broject safety matters



Winter 2021

The voice of good practice in design & construction, health & safety risk management



Wearable tech and safety



Leadership ideas for PDs



MIT

The government disability strategy

Safety 4.0 Using digital tech to manage risk



BUILT FOR THIS MOMENT

On the ground and in the sky, the building goes on. The air is buzzing. The team's all here – still digging, lifting; still sawing and shouting. But this time, it's different. Now the teamwork – and the fist bumps – mean a little bit more. Now you're working together like never before. On beams and girders, in hoists and trailers, you're building our future – right now. And we're here to help you do it.

We're Bluebeam. Built for today. Building for tomorrow.

bluebeam.com/uk/now

© 2021 Bluebeam, Inc. Bluebeam and Revu are trademarks of Bluebeam, Inc. registered in the US and other countries.

Welcome

Opinion: Brian Berry

Opinion: Simon Foxell

Cover feature: Safety 4.0

Legal: The role of the chief inspector of buildings

Wearable neurotechnology

Leadership and the PD role

While we aim to use images that demonstrate best practice in this magazine, some are for illustrative purposes only.

Member profile: Simon Toseland

The National Disability Strategy

HSE prosecutions + annual stats

Events: Winter CPD programme

News

05

06

09

11

12

16

18

22

24

26

28

30



How will the government's new disability strategy affect construction? Page 22





Climate change: time to take charge Page 11

Disability Page 22

"If you are deaf, dyslexic or have cerebral palsy, we don't want you to feel it is a barrier to a successful career" David Morgan, head of Wates Group's disability working group



Association for Project Safety 5 New Mart Place, Edinburgh EH14 1RW

Telephone: +44 (0)131 442 6600 www.aps.org.uk | info@aps.org.uk

Atom Media Partners

Project Safety Matters is published for the Association of Project Safety by Atom Media Partners. Atom Media Partners, 26 Bedford Square, London WC1B 3HP Telephone: +44 (0)20 7490 5595 www.atompublishing.co.uk | eva@atompublishing.co.uk

Project Safety Matters

Editor: Will Mann will.mann@atompublishing.co.uk Associate editor: Kristina Smith kristina.smith@atompublishing.co.uk Production editor: Sarah Cutforth Art editor: Lee Osborne Advertising manager: Dave Smith dave@atompublishing.co.uk

Printing Printed by Precision Colour

Copyright

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 and letters appearing in the magazine are those of their respective authors, and neither the Association for Project Safety, Atom Media Partners or Project Safety Matters is responsible for these opinions or statements. The editor will give careful consideration to material submitted but does not undertake responsibility for damage or their safe return. All rights in the magazine, including copyright, content and design, are owned by the Association for Project Safety and/or Atom Media Partners.

Fast Reliable Effortless

Wireless connectivity that just works.

As the leading provider to the construction industry, and experts in wireless connectivity, we are confident we can improve your site operations to help you build and sell homes quicker. **Get in touch today.**

Call **0333 900 1026** or visit **ukconnect.com**















CEO's foreword

As the winter nights draw in, our features on climate action, leadership and disability issues will distract you from the cold outside, says Lesley McLeod



We have a bumper bundle to keep you warm in the winter months. We talk to Dr Nick Bell of Cardiff Metropolitan University about effective leadership. And there's an update on the Building Safety Bill as it continues its parliamentary passage. I'm not sure it is exactly one to look forward to but it is certainly one to watch, so keep a look out for news of our mini-conference in May which will consider the next steps as policymakers start work in earnest on the secondary regulations.

But, before we get there, this edition of PSM sparkles with festive items to brighten up the darker days. There's a follow-up on the COP26 climate conference from Simon Foxell of thinktank The Edge and Brian Berry from the Federation of Master Builders.

Simon will help you play your part delivering the industry's climate action plan and Brian is up to talk about the national retrofit strategy. With more people opting for electric cars, heat pumps and smart meters - as well as insulating their homes, both due to environmental concerns and against the current hike in energy costs - there are hidden safety issues to consider.

We are taking a look at technology and how mastering the digital world can make a positive difference to health and safety risk management. We've been speaking to VoxxLife about wearable tech and the HSE's Gordon Crick on 'Safety 4.0'. We'll also take a detailed look at the role of the new chief inspector of buildings and highlight road safety with a look at recent prosecutions and a word from CLOCS about construction traffic.

PSM is shining the spotlight on disability issues, speaking to APS president Jonathan Moulam, father of Beth, one of our wonderful



Lesley McLeod

As for the new year, I know we'll have to remain vigilant but. with the Covid booster rollout in full swing, let's hope we can catch up face to face sometime in the not-too-distant future

Paralympians, and David Morgan from Wates, who explains how construction sector companies can be proactive in employing more people with disabilities.

We have a new regular member feature. To start us off we talk to Simon Toseland from Birmingham Airport about his work there. And there are the regular roundups about the association.

After that I'm certainly in the mood for some Christmas cheer and even a wee Hogmanav toast to 2022. APS will be closed from 12 noon on Thursday 23 December until Wednesday 5 January. As for the new year, I know we'll have to remain vigilant but, with the Covid booster roll-out in full swing, let's hope we can catch up face to face sometime in the not-too-distant future.

But for now, may everyone at APS wish you - and those you love - peace, goodwill and a safer, healthier and happier 2022.



Building safety manager role offers 'opportunity' for APS members

The new Building Safety Alliance is developing certification and register for building safety managers' responsibilities

The new role of building safety manager – which is being introduced through the Building Safety Bill – is likely to open up new work opportunities for members of the Association for Project Safety (APS).

That's the view of Mark Snelling, a member of the PAS 8673 steering committee which is defining building safety manager competence requirements.

He said: "It is apparent to me that the role is something that APS members would be able to move into with some additional skills, knowledge and experience.



"It is a role that is far easier to move into from a construction risk management background than it is from perhaps any other sector," Snelling added.

Snelling, chair of the APS Regulation and Policy Committee, is also a director of the newly formed Building Safety Alliance (BSA), which will establish a register for building safety managers after the government announced that this role was "best taken forward by industry".

The BSA, which includes the APS among its members, emerged from one of the sub-groups within the Competence Steering Group, Working Group 8 (WG8), set up to develop the competence framework for building safety managers.

The not-for-profit organisation will initially deliver two functions:
A certification scheme for individual building safety managers or nominated individuals within the organisation responsible for building safety management; and
A publicly accessible register of those certified by the scheme.

In the longer term, the alliance will also evaluate how organisations that wish to deliver the function of the building safety manager can be assessed as having the organisational capability to do so and how to assist contractors and suppliers to higher-risk buildings to deliver a competent workforce.

Anthony Taylor, chair of WG8 and also chair of the Building Safety Alliance, said: "When we were initially asked to develop the competence requirements for the new statutory role of building safety manager, we recognised that, for the framework to work, we also needed to set up wider structures that would support the development of, and drive for, a recognised and uniform standard of competence.

"One of our key recommendations was the need for a register that would allow residents and accountable persons to check if the building safety manager for their building meets the minimum competence requirements. Government is looking at industry to deliver this, so we stepped forward with our wide consortium from across both the private and public sectors."

The Building Safety Bill, which was published in the summer, confirmed the new statutory role of the building safety manager, a concept first developed by Dame Judith Hackitt in her independent review of building regulations and fire safety following the Grenfell Tower disaster.

The Bill proposes that a competent building safety manager, which can be either an individual or an organisation, must be appointed for all occupied buildings that are at least 18m in height or have at least seven storeys and two residential units.

The building safety manager will support the accountable person in managing the fire and structural safety risks in the building on a day-to-day basis.

