

# Knowledge Foundations

## Inside This Issue

- 01 [\*\*UCEM News\*\*](#)
- 02 [\*\*Other News\*\*](#)
- 03 [\*\*Built Environment Research\*\*](#)
- 04 [\*\*Property & Construction Statistics\*\*](#)
- 05 [\*\*e-Journal Review\*\*](#)
- 06 [\*\*e-Book Review\*\*](#)
- 07 [\*\*UCEM e-Library\*\*](#)
- 08 [\*\*Student Career Service\*\*](#)
- 09 [\*\*UCEM's Sustainability Hub\*\*](#)
- 10 [\*\*Information Governance\*\*](#)

[\*\*A to Z of useful references and web-links\*\*](#)

## What's in this month's issue

- **Latest UCEM News** incl. Hong Kong based UCEM mentors and mentees come together for networking.
- **Things you need to know this week** – London looks to green bond programme to unlock £500 million to support energy efficiency measures in social housing and public buildings.
- **Latest Research** from Savills, The Smith Institute, RICS, CBRE, Joseph Rowntree Foundation, and more.

Happy reading!

## Issue 4 - April 2022

Welcome to UCEM's monthly *Knowledge Foundations* newsletter (formally the library e-bulletin), a compendium of news and views, research and resources relating to the educational sector and Built Environment.

The UCEM Library aims to disseminate information, promote current awareness, and share good practice, to assist in the continual professional development of all those working and aspiring to work within the Built Environment/Property and Construction industries.

**"The mission of librarians is to improve society through facilitating knowledge creation in their communities"**

(R. David Lankes)

The initial aim of this UCEM Library current awareness service was to help keep students and staff informed of the education sector and industry specific news, share current and best practice, highlight the latest research, and identify case studies that will support studying and supplement teaching and learning resources. However, over the years and upon request, the readership has now expanded.

We welcome news and information from readers to include in future editions - please [\*\*email us\*\*](#).

### Supported Online Learning

The readership of *Knowledge Foundations* has expanded (to include Alumni) and is now promoted further afield, with the latest version appearing on the UCEM Website.

[\*\*Visit Supported Online Learning\*\*](#)

[Back to top](#)

## **UCEM News**

### **Hong Kong-based UCEM mentors and mentees come together for networking evening**

- Alumni and students met one another in person at an event in Hong Kong to celebrate the success of UCEM's mentoring scheme.

Eleven mentors and mentees attended the get-together on 14<sup>th</sup> January 2022, with UCEM dean of school (international), Tim Bennett, UCEM executive director – business development and apprenticeships, Stephen Bartle, and UCEM careers and employability advisor, Bridget Wells, all delivering addresses to attendees via a video link.

Dr Lobo Fung – the president of the Hong Kong Institute of Certified Property Managers (HKCPM) – was the guest speaker, providing an insight into the mandatory licensing system for the property management industry in the region.

Attendees were then invited to ask Dr Fung questions before networking with one another as the event came to a close.

If you would like to learn more about the scheme, head to the [UCEM Careers Service webpage](#).

Access the article '[\*\*Hong Kong-based UCEM mentors and mentees come together for networking evening\*\*](#)' in full.

### **UCEM and DiverseCity Surveyors launch BAME mentoring scheme**

UCEM and DiverseCity Surveyors have joined forces to launch a mentoring scheme designed to support black, Asian and minority ethnic (BAME) students succeed in the built environment.

DiverseCity Surveyors – the first RICS BAME network – works with its members to provide career advice, networking opportunities and professional mentors from the built environment to aspiring and qualified BAME surveyors. The mentoring scheme initially runs from this December 2021 month until next summer, at which point, there will be a review before it is re-offered to UCEM students in September 2022.

If you are a UCEM student from a black, Asian or minority ethnic background and would like to be partnered with a mentor from DiverseCity Surveyors from September 2022, please contact UCEM for further information.

Access the article '[\*\*UCEM and DiverseCity Surveyors launch BAME mentoring scheme\*\*](#)' in full.

[Back to top](#)

## **UCEM passes first ever Ofsted inspection**

UCEM passed its first ever inspection by the Office for Standards in Education, Children's Services and Skills (Ofsted) with flying colours after earning an overall rating of 'Good'.



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Ofsted inspected UCEM's apprenticeship programmes at levels 3, 6, 7 in November 2021 with the final report published on 14 January 2022.

UCEM was judged across five different areas of its provision, gaining a 'Good' rating in the 'quality of 'education', 'personal development', 'leadership and management', and 'apprenticeships' categories and an 'Outstanding' rating in the 'behaviour and attitudes' category.

Access the article '[\*\*UCEM passes first ever Ofsted inspection with flying colours\*\*](#)' in full.

## **UCEM's built environment sustainability revolution gathers momentum with short course reaching 1,000 registrations**

The short course – launched in November 2021 – offers an insight into how the built environment professionals can be more sustainable in the workplace, exploring how net zero carbon can be achieved through optimised building design, sustainable material selections, and efficient construction.

It takes an estimated 25 hours to complete the course, which can be started and completed at your convenience and at your own pace. The course comprises an introduction and five topics, namely: (1) carbon in buildings, (2) passive design, (3) active design, (4) sequestration and offsetting, and (5) energy and carbon assessments.

As well as the use of current research, data and case studies, there are interviews with industry experts to inform your learning. Assessment is in the form of quizzes with various interactive elements helping to immerse you in the content.

For more about the course, and to sign up, head to the '[\*\*Energy and Carbon in the Built Environment\*\*](#)' [webpage](#).

[Back to top](#)

Access the article '[UCEM's built environment sustainability revolution gathers momentum with short course reaching 1,000 registrations](#)' in full.

**Related Links:**

### **UCEM and the Climate Framework launch free toolkit**

Access the article '[UCEM and the Climate Framework launch free, online, short course to help built environment professionals be more sustainable](#)' in full.

### **UCEM and The Prince's Foundation launch free toolkit**

Access the article '[UCEM and The Prince's Foundation launch free toolkit for rapidly growing cities or towns to develop sustainability](#)' in full.

### **UCEM boosts its accessibility credentials with launch of course for staff**

Colleagues at UCEM are encouraged to become accessibility experts thanks to the launch of an internal CPD course. The Accessibility Awareness course – created by UCEM learning technology researchers, Dr Tharindu Liyanagunawardena, in coordination with other members of the institution's online education department sits on the virtual learning environment (VLE) and is available for any staff member to take and gain open badges.

There are seven milestone badges to be gained before claiming the final 'Accessibility Awareness' badge upon submission of a reflection piece by the learner.



© UCEM 2021

The seven milestones incl. (i) Accessible Images, (ii) Assistive Technologies, (iii) Web Accessibility and Standards, (iv) Accessible Tables, (v) Accessible Colour, (vi) Headings and Document Structure, and (vi) Accessible Video and Audio.

Access the article '[UCEM boosts its accessibility credentials with launch of course for staff](#)' in full.

[Back to top](#)

## Other UCEM News

[Apprentices, employers and staff celebrated through inaugural UCEM Built Environment Apprenticeship Awards](#)

[UCEM makes raft of new appointments to its academic team](#)

[UCEM apprentice's design and build project wins national offsite construction award](#)

[UCEM's digital education team shortlisted for ALT Learning Technologies Team of the Year](#)

[UCEM alumna takes home asset and facilities management prize at RICS Matrics awards](#)

[New research sets out vision for UK cities in 2040](#)

[UCEM joins campaign to drive better gender balance at board level](#), and

- [Access further information about the 30% Club](#),
- [Access more information on UCEM's diversity and inclusion objectives](#)

[UCEM reasserts its commitment to organisational excellence with Advance HE membership](#), ensuring continued access to vital resources and supporting valuable partnership across the Higher Education sector.

- [Access further information on Advance HE](#).
- [For more on UCEM's ambitions, take a look at the Institution's \*Vision and Strategy\* brochure](#)

## COVID-19: UCEM Management response to COVID-19

Further information and the latest developments can be found via the [UCEM Website](#), & don't forget that the UCEM [e-Library](#) can be accessed 24/7 (via the VLE-Virtual Learning Environment) with a wealth of valuable resources to help 😊. If you have any further questions, please contact:

- Student enquiries – Student Central on our VLE
- Employer enquiries – [businessdevelopment@ucem.ac.uk](mailto:businessdevelopment@ucem.ac.uk)
- Other enquiries – [reception@ucem.ac.uk](mailto:reception@ucem.ac.uk), Tel: +44(0)118 467 2100

**Note:** [Keep abreast of the latest UCEM News and events](#) – and read our blog to keep updated on Building Environment industry insights, student case studies, and thoughts from UCEM Principal: Ashley Wheaton

[Back to top](#)

## Other News

**Things you need to know this week:** London looks to green bonds to unlock £500 million for retrofit.

- London mayor's green bond programme is intended to support energy efficiency measures in existing social housing and public buildings.

London mayor Sadiq Khan has set out plans to unlock more than £500 million to finance low carbon measures across the capital, including improving the energy efficiency of social housing stock and public buildings. The mayor aims to raise the funding by issuing green bonds, committing £90 million of Greater London Authority (GLA) funds to support the ambition, with £4 million to develop high-impact green investment opportunities for the public and private sector and £86 million to support the GLA green bond programme, financing direct decarbonisation investment by the GLA Group and its strategic partners as part of the mayor's green financing facility. The mayor and Councillor Georgia Gould, chair of London Council, also hosted a retrofit summit with business leaders this week (see publication date).

### **Also this month,**

- Liverpool City Region Combined Authority announced that it has secured £11.1 million from the government's national Social Housing Decarbonisation Fund to improve the energy efficiency of 1250 social homes in the region. The money will take the combined authority's total investment in measures to tackle fuel poverty and reduce emissions to £54.5 million, enabling 5171 homes to be retrofitted in all. The combined authority will work with nine housing association to deliver the home retrofits.

- Developer LCR, the Department for Transport and high-speed rail company HS1 have sold a 380-home site in Stratford, east London, to housebuilder Telford Homes. The site lies to the west of HS1's Stratford International stations and is currently used as a bus layover, taxi rank and for rail activities. The housebuilder has planning permission to build the homes, 60 per cent of which will be for rent and 40 per cent of which will be classed as affordable.

- Homes England has agreed a memorandum of understanding with developer Digbeth Loc and its partners, which is aimed at bringing mixed use development including a television studio to Warwick Bar in central Birmingham. Homes England has assembled the Warwick Bar site to help catalyse regeneration and is now looking to lease part of it to Digbeth Loc, which plans to develop a mixed-use scheme incorporating the studio facility. The studio is expected to be used for the production of the BBC's MasterChef series, which is currently filmed in London.



[Back to top](#)

- The Ikea and Skanska owned housebuilder BoKlok UK has acquired a site in Somerset, which has the potential to deliver around 350 homes. The housebuilder aims to submit a planning application next spring for the site, which is part of Bridgwater Gateway phase 2. BoKlok launched in the UK in 2019, with an ambition to deliver sustainable homes using modern methods of construction and has created more than 14,000 homes across Sweden, Norway and Finland to date.

**[Read the full 'Need to Know: London looks to green bonds to unlock £500 million for retrofit' article.](#)**

(Please note that you will need to register to access these stories in full, although you can 'Register free for limited access.' Visit the website, scroll to the base of the homepage, and note access route within 'Subscription and Registration').

### **Case Study: Converting a department store to homes**

- When a landmark west London department store closed in 2015, developer Inland Homes' saw its potential for adaptive re-use and it has now converted it for town centre living.

Finding new uses for obsolete department stores has become a priority in many UK cities and has been given added urgency by the pandemic's impacts on urban centres. Conversions are taking place or planned in many locations; from Bayswater in west London, where the former Whiteleys store has been converted to homes, to Altrincham, where Trafford Council and developer Bruntwood Works recently won consent to convert the former Rackhams store to a mixed-use hub.

The family owned Randalls department store in Uxbridge, west London, was a pre-pandemic casualty of the changing retail environment, closing for business in 2015. But its building was acquired in the same year by developer Inland Homes, which considered it ripe for residential conversion. Its intervention has enabled the adaptive re-use of a local landmark, respecting its heritage while providing new homes in the town centre.

### **Challenges**

The 1930s Art Deco building with its Randalls sign and clock was an Uxbridge landmark, recognised with a grade 2 listing, but Inland Homes' site also contained a 1960s store addition and other outbuildings, including a small fire station, which had been constructed in the early 1900s. With its historic exterior and numerous original features on the inside, the Art Deco building called for careful conversion. Mark Thornhill, regional construction director at Inland Homes, says, "Randalls has been a local landmark in Uxbridge for nearly 130 years, so we were determined to showcase as much of the building's history and prior use as

**[Back to top](#)**

possible, whilst maintaining the integrity of the building for the local community.”

The development’s central location in Uxbridge offered potential residents the conveniences of urban living but is also presented logistical challenges for the delivery of the conversion, as the construction works had to be carried out without impeding town centre activity.

**Solution**

With the addition of a second storey extension, the existing store building now houses 14 studio, one-bedroom and two-bedroom apartments. “We had to carry out strengthening works to the building, including new foundations and a steel frame, which also carries the load of the new roof top extension,” explains Thornhill.

The cream-coloured faience tiles fronting the building have been restored, along with the original staircase, cash desk, shutters and window fittings in some apartments. Even the pneumatic tube system used to carry cash around the store has been retained. “Everyone involved in the renovation of the original Randalls building – from architects to tradesmen – has ensured the careful reimagining of the building, reflecting the significant heritage of the site,” says Thornhill, adding, “Where we have not been able to restore some of the features, like the clock and the Randalls illuminated sign, we have had to employ specialist companies to remake these items”.

Alongside the store conversion, the developer has created three duplex homes in the existing Old Fire Station building and it has replaced the 1960s building and outbuildings with two new blocks, Dalloway House and Charleston House, each containing 16 homes.

The developer has worked with the planning consultant Lichfield & Partners, architect John Pardey Architects and heritage consultant Icen Projects on the project. The prominence of the building necessitated cooperation with a number of local players. “We’ve worked closely with the local authority heritage team and key stakeholders to ensure the end result is one we’re all proud of,” says Thornhill.

**[Read the Case Study entitled, ‘Converting a department store to homes’ in full.](#)**

(Please note that you will need to register to access these stories in full, although you can ‘Register free for limited access.’ Visit the website, scroll to the base of the homepage, and note access route within ‘Subscription and Registration’).

**Analysis: Driving devolution to level up in England**

- The Levelling up white paper sets out plans to shift power to Whitehall to local leaders. The author of this article looks at what’s in store.



[Back to top](#)

In its Levelling up white paper, published in February 2022, the government sets out 12 missions, spanning productivity and living standards, opportunity and public services, a sense of community and local leadership. To help deliver on that it is planning what it calls the “biggest shift of power from Whitehall to local leaders in modern times”, reaching locations from Plymouth to Durham.

A new devolution framework for England and long list of fresh potential candidates for deals make the direction of travel clear. Cornwall, Derbyshire and Derby, Devon, Plymouth and Torbay, Durham, Hull and East Yorkshire, Leicestershire, Norfolk, Nottinghamshire and Nottingham, and Suffolk are all invited to start formal negotiations to agree new county deals. Mayoral combined authority deals are being sought for York and North Yorkshire, an expanded deal is on the cards for the north east and negotiations are tabled for the trailblazer devolution deals with the West Midlands and Greater Manchester to extend their powers, with others set to follow.

There is a new three-level approach to devolution with:

- Level 3: a single institution or county council having a directly elected mayor, working across a functional economic area or whole county area. This is the government’s preferred approach, and will give areas access to the largest set of powers, including devolution of locally-led brownfield funding
- Level 2: a single institution or council that doesn’t have a directly elected mayor, working across a functional economic area or whole county area
- Level 1: local authorities working together across a functional economic area or whole county area.

Alongside this, the government is looking to simplify long-term funding.

### **Opportunities and challenges**

Many aspects of the white paper build on past policy, the MP Greg Clark told the audience at a conference organised by the Institute of Economic Development last month (February 2022). He said: “Fresh pairs of eyes contemplating questions of how we level up and get the country to realise its potential have come to some of the same conclusions many here have come to during their careers.”

Local government bodies have welcomed the new devolution framework. “It is good that the framework will apply to all local areas and will not impose a one-size-fits-all approach to governance,” says Local Government Association (LGA) chairman, councillor James Jamieson. Councillor Tim Oliver, chairman of the County Councils Network, says, “The devolution framework enables our member councils to directly access a wide range of

[Back to top](#)

powers, but this should be the starting point, not the end of the process". He also cautions that, "Many of our member councils are yet to be convinced that adopting a directly elected mayoral model, whether at a county, unitary or combined authority level, provides any greater degree of accountability or stability compared to the existing leader and cabinet model".

Matt Clarke, head of consultant Boyer Colchester, says his experience of working within the jurisdiction of an elected mayor suggests it may not necessarily be more effective to work with. "That may be doing a disservice to the overall effectiveness of devolution for this particular area, for example, in terms of the funding that may have been secured and successfully deployed under the deal," he recognises, adding, "But the general impression gained from promoting schemes under this structure is that of an added tier of bureaucracy. There is also limited accountability and lack of clarity on overlapping council functions – or indeed, at times, competing aspirations".

Such factors need to be addressed for the future, he believes, saying, "it will be crucial that lessons are learned, both positive and negative, from the experiences of those that have gone before".

Peter Canavan, partner in consultant Carter Jonas' Oxford office, says devolution can yield benefits, pointing to successes in collaborative approaches in Oxfordshire. "In an uncommon achievement, which is a strong endorsement of joint working, Oxford's unmet housing needs, after a painful inception, were eventually spread among the surrounding districts. Joint green infrastructure strategies, and green belt reviews have also been delivered and there is no reason why the pressing issues of carbon neutrality and climate change adaptation cannot follow the same successful joint strategy path," he says.

A joint venture called the Oxfordshire Growth Board represents a step towards devolution, so far drawing two tier local authorities closer together and resulting in better aligned infrastructure improvements, housing delivery expectations and trajectories. "The opportunities are understood, but there are also risks, which may stand in the way of successful devolution," explains Canavan.

Apply the white paper's four principles of effective devolution – effective leadership, sensible geography, flexibility and accountability – highlights some of the challenges. Of the geography of the growth board, he says, "There are clearly similarities between the total hinterlands, but the city has different needs and priorities. A polo mint-shaped unitary authority, with the hole in the middle occupied by the city, would fail to meet this principle. But narrowing and collaborative politics could improve the chances of effective country-wide devolution."

[Back to top](#)

Oxfordshire is, he suggests, typical of many regions, having the foundation for coordinated joint working and, potentially, devolution. But Canavan cautions that for local government, “From pressing and highly nuanced local priorities, such as adult social care, to the potentially destabilising impact that such talks would have on political egos, there are many barriers to be crossed.”

**Further information and read the article, ‘Analysis: Driving devolution to levelup in England’ in full.**

(Please note that you will need to register to access these stories in full, although you can ‘Register free for limited access.’ Visit the website, scroll to the base of the homepage, and note access route within ‘Subscription and Registration’).

### **Advice: Promoting urban rewilding**

- Rewilding sites in urban areas can improve biodiversity and bring the community closer to nature, but initiatives need to be a sizeable scale and networks of sites are needed, the author of this article finds.

“Local authorities are increasingly recognising the importance of restoring habitats to their natural state and reintroducing native species into urban areas,” says Zac Tudor, associate landscape architect at consultant Arup. “Rewilding initiatives increase overall biodiversity, which the new Environment Act requires, and bring the local population closer to nature,” he says. “However, to have any impact, urban rewilding initiatives needs to be on a large scale and the landowners in the city engaged in the process.

Below are five points to consider when promoting urban rewilding.

1. Give new development a green heart
2. Create a network of sites
3. Encourage landowners to work together on creating habitat networks
4. Review the management of parks and open spaces
5. Bring in new uses

**Gain access to more detail information on each of these points, and read the article, ‘Advice: Promoting urban rewilding’ in full.**

(Please note that you will need to register to access these stories in full, although you can ‘Register free for limited access.’ Visit the website, scroll to the base of the homepage, and note access route within ‘Subscription and Registration’).

[Back to top](#)

## BBC Latest – Climate [March 2022]

[Access the BBC News, Latest Climate reality check](#)

[Unite against climate change – Ukraine scientist](#)

- A leading climate expert says the Ukraine invasion is closing the window of opportunity to curb global warming.

Dr Svitlana Krakovska, who is a member of the [Intergovernmental Panel on Climate Change \(IPCC\)](#), was taking part in the final stages of approving [the IPCC's latest major assessment on the impacts of climate change](#) when the invasion made it impossible for her to continue her work.

Europe's reliance on Russia for energy was cited by President of the European Commission Ursula von der Leyen in [a speech on Tuesday](#), (see publication date), in which she urged a faster transition to renewable energy.

Dr Krakovska pointed out that scientists had been laying out the evidence for a need to make that transition for decades. But she pointed out that the window of opportunity to slash emissions – by, in part, switching to those low carbon and renewable energy sources – is closing very rapidly.

[Access the BBC article, 'Climate change: Unite against climate change – Ukraine scientist' in full and related articles.](#)

**Related Links:**

[Access the BBC article, 'Climate change: Is the UK on track to meet its targets?' in full and related articles.](#)

Areas covered within this article include

- [What does net zero mean?](#)
- [Simple guide to climate change](#)
- [What will climate change look like for you?](#)
- [How extreme weather is linked to climate change?](#)

**Also:** Please visit the '[Sustainability Hub](#)' within *Knowledge Foundations* for further information and related articles.

## BBC Latest - Coronavirus – latest developments [March 2022]

**Coronavirus pandemic –**

- Are we ready for last Covid rule to be ditched,
- How new drugs are finally taming the virus,
- Vaccinated less likely to develop long Covid,
- Djokovic willing to miss tournaments over vaccine,
- Is ending the last Covid rule 'brave or stupid'?
- White House left behind as states drop Covid rules.
- Is it too soon to lift the Omicron restrictions?
- Has the Omicron wave peaked already?

