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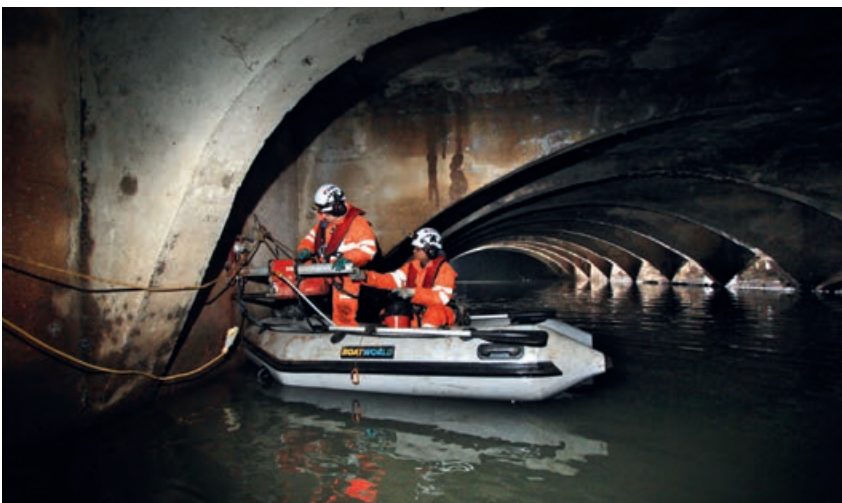


▲ New 'floor' for Sunderland's footbridge

VolkerStevin has laid the last of 91 deck planks of the New Wear Footbridge in Sunderland. They were installed using a bespoke trolley system, with each of the 10 metre wide planks lifted by crane from the southern riverside park onto the deck trolley, which positioned them before returning for the next one. Once in place, each plank was 'stitched' to its neighbour using in-situ concrete.

◀ Underground concrete testing

Geoscience experts used specialist rope access skills and inflatable boats to extract concrete samples from inside Sheffield's Megatron culvert – a concrete tunnel beneath the city that carries the River Sheaf. The work is part of a project to remove the culvert to give way for a public park without affecting the nearby buildings.



ROB EAVIS/CAN

Ontario-based Hamza Momade MCIOB writes about the many challenges facing contractors in Canada, including Trump's tariffs (p32)



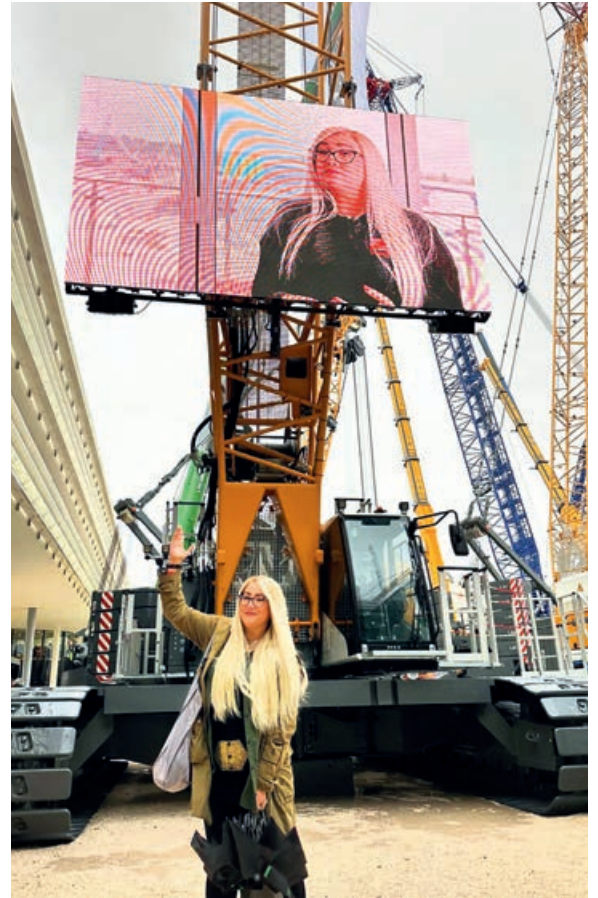
Restoring the Highlands' heritage

The Rose Window in the South Tower Story Room of the Inverness Castle Experience has been refurbished ahead of the attraction's opening later this year. Suspended from the ceiling within a bespoke steel frame, the intricate window has been restored to showcase its original craftsmanship.



Construction's role model

Construction Plant-hire Association's technical and development officer, former crane operator and built environment influencer Katie Kelleher has been included in the 2025 Women in Trade Association Powerlist. Kelleher is also one of the founders of the CIOB #PPEthatfits campaign for inclusive PPE.



WESSEX ARCHAEOLOGY



A rare discovery

An archaeologist from Wessex Archaeology uncovers one of the first surviving examples of wooden stake defences used at Sheffield Castle in the English Civil War. The large-scale professional excavation – the first ever on the site – was overseen by Aureos, formerly known as Keltbray Infrastructure Services.



A solution to the housing crisis?

A temporary modular home outside the Building Centre, in central London, showcases the possibilities that modern methods of construction can offer to solve the UK housing crisis. Wates and modular specialist Rollalong designed, got approval and installed this unit in 70 days, of which 20 were spent on its construction.

Construction careers advice key to housing targets, CIOB survey shows

New report suggests a broadly positive perception of jobs in the industry despite a persistent skills gap. By **Nadine Buddoo**



The government's plans to accelerate housebuilding and development of key national infrastructure could fall flat if more young people are not enticed into the construction sector, according to a new report by the Chartered Institute of Building (CIOB).

The report, *Attitudes Towards Construction Careers*, shows that two-thirds (68%) of young people aged between 16 and 24 hold a positive view of construction careers and around a third (31%) would consider working in the sector.

However, almost half (47%) said information about construction was not included in the careers advice they received while they were in education.

More than a quarter (28%) of respondents said they do not believe careers in construction are accessible to young people.

A similar survey of parents of young people aged between 16 and 24 showed more than three-quarters (79%) would be supportive of their child working in construction, while just 6% said they would be unsupportive.

Apprenticeship reforms

The government recently announced changes to some apprenticeships, which CIOB broadly welcomed.

However, the institute added that if construction roles such as site managers, skilled trades, designers, architects and surveyors

◀ Almost half of respondents said construction was not included in the careers advice they received

are excluded from careers advice provided in schools, young people will not take up construction apprenticeships and the skills gap will persist.

David Barnes, head of policy and public affairs at CIOB, said: "Two-thirds of the young people we surveyed have a positive view on the construction sector, but too few were seemingly presented with the industry as a career option while in education, which is most likely why we don't see those positive perceptions translate into young people joining the sector.

"This shows us careers advisers have a role to play in championing our industry alongside employers, who also should be taking every opportunity to positively promote construction careers."

According to the survey, more than half of young people (53%) would be interested in studying a built environment GCSE, while almost two-thirds (64%) of parents said they would encourage their children to take this subject if it were available.

Barnes added: "We also think having a dedicated built environment GCSE would help generate interest in the sector and showcase the vast array of roles available, including non-site-based roles and those using modern technology. Our survey shows a high percentage of young people and parents would be in favour of this." ●



Careers advisers have a role to play in championing our industry alongside employers

David Barnes, CIOB

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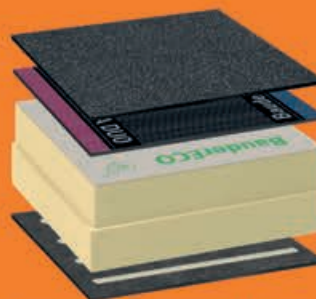
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Slow apprenticeship levels may threaten Labour's growth agenda

Addressing a lack of awareness about construction career opportunities could mitigate the skills deficit, writes **Barrett Harris**



Labour shortages within the construction industry have been a recurring theme

in recent years. For the third consecutive quarter, a Turner & Townsend contractor survey has identified skilled labour shortages as the primary challenge impacting the delivery of projects, overtaking rising costs of construction.

The Construction Industry Training Board's (CITB) 2024-28 construction skills network report

stated that 50,300 extra workers will be required per year to meet UK construction output by 2028.

These figures are expected to rise and will pose a considerable challenge for the government's ambitious targets, such as the building of 1.5 million new homes over the current parliament.

This problem is exacerbated by the industry's ageing workforce. Between October 2023 and September 2024, employees in the construction industry above the age of 50 made up 34.4% of

the total workforce, compared to 26.8% for the same period in 2005.

While taking steps to attract younger workers is a logical solution, progress has been sluggish. Despite efforts to promote construction careers, the number of government-supported trainees and employees aged 16 to 19 has declined since 2005, as the top chart on p9 shows. Compared to Q2 of 2005, these numbers have dropped to 22.3% and 49.9%, respectively. Since 2014, they have remained stagnant.

Communication gap

One factor contributing to the poor performance may be a perceived lack of awareness regarding the diverse career options within construction. However, a recent survey by the Chartered Institute of Building (see News, p6) indicates a positive shift, with 68% of young people aged between 16 and 24 holding a favourable view of construction careers, and 31% considering entering the sector.

The issue appears to lie in the communication of these

Percentage of employees in construction aged above 50, up from 26.8% 20 years ago

34.4

A dedicated construction skills taskforce under Skills England would be instrumental in identifying and developing talent pipelines

opportunities. Almost half of the CIOB survey participants reported a lack of information about the industry in their career advice. This communication gap extends to employers.

A 2024 CITB survey revealed that 16% of employers were unsure 'how to go about it' when asked about barriers to offering apprenticeships – a 13 percentage point increase from the previous year (see bottom chart). Furthermore, 53% said there were no apprenticeships available in their line of work, a 45 percentage point increase from 2023, suggesting a failure to communicate successfully available schemes.

These findings highlight two critical questions: are we effectively communicating the diverse and engaging career paths within construction, and are apprenticeship programmes adapting to the evolving needs of the industry?

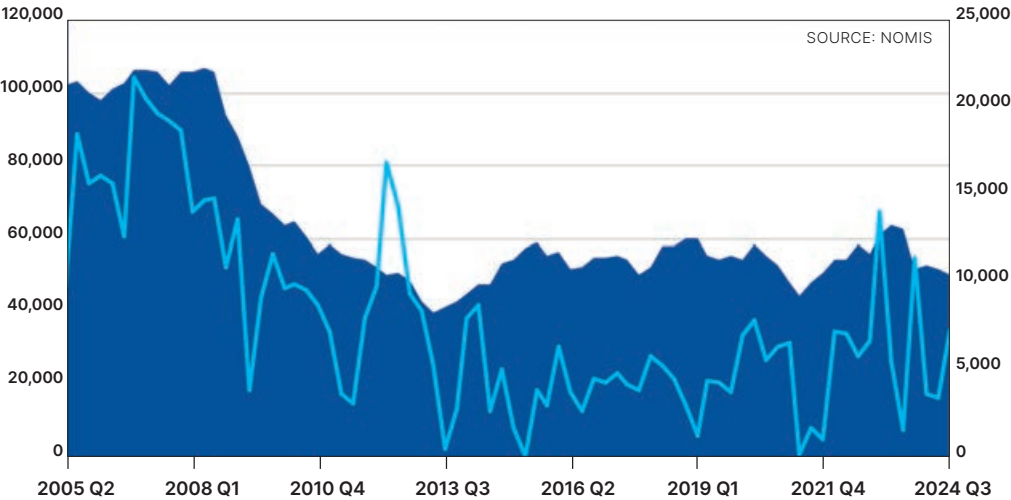
To address these challenges, a dedicated construction skills taskforce under Skills England, as proposed by Turner & Townsend's UK managing director, Patricia Moore, would be instrumental in identifying, attracting and developing talent pipelines.

Such a taskforce could bridge the communication gap, ensuring young people and employers are made aware of the diverse opportunities and available apprenticeship schemes in the industry. It could also facilitate the adaptation of apprenticeships to align with evolving industry needs, such as advancements in sustainable building and digital technologies.

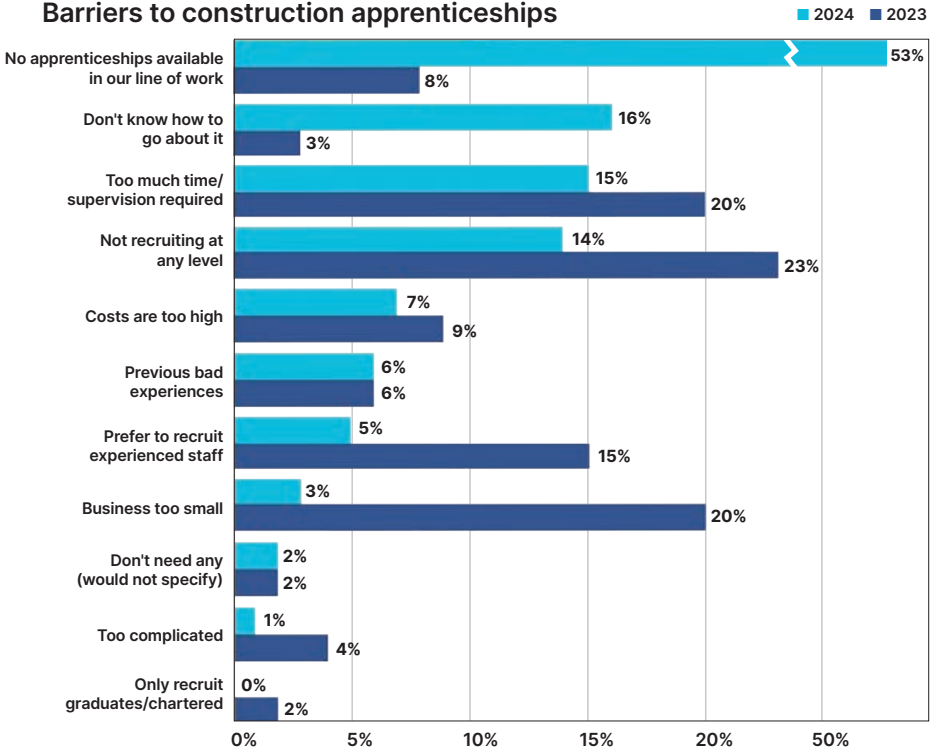
Only by addressing these key issues can the construction sector begin to mitigate its labour shortage and secure its future workforce. Barrett Harris is an economist at Turner & Townsend.