Baker warns construction professionals on building safety changes

The chief inspector of buildings, Peter Baker, has warned professionals in the built environment sector to step up preparations for the new building safety regime.

As the Building Safety Bill progresses through parliament, the Building Safety Regulator (BSR), which Baker heads up, plans to increase its engagement with the construction sector, he told this month's *Construction Manager*.

"We want to get the industry talking about what needs to change and what it is going to do, rather than just what the regulator and the government are going to do," he said.

The full detail of the regulator's role depends on any amendments made to the Bill. Its focus will be on providing a new regulatory regime for higher-risk buildings, based on a series of approval gateways, while other functions include competence and oversight. The BSR's role in promoting competence will apply to the whole built environment, not just higher-risk buildings.

"This is all to do with the competence steering groups' and BSI's work on competency frameworks," Baker said. "The BSR will be responsible for holding the ring on all of that competency work and making sure that industry is improving the competence of everyone involved in design and construction."

How will the chief inspector of buildings operate? See pages 18-21.

APS reviews governance protocols





We will set out our detailed proposals Jonathan Moulam, APS

The APS has been looking at how the association is set up so it remains relevant to the needs of all its members. The association wants to be flexible in the way it is constituted so it can respond quickly to changing circumstances and new demands while delivering quality services to members.

"It is some time since APS canvassed your thoughts about its board, council and committees," said APS president Jonathan Moulam. "It came as no surprise that you confirmed what we thought – APS was good at putting on events and the day-to-day administration of your membership but the structure of the organisation was no longer relevant to the way people worked or the type of membership body they wanted.

"Since then, the association has reviewed what it does, seeking lessons in best practice from other membership bodies and has come up with some ideas to streamline how APS is organised and how members can have more of a say."

Moulam added: "We will set out our detailed proposals in the coming weeks and months. In the meantime, we are working with our lawyers – and with help from Sarah Booth, our expert consultant on how firms are set up and governed – to identify ways to improve our legal framework."

07



DIGITAL CONSTRUCTION WEEK EXCEL LONDON 24-25 NOVEMBER 2021



APPLY TO SPEAK AT DEW

Share your story to help shape the future of the AECO industries and drive positive change.

INNOVATION IN THE BUILT ENVIRONMENT

DigiConWeek
 Digital Construction Week
 @DigiConWeek

www.digitalconstructionweek.com





Retrofit: we need a proper plan



Heat pumps are all well and good but how about a proper, long-term plan for retrofitting our housing stock? By **Brian Berry**

In September I was pleased to speak at the APS conference about a strategy to make the UK's homes fit for net zero. The plan, which is named the National Retrofit Strategy (NRS), sets out long-term solutions to help make our existing homes greener and more energy efficient. It is backed by the Construction

Disappointingly, the long-awaited Heat and Buildings Strategy did not, as I see it, go far enough

Leadership Council (CLC) and 50 other organisations.

You may ask, what exactly is retrofit? The answer is simple: it's the process of making changes to existing buildings to lower energy consumption. The issue has become much more visible over the last few weeks and months, especially with COP26, the party conferences and the recent release of the government's much anticipated Heat and Buildings Strategy. Why all this visibility? Because the UK desperately needs to fix its 28 million leaky and draughtprone homes, struggling to maintain heat in winter and repel it in summer.

We have a wonderfully diverse housing stock in the UK, made up of different local styles and ages, but this has its downsides – we have the oldest building stock in Europe and consequently the least friendly to the environment. We may look to cars and factories as the biggest polluters, but we must add our homes to this list – they contribute 20% of the UK's total carbon emissions. More worryingly, methods to 'green' our homes have been on the decline. There has been a 95% drop in energy efficiency improvements since 2012.

A long-term, comprehensive plan, like the National Retrofit Strategy, is required to correct market failure and give confidence to industry, to consumers and to private investors who, alongside government, will need to invest to make retrofit happen.

If the market is there, the confidence and investment will come – many businesses and consumers will quite rightly not jump unless they have a secure route to retrofit. Start-stop schemes like the Green Homes Grant have unfortunately not done much to help alleviate the nerves of businesses or consumers when it comes to energy improvement initiatives.

Disappointingly, the long-awaited Heat and Buildings Strategy did not, as I see it, go far enough. There was no mention of the National Retrofit Strategy and detail on how the fabric of our homes was going to be improved to make it more energy efficient fell short. I applaud the ambition to fund new technology such as heat pumps and hydrogen boilers, but they are just one part of the puzzle. Homes need to be made efficient first, by focusing on the fabric of the building, then look to fit heating technology, such as heat pumps.

We await what comes from COP26, but unless a comprehensive retrofit plan, like the National Retrofit Strategy is implemented I can't see that the UK will meet its legally binding carbon emissions targets by 2050.

Brian Berry is the chief executive of the Federation of Master Builders.

UCE UNIVERSITY COLLEGE OF ESTATE MANAGEMENT

No. 1

provider of online surveying degree apprenticeships

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

Chartered Surveyor undergraduate and postgraduate routes available

Building Control Construction Site Management

ucem.ac.uk/employer-apprenticeships businessdevelopment@ucem.ac.uk

Achieving carbon zero



Opinion

It is up to us to initiate the changes that will reduce the devastating pace of climate change, says **Simon Foxell** of think-tank The Edge

1

We face the most significant health and safety challenge that we – or any of our predecessors – have faced. It affects us all, but the built environment is responsible for at least 38% of the problem.

Climate change will cause buildings and cities to overheat, to flood and collapse, to be prone to infestations and disease and become unsafe to live or work in. All of those who work in the built environment must deliver solutions and do so at an extraordinary pace.

There were clear warnings as early as 1988. The world's governments agreed to act at the 1992 Rio Earth Summit, with calls for action increasing since.

The UK introduced its Climate Change Act in 2008, modified in 2019 to require the entire UK economy to achieve net zero CO₂ emissions by 2050. This means that neither new nor existing buildings should emit any greenhouse gases in their construction or use by then. Ideally they should start to absorb or sequestrate carbon in their fabric instead.

Is the industry ready to do this? The short answer is: no. CO_2 emissions from the UK's buildings sector have only dropped from around 104 to 90 megatonnes per year over the last 30 years and we have less time than that to get to zero.

Our task is to change the way we build while also modifying each and every existing building, so that the built environment ceases to emit gases from burning fossil fuels and curing cement – and, at the very least, replaces any carbon sinks, such as trees and plants, that it displaces. This requires both a huge transition and a massive programme of work.

Fortunately, we have had practice runs at changing our industry. We have moved from being a dirty and We have had practice runs at changing our industry, radically reducing the rate of accidents and deaths through a systematic process of change

Above: Flooding in York caused by heavy rainfall into the River Ouse dangerous business to work in to one that takes responsibility for its health and safety practices, radically reducing the rate of accidents and deaths through a systematic process of change. More recently, the coronavirus pandemic has shown that we can also change our working practices practically overnight.

We will need to apply these lessons at speed if we are serious about the challenge of climate change and achieving net zero. It may be that the health and safety coordinator takes on the role of carbon coordinator as well.

If we don't take charge, change will be forced on us. Plans such as the Construction Industry Council's *Carbon Zero: The professional institutions' climate action plan* are already in place to help us do that coherently and collectively. We need to move and learn together what works and implement it comprehensively within the next five years.

Simon Foxell is a member of The Edge and principal of The Architects Practice. The Edge is a think-tank set up to address social and political issues.

Winter 2021

Safety 4.0: where do you fit in?

