



WHY ARE CARE HOMES NOT HIGHER RISK BUILDINGS?'

A CIOB MEMBER'S CAMPAIGN TO CHANGE THE REGULATIONS ON FIRE SAFETY

COMPLY WITH CLIENT REQUIREMENTS AND MAKE OPERATIONAL SAVINGS



Quick & easy 2 days accreditation



Save money



Manage risk



Prequalify for 1000's of opportunities with leading organisations

CHAS are the UK's award winning and leading accreditation scheme for contractors and supply chain management services for clients.

We make getting an accreditation quick, easy and hassle-free. You could achieve compliance in all areas of risk management in as little as 2 days.

JOIN CHAS TODAY

Simply visit chas.co.uk and you'll find everything you need about our accreditations and the benefits. Or call our expert, friendly team on 0345 521 9111

Platinum Trusted Service Awards winner! 2022 * * * * feefo^{ct}

CHAS





01/23 Contents









38

News

- 04 News in pictures
- 06 News: CIOB's social value
- 07 News: Care home fire regs
- 08 News: Digital resources launch 10 Data: Focus on the long term
 - Opinion
- 12 Caroline Gumble on social value
- 13 Steve Hodgson on mould issues
 - Art of Building
- 14 This year's winning photographs

Fire Safety

- **16 Fire safety care home campaign** An FCIOB battles to change the regs
- Infrastructure
- 22 Will 3D printing make its mark? How the tech could shape our future

Global

28 Challenging safety statistics Are incident frequency rates valid?

BIM + Digital

- 30 David Philp on his role at Cohesive
- 32 Digital Construction Awards 2023

Partnership

- 34 CSCS Alliance unites card schemes
- 36 Hilti explains its holistic approach

CPD

38 Sustainable roofing with Garland UK

Legal

- 42 Contract clinic Anthony Hayes on concurrent delays
- Careers & Recruitment 44 Job spotlight: Assistant site
- 44 Job spotlight: Assistant site manager, Diamond Build Group

Community

- 46 New technical membership grade
- 47 VP Sandi Rhys Jones visits Jersey
- 48 Norwich Hub enjoys site visits
- 49 Learning from Maltese heritage
- 52 Mike Kagioglou is new CIOB VP
- 53 Graduation ceremonies in the City
- 54 Sponsoring CIOB student events
- 56 Dr Mark Key on Building Regs

Diary dates

58 What's on over the next month



▲ World's largest crane lifts nuclear reactor liner ring

Big Carl, the world's largest crane, has lifted a 304-tonne steel liner ring into place on the first reactor building at Hinkley Point C nuclear power station. A joint venture between Bouygues and Laing O'Rourke (Bylor JV) is overseeing construction on the project. It is the third and final ring to be installed on the building, which will eventually house one of two nuclear reactors.

Construction season starts at UK's Antarctic research hub

British Antarctic Survey, BAM, Ramboll and Sweco will work to make a new 4,500 sq m science and operations building weatherproof and carry out airfield improvements at Rothera Research station. The work comes as the sixmonth construction season starts in the region. Last season, BAM and its partners completed the external skeleton for the new Discovery building.



CIOB has named Professor Mike Kagioglou FCIOB as its latest vice-president, p52



Mace trials 'Dave' the robot dog at Heathrow Airport

Construction firm Mace is trialling a Boston Dynamics robot dog it has named 'Dave' as part of the refurbishment of ageing mechanical and electrical services in a 1960s cargo tunnel at Heathrow Airport. The 'Spot' robot features a Trimble X7 scanner to provide 3D laser scans of the site. The tunnel helps to transport luggage and cargo across the airport.



Repair work in Parliament's St Stephen's Hall complete

Contractor DBR has completed work to clean and repair the ceiling in St Stephen's Hall in the Houses of Parliament. The specialist work was part of a wider programme focusing on the repair and replacement of stonework, as well as mechanical and electrical systems in the Palace of Westminster.



▲ Laing O'Rourke installs Everton stadium roof truss

Laing O'Rourke is installing the first of a series of giant roof trusses at Everton FC's new Bramley-Moore Dock stadium. The contractor lifted the 100-tonne section of steelwork into place in the north stand. The stadium will have five roof trusses – two in the smaller north stand and three on top of the one-tier south stand.



▲ HS2 invites QPR youngsters to Old Oak Common

HS2 has partnered with Queens Park Rangers football club to give 22 members of its youth team an insight into life on a construction site with a visit to the site of HS2's Old Oak Common superhub station. The station sits just two miles from QPR's stadium at Loftus Road.



CIOB generates £34m in social value annually

Study using financial proxies from the Social Value Bank shows high social value return of key CIOB activities, writes **Rod Sweet**

The top four social value-generating

activities of the CIOB last year were CPD completions, calculated to have delivered £17.2m in social value, downloads of learning materials (£9.6m), training courses delivered (£5m) and mentoring (£2.8m). The study identifies five main areas where CIOB delivers most social value.

CIOB Academy

CIOB calls the Academy the "engine room" for driving social value through its constant engagement with members and the wider industry. "For an organisation with 47,000 members worldwide, it is not surprising that the impact of its training is significant and this ranges

CIOB Social Value Institute Secon

▲ The CIOB Social Value

Baseline Report CIOB delivers social value through a variety of activities



from a variety of training courses to a wide range of CPD packages (both free and purchased), and Massive Open Online Courses (MOOCs)," the study said.

Technical guidance and codes of practice

The codes of practice developed by CIOB, and the technical guidance sheets and information readily available online, "drive the industry forward on a path of continuous improvement and help to maintain and improve standards", the study said, adding: "This provides the practical day-to-day support and advice which supplements some of the more theoretical training and guidance."

Mentoring

The recently established mentoring programme has proved successful for members both as mentors and mentees (and in some cases both), the study says. The intention is to expand this programme, which has already benefited over 280 users.

Global Student Challenge

This competition, open to teams of students worldwide, promotes greater alignment with the principles of the CIOB, allowing the challenge to better reflect the CIOB's positioning on 'leading the cultural shift', innovation and thought leadership.

For an organisation with 47,000 members worldwide, it is not surprising that the impact of its training is significant

CIOB Social Value Baseline Report



CIOB Assist

Working with Anxiety UK, this fund is open to members and ex-members of CIOB and their dependent families to help people deal with challenging times. It donates an average of £50,000 a year. A further £32,000 was invested in the partnership during 2021. Relevant financial proxies for the support given include 'relief from anxiety' and 'relief from the burden of debt'.

"The impact of the work of the CIOB directly impacts many of the aspects of the construction process," the study concluded.

"Not only does it support the skills and technical expertise that enable its members to deliver their work to the highest standards, but it also focuses on safety, health, and wellbeing and many of the aspects addressing the issues related to working in a high powered, stressful environment.

"The CIOB looks to deliver the skills to maximise job performance and look after the individual, and additionally to ensure the built environment meets the needs of society."

Claire Miles has written to request a meeting with Secretary of State Michael Gove



We support their campaign to make sprinkler systems mandatory for care homes with residents of limited mobility, and that those homes are defined as 'higher risk' **Eddie Tuttle, CIOB**

Following the fire on 8 April 2017, in which two residents died, the owner of Newgrange Care Home pleaded guilty to five fire safety offences and was fined £175,000.

The inquest coroner, Geoffrey Sullivan, wrote to Michael Gove, Secretary of State for the Department of Levelling Up, Housing and Communities, expressing concern that sprinkler systems are not "mandatory" for care homes whose occupants have limited mobility, and that "care homes are not 'higher-risk buildings'".

Gove replied that "we think the current definition is correct" but added that "we are looking at further potential fire safety measures in housing for vulnerable residents as part of our ongoing review of Approved Document B".

CM asked DLUHC for an update on the review of Approved Document B. It responded that the review into sprinkler systems in care homes is "ongoing" and "we will provide an update in due course".

CM also asked whether DLUHC would consider redefining care homes for residents of limited mobility as 'higher-risk buildings'. It said that "the definition of higherrisk building was determined on the basis that the risk to multiple households is greater when fire spreads in buildings of at least 18m. That followed extensive consultation and we do not propose to lower the height threshold at this time." See feature, p16-20.

CIOB backs member's campaign to change fire regs for care homes

FCIOB calls for change to safety regulations governing care homes after mother-in-law's death in fire. Will Mann reports

CIOB is supporting a campaign to

change care home fire safety regulations after a member's mother-in-law died in a blaze.

Steven Miles FCIOB and his wife Claire have been lobbying government since the tragedy at Newgrange Care Home in Hertfordshire, in April 2017. They argue that care homes should be classified as 'higher-risk buildings' and that sprinklers should be mandatory.

Claire Miles said: "Most care homes are just two storeys. Many residents are not mobile and can't selfevacuate. They become disorientated and confused easily. So why are care homes not 'higher risk'?"

Eddie Tuttle, director of policy, external affairs and research at

CIOB, said: "Claire and Steven's harrowing experience brings home the importance of building safety and the laws that enforce it. Behind every failure there are stories of tragedy and loss. With development of the secondary legislation for the Building Safety Act, which is currently going through Parliament, law makers have the opportunity to help make the built environment a safer one for all.

"We support Claire and Steven's campaign to make sprinkler systems mandatory for care homes with residents of limited mobility, and that those homes are defined as 'higherrisk buildings'. This would go a long way to ensure the terrible incident at Newgrange is never repeated."

Firefighters tackle the blaze at Newgrange Care Home in April 2017



....

CONSTRUCTION MANAGEMENT JANUARY 2023 7



CIOB launches digital service for clients

CIOB's new head of client development, Linda Stevens, tells **Neil Gerrard** how the institute will help clients improve their project outcomes

CIOB is set to launch new digital

resources for clients to help them collaborate with construction companies more effectively.

CIOB's new head of client development, Linda Stevens, told *CM* the service is planned for March, to coincide with a CIOB-led session at Futurebuild entitled 'What Clients Want'. The debate will hear from clients about what they need from their construction partners and why they don't always get it.

Stevens joined CIOB in August 2022, with over 30 years' experience in the property market including eight years as head of client services at RIBA. She takes ▲ Linda Stevens joined CIOB after eight years as head of client services at RIBA We want to help less experienced clients be better informed, break down barriers and share best practice so together we can arrive at better project outcomes Linda Stevens, CIOB

Find out all the

details of how to enter the 2023 awards, p32

responsibility for CIOB's newly formed Client Steering Group, chaired by past president Mike Foy, who made client engagement a theme of his presidency.

Stevens explained: "The essence of the strategy is to engage with clients and provide them with what they need. We want to help less experienced clients be better informed, break down barriers and share best practice so together we can arrive at better project outcomes."

She sees her role as a continuation of her work at RIBA, albeit from a different perspective. "Ultimately, it is about improving quality and safety, encouraging innovation and sustainable outcomes, and promoting value." she said.

The initial digital offer will signpost new and existing client guidance, including the client's responsibilities under the Building Safety Act. It will provide FAQs for domestic clients, client insights and best practice case studies. Experienced clients will be invited to sign up as advocates to the initiative and become client mentors, offering peer-to-peer advice to less experienced clients.

Over time, the offer will expand to include sector-specific guidance and case studies together with a series of 'in conversation' podcasts and videos, ultimately becoming a digital hub for clients.



Stevens added: "I sit in the space between clients and construction teams, understanding the issues from both sides. Someone said to me recently that clients need predictability and contractors need cashflow. Where that is the case, you can understand why relationships become strained because they want different things.

"We aren't expecting to be the oracle for all clients because we don't need to be. But there are many clients out there with less experience or understanding of the complexity of construction who would benefit from what we can offer them."

CIOB's client objectives

Share best practice in construction management with clients around the world.
Influence the culture of construction through greater collaboration, improved safety and quality, and improved project outcomes.

• Support CIOB-accredited building companies, construction management companies and consultants to deliver on targets for quality, ED&I and environmental sustainability.

 Raise awareness of CIOB and modern professionalism in construction management.

• Increase demand from clients for MCIOB and FCIOB (and the new Tech CIOB) qualifications and encourage more clients to appoint CIOB chartered company members for their projects.



No. 1

Provider of surveying apprenticeship

Improve retention 0 Increase diversity Attract new employees O Utilise levy-funding

Online degree apprenticeships we offer:

Level 6 Chartered Surveyor BSc (Hons) and MSc routes available

Building Control Surveyor

Level 6 Construction Site Management

www.ucem.ac.uk/apprenticeships businessdevelopment@ucem.ac.uk Investment in billions in capital spending announced as secure in the chancellor's Autumn Statement over the next five years



A focus on the long term will help construction through this recession

As output growth continues to slow and borrowing costs rise, the challenge for the industry must be on finding ways of improving productivity, says **Kris Hudson**



The new budget announced in November from the UK's third chancellor in as many months

has failed to significantly improve the pessimistic outlook of many market observers. As the country enters recession, the construction sector will need to brace itself, while focusing on long-term investment, maintaining relationships and doing more with less.

