain Strabag JV and Esri UK, Smart permit to dig on HS2, Esri UK with SCS JV, HS2
- Using AI and ML to facilitate sustainable city design at Arup with Amazon SageMaker, Amazon Web Services with Arup

▼ The winning team from L Lynch, Safety Shield Global and SCS JV received their trophy from Lesley McLeod of the Association for Project Safety (centre) and comedian Rob Beckett (far right)

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# L Lynch wins Health, Safety and Wellbeing award

L Lynch, Safety Shield Global and SCS JV's autobraking on dump trucks technology won the Digital Innovation in Health, Safety and Wellbeing category, sponsored by the Association for Project Safety

**L Lynch decided to find a solution** to one of the top fatal risks within construction industry – the people-plant interface – and came up with an intelligent autonomous collision avoidance system able to reduce accidents in the industry.

After conducting extensive market research, Lynch and the Skanska Costain Strabag (SCS) JV concluded that an off-the-shelf solution was not readily available and a bespoke system would need to be developed.

Lynch approached plant software specialist Safety Shield Global to find out if its AI collision avoidance system could be developed to support an autobraking system.

The first stage of the project involved the use of simulation of the CAN bus (the vehicle's black box), developed by articulated dump truck (ADT) manufacturer Bell Equipment, to allow the AI technology to communicate with the ADT and 'shake hands' with the commands asked of it. After trialling, the bespoke system was installed on an ADT.

**“Lynch was able to demonstrate impressive safety improvements. The work was based on good preparatory research and was well documented. This is an excellent example of where technology can be deployed across the industry to reduce one of the biggest risks**  
What the judges said

The system integrates the AI human form recognition host unit with high-definition waterproof and shockproof cameras, starting detection at 60m distance from the machine. Autonomous braking begins from 10m, and the machine comes to a controlled stop at a 2m distance.

Rigorous tests were conducted, allowing the proof of concept to be trialled in real-life conditions.

During the first weeks of trialling, the findings from the passive data identified 664 incidents relating to people-plant interface. This resulted in the team reviewing and adapting the site set-up. After reconfiguring paths and haul roads and looking at site access, they saw a reduction in incursions to 30 alerts a day.

John Marley, senior works superintendent at SCS JV, said: “Although we didn't expect to win tonight, we put a hell of a lot of work into it and feel like we deserve it. A year ago we were talking about the concept and tonight we are collecting an award. It's really rewarding, not just for us, but for the whole industry.”

Jonathan Guest, CEO at Safety Shield, added: “It's been a jolly collaboration and it's been hard work. We delivered something really great in a very short period of time. We've created something that is saving lives and stopping collisions on sites. We've taken the first step in the journey of the way the industry is going.”

## Digital Innovation in Health, Safety and Wellbeing shortlist

- People-operated plant managed service desk, Aecom with Anglian Water and Balfour Beatty
- Autobraking on dump trucks, L Lynch with Safety Shield Global and SCS JV
- Digital ladder permit system on Hinkley Point C, DataScope Systems with NNB Temporary Works
- Paterson Building, Imtech Engineering Services
- HARM Zero at Manchester Aquatics Centre, Safer Sphere with Manchester City Council and Kier Regional Building Northwest
- The future of modern contracting, VR health and safety training, Winvic Construction



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## FM Conway's Lauren Parsons is Rising Star of 2023

Lauren Parsons, business analyst with FM Conway, was the deserving winner of the Rising Star accolade, sponsored by the Chartered Institute of Building

**Since joining FM Conway from the retail industry six years ago, as a business support administrator, Lauren Parsons has risen to the post of business analyst, playing a vital role in the company's rapid embrace of digitisation.**

When she arrived, the infrastructure services contractor had just begun deployment of

the innDex digital workforce management platform, which it uses on its high-profile contract with Westminster City Council. Lauren's systemic approach, tracking progress and prioritising the development backlog, helped the contractor move away from spreadsheets and fragmented communication.

**Lauren shows it's possible to come into a construction business from another industry and, through smart use of digital tech and a willing attitude, quickly become a valuable member of the team**  
What the judges said

Thanks to Lauren's efforts, the deployment of innDex across all new projects is showing impressive efficiency gains. Progress photos that previously took up to an hour to take and upload are now being completed in seconds. The adoption of digital site diaries has reduced reporting time by 50%. The structures division which Lauren works for has transitioned to paperless site operations and more streamlined project management.

Lauren's ability to utilise new tools to meet the demands of any project has played a key role in FM Conway's digital transformation

Lauren has shown impressive insight into the specific requirements of individual projects, using innDex to implement a range of digital solutions, ranging from clocking-in and clocking-out of the workforce, to daily site briefings, to uptake of asset management and inspection tools. She has also worked with the software provider to introduce usage reports for the entire structures division, using data analysis to spot behavioural trends and relay development suggestions.

Her understanding of digital technology and ability to utilise new tools to meet the demands of any project has been hugely significant in FM Conway's digital transformation.

"This comes as such a surprise, I didn't expect this award tonight," Lauren said.

Reflecting on the changes she would like to see in construction over the next decade, she added: "Although a lot has changed since I joined the construction sector, there's a lot to do still, particularly when it comes to women, BAME, LGBT+ ... At FM Conway we have good initiatives like forums and we are trying to go a step further."

▲ Lauren Parsons of FM Conway collected her trophy from Karolina Orecchini of Digital Construction Week (far left), Caroline Gumble of the CIOB (second right) and comedian Rob Beckett (far right)

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# Su Butcher is Digital Champion of 2023

Programme manager at BIM for Housing Associations, project manager of the plain language guide editorial board at the IET, and a great many other roles besides – Su Butcher is the deserving recipient of the Digital Construction Champion of the Year accolade, sponsored by BIMcollab

**Su Butcher champions digital to non-advocates.** In doing so, she challenges advocates to practise genuine interoperability and collaboration and to look outside the sector. She mediates between manufacturers, built environment professionals and technology specialists with plain language, constant listening and questioning. She facilitates productive and inclusive conversations.

Su has facilitated many initiatives as author, instigator or key participant:

- *A Fresh Way Forward for Product Data: State of the Nation for the UK BIM Alliance* in 2018;
- *Digitisation for construction product manufacturers – a plain language guide* for the Institution of Engineering and Technology in 2021;
- BIM for Housing Associations Toolkit in 2021 and 2022; and
- the Apollo Protocol white paper and Apollo Forum events this year and last year.

The shocking disclosures of the Grenfell tragedy showed it is critical for product data to travel effectively through construction to operations. In December 2017, Su voiced this concern to Dr Anne Kemp OBE, who persuaded her to chair a working group to write *A Fresh Way Forward*, describing the problem and advocating for change.

Su was approached by Jack Ostrofsky (then at Genesis Housing Association), and they established BIM for Housing Associations



▲ Su Butcher received her trophy from Ollie Hughes of Digital Construction Week, Leon Nouwen of BIMcollab and comedian Rob Beckett (far right)

(BIM4HAs), dedicated to educating the sector in effective information management.

The BIM4HAs Toolkit, which adapts the UK BIM Framework, has been downloaded more than 1,600 times. The community, numbering 400-plus members and 130-plus housing associations and local authorities, is collaborating to meet the requirements of the Building Safety Act, all facilitated by Su.

Following the work on product data, she was approached to write a plain language guide (PLG) to help manufacturers digitise. The guide sets out the importance of structured data, the benefits of digitisation and a step-by-step implementation process.

The latest initiative is the Apollo Protocol, where Su applies her skills to the challenge of cross-sector digital twins. Advocates in different sectors use different languages and have different priorities.

The culmination of this work has been an Innovate UK-funded series of eight collaborative events, which Su and her colleagues devised to help technology, built environment and manufacturing specialists foster productive conversations. She is now writing the open-source operating principles and methodology for these popular forums.

She continues to push for better communication and to ask the difficult questions: Why isn't change happening? What can we do about it?

Su said: "Collaboration in the industry sector is essential. It's about looking at the whole information journey throughout the construction cycle and for this digitalisation is very important.

"It's about ensuring that manufacturers provide product information in the supply chain to the contractors and asset managers. This is not just about buzzwords like the 'golden thread': it's about having protocols, developing a common language, knowing who owns the data, audit trails... There's a lot of work to be done and digitalisation play a fundamental role in this."

She concluded with advice to colleagues in the sector: "Step out of your comfort zone, that's where I've done all my learning."



**She continues to push for better communication and to ask the difficult questions: Why isn't change happening? What can we do about it?**

**What the judges said**

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▼ The winning team from Graham received their trophy from Ollie Hughes of Digital Construction Week (far left), Denise Fitzgerald of Procore (third left) and comedian Rob Beckett (far right)



## Graham is Contractor of the Year

Graham's re-evaluation and transformation of its digital construction strategy, with a clear people focus, was singled out for acclaim by the judges who gave the company the Contractor of the Year prize

**Graham decided to re-evaluate its** digital strategy during 2022 and the outcome is an outstanding example of tech transformation in a construction business.

The top 20 contractor made a conscious decision to put its site teams at the centre of its thinking and the result was the introduction of its Site Centric Initiative and the Graham Asset Intelligence System.