If the industry could use all the health and safety information it collects in a more intelligent way, how would that change the role of the principal designer? A huge HSE-delivered programme could have the answers

THE T

Digital

Wouldn't it be handy if design software could flag up to its users when they were designing in a hazard? "Watch out, you're creating an open edge there that could cause a fall from height. Have you considered these alternative solutions?" This is the intent behind a project called the Construction Risk Library. And while the project isn't quite as advanced as the scenario above, it has proved the idea could work.

The project is part of a huge programme of work called Discovering Safety, delivered by the Health and Safety Executive (HSE) and funded by Lloyd's Register Foundation. Initially running for five years with £10m of funding, the intention is that the programme will become self-sustaining.

The overarching aim of Discovering Safety is to find better ways to mine, manage and apply the vast amounts of data stored by both the HSE and companies in the construction sector. "Both Lloyd's Register Foundation and the HSE are big advocates of making better use of data," explains Steve Naylor, HSE technical lead for Discovering Safety. "We are sitting on huge data sets of intelligence here at the HSE."

Construction blazes a trail

When Discovering Safety was first envisaged, there wasn't a plan to focus on the construction industry. However, it soon became clear it would be a good place to start, says Naylor. "It became apparent early on that there was significant interest across construction," he says. "With some of the big engineering projects generating huge amounts of data, they recognised the value of finding tools to make better use of that data. We realised that we could just focus on one sector and demonstrate what could be done."

It was important to get industry support and buy-in, says Naylor, both to identify how data could be deployed to improve construction's safety performance, and so that projects would share their information too, for the wider good. There are several industry players listed as partners on the Discovering Safety programme, among them HS2, Atkins, AstraZeneca, Heathrow and the University of Manchester.

Though many of the current Discovering Safety projects are in the construction sector, there are some in other sectors. For instance, one is looking at 'loss of containments' – or spills – in the process industry, while another focuses on diving.

Many of the construction-focused projects will be transferable to other sectors. For instance, text mining: using machine learning to read text in documents and drawings. This is fundamental to many projects so was the first one to get under way. "It is very important because it underpins many of the other projects, but it has proved really challenging," says Gordon Crick, HSE technical lead for Discovering Safety. "It has not bottomed out yet."

In partnership with the National Centre for Text Mining at the University of Manchester (NaCTeM), HSE is working with 3.050 RIDDOR reports produced between 2011 and 2017 to train a tool to look for text. Sample documents were marked up manually using an annotation system devised by NaCTeM. with health and safety input from HSE, then used to train deep learning models. The trained RIDDOR Text Analysis Tool allows users to input certain words and the tool will find them and display clusters of words around the one that was searched. Previously, RIDDORs could only be searched by searching predetermined fields.

Longer term, the goal would be to link searches up to safe working guidance that the HSE has produced or risks that have been identified on historic



"One of the big shifts we want to see is towards designerled risk management" Gordon Crick, HSE projects, so that someone working on a risk assessment could see what safe working advice is – as well as what has gone wrong in the past.

Al safety adviser

The Construction Risk Library is perhaps the most interesting of the Discovering Safety projects for Association of Project Safety (APS) members, who must surely see the same issues arising over and over again. It is aimed at designers in the preconstruction phase both to flag up potential risks and suggest ways to treat those risks.

"One of the big shifts we want to see is towards designer-led risk management," says Crick. "We want the responsibility to shift to them, rather than designers seeing it as someone else's role."

One of the barriers to achieving this shift is the competency of designers. "We have to be concerned about the level of health and safety knowledge among some designers," says Crick. Part of that knowledge gap is due to a lack of practical experience, he says: "A few years ago both the Institution of Civil Engineers and the Institution of Structural Engineers removed the requirement to spend time on site before they became chartered."

The rise of 'global design offices' can also have an impact, says Crick. "We frequently see the offshoring of design tasks," he explains. "Many big projects will send basic tasks to offices in other parts of the world to complete."

Using 3D models, and 4D models that show virtually how a building or structure is built, is already proving hugely helpful in explaining the realities and practicalities of the construction process, says Crick: "Designers can review what they intend to build and how to build it before they get to site. Things can be ironed out in the model."



The idea of the Construction Risk Library, he adds, is to provide useful information at the point of need. And, by anonymising data, it should be possible for large organisations and projects to contribute information and experience that can benefit smaller companies with less resource or relevant experience.

To prove that the idea of the library worked, the HSE elected to work with a tool called SafetiBase, created by software firm 3D Repo with industry partners including Atkins, Mott MacDonald, Laing O'Rourke, Costain, Bentley, HS2 and Tideway. The development of SafetiBase was funded by i3p and Innovate UK and conforms to PAS 1192-6:2018: Specification for collaborative sharing and use of structured Health and Safety information using BIM. SafetiBase allows users to mark up risks within a model, complete various information fields and then apply a risk rating, which can be updated if changes are made. Although SafetiBase can be used in conjunction with 3D Repo's BIM model viewer, it uses a common schema which means that it can be used as a SharePoint database with any BIM model.

"3D Repo make a lightweight version of SafetiBase available to anyone," says Crick. "So, if any health and safety practitioners out there are interested and want to make use of it, they can."

To date, the Construction Risk Library has been deployed on pilot projects with AstraZeneca (see box), Atkins, Faithful+Gould, Heathrow and



"Lost time injury rates can be misleading. There are better ways to measure performance" Steve Naylor, HSE Multiplex. One of the big challenges has been structuring the data, classifying it so that it can be correctly linked to both elements and activities in a build.

The tool isn't quite at the stage where it alerts people of potential danger spots, though. 3D Repo is used to review designs at set stages, importing data from Revit or other software design packages. "You can view a BIM model, fly around it, click on it and add a warning triangle. They can then look at a data set connected to it which has been created by risk library projects," explains Crick. "But it relies on the designer to have the foresight to understand that, at a certain point, risk can ensue."

The plan is to get more companies and projects involved. Crick suggests that APS members could make a valuable contribution to the programme. More information on the Discovering Safety website: www.discoveringsafety.com.

Linking up to add value

Many of the Discovering Safety programmes are interlinked. Advances in one will fuel advances in others. For instance, the text mining tool, once honed, could potentially contribute data from a huge number of sources to feed into the Construction Risk Library. Other linked projects are looking at how to anonymise data, defining leading indicators for projects once on site and investigating how images can be analysed to spot risks.

The leading indicators project aims to investigate how historic safety and accident data from projects can be used to flag up potential risks on future projects. Currently health and safety programmes tend to be reactive, for instance introducing toolbox talks about slips and trips if incidents in that category have risen.



The Construction Risk Library tool helps to grade risks and suggest treatments. Here access to a crane cab has been identified as high risk, with remote operation of the crane suggested as an alternative te alternative remote control workstation to operate crane from a safe place tage. Etc. work, Terro Wo., Type: Eliminate



The problem with trying to look at historic safety data is that everyone does it differently, says Naylor. "There is no common agreement on how best to measure health and safety performance," he says. "Different contractors use different KPIs."

If there was a framework for collecting the right sort of data, it would be possible to train machine-learning tools to look at data and predict outcomes. HSE has been working with a group of contractors to find out what data is currently collected and where the gaps might be. One gap that's already become apparent, says Naylor, is that there is not enough root cause information collected following on from accidents or incidents.

Consultancy Wood Group, which works in the oil and gas sector, is helping with the development of tools which could use data to help assign a risk score to a project at a certain point. This could help contractors to target efforts across projects, but also potentially be used to assess contractors' performance at tender stage, says Naylor: "At the moment, at the procurement stages, the main data used is lost time injury rates. But that can be misleading. There are better ways to measure performance."

Death of the PD?

With the promise of this wealth of safety risk data at a designer's fingertips, APS members may fear that the role of the professional safety expert during the design phase may diminish or even disappear.