Construction output growth has been slowing since February, with supply chain disruption and inflation continuing to act as a drag on activity levels. Data from the Office for National Statistics shows that all work construction output growth increased by just 0.6% in September 2022, having steadily fallen from 2.9% growth in the three months to March 2022. This has largely been driven by a fall in repair and maintenance work of 2.2% in September 2022, with these works being delayed or halted due to reduced disposable incomes following heightened food and energy costs.

In the face of rising borrowing costs and economic uncertainty, forecasts also offer few causes for optimism when looking at

The construction sector will need to brace itself, while focusing on long-term investment, maintaining relationships and doing more with less sector-wide data. On average, the latest construction output forecasts suggest that activity may fall by as much as 4.5% in 2023, softening to a 0.3% decrease in 2024.

However, there are still pockets of growth, especially when looking at the Construction Product Association's industrial and infrastructure outlook. The Sunak government's re-commitment to a pipeline of critical infrastructure – from HS2 to Sizewell C – brings a welcome level of certainty that will help these schemes to continue in earnest.

The challenge for construction will now be doing more with less as prices continue to rise. Consumer price inflation is now at a 41-year high of 11.1%, and Turner & Townsend's latest forecasts of construction tender price inflation for 2022 are 9% for both real estate and infrastructure, as reported in November's UK Market Intelligence Report. The focus must be on improving productivity. From greater use of digitalisation to strengthening supply chain engagement, the construction sector needs a targeted approach that simultaneously braces for short-term instability while preparing for long-term growth.

Looking ahead, when recession and the higher inflationary environment eventually subside, the clients and contractors who will be best placed to deliver will be those who looked beyond the immediate and focused on building long-term capacity, skills and supply chain relationships. Kris Hudson is an economist and associate director at Turner & Townsend.

Construction Products Association construction output growth forecasts, by sector, 2023



ONS three-month-on-three-month construction output growth





WHAT WILL YOU TAKE A STAND FOR?

Build a better future for the built environment

Futurebuild provides the stage for inspiring ideas, innovative solutions & knowledge sharing to drive sustainable construction and help us reach our goal of net zero. The exhibition brings together the entire supply chain to showcase, debate and understand the advancements in sustainable construction and the emerging technologies that will make net zero possible. Futurebuild is taking a stand for a better built environment and is urging companies and professionals throughout the construction supply chain to make a similar commitment by 'taking a stand' on an issue they passionately believe will help propel the industry towards a more sustainable future. Join us in taking a stand.

SCAN HERE

♥ @FuturebuildNow

/FuturebuildNow

FuturebuildNow

O /FuturebuildNow

in FuturebuildNow

by EASYFAIRS





Caroline Gumble

Measuring CIOB's social value

Being part of CIOB is about belonging to an organisation that does good things. And now CIOB has measured its social value for the first time. **Caroline Gumble** explains

This month's column comes not

long after my return from our successful Members' Forum event in Sydney. It was our first visit to Oceania and I was pleased to spend time with members face to face, understanding their priorities and learning from their insights and experience.

Of course, we also shared details of our plans and activities and one of the items I was particularly proud to put out to delegates and hubs is our recently completed social value report.

CIOB made a commitment in 2021 to research our own social value and publish a report to establish a 'baseline' for where we are now and where we could aspire to go. That decision was made because it is equally as important for us, especially in light of our public interest remit, to understand and measure our social value, as it is for other organisations in this sector.

Many of you will be familiar with the idea of social value and may even work alongside social value and corporate social responsibility colleagues in your organisation. With CIOB also working alongside many of those organisations, we can now showcase the extent of value that we add to society and understand more about how to grow this aspect of our work and support others in doing the same.

In our first ever report on CIOB's social value, which has been

 Being part of CIOB is about being part of an organisation that has a positive social impact



We can now showcase the extent of value that we add to society and understand more about how to grow this aspect of our work and support others

produced by an external agency specialising in this kind of reporting within the built environment, we reveal that for every £1 invested in CIOB services, £2.84 of social value is generated. The agency which undertook the work tells us that this is a conservative valuation, likely to grow as other areas of CIOB's work are examined and factored into future reports.

What pleases me most about this report is that it reinforces that belonging to CIOB, either as a member or as a colleague, is about being part of an organisation that does good things and has a positive impact and does deliver in terms of the public interest.

It feels fitting that we are able to publish this early in the New Year – watch this space for a link to the full report in January – as it is something positive and purposedriven, helping to set us up for a future in which I hope we can deliver more on public interest, social value and support for this important industry. **Caroline Gumble is CEO of CIOB.**



Steve Hodgson Property Care Association



Mould death highlights Approved Document F failings

Chronic exposure to mould led to the tragic death of toddler Awaab Ishak. **Steve Hodgson** argues that tougher enforcement of Approved Document F is required

The coroner in the tragic case of

Awaab Ishak cited mould as a primary catalyst in the toddler's avoidable death in Rochdale in 2020, in his report issued last November.

Anyone who deals with dampness in 'low cost' rental accommodation knows that the photographs released after the inquest are not unusual.

The HSE presides over regulations that seek to prevent employers, landowners and businesses risking workers' safety. It has the power to investigate unsafe practices, deaths and injuries and instigate both civil and criminal prosecutions.

Why is there no such mechanism to protect tenants in their homes? Gas and electrical safety legislation rightly places legal responsibility on landlords, so why not dampness?

An early lesson from Grenfell Tower was that tenants need a voice and those who serve them need to listen and act on what they are being told.

A framework like that presided over by the HSE, which will hold people to account through criminal responsibility where their negligence has led to physical harm, is something that may come, but this is worthless without education. Every housing officer, landlord, surveyor and building professional should have the knowledge to at least understand the causes and implications of dampness.

Property Care Association (PCA) members have seen a significant

▲ Mould exposure can be prevented by better enforcing regulations There need to be more robust reporting structures, coupled with a culture of learning for housing professionals. We need empowered, technically competent professionals

rise in dampness affecting homes, and this is only set to get worse.

With the right attitude, defects can always be explained, remedied and resolved. One of the most effective ways to address the issue is the installation of appropriate and efficient ventilation. However, regulations and guidance setting out minimum requirements in homes are routinely ignored and often misunderstood.

The current format of Approved Document F, which addresses ventilation in homes, does not get the attention it deserves. And it is not enforced to the same extent as other areas of the Building Regulations.

Over the years we've pressed for more robust Building Regulations to tackle the issue – and we will continue to make the case.

There need to be more robust reporting structures, coupled with a culture of learning for housing professionals. We need empowered, technically competent professionals who can deal with issues with mould, based on science rather than assumption and prejudgements.

There's a need too for a focused approach to ventilation and air quality that benefits the health and wellbeing of residents while being alert to the cost of energy. These are simple strategies that would make considerable inroads in tackling the growing blight of mould and condensation for millions of tenants. • Steve Hodgson is chief executive of the Property Care Association.



Art of Building 2022: vote for your favourite

CIOB's annual photography competition has shortlisted 12 entries for a public vote, seven of which are shown here. Go to artofbuilding.org to pick your favourite. The winner will be announced on 26 January 2023

A lonely small pink church, Qinhuangdao (China), Rong Xu. "The beach was locked down due to Covid-19, so it was rare to get a photo without any person in the frame."

Staircase along a retaining wall, Hong Kong, William Shum.

Phoenix International Media Centre, Beijing, Tien Sang Kok. "The exterior structure of the building looks like the dragon bone."









A House of God, Italy, Roman Robroek. "The church structure, set on the rocky wall of a medieval village, is from the second half of the 17th century."





A man-made forest, Singapore, Chong Boon Wong. "A man-made forest in a greenhouse setting."

Scholars in a cage, Berlin, Vincenzo Avallone. "I took this photo in a recent trip to Berlin at the Humboldt University Library."



Ysios Winery, Araba (Spain), Pedro Luis Ajuriaguerra Saiz. "The winery is located in Rioja Alavesa, at the foot of the Sierra de Cantabria, designed by Santiago Calatrava."

'Why are care homes not higher-risk buildings?'

In April 2017, FCIOB Steven Miles lost his mother-in-law in a fire at Newgrange Care Home in Hertfordshire. Since then, he and his wife Claire have been campaigning to change the regulations on fire safety in care homes. **Will Mann** hears their story

ewgrange Care Home on Cadmore Lane in Cheshunt, Hertfordshire, was built in 1996. Set across two storeys, with a roof space, it was occupied by 35 residents on 8 April 2017.

At 5.51am that morning, Hertfordshire Fire & Rescue Service received an emergency call. There was a fire at the care home. It had started in a first-floor linen cupboard, caused by overheating in the electrical wiring at ceiling level. The fire quickly spread, accelerated by inadequate compartmentation in the building's roof space.

Just six minutes after the call, fire engines arrived on scene and firefighters began tackling the fire and evacuating the residents from inside the burning building. Many of the residents were immobile and included five centenarians. In total 12 fire engines were involved in the operation. Using breathing apparatus, the firefighters evacuated most of the first-floor bedrooms by carrying the residents downstairs and protecting them from the burning debris falling from above, using their own bodies as shields as the roof was collapsing.

One of the residents at Newgrange was Daphne Holloway. Her daughter Claire and son-in-law Steven Miles – an experienced construction professional and a Fellow of the Chartered Institute of Building – were out that morning.

Claire Miles: "When we returned home around 10.30am there was a message on our answer phone. It was from one of Mum's friends saying they'd heard about a fire at Newgrange and enquiring after her welfare.

"We drove straight to Cheshunt, but we could see ahead there was an enormous fire. It was like a scene from a film. There were groups lining the pavement and I kept thinking: 'Surely care homes cannot catch fire?'

"Cadmore Lane was cordoned off. I spoke to a policewoman and explained that mum was in Newgrange. We were joined by a police family liaison officer who



We both believed the best legacy for Claire's mum and for lvy would be a change to the fire regulations Steven Miles explained that, at that stage, two residents were unaccounted for. One of the rooms affected was my mother's bedroom."

The fire service rescued 33 residents from the care home, three of whom needed hospital treatment for burns or the effects of breathing in smoke. They were unable to find Ivy Spriggs, 91, and Daphne Holloway, 88. The body of Claire's mother was eventually identified using dental records.

Claire Miles: "I understand the Newgrange policy was to 'stay put'. I visited Mum nearly every day of her 18-month stay and, where I signed in and out, there was a fire poster on the wall above. In exactly the right place of course. I glanced at it, but I didn't ever give fire a second thought. Mum was so well cared for at Newgrange that I took her safety for granted.

"The firefighters were incredibly brave. They did everything they could, and put their lives at great risk. Thirty-three lives were saved in those dreadful circumstances which is a wonderful achievement. Seven of the firefighters were awarded the Queen's Gallantry Medals."

Preparations began for a criminal investigation and the coroner's inquest into the two deaths.

Steven Miles: "I thought from the outset that something was not right. The fire had spread so rapidly. We both believed the best legacy for Claire's mum and for Ivy would be a change to the fire regulations that ►

Transcript of Newgrange Care Home call to Hertfordshire Fire & Rescue Service

5.51AM, 8 APRIL 2017

Fire service:	"Fire service, what's
	your emergency?"
Caller:	"Hi, we've got fire in
	the building."
Fire service:	"Yes, what's the address?"
Caller:	"Cadmore Lane. Newgrange
	Care Home. In Cheshunt."
Fire service:	"There's a fire in
	the building?"
Caller:	"Yes."
Fire service:	"Have you evacuated?"
Caller:	"We're going to evacuate
	now. But we have residents
	in the building as well."
Fire service:	"Is there any sign of fire,
	any smoke?"
Caller:	"There's a smell of fire
	on the stairs."
Fire service:	"I've sent the fire engines
	on their way."

My view as a construction professional is that you should call out anything you see in a building that is dangerous, during construction or occupation **Steven Miles**



Firefighters

Care Home

tackle the blaze

at the Newgrange

would ensure a tragedy like this could never happen again."

On 14 June 2017, the fire at Grenfell Tower in West London resulted in 72 deaths. Fire safety now topped the news agenda.

Claire Miles: "Rt Hon Robert Halfon is our local MP (Harlow, Essex). We visited him at his surgery. He was very sympathetic and said he would speak to Harlow Council about fire safety in care homes."

Prompted by Halfon, Essex Fire & Rescue began a series of fire inspections across all care homes in the county. Essex Fire & Rescue inspected 152 care homes during 2018-19 and reported that more than a third - 51 - were unsatisfactory. The London Fire Brigade inspected 177 care homes in the same period and said that more than half needed to make fire safety improvements.

Meanwhile, the criminal trial at St Albans Crown Court was progressing. In May 2019, the owner of the Newgrange care home, Nicholas Meyer, pleaded guilty to five fire safety offences. His company, Newgrange of Cheshunt, was fined £175,000, plus prosecution costs.

The families of Ivy Spriggs and Daphe Holloway issued a joint statement after the trial:

"The circumstances in which they [Spriggs and Holloway] lost their lives were tragic, even more so by the fact

that serious failings by the care home, in respect to their management of fire risk, were found by the fire service.

"No words can describe how distraught the families feel after being critically let down by the Newgrange Care home who were trusted to care for their loved ones.

"The only glimmer of a silver lining to this terrible incident is that other care establishments will be sent a clear message that fire safety must be taken seriously as the consequences of not doing so can prove tragically fatal."