Government-supported construction trainees and labour aged 16-19

(Number of people) Construction workforce (16-19) (LHS) Government-supported trainees (RHS)



Barriers to construction apprenticeships



SOURCE: CITB CONSTRUCTION EMPLOYERS SURVEY (AUGUST 2024)



Caroline Gumble
CIOB



It's that time of the year again: CIOB Awards

The prestigious ceremony in May will feature the presence of a popular presenter and architectural designer as the evening's MC, **Caroline Gumble** reveals

The CIOB Awards ceremony last year inspired me to write in CM that "there are amazing people in our industry, doing extraordinary things... Those people deserve recognition and the best among them should have their stories shared as learning for us all."

I want to take this opportunity to say congratulations to every individual and organisation who has made it to the CIOB Awards shortlists. It shouldn't be a surprise to anyone who understands our work that the standards are high and that finalists achieved a great deal to get that recognition.

In fact, those who are finalists in the Construction Manager of the Year category meet the standard for chartered CIOB membership

and they are eligible to use MCIOB as a post-nominal designation. Being an MCIOB is comparable to a bachelor's degree and is internationally recognised.

I can also reveal that this year we have a fantastic new professional presenter joining us as our MC for the evening – Charlie Luxton, the architectural designer who combines design work with writing and presenting television programmes.

I also want to take this opportunity to thank the judges who have supported the CIOB Awards this year and over the long history of our competition. We have been so fortunate to have senior professionals volunteer their time and apply their expertise to assessing all the entries each year.

It shouldn't be a surprise to anyone who understands our work that the standards are high and that finalists achieved a great deal to get that recognition

It is my hope that their efforts – and CIOB's commitment to shining a spotlight on the best and brightest – give back to this important industry, celebrating leaders and innovators and helping deliver on our public interest remit to promote best practice.

Can I also add my thanks to our headline sponsors Elecosoft and Accuris – we couldn't put on such a glittering event without them. If you would like to join the party as an additional sponsor – meeting leaders and influencers from across the breadth of the built environment sector – please get in touch.

I'm very much looking forward to seeing many of you on 15 May in London to join me in celebrating some of the amazing people who make up the UK construction community. ●

Caroline Gumble is CEO of CIOB. For more information about how to get involved in the CIOB Awards and to reserve a place in the ceremony, visit <https://awards.ciob.org>.

▲ The CIOB Awards ceremony will take place on 15 May at the Hilton London

▶ Charlie Luxton is a TV presenter and architectural designer passionate about sustainability





Cressida Curtis
Wates

Supply chains are key to cutting carbon – tier 1s should work with them

With costs rising for carbon-intensive construction materials, main contractors should work with their suppliers to find green solutions, says **Cressida Curtis** of Wates

Within 10 days of a climate denier being sworn in as US president, our government declared: “The UK is re-establishing itself as a climate leader on the global stage” in its Nationally Determined Contributions (NDCs).

An NDC, updated every five years under the Paris Agreement, sets out a country’s plan to reduce climate change. And this year, despite – or perhaps because of – shifting geopolitical sands, the UK has been unflinching in its ambition.

Within the NDC actions, the most stretching for our sector will be the introduction by 2027 of a Carbon Border Adjustment Mechanism (CBAM). This will increase the cost of imported carbon-intensive

construction materials such as steel, cement and aluminium.

This tax is landing on a sector that experienced 17% of all UK insolvencies in 2024, that has seen around 300 companies collapse every single month since the end of the Covid lockdowns and where failures today are 39% higher than in 2019.

While navigating the financial challenge, we’re also being asked to do more: build more homes; deliver net zero; achieve better quality; attract more talent. And we are: last year at Wates we delivered £15 of social value for every £1 of profit made. But every pound in our sector – both financial and social – is hard won. And higher costs would exacerbate this deeply entrenched problem.



Bringing the supply chain to the table early deepens understanding and innovation

Cressida Curtis,
Wates

▼ Increased materials costs mean contractors and suppliers must work together to decarbonise

And so, we turn to innovation. But here, we hit a problem. The financial fragility being experienced in our supply chain commits many to stick with the familiar.

But confirmation of the CBAM is a watershed moment that forces us to pause and reassess. Our shared supply chain must thrive if we’re to deliver the high-quality homes, schools, factories and labs our nation needs. But we also need to decarbonise. This is the moment to regroup and reach for tools we can all employ, today.

Tier 1 contractors know we can drive down the embodied carbon of any project if we enter the process early enough and the same is true of our supply chain. They hold many of the answers to decarbonisation, but rarely is space made for those ideas to be explored at the right moment. Bringing them to the table early, inviting their collaboration, working alongside them across multiple projects for different clients deepens understanding, trust and innovation in a way no individual contract will ever achieve.

We can decarbonise, identify solutions that avoid additional costs, improve quality and support our supply chain all at the same time.

The government has defined where we’re going. Our job now is to work out how we and our supply chain thrive on this new journey. ●
Cressida Curtis is group sustainability director at Wates.





Matt Mahony
CIC

No planet B: How CIC is addressing the climate crisis

Following the UK declaring an environment emergency in 2019, CIC established a Climate Change Committee to help construction fulfil its obligations. By **Matt Mahony**



Even considering the tumultuous news cycle of recent months, I'm willing to gamble that by the time you read this there will be something in the media bringing you face to face with the stark consequences of climate change inaction – whether it relates to overheating, fires, floods, drought or other biodiversity threats.

The built and natural environment in the UK is likely to encounter the escalating impacts of climate change. Global heating already presents a high and immediate risk to human health, wellbeing and productivity, according to the UN's Intergovernmental Panel on Climate Change.

This is especially pertinent given the construction industry is one of our biggest sources of carbon emissions and the construction, demolition

and excavation sector is the largest source of waste generation.

In the UK alone, the total greenhouse gas emissions from the production and use of construction materials total 64 million tonnes CO₂e per year – more than the UK's aviation and shipping emissions combined.

CIC's Climate Change Committee was established by former CIC chair Stephen Hodder to address the urgent need for climate action in the sector. Formed in response to the UK parliament declaring an environment and climate emergency on 1 May 2019, it coordinates efforts across the sector's professional institutes.

In March 2020, it released a joint statement signed by 29 built environment bodies – including CIOB – acknowledging the climate emergency and committing to action. It published an action plan, later presented at COP26 in Glasgow, outlining steps for achieving net zero emissions.

Action plan

The plan has yielded outcomes such as the CIC climate action plan education and qualification toolkit, an emergency response planning for extreme weather events, plus regular webinars on topics including water management, and biodiversity health. These are all free to CIOB members, as well as our expert-led economic and policy briefings.

The committee is currently chaired by Mina Hasman, author of the RIBA

Climate Guide and recognised in the TIME100 Climate 2023 list for her contributions to climate action.

The group remains a focal point for the institutions' input to government on sustainability, while giving support for initiatives such as the Part Z proposed amendment to the building regulations, the Climate Framework and the Built Environment Carbon Database.

In February this year, its Competence Framework for Sustainability in the Built Environment was jointly published by CIC and the Edge. This is an underpinning framework for developing discipline-specific sustainability competence requirements across the sector. It has been drafted as a seed document for a British Standard in the BSI's Competence in the Built Environment series.

We are delighted to have continued involvement from CIOB within the committee in helping us all in fulfilling our urgent obligations to address global heating and biodiversity decline and make our built environment greener, healthier and more inclusive. ●

Matt Mahony is the policy and public affairs manager at CIC.



The CIC Climate Change Committee remains a focal point for the institutions' input to government on sustainability

Feedback

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



CM

Hundreds of incorrect asbestos records found at housing association

One Housing found more than 800 records of incorrect data on its asbestos register following an investigation by the Housing Ombudsman into a collapsed ceiling in a resident's home.

Andy Watts

Sadly, it's not uncommon to hear of poor information management leading to this and similar disasters. I have worked in the field of infrastructure and built environment asset management for nearly four decades, and data has also been the Achilles heel of asset-intensive organisations.

Forty years ago, a paper-based system may have been swapped out with a good spreadsheet, and that was progress, but that was a long time ago! We're now on BIM4, which may be too much for some, but BIM as a basic approach would have averted this issue.

I hope the 'lessons learnt review' includes a serious look at adopting good asset management and, as a part of that, good information management such as BIM – and, to embed that, a learning programme for all those in the organisation.

I recently worked with a Yorkshire-based housing association which has now developed and implemented a strategic asset management plan and an asset management learning programme which has started with the top layer of management across the organisation. That's the way to go!



CM

Social value requirement for public sector contracts comes into force

The Procurement Act 2023 came into effect on 24 February, requiring all public contracts in England and Wales to have a minimum of 10% weighting for social value.

Ola Obadara FCIOB

Whilst the act will create a simple, more adaptable and accessible procurement

system for the purchase of goods and services in the public sector, the question remains on whether it is suitable for the delivery of construction projects. Recommendations for improving construction practices, including those outlined in the recent Grenfell Tower Inquiry's final report, must be cross-referenced with the requirements of the new act to highlight and address contradictions that may occur. Time for

◀ The Housing Ombudsman found inconsistencies in One Housing's asbestos data

clients, contractors and the design team to work together on this to improve the delivery of construction projects all round.



CIOB People

How #PPethatfits has driven change in the industry

Founders of the #PPethatfits campaign reviewed the progress achieved to date

Amy Roosa via LinkedIn

We definitely have more work to do here in the USA to catch up, but this work being done in the UK is going to cause a ripple effect that can't go unnoticed by employers and distributors. Excellent work!



This work being done in the UK is going to cause a ripple effect that can't go unnoticed
Amy Roosa



BIMplus

The handover paradox: BIM's promise vs the digital data dump

Dalux consultant Craig Howell Jones reflected on the problems with client data handovers

Rich Synott

I agree with the analysis of the problem, but more process and technology are not going to address it. The way the industry organises to create, deliver and capture value is simply not fit for the digital age and the cracks are becoming more evident.

There are some major high-level constraints on delivering value through digital, including in our economic and political system, but even the way we make sense of and communicate these constraints is highly fragmented. I have seen massive leaps in digital technologies over my career but the underlying constraints remain.

Although I am encouraged when I see major asset owner operators employing more value-based procurement methods.



Share your views on the latest industry issues by posting comments online at www.constructionmanagement.co.uk or by emailing the editor at construction-management@atompublishing.co.uk

'The supply chain for smart buildings will look very different'

In the second of our client interview series, Cardiff Met's Graham Lewis tells **Will Mann** how data analysis is helping tackle the university's twin challenges of cutting carbon and operational costs

Like much of the higher education (HE) sector, Cardiff Metropolitan University is facing strong financial headwinds. For Graham Lewis, chief officer for university environments and property, this has meant a reduction in capital budgets, plus pressure to find operational efficiencies and carbon savings.

But it's not all gloom. "We've received an additional £2.6m from a decarbonisation grant and a one-off capital grant allocation from Welsh government that must deliver carbon and operational cost savings," he explains. "The only catch: the associated works have to be designed, procured and delivered in less than five months from grant award."

Lewis is also optimistic that his digital strategy for the estate can deliver significant financial benefits which will provide greater budget headroom. From that will follow carefully targeted spending, working with construction suppliers who are in tune with his digital thinking.

Background

Cardiff Met is a 'post-1992 university', with more than 12,000 students split across three main campuses, which comprises 80,000 sq metres of facilities ranging from medical and robotics labs to student accommodation. Most of the building stock dates from the 1960s onwards.

"Our digital focus for the estate is on increasing confidence in compliance, identifying inefficiencies, informing decisions about investment need," says Lewis.

He was originally engaged as a consultant to deliver the university's emerging masterplan, where the brief was to increase space substantially, which would require significant investment.

"It had been created without looking in detail at how the estate was really used, so we decided to take a hard look at how it was utilised, and how well the teaching spaces perform," Lewis explains.

His team worked with smart building consultant SmartViz to analyse the university's spatial data,

We can pinpoint which rooms are most heavily used, which are underutilised, which have the worst temperature, or respiratory CO₂ profile
Graham Lewis, Cardiff Metropolitan University

► Graham Lewis: 'We decided to take a hard look at how the estate was utilised, and how well the teaching spaces perform'

overlaid with its timetable data. Initially this involved desktop studies and subsequently installation of IoT (Internet of Things) sensors to verify actual usage through real-time monitoring. The result was a saving of £5.1m in projected capital costs and a £102,000 annual reduction in operational costs through avoiding unnecessary expansion planned in the first year.

"We now have in-depth knowledge of how more than 160 teaching spaces are utilised," Lewis says. "We can understand the quality of the teaching environment for teaching. We can pinpoint which rooms are most heavily used, which are underutilised, which have the worst temperature, or respiratory CO₂ profile. The humidity data highlighted some rooms where leaks needed to be addressed."