[Access the BBC News, Latest Coronavirus pandemic news](#)

[Back to top](#)

**Related Link(s): Coronavirus: Why some people want to keep working from home –**

[Access the BBC News article entitled, ‘Coronavirus: Why some people want to keep working from home’, in full.](#)

**Also:**

[Living with Covid plan to restore our freedom - PM](#)

[What are the UK’s ‘Living with Covid’ plans?](#)

**The evolution of building surveying education during COVID-19**

- In January and February 2020, as the pandemic was starting to gain momentum and spreading around the globe, universities in the UK were beginning to consider how to react. As a sector, UK higher education is relatively familiar with web-based methods of communication, teaching, and learning.

In fact, the University College of Estate Management (formerly the College of Estate Management) and the traditional home of RICS correspondence courses, operates their business totally online.

A lot of universities operate a Virtual Learning Environment (VLE) which allows them to communicate with their students and provides the opportunity to interact with them in terms of online courses and assessments, and as a depository for learning materials.

This is allowing the students to revisit the materials to embed or reinforce their learning or to catch up if a session was missed. Common VLE’s include Blackboard, WebCT, and Moodle. Their functionality and features are all relatively similar.

Although the physical libraries were closed, universities operate electronic libraries which offer access to a large number of electronic databases, and a growing number of books and journals, ensuring that the students and staff, can continue to access the majority of relevant information for their studies and research.

[Further information and access to the article ‘The evolution of building surveying education during COVID-19’, in full.](#)

[Access further information about UCEM’s Supported Online Learning > e-Library.](#)

**Will COVID-19 accelerate construction’s digital transformation?**

- With many industry professionals forced to work remotely, is now the perfect time for construction to get up to speed with all

[Back to top](#)

things BIM and digital? *Construction Manager* magazine finds out if the coronavirus will change the way we work forever.

David Philp – Global BIM/MIC consultancy director, AECOM says, **“It’s an opportunity to rethink how we can use technology and innovate.” (Philp 2020)**

Mark Boyle – Global design direct, Robert Bird says, **‘Our digital processes lend themselves to remote working.’ (Boyle 2020)**, and Gary Fannon – Technology director, Turner and Townsend says, **‘Early digital adopters will be reaping the rewards.’ (Fannon 2020)**

Andrew Gamblen – Digital manager, Willmott Dixon says, **‘People will become more comfortable collaborating remotely.’ (Gamblen 2020)**

Richard Saxon – CBE Chairman of JCT, client adviser at Deploi BIM Strategies says, **“Wartime scenarios” will push the digital agenda.’ (Saxon 2020)**

**[Read the \*Construction Management\* \(formerly \*Construction Manager\*\) article ‘Will Covid-19 accelerate construction’s digital transformation’, in full.](#)**

**Related links:**

**What will the post-pandemic office look like? -** With remote working seemingly here to stay, anecdotal evidence suggests that firms are looking to cut office space by up to 40%. How is the workplace having to evolve to remain relevant?

**[Read the \*Construction Management\* article, ‘What will the post-pandemic office look like?’ in full.](#)**

**‘Generation Work from Home’ – the impact of default flexible working -** The UK government has announced proposals to make flexible working a ‘day one’ right for employees, as part of reforms to the Flexible Working Regulation 2014.

**[Read the Shoosmiths article, ‘Generation Work from Home’ – the impact of default flexible working’ in full.](#)**

**Free content related to Coronavirus, the management of epidemics and the wider impact on society**



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Emerald Publishing, one of the UCEM e-Library subscription services, have brought together a number of research



[Back to top](#)

resources related to the Coronavirus group of viruses, and epidemics more broadly.

Emerald collated research and the management of epidemics and made it freely available to assist practitioners and researchers who are working to tackle the current situation and likely consequences. Whilst these materials do not only relate to the current clinical challenges of Novel Coronavirus, but they may also provide relevant context to how the world reacted to other previous Coronavirus outbreaks (notably SARS) and epidemics.

[Access Emerald Publishing's 'Coronavirus, the management of epidemics and the wider impact on society'](#)

### Covid-19 and the impact on business

**HS**Talks

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HS Talks - Interviews with academics and experts from the business community, on the impact of the Covid-19 pandemic, are now available in the HS Talks 'Business & Management' collection that UCEM subscribes to.

1. [The impact of Covid-19 on organisations](#)
2. [The impact of Covid-19 on psychological safety in the workplace](#)
3. [The impact of Covid-19 on cybersecurity and data privacy](#)

### [Latest News: \*Construction Management\* \(CM\) \(formerly \*Construction Manager\*\) \[March 2022\]](#) [How to identify bids you are most likely to win](#)

- The questions you should ask when considering whether to bid for a new business opportunity.

In the second in his **series of articles** for *Construction Management*, bidding and tender expert David Gray shares some insights on some of the questions you should ask when considering whether to bid for a new business opportunity, and how to identify the opportunities with the highest probability of success. Some of the questions you should ask include:

1. **Can you deliver it (and prove it)?** It is clearly very risky to bid for an opportunity that you are not sure you can deliver – a failure to deliver could have serious financial or reputational impacts for your business.
2. **Do you have an existing relationship with the buyer?** Many companies don't bid for anything unless they have first met with the client to learn about their business and their needs before the tender stage.
3. **How well do you know the competition?** – Take the time to research the market and identify your likely competitors.

[Back to top](#)

4. **How important is the bid price?** – If you are a high-quality and high-cost provider, steer away from opportunities where price accounts for 60% or more of the overall evaluation criteria, as this shows the buyer's primary concern is cost, not quality.
5. **How profitable is the opportunity?** – Try to avoid being sucked in to a 'race to the bottom' on price.

Access and read the article in full, Gray D (2022) '[How to identify bids you are most likely to win](#)', *Construction Management* [online], 3 March. Available at:

<https://constructionmanagement.co.uk/how-to-identify-bids-you-are-most-likely-to-win/> [accessed 23 March 2022]

Also: Source: Gray D (2022) '[Five quick wins to improve construction bids](#)', *Construction Management* [online], 13 January. Available at: <https://constructionmanagement.co.uk/five-quick-wins-to-improve-construction-bids/> [accessed 23 March 2022]

### **Latest News: Global Construction Review (GCR)** **[March 2022]**

#### **Denmark resumes work on 'Baltic Pipe' to ship gas to Poland**

- Construction work has resumed on the "Baltic Pipe", a pipeline to ship Norwegian natural gas to Poland following a 33-month halt caused by environmental concerns.

Announced on Tuesday 1<sup>st</sup> March 2022 by Danish grid operator Energinet, the move is intended to reduce Poland's reliance on Russian gas. At present, the EU imports about 200 billion cubic metres of gas every year from Russia.

Access and read the article in full, Rogers D (2022) '[Denmark resumes work on 'Baltic Pipe' to ship gas to Poland](#)', *Global Construction Review* [online], 4 March. Available at: [www.globalconstructionreview.com/denmark-resumes-work-on-baltic-pipe-to-ship-gas-to-poland/](http://www.globalconstructionreview.com/denmark-resumes-work-on-baltic-pipe-to-ship-gas-to-poland/) [accessed 23 March 2022]

### **Shoosmiths UK law firm Insights and Articles**

- Read the latest insights, articles, and commentary from Shoosmiths UK law firm or explore their content library, or listen to the latest podcasts **[March 2022]** surrounding sectors such as **Real Estate** that include:

#### **2022 predictions: what's on the horizon for construction?**

- As the pandemic persists and the disruption of the previous two years continues to impact projects, the construction industry faces a continued period of uncertainty in 2022.

#### **Then and now – essential learnings from a global pandemic**

- The events of early 2020 cause a huge disruption to the retail industry, but two years on, are we still facing the same challenges? Keywords – Real estate, Employment, Commercial, COVID

[Back to top](#)**Strategic planning frameworks will be essential to levelling up**

The much-anticipated **levelling up white paper** has finally been published, including 12 legally binding 'missions' to improve health, living standards, transport, crime and wellbeing by the end of the decade. Keywords – Real estate

**Gap analysis**

- The Land Registry is the gatekeeper of legal ownership of land in England and Wales. A prompt and successful application for registration is an essential step at the end of the most property transactions. Keywords – Real estate

**New Year, new town centres? Spotlight on the UK's South Coast**

- A hot topic on many local authority agendas for this year (2022) will be the regeneration of their town centres. The way we shop, eat and work is ever changing, and our town centres need to be ready to accommodate a more diverse and flexible way of life. A lifestyle not necessarily brought on by, but certainly expedited by the COVID-19 pandemic. Keywords – Real estate

**The future of build-to-rent market Real Estate Podcast series Podcast – Government policy BTR (Build to Rent)**

The future of the BTR market from Shoosmiths' Living team:

**Podcast series #1 – The future of BTR (Build to Rent)**

Issues discussed in this podcast include:  
Performance of the sector; Rent collection rates; Challenges of lockdown restrictions; How buildings and amenity space will change as a result of the pandemic; and where the market is going.

**Podcast series #2 – The future of BTR (Build to Rent)**

Issues discussed in this podcast include:  
Ongoing attractiveness of the sector; Top three things to look for in a BTR scheme; Future challenges for BTR; The role of technology, and BTR housing.

**Podcast series #3 – The future of BTR (Build-to-Rent)**

In this podcast, the last in this series, issues discussed include:  
Planning reforms; Permitted development rights; Rise of residential in the high street; Fire Safety; and Rent controls / regulations.

**The Pathway to Lifelong Education: Reforming the UK's Skills System**

- The UK has a longstanding skills problems which is impacting on economic growth. Adult participation in learning has declined, particularly among part-time students, while fewer people in work are taking up training to reskill or upskill. More

[Back to top](#)

generally, there is a shortfall in vocation and higher technical qualifications.

In this first report, with Ashley Wheaton, Principal, University College of Estate Management acknowledged as one of the contributing experts, the Lifelong Education Commission seeks to recommend how the barriers to adult learning can be removed; what future investment is needed to support this; and what change is needed to ensure the maximum flexibility that will benefit learners and deliver on the promise of a whole system change for lifelong education.

**The Report makes a series of recommendations for reform, including:**

- A single source of careers advice, to 'professionalise' and regulate careers information, advice and guidance
- Means-tested Maintenance Grants for learners over and above the Lifelong Loan Entitlement, in order to subsidise costs and encourage uptake, particularly among those for whom debt is a barrier
- The abolition of the Equivalent or Lower Qualification (ELQ) rules, to support retraining at higher levels
- Extending the Apprenticeship Levy to cover a wide range of high- quality training, including short modular courses, in order to provide additional flexibility and incentivise employer investment in skills training
- Stronger HE-FE partnerships to provide integrated pathways to higher-level skills; and alignment with industry and online providers to enable better coordination between schools, colleges, universities, and employers.
- Reform of the regulatory framework to simplify the jurisdiction between multiple qualification bodies;
- Learning lessons from Scotland, where 'articulation agreements' offer clear routes between FE and HE allowing students with Higher National Certificates and Diplomas to access the second or third years of degree programmes.

**Access the summary and report, 'The Pathway to Lifelong Education: Reforming the UK's Skills System' in full.**

**Related Links:**

FE news.co.uk (2021) '[Reforming the UK's Skills System – First Report from the Lifelong Education Commission](#)'[online]. Available at: [www.fenews.co.uk](http://www.fenews.co.uk) [accessed 8 October 2021]

**Learning and teaching reimagined** - Exploring the 2020 experience as well as the changing aspirations of the nature and shape of learning and teaching for the future.

[Back to top](#)

Maguire D, Dale L, and Pauli M (2020) [\*Learning and teaching reimagined: a new dawn for higher education?\*](#) Bristol: JISC

## **New guidance from CIRIA - Construction Industry Research and Information Association**

CIRIA is pleased to announce [[March 2022](#)] new [free CIRIA practice guidance](#) that include:

### **[\*Code of practice for property flood resilience \(C790\)\*](#) –**

This guidance provides confidence on the use of the standards within the code of practice that provides a benchmark for those procuring and delivering property flood resilience (PFR).

### **[\*The Management of advanced numerical modelling in geotechnical modelling \(C791\)\*](#) -**

This guide provides a framework for those who oversee the process, provide the information needed for this task and use the results of the numerical modelling.

### **[\*Methodology for quantifying the benefits of offsite construction \(C792\)\*](#) -**

This guidance proposes a framework for comparing construction approaches, making it possible to keep consistent records across projects and identify all the possible benefits available.

**Other guides include:**

### **[\*Retrofitting ground gas protection measure \(C795\)\*](#) [\*Grouted anchors and soil nails \(C794\)\*](#)**

## **Grenfell Tower Inquiry – latest developments**

- The Grenfell Tower Inquiry was created to examine the circumstances leading up to and surrounding the fire at Grenfell Tower on the night of 14 June 2017.

### **[Latest update](#) [[March 2022](#)]**

**[Phase 2 hearings](#)** – Inquiry hearings will resume on Monday 7<sup>th</sup> March at 10:00.

A timetable of the week is available via the [Grenfell Tower Inquiry website](#).

**Drop-in sessions** – The next monthly drop-in sessions for BSRs and members of the public will be on **Thursday 24<sup>th</sup> March** from 16:30-17:30 at the Inquiry Building

**Phase 1 Report** – The Inquiry has published its report on Phase 1 of its investigations.

**Also: Latest from the Inquiry**

[Back to top](#)

**Latest update from the Inquiry [March 2022]** – The Inquiry has published an update on its next community drop-in session. This update provides a digest of:

- **Hearings update**, and
- **February 2022 Newsletter** – The Inquiry has published an update on its work. This update contains information about:
  - Module 6 hearings; • Attendance at hearings, • Monthly community drop-in sessions, • Disclosure, • Core Participant numbers, • Arrangements for support during hearings, and • Contact information.

[Read further information from the ‘Grenfell Tower Inquiry’ website.](#)

**Related Links:****Cladding: Panels failed fire tests 13 years before Grenfell -**

Leaked test results suggest the government and construction industry had early evidence of the dangers posed by cladding, 13 years before the Grenfell Tower fire.

Panels, commonly used on buildings in the UK, failed fire tests carried out in 2004 at the Inquiry venue at 13 Bishop's Bridge Road, London, W2 6BU. The results, marked "Commercial in confidence", were circulated within an industry advisory group.

They were recently passed to the BBC (see publication date) and, until now, never made public.





Hundreds of thousands of flat owners are now threatened with large bills because of construction materials which pose a risk in fires.

The 2004 results were among the first from a British test of full-scale building systems, developed in the late 1990s when there were growing concerns in Parliament about the risks of cladding.

The tests were part of research commissioned by the then Labour government to determine what standards building systems should have to meet.

Symonds T (2021) '[Cladding: Panels failed fire tests 13 years before Grenfell](#)', *BBC News* [online], 16 September. Available at: [www.bbc.co.uk/news/uk-58584348](http://www.bbc.co.uk/news/uk-58584348) [accessed 23 February 2022]

**Related Topics**

-  [Construction industry](#)
-  [UK fire safety](#)
-  [Grenfell Tower fire](#)
-  [Grenfell Tower Inquiry](#)



[Back to top](#)

## **Government details fire safety-related changes to planning system**

- The government has released details of new requirements in the planning system to bolster fire safety in high-rise residential buildings, in response to the Grenfell Tower Fire.

The changes come in the Ministry for Housing, Communities and Local Government's (MHCLG) plans to introduce '[planning gateway one](#)', which it said would deliver on one of Dame Judith Hackitt's recommendations following her independent review of Building Regulations and fire safety.

The new requirements aim to ensure fire safety matters as they relate to land use planning are incorporated at the planning stage for schemes that involve high-rise residential buildings.

The changes, which come into effect from **1 August 2021** will:

- involve the Health and Safety Executive (HSE) becoming a statutory consultee before permission is granted for development which involves or is likely to involve a high-rise residential building.
- require relevant applications for planning permission to include a fire statement to ensure applicants have considered fire safety issues as they relate to land use planning matters such as layout and access.
- help inform effective decision-making by local planning authorities or the secretary of state so that those decisions reflect and respond to the needs of the local community.

The new requirements will be introduced by making amendments to the Town and Country Planning (Development Management Procedure) (England) Order 2015.

As announced in the Queen's Speech (11 May), the Building Safety Bill is also expected to be introduced this year, which will establish a new building safety regime in England.

[Further information and access to the \*Construction Manager\* article, 'Government details fire safety-related changes to planning system', in full.](#)

## **RIBA Stirling Prize 2021**

The RIBA Stirling Prize is the UK's most prestigious architecture award. The award is given to the architect of the building thought to be the most significant of the year for the evolution of architecture and the built environment.

**RIBA Stirling Prize shortlist 2021** included: (i) [15 Clerkenwell Close](#), (ii) [Cambridge Central Mosque](#), (iii) [Key Work Housing, Eddington, Cambridge](#), (iv) [Tintagel Castle Footbridge](#), and (v) [Windermere Jetty](#), and the **WINNER**,

[Back to top](#)

announced on 14<sup>th</sup> October 2021 was (vi) [Kingston University London – Town House](#), - essentially a library, but designed as a building for the whole community with cafés, an outdoor reading room roof terrace and a performance space. @KingstonUniLib by @graftonarchs

### **Skills Agenda: Concerns for Skills Shortages in the 21<sup>st</sup> Century: A Review into the Construction Industry, Australia**

This research paper addresses the underlying, influential factors concerning skills shortages in the Australian construction industry. The influential factors addressed include funding, training statistics, employer expectations, financial limitations, Industrial Relations and immigration.



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[Read the full research report 'Concerns for Skills Shortages in the 21<sup>st</sup> Century](#).

### **Tomorrow's Engineers**



© EngineeringUK 2021

Tomorrow's Engineers brings together resources and evidence to support the engineering community in getting the most out of their engagement activity. It includes information and guidance on a range of topics curated from across the STEM community. Developed by EngineeringUK, the website is for anyone who funds or delivers engineering engagement activities and is designed to help improve the engineering community's collective impact.

[Access the Tomorrow's Engineers website](#)

### **Women in construction: building a career in a challenging environment**

12 case studies of women working in the construction industry and their experiences.

[Access Women in construction: building a career in a challenging environment](#)

[Back to top](#)

## **RICS Market surveys – leading indicators in the real estate industry**

**Market surveys** from the Royal Institution of Chartered Surveyors (RICS) include:

- **UK Residential Market Survey** – Used by government and key institutions, the Resi. Market Survey is a key indicator of conditions in UK residential sales and lettings.
- **Hong Kong Residential Market Survey** – The Hong Kong Residential Market Survey is a leading sentiment indicator of conditions in the Hong Kong residential sales and lettings markets.
- **UK & Global Construction Monitor** – The leading sentiment indicator of the construction markets.
- **UK Facilities Management Survey** – The UK Facilities Management survey is a quarterly indicator of activity and sentiment across the facilities management industry.
- **UK & Global Commercial Market Survey** – The global commercial property monitors are leading indicators of conditions in commercial property occupier and investor markets around the world.
- **UK Economy and Property Market Update** – The Economy and Property Market Update is a new quarterly assessment of key macro, real estate and construction trends.
- **RICS/RAU Rural Land Market Survey & Land Prices** – The RICS/RAU Rural Land Market Survey is the leading survey on demand, supply and prices in the farmland market.

**Note:** Further updates are provided within the 'Latest Property and Construction Statistics' section of *Knowledge Foundations*.

## **RICS – The Future of Surveying**

- We know the challenges facing the built environment and the surveying profession – now it's time to act. We know the challenges facing the built environment and the surveying profession – now it's time to tackle them.

For over 150 years, RICS has led our profession through change, enabling our members to take advantage of the opportunities and manage the risks it presents. This change is now happening faster than ever, requiring us to think strategically about how we deploy our expertise and resource. To continue to provide leadership, we are constantly assessing our role as a standard setter, regulator, educator, and global professional body – to deliver confidence to governments, markets, and the public.

**RICS Futures Report 2020** is our action agenda to keep up in a changing world.

[Back to top](#)

Access and download the Futures report to read RICS' full agenda for effecting change and responding to the biggest issues facing the natural and built environment, in full.

[Read the article, 'Future of Surveying' and gain access to the Futures report in full.](#)

## **GOV.UK, National Statistics - UK House Price Index [Last updated August 2021]**

- The UK House Price Index is a National Statistic that shows changes in the value of residential properties in England, Scotland, Wales, and Northern Ireland.

The UK House Price Index (UK HPI) captures changes in the value of residential properties.

The UK HPI uses sales data collected on residential housing transactions, whether for cash or with a mortgage.

Properties have been included:

- In England and Wales since January 1995
- In Scotland since January 2004
- In Northern Ireland since January 2005

Data is available at a national and regional level, as well as counties, local authorities, and London boroughs.

The summary report contains:

- Headline statistics
- The economic statement
- Price changes
- Sales volumes
- The property status
- The buyer status for Great Britain (excludes Northern Ireland)
- The funding status for Great Britain (excludes Northern Ireland)
- Housing transactions distributions

[Read the GOV.UK, National Statistics: 'House Price Index summary: June 2021', Published 18 August 2021' in full.](#)

Also:

### [Access Collection - UK House Price Index: reports 2021](#)

Related Content:

- UK House Price Index summary: August 2021
- UK House Price Index summary: March 2021
- UK House Price Index England: March 2021
- UK House Price Index Wales: May 2021
- UK House Price Index England: June 2021

[Back to top](#)

## Tackling mental health and wellbeing within the construction industry



The construction industry reports some of the highest levels of workplace mental ill health.

Over the last three years (see publication date) Mental Health First Aid (MHFA) England has been working with Building Mental Health, the Construction Industry Training Board (CITB) and the Lighthouse Club Construction Industry Charity to create a freely available, industry-wide framework and charter to tackle the mental health crisis in the construction industry.

### Find out more about the social value of the programme

#### **Related Links:**

##### **UCEM launches mental health strategy**

UCEM published its first mental health strategy on 10 May 2021.

The strategy is designed to benefit both UCEM students and staff, having been written with input from both stakeholder groups.

At the core of the document is the vision which states: 'UCEM will take a whole institution approach to develop one community that enables students of all levels along with staff to prioritise mental health and wellbeing.'

'The UCEM community will be an open, supportive, healthy, and well-informed environment. It will work to tackle stigma, promote positive mental health, and provide appropriate, timely and easily accessible support to those who need it.'