Crick allays these fears. "There is always going to be the need for specialist health and safety knowledge in construction," he says. "It's a case of when you apply that need. We would like to see APS members working with the clients more, right at the early stages of a project so that the clients understand the impact that their decisions are making on safety."

AstraZeneca deploys Construction Risk Library

AstraZeneca was constructing an extension to the archive and quality assurance building at its Macclesfield campus – part of a programme of works that involves between 60 and 100 specialist construction projects. It is standard practice for the company to draw up detailed risk data and to update it throughout a project.

As part of the Discovering Safety pilot for the Construction Risk Library (see main text), AstraZeneca used the 3D Repo's BIM model visualisation tool and SafetiBase, marking up potential risks on the 3D model and listing out the connected information. Through this, the team made early changes to reduce risks.



The most significant change was moving the plant required to control the climate with the chambers that will be used for

storing. "It encouraged us to question whether we needed to put the plant on the roof. The answer was no and instead we installed it on the ground floor," says AstraZeneca construction lead David Ayres.

Another detail was spotted by the building users. 3D Repo allows users to view a BIM model through an internet browser, a cheaper option than each user needing the design software, making it more accessible. "With the help of the 3D model, our client immediately spotted that the storage racking was too high. It was only by looking at the designs in 3D that our client was able to see this so early on," says Ayres. "Without SafetiBase, we would have found out much later on in the process which would have cost time and money."

Although it took time to feed its risk register information into SafetiBase for this project, that information is now there for AstraZeneca to use on the next one – which it intends to do, according to Ayres.

Member profile

Simon Toseland CV

 Head of health, safety and fire at Birmingham Airport since 2019
 SHEQ director at FM specialist Norse Commercial Services
 Compliance services director at Salisbury Group, responsible for 350 HMRC premises
 10 years in consultancy, mainly CDM

roles for a broad range of clients in multiple sectors

■ Eight years at hotel and leisure complex, starting as duty manager and then training to become health & safety manager

'You lead by example'

Simon Toseland, head of health, safety and fire at Birmingham Airport, tells **PSM** about the challenges of working in a complex, fast-moving environment

Tell us about your job.

This is a 24-7 environment. First thing in the morning, we go through what has happened overnight and see if there are any issues to follow up on. There are five of us in the health, safety and fire team, including me. We are the support and advisory arm for our colleagues across the airport and for all our different tenants and users, such as the baggage handlers.

Everything we do, from putting monitors up to enhancing the fire system to roadworks, is covered by CDM. Pre-Covid, passenger numbers were expected to rise from 13 million to 18 million and we were in the middle of a big scheme to expand the airport terminal. That has been put on hold for now.

What skills do you need for your role?

You do need a really good understanding of health and safety legislation but, to be honest, when I reflect on my role, there's very little about looking at the regulations. It's those professional soft skills that are vital: having strong communication skills, using emotional intelligence to really look at the situation.

What have you achieved since arriving at the airport?

We have made huge strides in terms of management systems, in particular CDM. One of the things I was recruited to do was to achieve ISO 45001 accreditation, which I have done.

I am proud that we now have a strong near-miss report culture. We introduced an app which is really simple and straightforward to use and people report in confidence. Since we brought it in, use has risen and now we receive around 100 reports a month.

We got a lot of support from the CEO, Nick Barton, which is really crucial for success in health and safety initiatives. We try to give a lot of feedback to say what we have done in response to reports. We also carry out trend analysis to work out if there are patterns or behaviours we should investigate further.

What are the biggest challenges?

Because the airport operates 24-7, it's a challenge to engage with all the different people who work here on different shift systems. We also Sharing safety successes is absolutely crucial to getting engagement and transforming the culture. It's the people on the shop floor who deliver a project successfully



have our own fire service and West Midlands Police unit on site who we need to engage with.

Something perhaps we don't do as well in health and safety is sharing success. We are very good at telling people when we have done something wrong but what about when something has gone right? Sharing safety successes is absolutely crucial to getting engagement and transforming the culture. It's the people on the shop floor who deliver a project successfully.

What was the impact of Covid-19? It has been both a help and a hindrance. The downside is that



aviation has been dramatically hit. But in some ways, it's enabled us to develop our health and safety culture. All of a sudden, everyone's talking about risk assessments and engaging with health and safety.

We are constantly reviewing how we operate, via our command structure. We use a command structure to assess and implement change. Our bronze teams are small groups of frontline staff who assess their departments and feed back into the silver team. The silver team creates processes and procedures, ensuring that they are consistent across the airport. Gold level is the executive team who oversee what we do.

Looking back, what was your most memorable project?

In 2007 or 2008, I worked on a scheme to upgrade the Grade II*-listed Crystal Palace National Sports Centre for use as a training venue for the Olympics in 2012. The project just grew and grew. Every time we did a survey, we found something else: bridges that needed support, asbestos, a leak in the pool. Because it involved a lot of stakeholders, it was quite a political project too. CDM 2007 had just dawned on us and I was the CDM coordinator on that project. It was a great learning opportunity.

What advice would you give to people at the start of their career? Be pragmatic. Focus on the significant risks because nobody has the budget and resource to look at every single risk. We have created a corporate risk register so that we can establish what the most significant risks are and focus on them.

What is the best piece of advice you have received?

That's really difficult. I have been privileged to work with some great health and safety leaders. Clive Johnson, as head of health and safety at Landsec, always promoted being a health and safety leader. We always call ourselves managers, but we are more like leaders. You have to lead by example to have a positive impact on attitude and performance.

How will the chief inspector of buildings operate?

Peter Baker, appointed as chief inspector of buildings earlier this year, will lead the new Building Safety Regulator. **Theresa Mohammed, Stephanie Geesink** and **Dominic Turner-Harriss** look at how this vital role will work

A key recommendation of *Building a Safer Future*, Dame Judith Hackitt's 2018 review of the building industry, was the creation of a new national regulator, tasked with promoting and enforcing safety in the built environment, led by a new chief inspector of buildings.

The Building Safety Regulator (BSR) is now a cornerstone of the Building Safety Bill, which was presented to parliament in the summer, and has been set up in shadow form, sitting within the Health and Safety Executive (HSE). In February, the HSE announced the appointment of the first chief inspector of buildings. Peter Baker, who previously headed up the HSE's construction operations, will lead and operate the regulator, and will therefore be central to the building safety reform programme.

The regulator's powers are extensive and multi-faceted, requiring it to undertake a variety of roles. The Bill

Peter Baker CV

Chief inspector of buildings

Feb 2021-present: Chief inspector of buildings
May 2020-Jan 2021: Director, building safety and construction, HSE
Oct 2018-May 2020: Director, building safety programme response, HSE Peter Baker will be central to the building safety reform programme

April 2015-Sept 2018:
Chief inspector of construction, HSE
Apr 2013-Mar 2015:
Head of Chemicals, Explosives &
Microbiological Hazards Division, HSE
Sep 2013-May 2014:
Acting director, Hazardous Installations, HSE
Apr 2008-Mar 2013:
Head of Chemical Industries Division, HSE
Education:
BSc Chemistry, University of Sheffield;
Postgraduate diploma, occupational safety & health, Aston University

sets out three main functions that the regulator must exercise with a view to "securing the safety of people in or about buildings in relation to risks arising from buildings; and improving the standard of buildings" (see box, p21).

As the Bill's legislative process progresses, the role of the BSR could

Viega cold-press technology Makes piping smarter.