Next, his team looked at occupancy and energy, a key concern given Cardiff Met's energy bill last year was larger than its capital budget. What this revealed about 'out of hours' energy waste has been "revelatory", Lewis says.



TOM SMITH PHOTOGRAPHY

Our digital focus for the estate is on increasing confidence in compliance, identifying inefficiencies, informing decisions about investment needed

Graham Lewis, Cardiff Metropolitan University



“Through targeting these inefficiencies, our energy manager Lee Davies has managed to reduce our combined gas and electrical consumption by over 850MWh in six months compared to last year,” Lewis says. “Our January gas consumption was reduced by nearly 24%. Yet we have barely started a retrofit programme.”

Lewis has shared his experiences with other organisations. “We have worked with others to collate data on 1,700 UK schools – equating to 8% of schools in England – and around 60% of their energy is consumed out of hours,” he explains. “With a forecast energy bill of £1.7bn in English schools alone this year, that’s potentially a huge energy cost and carbon saving.”

Using the data evidence

Supported by the data evidence, Lewis now can make informed decisions on how to prioritise spend on construction and maintenance.

“The data analysis has shown us the rooms and buildings which have the highest maintenance, recommissioning or refurbishment need,” he says. ►

Savings in
projected capital
costs at Cardiff Met
following utilisation
data analysis

£5.1m

I would like to see more consultants and contractors take it upon themselves to invest in digital systems and training for all their staff

Graham Lewis, Cardiff Metropolitan University



CV: Graham Lewis

- CIOB client steering group member and client champion.
- Since July 2024: Cardiff Metropolitan University, chief officer university environments and property; formerly executive lead for sustainable estates transformation.
- 2023-2024: Estates 360, managing director.
- 2021-2023: Rider Levett Bucknall, partner – head of

project management, West & Wales Region.

- 2016-21: Bath & North East Somerset Council, head of construction, maintenance and FM; formerly operations manager.

Education

- University of Bath, Master of Business Administration.
- University of Reading, BSc (Hons) Construction Management, Engineering and Surveying.



The analysis has also convinced Lewis that his next new-build project will be a smart building.

"I think we absolutely have to do that," he says. "And I think the supply chain we use for smart buildings will look very different. There is much more complexity and there will be a greater role for the integrators, network specialists, battery specialists, BMS specialists and the data scientists who reveal the insights."

Which leads on to Lewis's experiences of the construction supply chain's digital capabilities – which are mixed.

"Many contractors, including some of the smaller players, have started to embrace the advantages," he says. "I have a team about to go on site where the M&E contractor are doing all the Revit work themselves and they're an SME, while the consultant designers just did line drawings."

"Traditional designers and consultants expect a premium for digital. Often, they don't have the ability to use the data from visualisation technologies that have been around for a decade. They're surprised by how much detail is in a laser scan. They would rather everyone traipse to site than interrogate a high-quality 3D scan on Zoom or Teams that can answer a question in minutes."

Commissioning and handover is another area where Lewis believes there is "work to do".

"Too often, the commissioning and handover process is rushed in the pressure to get things over the line," he says. "It's a challenge for a small estate team to review and maintain data as new projects are delivered."

"Universities are not mandated to use BIM and so we haven't amended the contract form to address digital requirements, but clearly O&M information needs to be laid out in the spec."

"That said, rather than set out client requirements, I would like to see more consultants and contractors take it upon themselves to invest in digital systems and training for all their staff, showing a mindset that embraces the opportunities technology offers." ●

CIOB's Client Strategy

CIOB's Client Strategy (launched in April 2023) aims to support less experienced construction clients by curating and sharing best-practice digital resources which will help them achieve improved project outcomes. The work is supported by CIOB's appointed client champions, recognised for delivering excellence in their particular sector, who give up their time and expertise to help create resources that will benefit less experienced clients, end-users and society at large.

Further information:
www.ciob.org/industry/support-for-clients/professional



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ALLEGION

Every drop counts

With water scarcity expected to increase as a result of rising global temperatures, can the built environment help to protect this precious resource? **Nadine Buddoo** reports



Figures from Waterwise show that by 2050 England will be facing a deficit of 5 billion litres of water per day

5bn

The global demand for water is outpacing population growth, according to research from the United Nations. This water crisis has led to half the world's population experiencing severe water scarcity at least one month each year. Figures from water charity Waterwise also show that by 2050 England alone will be facing a deficit of 5 billion litres of water per day.

The findings are a stark warning that urgent action is needed – and construction professionals have an important role to play.

This message runs as a common thread through CIOB's sustainability priorities, helping to raise awareness about water scarcity across membership and the wider industry.

CIOB's head of environmental sustainability, Amanda Williams, says: "The construction industry must prepare for a future when we will face more intense and frequent climate-related challenges, which will determine what, where and how we build. This includes issues with water scarcity."

To secure future water supplies, more than half of the deficit in England is earmarked to be met by reducing water use and tackling leakage, explains Jo Osborn, head of policy and research at Waterwise.

"There's an additional 13 million people now living in the UK compared to the 1960s. Overall, we're using around twice as much water in the

UK now as we were 60 years ago," Osborn says. "That equates to more than 5 billion litres more water a day, which is huge. That increase in demand is putting huge pressure on our water supplies."

She adds: "Nothing much happens without water; that's the fundamental reason why tackling water scarcity has got to be a priority."

As Osborn points out, water is essential for many industries, and construction is no exception.

From reducing water wastage on site to implementing water-saving measures in existing buildings, built environment professionals have an opportunity to help protect this vital resource.

Williams acknowledges that reducing demand for water is not the responsibility of just one sector but, she says, the built environment industry can help to lead change by increasing the water efficiency of new and existing homes and other buildings.

"It is high time water efficiency was given equal standing with energy efficiency and the construction sector must not only consider how it uses water during the construction process, but also how it designs and delivers buildings that are water efficient for their users," Williams says.

"By working with organisations like Waterwise we want to support our members in understanding the water scarcity challenge and how they can play their part in addressing it."



It is high time water efficiency was given equal standing with energy efficiency

Amanda Williams, CIOB

Water vs energy efficiency

The view that water and energy should be treated as equally critical resources across construction projects is shared by Willmott Dixon environmental manager Julie Bankes. However, she explains that a lack of water literacy can make it difficult to bring clients on board when proposing water-saving measures or innovation.

"Discussing energy is a lot easier because clients understand that when you use a lot of energy, it produces carbon, which has a huge cost," Bankes says. "That concept is more difficult with water because, comparatively, it doesn't cost as much."

"It can also be difficult to make the case that water scarcity is a pressing issue, particularly when you are working in locations where it has rained for months and there has been flooding, or where water companies have been criticised for water wastage. The perception of the need to conserve water is definitely impacted by location."

Bankes insists contractors must maintain an "open and collaborative" approach to everything across a project, which can help to facilitate discussions around water issues with clients.

"That has to be the general ethos," she adds. "We are very open and collaborative with all aspects of construction. We don't treat water as an isolated topic. It is on the ►

table from the very beginning when we are discussing everything, from energy efficiency to quality issues.

"When delivering a project, water management should just be a natural part of the conversation from the outset."

The art of collaboration

Osborn agrees that collaborative relationships are vital to help drive the water efficiency agenda across construction.

"Collaborating early is so important," she says. "That process has to involve the built environment sector working with local authorities, water companies and environmental organisations at a really early stage to help reduce water demand.

"There are opportunities to target water neutrality in some places, while rainwater harvesting and water re-use are two key areas that offer real potential to make a difference."

Demonstrating the benefits of collaboration, Willmott Dixon has worked closely with its supply

chain partner Kane Group to help minimise the amount of water used when commissioning heating systems.

As opposed to the traditional flush-to-drain technique, Kane has been utilising a closed-loop pre-commissioning cleaning method which requires a significantly smaller water supply.

The new method involves filling and pressure testing the heating system with treated water. The same water is circulated through filtration units, gradually increasing the density of the filter cartridges for finer filtration until it reaches the desired water quality.

As it is a closed loop process, there is no need to discharge any water to drain. In contrast, the traditional flush would require local drainage capable of handling large amounts of water, which inevitably carries a higher economic and environmental cost.

But as well as tackling water demand in construction, collaborative partnerships can



There are opportunities to target water neutrality in some places, while rainwater harvesting and water re-use are two key areas that offer real potential to make a difference

Jo Osborn, Waterwise



also help to combat water damage caused during projects. To directly address this issue, contractor Sisk is working alongside water monitoring company Smart Flow.

Water-related incidents, including leaks and overconsumption, are among the most costly and damaging risks for the construction sector, according to Smart Flow.

The company's technology provides real-time, 24/7 monitoring, leak detection and ESG data tracking.

"Water is one of the most overlooked yet critical factors in construction risk management," Dave Hogan, Smart Flow's CEO, tells CM.

"A leak can compromise structural integrity, delay timelines and drive up costs. Yet, traditional water monitoring methods often fail to provide real-time visibility, leaving sites vulnerable.

"We believe that water intelligence should be as integral to construction sites as structural engineering – protecting projects from day one through completion." ►

◀ Rainwater harvesting can make a huge difference in water conservation





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4.5

In 2024, Smart Flow water monitoring technology helped Sisk reduce water usage by more than 4.5 million litres

Recognising the importance of addressing water-related risks, Sisk committed to ambitious sustainability goals, including reducing potable water use intensity by 50% by 2025, using 2019 as its baseline, as outlined in its 2030 Sustainability Roadmap.

As part of this strategy, and following a series of successful trials, Sisk has decided to integrate the water usage monitoring technology across its sites in the UK, Ireland and Europe.

Before implementing Smart Flow in 2023, Sisk relied on monthly billing data or analogic onsite meters. These methods

provided a limited, superficial understanding of water usage.

In 2024 alone, the technology helped the company reduce water usage by more than 4.5 million litres.

According to Hogan, the collaboration with Sisk illustrates a significant transformation in the construction industry, with "data-driven decision-making becoming the new standard".

"By embedding real-time water monitoring into construction workflows, we're preventing leaks and creating a blueprint for smarter, more resilient buildings," he says.

People power

Aside from digital tools, Bankes believes people are fundamental to effective water management in construction.

"To drive change or improvements across a project, it is important that everyone is listened to and feels valued, regardless of what part of the business they are in, or their level of seniority," she says.

"It is also important that everyone across the workforce, including supply chain partners, has access to training and resources related to environmental awareness and sustainability.

"We also encourage our environmental managers to be present on site. They are part of the wider sustainability team, so they are best placed to share new ideas with the teams onsite. Sometimes we come up with great ideas at the top but when we put them into practice, they don't quite work so need to be adapted."

Osborn thinks more work needs to be done to truly understand the water-related skills and competence gaps across the construction industry.

► Julie Bankes: 'We encourage our environmental managers to be present on site'



When delivering a project, water management should just be a natural part of the conversation from the outset

Julie Bankes, Willmott Dixon

"We are currently undertaking a piece of research that is looking at rainwater harvesting and re-use to investigate and understand what skills and competencies are needed," she says.

"I recently attended a site visit at a new development and one of the things that it highlighted to us is the opportunity to improve continued professional development in this area.

"It is important for built environment professionals to learn from projects that have gone well, but also where things have gone wrong. Sharing best practice and learning from mistakes is so valuable."

In the spirit of collaboration and shared learning, Osborn is also calling for companies and individuals across the industry to engage with Waterwise, both to ask questions and share water efficiency ideas.

"We believe that a drop of knowledge can make a wave of change," she adds. "The built environment has an amazing opportunity to be part of that change and make a real difference for generations to come." ●



Water management webinar

CIOB will be hosting a webinar, titled **Built Environment Strategies for a Water-Scarce World**, from 12-1pm GMT (1-2pm BST) on 8 April. The discussion will explore the industry's route towards a water-efficient future and how to optimise water management and efficiency on construction sites. The CPD session will feature insights from CIOB's Amanda Williams; Waterwise's Jo Osborn; and Dr Dan Simmons, founder of Quensus.

For more information and to register for the event, visit: www.ciob.org/events/built-environment-strategies-for-a-waterscarce-world-webinar-1234736613449.



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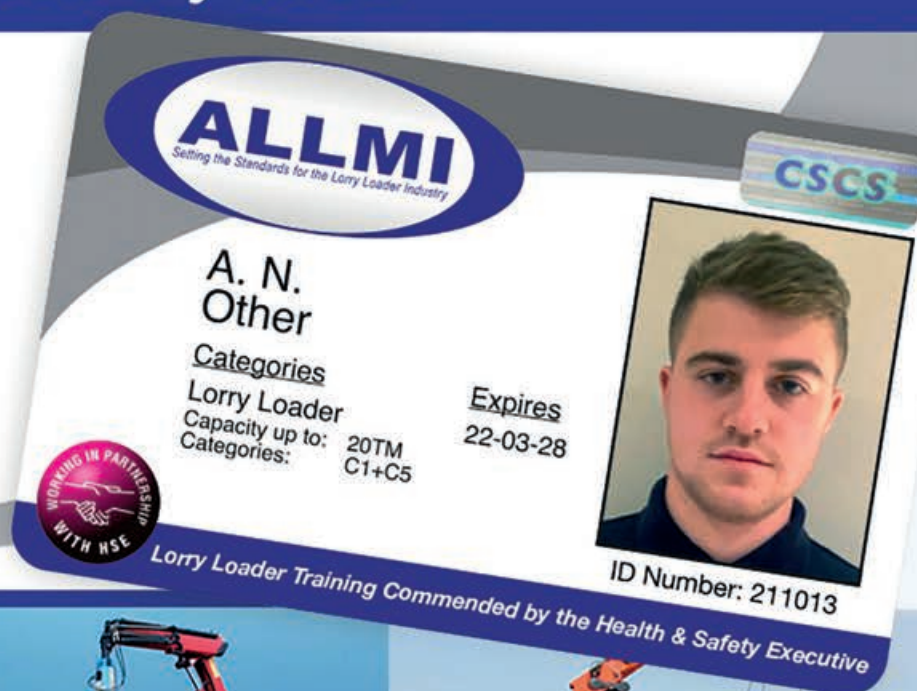
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GOOGLE MAPS

Farrans flies high with airport expansion

Leeds Bradford Airport is undergoing a £100m extension programme, with contractor Farrans delivering the new steel-framed facilities in two phases. **Martin Cooper** checks in

Leeds Bradford Airport (LBA) is taking off with a big expansion programme. Phase one of its terminal extension is due to be handed over this summer, with the second phase of this £100m regeneration project due to start shortly.