The coroner's inquest was due to begin later in 2019, but it was postponed due to the unavailability of key witnesses. Then in March 2020,

the pandemic arrived. The inquest would not begin until February 2022, at Hertford County Hall.

At the seven-day inquest, the senior coroner for Hertfordshire, Geoffrey Sullivan, heard evidence from witnesses from Hertfordshire Fire & Rescue Service and an independent fire safety expert. His report concluded that Holloway and Spriggs had died from fourth degree burns.

Sullivan sent his report to Michael Gove, then Secretary of State for the Department of Levelling Up, Housing and Communities (DLUHC), on 10 February 2022.

Sullivan informed Gove that all witnesses had "expressed



51

Essex Fire & Rescue inspected 152 care homes during 2018-19 and reported that more than a third – 51 – were unsatisfactory.



concern that sprinkler systems are not a mandatory requirement for care homes" where residents have limited mobility. He added that he was surprised the definition of higher risk buildings, in the Building Safety Act, focused on height and did not "take into account the risk brought about by the inability of certain occupants to self-evacuate from a building."

Preventing future deaths

Claire Miles also wrote to Gove, on 16 February 2022, offering her perspective on the Newgrange tragedy. Her letter concluded: "If change is brought about to try to prevent future deaths occurring in similar circumstances, my dear mother will not have died in vain. I would be happy to meet you or do anything I can to move things forward."

Gove wrote back to Sullivan on 7 April 2022. He said the department was "looking closely at further potential fire safety measures in housing for vulnerable residents... It will identify the current evidence for the effectiveness of sprinklers."

On the definition of higherrisk buildings, Mr. Gove said his department had carried out an "extensive consultation" and that "therefore, we think the current definition is correct". Claire Miles: "Most care homes are just two storeys. Many residents are not mobile and can't self-evacuate. Some have dementia. They become disorientated and confused easily and smoke is blinding. So why are care homes not 'higher risk'?"

In May 2022, Claire was approached by the National Fire Chiefs Council (NFCC), which was urging the government to improve sprinkler regulations in England. Its 'Think Sprinkler' campaign calls for all the 17,000 care homes in the UK to be fitted with sprinkler systems, bringing England in line with Scotland and Wales.

Claire Miles: "I was then, and remain, in awe of the firefighters ►

Drone shot of Newgrange Care Home after the fire

If change is brought about to try to prevent future deaths occurring in similar circumstances, my dear mother will not have died in vain Claire Miles. Letter to Michael Gove, February 2022



The definition of higher-risk building... followed extensive consultation... Therefore, we think the current definition is correct, and as such we do not propose to make amendments at this time Michael Gove at tender stage, particularly with regard to design and build procurement.

adequately designed and costed

"It is clear from the coroner's report dated 10 February 2022 that the 'higher risk' designation should be applied to care homes of any height, in addition to making sprinkler systems a mandatory requirement. This would also enable the local fire and rescue service to be involved at the planning stage which is a critical point of the construction process.

"Things have changed since Grenfell. Fire safety issues are being focused on. I fully support the CIOB for the work they have done to increase scrutiny of building safety and quality. My view as a construction professional is that you should call out anything you see in a building that is dangerous, during construction or occupation."

On 8 September 2022, Claire Miles wrote to Michael Gove's replacement at DLUHC, Simon Clarke. She recounted the tragedy of April 2017 and her hope for change to the regulations on sprinklers and higher-risk buildings.

She concluded: "Mr Gove's letter to my MP gives me some encouragement that change may come to help ensure that such an avoidable tragedy is not repeated – but all this is taking time. Mr Clarke, you are clearly a very busy man with many demands on your time, but I would welcome a conversation or meeting with you at your earliest convenience."

Hope of a breakthrough

In October 2022, Gove returned to his old position at DLUHC. His correspondence manager emailed Claire Miles on 27 October, to ask if she wished to extend her invitation to meet with Clarke to his successor. She replied immediately that she did. She is hopeful that a meeting with Gove may provide the breakthrough she and Steven have been campaigning for.

The National Fire Chiefs Council is campaigning for all UK care homes to be fitted with sprinkler systems



who risked life and limb for the residents at Newgrange. This is about protecting firefighters as well. So, along with Ivy's daughter Carole Murray, I agreed to support the NFCC's campaign."

Newgrange Care Home was rebuilt after the fire. Against the recommendation of Hertfordshire Fire and Rescue Service, no sprinklers were installed, though the rebuild did meet the required fire safety regulations. *CM* has contacted the owner of the care home, Nicholas Meyer, to ask if there are any plans to fit sprinklers in the future.

Steven Miles: "My concern is that unless a building project is designated as being 'higher risk', the fire strategy is not always



2940 Solar PV Panels

USE YOUR ROOF TO BRING NET ZERO INTO FOCUS



Lead the change towards net zero and construct flat roofs with the power to create renewable

energy.



START YOUR PROJECT 01473.257671 bauder.co.uk Retail distribution centre, Peterborough Contractor: FK Construction Ltd Photo credit: Ivegate Ltd

 US firm Icon is building the world's largest
 3D-printed housing development in Georgetown, Texas

Can 3D printing make a mark on construction?

The biggest 3D printing project in the UK was completed last year, but this country lags behind the rest of the world. **Kristina Smith** looks at the technology's potential

he market for 3D printing in construction is booming, but certain parts of the world are faster to embrace it than others. In Dubai, for instance, the government announced in 2018 that 25% of its state-built buildings would be 3D printed by 2025. Meanwhile China, the Netherlands and Italy have been vying for who can print the longest bridge, and in the USA specialist builder lcon is on site with the world's largest 3D-printed housing development, a 100-home estate in Georgetown, Texas.

In the UK our efforts so far have been much more modest. In September 2022, BAM installed a 3D-printed staircase for a footbridge over the M8 motorway near Glasgow which it believed was "the largest printed concrete construction in the UK to date".

"We were looking around internally for projects to trial it on," recalls BAM Nuttall's head of innovation Colin Evison. "On a call with a couple of my colleagues they mentioned a project for Glasgow City Council. They were keen to try something a bit different and see if there were any savings to be made."

The stairs were printed in a Weber Beamix facility in Eindhoven in the Netherlands at a facility that was set up jointly with BAM in 2019. However, BAM sold its share to Weber Beamix's parent company Saint Gobain in 2021, before the M8 project got to site.

Weber Beamix has created a parametric design package for staircases, which means that you plug in a few key dimensions and algorithms spit out the code for the printer to work to. The benefits of making the stairs in this way is that it uses far less concrete, says Evison. And although the cement content is higher than for a standard mix, far less material is used since the staircase is 'hollow' and there is little or no waste.

Using offsite 3D printing, rather than casting in-situ as was originally planned, also takes away some programme risk: there's no chance you will be rained off or an accident will stop play. Of course, shipping in from another country does





In a few years' time, 3D printing will be just one of those boring things that gets done Colin Evison, BAM Nuttall create some logistics-related risks, especially in the wake of Brexit.

"We did talk about what would it take to print on site, but I am not sure that would be a good idea," says Evison. "You want to be doing it in factory conditions."

BAM Nuttall did set up a machine for a demonstration at Heathrow's logistics centre, but that proved tricky, says Evison. Getting the concrete to go off just enough so that it stands up but is wet enough for the following layer to bond to it is dependent on the ambient conditions.

3D-printed housing

A site in Accrington, Lancashire, is set to become the biggest 3D-printed housing development in Europe. Not-for-profit developer Building for Humanity has joined forces with 3D printer supplier Harcourt Technologies to print 46 homes, a mix of three-storey apartments and houses, on a town-centre site.

Scott Moon, Building for Humanity founder, who started his career as a joiner, hopes that this will be the





Harcourt Technologies is to print 46 homes in Accrington, a mix of three-storey apartments and houses





first of many social housing projects: "We are hoping to purchase our own machine so we can print housing developments for anybody in the not-for-profit space," he says.

There's an added dimension to the Accrington scheme too. Building for Humanity is constructing the homes for veterans, homeless people and low-income families with some of them being trained in how to print buildings at Accrington and Rossendale College. The college recently took delivery of a COBOD International printer from the Netherlands which will be used for both training and testing out elements of the build – or print.

The Accrington buildings will be printed on site, with huge gantries set up around the perimeter of the buildings' footprints, around which the printing robots will run. Harcourt Technologies, working with its sister company Harcourt Architects, has adapted the initial design, partly to make it printable and partly to make it economically viable. "We have said we will achieve a 25% reduction in cost, that's how we got Scott to the table," says Justin Kinsella, a director of both Harcourt companies. This project is like a proof-of-concept for Harcourt, which has the licence to distribute Danish company COBOD's printing equipment in the UK and Ireland.

The corners of a building printed like this must be rounded to a minimum radius of 150mm, explains Kinsella, so that the robot can run continuously. The wall cross section has been designed to mimic a traditional brick-and-block cavity wall, although the cavity will be filled with loose-fill expanded polystyrene (EPS). This is partly to ensure the design can get Building Regulations approval – which it has.

Horizontal cedar and raised metal profile cladding has been cut from the design to save costs and, Kinsella argues, to reduce future maintenance needs. Instead, the concrete will be painted. Some sloping roofs have been swapped for flat ones. ▲ Not-for-profit developer Building for Humanity has joined forces with 3D printer supplier Harcourt Technologies





"We have said we will achieve a 25% reduction in cost with the Accrington project." Justin Kinsella, Harcourt

Think it, print it

Beyond bridges and houses, 3D printing offers a host of possibilities. Moon says he loves the slogan 'If you can think it, you can print it' and likes the idea of working with some of his future residents to create outdoor furniture or sculptures.

And while engineers are competing for the longest span or the most storeys, materials technology company Versarien is looking in other directions. With a focus on the construction and textile sectors, Versarien has been investigating the use of graphene in a host of applications. One of its exciting developments is Cementene, which involves adding a tiny amount of graphene to a concrete mix – which both boosts compressive strength and allows a reduction in cement content.

This year, Versarien started 3D printing with Cementene and in March this year launched 3D-printed pods, which could be garden offices, gyms or studios. These are genuinely for sale, at just under £30,000, but were also designed as a talking point.

"We used the 3D pods to show how things could be changed," explains CEO Neill Ricketts. "The big opportunities are on projects like HS2, in the water industry or for flood defence. That's our target market. But how do we get people excited about it?"

3D printing could whisk up long-term but temporary station canopies, structures or welfare accommodation. In the water industry, the ability to 3D print could allow engineers to rethink BAM trialled 3D printing of concrete stairs on a project for Glasgow City Council

▼ In September 2022, BAM installed the 3D-printed staircase for a footbridge over the M8 motorway near Glasgow which it believed was 'the largest printed concrete construction in the UK to date'



flow control designs, says Ricketts. In the humanitarian sector, it could provide temporary homes for displaced people fast.

BAM had discussed items such as fish passes for the Environment Agency and printed some drainage head walls, which couldn't be used in the end because the slope angle of the earthworks changed.

"3D printing is ideal for bespoke or customised elements," says Evison. "With 3D printing the [unit] cost of making one or the cost of making 100 is the same."

Printing closer to home, and closer to just-in-time, would allow for adjustments such as changing slopes to simply be programmed in.

New skills needed

For insight into the sort of skills we might need for a 3D-printed future, Ricketts talks through his multidisciplinary team at Versarien. "We have someone who understands materials, someone



Infrastructure



 Versarien has tested its graphene-enhanced concrete on various 3D-printed prototypes, including this garden furniture

who understands design – we have an architect working with us – and someone who can translate the information into the information that the machine needs."

Versarien's 'translator' has been with the team for 10 years, learning his skills via 3D printing with polymers. But getting things right can take time. "It can be quite frustrating when we don't have all the answers immediately," says Ricketts. "We have to acknowledge that we don't have all the skills and we don't always get it right first time."

'Design' is a different process. Ricketts talks about sketching a shape out on a white board and seeing his team converting that to a physical object within three hours. Setting up parametric designs is a new skill too, says Evison. People must also be trained to operate and maintain the printing machines.

Developing those skills on a wider basis will take time. Versarien attends career events and hosts school visits because it wants to get the message out to 13 and 14-year-olds that this is a cool career. And the company is working with local training provider Accxel.

Demand for new skills

Ireland's educators seem to be on the case. In August 2022, Louth Meath Education Training Board announced that it was launching Ireland's first 3D concrete printing course. And in November 2022, the Advanced Manufacturing Training Centre of Excellence (AMTCE) and innovation centre Future Cast held a two-day 3D Construction Printing training course, supported by Harcourt Technologies. > 3D printing takes place on site at Icon's Texas housing development





The skills you need don't really exist. You can't buy a 3D concrete printing specialist Neill Ricketts, Versarien

Demand for these new skills will ramp up soon. Ricketts thinks the tipping point for 3D printing in construction has been reached due to a convergence of factors: improved reliability and functionality of the machines, supply chain interruptions due to geopolitical forces and the net zero drive. "There's a real appetite to think about changing the way we do things," he says. "We are at the top of the pyramid now, where you have low volume and its relatively expensive but as we wash down the pyramid, it becomes normal. In a few years' time it will be just one of those boring things that gets done."