Don't WORK HARD

viega.co.uk/presstechnology



Work smart – discover the Viega advantage No need for heavy machinery or hot-works measures: connect pipes much safer and faster. With 100% efficiency, 0% fire risk and just a Viega Pressgun in your hands. **Viega. Connected in quality.**



viega

WORK SMART





architectural acoustic finishes

SonaSpray K-13 in world famous film studios

Over 100,000m2 of SonaSpray K-13 black applied directly to profiled steel soffit throughout a world famous visitor attraction and international film studios. SonaSpray absorbs sound energy instead of reflecting it, reducing reverberation times to an optimal level for filming, whilst the black finish provides ideal conditions for lighting control.

We are Britain's leading provider of fire rated architectural acoustic finishes for the control of noise reverberation in buildings. Having the most extensive range, enables us to offer a product for every project, design and budget.





change. Responsibility for guiding the regulator through this turbulent period will fall to Baker. In the meantime, the HSE and the BSR are working with the Department for Levelling Up, Housing and Communities to implement the legislation, consulting with the industry itself and building the internal processes that the BSR will work to.

In addition, two governance committees, as well as a residents' panel, are to be set up to assist the BSR in its role in regulating the new building safety regime:

• The industry competence committee, set up to help improve industry competence, publishing relevant guidance and advising the industry directly; and

• The building advisory committee, set up to help the BSR meet its duty to keep the safety and standard of all buildings under review, provide advice and expertise and help to develop future building regulations.

As well as establishing the new regulatory regime for higher-risk buildings – any buildings at least 18m high and with at least seven storeys – the regulator is also expected to manage the process.

The regulator will automatically become the building control authority for new higher-risk buildings in England and will oversee the approval process for Gateways 2 and 3 – the mandatory safety checks that will be required during design and construction projects on all higherrisk buildings, including a series of 'hard stops', whereby the next stage of the project will not be able to proceed until the relevant gateway is achieved. The BSR will take charge of establishing and managing a new building safety inspectorate to assist with these inspections.

The regulator and its inspectors will be empowered to issue compliance notices and stop notices for higherrisk buildings during any stage of the design and construction process. Compliance notices will require non-compliant works to be rectified by a specified date, whereas stop notices will require works to be halted until any instances of serious noncompliance are addressed.

Failure to comply with the regulator or its authorised officers, or to register a higher-risk building before it is occupied, will be criminal offences, punishable by fines or imprisonment. The regulator will be empowered to prosecute breaches of the design and construction process for higher-risk buildings, and may impose special measures where any building is being mismanaged by the relevant accountable person. Residents of higher-risk buildings will have the right to escalate building safety concerns to the regulator.

The three principal functions of the Building Safety Regulator:

1. Implementing the new regulatory regime for higher-risk buildings.

2. Overseeing the safety and performance of all buildings in England. This will involve overseeing the performance of other building control bodies, managing a new building safety inspectorate, advising on building standards and safety risks and prosecuting wrongdoers.

3. Assisting and encouraging competence among the built environment, the building industry and registered building inspectors. The regulator will be required to establish a unified building control profession with competency requirements common across both the public and private sectors.

Baker will oversee the new safety regime for higher-risk buildings

Before this new regime for higherrisk buildings can be implemented, Baker must grow the shadow form BSR into a fully functioning linchpin of building safety. He has estimated that the BSR will need to recruit 700 staff to become the fully operational regulator that has been tasked with promoting and enforcing safety in the built environment.

The question has been posed as to how the BSR will locate and recruit this number of highly skilled professionals. Baker has acknowledged this risk and stressed the importance of local authorities and the fire services working together to achieve the BSR's aims.

Any delay in the setting-up of the BSR could have huge detrimental effects. Parties may experience significant delays progressing through the gateways but, more seriously, unsafe buildings may be constructed and occupied.

Theresa Mohammed is a partner, Stephanie Geesink is a senior associate and Dominic Turner-Harriss is a solicitor at Trowers & Hamlins LLP.

Step change needed

The government's new National Disability Strategy sets out some immediate commitments aimed to improve disabled people's lives. What changes can we expect?

The incident at the start of COP26, when Karine Elharrar, the Israeli minister for national infrastructure, energy and water, could not get into the conference centre in Glasgow in her wheelchair, was a stark reminder of the challenges faced by many people with disabilities when they are simply trying to go about their daily lives. Despite the Disability Discrimination Act of 1995 and the Equality Act of 2010, there is still a long way to go.

There were hopes that the government's new National Disability Strategy, published at the end of July 2021 with little interest from the mainstream press, might start to address some of the remaining inequalities. The contents look promising. Part 1 pledges "immediate commitments" including sections on accessibility, transport and employment – all topics that could have knock-on impacts for those working in the built environment.

Adapting housing

One of the shocking statistics referenced in the National Disability Strategy is that 47% of respondents to the UK Disability Survey reported "some difficulty" in getting in and out of their homes. And while one in five people in the UK are disabled, just 9% of housing in England has "accessible features", according to the English Housing Survey.

The strategy promises some action to address these problems. The government has committed that 10% of the 180,000 homes built through the \pounds 11.5bn Affordable Homes Programme between 2021 and 2026 will be for supported housing.

APS president Jonathan Moulam is not impressed: "That's a woefully small number of properties, considering the need." Moulam knows first hand how difficult it is to find adequate housing. His daughter, Paralympian Beth Moulam, uses a powered wheelchair



Managers need specific training that is relevant to people's needs David Morgan, Wates and had to have a home specially designed and built just to be able to move around it.

David Morgan, who heads up Wates Group's disability working group, is more upbeat. "The strategy is positive both in terms of investing in housing and making sure housing is appropriate for people with disabilities," he says. Morgan is managing director of the group's property services division, maintaining a huge number of properties for social housing landlords.

For Morgan, the biggest challenge the UK faces is adapting our existing housing stock. One of the things he will be talking to his customers about is how to make the most of the grants that are available, such as the £573m Disabled Facilities Grant for this year. "I suspect most customers, in the private and public sectors, are not aware of it," says Morgan. "There are big government commitments and there is money available. How do we draw down that money?"

Employer commitments

One change that many hoped to see in the government's new strategy was a mandatory requirement for larger companies to record and report information on disability. Currently there is a voluntary reporting framework for organisations of over 250 people. However, rather than mandating reporting, the strategy says that the government will consult on disability reporting for large employers. Without some sort of stick, employers don't appear to see the value in employing people with disabilities, despite declaring their commitment to diversity and inclusion. Although the percentage of disabled people with a degree has risen from 15.9% in 2013 to 23% in 2020, the employment gap has stayed the same, with the employment rate for working age disabled people 28 percentage points lower than for non-disabled people.

Some companies are reporting on disability without the mandate, in a bid to attract more people. Wates decided in 2019 that it would record the percentage of its workforce that declared disabilities, which was 0.9% back then. It also set itself a target: to have 3% of people with disabilities by 2025.

Wates has already exceeded its 3% target, says Morgan, who explains that people who weren't previously comfortable about declaring a disability now feel able to do so. "The first big learning that came out of the disability working group is that people have physical and non-physical disabilities," he says. "Often disabilities are neurological – for example autism, ADHD and dyslexia."

Another lesson that came out of the working group was that targeted rather than general training is needed. "Managers need specific training that is relevant to people's needs," says Morgan. "Colleagues and line managers need to understand how people work best so that they are able to contribute fully." Next steps for Wates will be working out how to attract more people with disabilities. The Covid-19 pandemic has helped with that to some extent, he says, because it has demonstrated what can be done with flexible working arrangements.

As well as offering a range of working options, Wates will also be looking for ways to make people with disabilities more visible, says Morgan, to signal to other people with disabilities that this is an employer who wants them.

"It's about being sufficiently comfortable bringing your whole self to work," he says. "If you are deaf, dyslexic or have cerebral palsy we don't want you to feel like it is a barrier to having a fulfilling career at Wates."