#### **There are five strategic aims supporting this vision which are:**

1. to create a supportive whole university community that promotes positive mental health, and ensures mental health is a key strategic priority.
2. to ensure the UCEM community is informed and aware of the importance of good mental health and works to tackle the stigma surrounding mental health.
3. to ensure appropriate and timely support is provided to those who need it.

[Back to top](#)

4. to develop links with external support services and stakeholders
5. to use data to evaluate and monitor the effectiveness of mental health interventions and inform future strategic development.

For more details, take a look at [UCEM's mental health strategy document](#).

Access the article '[UCEM launches mental health strategy](#)' in full.

### **Understanding Mental Health in the Built Environment**

In May 2020, the CIOB published their report on Understanding Mental Health in the Built Environment. The report, which surveyed people across the globe, presented harrowing statistics of high numbers of workers experiencing extreme levels of stress over a prolonged period, with many people reporting that they had considered taking their own life in 2019.

The report calls on professional bodies to do more to encourage mental health and wellbeing awareness among members, to develop globally applicable mental health resources that will increase understanding and reduce stigma within the construction industry.

Access the CIOB's latest report *Understanding Mental Health in the Built Environment*, including the results from the CIOB survey of over 2,000 professionals. [Access CIOB online Policy Portal](#), & '[CIOB surveys the sector to gather data on mental health & stress](#)'

### **How can buildings have positive impact on wellbeing?**

BSRIA's Henry Lawson discusses the importance of designing buildings that promote 'Wellbeing'. The theory sounds compelling but in practice, creating such building is complex.

[Access and read 'How can buildings have positive impact on wellbeing' in full.](#)

[Read the \*Construction Manager\* article entitled, 'Samaritans to work with roofers on mental health' in full.](#)

### **Coronavirus and your wellbeing**

You might be worried about coronavirus (also known as COVID-19) and how it could affect your life. This information is here to help. **Where to access further information support: BBC Action Line** [online]. Available at: [bbc.co.uk/actionline](https://www.bbc.co.uk/actionline). Telephone: 0800 066 066

[Access MIND's article, entitled 'Coronavirus and your wellbeing'.](#)

### **Sustainable outcomes for buildings**

The Royal Institute of British Architects (RIBA) has published



[Back to top](#)

guidance on targeting, designing, and evaluating sustainable outcomes for buildings, defining concise measurable set of eight sustainable outcomes that correspond to key UN Sustainable Development Goals and can be delivered on building projects of all scales.

**Access the RIBA Sustainable Outcomes Guide****National Trust planning principles**

**National Trust (NT)**, a charity that works to preserve and protect historic places and spaces – for ever for everyone.

The National Trust protect historic houses, gardens, mills, coastline, forests, woods, fens, beaches, farmland, moorland, islands, archaeological remains, nature reserves, villages, and pubs. While they are very passionate about open spaces and historic places, they also work hard in other areas too, including the environment, food, farming, transport, and heritage – to name but a few.

Most of the work they do though is affected by much wider global issues, which is why their interests extend far beyond just bricks and mortar.

**Access the National Trust website****National Trust (NT) – “Our planning principles”**

The National Trust principles are used to guide them in their decision-making on the way land is developed and managed and include:

**Seeking to influence** – The NT seek to influence the Planning system at local, regional, and national levels,

**Supporting spatial planning** – The NT support spatial planning which takes a holistic approach to its environment and its resources,

**Sensible management** – The NT promotes the wise management of the natural environment and built and cultural heritage,

**Protecting our environment** – The NT will seek to protect wild and remote landscapes from built development or urbanisation.

**Using property management plans** – In managing its land through management plans, the NT will support and help to achieve objectives,

**Objecting to proposals, where appropriate** – When proposing development on their land to meet justified needs, the NT will use a sustainable construction approach. This will include:

- Minimising resource use and generation of waste,
- Being energy efficient,

[Back to top](#)

- Minimising or preventing all types of pollution and risk of flooding,
- Safeguarding important wildlife, landscape, and historic interests,
- Respecting local/regional distinctiveness, supporting local sources for goods and services where practical, and
- Encouraging community involvement and access.

[Read the National Trust Planning Principles](#)

## **The National Trusts' planning procedure**

The National Trust have developed the following criteria to ensure online suitable projects proceed:

- Adhere to the policies in the relevant local plan,
- Deliver energy efficiency and reduce carbon dioxide emissions,
- Build in harmony with the local environment, built and natural,
- Involve the local community throughout the process.

**Case studies** are provided.

[Read how the National Trust engage in planning: The NTs' role as a developer.](#)

## **Foster + Partners Projects**

Foster + Partners Projects – one of the most innovative architecture and integrated design practices in the world. Over the past four decades the practice has pioneered a sustainable approach to architecture through a strikingly wide range of work, from urban masterplans, public infrastructure, airports, civil and cultural buildings, offices and workplaces to private houses and product design. By visiting their website, you can gain further information about their current and past work, upcoming projects, and gain access to their-

- Image gallery,
- Sketches and drawings,
- Construction, - Facts and Figures, and
- Project downloads.

[Access Foster + Partners Projects](#)

## **New RIBA Plan of work 2020**

**RIBA Plan of Work 2020.** This blog takes a look at the new RIBA Plan of Work 2020.

**What is the RIBA Plan of Work?** The RIBA Plan of Work was first published by the Royal Institute of British Architects (RIBA)

[Back to top](#)

in 1963. It originally provided a matrix to show the roles of participants in the design and construction processes.

It has since been updated in several editions, most recently in 2020. This has allowed it to adapt to the complexity of modern projects, industry demands and legislative and regulatory requirements.

**What changed in 2020?** In 2020, key changes were made to reflect the importance of sustainability and Building Information Modelling (BIM) in construction. The Plan of Work now also incorporates issues such as digitisation of the industry, Modern Methods of Construction, ethical issues, the value of aftercare and timing relating to planning applications and procurement.

This has included restructuring and renaming of the work stages from the 2013 Plan of Work:

**0 – Strategic definition** – no change

**1 – Preparation and briefing** – brief amended to briefing

**2 – Concept design** – no change

**3 – Spatial coordination** – formerly Developed design

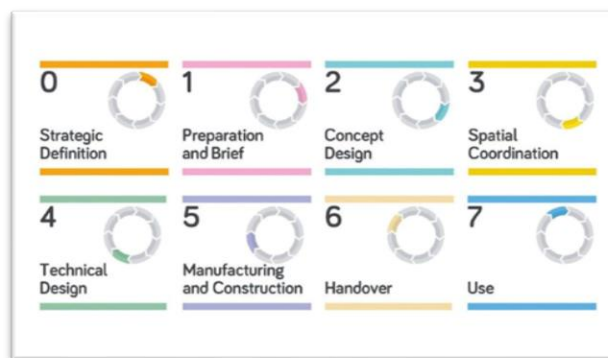
**4 – Technical design** – no change

**5 – Manufacturing and construction** – formerly Construction

**6 – Handover** – formerly Handover and close out

**7 – Use** – formerly in use

**RIBA Plan of Work 2020:**



© RIBA 2020

Source: Royal Institute of British Architects (2020) 'RIBA Plan of Work'

**Note:** The author of this blog, Jen Lemen-Hogarth is an Associate Tutor – UCEM and Partner – Property Elite.

**[Access Property Elite's, Building Better Property Professionals, 'New RIBA Plan of Work 2020' \[Blog\], in full](#)**

[Back to top](#)

## Autodesk and CIOB map the digital construction journey

Autodesk and the Chartered Institute of Building (CIOB) have prepared an infographic to help construction businesses visualise their position on the digital journey.

[Access more information, view the infographic and read the article, entitled 'Autodesk and CIOB map the digital construction journey' in full.](#)

[Access further information from CIOB 'Digital Construction'](#)

- Digital technologies are now an integral part of our built environment. The choice is not when or if built assets will use technology, but rather how much will be used.

## Building Information Modelling (BIM)

[UK BIM Framework – BIM Standards, Guides and Resources](#) - the overarching approach to implementing BIM in the UK, brought together by UK BIM Alliance, BSI and CDBB. The guidance is structured as indicated below:

**Guidance Part 1** and **Guidance Parts A-F** support the implementation of the overall published ISO 19650 series. **Guidance Part 2 and 3** pick up on content specific to ISO 19650-2 and ISO 19650-3 respectively. Additional **guidance** is also available as part of the **UK BIM Framework** to support the transition to ISO 19650 and Government Soft Landings

[Access UK BIM Framework - Resources](#)

## [Latest BIM+ News and Projects](#)

**[March 2022] –**

- **Projects - Case Study: How a Northern Ireland motorway became a BIM Pioneer**, 27 January 2022.

- Applying the new BIM ISO 19650-3 standard to digitise asset information about a design-build-finance-operate (DBFO) road built 15 years earlier is paying dividends for the Amey Road NI team.

In December, the M1 motorway network in Northern Ireland became the first UK project and only one of two in the world to receive a BSI ISO 19650-3 (Asset Management) Kitemark. The Kitemark accredits the project with not only putting in place a process to structure data in a way that adheres to the BIM standard, but also delivers on it.

In practice it means that Amey Roads NI can easily search through huge amounts of data gathered by inspection reports and laser scans, for example, to help predict the condition of the road and gain better insight into accident trends.

[Back to top](#)**About the project**

A special-purpose project company, Amey Roads NI Ltd, was created to manage the overall DBFO Package 2 contract. This 30-year, £250m capital expenditure project began in 2007 with the construction work being undertaken by a joint venture between Ferrovial Agroman Ireland and Lagan Construction. Amey was appointed as operations and maintenance (O&M) contractor for the scheme.

The project formed part of Northern Ireland's £18bn investment strategy, Building a Better Future. The aim of this strategy was to make Northern Ireland a better place to "live, work, learn and grow". Under the strategy, the region's schools, roads, water, waste, health and office infrastructure were to be improved over the following decade.

As part of this development programme, the Northern Ireland Department for Regional Development identified two packages of work to improve the strategic road network across Northern Ireland. These were delivered as public private partnerships. Amey Roads NI is delivering DBFO2.

Melanie Dawson, founder of BIM and digital construction consultancy Origin7, developed the full suite of guidance and process for Amey Roads NI, helping with implementation through to success at audit. In this article, she describes how and why the Kitemark was sought and what benefits implementing BIM processes specifically around the asset management phase of the project brings.

Gain access to further information and full access to the project case study article, entitled '[How a Northern Ireland motorway became a BIM pioneer](#)', BIM+ Projects, Case Study.

**Other BIM+ Projects include:**

- Project: [3D visibility key on Piccadilly Lights project](#), 17<sup>th</sup> February 2022.
  - Accuracy and 3D coordination were essential for Swanton Consulting when it was chosen to design the temporary works for a £250m development project that features London's iconic Piccadilly Lights at its core.

**Client:** Landsec; **Architect:** Fletcher Priest; **Principal contractor:** Wates; **Temporary works designer:** Swanton Consulting.
- Project: [Going digital drives East London brownfield development](#), 8 February 2022.
  - Taking a digital approach for the first time helped architecture practice Waugh Thistleton to play a significant part in the successful delivery of a brownfield development near East London's Olympic Park.

[Back to top](#)

**Client:** Vastint; **Architect:** Waugh Thistleton; **Main contractors:** Henrys Construction and then Copper Projects; **Structural engineer:** eHRW; **Timber engineer:** Euban; **Mechanical engineers:** Peter Brett Associates (design stage).

GBE (construction); **Planning consultant:** GL Hearn; **Groundworks & civils (construction):** John F Hunt; **Landscape architects:** Planit-IE.

- **Project:** Overcoming the engineering challenge of Grand Designs' Hux Shard, 15 December 2021.

- The Hux Shard – the star of the most recent series of **Channel 4's Grand Designs** – is inspired by large sculptures in the countryside and the rocky outcrops of nearby Dartmoor. Its striking, geometric appearance not only generated debate, but also provided structural engineer, TWP Consulting Engineers, with a significant challenge.

**Client:** Joe Priday; **Architect:** Squirrel Design; **Structural Engineer:** TWP Consulting Engineers

- **Project:** How to implement a common data environment on a budget, 23 November 2021.

- How do you implement a common data environment (CDE) when you're a small business and you've got more than enough on your hands running your business. Toby Adam, director at Gaunt Francis Architects, and author of this article, shares his experience.

- **Project:** How Maber Associates brought a new BIM approach to hospital handover, 1<sup>st</sup> October 2021.

- Maber Associates was brought on board as BIM manager when Balfour Beatty was appointed to finish the construction of the Midland Metropolitan University Hospital near Birmingham after the demise of PFI contractor Carillion. Denise Chevin, the author of this article, spoke to Maber's head of BIM, Josh Chrystal, to hear how the practice refreshed the BIM strategy.

**Client:** Sandwell & West Birmingham NHS Trust; **Contractor:** Balfour Beatty; **BIM manager:** Maber Associates; **BIM tools:** Solibri, BIMcollab, OpenSpace, Glider BIM

- **Project:** BIM software drives net zero social housing retrofit, 23<sup>rd</sup> August 2021.

- Wide and varied use of BIM software from Graphisoft has played a key role in architecture practice Constructive Thinking's part in the net zero retrofitting of social housing stock for Nottingham City Council.

**Client:** Nottingham City Council; **Main contractor:** Constructive Thinking; **Consultant:** EnergieSprong

[Back to top](#)**BIM in action: 2020's top five projects**

22 December 2020

- Hospitals, housing, hotels: BIM+ covered case studies of BIM in action in all sorts of construction projects across the world. Given what happened in 2020, it's not surprising that three of the most read case studies focus on hospitals.

**2020's top five projects** (and all covered within this and previous issues of *Knowledge Foundations*) incl.

1. [Sisk reap rewards of high-tech approach at Wembley](#)
2. [Finland's Hospital Nova uses VR to involve staff in building](#)
3. [NHS Nightingale Hospital, East London – how BIM played its part](#)
4. [Mace uses AI tech on Mayfair project to meet covid-19 safety challenges.](#)
5. [AI tracks work quality at Norway's Stavanger Hospital.](#)

[Access BIM+ that include project entitled, 'BIM in action: 2020's top five projects' available in full.](#)

**Related BIM+ Projects**

- **(1) Project:** [John Sisk relies on BIM best practice to deliver Malmo data centre](#), 2<sup>nd</sup> November 2020.

- John Sisk & Son is nearing completion on a data centre project in Malmo, Sweden. Adopting BIM best practice has been crucial to keep construction on programme given a fast-tracked programme amid the Covid-19 pandemic.

The John Sisk & Son team has nearly 40 years of experience in data centre construction and has brought a digital project delivery approach to the Malmo project.

**Sisk highlights some significant outcomes:**

- The Sisk team-built dashboards that stored live clash trend reports to track progress weekly, resulting in a 50% efficiency increase in the BIM management process compared to traditional, manual methods of construction coordination without the automating power of the cloud.
- The tight integration between BIM 360 Docs, Microsoft Power BI, and Sisk's own "Design Changes Control" dashboards provided the commercial teams with a faster way to visualise the cost and/or schedule impacts, reducing the overall take-off by a potential 40%
- By using BIM 360, the project continued uninterrupted as construction continued in Sweden during the Covid-19 pandemic.



[Back to top](#)

- **(2) Project: [Finland's Hospital Nova uses VR to involve staff in building](#), 28<sup>th</sup> April 2020.**

Lead Contractor: The Central Finland Health Care District  
BIM Tools: Tridify

- Innovative processes have been used in the co-design of Finland's new Hospital Nova using BIM models and involving more than 350 staff.

- **(3) Project: [NHS Nightingale Hospital, East London – how BIM played its part](#), 5th May 2020.**

Client: Barts Health NHS Trust, Royal Free London NHS Foundation Trust

Lead Contractor: Lead Designer: BDF

BIM Tools: Autodesk Revit

- The UK's newest (see publication date) and largest hospital, based at the ExCel conference centre in London's Docklands, is designed to care for up to 4,000 people affected by Covid-19. The hospital is now in standby mode and will be used should cases in the London area rise again.

- **(4) Project: [Mace use AI tech on Mayfair project to meet Covid-19 safety challenges](#), 1<sup>st</sup> October 2020**

- Work was already underway on Lodha's No 1 Grosvenor Square flagship project when the lockdown and then social distancing added to the normal construction challenges.

Client: Lodha; Main contractor: Mace

Balancing the many requirements of a building project – cash flow, cost, quality, and timelines – is always a significant challenge for project leadership. The Covid-19 pandemic made the balancing act even more intense, costing projects valuable time at the start of lockdown and requiring adjustments to ensure the health and safety of all personnel on site as production restarted.

- **(5) Project: [AI tracks work quality at Norway's Stavanger Hospital](#), 21<sup>st</sup> June 2020.**

Client: Stavanger University Hospital

BIM Tools: 100% International open standards, compatible with Revit, ArchiCAD, Solibri and others

- Oslo-based BIM developer Imerso has been given responsibility to monitor work progress in one of the biggest public construction projects in Scandinavia.

**[Access the Chartered Institute of Building's \(CIOB\), BIM+ articles, projects, case studies and more, in full.](#)**

**Latest BIM news – 10<sup>th</sup> annual BIM report 2020 available**

**NBS 10<sup>th</sup> National BIM Report 2020** - The 2020 annual BIM report marks the 10<sup>th</sup> year of recording over 1,000 industry professional's view about BIM. It illustrates how usage and perceptions of BIM have changed since 2011, progress made as an industry, and anticipated changes in the next decade.

**Construction Information Service (CIS) Insights**

The latest edition [**March 2022**] of NBS CIS *Insights* focuses on – **IOT: 5G, Wi-Fi 6, mobile broadband, and construction**, and covers:

- How the Internet of Things can help small businesses and construction sites,
- Explores 5G, mobile broadband and Wi-Fi 6, and
- Benefits of adopting now

**[Back to top](#)**



## Property and Construction Statistics

**Latest Property and Construction Statistics from RICS:**

- Input from RICS Professionals ensure RICS surveys are leading indicators in the real estate industry.

**Latest: Market Surveys - RICS** [**March 2022**]**UK Economy and Property Market Update, February 2022**

- More interest rates increases on the way, but market sentiment remains upbeat for the time being.

**Summary:** Inflation pressures continue to grow leading to a shift in stance from the Bank of England. Despite the hikes in interest rates seen to date and the prospect of more to come, for now it is anticipated that the economy will remain relatively resilient. Consumers are expected to draw heavily on the built-up savings during the pandemic and business investment is seen picking-up on the back of the tax incentive introduced last year (2021). This is reflected in the feedback provided to recent RICS surveys of the construction sector as well as the commercial and residential markets which generally remain positive.

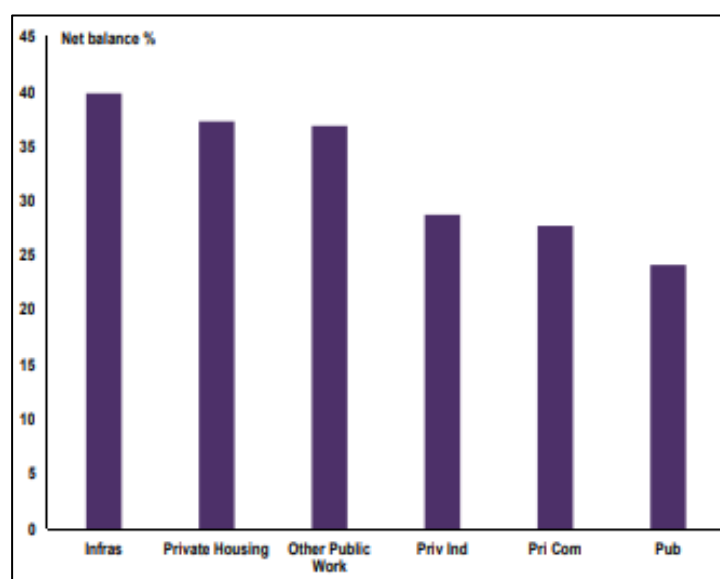
**Construction Sector** – If the feedback to the latest (see publication date) RICS Construction Monitor is anything to go by, sentiment generally remains positive across the sector with workloads rising particularly strongly in infrastructure and private residential. Chart 10 shows the workloads readings by sector and demonstrates the upbeat trend across all parts of the industry. A broadly similar message is evident in the January (2022) IHS

[Back to top](#)

Markit/CIPS Construction PMI which recorded its twelfth consecutive positive reading, as the commercial component Climbed to a six-month high.

Forward looking indicators covered by the RICS survey paint an encouraging picture of the outlook, despite some of the ongoing macro challenges. New business enquiries remain strong while the one year out workload expectations numbers are firmly in positive territory in net balance terms. This broadly chimes with the latest forecasts from the Construction Products Association, which envisages industry output rising by a further 4.3% this year (2022) (following the 13% increase in 2021).

**Chart 10:** The RICS Q4 Construction Monitor shows a broad-based growth in workloads.



© RICS 2022

Source: RICS Economics Research: *RICS UK Economy and Property Market Update* (February 2022), London: RICS, p5 - Chart 10.

**Read the full piece of research 'RICS UK Economy and Property Market Update, February 2022**

**Also: UK Economy and Property Market Chart Book, Q4 2020**

- Agreed sales rise over the month with expectations modestly positive regarding the near-term outlook

**UK Residential Market Survey: February 2022**

- Pick-up in new buyer enquiries supporting near-term sales expectations

- New buyer enquiries and agreed sales pick up in February,
- New instructions now broadly stable albeit this follows a prolonged negative stretch,
- Stock levels therefore remain low, contributing to continued strong house price growth.

The February 2022 *RICS UK Residential Survey* results suggest market momentum strengthened slightly over the month (see

[Back to top](#)

publication date), with agreed sales rising on the back of a sustained positive trend in new buyer enquiries. For the time being, respondents foresee sales activity continuing to pick-up modestly over the near term, although the prospect of further interest rate rises is mentioned as a factor that could be expected to dampen growth in activity to a certain extent as the year wears on.

At the headline level, a net balance of +17% of survey participants reported an increase in new buyer enquiries during February. This marks the sixth consecutive positive monthly reading, with the latest return representing the strongest figure seen throughout this period. At the same time, the agreed sales indicator also improved over the month, posting a net balance of +9% in February which, although only modestly positive, is the strongest reading since May 2021.