CONSTRUCTION MANAGEMENT



*ABC audited July 2021 to June 2022

31,416*

The largest circulation of any UK construction magazine.

55,000

Email newsletters reaching CIOB members and other construction professionals.

Unparalleled access to the key decision makers leading the UK construction industry.

constructionmanagement.co.uk

Have we been measuring safety all wrong?

The validity of construction safety statistics is being challenged by a US-based research project, involving CIOB member Fred Sherratt. **CM** reports



ncident frequency rates are a familiar benchmark for safety, enabling comparisons of firms

on a simple numerical basis that is readily understandable on site and in the boardroom.

As a result, they are used to measure safety performance across the world. Clients and contractors use them to appoint their supply chains for projects, with lower rates assumed to predict safer performance. They are used to measure the impact of safety initiatives, and can be set as a KPI for continuous organisational improvement, linked to safety leadership. Although there are slight differences in the ways incident frequency rates are calculated in different countries, they all involve a count of injuries over worker hours to produce a rate. The mathematics operate in the same way. What varies are definitions of a qualifying injury and the scalar factor applied (see right).

Despite their ubiquity, the use of incident frequency rates as a measure of safety has not gone unchallenged. The Construction Safety Research Alliance (CSRA) recently began studying the validity of Total Recordable Incident Rate (TRIR) statistics. Based at the University of Colorado, Boulder, the CSRA aims to eliminate serious incidents and fatalities

The CSRA aims to eliminate serious accidents and industry fatalities





in the construction industry with transformative research and defendable science.

Dr Fred Sherratt MCIOB, associate director of research at the CSRA, explains the context: "There has been plenty of criticism that TRIR statistics are unfairly biased against smaller firms who work fewer hours, thus skewing the calculation. There are also criticisms of incident rates because they lead to reactive approaches to safety management, their incentivisation potentially encouraging underreporting of injuries and poor case management.

"Furthermore, frequency rates do not account for the severity of the incidents and resultant injuries involved – a bad cut to the finger can be counted as equal to a fatality. Nor do they count or include near misses, including those with the potential to be fatal. They are also by necessity a lagging indicator of safety, meaning their use in performance prediction can easily be challenged."

The CSRA focused on answering a specific question: Given the way it's used, to what extent is TRIR statistically valid?

Using 3.2 trillion worker-hours from 17 years of data, the CSRA focused on the fundamental mathematics that underpins frequency rates, carrying out parametric and non-parametric statistical analysis of TRIR.

How incident frequency rates vary in measurement

In the UK, the Accident Frequency Rate (AFR) is calculated as: No. injuries (per year) x 1,000,000

No. of worker hrs (per year)

In the USA, the Total Recordable Incident Rate (TRIR) for a specific period is calculated as: No. recordable incidents x 200,000

No of worker hrs

The findings were as follows: • It requires tens of millions of worker hours to return valid data – making considerations of internal performance or comparisons between firms or projects utterly meaningless. At best frequency rates could be used

periods of time.
Short-term fluctuations in incident rates are mostly random and do not necessarily mirror changes in safety – they should certainly not be used to measure the impact of safety interventions.

for industry comparisons over long

• Reporting incident rates to decimal points is highly disingenuous, as it suggests a mathematical certainty that is meaningless in the face of such random variation.

There is no discernible association between TRIR and fatalities.
In nearly every practical circumstance, it is statistically invalid to use TRIR to compare firms, projects or teams.

Although this work was undertaken using TRIR, the number of workerhours needed for statistical stability remain the same whatever the calculation formula, as do the conclusions of random variability and lack of predictive capacity.

"What this research most boldly concludes is that we need a new approach to safety measurement, one able to provide richer data Frequency rates do not account for the severity of the incidents and resultant injuries involved – a bad cut to the finger can be counted as equal to a fatality Fred Sherratt, CSRA

and insights," says professor Matt Hallowell, executive director of the CSRA.

"Research and practice are already exploring a number of potential alternatives. The use of leading indicators able to track safety performance before an incident occurs is becoming more common; for example, firms often log the amount of safety training provided or the frequency of site safety observations.

"However, there has yet to be a safety metric that is as standardised and ubiquitous as incident frequency rate. Whatever approach emerges in its place, any solution will require that the industry adopts a consistent approach to allow for fair comparison among firms."

Hallowell believes the CSRA research shows the need to challenge the orthodoxy of how construction measures safety.

"Simply because something has been used for a long time, because it is familiar, and because it is easy to understand, does not mean we should not test whether it is actually fit for purpose," he reasons. "In the case of incident frequency rates, there is overwhelming evidence that they do not measure what we think they measure, and should actually be treated with extreme caution." • For the full statistical analysis of TRIR, visit www.csra.colorado.edu.

The chief value officer: enabling a better built environment?

David Philp is the new chief value officer at Cohesive, joining forces again with Mark Bew, who he worked with on the UK BIM Taskforce. **Will Mann** hears from both about his new role



hat exactly does a chief value officer do? It's the first question *CM* puts to David Philp, who started in this role at Cohesive Group just before Christmas, after eight years at Aecom. He was recruited by CEO Mark Bew, whose PCSG consultancy was acquired by Cohesive in 2020, and who of course worked alongside Philp on the UK BIM Taskforce

construction in the UK. "The CVO will help create value for our clients across the life cycles of their built assets," Philp says. "And that will go beyond simple metrics like cost, for example, ESG is key for most clients these days. Using life cycle data, we will provide a clear line of sight for our clients, so that their investments deliver the best outcomes and therefore value.

in the heady early days of digital

"Mark and myself are passionate about creating a better built environment. We both have an interest in 'donut economics', a framework for sustainable development which combines the

Our 'value lab' will let clients explore, map and discover journeys that put value as the north star David Philp, Cohesive

Philp: "I want to cultivate curiosity"

concept of 'social foundations' with 'planetary boundaries'. The CVO role will be an enabler of that."

So where does tech come into this? Bew explains.

"We've been involved with tech in the construction sector for a long time. But tech has got more complicated. And for our clients, those owner-operators of assets, their businesses have become more complex, more competitive, more challenging from a regulatory viewpoint.

"These CEOs need some help to understand the complications of tech. They have some knotty problems to unwind. So the CVO will help them use tech to solve these problems and release value: better fiscal, sustainability and social outcomes.

"We talk about problems clients want to solve, not tech they want to buy."

Cohesive now employs nearly 1,000 staff and comprises nine companies, which collectively look after the entire life cycle of an asset's data, Bew explains.

"That means investment, design management, procurement, delivery, commissioning and operations. We're now looking to understand the value of those investments and implementations. We're not so good at measuring things yet in this industry. We're creating all this data, but we don't do much with it yet."

In construction, we need to come at problems from a different, data-driven mindset Mark Bew, Cohesive



Bew: "The transformation is undoubtedly happening"

Bew wants to change that. The scale of Cohesive's engagement with clients is now extending across most of the asset life cycle, he says.

"We're finding that developers, for example, want to focus on what they're good at, which is being developers. So, they're outsourcing data management to us. We then supply the data which allows them to make decisions that deliver better value, such as creating more tenant services or improving their maintenance programmes."

Cohesive has a 'value lab' which clients can use to understand how investments effect outcomes.

"It will let our customers explore, map and discover journeys that put value as the north star," says Philp. "A lot of clients are now asking how they can achieve more with their existing asset portfolios. So, we can offer them a sandpit to test ideas at the very beginning.

"I want to cultivate curiosity. We want to engage with everyone across the life cycle of an asset - investors, estates management teams, end user groups - and find out how can we solve their problems and achieve value for them. We might say to a client, do you need a new asset? Or can you repurpose an existing building?

"And underpinning that, data will help us make informed decisions."

Bew and Philp were among the early evangelists of digital construction in the UK, a decade or more ago. How far do they think the industry has come on its tech transformation journey?

"There are cynics and there are those who think tech can do everything," Bew says. "David's role is to explain how tech is relevant and can help different people.

"But the tech transformation is undoubtedly happening. I was chatting with the driver of a Tesla taxi in Australia recently, and the reason their cars have been successful is because they were designed by a software company. The designers came at it from a data viewpoint, rather than a Victorian engineering mindset. Which is also why traditional car manufacturers have struggled to create electric cars. And we need to think like that in construction come at problems from a different, data-driven mindset."

Philp's new role aligns with his work on the CIOB digital panel, he adds. "The CIOB has always been a great advocate of value and helped develop the value toolkit," he says. "They've also been working closely with the industry's biggest clients and are one of construction's biggest professional bodies. So the CVO role fits very neatly with much of the CIOB's work."





Digital Construction Awards 2023: enter now

The built environment's premier awards event for digital construction professionals is back this year and bigger than ever



The Digital Construction Awards

2023 are now open for entry. The Digital Construction Awards celebrate best practice and reward innovation in the application of BIM, information management and digital technology in the built environment sector, and will take place at a gala dinner on 4 July 2023 at The Brewery in London.

There are 12 categories and the deadline for entry is 10 March. Responding to entrants' feedback following the 2022 awards, some categories have been revised and others have been added. The categories are:

- Best Application of Technology
- Best Use of Data on a Project
- Delivering Net Zero with Digital Innovation
- Digital Champion of the Year
- Digital Collaboration of the Year
- Digital Consultancy of the Year
- Digital Contractor of the Year
- Digital Innovation in Asset Management
- Digital Innovation in Productivity
- Digital Innovation in Health, Safety & Wellbeing
- Digital Project of the Year
- Digital Rising Star of the Year. The shortlisted entrants will be revealed on 9 May, and the winners announced at the awards ceremony

Last year's DCA ceremony at The Brewery in London

We've added

management,

consultancy

and the next

generation of

professionals

Justin Stanton.

focused

on asset

digital

BIMplus

new categories

on 4 July. Partners for the awards are Digital Construction Week, the Chartered Institute of Building and media titles *Construction Management* and *BIMplus*.

Justin Stanton, BIMplus editor, said: "Our categories address many key topics – health and safety, data and the drive to net zero – and are open to all parts of the built environment's supply chain. In response to feedback and recognising industry trends, we've added new categories focused on asset management, digital consultancy and the next generation of digital construction professionals."

Among 2022's winners were: Landsec's pioneering Forge project; Vinci for its application of smart data on the HCA cancer care hospital in Birmingham; Skanska for its GeoBIM solution; XYZ Reality's Atom augmented reality helmet; and Bryden Wood for its automated cable routing management system as used by Transport for London.

Emma Hooper, associate director and head of R&D at Bond Bryan Digital, picked up the Digital Construction Champion of the Year award.

To find out more about the awards, including who the judges are, head to: digitalconstructionawards.co.uk To become a sponsor of the awards, email Dave Smith at dave@atompublishing.co.uk.

CONSTRUCTION MANAGEMENT

Essential information for construction professionals constructionmanagement.co.uk



Keep up to speed with daily news, opinion, CPDs and technical info on CM's website.

Our content includes:

Breaking news • Technical articles for construction professionals • CPDs

• BIM and digital construction coverage • Opinion from industry thought leaders • Legal analysis • Careers features

Join 58,000 other construction professionals who subscribe to our newsletters by signing up here: constructionmanagement.co.uk/newsletter

CSCS Alliance: a united voice for card schemes

The CSCS Alliance – which brings 38 different skills certification bodies together – has now officially launched. CSCS Alliance chair Jay Parmar tells **CM** how the alliance was formed and how it aims to boost standards and improve safety across the industry



Μ

ost people in the construction industry will be familiar with Construction Skills

Certification Scheme (CSCS) cards. But fewer probably realise that 38 different certifying bodies contribute to the scheme. Collectively, those 38 organisations represent over 2.1 million skilled workers in the construction industry. The cards displaying the CSCS logo provide assurance that those workers are qualified to do their jobs on site.

Dealing with such a huge number of people and qualifications has the potential to create a great deal of complexity, particularly when it comes to checking and verifying workers' qualifications and training. ▲ The Smart Check app allows all 38 types of card to be checked in one place That's why, in 2020, the organisations joined together to form the CSCS Alliance. Launched in the midst of the Covid-19 pandemic, the alliance's official launch only came in November 2022. But in that short time, it has achieved a great deal.

CSCS Alliance chair Jay Parmar, who is also CEO of the JIB, which operates the Electrotechnical Certification Scheme, explains why the alliance was formed. He says: "What we recognised is that pooling our resources, knowledge and ideas together under the banner of the CSCS Alliance is really powerful. It helps to strengthen and support the industry in a more positive and impactful manner."

While CSCS is just one of the 38 schemes, it has the largest number of cards (1.1 million) and is a wellestablished brand, which is why the alliance is named after it, Parmar explains.

He adds: "The shared vision is all about continuing to shine a bright light on the benefits of using a trained and qualified workforce in construction. We want to provide assurance that an individual's skills, training and qualifications have been fully certified and verified. By verifying the workforce are appropriately qualified the CSCS Alliance is playing its part in raising standards and safety in construction and the built environment."