CIOB company member Farrans is undertaking both phases. Its regional

director Cathal Montague says: "We are pleased to be continuing our strong working relationship with LBA as they progress with this important improvement project. Our experience in the aviation sector has enabled us to work collaboratively with our client to ensure the airport's operations have continued without disruption, and we will be

▲ Aerial shot of the project in summer 2024

putting in place similar plans as we move forwards."

Proudly calling itself 'Yorkshire's Airport', LBA may not be the only airport in England's largest county, but it is the one that can offer international flights. Last year, just under four million passengers used the facility and these figures are expected to increase.

► The lightweight steel beams support metal decking with a concrete topping providing a composite flooring solution

Consequently, the airport is seeking to expand its facilities and services; there is an aspiration to offer flights beyond European destinations to North America and the Middle East.

Central to the plans, and comprising the first phase of this privately funded £100m scheme, known as LBA:REGEN, is the construction of a 9,500 sq metre terminal extension.

The three-storey steel-framed building will create additional aircraft stands, more seating, faster security, new shops and eateries, a larger baggage reclaim area and immigration hall, as well as improved access for passengers with restricted mobility.

Once the extension is open, the second phase will involve a full refurbishment of the existing terminal. This will see new structural steel elements being installed in multiple sub-phases to minimise disruption to customers and allow the airport to operate as close to normal as possible.

Due to complete in winter 2026, phase two will include the creation of new staircases, lifts and escalators to provide an open-plan feel which will complement the new lighter and brighter terminal extension. Remodelled internal spaces will allow improved passenger movement and there will be brand new security and arrivals facilities, World Duty Free and shops, bars and restaurants.



Leeds Bradford Airport terminal extension

- Main contractor: Farrans
- Client: Leeds Bradford Airport
- Architect: Millar Design + Management
- Structural engineer: Dudleys Consulting Engineers
- Steelwork contractor: Elland Steel Structures
- Value: £100m (two phases)
- Start date: April 2024
- Completion (phase one): summer 2025
- Completion (phase two): winter 2026

Rising up on a plot previously occupied by a surface car park, the terminal extension connects to the eastern end of the existing facility. The new structure is 120 metres long x 41 metres wide and reaches a maximum height of 15.5 metres at the apex of its peaked roof.

"The requirement for long internal spans and a tight construction programme meant that a steel frame with composite beams and metal decking were the obvious material choices," says Farrans project manager Darren McIvor MCIQB.

To this end, the building is designed around a regular column grid, with perimeter members set at 5.5 metre and 6.25 metre spaces,

while internally the pattern is 12.5 metres x 11 metres. The large internal structural grid was driven by the client's desire to have an open-plan and flexible building that would allow unhindered passenger movement through the terminal.

The lowest level of the terminal extension's three floors is partially subterranean, due to the site sloping in an easterly direction, away from the existing buildings.

This level will accommodate baggage handling and will have access to and from airside operations, via a ramp.

The new steel frame includes a passenger bridge, which spans over the baggage tug ramp and connects the new terminal building ►



to an existing walkway that serves a number of remote gates.

The bridge is a 36 metre long, four-span structure, with 2.7 metre high Warren truss girders on each side that support a floor deck at the bottom chord level and a roof at the top chord level.

There are some tight constraints, and the design of the bridge had to ensure that baggage tugs have enough clearance to pass underneath, while the structure also had to connect to the existing passenger corridor and aircraft stands which are located on a graded aircraft apron.

Above the baggage handling area, the middle floor of the new building will have arrivals and immigration areas alongside baggage reclaim, while the uppermost first floor will be given over to new shops and eateries. Both two upper levels will connect directly into the existing terminal, a factor that has played a significant role in the design and choice of steelwork members.

The floor-to-ceiling heights in the existing buildings are not very generous and a solution needed to be found whereby this design could be matched, to create a free-flowing

▲ CGI showing how the completed extension and the refurbished existing facility will look

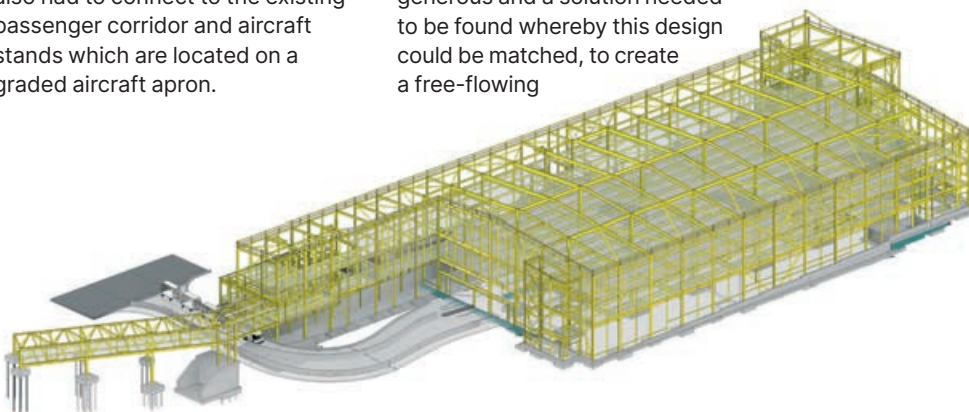
▼ A 3D model shows how the design of the steel structure. It links into the existing terminal on the eastern elevation (top right of image)

terminal, while also accommodating the many services needed in the new extension.

“We chose composite Westok cellular beams, as they allowed us to have an acceptable floor-to-ceiling height, as the services are distributed within the girder’s depth,” says structural engineer Dudleys’ senior engineer Luke Drinkwater.

Westoks account for the majority of the two levels of floor beams used throughout the scheme. They are typically up to 850mm deep sections with 500mm diameter service cells.

As well as accommodating services, the beams also provide a lightweight and efficient method to form the required long spans. They also support metal decking and a concrete topping for a composite flooring solution, which on completion helps with the structure’s overall stability, by distributing horizontal load across the footprint of the building to vertical cross bracings.



800

Steel tonnage
on the project

The requirement for long internal spans and a tight construction programme meant a steel frame was the obvious material choice

Darren McIvor MCIOB,
Farrans



All of the bracing, columns, beams and services will be left exposed within the completed building. This facilitates easy access for future M&E modifications, while also creating the desired modern industrial-looking interior which most airport buildings prefer nowadays.

Although primarily a braced frame, there is one area that had to be designed differently. The zone that links the new build and existing terminal is slightly remote from the line of primary bracing, so one bay of columns and beams have been portalised to limit lateral deflections, but also to enable easy passenger movement by avoiding the need for large obtrusive bracings.

According to the airport, by 2030, LBA:REGEN has the potential to create 1,500 new direct jobs and 4,000 indirect jobs, as well as contributing almost £1bn to the local economy.

The project will also play a significant part in the airport's Net Zero Carbon Roadmap, with the

installation of new efficient heating, lighting and machinery, as well as attracting airlines to deploy their newest, quietest and most efficient aircraft at the airport.

Vincent Hodder, CEO of LBA, says: "This project represents the culmination of thousands of hours of planning, consultation

and design. As one of Yorkshire's most significant infrastructure projects, we and our passengers are immensely excited to see it develop in the coming months. Once complete, this project will deliver the airport that our passengers, airlines and region need and deserve." ●

Steel sequencing

Working in and around a live and functioning airport, all of the steelwork had to be delivered and erected in a carefully sequenced operation.

Using a selection mobile cranes, Elland Steel Structures installed the project's steelwork and the metal decked flooring in a five-phase programme.

During the entire programme, the crane's lifting operations had to be restricted to within the site's footprint in order to avoid oversailing the airport's 'live' operational areas

The initial phase involved erecting one half of the new terminal extension closest to the existing buildings.

Working eastwards, phase two saw the remainder of the terminal completed, phase three consisted of the departure gate wing and phase four was the installation of a passenger bridge to the airport's remote gates. The final fifth phase was the erection of a small quantity of steelwork for a goods yard link corridor.



▲ Most of the steel beams are cellular to accommodate the building's numerous service runs



How BAM's big data boosts productivity

When is your project team really cooking? BAM UK & Ireland's Garry Fannon FCIOB and Jordan Nutter MCIOB have started analysing their projects' big data to understand team behaviours. **Justin Stanton** reports

A Wednesday in July at 10am and 2pm: that's when BAM UK & Ireland's project teams are in top gear, according to analysis of the contractor's data.

BAM digital project solutions business partner Gary Fannon FCIOB and his colleague Jordan

Nutter MCIOB, digital project solutions lead (northern), have been taking a deep dive into the company's data to understand what makes project teams tick.

BAM is generating huge volumes of data and has experienced the same challenges with that data as other major

contractors and businesses, namely:

- The velocity at which data is generated.
- The sheer volume of data stored.
- The variance of data.
- The veracity of data.

BAM has gradually become more sophisticated with its data since it launched a common data environment (CDE) in 2012, mandating its use on all projects. At that time, it was using OpenText Livelink as its CDE, Autodesk BIM 360 Field for checklists and snagging and BIM 360 Glue to view 3D models on site.

Over the space of eight years, this set-up was used on more than 500 BAM projects by 8,500 organisations and nearly 16,000 users.

In 2020, BAM evolved its set-up: OpenText Livelink was used internally, while Autodesk BIM 360 became the CDE.

"We were using a lot more functionality. We were making sure that everyone had access to the latest information and all of the information that was stored on the projects was open for everybody to collaborate on," says Nutter.

In four years, this set-up was used on more than 200 projects by nearly 6,000 organisations and more than 26,000 users – a significant increase in users over the previous eight years, highlighting the volume of training that was carried out.

"This was the start of us creating structured data sets that we could use for analysis," Nutter adds.

Up to November last year, BAM's set-up had been used by nearly 3,000 users

3,000

Then, last year, BAM evolved its set-up further, deploying BAM Source. This incorporates Microsoft SharePoint and Autodesk Construction Cloud; Nutter describes it as a full CDE aligned with 19650 processes.

He explains: "All internal and work-in-progress information is stored on SharePoint that BAM staff have access to. If that information needs to be approved, it gets pushed to Autodesk Construction Cloud, where our design teams, supply chains and clients can collaborate."

Up to November last year, this set-up had been used on more than 60 projects by nearly 500 organisations and nearly 3,000 users.

Fannon takes up the story: "We've begun visualising and creating dashboards as most companies do. But the interesting thing is we started to see human behaviour coming out of the data – we were looking between the lines and challenging what we saw. We started to see things in productivity."



“We started to see human behaviour coming out of the data – Wednesday is our most productive day, and July is our most productive month
Garry Fannon, BAM



We can clearly see productivity behaviour that allows us to think about what we could do to improve the environment to allow people to be more productive
Jordan Nutter, BAM

The online permits-to-work system – introduced for high-risk works on site in 2020 – is a case in point. Fannon notes: "We started to see dips in productivity at Christmas – it dropped at its peak by nearly 50%. We wanted to understand why that is. We know there's a closedown in December, but is it 50% of our productivity? We're not sure – that's quite disproportionate."

Fannon and his team looked at other elements on their dashboard. Overdue issues, specifically non-completion of workflows, caught his eye. "It's important when you have a data set that actions are concluded," Fannon notes. There were more than 6,000 incomplete workflows, suggesting that project teams didn't appreciate the importance of closing out issues.

Furthermore, analysis of the snagging data set revealed significant regional variances.

"Adoption was hit and miss. It was inconsistent across the businesses. And that means we need to make sure that when we deploy new ways of work that we get consistency in our training so that we get

consistency and adoption across the business," Fannon explains.

This analysis also highlighted productivity, with volume of forms being raised an indicator of when most work is being carried out, through the week and the year.

Fannon says: "That's a typical week on average, and we can clearly see Wednesday is our most productive day. And it drops off from Wednesday onwards. We see that repeated over the months of the year. And not only is Wednesday our most productive day, but July is our most productive month. We then looked at a typical day and we had a peak at 10am and a peak at 2pm.

"That shows trends purely by people producing forms. We can clearly see productivity behaviour that allows us to think about what we could do to improve the environment to allow people to be more productive."

Fannon and his team are at the start of their big data interrogation, but what action might BAM take in light of the insights uncovered so far? Can they turn every day of every week of every month into a Wednesday in July?

He says: "If we could do that, we'd be so much more productive. It could be light levels: it's summer, it's warmer, we've got more light and people are happier. There are a number of factors there. We need to have a good look at that. Maybe we could try to improve lighting levels throughout the autumn and the winter periods – would that have an impact on the productivity of a site?" ●

To hear more about BAM's data analysis work, register to watch on demand a recent webinar staged by CM in association with Ideagen Mail Manager: bit.ly/CMBAM25.