Looking ahead, near term sales expectations signal continued growth on the horizon, albeit the latest net balance did moderate a little to +11%, compared with +20% seen back in January. Likewise, the twelve-month sales expectations series also eased somewhat relative to the previous results but remains consistent with a modestly positive trend in transactions being anticipated through the course of the year ahead.

Meanwhile, the protracted deterioration in the volume of new sales instructions coming onto the market has stabilised of late, as the latest net balance moved to -4% from -7% previously. Nevertheless, given this measure of fresh sales listings has only posted one positive reading in the past twelve months, stock levels remain close to historic lows. As such, the lack of supply is still seen as a significant factor in sustaining sharp rates of house price inflation.

On that front, the survey's headline indicator gauging price growth posted a net balance of +79% at the national level. This is in fact up slightly from an already elevated reading of +74% beforehand and continues to point to a strong increase in house prices across the country. What's more this picture is mirrored within all UK regions/countries, with Wales, Yorkshire and Humber, the North West of England and Northern Ireland all displaying especially elevated readings in February.

**[Read the latest RICS UK Residential Market Survey: January 2022 in full.](#)**

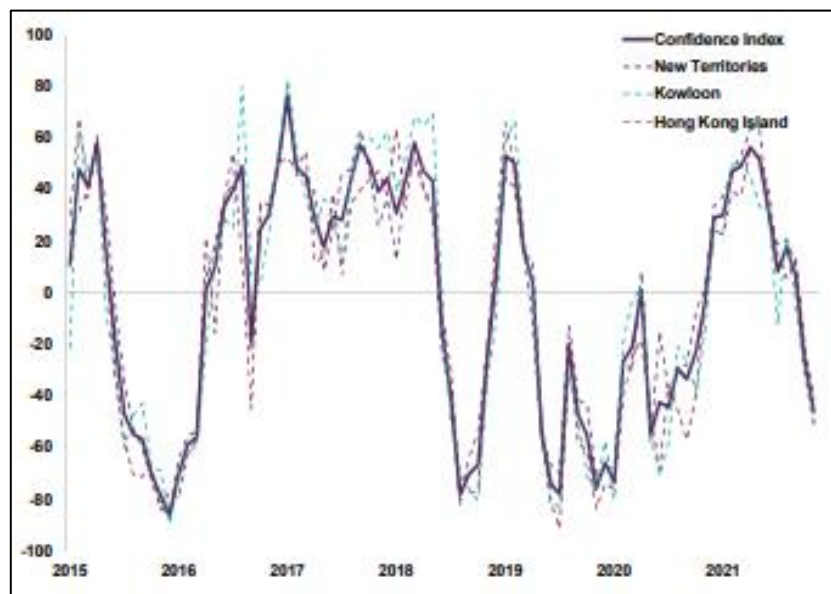
**RICS - SPACIOUS 千居 Hong Kong Residential Monitor / Market Survey: [January 2022](#)**

- Strong run in market through 2021 gives way to some caution.

- Confidence indicator retreats as key metrics soften
- Buyer enquiries slip across the board albeit less so for owner occupiers
- Price trend set to flatten after solid gains last year (2021)

[Back to top](#)

**Chart 1: Confidence Index\*:**



© RICS 2022

Source: RICS Economics Research: *RICS Hong Kong Residential Monitor – January 2022*, London: RICS, p1 - Chart 1.

\* The Confidence Index is a composite measure capturing overall market momentum, encompassing variables on short-term price and sales expectations. The Home Price Perceptions Index measures the perceived monthly change in home prices as reported by survey participants, where March 2015=100. The Rent Perceptions Index measures the perceived monthly change in rents as reported by survey respondents, where March 2019=100.

The January 2022 RICS-Spacious Hong Kong Residential Property Monitor suggests that the deterioration in the market conditions at the back end of 2021 continued into the early part of the new year after a solid performance through much of the previous twelve-month period.. Indeed, the headline Confidence Index (chart 1) slipped to a reading of -46, which is the lowest value recorded since July 2020 (-55). This is reflected in somewhat less positive, or a little more negative, feedback around all the key metrics collated as part of this survey.

**[Read the latest RICS HK Residential Monitor: January 2022 in full.](#)**

### **Global Commercial Property Monitors, Q4 2021**

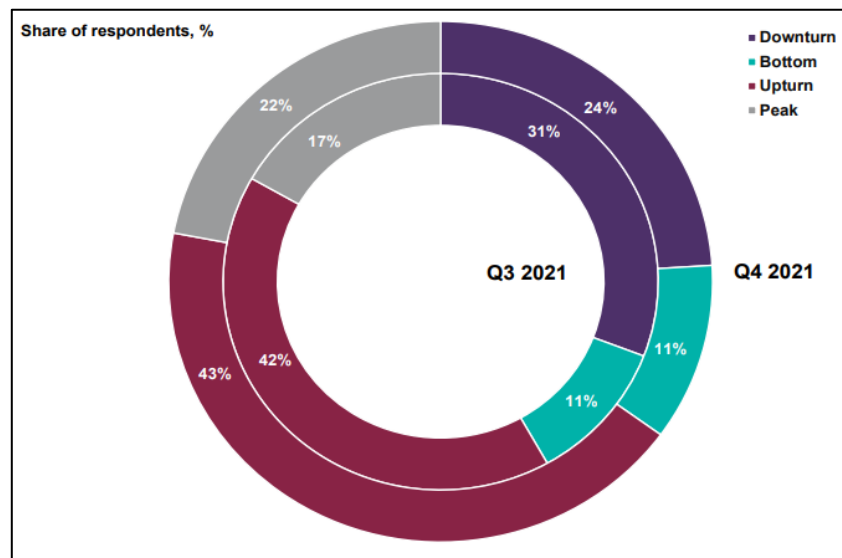
- Sentiment continues to improve into the year-end despite the spread of Omicron.

- Headline Global Property Sentiment Index (CPSI) edges up to best level since Q4 2019,
- Investment Sentiment Index shows stronger rise reflecting more material pickup in investor enquiries,

[Back to top](#)

- Expectations for rents and capital values at 12-month time horizon firmer compared with Q3.

**Chart 6: Perceptions on Phase of the Cycle:**



© RICS 2022

Source: RICS Economics Research: *RICS Global Property Monitors*, Q4 2021, London: RICS, p3 - Chart 6

The headline results of the Q4 RICS Global Commercial Property Monitor (GCPM) suggest that sentiment among professionals working in the real estate market actually improved in the final three months of last year (2021) despite concerns around the spread of the latest Covid variant. The aggregated (global) Commercial Property Sentiment Index (CPSI) improved for the sixth consecutive quarter returning to positive territory for the first time since the onset of the pandemic.

#### **Diminishing share of respondents see market in downturn**

One metric that RICS monitor closely is the perception of respondents to where their local market is in the real estate cycle. The global averages are evident in chart 6. The latest responses are not significantly different from the preceding ones and broadly reflect much of the other feedback to the survey. So, the share of contributors who believe the market to still be in a downturn or in the bottom phase of the cycle has dropped from 42% to 35%. By way of contrast, the proportion who view the market to be in an upturn is 43% (42% in Q3) and in the peak phase 22% (as against 17%). For the Americas, the share of respondents who perceive the market to be either in the downturn or bottom phase of the cycle has dropped to its lowest level since the series began in 2015.

**[Read the latest RICS Global Commercial Property Monitor, Q4 2021 in full.](#)**

[Back to top](#)

## Latest Statistics from the Office for National Statistics (ONS)

**UK economy latest** – A roundup of the latest data and analysis on the UK economy, business and jobs following Brexit and during the coronavirus (COVID-19) pandemic.

### **Construction Industry highlights include** – **Construction output in Great Britain: January 2022.**

- Short-term measures of output by the construction industry, contracts awarded for new construction work in Great Britain.

#### **What's covered in the latest bulletin?**

- Monthly construction output increased by 1.1% in volume terms in January 2022 and is now at its highest level since September 2019; this follows an increase in 2.0% in December 2021 and is the third consecutive monthly growth greater than 1.0%
- The increase in monthly construction output in January 2022 came solely from an increase in repair and maintenance (4.6%) as new work saw a slight decrease of 0.8% on the month.
- At the sector level, the main contributors to growth in January 2022 were private housing repair and maintenance and non-housing repair and maintenance, which grew by 5.5% and 5.0% respectively.

### **Read the full statistical bulletin, 'Construction output in Great Britain: January 2022.'**

#### **Also: Construction statistics, Great Britain: 2020**

- A wide range of statistics that are current available on the construction industry including the value of output, new orders by sector, number of firms and total employment, insolvencies and construction output price indices.

## Latest Statistics from HSE – Health and Safety Executive

### **Latest Key figures for Great Britain (2020/21)**

In 2020/21 an estimated 1.7 million workers were suffering from an illness they believed was caused or made worse by their work and 441,000 workers sustained a non-fatal injury at work. [Source: Self-reports from the Labour Force Survey]. However, the risk of injury and work-related ill health varies across industry, being more likely in some industries than others.

The chart below shows how the overall rates of self-reported work-related ill health and workplace injury vary between industry groups.

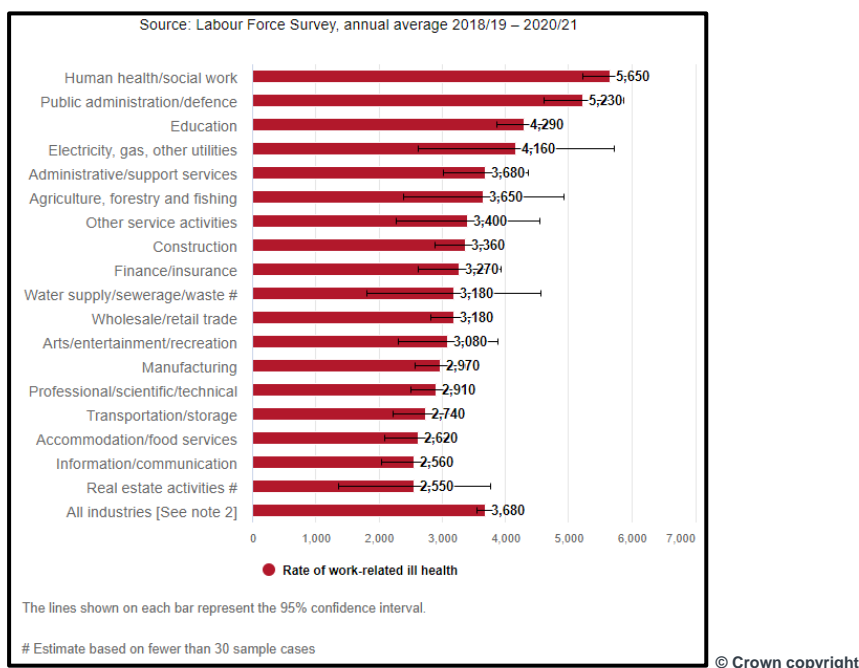
- While the chart shows the overall picture for each industry group, this may be masking differences at more detailed levels (for example, illness type or more detailed industry sub-groups).

### **From the Health and Safety Executive (HSE), 'Self-reported work-related ill health', and covering 'Construction':**



[Back to top](#)

**Rate of self-reported work-related health by industry for people working in the last 12 months (per 100,000 workers)**  
**[Note 1], [Note 3]**



2022

**Note 1:** Industry groupings based on the section level of the 2007 Standard Industrial Classification (SIC) & **Note 3:** These estimates are based on results from a survey and are subject to sampling error.

Source: HSE (2022) 'Self-reported work-related ill health', Bootle: HSE [online]. Available at: [www.gov.uk/statistics/industry](http://www.gov.uk/statistics/industry) [accessed 11 March 2022]

**Access further information on health and safety statistics from HSE – Health and Safety Executive.**

[Back to top](#)



## Built Environment Research

**Latest Policy and Research from:**

**1) Savills *Impacts – Real estate investment in 2022: global outlook***

**- Market Trends: Savills.com, January 2022**

Savills examine the global trends and in-demand assets for 2022

**Sector investment outlook for 2022**

- 2022 will be a turning point for retail, with repricing of recent years making the sector more competitive, at a time when retailers have better adapted to new ways of shopping. In much of Asia and in emerging markets, retail remains very much a core opportunity.
- There is a potential in logistics in places where onshoring brings supply chains closer to home. Niches such as last mile have further to run.

**Back to top**

- In the liquid and established office sector, the flight to quality will continue. Competition will be focused on assets that meet emerging environmental standards, while there is potential to redevelop or repurpose those that do not.
- Residential's rise will endure, a shortage of suitable stock driving forward funding strategies. There is potential in secondary cities as occupiers seek more affordable, liveable places.
- Ageing populations and an emphasis on health and wellbeing will support expansion in healthcare and senior housing, benefitting from long-term income potential.
- Data centres offer opportunity for portfolio diversification and there remains room for growth. Investors will be increasingly mindful of this sector's substantial environmental footprint, however.
- Life sciences offers significant potential for those with the know-how, with halo benefits for surrounding uses in knowledge hubs.

Decarbonising the real estate sector is an urgent and pressing need, a challenge that COP26 brought to attention. Consequently, Environmental, Social and Governance (ESG) considerations will increasingly define the investor agenda in 2022, and this year's COP27, held in Egypt, will only focus further on the issue.

More than ever before, cross-border investors in Europe are focusing on meeting ESG targets, with 'social', and 'governance' considerations driving investment decisions. This approach will only become more mainstream in 2022. In Europe, ESG is already actively shaping the assets and geographies in demand, a trend set to spread globally.

The looming challenge of bringing office stock up to new environmental standards is only one way we'll see this play out. Driven by both investors and occupiers, there will be opportunity to redevelop, reconfigure and repurpose stock that doesn't meet requirements.

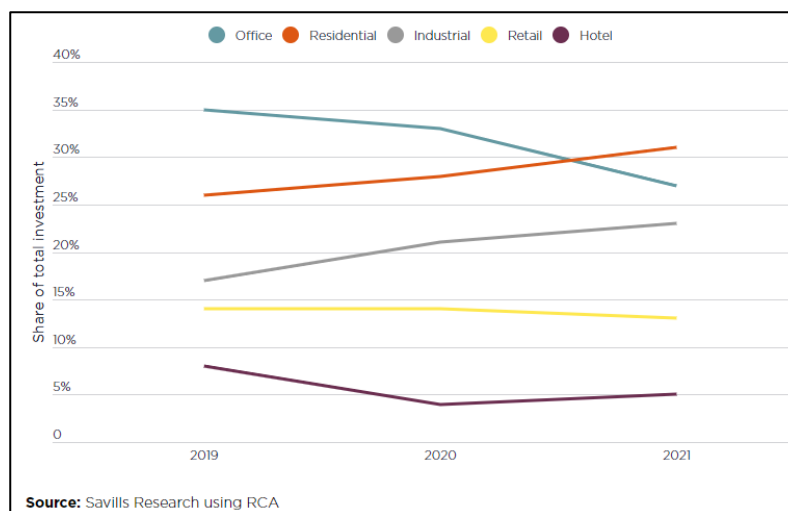
**Investment volumes**

Real estate investment has shown resilience in the face of the pandemic. Global real estate investment volumes bounced back in 2021. Attractive among investors seeking diversified income streams, funds targetting real estate reached new highs last year, with more than 1,250 funds targeting \$365bn in capital between them, according to Preqin.

In the 12 months to November (2021), total real estate investment volumes were up by 38% on the same period the previous year. While office investment remains below pre-pandemic levels, volumes in the highly sought-after industrial sector are up 54%. We expect to see the strong performance of industrial to continue in 2022.

[Back to top](#)

The big story for global real estate investment last year (2021) was that residential (namely multifamily, but also encompassing student and senior housing) became the largest sector for investment globally, overtaking offices for the first time (see chart, below – Share of total global real estate investment, by year).

**Share of total global real estate investment, by year**

Source: Savills (2022) *Market Trends: Real estate investment in 2022: global outlook* [online]. Available at: [www.savills.com/impacts/market-trends/real-estate-investment-in-2022-global-outlook.html](https://www.savills.com/impacts/market-trends/real-estate-investment-in-2022-global-outlook.html) [accessed 25 February 2022]

Investors are attracted to its secure, income generating qualities, underlying demand and resilience against technological disintermediation. Strong demand is likely to continue in 2022, but a dearth of standing stock means that development will be the entry point for many.

**Read the Market Trends – ‘The total value of global real estate’, in full.****Also:**

[Read the Market Trends – ‘Real estate investment in 2021: global outlook’, in full.](#)

**Read Savills Investment tips and trends by region -**

- [Read more EMEA tips](#)
- [Read more Asia-Pacific tips](#)
- [Read more North America tips](#)

[Read Savills World cities prime residential forecasts](#)

In earlier issues (05/20) Savills discuss the potential changes that may be seen across the different sectors. If you prefer to read a specific sector, then select the relevant sections title to go straight there and include: **Office sector**, **Logistics sector**, **Retail sector**, **Hotels sector**, **Institutional residential sector**, **Senior housing and healthcare sectors**, **End-use residential sector**, and **Conclusion**.

[Back to top](#)

[Read the full Savills Impact Publication 'The Impact of Covid-19 on real estate', 2020'](#)

[Savills \(2020\) 'Welcome to Impacts 2020' \*Impacts\*, May, Savills \[online\]. Available at Savills.com](#)

## **2) Joseph Rowntree Foundation (JRF) -**

- Inspiring Social Change: The Joseph Rowntree Foundation is an independent social change organisation working to solve UK poverty.

### **UK Poverty 2022: The essential guide to understanding poverty in the UK**

**Related topics** – Housing; Work; Income and benefits

- This is the first issue of the JRF's new-style *UK Poverty* report, which looks comprehensively at trends in poverty across all its characteristics and impacts.

What is the picture of poverty at the start of 2022, coming up to two years after a global pandemic struck? To an extent the picture is unclear: we don't yet have official poverty data covering the pandemic period, and we know that the quality of the very surveys we rely on for this information were affected by the onset of the pandemic.

But many sources make it clear that while some groups have been well supported and face better prospects as we enter 2022 (see publication date), others face deep and persistent poverty. In a way this is much better than might be expected given the economic and social shock the country has been through.

We know poverty at any stage in life can lead to negative impacts and so it is critical to scrutinise the data thoroughly to work out who is worst affected, determine how trends are changing over time and see what future prospects are.

This report gives a clear statement, agreed by JRF's Grassroots Poverty Action Group (GPAC), that we need coordinated commitment, effort and action on the intersecting issues and challenges identified in this report. This can turn back the tide of poverty, and offer security for the many people experiencing hardship across the UK.

[Read the JSR article entitled, 'UK Poverty 2022: The essential guide to understanding poverty in the UK' in full](#)

**Also gain access to the following free downloads that include:**

**Findings:**

[JRF \(2022\) \*UK Poverty 2022: The essential guide to understanding poverty in the UK\* \(148.85 KB\),](#)

[Back to top](#)

and the Full Report:

[JRF \(2022\) UK Poverty 2022: The essential guide to understanding poverty in the UK \(3.71 MB\).](#)

Related Links:

[Read the JSR report entitled, 'UK Poverty 2020/21' in full](#)

[Read the article 'UK Poverty 2019/20 Housing' in full](#)

[UK Poverty Statistics from the Joseph Rowntree Foundation -](#)

The latest UK poverty data, statistics and analysis from JRF's Analysis Unit. This **online toolkit** can be used to find information about poverty rates and related issues in the United Kingdom.

[JRF Spring Budget 2021 analysis](#)

[JRF Analysis of the 2020 Spending Review](#)

### **3) The Smith Institute**

- The Smith Institute is a leading independent 'think tank' which promotes progressive policies for a fairer society. They provide a high-level forum for new thinking and debate on public policy and politics. Through research, reports, briefings, monographs, events, lecturers, education, and their website, the Institute offers a platform for thought leadership on a wide range of topics.

#### **A Just Transition: Ensuring responsible investment for a just transition to net zero.**

The Smith Institute (2021)

The Smith Institute supported the All-Party Parliamentary Group for Local Authority Pension Funds inquiry into 'Responsible investment for a just transition'.

This report is based on evidence sessions and written submissions to that inquiry from investors, industry, academics, community groups, trade unions, and other non-government organisations. The inquiry report seeks to inform politicians, policymakers, stakeholders and the public on the roles and responsibilities that investors can play, with the support of their members and government, in enabling a just transition to net zero carbon emissions.

#### **What is just transition?**

A just transition is broadly interpreted as a policy approach to climate action which seeks to ensure that the benefits

The following components of a just transition to a net zero carbon economy were described to the inquiry:

- It is about moving to a net zero carbon economy in a just way for society – and thus combines environmental and social considerations.

**[Back to top](#)**

- It is about the fair distribution of climate 'goods' (such as new jobs and cleaner air) and climate 'bads' (such as higher costs associated with decarbonisation and job losses in certain sectors and places).
- It is about maximising the opportunities of a green economy and mitigating the risks.
- The social dimension is about workers, consumers, supply chains and communities.
- It is about both the process and the outcome: engaging and involving stakeholders to ensure that all social groups have support and opportunities in transitioning to a net zero carbon economy.
- It involves a planned and orderly transition.
- It is a global issue, affecting UK and international communities and supply chains.

Also covered in this research:

- The financial materiality of a just transition
- What can investors do? and
- What can government do?

**[Read the full piece of research, 'A Just Transition: Ensuring responsible investment for a just transition to net zero'.](#)**

**The Living Wage Dividend: maximising the local economic benefits of paying a living wage.**

Hunter P (2021)

The economic fall-out from Covid has been substantial. However, it has not been evenly felt. This is especially true for the labour market with low paid workers more likely to see their hours and pay fall and more likely to be made unemployed or furloughed. Indeed, the pandemic has placed the spotlight on low pay and in-work poverty. Recent polling for the TUC, for example, showed how low-income workers have borne the brunt of the pandemic.

This report seeks to take forward the work of the Foundation's 'Living Wage Places' initiative, focusing on how to maximise the benefits of the Living Wage in towns, cities and city-regions across the UK. Using evidence-based assumptions, the report examines and quantifies how much individuals gain, how that wage uplift is paid for and what the local economic impact is likely to be based on moving 25% of low paid workers up to the Living Wage.