To ensure that the voice of all partner organisations is heard, the

2.1rCards

displaying the CSCS logo

The introduction of the new Industry Placement card in 2021 allowed **T-Level students** access to sites



CONSTRUCTION SKILLS CERTIFICATION SCI **INDUSTRY PLACEMENT**

CSCS Alliance hosts a forum, which Parmar chairs. "We have a steering group that looks at the governance and the strategic direction of travel. Underneath that, there are specialist groups, such as the development of the CSCS Smart Check app, which has helped to revolutionise the way in which 2.1 million workers' skills, qualification and knowledge are checked," he says.

Achievements

Although it's only two years since the alliance was founded, it has already scored some major successes.

First among those, in 2021, was the creation of an Industry Placement card. The alliance came together to find a way to allow T-Level students to participate in extended work placements on site. At the time, no appropriate CSCS card was available to them. After a consultation, the alliance introduced the new Industry Placement card, making it easier for T-Level learners to access sites and start developing their practical and technical skills.

"That these learners couldn't gain access to sites clearly wasn't acceptable. The routes that these individuals take into construction are crucial for our shared ambition around things like low-carbon technologies, the net zero agenda, and ensuring that we have a skilled, competent workforce in the future," says Parmar.

"The alliance responded swiftly, and I am really proud that we came together to launch the Industry Placement Card, it is a great example of the industry working together to remove barriers to entry and move the industry a step closer to achieving a fully trained and qualified workforce."

Second, and just as notable, was the creation of the CSCS Smart Check app. The app allows 2.1 million cards in the UK construction industry that display the CSCS logo to be verified with a single app.

The development process was surprisingly rapid, with the alliance taking on the task last year with the help of an IT consultant before its launch in April 2022. The aim was to make checking cards quicker, easier and available to sites of all sizes.

Parmar explains: "The 38 card schemes were all working in silos to develop their own technologies around how people can access the physical and virtual card solutions. That made it complex for the end user (site managers) to check CSCS cards, often they would be expected to understand several different systems for checking cards which just wasn't helpful. In some cases, that became an excuse not to check."

The free app now means that sites of all sizes have a simple way to check training and qualifications, which Parmar believes will help to enhance building quality and safety.

"The feedback has been really positive. It is now simpler for industry to meet their compliance





Our philosophy is: let's keep things as simple and for users and the industry Jay Parmar, JIB

requirements. The app forms part of the industry's response to the findings of the Dame Judith Hackitt review. It ensures people are suitably qualified, have the right training and experience for the role they are doing on site and, crucially, the information held by the cards can be accessed by sites of all sizes to improve building quality and safety," he says.

Future priorities

"We're not short of ambition," says Parmar, when asked about his priorities for the alliance in the future. He cites the Building Safety Act as an easy as we can important pillar that it is focusing on.

"We have a critical role to play in ensuring that the principles which underpin the act and the concepts such as the 'golden thread' of information, which includes the verification of a worker's training and qualifications, gets delivered. This is particularly important when it comes to the new fire safety training and the introduction of continuous professional development (CPD), all of which needs to be displayed on the CSCS cards and validated at the site."

He concludes: "There's a lot of complexity behind the scenes but our philosophy is: let's keep things as simple and easy as we can for users and the industry. Where we have done that; the industry has told us it is making a positive difference and supporting the shared vision of delivering safer, greener and high quality buildings."

Stepping up on sustainability

Already committed to sustainability and circularity, tool manufacturer Hilti is taking its efforts to the next level. Annette Borén, chief financial officer and head of sustainability for Hilti Northern Europe, tells **CM** how the company's unique business model enables its holistic approach

S

ustainability is not something new for us. It has always been at the heart of how we operate

now we are stepping this up,"
 says Annette Borén, Hilti Northern
 Europe's chief financial officer and
 head of sustainability.

Hilti has partnered with independent business sustainability rating supplier EcoVadis, which assesses 85,000 companies across the world. The tool manufacturer has already jumped from silver status in 2020 to gold in 2021, putting it among the top 5% of companies. But Borén wants Hilti to rise further to a platinum rating and the top 1%.

It's a strategy that Hilti's workforce and customers are on board with. Borén explains: "For the young generation that we are now hiring, it's a given that we take action. But our customers are also expecting us to lead."

Three pillars

Hilti's approach to sustainability is supported by three pillars, under the headings of: Environment, People, and Society (see box opposite).

When it comes to environmental measures, the business has already taken a significant leap on cutting its CO_2 footprint. In 2019, emissions stood at 195 kilotons of CO_2 across the globe. That fell to just 84.8 kilotons in 2020 – understandable in the context of Covid-19 lockdowns. But interestingly, it rose only slightly



For the young generation that we are now hiring, it's a given that we take action. But our customers are also expecting us to lead Annette Borén, Hilti Annette Borén explains how Hilti's approach to sustainability is supported by three pillars: Environment, People and Society in 2021, to 92.3 kilotons, despite lockdowns subsiding.

It's not a coincidence, as Borén explains. Hilti has embraced the remote working practices that it found itself having to use in 2020. But it's by no means the whole story - with it has come a concerted effort to move Hilti's substantial fleet of vehicles away from fossil fuels and onto electric vehicles (EVs). "The vehicles are a big part of our footprint," says Borén. "We have 14,000 vehicles globally and almost 4,000 are now fully electric or hybrid." Despite the heightened demand for EVs, Hilti hopes to accelerate its move to EVs as quickly as possible.

Meanwhile, it has moved its northern European headquarters in Manchester from an ageing building in Trafford Park to the energyefficient Circle Square building, on the former site of the BBC's Broadcasting House on Oxford Road. Built by John Sisk & Son, the building has a BREEAM Excellent rating.

Efforts to reduce direct emissions go hand in hand with a programme of carbon offsetting that Hilti hopes will help it to achieve its aim of being carbon neutral in 2023.

Circularity

When it comes to the tools it produces, Hilti's commitment to circularity is key. Hilti is at pains to reduce the resources it uses by first making sure that customers have the

4(

Out of Hilti's 14,000 vehicles globally, almost 4,000 are now fully electric or hybrid









the repair cycle. If the tools are still

in fairly good shape, Hilti repurposes

them so that they can go to charitable

organisations. Finally, anything that

it can't reuse - whether it's batteries,

plastic, steel or copper - is recycled

70% of Hilti's tools are recyclable,

tools are recycled materials.

and 27% of the materials in its new

That's crucial when you consider

that the lion's share of the embodied

raw materials needed to make it. Its

production, use and transportation

The company's Nuron system,

account for far less (see graph above).

which recently launched with a range

of 70 cordless tools that operate off

the same 22V battery platform, is the

next step. It promises to make Hilti's

even more efficient. "If you operate in

a smart way, you won't need as many

batteries as before. We can offer a

full tool park analysis to customers

who have a fleet contract with us.

Most of the time our assessment

going forward," says Borén.

tells them that they need fewer tools

'reduce, reuse, recycle' approach

carbon in a tool comes from the

via third-party organisations. Almost

CO,

right number of tools for their needs and then offering local repair services to extend their lifetime as far as possible - the longer a tool's life, the fewer resources used up replacing it.

Next, it focuses on reuse. Hilti is a rarity in the world of construction tools, in that it services and repairs all its own tools and takes them back once they reach the end of their life. It can do this thanks to its Fleet Management programme. Customers effectively lease the tools and at the end of the contract, the tools return to Hilti's 65 repair centres across the world. Hilti removes any spare parts that can be reused and puts them back into

CO₂ emissions over the life cycle of a tool



Hilti's three pillars of sustainability: Environment:

 Become CO. neutral by 2023 Lead the industry in circularity People:

 Differentiate through user health and safety and building safety Lead in employee health and safety Society:

Create social impact at scale Uphold Hilti and the industry to the highest standards in business ethics

Safetv

She explains that Hilti is an advocate of BIM, not just to improve building safety but to make buildings greener too. "If architects use BIM from the start, we know there is much less waste during construction. And we can also make sure that the products



Major contracts are assessing their CO₂ impact right at the start of a project now. Everything that goes into site, bricks, mortar, concrete or tools, is assessed Annette Borén, Hilti

staying in the building have as little carbon footprint as possible."

When it comes to user safety, many Hilti tools boast features such as Active Torque Control (ATC), which shuts tools off if it detects Vibration Reduction (AVR). AVR helps to damp vibration, reducing the risk of hand-arm vibration syndrome (HAVS).

While issues such as HAVS are well publicised in construction, Hilti is also focusing on how it can protect workers from musculo-skeletal disorders. That has given rise to the development of its EXO-01 exoskeleton, launched a year ago. The exoskeleton reduces load on workers' shoulders and back.

"This is a seismic update in the marketplace," Borén concludes. "Major contracts are assessing their CO, impact right at the start of a project now. Everything that goes into site, whether it's bricks, mortar, concrete or tools, is assessed. Hilti's clear overview and transparency will be massively important going forward." For more information, go to: https://hilti.to/58ddyr.

them stuck in the base material and starting to rotate, as well as Active



Sustainable roofing

This CPD, in association with Garland UK, explores sustainable roofing systems. It examines current building requirements, how carbon emissions occur in construction and how sustainable roofing systems will support a project's carbon reduction initiatives

arly decisions on a roofing project can significantly lower the embodied and operational carbon output for a building. Some sustainable roofing systems can also help to reduce the operational costs of the building over its lifetime. There has been a significant shift in how proactive companies adopt environmental and sustainable change. Before, the conversation was often led by budget but increasingly long-term sustainable targets matter to clients. ▲ The technology used to manufacture solar cells and photovoltaic arrays has advanced dramatically in recent years

Legislation and Building Regulation requirements

On 27 June 2019, the UK became the first major economy to pass laws to end its contribution to global warming, committing to a 68% reduction by 2030, a 78% reduction by 2035 and becoming net zero by 2050. To help achieve these targets, there have been significant changes to the current Building Regulations, enacted on 15 June 2022.

A new Approved Document O (overheating in buildings) has been introduced, as well as major updates to Part L (fuel and power) and Part F (ventilation). These changes mandate that non-domestic buildings achieve an average of 27% reduction in



In association with

With roofing projects, the best way to improve the embodied carbon output of a roof is to increase the length of time that it is usable



Standing seam

freedom for more

complex projects

areater design

metal roofing offers

carbon emissions relative to the 2013 regulations, and domestic buildings must achieve a 30% reduction.

This will be followed in 2025 by introducing the Future Homes and Buildings Standard, which is expected to increase this carbon reduction to around 75%.

In addition, Approved Document B (fire safety) is always essential to keep in mind when carrying out any roofing project. Roofing systems are required to resist the spread of flame on its surface and the penetration of any flame through the build-up of the specified system. To assess how a roofing system performs during external exposure to fire tests (CEN/ TS 1187:2012), EN 13501-5 provides the fire performance classification.

It is always best practice to choose a roofing system that achieves the highest classification rating of Broof(t4), allowing unrestricted use on any building with relevant boundaries. This is achievable for all the sustainable roofing systems covered in this CPD.

Carbon in buildings

To understand where there is potential to decrease carbon emissions, it is first essential to know where these emissions occur during the life span of a building.

Embodied carbon

Embodied carbon refers to the CO₂ emitted in producing physical materials associated with

construction. This includes the extraction and refinement of raw materials, the manufacturing of products from those materials, transport, the construction of the structure, and the deconstruction and disposal of materials at the end of life. It can be considered the carbon footprint of construction materials.

With roofing projects, the best way to improve the embodied carbon output of a roof is to increase the length of time that it is usable. The longer the life cycle of your chosen roofing solution, the more significant the improvement in its embodied carbon emissions.

Buildings are typically designed to last 60 years, so it is essential to look ahead and choose a roofing solution that utilises products that can get as close to this benchmark as possible. A longer life cycle also reduces capital expenditure and allows for better budgetary planning by minimising future refurbishment or replacement needs.

Taking into account the life cycle of the products used on a project,



and therefore the reduced embodied carbon, is also an intrinsic part of a BREEAM evaluation, where life cycle costing is utilised to assess the sustainability of a project providing for up to four credits.

Operational carbon

Operational carbon refers to the total carbon emitted from all energy sources to keep a building warm, cool, ventilated, lighted and powered.

Both newbuild and refurbishment roofing works provide an opportunity to reduce operational carbon outputs drastically. By constructing a roof that is well insulated (Building Regulations require that all non-dwelling, warm, low-slope and pitched roofs must achieve a U-value of 0.18 and 0.16 W/m²K, respectively), not only is the thermal efficiency of the roof improved but this in turn has the added benefit of improving the energy efficiency of the building as a whole. Not only does this reduce the operational carbon output, but it also reduces the running costs of the building.

Further improvements in energy efficiency can be provided through the increased use of rooflights to provide more natural daylight, as well as the installation of photovoltaic solar panels. Green roofing should be considered to help reduce operational carbon further.

Whole life carbon

Taking both embodied carbon and operational carbon into account is essential. Together they provide the whole life carbon of a building, which should always be considered to provide the most sustainable choices for roofing projects.

Taking a whole life carbon approach will help to guide the big decisions, which in many cases can be whether to remove a roof and start again or ► At the end of your roof's lifespan, you should endeavour to refurbish where possible, reuse what you can and recycle anything else

refurbish the existing system. At the end of your roof's lifespan, you should endeavour to refurbish where possible, reuse what you can and recycle anything else.