Hamza Momade
MCI OB
Roni Group

Canadian construction awaits Trump impact

Trump's tariffs are one of many challenges facing contractors in Canada, writes Ontario-based Roni Group director **Hamza Momade MCI OB**



SIMON DAWSON, BLOOMBERG

The new year began with serious uncertainties for Canadian contractors. It started with the sudden resignation of Justin Trudeau, the prime minister, in January, sparking a leadership race in the ruling Liberal Party. As we saw in Germany and elsewhere, when a country is

leaderless, public morale and confidence in the economy suffer. Then came the inauguration of Donald Trump as president, followed by the imposition of 25% tariffs on most goods in February, their month-long pause, their reimposition in March, followed by yet another pause. There has been months of speculation on

▲ Mark Carney (right), Canada's new prime minister, has signalled his plans to face down Trump over tariffs

the impact they will have on both sides of the border.

There is turmoil on other fronts. The Canadian economy has been heavily dependent on immigration. International students paid higher tuition fees, competed for living space (which is in short supply) and invested in the local economy. The recent cuts to international student programmes can be felt as universities and colleges are closing doors to many programmes that catered to foreign students.

Machinery theft

As a contractor, we're seeing heavy machinery stolen from job sites, which is pushing up the cost of insurance. Is understaffing a root cause? Updating the risk registry for projects was a routine monthly task before. Now, we're constantly changing risk simulations to be on our toes at all times.

Contractors must learn how to build a different kind of resilience. This is when relationships undergo a true test. Can we make it? I am certain that after the pandemic, we can adapt to anything.

But we should learn from the 2021 Crosslinx v Ontario Infrastructure case, where Justice Koehnen highlighted the importance of dealing with matters as they arise and not deferring disputes until substantial completion. This strains the financial capacity of contractors.

There has been an increase of 28.6% in business insolvencies from 2023, with construction firms top on the list. As contractors, we need to capitalise on relationships that have been forged in steel – enduring and resilient. We have to be more collaborative and help each other. Contracts have to be fair and reasonable and weigh risk according to capacities of the local market and performance.

There needs to be more investment in reviewing risks and ensuring the conditions laid in the contract are properly understood. There can be no scope gaps. Seasons must be considered when preparing schedules.

Tariffs chaos

Before the tariffs chaos of February and March, prices for local construction materials had already begun creeping up by as much as 4%. Now, we're waiting to see if Trump will go through with his threats, pause them again, or change course entirely.

Normally we get price sheets in early January, but suppliers held their cards close to their chests through February and March. We're also waiting to see how negotiations with local carpenter unions go.

The old habit of bidding low to buy work and trying to make it up later with change orders is as strong as ever, and the only ones doing well out of it are lawyers.

Instead of doing that, contractors should take a proactive approach and start sending notices that will trigger the renegotiation of prices and schedules. Clients should understand we're in this together and be willing to respect clauses that deal with unforeseen conditions.

Contractors don't typically have research and development divisions, but we can do more to stay competitive, for instance by investigating techniques such as prefabrication, and adopting information technology that makes us more productive.

We could also learn from Australia, where government clients have begun dealing directly with contractors performing the work instead of going through general

▼ Earthworks including excavation, hauling and compaction for a waterfront development in Toronto, Ontario



MAURIZIO TEDESCO/RONI GROUP

Tariffs will have a long-term impact. They'll shape the future of how we build



contracting middlemen who charge mark-ups for acting as brokers. It could bring costs down and reduce the impact of tariffs.

Tariffs will have a long-term impact. They'll shape the future of how we build. But it will not all be doom and gloom. If tariffs reduce lumber exports, and reciprocal tariffs make imports expensive, there may be opportunities to save by buying local.

There may be more opportunities for Canadian consultants and constructors in markets such as infrastructure and commercial projects, currently dominated by US and other foreign companies.

The Liberal Party leadership election was won by former Bank of England governor Mark Carney, who becomes prime minister – until the next federal election, on a date to be confirmed later in 2025.

Canada's victory in the 4 Nations Face-Off ice-hockey tournament in February was a great morale booster and united the country in face of great challenges that lie ahead.

With the uncertainty of what the future holds, being efficient, proactive, enduring, resilient and collaborative will be the difference we can make. Hopefully, this is just a hurdle and not a start of horrors. ●

Hamza Momade MCIQB is director of special projects at Canada's Roni Group, and a part-time professor of construction at Durham College, Ontario.

What you will learn in this CPD

- ▶ The changes implemented to the Labourer card
- ▶ The legislation influencing the card changes
- ▶ The benefits of using CSCS Smart Check



CPD: Changes to the CSCS Labourer card

In this CPD, **Garry Mortimer** explains the major changes to the CSCS Labourer card to align with current building safety legislation

Approximately
85% of labourers
fail to renew
their cards

85



The Labourer card's new two-year validity period aims to better track the actual number of active labourers in the industry



much lower need for labourers, with just 140,000 required annually in the coming years.

The oversupply of Labourer cards creates several problems. The most pressing of these is that individuals cannot use the card to demonstrate the skills and knowledge elements of competence that a skilled card could.

In addition, the card no longer accurately reflects the number of workers in genuine labouring roles. Furthermore, approximately 85% of labourers fail to renew their cards, and many workers leave the industry long before their cards expire.

This has led to a situation where the card is seen more as a default option for site access, rather than a mark of genuine labouring experience.

The new two-year validity period aims to better track the actual number of active labourers in the industry. After this period, workers who wish to renew their card will need to provide evidence that they are still employed in a labouring role. ►

Addressing challenges

Historically, the CSCS Labourer card has been seen by some as an easy route to gain access to construction sites, despite it being for unskilled workers not on recognised training pathways.

This has led to widespread misuse, with some workers who are not in actual labouring roles obtaining the card to bypass the requirements for more specialised skills certifications.

The total number of Labourer cards in circulation has ballooned to around 500,000. However, data from the Construction Industry Training Board's (CITB) Construction Skills Network Forecast reveals a

▲ The Labourer card is initially valid for two years

◀ Workers on site at Wood Wharf, where CSCS Smart Check is in use

▼ CSCS Smart Check's API can be built into existing site access systems



On 1 February 2025, the Construction Skills Certification Scheme (CSCS) introduced major changes to the length of the Labourer card. This type of card is now valid for two years on first application.

A five-year card is available on renewal to those who provide evidence of working in a labouring capacity by filling out a Labourer card renewal declaration form available from CSCS's website or by supplying a reference from their employer/main contractor on company headed paper confirming they are working as a labourer.

At the same time, a shortened two-year Trainee card route was opened up to those who had achieved occupation-related non-competence qualifications. When the two-year card expires, the holder can gain a new three-year Trainee card by providing evidence they are registered onto an NVQ, SVQ or an agreed alternative.

This move was also designed to ensure those entering the industry start their career on a recognised training pathway – evidenced by a red card – rather than the Labourer card.

The amendments to the Labourer card are in direct response to the Building Safety Act 2022, which imposes new and more stringent requirements for competency within the construction sector.



This will ensure that only those actively working in genuine labouring occupations can retain the card for a longer period.

The accompanying CITB health, safety and environment test, which is a key component of the Labourer card application, will also see

▲ Cards with the CSCS logo show that site workers are properly trained for the job they do on site

changes in the way it is applied. The validity of the test used for the first Labourer card will be extended from two years to three years.

This extension allows greater flexibility for those who continue in labouring roles and provides a more straightforward renewal process without imposing an undue financial burden on workers.

By making the card's validity period shorter and requiring proof of ongoing labouring employment, CSCS aims to create a more accurate reflection of the workforce engaged in these roles, which will allow the industry to better monitor and track the supply of labourers.

Legislation and recommendations

The Building Safety Act 2022 brought about significant shifts in how competency is defined and managed in the industry. It places a heavy emphasis on competence: everyone involved in construction work – from designers to contractors – must demonstrate that they have the necessary skills, knowledge, experience and behaviours for their roles.

The act requires that all construction professionals demonstrate competence for their specific roles, helping to safeguard against the risk of poor workmanship and dangerous practices.

It also establishes the framework for the 'golden thread' of information, ►

The validity of the accompanying CITB health, safety and environment test used for the first Labourer card will be extended from two years to three years

Case study: Wood Wharf

Having 'the right card for the right job' is central to the rigorous health and safety strategy for this east London development



Wood Wharf is a transformative 9ha mixed-use development in the heart of Canary Wharf, east London, where the project's site management team is reaping the rewards of using CSCS Smart Check to verify workers' cards and credentials.

Ensuring individuals have the right card for their role is also a pre-requisite at this project.

Central to its health and safety strategy is the digital verification of CSCS-logoed cards using CSCS Smart Check.

Cards carrying the CSCS logo from across the CSCS Alliance ensure that over two million workers in construction and the wider built environment are properly trained and qualified for the job they do on site.

Monima Harrison, director of health, safety and wellbeing at Canary Wharf

Group, one of the companies behind the scheme's development, emphasises the importance of having "the right card for the right job".

Trevor Simpson, health and safety manager and Unite the Union representative, who conducts site inductions at Wood Wharf, says: "We're very stringent because we want to do the job once and do it right."

This approach means only workers with the appropriate qualifications and training can carry out works in the project.

Simpson adds that the CSCS Smart Check technology has made a "massive difference" at Wood Wharf.

He says: "To have the right card for the job is crucial because we know that they're understanding the job role and they've been assessed. We won't accept people coming through, for instance, on a Labourer card to do a trade.

▲ CSCS Smart Check is in use at the Wood Wharf site in London

"It's also about protecting the trades. [Workers are] very protective, they've done a lot of work, they've gone through apprenticeships and so on to be able to gain their qualifications to do the jobs. If you allow anybody to come in on a Labourer card to do that job, all you're doing is devaluing that trade."

While initial resistance existed from some contractors accustomed to less stringent checks, the benefits of digital verification extend beyond compliance. Simpson advises other construction sites to adopt CSCS Smart Check, stating: "Make sure you are checking cards rigorously."

With the Building Safety Act mandating that all individuals in construction roles must be able to demonstrate their competence through the appropriate skills, knowledge, experience and behaviours, CSCS Smart Check can play a key role in helping ensure compliance.

Watch the case study video at [CSCS.uk.com/WoodWharf](https://www.cscs.uk.com/WoodWharf).



CSCS Smart Check

CSCS Smart Check offers a quick and efficient way to ensure a CSCS card is legitimate and verify the holder's qualifications and training. It is available as a mobile app, website and an API for existing systems.



a comprehensive record of all aspects of building safety, which must be maintained throughout a building's life cycle.

The revised Labourer card rules support the drive for greater accountability by helping ensure only those in genuine labouring roles carry the card.

CLC recommendations

All CSCS Alliance card schemes are required to follow the recommendations laid out by the Construction Leadership Council (CLC), last updated in March 2024.

While labouring is currently classed as a non-skilled occupation, the recommendations state that the minimum standard for a skilled occupation must be a relevant qualification or training and testing programme that is aligned to NVQ, SVQ, IfATE Level 2 or SCQF Level 5, and that is independently verified.

The Labourer card is often seen as a quick and easy card to attain for those in non-construction occupations who can face difficulty

gaining access to sites that enforce a 100% carded policy.

Those in such occupations do not need CSCS cards. The recommendations also highlight that "cards will not be issued for non-construction related occupations or those visiting sites".

By making these changes, CSCS aims to align the Labourer card more closely with broader industry goals including improving safety on sites and ensuring compliance with regulations such as the Building Safety Act. ● **Garry Mortimer is executive director of operations at CSCS Cards.**

▲ Wood Wharf's carded policy prevents unauthorised site access

Useful resources

- **Building Safety Act 2022:** www.legislation.gov.uk
- **Construction Leadership Council industry card schemes recommendations (2024 edition):** www.constructionleadershipcouncil.co.uk/wp-content/uploads/2024/03/CLC-Industry-Card-Schemes-26.03.24.pdf
- **CSCS Smart Check:** CSCS.uk.com/SmartCheck

CSCS aims to align the Labourer card more closely with broader industry goals including improving safety on sites

CPD Questions

- 1) What legislative framework mandates competency in construction roles?
 - a) Building Safety Act 2022
 - b) Construction Skills Certification Scheme
 - c) Health and Safety at Work etc Act 1974
- 2) How long is a Labourer card valid for on first application?
 - a) Two years
 - b) Three years
 - c) Five years
- 3) How can genuine labourers renew their card for five years?
 - a) Supplying a reference from their employer/main contractor on company headed paper confirming they are working as a labourer
 - b) Filling out a Labourer card renewal declaration form
 - c) Both of the above ways are valid
- 4) Which test will have its validity extended to three years under the new CSCS guidelines for the renewal of a Labourer card?
 - a) CSCS labourer test
 - b) The initial CITB health, safety and environment test for the first two-year card
 - c) Competency assessment test
- 5) What is one of the reasons the initial validity of the Labourer card has reduced?
 - a) To increase card issuance
 - b) To help meet the competency requirements of the Building Safety Act
 - c) To simplify renewal processes

To test yourself on the questions above, go to www.constructionmanagement.co.uk/cpd-modules

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Steven Carey
Charles Russell
Speechlys



Amelia Hamilton
Charles Russell
Speechlys

'We're worried about a PFI schools handback'

This month's question comes from a council liaising with a PFI consortium over a schools handback when the contract ends. **Steven Carey** and **Amelia Hamilton** explain the pitfalls to beware of

THE QUESTION:

We are a local authority responsible for a number of schools in our area. The PFI contracts for some schools are due to expire over the next few years and we are liaising with the private firm regarding handback. What are the key difficulties we should be aware of and what can we do to manage these issues?