**[Read the full piece of research, 'The Living Wage Dividend: maximising the local economic benefits of paying a living wage'.](#)**

**Planning for the recovery and the shift towards homeworking: implications for poverty in outer London**

Hunter P (2021)

[Back to top](#)

This report, supported by Trust for London, examines the short and long-term implications of Covid on poverty and inequality in outer London, with a particular focus on employment, low pay, housing, and the shift towards homeworking.

The report acknowledges the devastating impact that the pandemic has had on the lives of outer London's five million residents – not least on people's health and well-being – but seeks mainly to understand the after-effects and explore the options for change.

**[Read the full piece of research, 'Planning for the recovery and the shift towards homeworking: implications for poverty in outer London'.](#)**

**A National Housing Conversion Fund: buying properties to boost affordable housing supply**

September 2020

The Smith Institute's Affordable Housing Commission published a report into the national housing conversion fund.

The report examines two main ways a ring-fenced National Housing Conversion Fund could be achieved. The first is targeting funds to purchase homes on the secondary (existing) market. It examines which housing markets – in broad terms – the investment might be best aimed at, factoring in how it could help improve housing condition and support jobs and growth.

**[Read the full piece of research, 'A National Housing Conversion Fund: buying properties to boost affordable housing supply'.](#)**

**Falling behind: The impact of Universal Credit (UC) on rent arrears for council tenants in London**

July 2020

This report was commissioned by Southwark Council, with the support of eleven other London local authority landlords and coordinated by London Councils. The research and report focus on two main questions:

- How has the roll-out of Universal Credit (UC) affected rent payment behaviours among residents in local authority-owned housing across London?
- How are identified changes in behaviour – or the absence of behaviour change – affecting the tenancies of those tenants who are receiving housing cost support under the new arrangements?

The report tells this story of financial stress through analysis of tenant rent accounts. The scale of the costs to social landlords is also apparent in escalating arrears after tenants make an effective UC claim.

**[Read the full piece of research, 'Falling behind: The impact of Universal Credit on rent arrears for council tenants in London'.](#)**



[Back to top](#)**Consumer Rights in the Private Rented Sector**

July 2020

This report sets out a new perspective on how we can improve the private rented market: by recognising the consumer gifts we're used to having in other markets, from utilities to financial services, and looking at how we might apply those lessons to the private rented sector.

[Read the full piece of research, 'Consumer Rights in the Private Rented Sector'.](#)

**Making Housing Affordable after Covid-19: A follow up report from the Affordable Housing Commission**

Affordable Housing Commission (2020)

- The Smith Institute's Affordable Housing Commission published a report into making affordable housing after Covid-19.

[Read the full piece of research, 'Making Housing Affordable after Covid-19: A follow up report from the Affordable Housing Commission'.](#)

**Making Housing Affordable Again: Rebalancing the Nation's Housing System: The final report of the Affordable Housing Commission**

March 2020

- The Smith Institute's Affordable Housing Commission published its final report and recommendations: making housing affordable again.

[Read the full piece of research, 'Making Housing Affordable Again: Rebalancing the Nation's Housing System: The final report of the Affordable Housing Commission'.](#)

**4) CBRE Research Blog: About Real Estate**

The CBRE Research blog showcases a variety of informed viewpoints, spanning all major property sectors that include –

- **Offices** – Discover up to the minute and future looking trends in the Office sector for occupiers, landlords, investors and developers
- **Retail** in detail,
- **Industrial** – CBRE 'shed' light on all things industrial,
- **Residential** – CBRE's 'house' vide on all things residential, and
- **Investment** – addressing the challenges and opportunities facing commercial real estate property investors

[Access the CBRE website and About Real Estate Research Blog](#)

[Back to top](#)

## **5) CABE – Chartered Institute of Building Engineers**

Two new publications have been launched from the Competence Steering Group (CSG) in 2020 with the view to improving competence and driving culture change throughout the industry.

***Setting the Bar*** – a blueprint to improve competence for those working on higher risk buildings and drive culture change has been set out by a cross-industry group representing more than 150 organisations, including CABE, in the fire and built environment industries.

*Setting the Bar* is the second and final report of the CSG and is an update of its Interim Report, *Raising the Bar* published in August 2019. The work was initiated by the recommendations in Dame Judith Hackitt's review *Building a Safe Future*.

### **Access *Setting the Bar* – Final Report**

#### **Competence Requirements for new role of Building Safety Managers**

The competence requirements for the proposed new role of the Building Safety manager have been set out in a new 2020 report ***Safer people, safer homes: Building Safety Management***.

Under new legislation being introduced in the *Draft Building Safety Bill* published in July 2020, those deemed responsible in law for the safety of higher-risk building, such as the landlord, will be required to appoint a Building Safety Manager.

The role of the Building Safety Manager will be to look after the day-to-day management of fire and structural safety in higher-risk buildings and establish a clear point of contact for residents for fire and safety related issues.

### **Access *Safer people, safer homes: Building Safety Management***

### **Access the Chartered Association of Building Engineers for further information.**

### **Access *Building Engineer* website**

## **6) RICS – Royal Institution of Chartered Surveyors**

- RICS recognise the huge importance of property, land, construction and the built environment. Through their market surveys and research, they aim to advance the thinking of the profession and raise the profile of the industry.

Note: Latest research published by RICS is covered earlier within *Knowledge Foundations* and under **Other News > RICS Market Surveys**.

[Back to top](#)

As of **March 2022**, the [latest news & insights](#) include:

- **RICS Fire Safety Hub** – read the latest guidance and development from RICS in the area of fire safety,
- **Valuing flexible workspace** – With more populations engaging with hybrid working, there is higher demand for flexible workspaces,
- **Towards the 15-minute city** – Discussions about the future of cities and designing for the next generations has been constantly evolving over recent decades,
- **Green and Sustainable Dilapidations** – With the world turning its focus towards environmental sustainability goals, the need for green and sustainable practices in dilapidations is ever more relevant.
- **Withdrawal of global COVID-19 valuation practice alert** – There has been a maturity of the COVID-19 situation globally and in many areas government restrictions and regulatory protocols have or are currently being limited.

## **7) CIOB – Chartered Institute of Building**

The quality of the built environment affects every member of society. As a professional body that represents the leaders and managers who work at every stage of the lifecycle of a construction project, The CIOB seek to influence government, industry and other stakeholders around the world with the aim of promoting the construction management discipline and addressing the challenges that the sector faces.

As of **March 2022**, the latest CIOB Policy and Research include:

- **Future of Construction research** – *Aiming the Construction Industry for the Future: Recruiting from the military into construction*. Also access the latest Future of Construction - **CIOB Policy Team Newsletter – January 2022** (4<sup>th</sup> February 2022)
- **Ethics research** – *Understanding Mental Health in the Built Environment; Construction and the Modern Slavery Act: Tackling Exploitation in the UK; The State of Well-being in the Construction Industry, and Building a Fairer System: Tackling modern slavery in construction supply chains*,
- **Economics and social impact research** – *The Real Face of Construction 2020: Socio-Economic Analysis of The True Value of The Built Environment*
- *Job Quality in the Irish Construction Sector* (22<sup>nd</sup> April 2021)
- **Education and skills research** – *Exploring the impact of the ageing population on the workforce and built environment*
- **The Wider Built Environment** – *Understanding the Value of Professionals and Professional Bodies*.

**[Access the Chartered Institute of Building's Policy and Research website](#)**

[Back to top](#)

## **8) [House of Commons Library](#), 9) the House of Lords Library and 10) the Parliamentary Office of Science and Technology (POST)**

**About the House of Commons Library** - The House of Commons Library is a research and information service based in the UK Parliament. Their impartial analysis, statistical research and resources help MPs, and their staff scrutinise legislation, develop policy, and support constituents.

### **[Watch this quick video to find out how the House of Commons Library works](#)**

Source: UK Parliament (2020) 'How the House of Commons Library works', YouTube [video]. Available at: youtube.com.

As of **March 2022**, the House of Commons Library has recently updated their website that is now broken down into the following sections or subject areas:

**Services** that include Research, Resources, Training & Events,

**Brexit** that covers Legislation, Negotiations, Policy, The EU, and Brexit explainer videos,

**Coronavirus** – read the latest Coronavirus (COVID-19) research and analysis from UK Parliament.

**Economy, Business and Transport** that include Business, Economy, Economic Updates, Transport, and Work & Incomes,

**Home Affairs** incl. Communities, Crime, Family & Civil Law, Justice, Immigration, Security, and Culture, Media & Sport,

**Parliament & Elections** that include Devolution, Elections, Government, Parliament, and Local Government,

**Science, Environment and Technology** that include **Energy**, **Environment**, **Climate Change**, Sciences, **Local Data**

**Social Policy** that include **Education**, Families & Social Services, Health, **Housing & Planning**, and Welfare & Pensions,

**World Affairs** that is broken down into Africa, Americas, Asia Pacific, Defence, Europe, Institutions, and Middle East, and more.

As of **March 2022**, the latest House of Commons Library, **[Research publications](#)** incl.

1. The crisis in Ukraines,
2. Can access to housing be restricted to local people?, and
3. Dissolution and Calling of Parliament Bill 2021-22: Progress of the Bill.

### **[Review House of Commons Library, Research for this week](#)**

As of **March 2022** the latest **[House of Commons Research](#):**

[Back to top](#)

Under '**Education**' and within 'Social policy', the top research briefings incl.

1. Estimates Day debate: Education,
2. Sharia-compliant alternative student finance,
3. Special Educational Needs: support in England,
4. The Post-18 Education and Funding Review: Government conclusion,
5. Professional Qualifications Bill [HL] 2021-22,
6. High education student numbers,
7. Northern Ireland: Key issues
8. The Turig Scheme: The Turig Scheme has replaced the Erasmus+ programme in providing funding for participants in universities, colleges, and schools to go on overseas study and work placements.

Under '**Housing and Planning**' and within 'Social policy', the top research briefings incl.

1. Can access to housing be restricted to local people?
2. Housing Market: Key Economic Indicators,
3. Social Housing Reform in England: What Next?,
4. Leasehold reform in England and Wales: What's happening and when?
5. Levelling up: What are the Government's proposals?
6. Local growth funds,
7. Allocating social housing (England)
8. UK Government policy on freeports, and
9. Households in temporary accommodation (England).

Under '**Energy**', '**Environment**' and '**Climate change**', and within 'Science, Environment and Technology' include:

1. Geopolitical implications of Nord Stream 2,
2. Fuel Poverty, Energy prices, Oil prices, Petrol & diesel prices,
3. Single use plastics: How do bans differ across the UK and EU?
4. COP26: Briefing for the 2021 conference, what were the outcomes of COP26?; and Wellbeing Economic approach to meeting climate change goals.

[House of Commons Library search](#) on '**construction industry**' identifies 18 key documents, that incl. 'Taxation in the construction industry', 'CITB – Construction Industry Training Board Levy', and '**The construction industry: statistics and policy, Dec. 2019**' -

Abstract: Construction industry – employment, new orders, output. [Construction 2025](#), [The Farmer Review](#) and the [Construction Sector Deal](#) (part of the government's [Industrial Strategy](#)).

**Key statistics** – In 2018, the construction industry contributed £117 billion to the UK economy, 6% of the total.

Economic output in 2018 was slightly down on 2017, the first fall since 2013.

There are 2.4 million construction industry jobs in the UK in Q2 2019, 6.6% of all jobs. There are more construction jobs now than at any time since 2007, although throughout this period, roughly the same proportion of jobs have been in construction.

The construction industry is unusual because of the high proportion of self-employment in the sector – 36% in Q2 2019, compared to the average for the whole economy of 13%.

New orders to the construction industry were worth £61.7 billion in 2017. This is 13% down in 2017, the first fall since 2011. New housing orders accounted for 35% of all construction orders, commercial orders accounted for 25% and infrastructure orders accounted for 19%.

[Access and download the full report, 'Construction industry: statistics and policy'](#)

[Back to top](#)



## e-Journal Review

### Built Environment Industry Journal titles reviewed by UCEM e-Library

#### *MODUS*

**MODUS** - the RICS magazine that brings you the latest news and views, expert advice and in-depth features spanning the breadth of the surveying profession around the world.

In the latest digital *MODUS* (**March 2022**), 'My thoughts and those of RICS are with Ukraine' – RICS President Clement Lau offers support to members in the region and highlights the recent publication of the latest IBOS guidelines for built environment professionals.

Subject Terms/Keywords: Learning and development; Projects and people; and RICS standards and guidance.

#### **Latest articles within *Modus*:**

##### **- How can construction overcome its dependence on plastic?**

– The industry's over-reliance on plastic is polluting the planet and damaging ecosystems, but will new regulations and targets set by manufacturers and contractors be enough?

Subject Terms/Keywords: Materials and resources; Environmental management; Sustainability

##### **- Combining motherhood with a demanding job in property –**

*Modus* speaks to Karen Ching MRICS, assistant director at Deloitte, about the challenges she's faced aiming for the top in her career while raising children.

[Back to top](#)

Subject Terms/Keywords: Corporate real estate; Diversity and inclusion; Ethical practice; Planning and development; Project management; and Projects and people.

**- Flood the market: protecting homes from extreme weather –**

Property developers are increasingly contributing to climate change infrastructure with flood barriers. But who decides what's needed and how it's being paid for?

Subject Terms/Keywords: Building conservation; Environmental surveying; Land and resources; Marine environments; Natural disasters; and Water management.

**- How can employers attract the top talent in real estate? –**

The city once known for its car-packed Arc de Triomphe roundabout is reinventing itself with a series of bold, environmentally-focused projects.

Subject Terms/Keywords: Projects and people; Running your business; and Wellbeing.

**- Building the future: what do young talent think of the**

**profession? -** In *Modus's* first podcast, four exceptional young RICS surveyors of the year explain what inspired them to join the sector – and what keeps them motivated now that their careers are established.

Subject Terms/Keywords: Learning and Development.

**- Turning the tide: coastal regeneration in a pandemic –**

The challenge of reviving coastal towns could benefit from changing habits that include more domestic holidays and people moving away from big cities to be near the sea.

Subject Terms/Keywords: Dilapidations; Economic; and Marine environments.

**- Buildings that elevated cities: Petronas Towers**

How did Kuala Lumpur's 88-storey twin towers with connecting skybridge become a symbol of modernisation for Malaysia?

Subject Terms/Keywords: Cities and placemaking; and Economics

**- The most-read stories of 2021 on *Modus* –** While COVID-19 has dominated the agenda, topics such as land reclamation have also proved very popular.

Subject Terms/Keywords: Marine environments; Cities and placemaking; Projects and people.

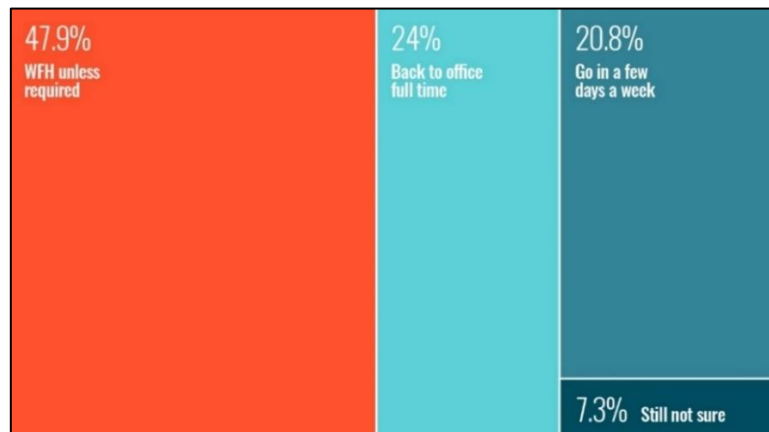
**- Working from home: how was it for you?** Companies are calling for staff to get back to the office, but the data (as shown overleaf) suggests that employees aren't all ready to return yet.

Subject Terms/Keywords: Running your business.



[Back to top](#)

### Working from home, how was it for you?



Source: RICS (2020) 'The results of the RICS Modus Twitter poll on home working', *Modus*, 1 October, London: RICS.

**Related articles include: 'Will offices ever be full again?' and 'Out of office'... and never going back?'**

Please note: In addition to *MODUS*, RICS publishes other journals that are free to view online incl.

1. **Construction Journal** - The journal helps **quantity surveyors** and project managers with the technical and professional aspects of their day jobs and keep up to date with developments and practical matters in the profession. It covers topics including contracts, cost management, procurement, construction law and regulations, communications, and project management skills.
2. **Built Environment Journal** (Incl. Building Surveying, Building Conservation, and Building Control) - Coverage keeps practitioners in the disciplines of building surveying, building control, and building conservation up to date on the latest developments, products, standards, and guidance.
3. **Land Journal** - The journal emphasises the crossovers in these practice areas and their global nature, with articles contributed by experts from all over the ..
4. **Property Journal** - The journal contains high-quality technical material in clearly defined sections, as well as some material that crosses professional groups to reach a wider audience.

Further information can be accessed via the RICS Website, Home > News & Insights > **RICS Publications** [online].

The Heritage Alliance's (HA) **Heritage Update**, the latest edition, **February 2022 - Issue 462** focusing on – Lifting of COVID-19 Legal Restrictions; Further Reports into Pandemic's Impact on Sector; Changes to the Department for Culture, Media and Sport. Also: **Engaging Digital Audiences**, available on the **HA project portal** - access webinars on diversifying digital audiences, how to plan great webinars, how to use exceptions to copyright in

[Back to top](#)

your digital activities & how to encourage your audience to create user-generated content.

**Institute of Workplace and Facilities Management (IWFM)**

*Facilitate*, the latest **January/February 2022** edition focus is on 'Opportunity is knocking' – The global matters shaping 2022 are familiar though, alas, not comfortably so; there are sharp edges. Variants of the virus will keep us vigilant. Decarbonisation requires determined action. Supply squeezes, rising inflation and skills shortages will be testing. Yet looking ahead, IWFM is energised by the opportunities available to the profession and the potential to make critical contributions.

**Contractors World International**,

**Construction Management** (formerly *Construction Manager*) is the magazine of the Chartered Institute of Building (CIOB) who also publish the **Global Construction Review** (GCR). Note: Latest articles from both journals are covered earlier within this issue of *Knowledge Foundations*.

**Subscriptions available via the VLE e-Library include:**

**Construction Information Service (CIS) Insight 2022**. The Latest Edition [**March 2022**] focuses on – **IoT: 5G, Wi-Fi 6, mobile broadband, and construction**, and covers -

- **How the Internet of Thing can help small businesses and construction sites,**
- **Explores 5G, mobile broadband and Wi-Fi 6, and**
- **Benefits of adopting now.**

**Taylor and Francis Online** and include the following e-Journals:

- *Construction Management and Economics*,
- *Building Research and Information*, and
- *Journal of Property Research*

**Henry Stewart Publications** and include the following e-Journals:

- *Building Survey, Appraisal and Valuation*,
- *Journal of Urban Regeneration & Renewal*, and
- ***Corporate Real Estate*.**

***Corporate Real Estate Journal*** is the essential peer-reviewed, professional journal for corporate real estate executives.

Each quarterly 100-page issue publishes high quality articles and real case studies on new thinking, strategies, and techniques in corporate real estate. It cuts through the deluge of information facing corporate real estate professionals to deliver content, which is authoritative, practical, and relevant by providing a blend of genuine thought-leadership – which expands what can be achieved with corporate real estate – with detailed, actionable advice and 'lessons learned' from industry peers.

[Back to top](#)

In-depth articles and case studies scheduled for the new volume, **Vol 11 (2021-2022)** of ***Corporate Real Estate Journal*** incl.

**Editorial:** Safeguarding social wellbeing in the foreseen future of hybrid working.

**Editorial thought pieces**

1. The end of corporate real estate - revisited
2. The workplace post-COVID-19: Embrace the new normal or back to the future?
3. Diversity, inclusion, and effective business transactions

**Practice papers**

4. Workforce segmentation: Connecting workplace supply and demand,
5. Corporate headquarters leasing: Key considerations for a post-pandemic workplace,
6. New data sources in the age of hybrid work
7. Real estate-as-a-service: The servitisation-led transformation of corporate real estate
8. Change from crisis: CRE and smart building technology – the power duo supporting the hybrid work model
9. The innovation deficit: The importance of the physical office post-COVID-19.

**Book review:**

10. Elemental Change: Making stuff happen when nothing stands still by Neil User.

**Other articles from *Corporate Real Estate Journal* (2021)**

11. Information strategy in view of FM-futures: The evolving role of information systems in FM,
12. Why and how Skanska applied for a WELL Health Safety Rating,
13. Future proofing legal workplace strategies and real estate footprint,
14. Strategy and portfolio planning and whether a hub and spoke model is realistic,
15. A real estate investment perspective on value-added tools for corporate real executives,
16. Hybrid space making: Rethinking the bank branch experience for the digital age,
17. Corporate headquarters leasing: Key considerations for a post-pandemic workplace,
18. Ways to turn uncertainty into opportunity in corporate real estate,
19. Experiences of work from home: The future of distributed work locations – A comparative empirical analysis between the U.S. and Germany,

[Back to top](#)

20. How data analytics and change management are transforming the future of workplace,  
 21. Strategies for employee happiness and real estate optimisation in the post COVID office,  
 22. Best practices of commercial management of parking assets for corporate real estate investors, and  
 The innovation deficit: The importance of the physical office post COVID-19.

**Vol 11 (1) (2021-22)** of ***Corporate Real Estate Journal***  
**Vol 10 (4) (2020-21)** of ***Corporate Real Estate Journal***  
**Vol 10 (3) (2020-21)** of ***Corporate Real Estate Journal***.  
**Vol 10 (2) (2020-21)** of ***Corporate Real Estate Journal***, and  
**Vol 10 (1) (2020-21)** **Special issue: COVID-19, CRE and workplace response**

## HSTalks

© Henry Stewart Talks Ltd 2022

HSTalks is a member of the Henry Stewart Group which has been a leader in providing graduate and continuing professional education in science, business, and management for over 40 years through peer reviewed vocational journals (such as the *Corporate Real Estate Journal*), conferences and online education for medical schools, business schools, universities, government, and commercial enterprises in over 60 countries around the world.