The new strategy was prompted by a desire to remain agile and innovative in its use of data analytics and onsite digital solutions, while meeting the growing digital requirements of its clients, such as the golden thread, in a more sophisticated way.

Site Centric aims to improve collaboration, engagement and connectivity for its site workforce.

One of its features is a progress tracking solution allowing visualisation of projects including their live status. Programmed activity can be viewed close to real time (within 1.5 hours of completion of the activity), compared to a traditional eight-to-10-hour delay.

Site Centric also included implementation of H&S Cora – a bespoke health and safety solution that allows real-time logging of observations, accidents, disciplinarys and root cause analyses reporting.

Graham has engaged and upskilled over 500 people through Site Centric, as well as delivering a second wave of training to clients and its supply chain.

The strategy has resulted in increasing collaboration, improved site connectivity by 40% and delivery

### Digital Contractor of the Year shortlist

- Digital by default, Kier
- Browne-Digital, Browne
- Site Centric and Graham asset intelligence digital transformation programmes, Graham
- Mott MacDonald Bentley
- PCE
- Let's get digital, Taylor Woodrow

**A practical and well-evidenced approach that has clearly led to some big benefits. A very impressive approach to training and development – clear thought has been given to the most appropriate method and substantial numbers of staff have been trained**

What the judges said



of measurable efficiency gains scaled across operations, including reducing site data processing time from hours to minutes.

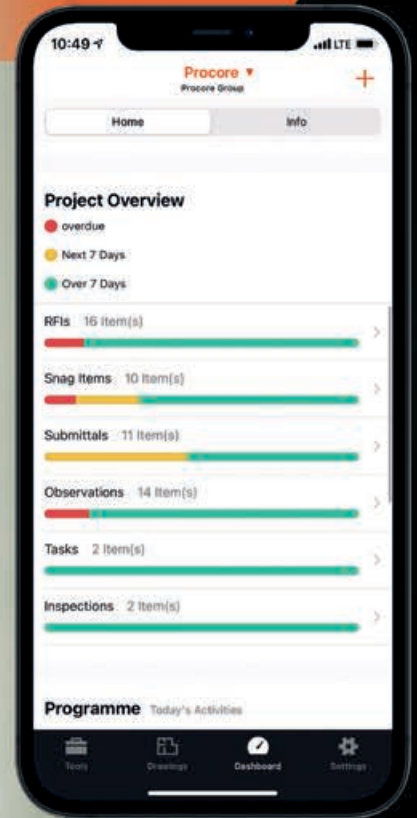
Graham's Asset Intelligence System is a cradle-to-grave solution covering the full asset life cycle, overhauling traditional processes for managing reactive repairs and planned preventive maintenance. It adheres to ISO 19650 and golden thread principles and is fully auditable and transparent, allowing all asset information to be visible to clients.

Graham now has the capability to offer full integration with its clients' CAFM systems. Dashboard reporting enables visibility of large and complex client estates.

In the last year, Graham has processed over 200,000 requests using the system, allowing it to mobilise an instant response. Benefits include a 400% reduction in time on planned preventative maintenance.

Lorraine Harrison, director of IT services at Graham Construction, said: "Technology is advancing at such a fast pace. For us, it will probably mean more of the same, but also adopting any new technology that comes along. Digital is going to be the driving force of the construction industry to boost efficiency and productivity and bring more value to the sector."

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# Laing O'Rourke team wins collaboration category

A partnership of Laing O'Rourke, BDP and Solibri won the Digital Collaboration of the Year award, sponsored by Bluebeam



► The winning collaborative effort from Laing O'Rourke, BDP and Solibri received their trophy from Justin Stanton of BIMplus (far left), Pratik Patel from Bluebeam (third left) and comedian Rob Beckett (far right)

**A great example of how cross-discipline collaboration can achieve a solution that has the potential to benefit the whole industry. This is collaboration at its very best**  
What the judges said

**The construction of Everton FC's** new stadium provided Laing O'Rourke, BDP and Solibri with the opportunity to implement a digital solution that has brought together previously fragmented parties.

During the project, Laing O'Rourke, BDP and software provider Solibri developed a solution that has bridged the gap between design requirements and installation and given end-users genuinely useful data to maintain their building.

Not only that, the companies believe that their work also has the potential to foster greater collaboration throughout the construction industry.

Laing O'Rourke and BDP worked with Solibri to create an extension

to existing technology (Solibri Office) that enhances fire safety.

The application, called Fire Stopping of Service Penetration Checks, has enhanced collaboration threefold:

- it unifies responsible parties (eg, fire engineers, designers and installers) by requiring the latter to adhere to manufacturer specifications;
- it encourages ownership by reducing the level of resources required to implement a robust fire safety process; and
- it continually provides end-users with safety information that is 100% validated to help safely operate the building.

The Everton FC new stadium project team has used Solibri's digital solution to capture outcomes from early collaboration in the design process and translate them into installation instructions that subcontractors must adhere to.

Laing O'Rourke, BDP and Solibri are now exploring whether they can continue developing the technology and its application to create a free, industry-wide database that contains system information, such as product capabilities and constraints.

The companies believe sharing this information has the potential for the industry to work together with the goal of making buildings safer.

Ceren Evin Erkan, BIM manager at BDP, said: "This project was a first in the industry, we worked incredibly well together and shared everything."

Estefania Alves, lead digital engineer at Laing O'Rourke, added: "We collaborated as a team who are delivering a project, but we always had in mind as well that we were delivering something special for the industry, a solution that could be applied across the sector and not just our project."

## Digital Collaboration of the Year shortlist

- Baird Family Hospital and ANCHOR Centre Aberdeen, Graham Construction with NHS Grampian
- Component tracking in complex supply chains: HMP Millsike, Kier with PCE, Ministry of Justice and Ynomia
- Kidsgrove Station – managing risks from legacy mining, Arcadis and Esri UK with Galliford Try and Network Rail
- M42 Junction 6 improvement scheme, Skanska
- The People's Project – New Everton Football Stadium, Laing O'Rourke with BDP and Solibri
- Water for Life Hampshire, Mott MacDonald with Southern Water, Stantec, Aecom, WSP and Arcadis



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**ZERO**



## Bond Bryan Digital is Consultancy of the Year

Bond Bryan Digital was the clear winner of the Digital Consultancy of the Year category, sponsored by Zero

**Bond Bryan Digital impressed the** Digital Construction Awards judges with its 'information first' approach and joined-up thinking, starting with a project's requirements and running right through to delivery.

For clients, this means good information management is being embedded into their organisations and becoming 'business as usual'.

The consultant is leading the industry through its joined-up use of the ISO 19650 standard for management processes, coupled with the IFC (Information Foundation Classes), for information management.

Bond Bryan Digital's work for the Department of Education (DfE) has attracted acclaim, notably on the GenZoo project – to create a

prototype for net zero schools – where it assessed and developed exchange information requirements and resources.

The consultant also helped the DfE write a suite of ISO 19650 compliant information management resources for their £7bn construction framework. They helped define explicit and clear deliverables to be delivered at every RIBA stage of the framework.

In a spin-off benefit from its DfE work, Bond Bryan Digital was approached by Galliford Try to support all its projects in the £6m-£12m band, working on bids and the delivery phase of all successful tenders. Since early 2022, the consultant has been working across seven school

### Digital Consultancy of the Year shortlist

- Bond Bryan Digital
- Building a smart estate for Manchester Foundation Trust, BIS Consult
- Digital transformation of a global bank's property function, CBRE Digital Advisory
- Evolve
- Digital transformation for EKFB information management on HS2 Phase 1, Laminar Projects
- ONE Creative Environments

**An excellent organisation with great people doing the right things and developing the right tools to drive the industry forward in its digital capability and interoperability**  
What the judges said



projects to deliver information in accordance with DfE requirements.

Other major clients it has worked with, to develop suites of ISO 19650 compliant information management resources, include Southern Housing Group and the Ministry of Justice.

Besides innovative work with its own clients, Bond Bryan Digital plays a significant role in advancing tech adoption across construction. It shares knowledge from its own projects and R&D through initiatives such as the UK BIM Framework and Government and Industry Interoperability Group (GIIG).

Its ambition is to "show the industry what best practice looks like and help push the industry forward so that requirements are far more robust and ensure that clients receive the right information at every stage of an asset's life".

"What makes us the Digital Consultancy of the Year is that everything we do, we do it for the industry: we help guide the industry and share best practice," said Emma Hooper, associate director at Bond Bryan Digital.

Bond Bryan Digital director Rob Jackson added: "A lot of the work we do is in public sector projects and it's available for everyone to see. We talk about it in presentations, case studies, blogs... We share what we do with the wider industry and not just keep it to ourselves. For us, the reward is seeing other people following what we are doing."

A photograph of two young men standing on a rooftop, looking out over a city skyline at sunset. The man on the left is wearing a green shirt and the man on the right is wearing a pink shirt. They are both looking towards the right, where a large, modern skyscraper is visible. The sky is a mix of orange and blue. The city skyline includes various buildings and a body of water in the distance.