THE ANSWER

The private finance initiative (PFI) has played a pivotal role in the development of public infrastructure in the UK since the 1990s, enabling the delivery of essential services through partnerships between the public and private sectors.

These contracts typically span 25 to 30 years, during which the private sector is responsible for the design, construction, financing and operation of public facilities. At the end of the term the assets are handed back to the public sector. It is estimated that over the next decade around 400 PFI contracts will come to an end. The handback procedures need to be understood and require careful navigation.

Key challenges

One of the foremost challenges in the handback process is ensuring that the asset is returned in the

condition specified in the contract. Over the contract term, maintenance practices and standards may have varied, leading to potential discrepancies between the expected and actual condition of the asset.

PFI contracts are inherently complex, with detailed provisions regarding maintenance, performance standards and handback conditions. Interpreting these terms at the end of the contract can be contentious, particularly if there have been changes in regulations or service delivery expectations. Disagreements over the interpretation of contractual obligations can lead to disputes and delays in the handback process.

As private firms have dealt with the delivery and operations of public facilities, the public sector may not presently have the skills properly to reintegrate and manage the assets.

The financial aspects of handback are a significant concern for both parties. Determining liability for any required repairs or upgrades can be contentious, particularly if there are disagreements over the condition of the asset and/or to what condition the asset needs to be returned in.

Effective handback requires coordination among a diverse range of stakeholders, including



The IPA recommends starting the handback process at least seven years before the contract end date

public authorities, private operators and service users. Aligning these interests and ensuring transparent communication is crucial to avoid misunderstandings and facilitate a smooth transition.

Over the life of a PFI contract, there may be significant changes in regulatory and policy frameworks that impact the handback process. These changes can necessitate adjustments to compliance measures.

Strategies for managing handback

The handback process should start in advance of the contract end date. The Infrastructure Projects Authority (IPA) recommends starting at least seven years before the contract end date, although it is doubted whether in practice this is often achieved. Nevertheless, early engagement is key to identifying potential issues and the development of a comprehensive handback strategy.

A thorough review of the contractual provisions to understand requirements such as asset condition benchmarks and maintenance obligations is advised. Identifying compliance gaps or ambiguities early can prevent disputes and costly rectifications.

Building the capacity of public sector teams to manage the

► Over the next decade around 400 PFI contracts on facilities such as school buildings will come to an end



Question for contract clinic? Email
construction-management@atompublishing.co.uk



handback process is crucial. Training programmes can enhance understanding of contract terms and asset management, ensuring that public authorities are well prepared to take over the asset. Unless the public sector fully knows what it is going to have to do efficiently to manage the asset it cannot properly train its teams.

Conducting thorough condition surveys and audits of the asset is crucial to provide an objective basis for negotiations. These assessments help identify any discrepancies between the current state of the asset and the contractual requirements.

Engaging independent experts can ensure impartiality and provide a solid foundation for resolving disputes. The surveys need to be a collaborative effort between

public and private. A survey by one party only often leads to predictable problems. Allow adequate time for the surveys.

Maintaining clear and consistent communication between all parties is vital to facilitate a smooth handback process. Documenting all agreements, inspections and decisions provides a reference point for resolving disputes and ensures transparency throughout the process.

Establishing effective dispute resolution mechanisms is important to address disagreements that may arise during the handback process. Mediation or arbitration can offer a structured approach to resolving conflicts without resorting to litigation, helping to maintain positive relationships between parties.



Documenting agreements, inspections and decisions provides a reference point for resolving disputes

Challenges and opportunities

The end of life and handback of PFI contracts present significant challenges but also opportunities for public authorities to secure valuable assets for future service delivery.

By adopting proactive strategies, engaging stakeholders effectively, and maintaining a focus on clear communication and flexibility, both public and private sector parties can navigate the complexities of the handback process successfully.

As more PFI contracts reach their conclusion, the lessons learned from these negotiations will be invaluable in shaping future public-private partnerships and infrastructure development strategies. ●

Steven Carey is a partner and Amelia Hamilton is an associate at Charles Russell Speechlys.



Subterranean blues

Passionate about flooding, Kerry Halfpenny, a building surveyor and retrofit coordinator, focused her masters degree research on basement flooding and the threat to life. **Nicky Roger** speaks to her



Tell us about the research you have been working on.

I've been looking at the risk to life from surface water flooding in basement flats and other subterranean spaces, such as car parks. Last year, 232 people died in Spanish floods, including in subterranean car parks, and in 2021, 182 people died in German floods, many in basements.

I live and work in an area that floods regularly, and I identified problems affecting basement flats and subterranean spaces where the only egress is below ground. In England there are 550,000 properties with some form of habitable basement, with 10,000 constructed each year.

I wanted to find out about UK policy, British Standards and codes of practice relating to the conversion of basements into habitable flats. I interviewed key people from the Environment Agency, Property Care Association (PCA), Department for Environment, Food and Rural Affairs (Defra), Construction Industry Research and Information Association (Ciria), fellows of the Chartered Institution of Water and Environmental Management (CIWEM) and CEOs in the flood and basement conversion industries.

What did your research find?

● **Risk to life:** Everyone agreed that there was a substantial risk for those living in basement flats and using other subterranean spaces due to surface water flooding, and felt this was underrecognised.

London Resilience Partnership's Strategic Flood Response Framework forecasts up to 200 deaths in the event of severe flooding

200



◀ Buildings were affected by flooding in the centre of York earlier this year

● **Responsibility:** Interviewees identified a range of different people who they felt held some of the responsibility for considering risk from floods when converting basements into flats. However, no interviewee could identify which agency held the ultimate responsibility for considering this, and every interviewee stated that their own organisation, company or role didn't hold overall responsibility.

● **National policy:** No interviewee could identify a single standard, code of practice or national policy that dealt with these risks, instead pointing out that there are multiple non-mandatory sets of guidance – including Ciria's Code of Practice for Property Flood Resilience, the PCA's Code of Practice and Defra's Flood Risk Assessments – some of which contradict each other.

If you are converting a basement flat, you would consider British Standard BS 8102:2022 for structural waterproofing. When updated in 2022, it changed its name to include 'protection of below-ground structures against water ingress', but

did not cover flooding itself, instead referring you to the Environment Agency's flood risk assessment tools and survey. However, these tools only cover rivers and coastal flood risks, not surface water.

If you then employ property flood resilience measures, you could use Ciria's Code of Practice C790, which Defra's property flood resilience round table reviewed in November 2024, with no amendments. But it does not mention treating basement flat flood resilience measures differently to above-ground properties.

My research concluded that current systems to approve basement flat conversions or the construction of other subterranean spaces do not currently consider the risk of surface water flooding sufficiently.

Why is it important to the construction industry now?

If nothing changes, we will see UK death tolls from flooding similar to the tragedies in Germany and Spain.

CV: Kerry Halfpenny

● **Property flood mitigation, flood surveyor and installer, self-employed, Jan 2015 to present.**

● **Youth worker, Manchester Education Authority, 1990-98.**

● **Masters degree, Building Surveying, Northumbria University 2022-24.**

Other people are beginning to recognise these risks: the London Surface Water Strategic Group mentioned the risk to life in its interim report and the London Resilience Partnership's Strategic Flood Response Framework forecasts up to 200 deaths in the event of severe flooding.

Although recognition is growing, progress is hampered by a lack of a shared approach between the construction and flood industries, and the agencies and policies which regulate them. Updating BS 8102 to bring together the two industries to consider means of escape, communication in subterranean spaces, emergency lighting and how flood and fire measures can be streamlined is the first step. Consideration should also be given to how commercial subterranean construction is designed with means of escape for flood.

In the face of a lack of a single national policy or agency that takes overall responsibility for surface water flooding of basement flats, the Building and Safety Act 2022 gives an opportunity to approach this differently. If the flood industry and the construction industry can come together to recognise the problems, and adopt an ethical approach to resolving them, solutions can be found, and lives can be saved. ●

If you're interested in academic membership visit www.ciob.org/membership/become-a-member/educator.



◀ Dean Averies:
'Staying true to
your approach
builds trust'

What attracted you to construction?

The variety in the industry and the fact that no two days are the same. I meet different people – clients, stakeholders, site teams and more – all with different skills sets and approaches.

As a 16-year-old looking at my career options, I knew I didn't want to be behind a desk all the time. Construction offered the best of both, spending time on site and working on the commercial side of the business in the office too.

What has changed most about the industry since you started out as an apprentice?

The speed at which business happens, largely due to advances in technology. When I started, we had one computer in the office and no fax machine. Part of my job was to take documents to be faxed at a bureau down the street and then pick them up again when colleagues received them. Hard to imagine now.

Technology has changed how we work in other ways too. In the past, when a client requested a change to plans, it would take up to two weeks for the process to be designed by the architect, reviewed by relevant contractors, communicated to site teams, and then implemented.

Now, changes can be made with the click of a button. While that speeds things up significantly,

this reactive approach can sometimes mean wider impacts aren't fully considered.

What do you wish you'd known at the start of your career journey?

When choosing a career, I think many young people feel like that they're making a decision for life in their first job – but I know now that's not the case. I started as a trainee estimator, before broadening my skills and progressing into my current role.

What really matters is finding a sector you enjoy and a company with the right values and culture. When those things align, they create opportunities for growth and development.

What is the best career advice you have received?

Alan Beard, former managing director and third-generation family member to lead the business, told me to focus on getting the basics right. Attention to detail has always been a priority for Beard, and this approach has stayed with me throughout my career.

Another piece of advice that has stuck with me is to never try and pretend to be someone you're not. Staying true to your approach helps build trust.

And finally, to trust your gut. Particularly on site, if your instinct tells you something isn't right, that's usually the case. ●

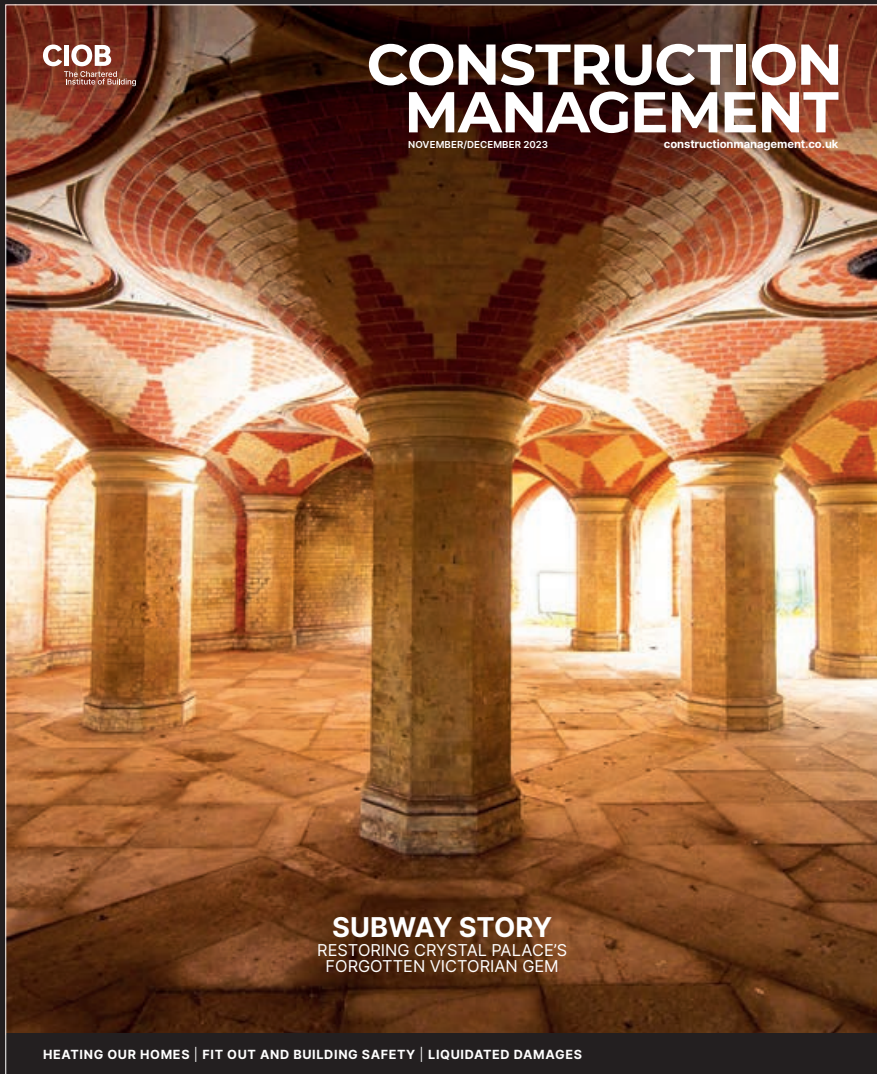
This much I know 'Find a construction company with the right values'

Dean Averies, director of Beard's Oxford office, tells **Nadine Buddoo** the best career advice he has ever received



Attention to detail has always been a priority for Beard, and this approach has stayed with me throughout my career
Dean Averies, Beard

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‘You can run a family and be a quantity surveyor’

Balancing a busy career and family life is possible with the right support from your employer, project surveyor Billie Kelleher tells

Nadine Buddoo



▲ Billie Kelleher: ‘The girls love it when I tell them I’ve been working with big diggers’

Billie Kelleher’s career in quantity surveying has not followed the traditional route.