Henry Stewart Talks Ltd (HSTalks) provides specially prepared, animated, online, audio-visual lectures, seminar-style talks and case studies that accompany the 'Business & Management Collection' of e-Journals that the UCEM e-Library subscribes to.

### **Educational Journal titles and Open Educational Resources (OERs) reviewed by UCEM e-Library**

**Open Praxis** – peer-reviewed open access scholarly journal focusing on research and innovation in open, distance and flexible education.



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[Back to top](#)

This latest *Open Praxis* issue includes eight articles: seven research papers and one book review, authored by 21 researchers from six different countries: Brazil, South Africa, Austria, USA, Turkey, and Malaysia. Keywords: open education; distance education; OER, MOOC, e-learning; online education.

**Vol 13(3)**, that includes 7 research papers –

The first two papers present two qualitative studies developed in courses or modules taught at distance education universities. The next two papers are related to MOOCs, and then two research papers are tied to the COVID-19 pandemic and its impact on education.

Finally, the latest contribution is a book review undertaken by NorHafizah Ashar and M. Khalid M. Nasir (*Book Review of Evaluating Online Teaching: Implementing Best Practices*). The book was published in 2015 but gains relevance now that online education has become widespread.

**Research articles include:**

1. 'Assessment, Interaction and Technology in Distance Education: A Netnographic Study at a Brazilian Virtual University,
2. 'Fostering Symbiosis Between e-tutors and Lecturers of an English Studies Module at an Open Distance Learning University in South Africa,
3. 'OER Certification of Individuals and Organisation in Higher Education: Implementations Worldwide',
4. 'Systemic Tensions in the MOOC Design Cycle: An Activity Systems Analysis upon Implementing edX for Latin America and the Caribbean',
5. 'Surfing on Three Waves of MOOCs: An Examination and Snapshot of Research in Massive Open Online Courses',
6. 'A Classification Approach with Machine Learning Methods for Technical Problems of Distance Education: Turkey Example',
7. 'Faculty Support in Higher Education Provided by University Administration during Emergency Remote Teaching: A Case Study'.

**European Journal of Open, Distance and E-Learning**

(EURODL), an electronic, multi-media, open access journal. It publishes the accounts of research and presents scholarly work and solid information about open, distance, online and e-learning in technology-enhanced education and training in its most inclusive definition.

Published in the **Latest Issue of EURODL**, **Vol. 23 (2021): Issue 2 (Jan 2021)**, article titles include:

- 'Building Digital Capacity for Higher Education Teachers: Recognising Professional Development Through a National Peer Triad Digital Badge Ecosystem',
- 'Cultivating Self-Regulated Learning in Flipped EFL Courses: A Model for Course Design',

[Back to top](#)

- 'Transcript and Accessibility: Student Views from Using Webinars in Built Environment Education', by UCEM's Tharindu R. Liyanagunawardena
- 'Vector AR3-APP – A Good-Practice Example of Learning with Augmented Reality',
- 'Educators' Digital Competence in Swedish Rural Schools',
- 'Proposition for the Introduction of the Concept Telemathesis in Videoconferencing in Distance Education',
- 'Developing E-Authentication for E-Assessment'
- 'Diversity of Students Testing the System in Higher Education'.

### **Online Learning Journal (OLJ), the official journal of the Online Learning Consortium (OLC)**

The **Online Learning Consortium's** premier journal dedicated to the development and dissemination of new knowledge at the intersection of pedagogy, emerging technology, policy, and practice in online environments.

The OLC **Online Learning Journal**, latest edition, **OLJ 2022 Vol 26(1)**. This special issue is the first in OLC's 26<sup>th</sup> volume and contains a selection of papers advancing understanding of the Community of Inquiry (Col) model. Specifically, this special issue includes seven papers that develop new perspectives on conceptualizations and processes related to *cognitive presence*.

The first paper, by the pioneer of the Col framework, Dr. Randy Garrison, is a theoretical analysis on shared metacognition and its function within the community of inquiry theoretical framework. The next five papers in the issue are focused on empirical research that identify strategies to facilitate or analyse cognitive presence. These strategies include

1. self-regulation and co-regulation reflection strategies (Villanueva et al.),
2. case-based discussions and project-based collaborative learning (Ozogul et al.),
3. machine learning models and learning analytics (Lee et al.),
4. learning analytic-based elaboration feedback (Alwafi), and
5. a structured online peer evaluation system (Wilkinson).

The seventh and final paper in the special issue is focused on a systematic review that synthesized empirical research on ways to develop cognitive presence in online courses (Moore & Miller).

In addition to the special issue section, this issue of *Online Learning* also contains a series of articles accepted through our regular submission process. These articles examine MOOCs, blended learning, online instruction, remote education, and include additional research on other facets of Community of Inquiry framework.

Some of the articles include:

- 'Advances in Cognitive Presence: Introduction to OLJ Special Issue',
- 'Perceived and Actual Cognitive Presence: A Case Study of an Intentionally-Designed Asynchronous Online Course',
- 'Designing an Online Discussion Strategy with Learning Analytics Feedback on the Level of Cognitive Presence and Student Interaction in an Online Learning Community',
- "Simplicity is Key": Literacy Graduate Students' Perceptions of Online Learning.
- 'Fostering Cognitive Presence in Online Courses: A Systematic Review (2008-2020)'.

[ISSN: 2472 – 5730]

[Higher Education Pedagogies](#), an Open Access Journal.

[Henry Stewart Publications](#), Management e-Journal collection incl. *Journal of Education Advancement & Marketing*.

[The Open Education Research Hub](#) (OER Hub), and

[The Directory of Open Access Journals](#) (DOAJ)

[Back to top](#)



## e-Book Review

### Managing Diversity and Inclusion in the Real Estate Sector

Clack A and Gabler J (2019) *Managing diversity and inclusion in the real estate sector* [e-book], Oxon: Routledge. e-ISBN-13: 9780429428975

Research shows that high-performing organisations focus on diversity and inclusion (D&I). In any workplace, it is important to both understand and recognise the benefits that having a D&I workforce provides. It is integral to developing people within an organisation, serving clients as best we can, and playing an important leadership role in communities.

*Managing diversity and inclusion in the real estate sector* is the first to place D&I at the centre of successful real estate and construction organisations. It provides guidance to, and most importantly, actions for professionals in the sector who want to make D&I an inherent part of the culture of their organisation. This book has been written to bring the sector up to speed with what D&I is all about and how a D&I strategy can be implemented to secure future success.

This book is essential reading for all property leaders and professionals working in the real estate and construction sectors. Readers will gain especially from personal reflections on all aspects of diversity by a broad range of people working in the property industry.



[Back to top](#)

## Real Estate: The Basics

Forsyth, J. and Wilcox, J. (2022) *Real Estate: The Basics*, Oxon: Routledge. ISBN-13: 9780367725433

*Real Estate: The Basics* provides an easy-to-read introduction to the core concepts of the industry to students new to the subject or professionals changing direction within the sector. Note: This book would not have been written if it were not for some students on UCEM's 'Property Transactions' module –some of them are anonymously quoted in the Introduction.

The book encapsulates the key 'need to know' aspects of Real Estate including the 'language' of real estate; its value and contribution to countries' GDP; its primary purpose, whether as an asset or as a resource; valuation concepts; asset classes; basic concepts of land law, and of landlord and tenant law; the increased role and importance of sustainability and technology; and an overview of the wide range of professionals involved in the industry.

**Note:** Introductory offer 25% off *Real Estate The Basics* for a limited period. Go to [Routledge.com](https://www.routledge.com) and use the code **REB25**.

## Studying at a Distance

Talbot C (2010) *Studying at a Distance* [e-book]. Maidenhead: Open University Press, e-ISBN-13: 9780335238057

This essential guide provides practical help and support for those who have not previously studied at a distance and is ideal for students returning to study after a break. It covers fundamental issues such as motivation, goal setting, time management and coping strategies. Additional coverage in this edition includes specific information on the use of new technologies in distance learning; detailed coverage of referencing, citation, and plagiarism; description of using mind maps and other techniques for planning and writing essays or reports; support for disabled students, particularly those with dyslexia; and a further resources section.

## Adding some Tec-Variety: 100+ Activities for Motivating and Retaining Learners Online

Bonk C J, and Khoo E R (2014) *Adding some Tec-Variety: 100+ Activities for Motivating and Retaining Learners Online* [e-book]. CreateSpace Independent Publishing Platform, e-ISBN-13: 9781496162724. [Access the free online book Adding Some TEC-VARIETY](#)

Please note: The authors have made an online version of this work available under a [Creative Commons Attribution-Non-Commercial-Share-Alike 3.0 Licence](#).

## Directory of Open Access Books (DOAB)

The primary aim of DOAB is to increase discoverability of Open Access books.

[Access the Directory of Open Access Books \(DOAB\)](#)

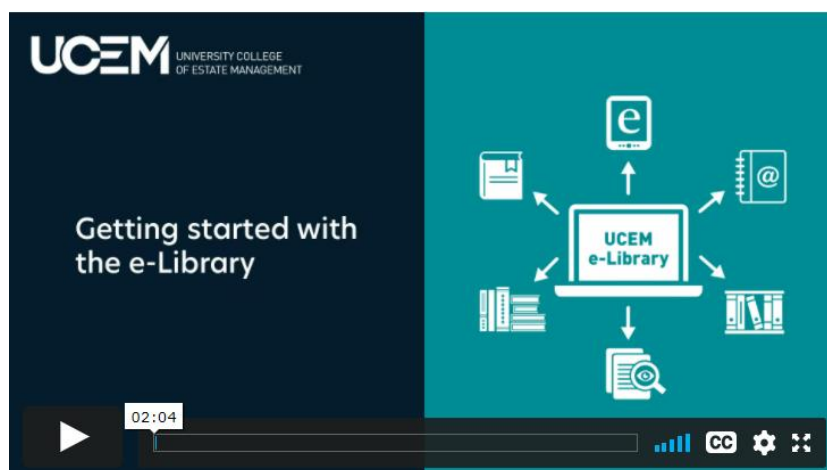
[Back to top](#)

## UCEM e-Library Portrait

### The aim of the e-Library

The aim of the e-Library is to:

- disseminate information, share good practice, and promote current awareness to assist in underpinning written work,
- add value and depth to our students' study experience, and
- support the continuing professional development of all those working and aspiring to work in the built environment.



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Source: UCEM (2022) *Getting started with the e-Library* [video], YouTube. Available at: [www.youtube.com/watch?v=iEg8DFUFIfY&t=5s](https://www.youtube.com/watch?v=iEg8DFUFIfY&t=5s) [accessed 31 March 2022].

At UCEM, we recognise that in an information-rich age and when everyone is pressed for time, it can be a challenge to find good-quality information when you need it.

Whether you are obtaining a qualification, undertaking CPD or researching a particular field, having access to a well-equipped library is essential.

The UCEM e-Library (accessed through the Virtual Learning Environment - VLE) is a comprehensive and valuable online resource, enabling students to access a wealth of subject-specific and credible information to support them throughout their studies and career development.

### What resources are available in the UCEM e-Library?

The e-Library is made up of 11 sections and provides students with around the clock access to online searchable databases from key industry and educational sources, thousands of journals, books, and resources, UCEM's entire collection of study materials and published work and UCEM's dissertation library.

[Back to top](#)

**The sections that make up the UCEM e-Library:**



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**Resources available within the UCEM e-Library include** Up-to-date information and online searchable databases from –

**Key educational sources** that include- Taylor and Francis Online, Ingenta Connect, Henry Stewart Publications and HS Talks, vLex | Justis, Westlaw EDGE UK, EBSCO Business Source Premier, Emerald Insight - access to around 2600 e-Book titles and their entire 'Property Management and the Built Environment' collection of journals, and

**Industry-specific sources** that include- IHS's Construction Information Service, *Estates Gazette* (EG) digital journal and EG Radius, *Property Week*, RICS's BCIS – Building Cost Information Service and ISURV online information service, NEC - New Engineering Contract Academia, BSRIA – Building Services Research and Information Association, and more.

**Where to find help - Overwhelmed by the sheer amount of information out there?**

Not only do libraries provide us with books to read, but they are valuable tools and resources. The UCEM e-Library is continually striving for improvement and changing to meet the demands of today's technology and ever-expanding volumes of knowledge creation.

The e-Library is here to help make finding up-to-date, credible, and relevant information easier. Access the [2022 e-Library interactive brochure](#) for further information.

[Back to top](#)

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### **Emerald Insight – the online platform for Emerald Publishing**

Emerald champions new ideas in advancing the research and practice of business and management, and manages a portfolio of nearly 300 journals, including a 'Property Management and the Built Environment' collection that UCEM subscribes to.



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Emerald works in close collaboration with numerous academic (including UCEM) and corporate organisations worldwide. Emerald Publishing endorses the e-Library's tailor-made research reports – a service provided to UCEM tutors to help supplement teaching and learning materials on subject-specific areas.

**[March 2022]** - Here are some Open Access Journal articles available via Emerald, all around the theme of '**Online Learning Pedagogy**'. **Note:** The following article examples are freely available via **Emerald Publishing Open Access:**

1. Bordoloi R, Das P, and Das K (2021), 'Perception towards online/blended learning at the time of Covid-19: an academic analytics in the Indian context, **Asian Association of Open Universities Journal**, Vol. 16 No. 1, pp. 41-60. Emerald Publishing Ltd.
2. Joshi M S (2021), 'Holistic design of online degree programmes in higher education – a case study from Finland', **International Journal of Educational Management**, Vol. 36 No. 1, pp. 32-48. Emerald Publishing Ltd.
3. Chen C, Landa S, Padilla A and Yur-Austin J (2021), 'Learners experience and needs in online environments: adopting agility in teaching', **Journal of Research in Innovative Teaching & Learning**, Vol. 14 No. 1, pp. 18-31. Emerald Publishing Ltd.



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**Remember:**

“A Librarian is a powerful search engine with a heart, that listens and understands the library and information requirements of others and provides a response in a format that suits their needs” says Lucy Roper, UCEM Information Governance Manager and who can be contacted on the [library@ucem.ac.uk](mailto:library@ucem.ac.uk) email address

[Back to top](#)

## Student Career Services

### UCEM Career Services

UCEM Career Services is part of the Student Outreach Team and Student Services. They offer careers Information, Advice and Guidance (IAG) to potential, current and past students. The service is confidential, non-judgmental, and impartial.

[Access and read the UCEM Careers interactive brochure](#)

[Access UCEM Career Services](#)

### Building Better Property Professionals



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Property Elite's sole aim is to build better property professionals – supporting your career every step of the way, whether you are completing a RICS accredited degree course, your RICS Assessment of Professional Competence (APC) or simply seeking engaging Continuing Professional Development (CPD).

[Property Elite](#) provides training and CPD services for property professionals, including students, APC candidates and corporate clients.

Their Hot Topic Highlight blog posts will arm you with the information on the hottest topics – ready to tackle an important

[Back to top](#)

client meeting or begin revising for your RICS APC final assessment.

This month [**March 2022**] the **Hot Top Highlight – IPMS Update**

In this latest blog article, Property Elite take a look at the latest International Property Measurement Standards (IPMS) update.

This is essential reading for all RICS APC and Assoc RICS candidates undertaking the Measurement competency, as well as qualified Chartered Surveyors.

**What current guidance must be followed?**

Clearly understanding and applying the latest RICS measurement guidance is a common source of confusion for RICS APC and AssocRICS.

Candidates must follow RICS Property Measurement (2<sup>nd</sup> Edition), which incorporates IPMS for Residential and Office Buildings. These are of mandatory application and must be reported when measuring these types of buildings.

Candidates can dually report if requested by a client (or make a departure, if justified) to both IPMS and the Code of Measuring Practice bases. For example, an office could be dual reported to IPMS 3 and NIA or a residential house could be dual reported to IPMS 38 and GIA.

Also covered within this blog:

- What's new?
- What bases does IPMS Retail Buildings include?
- What bases does IPMS Industrial Buildings include?
- What bases does the draft IPMS All Building Asset Classes include?
- Where to find further information, advice and guidance.

**Further details and access to the Property Elite Hot Topic Highlight blog: RICS Red Book Global 2022 Update.**

Also: **[Property Elite Hot Topic Highlight blog: RICS Red Book Global 2022 Update](#)**, and **[Access Property Elite's 'Building Better Property Professionals', Latest Blogs](#)**

**Note:** The author of most of these blogs, Jen Lemen-Hogarth is an Associate Tutor – UCEM and Partner – Property Elite.

**Lucy's Top Tips** – If you are planning to sit your RICS APC/AssocRICS, make sure you are aware of Property Elite's APC Support services, including submission reviews, question packs, revision quizzes and e-mock interviews (available via the e-Library).



[Back to top](#)

You can also download this blog [in audio format](#) and listen whilst on the move. When you're done, you can request further information and a free CPD certificate.

### **Other related web-links**

Gerrard N (2022) '[CM reader survey: 'We're creating people's dreams'](#)', *Construction Management*, 3 January - What CM readers like most about a career in construction management.

[GoConstruct.org](#) website showcases the many career opportunities available in construction and the built environment. The website helps to meet the future skills needs of the industry.

[TARGETjobs](#) – All TARGETjobs graduate career guides and directories are available for you to view online and download for future reference and include [Explore Property](#), [Explore Engineering](#), [Engineering 2021](#), and [Careers Survival Pack](#).

[House Building Careers](#) – Part of Home Builders Federation (HBF), here you will be able to learn about the home building industry and how it benefits you, your community, and the country as a whole.

[Access to: RICS Careers](#) – What is surveying? See how surveyors shape our communities and tackle global issues like climate change – and discover how you can improve the world around you.

### **Building People**

[Enabling connections for a competent, diverse, and valued built environment workforce](#)



© UCEM 2021

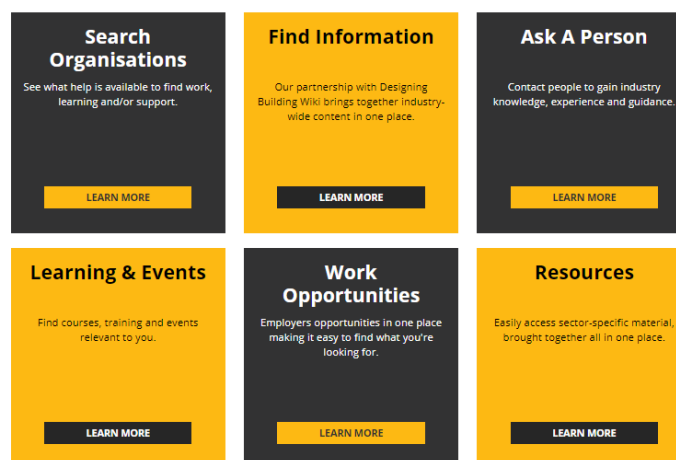
The aim of 'Building People' was to create a technology platform and collaborative network, that enables connections and seeks to reduce the skills shortages across the Built Environment. 'Building People', a social enterprise that aims to connect people traditionally not involved in the Built Environment sector with employers seeking to plug the skills gap via an online platform.



[Back to top](#)

### People Wiki:

#### What are you looking for?



© Building People 2021

The UK needs to build, but there is a shortage of competent and experienced workers, and the workforce we have lacks diversity. Building People joins the dots to help people find employers, opportunities, and resources, and to help employers engage with a more diverse range of talent.

People Wiki (a free, open access knowledge sharing platform for diversity and inclusion, skills and careers, and social value.) is a crucial part of Building People's ambition to create a single platform that brings together a multitude of previously fragmented information, knowledge, resources, opportunities, and needs focused on diversity and inclusion, skills and careers, and social value.

#### **Related Link:**

#### **UCEM incubate social enterprise, Building People, becomes a fully-fledged success story**

Building People, whose mission is to improve equality, diversity, and inclusion in the built environment, is now an independent entity.

Since its inception in 2018, UCEM has provided the enterprise with office space, founder job security and donations totalling £150,000. This gave Building People the perfect platform to deliver its collaborative 'dot-joining' activity, connecting people to opportunities across the built environment and enabling employers to engage with a more diverse range of talent.

With strong levels of support coming in from across the sector, both parties are in agreement that now is the time for Building People to fledge the nest and become a separate entity.

It is an exciting time for the social enterprise as it announces its three-year plan, which focuses on five key areas:

1. **Profile:** Positioning Building People as the go-to source for equality, diversity and inclusion best practice and activities, and though leadership in the built environment,
2. **Partnerships:** Delivering maximum joined-up impact through the growth and development of Building People's supply and demand networks,
3. **People:** Enabling equality of opportunity through the provision of a simpler and more supported user experience in a fragmented careers landscape,
4. **Policy:** Aligning with and supporting the achievement and enhancement of relevant national sector policy and activity, and
5. **Planning:** Establishing a secure future of Building People as a sector-backed movement for collaborative change across the built environment.

Access the article '[UCEM incubated social enterprise, Building People, becomes a fully-fledged success story](#)' in full.

[Back to top](#)



## UCEM Sustainability Hub

Sustainability supports UCEM vision and core purpose to provide truly accessible, relevant, and cost-effective education, enabling students to enhance careers, increase professionalism and contribute to a better built environment.

UCEM has a Sustainability Hub within the VLE e-Library where you will find interesting resources, news, articles, projects and publications which support and information 'future skills' for sustainability within the construction, surveying, and property industries.

### Building Research Establishment (BRE) Sustainability

- Access BRE Sustainability: Practical guidance and support for delivering genuine sustainability benefits.

Greater sustainability and its many benefits can be achieved for all buildings, homes, organisations, and communities. The BRE provides leading edge information and advice on all aspects of sustainable that include – Sustainable construction of buildings, Communities, Infrastructure, Sustainable organisations, Materials, products and services, Waste management, Energy management services, and Training and publications.

[Access BRE Sustainability](#)

[Back to top](#)

## The Routledge Sustainability Hub

The Routledge Sustainability Hub is an innovative Knowledge Centre for the global sustainability community, this Hub offers a wide range of resources for everyone – whether you are a teacher, a student, a professional or a citizen of the earth curious to discover more about the many facets of sustainability.