The use of innovative materials and construction methods helps to support this goal. Many metal roof systems, for example, are 100% recyclable. Recycled metals can save as much as 90% of the embodied carbon compared to processing from metal ore. Metal cladding systems allow for a new roofing system to be installed while leaving the existing roof in place, mitigating waste that has to go to landfill in the process, not to mention saving you additional costs.

Sustainable roofing systems • Modified bitumen membrane roofing

Modified bitumen membranes certainly don't sound sustainable, and there are undoubtedly other roofing materials that can be more environmentally friendly.

However, modified bituminous membranes can be considered when designing a sustainable roof because they are in fact 100% recyclable at the end of their natural life. In addition, bituminous membranes have long lifespans, which greatly reduce embodied carbon emissions and play a significant role when carrying out any life cycle costing exercises.

This long lifespan, typically 30 years or more, is achieved through

the way the system is constructed. Modified bituminous systems utilise two layers of factory-manufactured SBS modified bitumen sheet material. They are integrated with reinforcing mats consisting of polyester, fibreglass or a composite of the two, to form the membrane.

With multiple layers of membrane, you increase the performance of the whole system, increasing resistance to punctures and building movement, and having effectively two layers of waterproofing. Unlike single-ply options, a failure in one layer will not lead to water ingress into the roof substructure or the building itself.

Metal roofing

Standing seam

penetrative fixings

metal roofing

systems offer

the advantage

of a lack of

Metal roofing systems are low maintenance and have a long lifespan, typically over 50 years. They can also be used to encapsulate existing roofing structures that mitigate landfill waste, including toxic and hazardous waste such as asbestos.

The most eco-friendly aspect of these systems is their recyclability. For example, many metal roofs contain up to 40% recycled steel – and all the materials that comprise metal roofs are 100% recyclable at the end of their life. This is because metal can be recycled continuously without any of its key properties deteriorating. Factoring in the whole life carbon, metal roofs are one of the best options to consider for sustainable roof design.

Standing seam systems have distinct advantages over other metal roofing systems and will not compromise design choices, aesthetics or functionality. The weathering sheet does not need to be fixed using a penetrative fixing and there are no transversal laps. This means there is no means by which water can enter the building.

Standing seam systems also lend themselves to more complex projects as the sheets can be curved and tapered, giving the architect design freedom.

Green roofing

Green roofing incorporates a growing medium wholly covered





High-performance solar brands will still generate at least 80% of the initial output 25 years after installation



with vegetation. This is installed on top of a waterproofing membrane which can include additional layers such as a root barrier and drainage and irrigation systems.

Systems usually incorporate a pebble band or paving around the perimeter of the green roof. This acts as both vegetation and fire barrier resisting the spread of flame.

Green roofs not only improve a roof's thermal performance and energy efficiency, but also capture carbon dioxide and help with urban cooling through evapotranspiration. A study (Kuronuma et al, 2018) concluded that an extensive green roof has an approximate carbon payback time of 6.4-15.9 years.

Green roofs help with sustainability in other ways. They reduce stormwater runoff, improve air quality and boost biodiversity. Properly maintained, they have an exceptionally long lifespan, further helping to reduce embodied carbon.

When incorporating a green roof into your design, it is vital to consider the mental health benefits, such as stress reduction, and physical health benefits, such as cleaner air. For sustainable roofing design, extensive green roofs are typically preferred for their more modest structural load, reducing the mass of materials needed for construction and embodying less carbon.

Extensive green roofs can be used on flat or sloped roofs for optimum design flexibility. There are some limitations on planting selection due to the shallow growing medium.

• Solar photovoltaics (PV)

One of the most obvious benefits of solar PV systems is that from the moment they are installed they start saving money for the operational running costs of a building, reducing the amount of power purchased from the National Grid. This also helps decrease operational carbon emissions as the power is generated from a renewable source.

The technology used to manufacture solar cells and photovoltaic arrays has advanced dramatically in recent years, producing greater power yields for a longer time. High-performance brands will still generate at least 80% of the initial output 25 years after installation. ▲ A well insulated roof can improve the energy efficiency of the building as a whole

To test yourself

on the questions

on the right, visit

cpd-modules.

www.construction

management.co.uk/

Solar PV systems are also rapid to install and easy to maintain. However, there can be some hesitancy to install them, given the upfront costs. With the government's super-deduction tax relief available until March 2023, commercial businesses have more opportunities to consider solar panels for all roofing projects.

Even without this tax relief, solar PV has one of the fastest returns on investment of any onsite renewable energy generation, potentially in as little as four years and typically within six years.

Mark Fisher is head of technical at Garland UK.

CPD Questions

1. What type of carbon emission refers to the total carbon emitted from all energy sources to keep a building warm, cool, ventilated, lighted and powered?

- a) Operational carbon
- b) Regular carbon
- c) Exceptional carbon

2. Which Building Regulations document covers fire safety matters within and around buildings?

- a) Approved Document E
- b) Approved Document B
- c) Approve Document C

3. Which sustainable roofing system is 100% recyclable at the end of its life? a) Solar PV

- b) Green roof
- c) Metal roofing system
- c) Metal footning system

4. Which type of green roof system is preferable for its modest

- structural load? a) Extendable green roof system
- b) Extensive green roof system
- c) Expensive green roof system

5. What sustainable roofing system generates power from a renewable source?

- a) Solar electric (SE) panels
- b) Wind turbine-fitted panels
- c) Solar photovoltaic (PV) panels



'The client has held up our project. Can we claim for delays and costs?'

The thorny subject of concurrent delays is this month's contract clinic question. **Anthony Hayes** provides the answer



THE QUESTION

We're currently refurbishing a train station. The project is delayed, but our planner says it's not our fault and that another delay which happened at the same time was caused by the employer. Can we still claim for the delays and extra costs?

THE ANSWER

Concurrent delay is one of the most contentious issues in construction law. It was defined by John Marrin KC as: "A period of project overrun which is caused by two or more effective causes of delay which are of approximate equal causative potency".

This arises when a project is being delayed by two events at the same

time. One will be an employer risk, the other a contractor risk. For it to be truly concurrent, both must have an equal effect on the programme.

The leading case is *Henry Boot Construction v Malmaison Hotel*. Here, there was no provision in the contract to allocate the risk. The delay was caused by exceptionally inclement weather (an employer risk) but also by the contractor's shortage of labour (a contractor risk). The court ruled the contractor was entitled to an extension of time.

This decision became known as the Malmaison approach: providing one of the concurrent causes of delay was the employer's risk, the contractor should be entitled to an extension of time for the full period of delay. The Malmaison approach grants the contractor an extension of time. But it does not necessarily follow that the contractor is entitled to payment for loss and expense This was the most common approach for many years. However, in October last year, in *Thomas Barnes Plc v Blackburn with Darwen Borough Council*, the court took a more pragmatic approach, refusing to accept either expert analysis, and instead balancing the different expert views.

Standard forms of construction contracts do not usually refer to concurrent delay. But, in *North Midland Building v Cyden Homes*, the Technology & Construction Court clarified that the parties are free to allocate the risk of concurrent delay. In this case, the court upheld an express term. The contract stated that a delay caused by the employer which is concurrent with a contractor delay shall not be taken into account when assessing a claim for an extension of time.

The Malmaison approach grants the contractor an extension of time. But it does not necessarily follow that the contractor is entitled to payment for loss and expense. This is in part because the provision for claiming an extension of time is usually separate from the provision for compensation. In addition, the contractor must satisfy the "but for" test for causation. So, "but for" the employer risk event, the contractor would have been delayed anyway. This was outlined in *De Beers UK v Atos Origin*.

To answer the reader's question, as a contractor you can likely claim an extension of time in a situation of concurrent delay, unless the parties have an express provision in the contract which says otherwise. You will probably have to prove the employer risk event was concurrent. But be warned that this is a constantly debated and evolving area of construction law, as demonstrated by the most recent case. Anthony Hayes is an associate at Decipher.

GARLAND UK

High-performance waterproofing systems for commercial, residential, industrial and public sectors.



garlanduk.com
 contact@garlanduk.com
 01174 401050

Book your free roof survey and condition report with your local expert



Job spotlight Kate Heddy Assistant site manager, Diamond Build Group

Finding fulfilment

Kate Heddy joined the industry at 40 years old but says she has 'finally found a job I love'

What is a typical day in your job?

Over the last year, I've been working on an £8m transformation project at school, involving a large expansion and demolition works. It's my job to prevent any delays with the sequencing by helping to manage our subcontractors. I also make sure the relevant health and safety documents are provided, and the method of works meet the highest safety standards.

As we're working on a live site, there are a lot of considerations, requiring me to manage risk assessments and communicate with various stakeholders to help logistically manage the works.

You have come to the industry as a 'mature student' aged 40. Tell us about the change of direction to construction?

After a management role at a farmers' market, I began working in studio management for a housebuilder. It was there that I gained an understanding of programming. I had to learn when different parts would have to be on site, and what factors could delay a project. I also got to go to site to see how everything was implemented, helping me to learn how all the processes linked together. I'd never understood what the role of a site manager was before then.

After being made redundant during the pandemic, I was offered a temping role in administrative support at a large construction firm. The documents produced by the site managers sparked my interest. The more I learned about site management, the more I realised that I had transferable skills and this was a role I could really enjoy. As someone with a logical mind who likes answers, I knew my personality would also be a good fit. The more I learned about site management, the more I realised that I had transferable skills and this was a role I could really enjoy Kate Heddy, Diamond Build Group

What are you enjoying about the industry?

I really enjoy putting a project together and seeing it through to the end. Site management isn't an easy role and mistakes do happen when you're training. Some things you can't plan for and there is a lot of trial and error. Although this makes the job challenging, it also creates lots of opportunities for learning and development.

Diamond Build is embracing change and encouraging women into construction in a way that some firms I've worked for haven't. Change is important, and being part of it is another big motivator for me.

You have worked hard to gain qualifications in a short space of time and been thrown in at the deep end with projects. Do you have any further career ambitions?

I've finally found a job I love, so I'm hoping to complete an NVQ Level 6 in Site Management and continue to learn through experience and mentoring. I'm also interested in sustainability and unique design. In the long term, I'd love the chance to combine both as part of my role.



Hundreds of the best jobs in construction. Recruitment news and insight. www.constructionmanagementjobs.co.uk



GEBERIT MAPRESS

BIGGER PERFORMANCE. BETTER FOR BUSINESS.



No wonder so many business-minded installers are switching to Geberit Mapress. Quick and easy to install, with no hot works or costly one-hour cooling down period, our advanced pipe fitting solutions offer leak-free, hassle-free performance and unrivalled support. By anyone's standards, that's what you call a result.

geberit.co.uk

CIOB Community



New technical grade of membership set to launch in summer

Changes to the CIOB membership grades reflect a changing industry

CIOB is set to offer a new grade of membership this summer, which will encompass technical roles. The concept of a non-chartered grade was approved for development in recognition of a changing education and industry landscape. The title of the new role is currently pending a Privy Council decision.

CBC's road to net zero gets double recognition

Henry Brothers recognised in environmental survey and for carbon-neutral project This new grade follows a grade review in 2015 with the aim of restoring the balance of chartered to non-chartered members. Former non-chartered qualifications based solely on qualifications held (HNC for the Associate Grade and HND for the Incorporated Grade) were closed to new entrants, while those

Chartered building company Henry Brothers has been awarded Platinum status, the highest accolade, in Business in the Community Northern Ireland's (BiTC NI) Environmental Benchmarking Survey.

This benchmarks companies that drive change by integrating sustainable practices into Applicants will demonstrate competencies by giving workbased examples

corporate strategies. lan Henry,

CSR director at Henry Brothers,

was Silver winner of BiTC

champion sustainability.

NI's George Dawson Award,

celebrating individuals who

The firm also won the GB &

Republic of Ireland Construction

category at the 2022 Construction

Project of the Year Over £2.5m

The first thing we looked at for the new grade is purpose – to provide a validation ofcompetencies at nonmanagerial level Rosalind Thorpe, CIOB

already in the grades cannot use their postnominals after 2025.

The new grade will extend to a variety of roles. Application will be similar to the professional review: candidates supply a written report in which they demonstrate competencies against technical standards by giving work-based examples.

"The first thing we looked at for the new grade is purpose," explains CIOB's director of education and standards Rosalind Thorpe. "To provide a validation of competencies at non-managerial level and not merely based on qualifications."

CIOB has been running a pilot across roles in building control, site supervision, Level 4 technical apprenticeships, design technicians and QS technicians. TfL has been heavily involved with the pilot.

CIOB has requested to open the grade from March 2023 and will communicate that with the industry from June.

If you are interested in finding out more, contact mmill@ciob.org.uk.

Employers Federation Excellence Awards for a day nursery and forest school at Staffordshire University.

lan Taylor, MD of Henry Brothers Midlands, said: "We are pleased to have received industry recognition for our very first carbon neutral project, representing a significant milestone in our strategy to reach net zero carbon emissions by 2050."