Currently a project surveyor at Ashe Construction, she has 13 years of experience in the construction industry.

However, instead of pursuing formal education immediately after leaving school, she gained practical experience in the sector. She later achieved an NVQ level 6 in construction with her previous employer, before it unexpectedly went into administration.

She joined Ashe in June last year and has not looked back since.

“I was on maternity leave when my old company asked me to go back early,” she says. “After just three months, the company ceased trading, but, luckily, I found my job at Ashe.

“I love it at Ashe. The team is so friendly and everyone’s got your back. They’re lovely people to work with.”

She adds that the company has played a pivotal role in supporting her personal career development.

“Ashe is supportive and very happy to help you achieve your career targets,” she says. “I’m currently working on my Chartered Institute of Building review. There are three sections, and I’ve

completed the first one towards my full membership already.

“[Ashe is] so supportive in career development, which is very important to someone like me.”

Career journey

Before starting her career, Kelleher considered going to college to get further qualifications, but she says “starting a family got in the way”.

Now with three young daughters, Kelleher and her husband juggle childcare and full-time work.

“But Ashe is very family-friendly, and really good if you need to attend an event at school,” she says. “I love Christmas, because in our industry, we get a whole fortnight off, and this gives me quality time with the family.”

Kelleher is also helping to inspire the next generation, showing her daughters, aged three, six and nine, that construction careers are not just for men.

“The girls love it when I get back from work and tell them that I’ve been working with big diggers,” she says. “They’re very impressed and love all the photos and videos I take.

“It also shows them that you can do anything you want for your job. I hope I’m a good role model.”

Kelleher acknowledges that while her career journey has been hard work, she has proved that “you can be a woman, run a family, work full-time, have a job like being a quantity surveyor, and be good at it”. ●



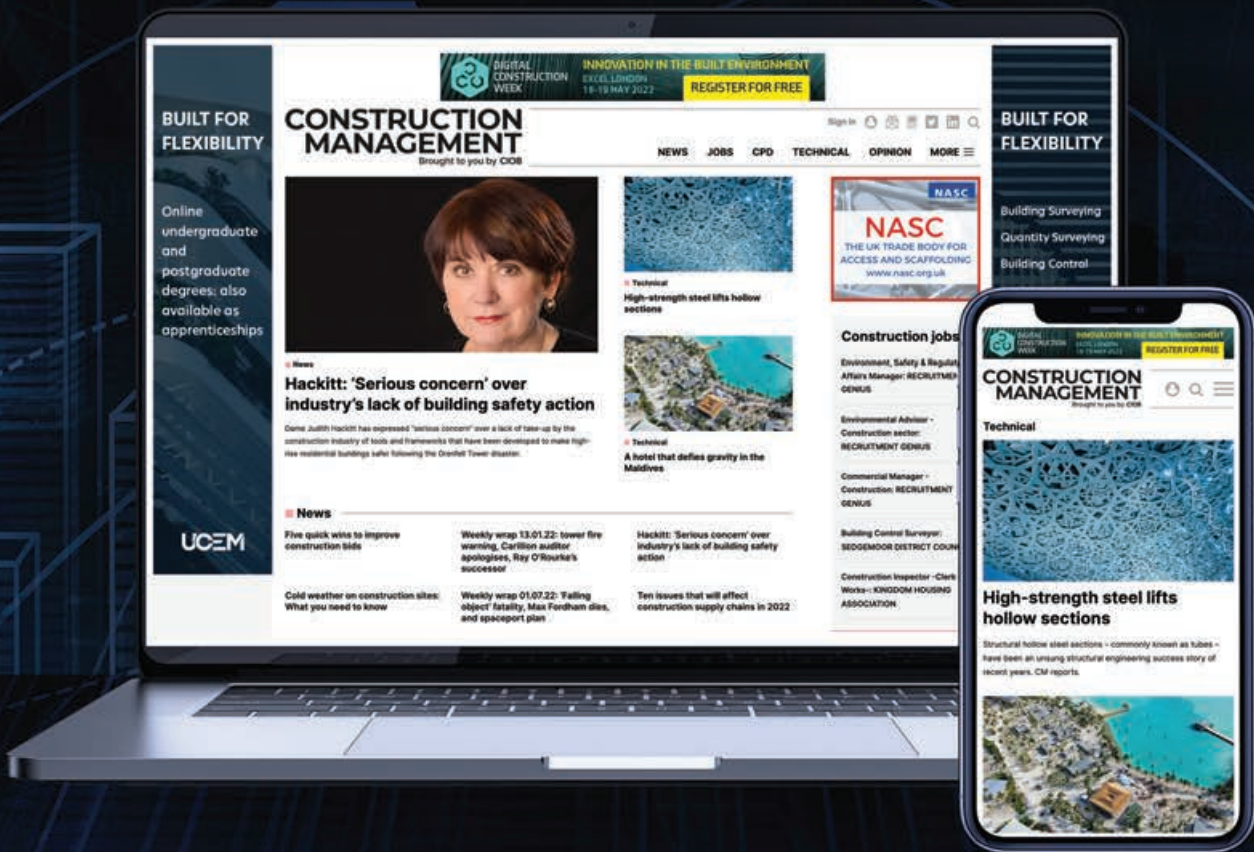
Ashe is so supportive in career development, which is very important to someone like me

**Billie Kelleher,
Ashe
Construction**

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CIOB Community



PAUL SHERWOOD



Sponsors will have the potential opportunity to present the awards on stage as well as a filmed interview



CIOB in Ireland Awards will celebrate winners at a black tie dinner at Croke Park, Dublin, on 18 September and sponsorship opportunities still remain.

The evening will see winners announced across categories that include Client of the Year, Team of the Year and Rising Star and offers sponsors the potential opportunity to present the awards on stage as well as a filmed interview.

Judged by industry experts, the CIOB Awards has a reputation for identifying the future leaders and top teams in the industry, from the largest to the smallest companies. ●

View sponsorship packages and full details at <https://tinyurl.com/msxznjhj>.

Be part of CIOB Ireland Awards celebration

Sponsorship opportunities enable your business to position itself right at the centre of September's event in Croke Park, Dublin

▲ David Bolton, past winner at the CIOB Awards in Ireland, collects his prize

► Croke Park Dublin will be the venue for the ceremony

CIOB welcomes new members from Institute of Roofing

IoR members will transition to CIOB membership

CIOB is welcoming members of the Institute of Roofing (IoR) into the CIOB community, following a successful vote by IoR members in February.

Following the decision by IoR members to dissolve the institute they have since been contacted by CIOB about their transition to CIOB membership based on

their expertise and qualifications: technical member (TechCIOB), chartered members (MCIOB) or chartered fellows (FCIOB).

IoR members will follow the same rigorous assessment processes as all existing and aspiring CIOB members.

To further support the transition, CIOB has committed

to ensuring that roofing professionals have a strong voice within the organisation.

It will integrate their expertise into its governance processes and policy work to strengthen connections across the built environment, enhancing knowledge-sharing and increasing professional development.

Chartered company helps Cambridgeshire fire station to become carbon neutral

Neville Special Projects starts work to upgrade buildings at St Neots



CIOB chartered company Neville Special Projects has started work to upgrade St Neots Fire Station, Cambridgeshire, to provide a modern and sustainable facility for crews and the community. The firm is part of Neville Trust, a group of companies which this year celebrates its 150th anniversary.

Making use of technology including heat pumps and solar panels, the station will be the first in Cambridgeshire to be completely carbon neutral. Other energy efficiencies will be included, as well as electrical charging bays.

Cambridgeshire Fire & Rescue Service has also tasked Neville Special Projects with improving the station, extending the front and rear of the building, refurbishing the gym facilities, office and welfare facilities.

Assistant chief fire officer Stuart Smith said: "This is a really welcome renovation to help modernise the station and equip our crews with a much-improved workplace. Including modern technological developments, such as heat pumps and solar panels, allows us to ensure we are making our facilities fit for the future and helping reduce our carbon impact."

Ben Knight MCIOB, construction director at Neville Special Projects, said: "Projects like this give us the opportunity to be part of something innovative for the benefit of the wider community, for our environment and for our public services."

Building work is expected to last until summer 2025. ●



Fellow honoured

CIOB fellow Fred Tucker, a retired training consultant at aerospace, defence and nuclear engineering consultancy Babcock International, was awarded a British Empire Medal for his community work for the past 51 years.

Tucker and his wife Lynda began their community work by creating a village youth club and went on to taking teenagers abroad on skiing and summer holidays.

Tucker is still active in his community as chair of the village association and church warden.

Construction consultants revive clerk of works role

Firm says post-Grenfell work makes compliance more important

A Midlands building consultancy is reviving the concept of a clerk of works as building safety and compliance becomes increasingly important.

Birmingham-headquartered The Construction Consultants (TCC) is offering a clerk of works service to help developers ensure their projects are safe and comply with specification and regulations.

TCC was co-founded by director Alex Pimley MCIOB, and fellow director Gareth Powell is also a CIOB member.

Co-founder Sandeep Singh Sunner said that, since Grenfell, rigorous compliance had become more important and the position of clerk of works, which had fallen out of favour in recent years, was key to that process.

"At TCC we are able to offer a clerk of works service to provide meticulous building defect inspections and to ensure compliance with specifications and regulations," he said.

"Ultimately this will result in high-quality construction throughout the project life cycle."

TCC's clerk of works service includes thorough building inspection by a professional qualified by the Institute of Clerk of Works and Construction Inspectorate.

The service is designed to identify and address any defects and ensure the highest construction standards are met, as well as specification and regulation compliance and continuous quality assurance in order to minimise impacts on cost, programme and overall quality.

▲ St Neots Fire Station will be extended and refurbished

◀ Ben Knight, construction director at Neville Special Projects

Projects like this give us the opportunity to be part of something innovative for the benefit of the wider community, for our environment and for our public services
Ben Knight, Neville Special Projects

More SMEs should explore student work placement for trades, says CIOB member

DHG Building Solutions is benefiting from local college collaboration

DHG Building Solutions is working with Gateshead College to offer work placement for students of trades.

Andy Britten MCIOB, senior project manager at DHG, said the initiative came about after the company's electrical department took on an apprentice.

"As a bigger company in the 'small' company bracket, we never previously considered apprentices or work experience – until our new electrical department took on an apprentice.

"This has been of great benefit to our company, and I realised the opportunities we were missing as a business and the injustice being served to both the next generation of workers – and, by extension, the industry as a whole.

"It is typical for tier 1 contractors to offer students site experience, however it is unusual

for smaller companies to do the same.

"If we all realised the importance of this offering, and all worked together to develop the up-and-coming generation, then we can ensure that a constant stream of skilled labour can continue."

As well as offering work experience, Britten is giving talks to students at the college on different ways they can progress.

Britten is keen to see other businesses follow suit. "I would urge anyone who is in a position to do so to also reach out to their local colleges and offer any support you can to the upcoming talent within the industry. This is a very rewarding experience, with proven benefits to everyone involved."

He explained: "The apprentices are able to take advantage of opportunities that they may otherwise have never been exposed to, our individual companies can benefit from fresh eyes, new ideas and young eager minds to mould."

"Ultimately the industry will benefit from a larger, more varied and invested group of young people who are ready and willing to learn and grateful to the industry for giving them these experiences and a springboard into their lifelong careers."

It is typical for tier 1 contractors to offer students site experience, however it is unusual for smaller companies to do the same
Andy Britten MCIOB



Double CPD feature: JCT 24 and the Building Safety Act

Join the Midlands half-day CPD event

CIOB members in the Midlands can benefit from a double CPD offering at a half-day CPD event in April. As the industry evolves, staying ahead of the latest changes is crucial for professionals navigating contract updates and regulatory changes.

The event will explore the key revisions to JCT 2024 contracts and also assess the impact of the Building Safety Act one year after its implementation.

It will take place at the Genting Hotel, Marston Green, on 3 April 2025 from 8am-12pm, and is free for CIOB members.

In the first session, a panel of legal and contract specialists, including Samuel Townend KC (Keating Chambers), Sean Smylie (Quantex Consulting), Phil Vickers (Winvic Construction), Geraldine Fleming

(Diales) and Michael Bennett (TLT), will break down the significant updates to JCT 2024 contracts and their implications for professionals.

The second session will explore where we are now, one year after Building Safety Act. Mark Johnston MCIOB (Cube Construction Consultants and CIOB Nottingham Hub vice-chair) and George Parker MCIOB (AtkinsRéalis) will provide a comprehensive update on the act's impact, covering dutyholder responsibilities, regulatory expectations and key lessons learned over the past year.

This event has been kindly sponsored by Winvic, Careys and BSN Group. ● **Book through www.ciob.org/events or by contacting gflloyd@ciob.org.uk.**

'I believe in making digital easy for people to understand'

Paul Thorpe, one of the youngest CIOB members to be awarded fellowship status, tells **CM** about the project that formed part of his application

Paul Thorpe, director of data and digital at Okana, has become one of the youngest professionals to be awarded a CIOB fellowship.

The application process is extensive, during which Thorpe was required to produce a submit a reflective account of a high-level project he has recently led, demonstrating not only his competence, but best practice in leading people and projects. The project he selected was the Construction Risk Library for the Health and Safety Executive (HSE).

Tell us about your work on the HSE's Construction Risk Library Project?

I ran a 12-month project from June 2023 to June 2024, in collaboration with the Health and Safety Executive as part of the Discovering Safety Programme – a five-year initiative funded by the Lloyd's Register Foundation.