### [Access the Routledge Sustainability Hub](#)

## The Green Agenda

Within the Savills Market Trends – ‘Real estate investment in 2021: global outlook’ (mentioned earlier within this issue of *Knowledge Foundations*) they covered ‘The Green Agenda’ Despite the challenges of 2020, the rising importance of environmental, social and governance (ESG) credentials for investors has continued to grow.

Across the globe, governments are making ‘climate emergency’ declaration and commitments to meeting net zero carbon in certain timeframes. To honour these commitments, new investment into green technology, energy and much more has been announced but also an increasing amount of regulation.

Real estate is under the spotlight as the built environment accounts for 40% of carbon emissions across the world. This will present challenges but it’s also an opportunity for real estate investors to make a significant difference.

### [Read the Market Trends – ‘Real estate investment in 2021: global outlook’, in full.](#)

## UCEM signs up to CIC’s new ‘carbon zero’ climate action plan

UCEM is one of the institutions which has signed up to the Construction Industry Council’s (CIC) new climate action plan.

CIC’s Climate Change Panel, chaired by its deputy chairman, Stephen Hodder MBE, led on the initiative, with signatories to the plan agreeing that:



**Carbon Zero: the professional institutions' climate action plan**

The signatories to this Action Plan agree that:

- the actions listed are necessary for dealing with the challenge of climate change;
- they will implement those actions appropriate to them as an institution/organisation; and
- they will support the other signatory institutions and organisations in delivering the remaining actions

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[Back to top](#)

The document, entitled 'Carbon Zero: the professional institutions' climate action plan', was released last week and coordinates the efforts of built environment institutions in meeting the UK government's 2050 net zero emissions target.

To read the plan, head to the [CIC news story – 'CIC launches a Carbon Zero climate action plan for Professional Institutions'](#).

[Access the article 'UCEM signs up to CIC's new 'carbon zero' climate action plan' in full.](#)

## **UK sets 'most ambitious' climate target to cut emissions by 78% by 2035**



[Image: courtesy Ed Hawkins]

(Climate stripes as shown in this image are sometimes referred to as warming stripes, or climate timelines and are data visualization graphics that use a series of coloured stripes chronologically ordered to visually portray long-term temperature trends.)

The UK government has set the 'world's most ambitious' climate change target into law to slash emissions by 78% by 2035 compared to 1990 levels. In line with the recommendation from the independent [Climate Change Committee](#), this sixth Carbon Budget limits the volume of greenhouse gases emitted over a 5-year period from 2033 to 2037, taking the UK more than three-quarters of the way to reaching [net zero by 2050](#). For the first time, this Carbon Budget will incorporate the UK's share of international aviation and shipping emissions.

On **Earth Day (22 April 2021)** Prime minister Boris Johnson urged countries to raise ambition on [tackling climate change](#) and join the UK in setting stretching targets for reducing emissions by 2030 to align with net zero.

The government is already working towards its commitment to reduce emissions in 2030 by at least 68% through the UK's latest Nationally Determined Contribution. The latest announcement builds on this goal to achieve a 78% reduction by 2035. The new target will become enshrined in law by the end of June 2021.

- **Raising the bar on tackling climate change**
- **Government must clearly map out how it plans to tackle the carbon emissions'**

[Access further information and the \*PBC Today\* article, 'UK sets 'most ambitious' climate target to cut emissions by 78% by 2035', in full.](#)

[Back to top](#)

## China Dialogue – Policy briefing: EU-China climate engagement

- This briefing examines the policies driving decarbonisation in the EU and China, and the synergies and gaps that are shaping their cooperation.

[Access China Dialogue reports online.](#)

## QSAND and the Sustainability Goals

The UN Sustainable Development Agenda, adopted by world leaders in 2015, maps out a 15-year plan to fight inequality, end poverty and tackle climate change challenges.

Quantifying Sustainability in the Aftermath of Natural Disasters (QSAND) is a self-assessment tool to promote sustainable approaches and contributing to aid the achievement of several of these 17 goals in disaster affected global communities:

### Libraries' contribution to SDGs

**Agenda Vision:** Universal literacy

**Goal 3:** Good health and wellbeing

**Goal 4:** Contribution to quality education

**Goal 5:** Culture

**Goals 5, 9, 7:** ICT skills and access

**Goal 8 & 10:** Decent work, economic growth, reducing inequality

**Goal 16:** Access to information

**Note:** Information plays a vital role in just about everything we do.



(UN.org 2022)

Source: Designing Buildings .co.uk Wiki (2019) 'Forgetting the big picture when considering sustainability' [online], last edited 31 March. Note: "The Sustainable Development Goals icons and colour wheel are free to use" (UN.org 2021)

[Back to top](#)

**Note: Use of Wikis as a reference site** – Wikipedia and use of other Wikis are increasingly being used by people in the academic community, as an easy source of information about anything and everything. However, citation of Wikipedia may not be considered acceptable, because Wikipedia is not a creditable source. It is important to note that whilst Wikipedia may be one of the Web's most popular reference sites, it is not classed as a credible resource because anyone can be a contributor to the website.

This can be avoided by following two simple rules:

1. Remember that an encyclopaedia (which include Wikipedia and any other Wiki) can be a good starting point for research, and not an ending point.
2. An encyclopaedia can be good for getting a general understanding of subject before you extend your study of the subject further. But you then must consider the subject in more depth using books, journals articles and other appropriate and credible resources. What you find in these other sources of information will be more detailed, more precise, and more carefully reasoned than the summary you found in an encyclopaedia. The sources you reference/cite in your work will therefore be these more detailed sources you have used.

**Book Review:****Climate Adaptation: accounts of resilience, self-sufficiency and systems change**

Thakore, Dr. R., Barinaga E [et al.] [Climate Adaptation: accounts of resilience, self-sufficiency and systems change](#) [print book], Arkbound Foundation, ISBN: 9781912092123

- Where is the world really heading, and what can we do about it?

This book takes an unflinching look at climate change, drawing upon the latest data to analyse what the next decades hold in store. With atmospheric CO<sub>2</sub> at unprecedented levels and insufficient action being taken to prevent a rise in temperatures above 2 degrees centigrade, we are not just looking at significant disruption but the possibility of societal collapse. For the first time ever, the magnitude of this challenge is faced head on, with avenues to truly address it presented. Case studies and models from 16 authors around the world show ways that we can build adaptation and resilience, as well as what 'zero emissions' really mean. The book also provides a platform for those from a range of diverse backgrounds, whose unique experience and knowledge brings vital new perspectives.

**Please note:** Further information is also available later in *Knowledge Foundations* and can be found within the **UCEM e-Library Sustainability Hub**.



[Back to top](#)

## Information Governance

UCEM is committed to advancing information governance and compliance, ensuring that the services provided comply with the General Data Protection Regulation (GDPR), Data Protection, Freedom of Information, Records management, Copyright, and Information Security.

### Information Governance:



© 2020 iStockphoto LP. Royalty free

[image](#)

To make sure that information is available in the right place and at the right time to support others, the e-Library ensures that the information services comply with data protection and copyright.

## Data Protection

With new technologies constantly emerging and us finding ourselves moving further into an ever more digital direction, our personal data, how it is used and who has access to it becomes a growing and global concern for all.

The General Data Protection Regulation (GDPR) was the first legislative change in recent years to address these concerns, with a broad aim to invoke a cultural shift in the way organisations manage personal data.

Further information, advice, and guidance on Data protection, GDPR and more can be found at the Information Commissioner's Office (ICO), the UK's independent authority set up to uphold information rights in the public interest, promoting openness by public bodies and data privacy for individuals.

[Access the Information Commissioner's Office website](#)

## Latest Data Protection News [March 2022]

### BBC News: Redcar and Cleveland Council: Four serious data breaches reported

- Redcar and Cleveland Borough Council had to report four series breaches of personal data to the Information Commissioner's Office (ICO) last year (2021) **Keywords** include – [Data Breaches](#).

[Access the BBC News article, 'Redcar and Cleveland Council: Four serious data breaches reported', in full.](#)



[Back to top](#)**ICO Latest News [March 2022] -**

28 January 2022 – **Your views matter: Information Commissioner to conduct major listening exercise.** Newly appointed Information Commissioner John Edwards has announced a major listening exercise to hear from businesses, organisations and people about their experiences of working with the ICO.

14 September 2021 - ICO Blog: **Sharing personal data in an emergency – a guide for universities and colleges.**

11 August 2021 – **ICO consults on how organisations can continue to protect people’s personal data when it’s transferred outside of the UK**

**Access the Information Commissioner’s Office, ‘News, blogs, and speeches’ section of their website**

**Further information, advice, and guidance (IAG) provided by the ICO**

The ICO publish detailed IAG on:

- **Guidance on direct marketing and the public sector** (ICO, August 2021)
- **Sharing personal data with law enforcement authorities,**
- **Data sharing and reuse of data by competent authorities for non-law enforcement purposes,**
- The **Accountability Framework**, (ICO, September 2020),
- **Codes of conduct** and **certification schemes**. (ICO, February 2020)
- When using data analytics on personal data, the ICO is urging all organisations to look at its toolkit. It can be found at **ICO > For Organisations > Toolkit for organisations considering using data analytics** (ICO, February 2021)
- **Freedom of Information Self-assessment toolkit** launched in 2020 helps identify gaps in compliance.
- Further updates have been made to **guidance for handling Subject Access Requests** including a **step-by-step guide for small businesses**
- **Building a controller-to-controller contract** + template contract with guidance

**ICO What’s new? [March 2022]**

The Information Commissioner’s Office (ICO) website has a ‘What’s new’ section that is updated on a regular basis to highlight and link to any changes in their **ICO Guide to Data Protection** as they occur, for example: In April 2021 – The ICO have published guidance on the **National Security Provisions** in Part 3 of the DPA18 and updated the **Guide to Intelligence Services Processing**.

[Back to top](#)

The ICO have published:

**March 2021** – Guidance on the [national security exemption](#) in Part 2 of the DPA18.

**January 2021** - Updated BCR communication following the EU-UK Trade and Co-operation Agreement to the [International transfers after the UK exit from the EU Implementation Period](#).

**December 2020** - [Data Sharing Code of Practice](#), alongside a [data sharing information hub](#) with further resources and support.

**Further guidance provided by the ICO.**

[Read the Blog: ‘Access to information: driving change through education, engagement and enforcement’, in full](#)

## Copyright



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“It is important to remember that Copyright material in digital form is protected in exactly the same way as Copyright material in any other format. For example, text and images on a website are protected by copyright in the same way as printed material. Please note: if there is something you really want to use for learning materials and someone else owns the copyright ... [permission must be sought!](#)”

The copyright owner may wish to charge you, but often they just appreciate you asking them if they are happy for you to acknowledge their work and inform them of how the information will be used and who it will be circulated to”.

Source: Salmon, Prof. G., (2013), *E-tivities*, London: Routledge

***Introducing Copyright: A plain language guide to Copyright in the 21<sup>st</sup> Century*** - Computers and the Internet have transformed the way we produce and distribute information and entertainment. This book explains copyright protection and what it means for copyright holders and copyright users. It also introduces readers to contemporary topics: (i) digital rights management, (ii) open licences, (iii) software patents & (iv) copyright protection for works of traditional knowledge.

Source: Hofman J (2009) *Introducing Copyright: A plain language guide to Copyright in the 21<sup>st</sup> Century* [e-book], Vancouver: The Commonwealth of Learning.

 **creative commons** [CC-BY-NC-ND](#)

[Access free copies of this book \(in PDF and EPUB formats\)](#)

[Back to top](#)

## **The Copyright Licensing Agency Ltd (CLA)**

The CLA are a licensing body as defined by the Copyright, Designs and Patents Act 1988 c.48 (as amended) ["CDPA"]

The CLA licence organisations to copy and re-use extracts from print and digital publications on behalf of copyright owners – authors, publishers, and visual artists. By 'copying' the CLA means photocopying, scanning and re-use of content from magazines, books, journals, electronic and online publications, as well as press cuttings or documents supplied by a licensed third party.

Having a CLA licence helps to reduce the risk and potential cost of copyright infringement. This requirement applies to any organisation in the business, education, public or charitable sectors. **Note:** UCEM holds a **CLA 'Higher Education Photocopying and Scanning Licence'**

[Access the Copyright Licensing Agency website for further information](#)

## **CLA Title Search tool**

The [CLA Title Search tool](#) is an online search tool that lets you quickly find out what you can copy under your organisation's CLA licence. Whether you'd like to photocopy and distribute an article to colleagues or upload a report to an intranet or VLE, the CLA Title Search simplifies the steps required to ensure compliance.

[Check permission at CLA Higher Education Licence.](#)

[Introducing the CLA Step-by-Step Guide and Interactive Toolkit for those checking permissions within their licence.](#)

## **Latest Copyright News**

### **Article 13: UK will not implement EU copyright law.**

- Universities and Science Minister Chris Skidmore has said that the UK will not implement the EU Copyright Directive after the country leaves the EU.

Several companies have criticised the law, which would hold them accountable for not removing copyrighted content uploaded by users if it is passed. EU member states had until 7 June 2021 to implement the new reforms, with UK having left the EU by then.

[Read the full BBC Technology news item 'Article 13: UK will not implement EU copyright law'](#)

[Read the latest 'BBC Copyright News'](#)

### **Government Guidance – Changes to copyright law from 1 January 2021**

- This guidance covers the impacts on UK right holders, businesses, cultural heritage institutions and consumers. Note: It is not legal advice.

[Back to top](#)

[Access the GOV.UK 'Changes to copyright law from 1<sup>st</sup> January 2021', in full.](#)

**Keeping abreast of the latest developments in Information Governance:** [Copyright Resources](#) – Naomi Korn Associates has developed free and openly licensed copyright, licensing and data protection help resources.

### Copyright & Information Technologies in Education (CITE)



© CLA 2020

The CITE Forum is a place to discuss the CLA's technology and licence offerings (such as the Digital Content Store) but also an opportunity for Higher Education Institute's to network, share and disseminate relevant copyright information.

As UCEM Information Governance Manager I regularly attend the Copyright Licensing Agency (CLA) CITE Forum and presented on- '[UCEM's e-Library: Our Story So Far](#)', at the [CITE Winter 2021 Forum](#), held in November 2021. *Source:* CLA (2021) [UCEM e-Library: Our story so far](#), a presentation given at the Winter 2021 CITE Forum [video], YouTube. Available at: [www.youtube.com/watch?v=GmuENZHeGO0&feature=youtu.be](http://www.youtube.com/watch?v=GmuENZHeGO0&feature=youtu.be) [accessed 1 December 2021]. **Ref: From 58:05 until 1.28:41.**

- Copyright Licensing Agency (2019) '[CITE – 2020 Vision](#)', [CITE Magazine, Winter 2019, No. 3](#) [online].
- Copyright Licensing Agency (2019) '[A CITE to behold](#)', [CITE Magazine, Summer 2019, No. 2](#) [online].
- Copyright Licensing Agency (2018) [CITE Magazine - A biannual magazine for the CITE Community, Winter 2018, No. 1](#) [online].

UCEM is committed to advancing information governance and compliance, ensuring that the services we provide comply with **GDPR, Data Protection, Records Management, Copyright, and Information Security**.

Part of my role as involves keeping abreast of the latest developments and benchmarking the work I do against that of others. I also undertake regular Continuing Professional Development (CPD), and an element of this is attending the CITE Forum attending events and conferences provided through my professional body, CILIP – The Library and Information Association, and others.

### CILIP's National Copyright Conference 2021

This national conference was held on 10<sup>th</sup> May and in association with Naomi Korn Associates, as well as great speakers and further experts in the field in attendance. This conference provided an opportunity to delve deeper into copyright issues and gain a better.

[Back to top](#)

understanding of how policy impacts on libraries and the information sector and covered the following:

- The impact of Brexit on the copyright law in the UK.
- Responses to Covid in the provision of access and use of copyright resources.
- The crucial role of the copyright exceptions.
- Familiarised with key issues on the horizon such as Plan S.
- Current legislative, licensing and publishing related landscape and the latest copyright research and how these might impact your day-to-day work.

Sessions covered broad copyright impact for the profession incl.

- **Keynote: Who's afraid of the copyright wolf: research, access, and respect**

Much of the digitisation landscape is dictated by copyright, particularly for 20th century content. For researchers, this can create complex barriers to access to either individual collections item, or aggregated collections data, that are often confusing to navigate. For researchers working in the Digital Humanities, access to materials can dictate project direction, or the questions that can be asked via digital methods. In this talk, *Professor Melissa Terras*: Professor of Digital Cultural Heritage, University of Edinburgh reflected on how copyright has shaped her research projects - and also, how the perceived boundaries of copyright affect the research environment. The fear of copyright affects both researchers and institutions: Terras asks if the framing of forceful copyright restrictions can also be replaced with stressing the contribution institutions make to safeguarding and stewarding collections for ongoing research access.

- **Brexit, orphan works, and your next steps**

*Naomi Korn*: Naomi Korn Associates analyses the UK Government response to leaving the EU and its position on orphan works. Based on key questions Naomi is answering as part of her part-time PhD research at the University of Edinburgh, Naomi will outline next steps and suggest what you might want to think about doing next.

- **Exceptions to Copyright**

In this talk, *Dr Jane Secker*: Senior Lecturer in Educational Development, City, University of London, and *Chris Morrison*: Copyright and Licensing Manager, University of Kent spoke about the ways in which educational establishments have addressed copyright issues associated with the shift to online learning. They discussed the importance of educational exceptions as a vital supplement to the use of licensed resources to enable the use of images, printed materials, and audio-visual content to teach online.

[Back to top](#)

- **Open Access and Plan S**

The open access debate of the past two decades has raised issues around long-standing assumptions regarding copyright in scholarly journal articles. This has intensified as funders have looked to using rights as a way to promote greater open access. This talk by **David Prosser** *Executive Director, RLUK* looked at the current state of the debate through the lens of recent policy from cOAlition S.

- **Bumps in the road: copyright responses to COVID in Higher Education**

Many aspects of our daily lives have been disrupted in some way over the course of the pandemic and copyright services are no exception. For those of us working in higher education institutions the sudden shift to online resource provision has meant that we need to work to adapt and enhance our provision in response to the lack of access to physical materials. At the same time, we need to manage expectations in terms of the availability of online materials and educate both users and staff in a constantly changing environment.

This talk by **Claire Sewell**: *Research Support Librarian for Physical Sciences, Cambridge University*, and **Kate Faulkner**: *Law Faculty Librarian, Cambridge University*, looked at the copyright journey taken by Cambridge University Libraries over the course of the last year. It will highlight how the initial response to the emergency was developed into a successful service, the challenges we faced as a university library with legal deposit responsibilities and the potential legacy of these changes for our copyright service. It will conclude with some of the lessons learnt and planned next steps to ensure that we build a copyright service useful to all.

- **Share Copies Not COVID: Update on CLA Developments**

**James Bennett**: *Head of Rights and Licensing, Copyright Licensing Agency* provided an overview of CLA's latest initiatives in response to the pandemic, looking at developments since the 2020 CILIP Copyright Conference, including licence enhancements to help with online teaching in schools and universities, and CLA and PLS's support for the process of REF submission by HEIs.

- **Europeana's licensing framework: a standardised approach to deal with unharmonised copyright frameworks**

Europeana aggregates and displays digital cultural heritage from across Europe and beyond, and as such, is in touch with the diverse copyright challenges faced at the national level by cultural heritage institutions. During this session, **Ariadna Matas**: *Policy*



[Back to top](#)

*Advisor, Europeana Foundation.* will briefly introduce how Europeana showcases and uses digital cultural heritage, its central licensing system, the standardised tools that Europeana relies on, what the coming changes such as the CDSM Directive might bring to challenges that are left to be solved.

- **Brexit and Copyright - what does the future hold?**

In 2020, the UK was in a holding pattern with respect to Brexit. Although it had left the EU, the transition period meant that EU law continued to apply. With the expiry of the transition period on 31 December 2020, copyright stakeholders and policymakers are now experiencing the full implications of Brexit, both in terms of day-to-day practices and the longer-term vision for copyright law in this country. This presentation by *Dr Emily Hudson: Reader in Law, King's College London* does not seek to reventilate questions about whether Brexit was desirable. Rather, it asks what the future of copyright might look like. To answer this, it starts by explaining the current legal position in relation to the status of EU instruments and case law in the UK. It then identifies areas where EU harmonisation has been particularly significant and makes some predictions about the likely direction of UK copyright law over the coming years. Finally, it offers some views about the sort of copyright reforms that the UK should consider.

- **The Open University - challenges and opportunities with copyright and licensing**

In this talk *Priya Haria: Content, Licencing, and Intellectual Property Assistant, The Open University* will talk about the opportunities and challenges to The Open University in relation copyright and licencing. The effect of Covid19 has led other organisations to consider delivering courses online. Priya will be able to provide a unique perspective in this area because, The Open University is a worldwide leader in teaching and delivering courses online for a number of years. Priya will also discuss how copyright and licencing opportunities allow an organisation like The Open University to expand their reach in delivering courses.

**Note:** [CILIP National Copyright Conference 2022 – 18<sup>th</sup> May 2022](#)

[#CILIPCopy22 / #copyright](#)

## **The Challenges of Remote Working at Present**

For those who work remotely all or part of the time already, you or your employer [depending on whether you are self-employed / freelancer or an employee] will have safeguards in place that enable you to operate securely when handling commercially sensitive or others' third-party data. The difference, in March 2020, is that at very short notice, organisations are having to move staff to homeworking often with literally hours' notice as the Government COVID-19 instructions are issued.



[Back to top](#)

There are growing numbers of tips and survival guides online that include: Information Commissioner's Office (ICO) [Data protection and coronavirus: what you need to know](#).