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**Sir Robert  
McALPINE**

# Skanska triumphs in net zero category

Skanska's 5D+ BIM tool won the Delivering Net Zero with Digital Innovation award, sponsored by Sir Robert McAlpine

**Skanska has developed an** innovative digital process that integrates a variety of cutting-edge digital solutions to help it achieve net-zero carbon in its projects as well as its supply chain by 2045.

An online platform for creating and sharing relational databases collects and calculates carbon factor information, which, through automatic pipelines, is integrated with Skanska's 3D models. This enriches the existing 3D models with carbon data, enabling the company to interpret its project's 5D+ model as a single source of truth and generate a structured database that can be used for data analytics.

The outputs of the 5D+ BIM process has helped Skanska to increase the efficiency of modern methods of construction to reduce

carbon in projects by up to 17%. It also helps the company to keep track of a project's carbon emissions based on its design programme and cost. It also helps Skanska to build up its data foundations to enable the use of artificial intelligence and machine learning to advise clients on carbon reduction decision-making processes in future projects.

The process has been so successful that British Land approached Skanska to ask if it could publicly release its algorithm so the developer can use it for its projects.

Another of the process's achievements is the development of a 5D+ BIM-led structured database around steelwork.

Skanska UK's Goulielmos Floros, graduate of digital solutions and data specialist, and estimator

Daniel Shaw said on receiving the award: "What was unique about our project was the strategy: we used our in-house knowledge to create an in-house tool utilising all of Skanska's intelligence and expertise to create a system that can help the industry become net zero."

**The use of programming and automation, reuse of data and building up layered knowledge of carbon information within typical construction processes and construction manufacturing processes is a real achievement. A good demonstration of how data is knowledge and can drive core decision-making, especially in the drive to net zero**  
What the judges said

## Delivering Net Zero with Digital Innovation shortlist

- AI-based embodied carbon calculator, Winvic
- Digital twin modelling for climate-resilient housing, IES
- DAISY: early-stage multi-objective optimisation using artificial intelligence to reduce carbon when it matters most, WSP
- Skanska's transformational journey to net zero through redefining the 5D+ BIM dimension, Skanska
- Solibri Inside, Nemetschek Group (Solibri, ALLPLAN, Graphisoft and Vectorworks)
- Transport & logistics, EPD Insulation Group



◀ The Skanska team collected their trophy from Karolina Orecchini of Digital Construction Week (far left), Nick Leach of Sir Robert McAlpine (second left) and comedian Rob Beckett (far right)

A detailed photograph of the Elizabeth Tower clock face in London. The clock face is large and circular, with a white background and blue Roman numerals. It is surrounded by ornate gold-colored metalwork and Gothic architectural details. Above the clock face, there are several small white flags with red crosses. The background is a clear blue sky.

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# Laing O'Rourke takes productivity prize

Laing O'Rourke and its team won the Digital Innovation in Productivity award for their revolutionising of reinforcement design on Everton FC's new stadium



▲ The winning team from Laing O'Rourke collected their trophy from Will Mann of Construction Management (far left), Alex Micallef from Graitec (second left) and comedian Rob Beckett (far right)

## Laing O'Rourke, along with

Trimble, Kashec and FAB Formwork and Reinforcement, identified an opportunity to revolutionise reinforcement design on the Everton stadium project, removing paper from the process and replacing it with an intelligent, user-friendly, more certain 3D approach. Specifically, the contractor's goals were:

- improving the speed at which designs were marked up;
- enhancing the accuracy of design mark-ups;
- and helping people who were reviewing the design to understand it.

The R&D was carried out by the digital construction lead and

a reinforcement fixer with 15 years' experience.

Trimble Connect was identified as the best solution and was tested with the reinforcement fixers.

Using Trimble Connect enabled:

- a workflow that suited a full 3D reinforcement design review by the structural consultant Buro Happold;
- a 3D model that was easily usable by the on-site steel fixers;
- a model that required minor resources to prepare, detail and be fixable by the reinforcement detailers, Kashec; and
- a model that required minor changes to be understood and communicated with the workforce.

## Digital Innovation in Productivity shortlist

- Buildots, Buildots
- HMP Millsike, PCE with Ynomia
- Enquiry process improvement, BAM with Bidwork
- Field-derived automated reporting, Taylor Woodrow
- The People's Project – New Everton Football Stadium, Laing O'Rourke with Trimble, Kashec and FAB Formwork and Reinforcement
- Plymouth City Council's new crematorium The Park, Kier

This is a really good example of disrupting a broken, expensive and often opaque project delivery process with people and digital skills at the heart of an outcome-based innovation

What the judges said



Laing O'Rourke found the measurable benefits to be compelling. The contractor has saved 550 worker hours on preparing mark-ups and drawings by capturing all the interfaces on the 3D model. It is also 500% quicker when ordering reinforcement by automatically creating order schedules just by clicking on parts of the 3D model.

And document control time has been reduced by 33% by delivering the requisite information quicker. Furthermore, steel fixing is approximately 30% quicker.

Gregory Deane, section engineer at Laing O'Rourke, and Ellis McNulty, senior engineer at Expanded, said: "There were some great nominations out there, but what we all have to do, everyone that was in the Digital Construction Awards room, is to make a pledge to put digital first."

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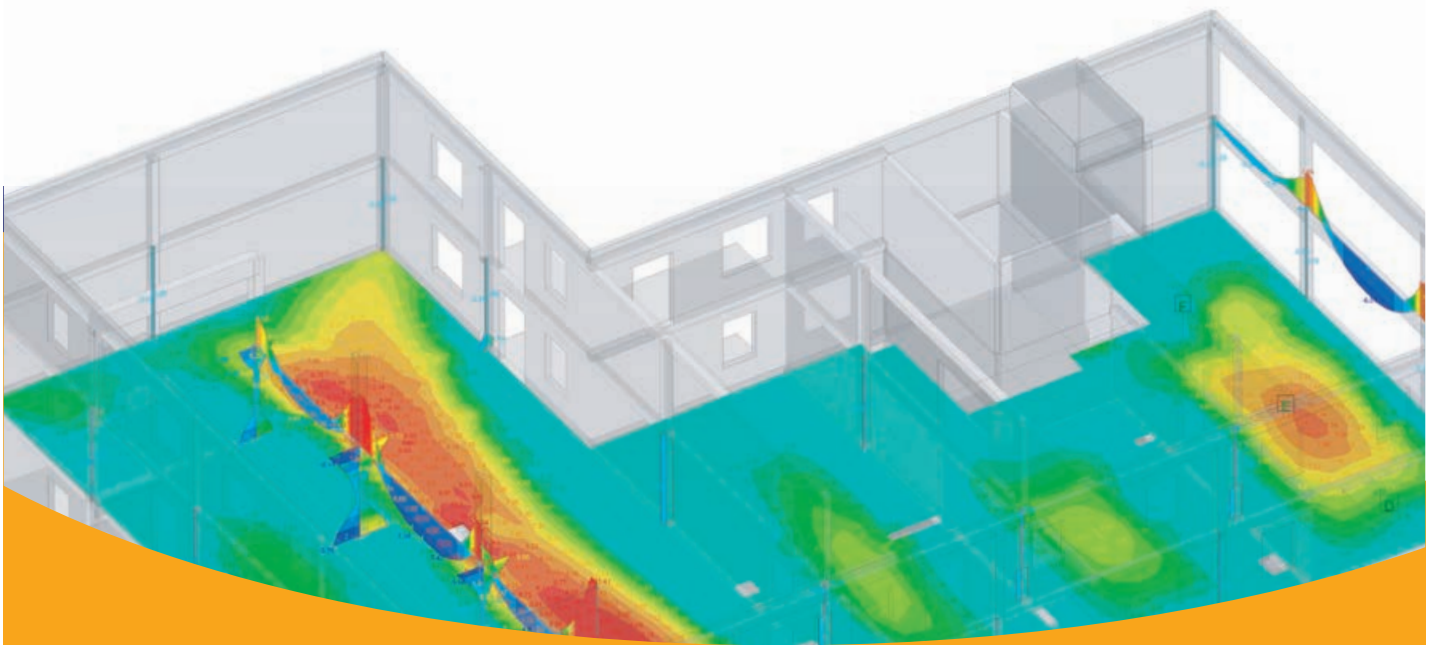
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# Faithful+Gould is Best Application of Technology winner

Faithful+Gould's Local ID tool won the Best Application of Technology category, sponsored by Everwarm,



▲ The Faithful+Gould team collected their trophy from Will Mann of Construction Management (far left), Suha Jaradat of Everwarm (second left) and comedian Rob Beckett (far right)

**Created in-house by teams in** London and Bangalore, Faithful+Gould's Local ID tool gives developers and local authorities the power to leverage a wide range of data so that they can analyse, improve and optimise their housing developments (including associated infrastructure) and investment.

Demographic data, for instance, can improve the placement of new housing estates, schools and GP surgeries, easing the pressure on local infrastructure. Knowing the

incomes, lifestyles and needs of the locality allows developers to turn generic plans into bespoke solutions, making them more targeted and efficient, which in turn can tilt the business case in favour of development. Local ID also provides statistics around modes of transport, which can help in making crucial decisions regarding transport infrastructure in localities.