The project was to lead and finalise the Construction Risk Library (CRL) in the third and final phase of its development. The objective of the CRL was to develop a classification schema for capturing construction related risk scenarios, along with providing a selection of possible treatments /mitigations against each risk scenario in a library of typical risk scenarios and industry best practice preventive measures.

The application of the CRL on a project would act as a leading

indicator for applying the general principles of prevention. The CRL was designed to serve as a comprehensive resource that enhances risk management across the construction sector.

What does it mean to be awarded CIOB fellowship?

The fellowship standards are incredibly high, and it is humbling to have been awarded such an honour, one which I have admired in others for some time. It is a privilege to be part of a community raising the bar for building excellence.

You have worked in many regions around the world. When it comes to digital adoption, what regional differences stand out the most?

The UK has had a strong emphasis on regulations and standards, driving a focused, standardised approach in both private and public sector projects. North America, however, is very much market-driven, with the private sector pushing innovation.

I am also witnessing that in the Middle East they are pushing for digital adoption from the top down through the large number of mega projects – this approach is indeed working and transforming region at an accelerated rate.

East and South East Asia are adopting digital at an equally rapid rate. I enjoyed witnessing this over a number of years living in Hong Kong.



ALEX WROE PHOTOGRAPHY

It is a privilege to be part of a community raising the bar for building excellence
Paul Thorpe, Okana


When talking about digital strategy, you have a unique way of developing it. Can you tell us more?

Keeping it simple – which is what a lot of people say, but there are a lot of acronyms and terms that get thrown about. I believe in making it easy for people to understand and get on board with, which increases the chances of success with digital adoption.

It is also important to make sure there is a strong return on investment to implementing digital processes and ensuring this aligns with how the project is being procured and delivered. ●

Read about the CRL here: www.discoveringsafety.com/works/construction-risk-library-project.





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CIOB offers free online mentoring service

Members looking for support can sign up for advice from CIOB chartered members and fellows

The CIOB Mentoring Service is a free service available to members on a suitable pathway.

Using an online mentoring platform, it connects chartered members and fellows who have volunteered to be mentors with members looking for support in becoming chartered members or chartered environmentalists.

A third mentor programme is available for mentees on the CIOB self-development pathway, who are graduates but not yet eligible for the Professional Review.

Chartered members and fellows (including those retired) can sign up as mentors for this programme. They will have a virtual session with their mentee to discuss the support

▲ Mentors can share their experience of the Professional Review process

needed and agree the frequency of sessions and duration of mentoring.

During the sessions, the mentor will explain the Professional Review process and core competencies needed to become a chartered member. They will share and discuss their experience in the relevant competencies, set action-orientated outcomes and provide feedback.

The mentee is encouraged to also make use of the Tomorrow's Leaders Steppingstones programme to support them. ●

If you are interested in becoming a mentor or a mentee visit www.ciob.org/membership/mentoring.

Members to get first glimpse of Oxford station expansion

Kier to host site visit and Q&A on £65m project

Kier is hosting a site visit and Q&A for CIOB members about its work on Oxford station.

The project, to complete in August 2026, will see a new platform and western entrance, including replacement of Botley Road bridge, the current focus.

Other plans include a new ticket office, waiting room,

toilets, cafe and shops, plus a new subway to connect the entrance and platform.

The £65m main works package, part of the Oxford Corridor Phase 2 Project, aims to increase capacity by 50%. The visit will take place on 29 April 2025 from 9-11am. Contact: cgarner@ciob.org.uk.



CIOB publishes updated Client Guide

New edition includes sections on digital and sustainability

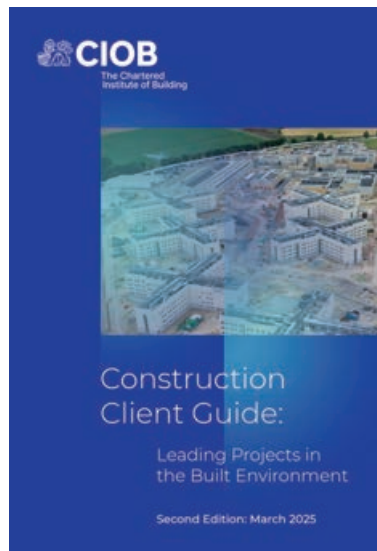
CIOB has published a new edition of its Construction Client Guide: Leading Projects in the Built Environment. This second edition explains how projects are structured and managed, and what to look out for along the way, empowering clients with the knowledge and skills they need to succeed.

It is aimed primarily at clients tasked with running larger projects but the principles apply to all clients regardless of project size.

Drawing on CIOB members' experience, the guide puts the focus on best practices and guidance that can be applied within the commercial and regulatory context to improve outcomes and create more value.

This second edition takes into account feedback received from CIOB's client champions and will include new project images as well as new sections on sustainability and digital.

The guide is free to download at www.ciob.org/industry/support-for-clients/professional#download+the+client+guide.



“The second edition of the guide explains how projects are structured and managed, and what to look for along the way, empowering clients with the knowledge and skills they need to succeed

CIOB names Apprentice of the Year



Quantity surveyor from Cambridge picked from group of 12 to receive CIOB accolade

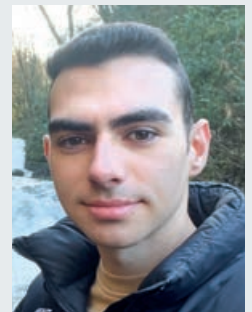
James Monk, 25, a quantity surveyor from Cambridge, has been named CIOB's 2024/5 Apprentice of the Year. Monk, who works for Munro Building Services, completed his Level 4 construction quantity surveying technician apprenticeship in January 2024. He is now working towards a Level 6 degree apprenticeship.

CIOB Apprentice of the Month

James Pratt, assistant quantity surveyor, Level 3 construction support technician, Barratt Developments

Which technological advances in the sector are you most excited about?

Modular and offsite construction. You're saving time on site, and on a lot of the premiums. It also enables a lot of work to happen at the same time. Different areas of the building could be constructed on different sides of the country then come together like a big puzzle.



What was your favourite project to work on over the course of your apprenticeship?

It was a graphical detailing and construction. It consisted of a lot of hand drawings all the way from different plans like foundation scales, section drawings, site block plans and then we learned about all the different techniques to hit the British standards associated with all of them.

What's one piece of advice you'd give to someone enrolling onto a construction apprenticeship.

Take each unit or project with an open mind. Having the exposure to each role can show you different areas you've never really thought about before, which you might actually prefer.

How did you arrive at construction apprenticeship?

My dad's a carpenter, so I've always had an exposure to the industry and I worked

Having exposure to each role can show you different areas you've never really thought about, which you might prefer

James Pratt

with him for a year and a half doing carpentry, but I always knew I didn't want to work on site. I like working with money; quantity surveying was kind of a mixture of both.

But the apprenticeship exposed me to so many different roles within the construction industry, which I just didn't know existed.

What are your future career ambitions?

I'd like to continue working through the commercial department. I enjoy being involved with all the costs associated with completing developments and procuring the right trades.

In association with



Digital savings

Jalpesh Patel, industry development manager – infrastructure at Bluebeam, explains how to improve infrastructure delivery with software

The UK government wants an infrastructure boom, with up to 150 potential projects in the pipeline. From gigafactories to solar farms, and roads to railway lines, the aim is to create jobs and boost economic growth. However, budgets, resources and labour are tight. It makes delivery of these highly complicated, high-profile projects difficult.

It is well documented that digital solutions can help. Improved efficiency, tighter cost control and more effective supply chain collaboration are all possible with the right software. Yet our research shows that there are still gaps in adoption. Around one in four architecture, engineering and construction (AEC) firms are not using construction

software during planning, design and construction.

For those that do, building information modelling (BIM) is the most used (69%), followed by computer-aided design (CAD) (54%) and project management software (53%). A third (32%) said that a lack of training and skills was the main barrier. Others cited integration with existing tools and processes, and technical issues.

Choosing the right tool

Mistakes often happen during procurement. For example, the principles for data collection, categorisation, storage and reporting must be set out at day one so that the right tool, with the right functionality, is selected.



Tools such as Bluebeam help teams work in a real-time, transparent environment
Jalpesh Patel, Bluebeam

Consideration must be given to how this will impact the whole supply chain. Tools such as Bluebeam help teams work in a real-time, transparent environment. This streamlines communication, provides insight into project performance and keeps the project team connected, wherever they are.

On large projects, there are tens of thousands of activities to coordinate through a vast supply chain. The logic behind how they are all sequenced can get very complicated. Project management software makes this information more visible. Some also incorporate AI, enabling huge amounts of data to be analysed and improvements to be suggested.

Tools can help on site too. Augmented reality, onsite sensors and mobile devices are making it easier to review real-world progress. Mobile devices can also monitor worker fatigue and track movement to identify health and safety risks.

Overcoming barriers

To make this work, businesses need cloud-based solutions. The principle should be to make information easy to share, compare and action in real time. The efficiencies achieved should make it highly desirable for AEC firms to invest in software tools.

One area of caution, though. Detailed plans for training and communications are needed to unlock full potential. Many providers will have onboarding programmes and a wealth of material that can help, so make this part of your procurement process too.

If the sector is to meet the UK government's ambitions, construction organisations need to find ways of working smarter and faster. The opportunity is a significant uptick in what can be delivered. ●

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Diary dates

Highlights of the CIOB
Calendar for the coming month

Midlands Half-Day CPD: JCT 24 & Building Safety Act One Year On

► 3 April, 8am-12pm, Marston Green, Birmingham

Join us for this Midlands half-day CPD event, exploring JCT 2024 and the Building Safety Act.

Industry leaders and experts will discuss two pivotal topics shaping the construction and built environment sector: the 2024 revisions and amendments to the JCT contracts and the progress of the Building Safety Act one year after implementation.

See p50 for further details.
Contact: gffloyd@ciob.org.uk

A Legal Round-up of 2024: What did we learn and why does it matter to you?

► 3 April, 5.45-7.30pm, London
Join CIOB London Tomorrow's Leaders for its popular legal event of the year at Pinsent Masons' London Crown Place offices.

This CPD session will cover the key case law developments in the infrastructure sector over the last year and why they matter to you. Expert guest hosts will discuss the most important court decisions from 2024 and provide some practical tips to help you to avoid common pitfalls.

There will also be opportunity at the end to ask questions.

Contact: pfrith@ciob.org.uk

Built Environment Strategies for a Water-Scarce World

► 8 April, 12-1pm, online

Join our one-hour webinar where Jo Osborn, Waterwise, and Dr Dan Simmons, founder of Quensus, discuss ideas to safeguard our water future.

Hosted by Amanda Williams, CIOB head of environmental sustainability, the experts will discuss the route towards a water efficient future and how to optimise water management and efficiency on site. See p18 for more details.

Contact: skearns@ciob.org

Essentials of a Good Risk Management

► 10 April, 5.30-7.30pm, Reading

Effective risk management helps anticipate potential issues before they become critical, allowing for proactive measures to be implemented.

This CPD will show how developing a comprehensive risk management process minimises failure, prevents financial losses, maintains customer trust and ensures long-term sustainability.

Attendees will hear from: Aalok Sonawala, PMO lead, National Programmes, RLB; risk management expert Kishan Patel; and Matt Sharp, chief digital officer, RLB.

They will cover a range of topics that will give you the knowledge to start your journey towards good risk management and how to begin setting up a risk management plan and policy.

Contact: cgarner@ciob.org.uk

Getting Paid: Protecting your cash flow and reducing risk

► 16 April, 1-3pm, online

In association with Quigg Golden, this webinar will equip contractors and subcontractors with the knowledge to aid claims management to protect themselves against contra charges.

Topics featured include:

- The fundamentals of a claim.
- An overview of the Construction Contracts Act 2013.
- Key provisions of Public Works Contracts (PWC).
- Extensions of time (EoTs) and loss/expense claims.
- Contract administration and steps to take if you don't get paid.

Contact: abuso@ciob.org

Site tour: Oxford railway station expansion project

► 29 April, 9-11am, Oxford

Join Kier for an exclusive tour and overview of the expansion of Oxford station – featuring a new platform and western entrance, including replacement of Botley Road bridge. Current work is focusing on the replacement of the bridge.

The visit will start with a short presentation, followed by Q&A, then a walking tour around the area to view the various sites. The tour is within walking distance of Oxford station along Becket Street. There won't be access onto site.

See p54 for more details.

Contact: cgarner@ciob.org.uk

For a full list of events and to register visit www.ciob.org/events.



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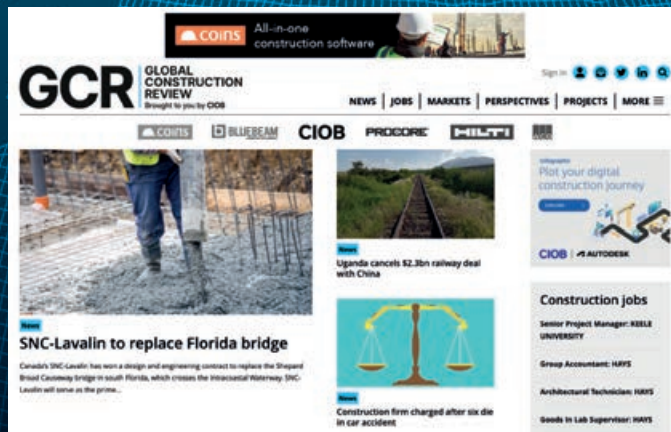


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