Vice president promotes CIOB messages to Jersey

Sandi Rhys Jones meets up with the island's construction heavyweights

CIOB senior vice president Sandi Rhys Jones OBE talked to a round table of industry heavyweights in Jersey recently, discussing CIOB's work on education and attracting young people to consider a career in construction as well as its EDI Charter. She was joined by Suzanne Wylie, CEO of the Government of

Jersey, as a panellist. The round table was one of several events the VP attended during her visit. Playing host was Marc Burton MBE FCIOB, the 2021 Construction Manager of the Year and chair of the Jersey Hub.

Other highlights included site visits to projects by chartered



building companies Camerons and Rok Construction, as well as attending the Jersey Construction Awards 2022 and meeting members of a new branch of National Association of Women in Construction. ▲ Sandi Rhys Jones (second from left) on her Jersey visit

Knowsley firm showcases skills gap initiative to CIOB CEO

Caroline Gumble visits Forshaw Group's academy



CIOB CEO Caroline Gumble learned how local businesses are narrowing the skills gap and shining a light on the diversity and inclusion agenda on a visit to CIOB training partner the Forshaw Group's INS-Pire Academy in Knowsley in the autumn.

In collaboration with over 50 local businesses, the Knowsley Apprenticeship Partnership and the Forshaw Group's INS-Pire Academy have been instrumental in providing over 100 apprenticeship roles across Knowsley, including opportunities in plumbing, plastering, painting, joinery, electrician work and administration.

Caroline Gumble visits the Forshaw Group in Knowsley

The day included presentations, activities and a tour of Kier's £38m, Shakespeare North Playhouse in Prescot, which was followed by the inaugural Knowsley Chamber of Commerce Construction Forum meeting.

Liam Hanlon, managing director of The Forshaw Group, said the day was one of recognition.

"It was a great opportunity to hear direct from some of our apprentices, and an honour to be able to showcase their achievements in front of the CIOB," he said.

"The skills shortage is very real and the levelling-up work is vital. There is still much more to do, but I am proud of what we are already achieving in Merseyside."

New mandatory CPD rules put spotlight on ethics

Members to submit account under points-based system

CIOB is making a change to its CPD policy. From next year CPD must include a specific focus on ethical behaviour. This mandatory policy places ethics to the forefront of members' lifelong learning activities.

In addition, for the first time members will have to accumulate CPD points annually and maintain a record of activities. They will then have to submit a reflective account to CIOB on its impact on their work.

Both formal and informal CPD activities will count towards mandatory CPD and the pointsbased system will reflect the value of activities. For example, greater value will be placed on undertaking an academic qualification as opposed to attending a lunch-and-learn presentation.

In a blog at ciob.com, Brian Graham FCIOB, vice chair of the professional standards committee, explains the reasoning behind the move.

"For any occupation, applying ethics in practice is the hallmark of a true professional. This means that ethics should inform your decision-making in everything you do in the workplace. Therefore, any occupational or technical learning or development activities must include ethical consideration for best practice...

"No longer is it enough for ethics be bolted on to our courses; it must be integrated into areas such as leadership and management; building technology and engineering, procurement, legislation; social, environmental and economic sustainability; promoting health, safety and wellbeing."

CIOB will provide high-quality CPD free of charge. It views it as crucial to raising the bar for members' learning but without the burden of extra cost.

Top Gun and Norman castle visits for Norwich Hub

East Anglian members see presentations at RAF Lakenheath and Norwich Castle

 RAF Lakenheath will be the home for the US F-35A
 Morgan Sindal's works at Norwich Castle



Norwich Hub members enjoyed two site visits in the region recently. The first was to RAF Lakenheath, where Kier and VolkerFitzpatrick are working collaboratively to deliver a £160m defence-critical infrastructure construction development. They arranged a presentation and site visit of what will be the first permanent international site for US F-35A aircraft in Europe.

Members also returned for a third time to see progress on works at Norwich Castle. The team at Morgan Sindall gave a presentation on the challenges encountered and explaining the journey so far. Visitors also heard from the client, with real insights into the build from the end user point of view. This was followed by a guided tour of the castle's Keep and Percival areas.

Building Bournemouth: past president pens new book

History of George & Harding tells broader story of south coast town

CIOB past president Colin Harding

has written a book about the firm he spearheaded and the town it helped to build.

George & Harding, Builders of Bournemouth charts the history of the business he was managing director of from the 1960s, along with the construction of Bournemouth. The book draws on the extensive archive of the firm, which began in the 1860s, expanded rapidly and continued to flourish through the 20th century, to offer a richly detailed picture of the physical, social and economic development of one of the south coast's most celebrated towns. Colin Harding's new book charts the development of Bournemouth



Harding's career has included being a member of the Latham Review Image Working Group 1993-1994, chairing the group that developed and implemented the Considerate Constructors Scheme and being a member of the Movement for Innovation (M4I) implementing Sir John Egan's *Rethinking Construction*.

Harding was CIOB president between 1994-95 and his wide body of work for the institute includes creating the Chartered Building Company Scheme with Sir Ian Dixon.

Maltese share heritage lessons with CIOB

Delegates at International Heritage Conference learn from site visits and presentations

Feedback from delegates shows

that CIOB's recent International Heritage Conference in Malta was seen as a great success.

Held at the Phoenicia Hotel in Valletta at the start of November, the event featured presentations from speakers at the top of their field in the UK and Malta, backed up by some first-class site visits showcasing planned work, work in progress and completed projects on some diverse and complex historic sites.

These examples demonstrated how sustainable adaptation can be successfully achieved without undue compromise to conservation principles.

Delegates experienced behind-the-scenes tours of the Grandmaster's Palace, MUŻA art gallery, Valletta Design Cluster and Esplora science museum.

During the conference delegates learned about: structural impacts and mitigation; cooling buildings – taking advantage of traditional methods in Mediterranean countries; the conservation process; lessons learned from Italy; a Maltese vision for industrial heritage; and why using historic buildings makes good business sense.

On the final day, a panel discussion provided an opportunity to discuss international examples of good practice – and to debate the next steps. The challenge now is to pass on the learning to a wider European audience, so that traditional Maltese approaches can be utilised further afield.

VCIOB heritage conference delegates learn from Maltese approaches in Valletta



One to watch

Ben Chalk MCIOB, construction manager, GIR Services



Why did you choose construction for a career? What else might you have done?

The combination of hard work and managing complex processes drew me toward the industry. I started as an apprentice at 15 years old and progressed to co-owning a chartered construction consultancy advising clients on all levels. I would've become a mixed martial arts fighter.

You were the youngest ever chartered member. Why did you want to pursue MCIOB status?

I have always very strongly believed in education and my own responsibility to advance in my own CPD. The CIOB is an organisation whose principles stand for progressing in your career by educating yourself and achieving milestones. MCIOB status shows the clients that all the CPD learned, and experience built up over the years, is tried and tested. It reassures not only clients but other stakeholders in projects to know that they are working with people at the highest possible professional level within our industry.

What do you enjoy about this industry and what one thing would you change if you could? I enjoy completing a project and visualising every detail related to getting to the finishing line. I enjoy directing all different stakeholders, professionals, and relevant people for the outcome of creating a space that is used to enhance people's lives in many ways.

What are your career ambitions?

To keep building bigger, better and more efficiently. I also strive to keep a clean record of health and safety. Because of my pathway to where I am today, I can relate to each and every level operator on site and fully understand their concerns.

How do you spend your spare time?

I am an avid accordion player and I do a considerable amount of mixed martial arts. I also volunteer in a local shelter for youngsters in NEET (not in education, employment or training). I like to relax but at the same time give my time to help youngsters in a lesser situation than myself.



NEW! Global Student Challenge 2023

Global Student Challenge 2023

Refreshed and revamped we've developed a **new construction business game** for built environment students from around the globe. Students must be studying either HND or a Bachelor's degree level course, although one team member can be studying up to a Master's level.

Using new interactive software platform SimVenture Validate, the competition asks students to create a virtual organisation, testing team skills on a unique and challenging construction project.

And that's not all...

The winning team will be rewarded with a £2,000 cash prize and an all-expenses paid trip to CIOB Members' Forum, to present the winning submission to leading construction professionals from around the world.

Timeline

January 2023

Teams register to enter

February-March

Round 1 bids submission

March-April

Round 2 - finalists bid submission and online interviews

April

Winner announced

June

Members' Forum (UK) winning team presents submission to delegation during the weeklong event.

So, what are you waiting for?

Join us for this invaluable learning experience. Find out more and register your team today!

gsc.ciob.org



CIOB champions EDI in Northern Ireland's built environment

Around 80 attend event where panellists share EDI journey

An event on equality, diversity and inclusion organised by CIOB with the Equality Commission of Northern Ireland (ECNI) and the CITB NI drew around 80 representatives from Northern Ireland's built environment sector.

Speakers at the evening event in November included the chief executives of the three organising bodies along with CIOB's head of EDI transformation, Mark Harrison, Heather Wilson, equality officer at ECNI, Hollie Cregan, head of EDI at Graham, Lynn Carvill, chief executive of WOMEN'STEC and CIOB Trustee Noel McKee.

Members of the panel shared their own experiences and offered attendees advice and examples of good practice on how to begin their own EDI journeys.

In October, CIOB announced it had received more than 100 signatures on its Diversity and Inclusion Charter, which asks businesses to sign up to five key commitments to foster a more diverse and inclusive workspace. The charter, along with events like the EDI Conference, is part of the organisation's commitment to supporting the construction industry to become more inclusive, welcoming and representative.

CBC becomes CEnv employer champion

JB Langley achieves recognition of its support for CEnv status



CIOB appoints new vice president

Mike Kagioglou, who will be the 121st president of CIOB, is its first VP based in Oceania

CIOB has appointed Professor

Mike Kagioglou FCIOB as its latest vice president. Kagioglou is dean of engineering, design and built environment at Western Sydney University, where he also holds the role of pro-vice chancellor, global development (UK & EU). ▲ Mike Kagioglou has worked in the higher education sector in the UK and abroad Kagioglou is dean of engineering, design and built environment at Western Sydney University, where he is also pro-vice chancellor, global development (UK & EU)

In 2024 Kagioglou will become the 121st president of CIOB. His presidency will follow on from that of Sandi Rhys Jones OBE FCIOB, who will succeed the current president, Datuk Seri Michael Yam FCIOB, in the summer of 2023.

A passionate advocate of the importance of strong links between industry and academia, Kagioglou has operated at the pinnacle of the higher education sector in the UK and abroad for almost 30 years.

His career has seen him hold the positions of dean of art, design and architecture at the University of Huddersfield and head of school of the built environment at the University of Salford, both in the UK, among other high-profile appointments.

Kagioglou has been a CIOB fellow since 2015. During his time as a CIOB member he has held other governance roles including vice-chair of the Innovation and Research Panel. He will be the first VP to be based in Oceania.

JB Langley Associates, a CIOB time CBC, has become a chartered cha environmentalist (CEnv) J employer champion. orga

This recognises that the business supports the professional registration from a senior level for CEnv status, supports individuals through the application process, promotes time for CPD and commits to championing their experts. JB Langley joins a variety of organisations named employer champions, including Willmott

Dixon, Amey and Arup. Christian Richards CEnv, director at JB Langley, said everyone at the firm is proud to have achieved the status. "It further demonstrates our commitment to the environment and designing in a sustainable manner. Our practice continues to have a clear ethos of implementing responsible building techniques and practices." Find out how to become a champion at https://socenv.org.uk/ become-an-employer-champion.

Galway students win leadership challenge

Victory for ATU team in Tomorrow's Leaders



Left to right Kenneth Hynes. John Hanahoe MCIOB (ATU Galway lecturer), Kara Earle, Simon O'Grady, Martin Taggart FCIOB (ATU Galway lecturer), Liam McDonagh

A team of construction industry students from Galway's Atlantic Technological University (ATU) has won CIOB's Tomorrow's Leaders Challenge.

The Galway team, comprising Liam McDonagh, Kenneth Hynes, Kara Earle and Simon O'Grady, fought off competition from four other teams at the event in November in Limerick.

Second place was awarded to a team from ATU Donegal and third place went to the competition's first ever all-female team, who were from ATU Sligo.

The challenge required teams to develop a bid submission for a design-and-build scheme of four industrial units on a greenfield site. Submissions had to include a layout, a risk register, a master programme for the construction phase and a cost schedule. Teams had four hours to complete the task, after which they had to submit a report, present their project to a panel of judges and respond to questions.

The head judge was Derek Cassidy FCIOB, chair of CIOB's ROI Hub. He said: "Improving quality and access to education and skills is crucial for ensuring a sufficient pipeline of educated, qualified and professional workers who are passionate about working in Ireland's built environment. At CIOB we're committed to playing our part in developing tomorrow's leaders and hope this latest event has inspired many of them."