"This was a great example of the determination and curiosity needed to make a positive

**In its initial stage, the tool comprised a Power BI front-end with Excel as the underlying database**  
What the judges said



difference to the communities in which we all play, live and work. A stand-out submission."

Upon successfully demonstrating the functionality, Faithful+Gould realised a more stable environment was necessary to host the data so the tool could be scalable and sustainable.

Considering the volume and complexity of the data, and the intended usage in future, Faithful+Gould decided to use Azure Data Factory for data ingestion, storage and carrying out analysis using AI and machine learning.

Since its soft launch, it has been used on major schemes, including the Portsmouth city centre regeneration scheme and a new estate in the London Borough of Enfield.

Faithful+Gould's Rebecca Petas, senior development project manager, and Harsh Vardhan Jakharat, senior information manager, shared their joy after collecting the award: "We hoped that we had a good chance to win tonight, but there were a lot of other great projects out there.

"We recognised that when we work with public money, it's very important to drive efficiencies and that we are spending it in the right places."

## Best Application of Technology shortlist

- Building a smart estate for Manchester Foundation Trust, BIS Consult with Manchester University NHS Foundation Trust, Morta, Esri UK and Concerto
- Component tracking in complex supply chains: HMP Millsike, Kier with PCE, Ministry of Justice and Ynomia
- Designing in efficiencies – how augmented reality has streamlined the design process, McAvoy Group with Korec Group
- Digital Thumbs Up, L Lynch with Safety Shield Global
- Heathrow Airport – water leak detection solution, Ramtech with Mace, Heathrow Airport and Wingate
- Local ID, Faithful+Gould
- Plymouth City Council's new crematorium, The Park, Kier
- WholeHouse, Travis Perkins



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# Balfour and Atkins win asset management award

Balfour Beatty Atkins won the Digital Innovation in Asset Management category, sponsored by IWFM, for its work on the A19 Norton to Wynyard project in the north east



◀ The winning team from Balfour Beatty Atkins and National Highways collected their trophy from Karolina Orecchini of Digital Construction Week (second left), Steve Tomkins of the IWFM (third left) and comedian Rob Beckett (far right)

## Digital Innovation in Asset Management shortlist

- A19 Norton to Wynyard, Atkins with Balfour Beatty and National Highways
- Better building information management, Faithful + Gould with Atkins and the Government Property Agency
- Building a smart estate for Manchester Foundation Trust, BIS Consult with Manchester University NHS Foundation Trust, Morta, Esri UK and Concerto
- ONE Engage, ONE Creative Environments with Totus Digital
- Innovating with scan to BIM to meet the Golden Thread, Orbit Housing with Parametrix
- People-operated plant managed service desk, Aecom with Anglian Water and Balfour Beatty

**Balfour Beatty Atkins (BBA) pushed** new boundaries in the handover of major highway projects to the maintenance contractor through its work on the A19.

BBA used the data-rich 3D project information model developed throughout design and construction to hand over a robust and accurate digital twin. The digital twin contained all newly constructed and existing highway elements present, such as pavement, barriers, lighting and drainage – geospatially positioned to their real-world coordinates. There were 4,500-plus newly constructed or modified elements.

Each element also contained all asset data required by the client and maintainer, which allowed the digital twin to form the primary maintenance and asset management record for the project. This significantly reduced

the requirement for physical 2D drawings and drastically improved asset management workflows.

The entire digital twin and attached asset data was also viewable on mobile devices.

Benefits of this exercise included time saved from drawing/model production and the relevant check, review and approval process. This was estimated to have saved around 1,700 hours of project work with a fee saving of around £67,000.

BBA held a series of workshops with National Highways and the maintenance contractor to detail the benefits of a digital scheme handover. These were critical in paving the way for a handover agreement document, in which they agreed to adopt a digital handover using the digital twin as the primary as-built record for the scheme.

**The business case was delivered with excellence, truly befitting of such industry leadership, who have clearly consulted both with their client and people, all of whom remain on the same journey of excellence**

What the judges said



Atkins' Brian Russell, practice manager of the information manager's network, and Elliot Grubb, BIM development lead, said: "Innovation in asset management is a real testament of what can actually be achieved when you have data-rich models throughout design in construction to enable benefits.

"What was special about our project is that we were the only one on the shortlist using this digital model in a national highways setting."



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David Mason, Director of Scott Brownrigg Architects.



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# Brick facades and fire safety

This CPD, in association with IG Masonry Support, discusses the design and construction of brick facades, in compliance with Approved Document B of the Building Regulations, which covers fire safety. By **Jemma Ison**

**T**he Building Safety Act came into force in April 2023 to address the systemic issues in the construction industry that led to the Grenfell Tower catastrophe, where 72 people died.

While reviews are ongoing and further legislation is expected to be introduced, the initial regulatory response came in the form of Building Regulations Approved Document B (ADB) (Fire Safety) 2019 edition, which banned combustible materials in the external wall of buildings over 18m.

## Understanding new regulations

The regulations prohibited the use of combustible materials in the external walls of high-rise residential buildings exceeding a height of 18m. This includes dormitories in boarding schools, student accommodation, registered care homes and hospitals above the 18m threshold.

Furthermore, the new regulations apply to cases where building work

constitutes a “material change of use” that places an existing building into one of these designated categories.

However, the legislation includes transitional allowances to consider existing scenarios. The restriction does not apply in instances where a building notice or initial notice was submitted to, or full plans were deposited with, a local authority before 21 December 2018, when the legislation came into effect.

Nevertheless, this exception only stands if the building work had already commenced within two months of this date.

## Tall building design

The demand for resilient buildings using non-combustible materials has seen traditional products in the form of brickwork increasingly used in buildings exceeding 18m.

Although its origins date back thousands of years, brickwork as we currently know it became



**The regulations prohibited the use of combustible materials in the external walls of high-rise residential buildings exceeding a height of 18m**

popular around the time of the Industrial Revolution, when mechanised production increased its availability and boosted demand.

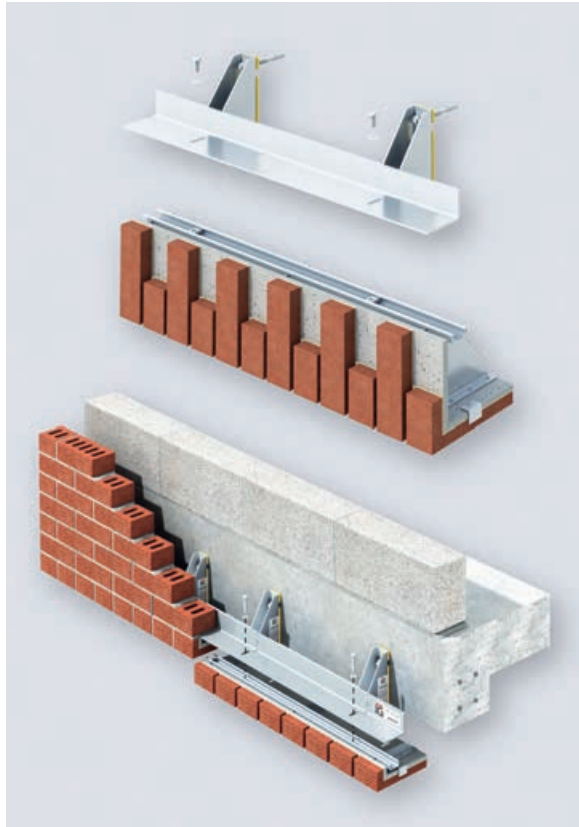
Brick has been used for buildings across many generations, mainly because of its consistent shape, compressive strength and ability to expand and contract with natural weather conditions. The Empire State Building in New York is reported to have been constructed from around 10 million brick units.

Architecturally, brickwork allows the creation of intricate detailing in the form of brick soffits, deep reveals and flying beams, enabling designers to create complex facades.

Over the past decades other facade solutions, such as rainscreen cladding, have been increasingly widely used. Now traditional brickwork, though, is seeing something of a resurgence, partly due to the realisation that bricks offer a robust and fire-resistant facade solution. ►

In association with  Masonry Support





**Traditional brickwork is seeing a resurgence, partly due to the realisation that bricks offer a robust and fire-resistant facade solution**



materials such as brick. Brick has long been the go-to material in the UK, but these cladding systems became a quick and cost-effective way to create bright and modern-looking buildings.

However, with many cladding systems having to be replaced due to non-conformity to regulations and issues around fire performance, this has sometimes come at a cost.

This cost can be further compounded by modern cladding systems' ailing appearance; they can sometimes look tired and dated over time, while many brick facades look as impressive today as they did when they were created decades ago.

### Responding to new regulations

Products, other than floorings, are classified as A1, A2, B, C, D, E or F (with class A1 being the highest performance and F the lowest).

There has been much debate as to how construction could respond to regulatory changes – for example, having A1 fire-rated only systems or minimum A2 rated where A1 is not available to the market.