Not far enough

Moulam, like many commentators, is disappointed by the lack of commitment to real action in the government's strategy.

"There's no meat. A lot of it is rhetoric and buzzwords," he says, pointing out that the devolved governments are doing better than the Westminster one. "We have Northern Ireland, Scotland and Wales quite clearly building their strategy around the UN Convention on the Rights of Persons with Disabilities, yet this strategy quite clearly does not do that."

While office developers have made great strides in considering accessibility and disability, housing is lagging behind, says Moulam. "A lot of things that help disabled people help everybody else too," he says. "There's a whole raft of things we should be looking at when we look at design."

Being responsible for design to meet a commitment to diversity and inclusion should mean more than doing the bare minimum, he suggests. "It takes a step change in attitude from doing as little as you can get away with to having a social conscience."

Can socks really talk to your brain?

Wearable neurotechnology aims to boost health and wellbeing by improving neural performance. What could the implications for construction be? Imagine you could put on a pair of socks which would improve your balance, reduce aches and pains and give you more strength and stamina. Sounds too good to be true? That's the response most people have when they first come across VoxxLife's technology.

"Most people when they first hear about it are dumbfounded," says John Moody, an independent associate at VoxxLife, who is selling the technology in the UK. "They don't see how it can be doing the things we see it achieve because it's just a pair of socks."

The socks, in fact, are only a convenient carrier. They incorporate a small patch which contains a woven-in pattern that stimulates neuroreceptors in the skin in a certain way. The pattern can also be applied to the skin via patches worn on the inside of the arm, or via imprinted insoles. Messages stimulated by the pattern travel via the peripheral nervous system to the central nervous system to reach the brain stem and put it into a state of homeostasis or balance.

The technology was invented in Canada and launched there in 2016. It was introduced into the UK in 2020, just before the pandemic. This has limited its use here so far but users elsewhere, from elite athletes to sufferers of multiple sclerosis (MS) report significant and positive effects. Moody believes that it could offer significant safety and health benefits on construction sites.

"The construction industry is losing a lot of older workers who can no longer cope with the physical demands, at a time when there are skills shortages," he says. "This technology could help by improving mobility and reducing pain."

Personally Moody noticed physical changes around a week into wearing VoxxLife technology. He became aware that he was bending down to pick things up with ease, where previously a stiff hip had prevented this and his range of neck and shoulder motion had significantly increased.

Medical mission

The story behind VoxxLife Human Performance Technology (HPT) is that it was invented by Canadian Jay Dhaliwal after he observed his mother's physical deterioration due to MS when he was a teenager. According to Moody, Dhaliwal, after a successful business career, set about researching neurology, which ultimately led to the creation of HPT and VoxxLife.

Although VoxxLife technology is based on scientific research and discoveries going back over decades, Dhaliwal himself, in promotional videos for the technology, admits that no one quite understands exactly how the technology works. Finding the right pattern to stimulate the right effect in the brainstem was a "trial and error" affair, he says.

Two separate studies – one looking at the technology's impact on foot pain in people with diabetes, the other looking at the performance of athletes – seem to show compelling evidence that the technology works for a wide range of people. Over 90% of the people with diabetes reported reduction in neuropathic pain and the athletes experienced performance improvements such as 31% better balance and stability, 22% more power and 15 degrees more movement.

Moody, who came across VoxxLife while networking at a health technology event, became convinced by its efficacy when a friend of his who has MS tried it out: "Previously, she needed to use a stick, even to walk short distances inside the house. With the VoxxLife socks on, she was able to spin round with her arms held out," he says.

Tackling musculoskeletal issues

It's not difficult to see what the potential benefits of such technology could be in construction. The latest HSE statistics for construction show that 60% of all ill health is down to musculoskeletal issues, either new or long-standing. As well as increasing the likelihood of accidents occurring, these illnesses cause pain or discomfort which impact on mood and wellbeing on a daily basis.

Moody thinks that VoxxLife technology could help people in the industry work more comfortably and safely, across a wide range of job functions. "I think the technology would make a great part of an employee benefit scheme," he says. "I've seen first-hand what a huge difference it can make to people's lives and wellbeing."

VoxxLife has other products too. Its eSmartr Sleevs have been designed to communicate with the part of the brain that controls cognitive function, reducing stress and anxiety



We are encouraged to think about heart health and gut health but less so of brain health John Moody while boosting memory and focus, according to VoxxLife. The company has also created patches aimed to improve REM sleep and others to boost the immune response.

One of the challenges for Dhaliwal was how to get the technology to market. "Having explored retail and medical wholesale channels it became clear that these products are an advised sale – the technology needs to be explained and what sells them are the results people experience," says Moody.

VoxxLife is a direct sales company, where independent associates like Moody share their own stories to sell the products, which range in price from £40 to £60 for the socks and insoles. It also has a network of 3,000 health professionals who sell the technology through their clinics.

Moody believes that Dhaliwal is an altruist and a businessperson in equal parts, that he is genuinely motivated to improve people's lives and health. To date 7.2 million people have bought VoxxLife products; Dhaliwal's mission is to reach one billion people.

It is difficult not to be intrigued by this technology. Watching videos and reading testimonials online doesn't lessen the intrigue. In construction, we are waking up to the impact of mind health and wellbeing. Why not look at how technology can help with that too?

"We are encouraged to think about heart health and gut health but less so of brain health," says Moody. "Yet the brain and central nervous system are the most important systems in the body."

Other neurotech that could improve safety

The neurotech sector is expanding fast, although most of it, unlike VoxxLife, involves headbands or devices around the head. Here's a taster of technologies that could have applications in construction.

 NextMind has developed a sensor which uses electroencephalogram (EEG) technology to detect neural activity and translate it into digital commands – basically controlling a computer by thinking about it.
 Dreem is a wearable neurotechnology which uses EEG electrodes on a headband to analyse brain activity during sleep in order to promote better sleep.

Thync is a small pod attached to the back of the neck. It uses electrical stimulation to activate nerve pathways, aiming to reduce stress and improve sleep.

25

Leadership and the principal designer role

Could your management style be hampering your effectiveness as a principal designer? **Dr Nick Bell** explains how a different approach could up your game

If you want to build a ship, don't drum up the men to gather wood, divide the work and give orders. Instead, teach them to yearn for the vast and endless sea. Antoine de Saint-Exupéry, 1900-1944

This quote, from the author of *The Little Prince*, distinguishes between leaders and managers. Leaders

inspire by creating a collective vision. Managers direct groups of people to complete tasks. The 'principal' in principal designer (PD) suggests a role with authority: the dictionary definition of principal is "the most important". This is reinforced by Regulation 5 of CDM 2015 which describes the PD as "a designer with control over the pre-construction phase". But what is the most effective way for a PD to exert control? Here we consider the difference between transactional management and transformational leadership.

Transactional management

To fulfil their function, a PD could use management techniques. The principles of management developed from the 'command and control' approach of the military, according to the Chartered Institute of Personnel and Development.

The PD role could be interpreted as: **Planning** – deciding what needs to be done, by whom, how and when.



Managing – implementing the plan, including providing timely and correct instructions and information. Monitoring – verifying how the plan is working and giving feedback. Co-ordinating – ensuring each party performs their assigned actions in the correct manner and at the correct time.

These points align with 'transactional management', a concept introduced in 1978 by James MacGregor Burns and extended by Bernard M Bass in 1985. This can provide clarity and a structured approach for completing work (see box).

Drawbacks to this approach

Employed exclusively, a transactional management style can lead to people feeling 'micro-managed' or uncertain of their capabilities, particularly if they only receive feedback when something goes wrong.