CIOB

Congratulations to new chartered members

Two graduation ceremonies took place on 20 October at Clothworkers Hall in London

Morning New fellows Dr Malik Dongla Lyndsey Gallagher Weng Keat Kong Weng Keong Kong Sing Woon

New members Safwaan ALi **Robert Blakey** Leon Bradshaw Alexandros Charalampidis Luke Dever Mihai Dobra **Thinesh Donbosco** Rajan Noah Edmonson-Stocks Simon Holmes Nurul Huda Lucy Ibbotson John McGill

Christopher Milliner **Richard Molloy Richard O'Shea** Nigel Pace Asciak Aaron Rolls Shane Saunders Aimee Shann **Kieran Whiteman** Jago Williams New chartered

building company Telford Engineering

Afternoon New fellows Karl Azzopardi **Chris Pegge**

New members Thomas Allen **Chever Bailev**

David Bates Robert Beales Nicusor Botezatu **Benjamin Marlowe** Andrew Burke

Christopher Chatwin **Steven Chegwin** Steven Clarke James Cooper **Michael Cronin** Mark Davies Armariit Does **Rose Donaghey** Geoffrey Dymond Mark Evans Paul Fothergill Paul Gilson Ian Green **Terry Grimes Bryan Harten Brendan Healy** Charlton Humphreys

Simon Kemp Sam Lucking Anthony Marshall Thomas ocular Ka Hang Nip David Noonan **Kirk Raine** Jordan Reid Robert Saberton **Daniel Schuster** Jonas Siauciunas Jim Smith Dave Stephen Marius Tomozeiu Nicole Turner Peter West Anthony Wheatley Jordan Williams New chartered

building company Barr Group Dobuild

Northern Ireland graduation In November construction professionals were also honoured at a ceremony at the Parliament buildings in Stormont.

Thirty-one individuals from Northern Ireland and other parts of the UK were in attendance: three new fellow chartered members and 28 new chartered members were conferred. CHC Group was awarded chartered building company status.

CONSTRUCTION MANAGEMENT JANUARY 2023 53

CIOB CEO **Caroline Gumble** at the graduation ceremony



Supporting role

Sponsoring one of the CIOB student initiatives is an effective way to raise your profile among the next generation of professionals

CIOB produces events and activities to

inspire and support professionals with their career development and ultimately to raise standards across the industry. One key area is supporting students at the beginning of their career.

Through our Global Student Challenge and the Student Festival, we reach out to a global audience of diverse, ambitious professionals who are looking to get ahead in their career and ultimately to become the key decision-makers of the future.

Global Student Challenge 2023

CIOB's competition for students from around the world has an exciting new format. Using a new interactive software platform, students will be given an imagined injection of cash and asked to bid for the construction of a student-focused campus facility.

The competition

Students will be asked to present a build that is radically different and meets local technical, environmental and social needs. Using local materials and skills, they are tasked with design and delivery through a two-stage selection process, replicating a real-life situation. The finalists present their bid to a live panel of expert judges online.

Amazing opportunity

The winning team will receive an all-expenses-paid trip to CIOB Members' Forum in the UK, to present their bid and test their ideas in the real world, with global industry experts giving feedback. They will also receive a £2,000 cash prize.

It's a six-month campaign, as the call for entries starts in January, with the rounds taking place in February-April. The winners As a sponsor of the Student Festival, you could offer a plenary presentation that inspires a future generation of professionals. Or, with the Global Student Challenge, add your voice to the excitement of a global competition

are announced in April, ready to prepare for their all-expenses-paid trip in June.

Student Festival 8-9 March 2023

Now in its third year, the CIOB Student Festival is a two-day student event in one virtual space for all CIOB student members around the globe.

The purpose is to inspire, inform and celebrate our student members, who can expect to take away meaningful messages from a diverse community of CIOB membership bodies. This will allow them to benefit from technical and practical insights, professional views and personal wisdom for future careers.

The festival will include:

Industry leaders – thoughts, opinions,

and wisdom from leaders in the sector;
Global careers – a spotlight on career perspectives from global organisations in all areas of construction;

• Learning essentials – student takeaways from dissertation tips to finding your next job;

• Tomorrow's leaders – views from our early career and future leaders; and

• Networking – making new professional contacts across the globe.

Sponsorship

Showcase your company to upcoming talent. As a sponsor of the Student Festival, you could offer a plenary presentation or workshop that inspires a future generation of professionals. Or, with the Global Student Challenge, you can add your voice to the excitement of a global competition and join in the promotion of the successful teams. • Visit www.ciob.org/sponsorships or email: sponsorship@ciob.org.uk.



The UK's best read digital construction resource.

Exclusive news, views, interviews, debate and case studies on all the latest digital technologies from 3D printing and robotics to off-site manufacturing and virtual reality.

How digital technologies are creating efficiencies and productivity for firms across the supply chain from designers to contractors and product manufacturers.

A site for anyone working in digital construction from beginners through to experienced practitioners.

Every part of the BIM journey provided by industry experts, software developers and industry bodies.

Project stories and case studies to guide you through BIM adoption.

www.bimplus.co.uk

CIOB SOLIBRI (RICS GRAPHISOFT. RIBA H CIAT BLUEBEAM NAVVIS AUTODESK

How can regs help mitigate the environmental impact of construction?

CM asks Dr Mark Key MCIOB about his new book Building Regulations, Codes and Standards: A guide for safe, sustainable and healthy development



What are the top-line issues that are covered by the book?

Rising energy needs, climate change, the depletion of natural resources and the destruction of natural habitats have emerged as largescale and complex challenges for the regulation of our built environment on an international basis.

The nature of performancebased systems has resulted in the continuing expansion and increasing complexity/cost of standards that are generally lacking in specificity. Generally, new buildings tend to underperform against design targets – this performance gap has been recognised as a widespread problem for many years.

How will the book help professionals to do their day-to-day work?

It offers concise guidance on parts of the Building Regulations 2010 that are most likely to form part of issues experienced by professionals working in England. It also covers the functional requirements of the Building Regulations and their technical solutions. Checklists boil down over 1,300 pages of guidance contained in 21 approved documents into a concise one-stop reference, including hyperlinks to take users directly to sources and further detail. The checklists can be accessed via the ICE Publishing website following purchase of the book.

How can building standards help to lower the impact of our built environment on our natural environment?

The book compares requirements in Europe, North America, Australasia and Japan. While some standards used in other countries are better placed to deal with global challenges such as climate change, collectively, not enough is being done to meet internationally agreed targets.

At the moment, the built environment is relying on the awareness and conscience of a minority of organisations and professionals who utilise voluntary rating schemes (such as BREEAM and LEED) to minimise the impact.

To achieve meaningful change, only a concerted global effort to

The book looks at the SDGs most closely linked to the built environment, highlighting the level of change required to global building standards Dr Mark Key MCIOB



▲ The book compares building standards from around the world

improve and consistently apply building standards will achieve the levels of change required. The book looks at the sustainable development goals (SDGs) that are most closely linked to the built environment in detail, highlighting the level of change required to global building standards. It sets out an indicative global framework for building standards that could serve to lower markedly the current levels of impact on our natural environment.

What can be done to help professionals cope with increasingly complex building standards?

Reviews of high-profile events such as the leaky building crisis in New Zealand and Grenfell Tower fire in England have tended to criticise competence levels and assess how they might be improved. The book explores ways in which built environment professionals might be helped to cope with the increasing complexity of performance-based building standards, including ways in which standards might be simplified and the potential means of streamlining information creation, analysis and management.

Find Building Regulations, Codes and Standards: A guide for safe, sustainable and healthy development in print at https://tinyurl.com/5n99ed8f or as an eBook here https://tinyurl.com/3zuubt6b.

CONSTRUCTION MANAGEMENT Brought to you by CIOB

Hundreds of the best jobs in construction.

Recruitment news and insight.

Employers seeking CIOB members.

www.constructionmanagementjobs.co.uk



Diary dates

Highlights of the CIOB Calendar for the coming month

CIOB Nottingham site visit: TopHat manufacturing (offsite),

24 January, 9.30-11am, Foston A tour of TopHat's state-of-the-art offsite manufacturing facility in Foston, Derbyshire.

With a rapidly growing team of over 300 employees, this facility gives TopHat the capability to deliver new homes across the UK.

The tour will guide you through the process and allow Q&As. Due to capacity, places are very limited so please book early to avoid disappointment.

Contact: gfloyd@ciob.org.uk

The Building Safety Act 2022: Are you ready?

24 January, 6.30-8.30pm, Leyland

The Building Safety Act is the government's response to the recommendations coming out of the Hackitt report following the 2017 Grenfell Tower fire. The act will overhaul regulations, changing the ways in which buildings should be designed, constructed,

managed and maintained to ensure they are safe to use.

This presentation by Alan Robson from Project Four Safety will give an overview of the act, its impact and what to expect going forward. Contact: cseymour@ciob.org.uk

Outside Party Asset Protection Agreements

24 January, 7-9.30pm, Tonbridge Asset protection (ASPRO) teams were set up to monitor construction/engineering works taking place adjacent to Network Rail infrastructure, where there is potential to cause damage or activities that may affect the safe operation of Network Rail's operational assets.

Ivan Dowman, Network Rail national property operations interface manager, will explain the requirements of asset protection and their interaction with outside and third parties involving the safe operation of the railway, the legal framework agreements and engineering standards that govern Network Rail's processes. Contact: blawrence@ciob.org.uk

CIOB Academic Summit: Creating

an inclusive global community 26 January, 9.30-12pm or 2.30-5pm, online This virtual conference is designed to bring together a community of built environment researchers, academics, practitioners and policymakers globally to lead the way for cross-collaborations, sharing of cutting-edge research, knowledge and education.

The event will run via Microsoft Webinar platform and offers two time slots: 9.30-12pm and 2.30-5pm.

Topics include:

 Digital transformation and information management in the post-Covid education era; Promoting positive mental health

among young construction workers from the global south; • Ethics in the architecture process;

• The adoption of sustainable

- practices in SMEs; and
- Growth of construction

management education in Africa. Contact: nkhuzwayo@ciob.co.za

Nutrient Neutrality: What you need to know

26 January, 12-1pm, online Find out what nutrient neutrality is and how it is affecting planning applications and construction. Natural England states

that nutrient pollution is a big environmental issue for many places. Increased levels of nutrients like nitrogen and phosphorus can affect the delicate ecosystem. Extra wastewater from new housing developments can then further impact this problem.

Join this webinar, chaired by **CIOB Norwich Hub Committee** chair Kevin Page, to find out:

• What effect this is having on planning applications and developments;

• How councils are applying legislation; and

• How mitigations to ensure nutrient neutrality can be put in place.

Phil Courtier, director of place serving two district councils in Norfolk, will provide an introduction and overview of the issue of nutrient neutrality and its impact on the Norfolk catchment.

He will then describe the work that has been done by the Norfolk local authorities, alongside other organisations such as Anglian Water, to try to reduce the burden of nutrient neutrality on the development sector and the plans for a programme of mitigation and environmental credits.

Ray Winney, construction director of Orbit Homes East, will explain the challenges that nutrients and neutrality has caused developers.

Contact: sshort@ciob.org.uk

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

Switchboard: +44 (0)20 7490 5595 Editor: Will Mann will.m@atompublishing.co.uk Associate editor: Neil Gerrard neil@atompublishing.co.uk Production editor: Sarah Cutforth Art editor: Heather Rugeley Community editor: Nicky Roger nicky@atompublishing.co.uk Advertising manager: Dave Smith dave@atompublishing.co.uk Key account manager: Tom Peardon tom@atompublishing.co.uk Credit control: Eva Rugeley eva@atompublishing.co.uk Managing director: CIOB atom Stephen Quirke

stephen@atompublishing.co.uk

Circulation: Net average 31,416 Audit period: July 2021 to June 2022 Subscriptions: To subscribe or for enquiries, please contact: Subscription team: Tel: 01293 312160 Or go online at: https://constructionmanagement. imbmsubscriptions.com

Or write to us at the address below: **Construction Management** Published for the Chartered Institute of Building by Atom Media Partners, 26-27 Bedford Square, London United Kingdom. WC1B 3HP construction-management@ atompublishing.co.uk

Construction Management is published monthly by Atom Media Partners. The contents of this magazine are copyright. Reproduction in part or in full is forbidden without permission of the editor. The opinions expressed by writers of signed articles (even with pseudonyms) and letters appearing in the magazine are those of their respective authors, and neither CIOB, Atom Media Partners nor Construction Management is responsible for these opinions or statements. The editor will give careful consideration to material submitted - articles, photographs, drawings and so on - but does not undertake responsibility for damage or their safe return. Printed by Precision Colour Printing. All rights in the magazine, including copyright, content and design, are owned by CIOB and/or Atom Media Partners. ISSN 2755 8649





4 JULY 2023 THE BREWERY LONDON

DEADLINE: 10 MARCH 2023

JOIN THE W/INNERS: ENTER NOW



IN PARTNERSHIP WITH



ENTER NOW DIGITALCONSTRUCTIONAWARDS.CO.UK



architectural acoustic finishes

SonaSpray K-13 Special in 20 Water Street, London.

Create calm interior spaces with our SonaSpray range of fire-rated, recycled acoustic finishes.

SonaSpray absorbs sound energy, allowing designers to create productive spaces free of distraction, where employees can thrive. Available in a range of 5 finishes from textured to plaster smooth.

Fit-out by Tétris Design x Build. Photo by Jonathan Banks Photography.