To meet the regulatory change, IG Masonry Support developed its own A1 independently tested fire-rated adhesive to meet its specific requirements. This non-combustible adhesive can

be used as a bedding compound and as a bonding agent.

The company also engineered BOSS+, an A2 fire-rated system suitable for use on projects that required Building Regulations Document B compliance – this was the second generation of its BOSS (Brick On Soffit System) product.

BOSS+ comprises a stainless-steel framework with a cement particleboard backing element to which brick slips are adhesively bonded and mechanically fixed. This BBA-certified solution was the first A2 solution available to the market in 2019.

### A1 fire-rated soffit system

IG Masonry Support's next step was to create a fully unrestricted, mechanically fixed and carbon-neutral product.

Its BBA-certified BOSS A1 brick slip soffit system is A1 fire rated and has been exposed to hygrothermal testing. As well as exceeding current fire regulations, the product is suitable for all applications regardless of the building's height or purpose.

The BOSS A1 system is fabricated off site. Once on site, it can be fixed to IG's Welded Masonry Support (WMS) and adjusted – giving a blend of offsite and onsite construction that provides brickwork contractors with an efficient method of creating detailing.

However, along with this comes the need to adapt to changes in regulations.

### A new direction

The recent changes to Building Regulations Approved Document B restricted the use of combustible materials in buildings over 18m, and have led to the exclusion of certain construction products.

This has been largely driven by the need to ensure that rainscreen cladding facades on tall buildings are fire-resistant, in order to avoid another Grenfell tragedy.

Concerns over some rainscreen cladding facades have led to a move back towards more traditional, tried-and-tested

▲ BOSS A1 is fixed on site to IG's Welded Masonry Support

**Building Regulations  
Approved Document B  
2019 edition banned  
combustible materials  
in the external wall of  
buildings over 18m**

# 18



◀ Brick detail in the form of soffits, deep reveals and flying beams

The use of this type of system can reduce installation time by up to 90% when compared to traditional trades. And, as the system is 70% lighter than equivalent concrete units, it reduces the need for mechanical lifting on site.

When developing its BOSS A1 system, IG Masonry Support consulted and worked with architects and brickwork contractors in conjunction with the Building Research Establishment, British Board of Agrément (BBA), NHBC and Premier Guarantee to develop a system that meets the needs of regulators, insurers, developers and installers.

On the basis of this industry consultation, the manufacturer concluded that the brick-on-soffit system should be:

- fully non-combustible;
- A1 fire-rated;
- mechanically fixed;
- holding a lifespan of a building;
- weathertight with BBA testing;
- free of thermal transmission; and
- suitable for all heights and types of buildings.

As a result of these findings, the BOSS A1 system has been manufactured using grade 304 austenitic stainless steel, which is designed to last the full lifespan of a building and utilises only A1 non-combustible materials. ▶

▼ BOSS A1 units were used at Elizabeth Tower, Crown Street, Manchester



### Exceeding regulations

IG Masonry Support took its product testing programme to the fullest extent and BOSS A1 became the first brick soffit system on the market to comply with and exceed the new regulations. It was also the first product of its kind to be carbon neutral.

Although it was not required by the regulations, the BOSS A1 system has been subjected to hygrothermal testing, in which the units were tested to demonstrate structural performance following a period of accelerated weathering.

To break down the current Approved Document B Fire Safety regulations, the non-combustible materials require a minimum A2-s1, d0 or Class A1 fire-rated solution, classified in accordance with BS EN 13501-1:2018.

As per direction to fire classification, in accordance with BS EN 13501-1:2018, A1 classified materials are completely non-combustible and A2 classified materials have limited combustibility, making them the highest-performing non-combustible options. The 's'



**Buildings must be robust and resilient – and this starts with the correct specification of materials**

value refers to the harmful smoke or toxins that are released as a result of coming into contact with combustion. The 'd' value relates to the number of flaming droplets and particles that are produced within the first 10 minutes of fire exposure. The 'd' value must be 0.

IG Masonry Support's BOSS A1 achieves Class A1, which exceeds current regulations and certifies the product to be suitable for all buildings at any building height, making it suitable for residential builds exceeding the 18m rule.

### Best practice in fire safety

IG Masonry Support does not believe that the target for product development should be the minimum allowable standard – as this does not allow for any 'onsite tolerances'.

If a system is designed to achieve the minimum allowable standard and then encounters conditions on site that further challenge its performance, it can easily drop below the minimum required standard.

This results in a return to the 'gap' between what

has been designed and what has been built.

Ultimately, the industry must not cut corners, as there is no place for second best in the built environment. Buildings must be robust and resilient – and this starts with the correct specification of materials. ●

**Further information can be found at: Fire safety: Approved Document B at [www.gov.uk](http://www.gov.uk) and Building Safety Act 2022 at [www.legislation.gov.uk](http://www.legislation.gov.uk). Gemma Ison is specification executive at IG Masonry Support.**

### CPD Questions

1) The Building Regulations Approved Document B (Fire Safety) 2019 edition apply to cases where building work constitutes a?

- a) Change in height
- b) Material change of use
- c) Change in shape
- d) Change in load

2) Which legislation addresses the systemic issues in construction that led to the Grenfell Tower fire tragedy?

- a) Building Regulation Act
- b) Fire and Rescue Services Act
- c) Building Safety Act
- d) Fire Prevention Act

3) What is the minimum standard for building materials when building residential properties over 18m?

- a) A1 fire-rated
- b) A2 fire-rated
- c) A3 fire-rated
- d) A4 fire-rated

4) What does the number after the letter 'A' stand for?

- a) Combustibility
- b) Smoke emitted
- c) Flaming droplets
- d) Weather resistant

5) What does the 'd' value relate to in fire classification?

- a) Non-combustible materials used
- b) Smoke development
- c) Dry powder
- d) Number of flaming droplets and particles produced

**To test yourself on the questions above, go to [www.constructionmanagement.co.uk/cpd-modules](http://www.constructionmanagement.co.uk/cpd-modules)**

## The Innovative Carbon Neutral Solution



### Seven reasons to specify **B.O.S.S. A1**

- A1 Fire Rated
- Hydrothermally Tested
- Carbon Neutral Product
- Time Saving On-site
- Ease of Installation
- Multiple Design Variations
- Mechanically Fixed Brick Slips



Carbon  
Neutral  
Product

Designed and manufactured by IG Masonry Support,  
**B.O.S.S. A1** is a lightweight, carbon neutral, prefabricated  
brick slip soffit system that creates spectacular brick soffits.



**Bill Barton**  
Barton Legal

# 'Can AI replace lawyers on construction contracts?'

With the emergence of chatbots like ChatGPT, one construction manager asks our contract clinic if artificial intelligence could be used instead of lawyers for drafting construction contracts? **Bill Barton** responds

## THE QUESTION

**I've heard that artificial intelligence (AI) can be used to deal with contractual issues. Could a chatbot replace a lawyer for drafting and reviewing the contract on my next construction project?**

## THE ANSWER

Would people mourn the passing of lawyers? It is debatable. Nevertheless, they provide a service based on experience and skill. They suggest and provide words that convey a meaning, agreed by everyone, to describe a position or a risk.

However, are they about to be replaced by AI or ChatGPT?

There already exists the ability for contracts to be created with little human involvement. For example, human input into terms and conditions for consumer goods like a new kettle is surely on the wane.

There are standard forms of building contracts, such as JCT and NEC, which pre-date the computer. These could be produced by AI, providing the scope of changes were minimal.

So, is there any reason why AI cannot be used to produce the bulk of a more complex contract? After all, there are several standard clauses for insurance, deleterious materials, copyright. There are also any number of boilerplate clauses.

It is not that AI cannot produce a large part of even a fairly complex contract. The concern is whether AI can make it specific and bespoke to the project. Will it address the specific issues and concerns of the parties, the imbalance of bargaining position, the difference in risks, liabilities, obligations and rewards?

To create a successful contract, you must first understand the basic division of all these issues between the parties, then consider how they are already

provided for. Then consider what changes you need to make and how far to go.

It is rarely a case of a 180-degree change in drafting. More often, subtle tweaks rebalance risks between parties in such a way as to divide a risk 70:30 on one item and perhaps 60:40 on another. Can AI predict and provide for such variations in contract wording, based on the stance, experience, risk appetite and beliefs of individual parties to a project?

Therein lies an issue with computer drafting. You will have to teach the computer how to differentiate between different risks. It will need to understand that the risk a party takes across the entirety of a contract is not the same. It is also likely that the risk one party is willing to accept on a contract is not the same as a different party would take based on exactly the same information.

That is because your appetite for – or fear of – risk will be changed by your personal experience. If a party to a project suffered from major delays and extra costs due to weather and or materials, then they will pay greater attention to those risks in their next contract.

AI-generated contracts exist and provide a valuable alternative in the right circumstances. However, with a slight re-emphasis on punctuation, the meaning of a sentence or clause can be changed entirely. Therefore, with ongoing requirements to amend, adapt and in some instances alter risk and wording, humans still have the upper hand. ●

**Bill Barton is a partner at Barton Legal.**



**You will have to teach the computer how to differentiate between different risks. It will need to understand that the risk a party takes across the entirety of a contract is not the same**



# APS AUTUMN CPD DEMOLITION

## About the event

Join us for an engaging and informative CPD session designed to enhance your knowledge and expertise in the dynamic world of demolition. This session will delve deep into the three key stages of the demolition process: pre-demolition, the demolition itself, and post-demolition.