According to self-determination theory, developed by Richard Ryan and Edward L Deci in the mid-1980s, we are driven to feel competent, autonomous and connected to others. When taken too far, transactional management undermines these needs.

Ultimately, this can lead to people experiencing stress. For example, loss of autonomy is related to the loss of control, one of the six main stressors in the Health and Safety Executive's (HSE) stress management standards (2019) (www.hse.gov.uk/pubns/wbk01.htm).

Transactional manager or transformational leader?

The qualities of a transactional manager

- Sets goals.
 Provides resources.
 Monitors work.
 Intervenes when standards are not met.
- Motivates through reward and punishment.

The qualities of a transformational leader

■ Individualised consideration Interested in the welfare of team members and gets to know them. Will play to people's strengths (and aspirations) when assigning tasks.

Intellectual stimulation

Encourages their team to find creative solutions and to develop their capabilities. Accepts and encourages challenges to their own ideas and to the status quo.

Inspirational motivation

Creates an inspiring and engaging vision of the future and helps individuals to understand how they fit into, and are an important part of, the bigger picture.

Idealised influence

The leader is a role model and 'walks the talk'. This integrity earns the trust of the team.



Research,

including within the construction industry, has consistently linked transformational leadership with improved employee performance

Transformational leadership

Curiously, in L153, the HSE guidance to support compliance with CDM 2015, 'leadership' is used in connection with the principal contractor role but not the PD. But it would be incorrect to infer that contractors benefit from leadership while designers do not.

The theory of transformational leadership developed in tandem with transactional management. These leaders are defined by four main characteristics (see box). Transformational leaders use transactional management techniques, but they are only a few tools in their toolbox.

Research, including within the construction industry, has consistently linked transformational leadership with improved employee performance. This is partly because it helps us to meet, rather than undermines, our core psychological needs. A PD who applies transformational leadership skills is likely to get the best from their teams.

Examples of how this might look:

• Talking passionately about health and safety, rather than focusing on the risk of prosecution, and connecting it to an inspiring, bigger picture.

• Getting to know designers as individuals. Perhaps asking what they are looking forward to on the project.

• Running a 'lessons learned' workshop at the start of a project. This draws on people's past experiences and establishes that the team will be encouraged to learn and develop.

• Reframing problems as challenges for the team to solve collaboratively. ("We've been given a tight timeframe: what can we do to make this work?")

• Rather than insisting on a particular approach, asking the team what approaches they successfully used on similar past projects.

• Acknowledging people's work and connecting it to the bigger picture.

A team will be more likely to achieve its health and safety ambitions when the PD serves as a transformational leader. When we draw on and build the skills and motivation of our team, they are more able and willing to join us on our journey into that 'vast and endless sea'.

Dr Nick Bell is a chartered psychologist, honorary principal lecturer at Cardiff Metropolitan University and a registered member of the Association for Project Safety.

Reducing deaths due to construction traffic

CLOCS is lobbying local authorities to adopt the CLOCS Standard in its campaign to limit the dangers for vulnerable road users



As more and more cities and towns around the UK look to pursue an 'active transport' agenda, the risk of accidents and deaths due to collisions with construction vehicle movement rises.

According to statistics from Construction Logistics and Community Safety (CLOCS), some regions already have a problem of rising deaths among vulnerable road users: pedestrians, cyclists and motorcyclists.

The graph below shows the number of vulnerable road users, per million population, killed by HGVs in each region as a three-year average to 2019. It also shows how that three-year average has changed compared to 2012. Three areas stand out for the wrong reasons: West Midlands, Wales and North-East. CLOCS wants local authorities to take action to tackle such deaths by asking for the CLOCS Standard – which sets out how construction logistics should be planned and managed safely – to be included in their own procurement strategies and by adding them to planning requirements. It is currently preparing the next version of its standard, to be published early next year.

"The standard will include a framework to look at reporting of collision and emission data to allow and require clients and contractors to obtain comparable numbers from their supply chain and, with that, improvement plans," says Derek Rees, chief executive of CLOCS.

CLOCS has turned its attention to air quality because of our rising awareness of its importance. The ruling in December 2020 that air pollution had made a material contribution to the death of a nine-year-old girl has moved the need to reduce emissions up the agendas of local authorities.

"There's no silver bullet to reducing collision and emissions," says Rees. "Behaviours and investment are driven by the commercial and physical conditions that the sites and the clients created through procurement. It has to be a collective effort."

CLOCS will also be looking to include vans as well as HGVs in its standards. Although more deaths are caused by HGVs, the proportion of vans is rising fast, says Rees. CLOCS will also keep a close eye on the impact of offsite, possibly leading to fewer movements of bigger vehicles.

In London, TfL launched its Direct Vision Standard in March 2021 which requires owners of HGVs over 12 tonnes to apply for a permit that assigns a rating linked to how much the driver can see directly through their cab windows.

Over time, the requirement will be cranked up, which could see fleet owners deploying non-conforming vehicles elsewhere or selling them to owners outside London.

Potentially this means that risks could just be pushed out from the capital to other regions, says Rees, which is why CLOCS wants to see action from local authorities and mayors all over the country.

Vulnerable road users killed or seriously injured in collisions involving HGVs over 3.5 tonnes maximum gross weight Source: CLOCS

Change in vulnerable road users killed (three-year average 2019 vs 2012)

Number of vulnerable road users killed per million population (three-year average to 2019)



Health & Safety Executive – prosecutions round-up

Here are the most severe fines meted out by courts to construction companies for health and safety failings in September and October

Crane operator electrocuted

Bridgend firm ASL Access Scaffold Limited was fined after its employee Martin Tilby was fatally electrocuted on 17 May 2016 when the crane he was using to unload materials struck an overhead powerline.The HSE found no risk assessment had been carried out, and no control measures were put in place to prevent contact with the overhead powerlines. Cardiff Crown Court fined ASL £160,000 and ordered it to pay costs of £45,000.

Employees exposed to asbestos

MS Properties (Northern) of Bradford was fined after the company's directors, and the casual labourers they employed, spent three-to-four weeks removing false ceiling tiles that contained asbestos for a shop conversion project. They used claw hammers to knock down over 1,000 sg m of asbestos insulation board tiles before shovelling the debris into over 60 one-tonne bags. Beverley Magistrates' Court fined MS Properties (Northern) £16,000 and ordered it to pay £3,011.87 in costs and a victim surcharge of £190.

Worker paralysed in fall at Watford Football Stadium

On 11 June 2016, Ashley Grealish fell 11m down a stairwell and into a basement after a concrete floor and associated falsework collapsed. He sustained multiple injuries including spinal damage, which caused permanent paralysis from the waist down. Other workers fell too but were able to cling to the structure and avoided serious injuries. An HSE investigation found that the company's temporary works management system was lacking. The contractor should have had a suitable design for the temporary works, taking proper account of the vertical load and the need for horizontal stability, and there should have been a robust checking system in place. Peterborough Magistrates Court fined the contractor, ECS Groundworks of St Albans, £40,000 and ordered it to pay costs of £14,505.

Worker suffers multiple fractures

Scunthorpe contractor Britcon (UK) was constructing a surge pit at the McCain's Foods (GB) site at Havers Hill in Scarborough, a process which involved removing sheet piles from the ground. On 21 March 2018, Stephen Gouldthorpe was assisting with cleaning sheet piles as they were pulled out of the ground by a Doosan DX 225 LC3, 360-degree excavator with an EMV 300 pile attachment fitted to it. A safety chain slipped causing a 190kgpile to fall and strike him. He suffered a fractured left tibia and fibula and ankle, a fractured right clavicle, seven fractured ribs, pulmonary contusion and fractured vertebrae. An HSE inspection found there was insufficient supervision and communication during the lifting operations with no exclusion zone in place. Britcon was fined £570,000 and ordered to pay £40,054.68 in costs by Leeds Magistrates' Court.