## Training will focus on the following:

- Demolition as a CDM project
- Relationship of specialist Contractor
- Health and safety files
- Legal documents
- Administrative documents
- Post clearance/Post demolition
- Significant risks for the Contractor post demolition
- Project management as a whole
- Keep an eye out for our programme coming

## Dates

Tuesday 14 November  
Wednesday 22 November  
Thursday 30 November

Presented by Mike Kehoe C&D Demolition Consultants Ltd

**Taking place online**

**Book your ticket at:**

**[www.aps.org.uk/events](http://www.aps.org.uk/events)**



# ‘No one knows everything; build trust in others better placed to deliver’

Craig Holliday FCIQB, head of construction with AWE – the provider of the warheads for the UK’s nuclear deterrent – tells **CM** how it’s the breadth and diversity of scope and opportunity that makes construction so great



## What made you go into construction?

My dad was a heating engineer, and I would work with him during the school holidays and occasional weekends. The sites were not very large, so you got to know the other trades quickly. I was in awe of how the projects would come together – from shabby dilapidated shells into sparkling new homes or offices.

I was intrigued as to how it all worked, how it was pulled together, the translation from drawings into reality – something that still remains with me today. The projects get bigger, and the end product changes, but the fascination still remains.

It is interesting now to look back and, although the projects were much smaller, the principles of successful project delivery still remain the same irrespective of size and complexity.

## What do you remember from your first project?

It was a rather impressive but tired and worn-down townhouse just off the Finchley Road in north London. At the time (late 1980s) there was a lot of refurbishment projects going on in the area and it seemed like every other house had a skip outside and was covered in scaffolding. I remember the people, their characters, the humour. It felt like spending the day with your mates rather than working.

You would laugh all day while learning new skills – it was the best environment to work and learn in. Something I look back on now is the diversity on the job too: different ethnicities, social backgrounds and accents. All working together to deliver the same project, with a great atmosphere.

It is one of the reasons I think the construction industry is a great industry for young people – it is an industry that is so diverse in both its workforce and its scope. It is an environment where you can learn new skills and techniques in a setting where you can put them to immediate use and benefit.

### What was the best advice you were given?

The best advice is often the simplest advice. Early in my career I was fascinated with how everything came together, what happened when and how in a project's life cycle, even if I didn't know what a project's life cycle looked like at the time.

I probably wanted to know too much detail about everything, trying to have an in-depth understanding of all aspects of the industry. I was advised that our industry was far too broad and diverse to know everything and that I was far better understanding the principles of good construction delivery rather than trying to achieve detailed knowledge and understanding of all its areas.

### Craig Holliday CV

#### ● Atomic Weapons Establishment (AWE):

Head of construction, 2021 to present

Principal construction manager, 2013 to present

Senior construction manager, 2012-13

Construction manager, 2008-12

Senior clerk of works, 2005-08

● Senior technician, Worcester Bosch Heat Systems, 1998-2005

● Time-served apprenticeship and engineer, British Gas, 1989-94

It has served me well over the years, feeling confident that no one knows everything and building trust in others, better placed than yourself to deliver what is required.

### How do you think becoming a fellow has helped you in your career?

Personally, it gave me a huge sense of achievement. One thing I love about the industry is that there are many routes into levels of management and leadership within construction.

From someone who started as an apprentice heating engineer, I think I was always looking for a level of recognition within construction management. Following the routes of chartered membership within the CIOB gave me that and becoming a fellow was something that I always wanted to complete.

### What advice would you give to someone starting in construction today?

Make the most of the opportunities that are placed in front of you and do not focus on being too specific at the start of your career. I come across a lot of apprentices and graduates that are not sure which direction they want to take in the industry and some that are set on a very strict and structured pathway.

If training opportunities are placed in front of you that do not

**If training opportunities are placed in front of you that do not fit your specific direction, take them anyway. Any learning opportunities you can get will not be wasted**

Craig Holliday FCIOB, AWE



fit your specific direction, take them anyway. The industry is very diverse in nature: any learning and development opportunities you can get in any stage of your career will not be wasted and will serve you well in your future.

### What has changed the most about construction since you've been working in it?

Without doubt the safety culture and legislation behind it. It is now woven into everything we do on our sites and senior leadership on our projects are driving it.

When I started in the industry it was an afterthought and construction workers were placed at an unnecessary risk. Thankfully legislation has changed, and the industry has become immensely focused on the health, safety and wellbeing of its workforce.

All of which needs to continue and the focus on mental health issues increase – as the statistics for the construction industry remain concerning. ●

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# CIOB Community



IGOR EMMERICH

◀ Williams is a chartered environmentalist



**She has almost 20 years' experience in sustainability roles across a range of sectors**

## CIOB has appointed Amanda

Williams to the new role of head of environmental sustainability.

Williams is a chartered environmentalist (CEnv) and a full member of the Institute of Environmental Management and Assessment.

She has almost 20 years' experience in sustainability roles across a range of sectors including higher education, land and facilities management, defence and manufacturing.

In her most recent role Williams was head of sustainability for the Steam Specialties business at Spirax Sarco Engineering, a FTSE 100 group specialising in thermal energy solutions and fluid handling technology. She established and led the sustainability function for the Steam business, with 15 heads globally and sustainability champions in 67 countries.

In that role she represented the company on a panel at the World Climate Summit, an official fringe event of COP27 in Egypt. She spoke about scaling up collaboration, innovation and finance for the decarbonisation of heavy industry.

Williams has contributed to numerous construction projects over the years and sees the industry as well positioned to make a crucial contribution to sustainable development. ●

## Amanda Williams becomes new CIOB sustainability head

Appointee comes from role in global energy solutions

### Project insights for Midlands members

Hubs visit HS2 Curzon Street and Derby's Kingsway Hospital

▶ On site at Curzon Street

Members in the Midlands have enjoyed a summer of site visits.

Birmingham Hub took a behind-the-scenes look at HS2 Curzon Street, while Nottingham Hub members toured a build in the grounds of Kingsway Hospital, Derby.

The Curzon Street visit focused on safety and a net zero carbon station.

Speakers included HS2's H&S engagement and culture manager Denise Farquharson and project manager Ed Young.

Nottingham Hub members visited the Southern Derbyshire Adult Acute 54-bed new build and the 14-bed Psychiatric Intensive Care Unit being delivered by IHP (a JV between Sir Robert McAlpine and Vinci).



# Experts focus on ESG at Birmingham event

CIOB president joins debate emphasising the importance of collaboration at A Golden Decade of Birmingham

**This summer CIOB partnered with Building Brum for an event exploring the role of environmental, social and governance (ESG).**

A Golden Decade of Birmingham saw a panel of five ESG champions discuss how ESG has shaped master planning and regeneration, from Perry Barr to Paradise Birmingham.

They focused on what needs to happen within the sector to enhance and create healthy, strong communities.

The panel was chaired by CIOB president Sandi Rhys Jones and comprised: Philip Nell, director of property and investment, Birmingham City Council; Alan McCartney, partner, Howells; Simon Raiye, development director, HBD; Danny Miller, social

value manager, Lendlease; and Tom Wraight, regional director, Careys.

Through the discussion it became evident that collaboration is a crucial factor in driving meaningful change – and is the presidential theme Rhys Jones will be focusing on throughout her term at CIOB.

Birmingham City Council's Nell stressed the importance of data-sharing. "Sharing data will not only help to drive down the cost of a project, but it will improve collaboration within the supply chain helping us understand what is needed where, and when, in order to fully achieve ESG goals."

Sponsors were Building Services Now, Solus, Cavendish, ScanTech Digital, Careys and APiC UK. ●



## Turbulence to turbines

This summer 12 members from the CIOB Wessex and Channel Islands Hub braved choppy seas to visit the Rampion Offshore Wind Farm off the south coast of England.

Departing from Brighton Marina on a catamaran, the tour took in the 116 turbines on the 72 sq km farm.

Rampion has a capacity of 400MW which can generate almost 1,400GWh of green power each year, providing renewable energy for the next 25 years.

The wind farm has created around 60 full-time permanent jobs, and is operated and maintained from a purpose-built base at Newhaven Port.

◀ Sandi Rhys Jones (centre) at the event



## Midlands CBCs are winners

Kori and Selcon take home prizes at this year's East Midlands Constructing Excellence awards

Two chartered building companies/consultancies (CBCs) picked up prizes at the recent East Midlands Constructing Excellence awards.

Selcon Construction Consultants won an award for Integration and Collaborative Working for its work on the £2.9m Hybrid Theatre at Royal Derby Hospital which was delivered by Galliford Try.

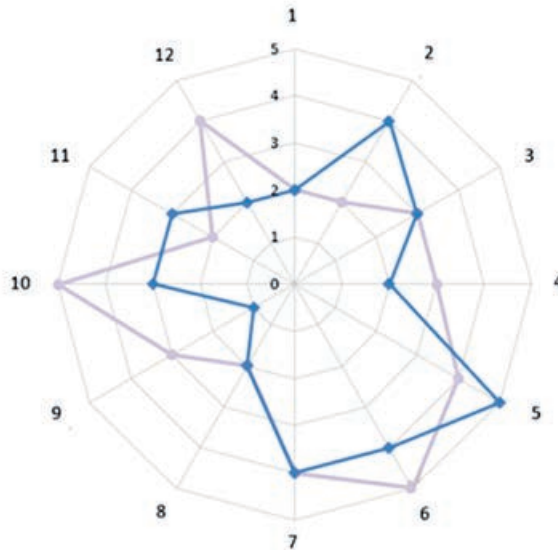
The judges were looking for entries where "collaborative working has delivered outstanding results and significant benefits for the whole supply chain/partnership involved".

Selcon managing director Sam Fowkes said: "The success is due to everyone working towards a single goal."

Kori Construction (pictured, top) scooped SME of the Year, impressing the judges with its financial performance, 100% staff retention rate and its support for the communities and the environment around its schemes.

Managing director Jordan Connachie said: "Our aim is to make sure we derive as much value as possible from each of our developments for our client, but a lot for the communities that surround them. We try to do this while at the very least minimising our impact on the environment, and improving it where we can."

▼ Areas for improvement can be identified by the tool



## CIOB scholar's development of Construction Playbook companion reaches testing stage

Tool will enable organisations to measure progress against the 14 policy areas

### CIOB's 2022 construction

innovation and quality scholar, Adam Golden, is producing research on the development of a maturity assessment tool which measures progress against the policy areas within the Construction Playbook.

Its aim is to drive commercial improvement and innovation.

Golden, who is technical principal at Mott MacDonald, is midway through the project. He said: "2023 seems to be flying by in a blur and exploring the most appropriate characteristics of the playbook to focus upon has been one of the key developmental challenges as



▲ Adam Golden, CIOB innovation and quality scholar 2022

it is critical to the success and usefulness of the exercise.

"The maturity characteristics are currently being finalised and, excitingly, the tool is nearing the testing and refinement stage."

The tool aims to provide a structured framework for assessing the effectiveness of organisations in implementing the 14 key policies outlined in the Construction Playbook.

By assessing their maturity level, organisations can identify areas of improvement, benchmark against best practices and drive the adoption of key reforms.

It is hoped that the tool will play a role in ensuring that the playbook's vision is realised across the industry.

"Development of the tool has been a collaborative effort, involving various stakeholders from the construction industry," said Golden. "Extensive consultations, workshops and feedback sessions have been conducted to ensure the tool's effectiveness and relevance."

"While there is much more exploration and testing to undertake, providing this update has allowed time to reflect on the large amount of progress already achieved over the last seven months."

**If you would like to get in touch or are interested in being involved in trials, contact Hassana Ahmed, senior qualifications liaison manager, at [hahmed@ciob.org.uk](mailto:hahmed@ciob.org.uk).**

## Zoo throws open doors to CIOB



The Welsh Mountain Zoo, near Colwyn Bay in north Wales, hosted a networking event for CIOB members in June, after its director of estates, Neil Morris, secured chartered status.

The event included a presentation on its construction programme. Over 45 people attended including former CIOB

president Martin Chambers and Gordon Brown, chair of CIOB Wales.

Luke Jones from D2 Architects, designer behind the snow leopard enclosure, was also on hand.

Chartered status enables Morris to take a more hands-on role. He said: "Even with a three-decade-long background

in senior-level construction, the majority of our projects have had to be outsourced in terms of management to main contractors.

"While I've had the skills and experience to manage these schemes internally, compliance can only be guaranteed via chartered status or similar, which I now officially have."

## Burmor joins up with IntoUniversity to open up opportunities to young people

Peterborough-based CBC gives school students a taste of working life on a construction site



▲ Students go on site with Burmor

### Chartered building company (CBC)

Burmor Construction has been working with national charity IntoUniversity by offering its sites for school students to experience live projects.

IntoUniversity offers programmes that support young people from disadvantaged neighbourhoods to attain their chosen aspiration, including further and higher education, employment and work-based training.

Burmor has been working with IntoUniversity since the beginning of 2023 and its most recent session involved a group of students experiencing site construction at first hand.

The first of the two visits was to South Street in Stanground, Peterborough, for client Cross Keys Homes. As the focus for the week was engineering, quantity surveyor Scott Drewery, with the students about the engineering behind building homes and the machinery involved.

The students moved on to another site with Accent Group at Trelowen Way in Peterborough, where they got to play the QS role by participating in a measuring activity in one of the new properties, and also helped the defects team by noting any snags.

Back at IntoUniversity's centre, the students built their own mini timber-frame homes.

Burmor said the students were a credit to their school: "They were engaging, innovative, and fantastic to work alongside."

IntoUniversity's mission is to provide local support that can break cycles of disadvantage and open up new opportunities for young people. It has 39 centres across England and Scotland supporting over 40,000 young people a year. ●

## Kent Construction Expo will showcase industry trends

Annual event to take place on 5 October

More than 2,000 construction professionals are expected to attend this year's Kent Construction Expo, which will be held on 5 October.

The annual event, which takes place at the Kent Event Centre just outside Maidstone, offers a day of networking and learning aimed at everyone in the industry from contractors to architects, planners to surveyors.

Suppliers and solution providers will showcase the latest technologies in two packed exhibition halls.

The speaker programme features keynotes and practical workshops, providing the inside scoop on major infrastructure projects in Kent and the south east, as well as new industry developments.

Among the topics and sector trends that will feature this year are:

- major infrastructure developments in Kent and the south east;
- renewable energy designs and ESG;
- mental health awareness;
- circular construction; and
- regulatory changes.

Four free seminars are provided by South East Consortium, the procurement and public sector housing specialist, at its Bid Better Theatre.

These sessions are designed to help improve



bidding strategy for anyone looking to access more public sector work, enabling them to improve the quality of submissions, understand regulations in greater detail or gain in-depth knowledge of the public sector buying process.

Elsewhere, the Meet the Buyer event is an opportunity to put your business in front of leading contractors, suppliers and government departments. The appointment booking platform will launch soon.

Other events include: the Big Networking Breakfast, which is set to celebrate collaboration within the sector – with a cooked English breakfast included. At the other end of the day the drinks reception and gala dinner offer further opportunities for teams or clients to network and celebrate.

Kent Construction Expo is produced by Kent Invicta Chamber of Commerce and organised by Revolution Events. To register for a free place, or to find out more information, visit: [www.kentconstructionexpo.com](http://www.kentconstructionexpo.com).

## NEWS IN BRIEF

### Professor calls for leadership

Norwich Hub members heard Professor Saul Humphrey of ARU explain how the sector must lead the delivery of sustainable solutions. See the talk at [www.ciobacademy.org/product/sustainable-leadership-in-construction](http://www.ciobacademy.org/product/sustainable-leadership-in-construction).

### MBE for construction director

Ian Henry, corporate responsibility director at chartered building company and CIOB training partner Henry Brothers, was honoured with an MBE as part of the King's Birthday Honours list. The award recognised his contribution to business and his influence on the economy within Northern Ireland.

Henry joined the company over 30 years ago and is a driving force behind its community initiatives.

### Nash offers BSA insight

Over 80 people attended a Northampton Hub CPD event where Paul Nash FCIQB spoke about the Building Safety Act and forthcoming secondary legislation. The session

was sponsored by Gotch Saunders & Surridge, Driver Trett and Careys.

### Fellow leads new BIM course

Aston University has launched the UK's first Level 7 credit bearing BIM course. Led by Dr Kenneth Park FCIQB, it will teach relevant software skills to start in September 2023. Details at [www.aston.ac.uk](http://www.aston.ac.uk).

▼ Roof refurbishment and cleaning and repair of external stone was complemented by a redesign of the floodlighting system



# Praise be

**David Shafik** on the challenging task of exterior work to the iconic London church All Souls



**Arriving in 2017 at All Souls Church,** in Langham Place, central London, as the newly appointed buildings and property manager for the whole parish, I was immediately struck by the immense privilege to work on this iconic Grade I-listed building next to the BBC. It is one of two in the parish, which also included a third church, a community centre and 27 staff properties.

2024 marks the 200th anniversary of the building by architect John Nash, who after its completion went on to do much work on Buckingham Palace for Queen Victoria. Verdicts at the time were not all complimentary, but now the sheer uniqueness of the design and construction makes the most grandiose statement in the immediate vicinity among all the competing buildings.

Foremost, it is a Christian church with a weekly footfall of around 1,200 worshippers each Sunday. The wear and tear is not insignificant and a large investment into the fabric is essential if the next 200 years are to be survived.

The first phase has been the complete refurbishment of the external envelope. Preparation has been the key, and this started in 2018 with the appointment of Matthew Lloyd Associates and partner Alex Sherratt as church architect.