Employee falls from scaffold

TA Knox Shopfitters of Stockport was fined after an employee fell from a scaffold tower while working in the Trafford Centre in Manchester. The tower moved, throwing Three bricklayers fell around 2.5m onto a concrete floor when a temporary stairwell cover gave way

the worker off balance. He fell against the safety rail which gave way and he fell 5m to the ground, suffering 10 fractured ribs, a fractured shoulder and a collapsed lung. The HSE investigation found that the safety rail had not been fixed in place correctly and that the tower had been erected by someone who did not have the appropriate skills, knowledge and training. Manchester Magistrates' Court fined the company £18,000 and ordered it to pay costs of £4,623.

Three bricklayers fall from height

Three bricklayers fell around 2.5m onto a concrete floor after a temporary stairwell cover gave way. Their injuries included a broken back, broken sternum and swollen knee. The cover had not been correctly fitted. An HSE investigation found that St Modwen Homes of Birmingham did not have a robust system in place to ensure that the cover was identified as a temporary working platform and then to manage its safe installation, inspection, maintenance and use. North Somerset Magistrates' Court fined St Modwen Homes £200.000 and ordered it to pay costs of £13,332.

Contractor fined after Covid-19 spot check

When an HSE inspector visited a site in Manchester in July 2020 to carry out a Covid-19 spot check, they found a host of safety issues including working at height, welfare, Covid-19, site security and electricity. The principal contractor Umar Akram Khatab of Bradford was served with a Prohibition Notice and two Improvement Notices. Just over a month later a follow-up visit revealed that little or no improvements had been made and a further Prohibition Notice relating to an unsupported excavation was served. Manchester Magistrates' Court sentenced Umar Akram Khatab to a 12-month community order and ordered him to pay £3,000 towards costs and a victim surcharge of £95.



Share good practice at APS training events

From CPD sessions to a new series of business breakfasts, here are a few highlights of the APS events programme for the coming year

The Association for Project Safety (APS) is committed to putting on relevant and timely education and training events helping keep members up to date with developments in construction. The aim is to shape and share good practice across the APS community. We are determined to keep bringing you – as part of your annual membership subscription – the events you seem to love.

APS has been reviewing what we have been doing since the pandemic forced us to pivot to a new way of working. The numbers speak for themselves, with an uplift in attendance at CPD sessions from around 1,200 every year to more than 12,000 after the country went into the first lockdown. APS also hosts regular webinars that are an inclusive part of membership. Additionally, APS hosts two conferences each year and is introducing business breakfasts.

Annual Conference and AGM – Wednesday 8 September 2022

The APS national conference is always now held on the first Wednesday of every September. This flagship event aims to bring together industry experts who can bring a mix of in-depth

Online CPD gets a makeover

APS is formalising the pattern of our online training so it is easier for you to plan which sessions to attend online live and which to catch up with later by viewing our archive of past events at www.aps.org.uk/past-events.

We have started by dividing the APS year into three seasons: one in autumn, running up to Christmas; one in spring from the end of January to around Easter; and the final summer season from May through to July. Each will be made up of 10 webinars – half will deal with topical issues and the others will look at a single theme.

As before, we will have two in-depth CPD topics each year, in autumn and spring. Other freestanding sessions will be presented by regional committees. The spring session will focus on women in construction. Clare Price will report back

on the work of the BSI to formalise the new dutyholders heralded in the legislation knowledge to the issues of the day as well as a personal perspective on the state of the industry.

There will be individual speakers and industry panels as well as opportunities to participate in breakout sessions of your choice. The annual conference runs immediately after our AGM so you can also get involved with the day-to-day oversight of your association and see what we have been doing over the previous year.

We have not yet decided if the time has come to take the annual conference and AGM back on the road but if not this year then we are going to be looking to other events to bring you all the networking opportunities you tell us you have missed.

APS mini conference – save the day of Wednesday 11 May 2022

The APS spring mini-conference in May takes a single subject riding high in the news and assembles a cast of experts to shed some light on what it all means for you. We have earmarked Wednesday 11 May 2022 for our upcoming online event and we will focus on the Building Safety Act which, with a fair wind, will have received its Royal Assent by then. We have already secured an encore from Clare Price, who will report back as promised on the work of the BSI to formalise the new dutyholders heralded in the legislation.

All-new APS business breakfasts

The association is keen to develop partnerships across the industry bringing you initially around six breakfast events each year. We will be looking beyond construction to focus on how external events are having an impact on work across the sector.

We recently held a trial run with a hugely successful Budget Briefing. The association is very grateful to Kris Hudson from Turner and Townsend who took time out of his schedule to explain the contents of the famous red box and the economic conditions facing construction. We will invite Kris back before the start of the tax year.

We are now working on a programme that will see other specialists bring their expert knowledge to a desktop, tablet or smartphone near you.

Look out for our ever-changing programme of APS events at: www.aps.org.uk/events



Unresolved business banking complaint?

We can help settle disputes dating back to December 2001.

The BBRS is a free, independent service helping SMEs settle unresolved banking complaints.

See if our dispute resolution specialists can help you.

thebbrs.org/property







Synergie Training specialises in the APS Accredited Principal Designer course which we provide as both onsite closed company courses and as public courses throughout the UK. We have successfully accredited over 3,000 individual Principal Designers with a 95% pass rate and also provide CDM Overview, Client, Principal Contractor, Design Risk Management, Domestic Client, Construction Safety through Design and customised CDM training.

VIRTUAL TRAINING

Due to the uncertainty of COVID-19 we are still running the majority of our CDM courses virtually via live trainers. These courses have been a great success having trained over 1000 delegates with a 100% pass rate on our virtual APS CDM PD course.

Upcoming Dates include:

18 Jan - 19 Jan	*VIRTUAL* - APS Accredited - The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
24 Jan	*VIRTUAL* - CDM 2015 Overview	Online - Remote	£195
25 Jan	*VIRTUAL* - CDM 2015 for Principal Contractors	Online - Remote	£250
25 Jan - 26 Jan	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
26 Jan - 27 Jan	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	London	£595
8 Feb - 9 Feb	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Manchester	£595
11 Feb	*VIRTUAL* – CDM 2015 Overview	Online - Remote	£195
14 Feb	*VIRTUAL* - CDM 2015 for Principal Contractors	Online - Remote	£250
16 Feb - 17 Feb	*VIRTUAL* - APS Accredited - The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
24 Feb - 25 Feb	*VIRTUAL* - APS Accredited - The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
7 Mar	*VIRTUAL* - CDM 2015 Overview	Online - Remote	£195
8 Mar	*VIRTUAL* - CDM 2015 for Principal Contractors	Online - Remote	£250
8 Mar - 9 Mar	*VIRTUAL* - APS Accredited - The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595
15 Mar - 16 Mar	APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Edinburgh	£595
23 Mar - 24 Mar	*VIRTUAL* – APS Accredited – The role of the Principal Designer under CDM 2015 (2 Day)	Online - Remote	£595

Please quote APS-NOV-10 for a 10% discount on any of the above public courses.

Please visit: www.synergietraining.co.uk/course-schedule to view additional public course dates.

Synergie Training is an approved APS, CITB & Microsoft Accredited Training Centre and holds ISO: 9001, ISO: 14001 and ISO: 45001 quality standard accreditations.

Website: www.synergietraining.co.uk E-Mail: 01463 227580 Tel:





Microsoft[®] IT Academy Program Member