Historic England, Westminster City Council and the Diocese of London all gave their approvals – to say nothing of our significant neighbours including the BBC, the Langham Hotel, the Algerian Embassy and the Treehouse Hotel.

The site is extremely restricted, with the building occupying 100% of its ownership footprint. The scaffolding was engineered in great detail.

The maintenance of all entrances and exits became extremely challenging from day one, with church activities continuing on a 24/7 basis and Sundays becoming near impossible to navigate. The genius of the front-of-house staff and the contractors' logistical plans dovetailed together to ensure the complete safety of the congregation.

Quinn London was the successful tenderer. The work started with the erection of the scaffolding, complete with temporary roof – thus enabling the work to continue throughout the winter of 2022/2023.

Stone repairs and stone cleaning by Cunningham Stone to all elevations continued through the entire contract period, finishing with the refurbishment and repair of the rotunda steps.

**The nave roof was stripped completely and recovered in Welsh slate, and the copper roof coverings laid down after the Second World War to 50% of the flat roof coverings were renewed in lead**



The nave roof was stripped completely and recovered in Welsh slate, and the copper roof coverings laid down after the Second World War to 50% of the flat roof coverings were renewed in lead. All roofworks were completed to a very high standard with amazing details. The weight of lead alone equated to nearly 16 tonnes.

The final element to lift the church to new heights of 'heavenly beauty' was the replacement and redesign of the external floodlighting system by CES Lighting. The effect at night is electrifying, with coloured effects available for special occasions.

Phase two is the internal refurbishment. For me this is the greatest opportunity I could have imagined at this stage of life. ●

### CV: David Shafik FCIOB



David Shafik trained as a quantity surveyor but worked for 25 years in the contracting industry,

starting as an estimator and finally managing director of a medium-sized construction company.

After redundancy following takeover, he became CEO of a large charity. Retirement presented a new opportunity to amalgamate all previous life skills into the post of buildings and property manager All Souls Church, Langham Place W1.





**CIOB Academy has collaborated with world-leading organisations to provide resources that will give members insight into how they can drive the changes that the sector needs**



This free content can all be found in one place and is suitable for anyone who is interested in increasing their knowledge in the field of digitalisation and the role it can play in construction projects.

#### **Content from industry experts**

CIOB Academy has collaborated with world-leading organisations to provide resources that will give members insight into how they can drive the changes that the construction and infrastructure sector needs.

The Innovation Zone is divided into sections, hosted by leading organisations that are experts in technological and digital advancements for the industry.

Each section contains a variety of information in different formats, which can be accessed on any device.

Host organisations offer access to articles, videos and other tools to enhance knowledge in key areas of digitisation. These subject-matter experts will share their expertise in key digital tools, their benefits and further avenues for research and knowledge. The Innovation Zone currently features content from Autodesk, Glodon and PlanRadar.

As well as updating content from our hosts each quarter, and adding more contributors to the Innovation Zone, CIOB is planning to introduce a Sustainability Zone in the near future. Contact [sponsorships@ciob.org.uk](mailto:sponsorships@ciob.org.uk) for further information. ●

**You can access the Innovation Zones via [www.ciobacademy.org/zones](http://www.ciobacademy.org/zones). Put the course in your basket for free to register and then access via My Courses as usual.**

# Getting in the zone

CIOB Academy Zones is a new free resource for members. The first zone, Innovation, helps build knowledge of digital construction

**Modern professionals working in the built environment** have a duty to ensure that their knowledge includes the latest best practice and tools.

If you have recently visited the CIOB Academy website, you may have noticed a Zones tab at the top of the page. This is a relatively new addition to CIOB Academy's offering, and worth a look as it houses themed content from industry experts which CIOB members can access for free.

The aim of the Academy Zones is to provide CIOB members with access to information and resources on core areas of built environment work, and to enable professionals to explore information on the latest tools and techniques within the sector.

All the zones will be populated with content from leading-edge companies, each boasting particular specialisms.

This content is informative and educational, in the form of articles, webinars and other tools – ranging from thought leadership, hints and tips to the sharing of research.

#### **Focus on digital skills**

The first of these zones is the Innovation Zone. As digitalisation continues to grow, we need to understand how digital tools and processes can assist with projects and benefit the sector. CIOB has recognised the need for a focus on digital skills, upskilling the workforce today and inspiring the digital experts of the future.

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of

Best Use of Data on a Project

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DIGITAL TRANSFORMATION FOR EKFB INFORMATION  
MANAGEMENT ON HS2 PHASE 1



## Diary dates

Highlights of the CIOB Calendar for the coming month

### Site visit: Norwich Castle

► **11 September, 3.15-5pm, Norwich**  
Morgan Sindall is hosting the fourth site tour of the construction site and works in progress at Norwich Castle. On the agenda is a presentation of progress made to the two remaining phases of the scheme, an understanding of the challenges to date and an overview of the journey so far.

Following this will be a guided tour of the Keep and Percival area, with the team demonstrating the progress that has been made.  
**Contact:** [sshort@ciob.org.uk](mailto:sshort@ciob.org.uk)

### CIOB Academic Summit: Creating an inclusive global community

► **12 September, 8am-1pm, online**  
This virtual conference will connect academics on a global scale – leading the way for cross collaboration, sharing of cutting-edge research, knowledge, education and building a strong sense of community.

It offers the chance to network and meet like-minded academics,

researchers and practitioners; to hear case studies of best practices in student experience, industry partnerships and research; and to discover learning and teaching best practices for an increasingly digital-first learner mindset.

**Register via** [www.ciob.org/events](http://www.ciob.org/events)

### Site visit: Milton Keynes University Hospital

► **14 September, 9-10.30am, Milton Keynes**

Join the Northampton Hub for a tour of the new Radiotherapy Centre being built by Morgan Sindall as an extension to the MKUH Cancer Centre. The centre will house two state-of-the-art medical linear accelerator (Linac) bunkers. The scheme includes new consulting rooms and a new CT suite.

**Contact:** [sshort@ciob.org.uk](mailto:sshort@ciob.org.uk)

### Site visit: Redditch Police and Fire Hub

► **14 September, 4-6pm, Redditch**  
The CIOB and Hereford & Worcester Constructing Excellence are hosting this site visit with Speller Metcalfe to see the new Redditch Police and Fire Hub.

The brand new £17.5m, three-storey building will be located on a disused brownfield site next to the existing fire station. The facility will improve delivery services for

local residents, strengthen joint response to emergency incidents and replace outdated provision.

The project includes a range of amenities including a gym, meeting rooms and a new accommodation unit drill tower.

**Contact:** [gflloyd@ciob.org.uk](mailto:gflloyd@ciob.org.uk)

### CIOB Wales Summer Social

► **14 September, 6.30-9pm, Cardiff**

Come and join Wales Hub for an evening of informal networking with industry colleagues at the Brevhouse & Kitchen, Pontcanna. Get to know the CIOB team in a relaxed setting while enjoying some great food and company.

Sponsored by BAM Construction and WDL Contracting. Registration essential. Ticket includes welcome drink and burger.

**Contact:** [vcxon@ciob.org.uk](mailto:vcxon@ciob.org.uk)

### CIOB in Scotland Awards Lunch

► **15 September, 1-5pm, Glasgow**

Celebrate the best of the best in Scottish construction at the CIOB in Scotland Awards Lunch at the DoubleTree Hilton, Glasgow.

The awards are hosted by Nicky Marr and the guest speaker is John McKelvie.

The event will feature a range of awards and will also offer new MCI0B/FCIOB members the opportunity to be recognised for

their achievement as there is no graduation ceremony in Scotland.

**Contact:** [wmarshall@ciob.org.uk](mailto:wmarshall@ciob.org.uk)

### Cambridge Gala Dinner 2023

► **15 September, 6.30-11.59pm, Cambridge**

The Cambridge Hub is hosting its Annual Gala Dinner, bringing together members, companies and students for an evening of networking, guest speakers and good food. Guests will receive drinks on arrival and a three-course meal.

The guest speaker, Mandy Hickson, was one of the first female RAF fast jet pilots to operate in highly hostile environments. There are individual tickets plus the option to buy a table of eight.

**Contact:** [schalmers@ciob.org.uk](mailto:schalmers@ciob.org.uk)

### Site visit: Prince Charles Hospital

► **26 September, 4-5.30pm, Merthyr Tydfil**

Join the Wales Hub for a guided tour of this long-term project with contractor Tilbury Douglas. The Prince Charles Hospital site is a £220m investment in the upgrade of the major clinical departments. Just past halfway point on delivery, it is due for completion in 2026.

**Contact:** [vcxon@ciob.org.uk](mailto:vcxon@ciob.org.uk)

**For a full list of events and to register visit** [www.ciob.org/events](http://www.ciob.org/events).



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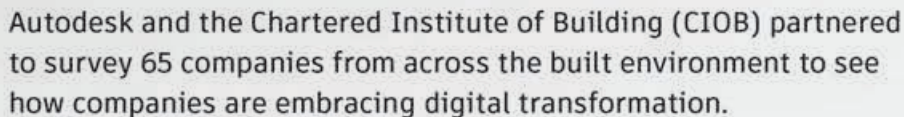
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