**The challenges of remote working at present and point to consider from a data privacy perspective.**

Provided within this article are points to consider from a data privacy perspective that include:

1. **Have a clear statement to all staff** stressing that "The protection of personal data that we hold, and use is important to us and must be handled at all times in a way that is compliant with data protection law and our Data Protection and Privacy policies. While we have to adapt to comply with the official guidance, we will adjust our working processes to allow us to deliver our services. These are time limited instructions that will be kept under review. At the end of the period then all data that is held temporarily on personal devices as a direct result of this exceptional times, will be deleted." (Tullo 2020)
2. **Set out what use of data**, contact lists, customer documents are being allowed.
3. As part of this exceptional response to homeworking **keep a full record of where staff are working from and what equipment they are using**.
4. **State that you have assessed the best way of ensuring homeworking efficiency** and are proposing that personal devices and mobile phones can be used. That you will review this [weekly seems sensible at present] in line with experience and how staff report it is working.
5. **Reissue and emphasise your usual security arrangements –** Virus and password protection, not leaving data visible to others, having a PIN code, or not sharing their device with others in their family or household.
6. **Take care to be aware where data is being stored**, even if temporary so that the security risk is managed and assessed.
7. For the **weekly reviews** – have your Senior Leadership Team note the number of staff using personal devices, any queries, or issues they are finding and demonstrate that you are monitoring the situation and are flexible in closing it down if any specific concerns arise.
8. Choose your collaboration tool of choice and consider recording online meetings and note actions especially where team members are geographically spread out and where broadband speeds and kit may vary in quality.
9. You might also consider having a standard introduction for homeworking staff to explain that they are homeworking and not in the office, so callers understand the position.
10. This is where a nominated Data Protection Officer (DPO) or Data Officer can support the senior team in the messaging to colleagues.

[Back to top](#)

Source: Tullo C, OBE (2020) '[The Challenges of Remote Working at Present](#)'. © **Naomi Korn Associates**, 2020. Some Rights Reserved. The text is licensed for use under the Creative Commons Attribution Share Alike Licence (CC BY SA).

**Regarding UCEM we have followed these pointers:**

(i) A clear statement went to staff, and UCEM has a designated area within their central SharePoint site for Business Continuity Planning (BCP) that has the following folders containing

- Official Communications [Internal and External]
- Human Resources (HR) guidance and support
- Information Technology (IT) technical support, guidance, and documents

Data Protection guidance (incl. a new guidance note entitled, 'Processing Personal data when remote working'.

- The [UCEM Data Protection and Privacy Policies](#) have been updated and should be read in conjunction with IT Policies).
- & Hints and tips for working from home.

(ii) A retention and destruction schedule is in place that collates lists of data used within respective teams and departments; (iii) A register is kept of where staff are working from and equipment used; (iv) Regular online meetings and weekly All-staff keep everyone updated and ensuring regular communication; (v) IT provide regular updates and guidance; (vi) GDPR 2020 training has been launched to re-enforce the importance of knowing how data is used and where it is being stored, even if temporary so that risk is managed and assessed; (vii and viii) online equipment and collaboration tools are well established at UCEM as an online education provider, but are regularly monitored; (ix) As mentioned above, hints and tips for working from home are provided, & (x) UCEM has a designated Data Protection Officer (DPO).

Please note: There are regular updates -

- (i) On the [UCEM Website](#),
- (ii) **VLE Help Page** (for students), and
- (iii) within the **[UCEM Website Home > Supported Online Learning > e-Library](#)** current awareness services, incl. Information blog and ***Knowledge Foundations*** (for all).

**#BE Informed**

(iv) A short **[UCEM e-Library video](#)** (used within UCEM Marketing, **[Social Media business channels i.e. LinkedIn](#)** to promote the e-Library, *Knowledge Foundations*, regular information blogs, and more)

**"Perseverance will get you anywhere."**

@NASAPersevere / #NASAPersevere

[Back to top](#)

## A to Z of useful references and web-links:

**A - B - C - D - E - F - G - H - I - J - K - L - M**

**N - O - P - Q - R - S - T - U - V - W - X - Y - Z**

### A

**Advance HE** (Previously HEA – Higher Education Academy) is dedicated to helping higher education shape its future. Providing insight, enhancing organisational performance, developing, and connecting people, and accrediting achievements. Advance HE [online]. Further information is available at: [www.advance-he.ac.uk](http://www.advance-he.ac.uk) [accessed 23 March 2022]

**American Society of Civil Engineers** (ASCE) Civil Engineering database provides free access to over 80 thousand abstracts taken from ASCE publications since 1973. ASCE [online]. Further information is available at: [www.asce.org](http://www.asce.org) [accessed 23 March 2022]

**Association of Researchers in Construction Management** (ARCOM) brings together all those interested in construction management research. It aims to further the advancement of knowledge in all aspects of management in construction by support education, dissemination, and research. ARCOM [online]. Further information available at: [www.arcom.ac.uk](http://www.arcom.ac.uk) [accessed 23 March 2022]

**AJ Buildings Library** (AJBL) – The AJ Buildings Library showcases thousands of exemplar projects, most from the last 20 years but including major projects back to 1900. Available at: [www.ajbuildingslibrary.co.uk](http://www.ajbuildingslibrary.co.uk) [accessed 23 March 2022] (This valuable resource is just one part of the *Architects' Journal* subscription, available via the VLE e-Library > OpenAthens Library login > Construction Information Service (CIS) and/or EBSCO Business Source Premier).

**ARCOM Abstracts database** – contains open access of every ARCOM conference paper since 1997 and is now a major resource for all active researchers.

**ARCOM Newsletters** - contains the latest news from the industry.

[\[Back to A to Z\]](#)

### B

**BBC Education** [online]. Further information available at: [www.bbc.co.uk/news/education](http://www.bbc.co.uk/news/education) [accessed 23 March 2022]

**BBC Search** [online]. Further information available at: [www.bbc.co.uk/search](http://www.bbc.co.uk/search) [accessed 23 March 2022]

**BIDSTATS** [online] – Free UK tenders' portal. Find UK public sector contracts and further information available at: <https://bidstats.uk/> [accessed 23 March 2022]

**BIM Task Group** – The Building Information Modelling (BIM) Task Group support and develop the objectives of the Government Construction Strategy and the requirement to strengthen the public sector's capability in BIM implementation [online]. **N.B.** This group and programme are now part of the University of Cambridge, **Centre for Digital Built Britain (CDBB)** [online]. Further

information is available at: [www.cdbb.cam.ac.uk/AboutDBB/FAQs](http://www.cdbb.cam.ac.uk/AboutDBB/FAQs) [accessed 23 March 2022]. Please refer to question 9 – What is the Digital Built Britain Programme? specifically.

**BIMForum** – The BIMForum’s mission is to facilitate and accelerate the adoption of building information modelling (BIM) in the AEC (Architecture, Engineering and Construction) industry. Further information is available via the BIMForum Website [online] and at: <http://bimforum.org> [accessed 23 March 2022]

**BOMA International** (Building Owners and Managers Association International) – a federation of 91 BOMA U.S. associations and 17 international affiliates. Founded in 1907, BOMA’s mission is to advance a vibrant commercial real estate industry through advocacy, influence, and knowledge. **BOMA Research and Resources** [online] and available at: [www.boma.org/BOMA/Research-Resources](http://www.boma.org/BOMA/Research-Resources) [accessed 23 March 2022]

**British and Irish Legal Information Institute** (BAILLI) Case Law Search [online]. Further information available at: [www.bailii.org/form/search\\_cases.html](http://www.bailii.org/form/search_cases.html) [accessed 23 March 2022]

**British Council of Shopping Centres** (BCSC) was the professional body and authoritative voice for retail-led regeneration and for the management of and investment in shopping places [online]. Note: BCSC has changed and is now **REVO – Retail. Property. Community.**

**British Institute of Facilities Management (BIFM)** – The BIFM is now the Institute of Workplace and Facilities Management (IWFM).

**British Property Federation** (BPF) – The British Property Federation is a membership organisation devoted to representing the interests of all those involved in real estate ownership and investment. BPF [online]. Further information available at: <https://bpf.org.uk> [accessed 23 March 2022]

**Building Conservation.com** [online] – Information resources for conservation, restoration, and repairs. Further information is available at: [www.buildingconservation.com](http://www.buildingconservation.com) [accessed 23 March 2022]

**Building Conservation.com Articles directory by subject** [online]. Available at: [www.buildingconservation.com/articles/articles.htm](http://www.buildingconservation.com/articles/articles.htm) [accessed 23 March 2022]

**Building Design Directory** [online] – provides construction and environmental products / services / information for Architects, Engineers and Facility Managers. Further information is available at: [www.buildingdesign.co.uk](http://www.buildingdesign.co.uk) [accessed 23 March 2022]

**Building Engineer** [online] – Building Engineer website covers news and insights from the following topics: Building & Fire Safety; Business & Management; Construction & Building Materials; Energy & Sustainability; Health, Safety & Wellbeing; Policy & Regulations; Refurbishment; Technology & Digital Construction. Further information is available at: [www.buildingengineer.org.uk/](http://www.buildingengineer.org.uk/) [accessed 23 March 2022]

**Building People** - a technology platform and collaborative network, that enables connections and seeks to reduce the skills shortages across the Built Environment. Building People [online]. Further information is available at: [www.buildingpeople.org.uk](http://www.buildingpeople.org.uk) [accessed 23 March 2022]

**Building Research Establishment** (BRE) [online] is an independent and impartial, research-based consultancy, testing and training organisation, offering expertise in every aspect of the built environment and associated industries. Further information available at: <https://bregroup.com/about-us> [accessed 23 March 2022]

**BRE A-Z of BRE Services** (from Accreditation to Zero Carbon) [online]. Further information is available at: [www.bregroup.com/a-z](http://www.bregroup.com/a-z) [accessed 23 March 2022]

**BRE Case Studies** [online]. Further information is available at: [www.bre.co.uk/podpage.jsp?id=1744](http://www.bre.co.uk/podpage.jsp?id=1744) [accessed 23 March 2022]

**Building Services Research and Information Association** (BSRIA) [online]. BSRIA is a test, instrumentation, research, and consultancy organisation, providing specialist services in construction and building services. Available at: [www.bsria.co.uk](http://www.bsria.co.uk) [accessed 23 March 2022]

**Building talk** [online]. Available at: [www.buildingtalk.com](http://www.buildingtalk.com) [accessed 23 March 2022] *Building Talk* is an email newsletter for Architects, Civil Engineers and Building Services Contractors.

**[Back to A to Z]**

## C

**Campaign to Protect Rural England** (CPRE) campaign for a beautiful and living countryside. They work to protect, promote, and enhance our towns and countryside to make them better places to live, work and enjoy, and to ensure the countryside is protected for now and future generations. CPRE [online]. Available at: [www.cpre.org.uk](http://www.cpre.org.uk) [accessed 23 March 2022]

**CBRE Research and Resources** - CBRE sets the standard for global real estate research by providing clients with accurate and insightful market knowledge. CBRE [online]. Available at: [www.cbre.com/research-and-reports](http://www.cbre.com/research-and-reports) [accessed 23 March 2022]

**CPRE Resources** provides the latest news articles, policy guidance notes, published reports and research surrounding the following - Countryside, Farming and food, Housing and planning, Energy and Waste, and Transport. CPRE Resources [online]. Available at: [www.cpre.org.uk/resources](http://www.cpre.org.uk/resources) [accessed 23 March 2022]

**Centre for Architecture and Built Environment Research** (CABER) seeks to develop innovative approaches, procedures, technologies, and techniques that support the design, management, reconfiguration, maintenance and operation of buildings, their fabric, and the environments they create. Note: CABER incorporates the previous Centre for Construction and Property Research (CPRC). CABER [online] and available at: [www1.uwe.ac.uk/et/research/caber.aspx](http://www1.uwe.ac.uk/et/research/caber.aspx) [accessed 23 March 2022]

**The Center for Construction Research and Training** (CPWR) is dedicated to reducing occupational injuries, illnesses, and fatalities in the construction industry through research, training, and service programs. CPWR [online] and available at: [www.cpwr.com](http://www.cpwr.com) [accessed 23 March 2022]

**Centre for Digital Built Britain** (CDBB) is a partnership between the Department of Business, Energy & Industrial Strategy, and the University of Cambridge to deliver a smart digital economy for infrastructure and construction for the future and transform the UK construction industry's approach to the way we plan, build, maintain, and use our social and economic infrastructure. CDBB [online]. Available at: [www.cdbb.cam.ac.uk/AboutDBB](http://www.cdbb.cam.ac.uk/AboutDBB) [accessed 23 March 2022]

**Centre for Sustainable Energy** (CSE) is an independent national charity that shares our knowledge and experience to help people change the way they think and act on energy.

**CSE Resources** [online] include - Reports & publications, Toolkits, Advice leaflets, Websites, *Energise* newsletter, Videos on The fundamentals, Improving your community building, Community-wide energy saving projects, Neighbourhood and low carbon planning, Renewable energy projects, and further Resources for schools and educators. Available at: [www.cse.org.uk/local-energy/resources](http://www.cse.org.uk/local-energy/resources) [accessed 23 March 2022]



**Chartered Association of Building Engineers** (CABE) is a member-focused non-profit organisation. CABE shares knowledge, raises standards, and develops professionals, enabling a professional construction sector that works to create better, safer, and more sustainable buildings that enhance people's lives. CABE [online]. Available at: <https://cbuilde.com/> [accessed 23 March 2022]

**Chartered Institute of Building** (CIOB) [online]. The Chartered Institute of Building is the international voice of the building professional, representing an unequalled body of knowledge concerning the management of the total building process. Available at: [www.ciob.org](http://www.ciob.org) [accessed 23 March 2022]

**Chartered Institution of Building Services Engineers** (CIBSE) – the prime source of expertise in the Building Services Industry. CIBSE [online]. Available at: [www.cibse.org](http://www.cibse.org) [accessed 23 March 2022]. N.B. Within the CIBSE website you can '**CIBSE - Search the Knowledge Portal**' covering themes such as BIM, Building Regulations, FM, Facades, Fire Safety, Lighting and Heating, Management, and project management, Residential, Sustainability, and more.

**China Dialogue** [online] – China and the world discuss the environment. Available at: [www.chinadialogue.net](http://www.chinadialogue.net) [accessed 23 March 2022]

**CIBSE Journal** [online]. Available at: [www.cibsejournal.com](http://www.cibsejournal.com) [accessed 23 March 2022].

**CIOB Library** Incl. Library and Information Services [online]. Available at: [www.ciob.org/library](http://www.ciob.org/library) [accessed 23 March 2022]

**CIOB BIM+** online newsletter [online]. Available at: [www.bimplus.co.uk](http://www.bimplus.co.uk) [accessed 23 March 2022]

**CIOB's Construction Management journal** (formerly *Construction Manager*) [online]. Available at: <https://constructionmanagement.co.uk/> [accessed 23 March 2022]

**CIOB's Global Construction Review journal** [online]. Available at: [www.globalconstructionreview.com/](http://www.globalconstructionreview.com/) [accessed 23 March 2022]

**CIOB's Policy and Public Affairs portal** [online]. Available at: [www.ciob.org/industry/policy-research](http://www.ciob.org/industry/policy-research) [accessed 23 March 2022]

**The CIT-eA Project Creating Innovative Technology – Enhanced Assessments** – a research project that explored ways to increase the number of assessments in Further and Higher Education using technology. The CIT-eA Project [online]. Available at: <http://citea.digitalinsite.co.uk> [accessed 23 March 2022]

**Cities / buildings images database** [online]. Available at: [www.washington.edu/ark2](http://www.washington.edu/ark2) [accessed 23 March 2022] is a collection of images of buildings and cities from around the world aimed at students, researchers, and educators.

**C-Link** is a procurement software company who also provide resources (incl. guides, eBooks, and other materials) created to help you make more money on your construction project. C-Link [online]. Available at: [www.C-Link.com](http://www.C-Link.com) [accessed 23 March 2022]

**Commercial Real Estate Services** (CBRE) is the world's largest real estate services provider, with a preeminent leadership position in virtually all key business centers globally. CBRE [online]. Available at: [www.cbre.co.uk](http://www.cbre.co.uk) [accessed 23 March 2022]

**Community-Led Housing** (CLH) Toolkit: a resource for local authority and housing professionals' [online]. Available at: <https://clhtoolkit.org/> [accessed 23 March 2022]. This Toolkit provides a wealth of technical and non-technical information on a broad range of issues relevant to CLH. There are five Toolboxes, covering (i) Housing (ii) Communities (iii) Legal (iv) Planning and (v) Finance.

**Confederation of British Industry** (CBI) is the UK's premier business lobbying organisation, providing a voice for employers at a national and international level. CBI [online]. Available at: [www.cbi.org.uk](http://www.cbi.org.uk) [accessed 23 March 2022]

**Conference on Training in Architectural Conservation** (COTAC) was formed in 1959 to improve the standard of education of everyone involved in building conservation, including craftsmen, professionals, and homeowners. COTAC [online]. Available at: <http://ihbconline.co.uk/cotac2> [accessed 23 March 2022]

**COTAC Digital Bibliography** [online]. Available at: [http://cotac.global/digital\\_bib/](http://cotac.global/digital_bib/) [accessed 23 March 2022]

**Constructing Excellence** (delivered with **bre**) is a platform for industry improvement to deliver excellence through clients, industry, and users through collaborative working. Resources include publications, tools, and newsletter. Constructing Excellence [online]. Available at: <http://constructingexcellence.org.uk/> [accessed 23 March 2022]

**Construction Enquirer** is a news website in construction. Construction Enquirer [online]. Available at: [www.constructionenquirer.com](http://www.constructionenquirer.com) [accessed 23 March 2022]

The **Construction Index** [online] provides a wide range of information services for the UK construction industry, that include a search engine of construction companies, daily construction news, market data, email newspaper letter, and Case Law analysis and legal commentary. Further information is available at: [www.theconstructionindex.co.uk](http://www.theconstructionindex.co.uk) [accessed 23 March 2022].

**Construction Industry Council** (CIC) – The representative forum for the professional bodies, research organisations and specialist business association in the construction industry. CIC [online] and available at: <http://cic.org.uk> [accessed 23 March 2022]

The **Construction Industry Research and Information Association** (CIRIA) [online]. Further information and resources are available at: [www.ciria.org/default.aspx](http://www.ciria.org/default.aspx) [accessed 23 March 2022]

**Construction Industry Training Board** (CITB) is the training board for the construction industry and partner in Construction Skills, the Sector Skills Council. CITB [online]. Available at: [www.citb.co.uk](http://www.citb.co.uk) [accessed 23 March 2022]

**Construction Manager** is the magazine of the Chartered Institute of Building (CIOB) [online] and available at: [www.constructionmanagemagazine.com/](http://www.constructionmanagemagazine.com/) [accessed 23 March 2022]

**Construction News** [online]. Available at: [www.constructionnews.co.uk](http://www.constructionnews.co.uk) [accessed 23 March 2022]

**Construction Products Association** (CPA) represents the UK's manufacturers and distributors of construction products and materials. Construction Products Association [online]. Further information is available at: [www.constructionproducts.org.uk](http://www.constructionproducts.org.uk) [accessed 23 March 2022]

**Construction Project Information Committee** (CPIC), responsible for providing best practice guidance on the content, form, and preparation of construction production information, and making sure this best practice is disseminated throughout the UK construction industry. CPIC [online]. Available at: [www.cpic.org.uk](http://www.cpic.org.uk) [accessed 23 March 2022]

**Construction and Property Research Centre** (CPRC), University of the West of England (UWE) – the CPRC's research activity is focused around the three inter-related stages of the built environment lifecycle, namely design, construction, and maintenance. Note: The UWE **Centre for Architecture and Built Environment Research** (CABER) now incorporates the CPRC.

**Contractors World** magazines (incl. *Contractors World International* and *Contractors World UK & Ireland*) are the leading international digital publications. Delivering site reports, equipment



reviews and comments of interest on the construction, mining, quarrying and related industries. Contractors World [online]. Available at: <http://cwmags.com/> [accessed 23 March 2022].

**COPAC\*** exposes rare and unique research material by bringing together the catalogues of c.90 major UK and Irish Libraries. In a single search you can discover the holdings of the UK's national libraries (including the British Library), many University libraries, and specialist libraries. Note: From August 2019 Copac was replaced by [Jisc's Library Hub Discover](#).

**Copyright Licensing Agency (CLA)** [online]. The CLA are a licensing body as defined by the Copyright, Designs and Patents Act 1988 c.48 (as amended) ["CDPA"]. The CLA licence organisations to copy and re-use extracts from print and digital publications on behalf of copyright owners. Available at: [www.cla.co.uk](http://www.cla.co.uk) [accessed 23 March 2022]

**Council for British Archaeology** (CBA) is an independent charity bringing together members, supporters, and partners to give archaeology a voice and safeguard it for future generations. Archaeology for all [online]. Available at: <http://new.archaeologyuk.org> [accessed 23 March 2022]

[\[Back to A to Z\]](#)

## D

**Delta T** [online] is the Building Services Research and Information Association's quarterly journal.

**Designing Buildings Wiki** [online] and available at: [www.designingbuildings.co.uk/wiki/Home](http://www.designingbuildings.co.uk/wiki/Home) [accessed 23 March 2022] is an industry-wide, cross-discipline forum for finding and sharing information.

**Designing Buildings Wiki – Student resources** [online] and available at: [www.designingbuildings.co.uk/wiki/Student\\_resources](http://www.designingbuildings.co.uk/wiki/Student_resources) [accessed 23 March 2022] has a wide range of resources aimed at students of the built environment, as shown here.

**Designing Buildings Wiki – Construction industry acronyms** [online] and available at: [www.designingbuildings.co.uk/wiki/Construction\\_industry\\_acronyms](http://www.designingbuildings.co.uk/wiki/Construction_industry_acronyms) [accessed 23 March 2022] providing a list of commonly used construction industry acronyms.

The **Design Council** [online] champions great design that improves lives and makes things better and available: [www.designcouncil.org.uk](http://www.designcouncil.org.uk) [accessed 23 March 2022]. See also [Inclusive Design Hub for the Built Environment](#) (a project of The Design Council).

**Directory of Open Access Books** (DOAB) is a service which harvests details of academic and mainly peer-reviewed books published on open access. DOAB [online]. Available at: [www.doabooks.org/doab](http://www.doabooks.org/doab) [accessed 23 March 2022]

**Directory of Open Access Journals** (DOAJ) covers all open access scientific and scholarly journals, using a quality control system to guarantee the content. DOAJ [online]. Available at: <https://doaj.org> [accessed 23 March 2022]

[\[Back to A to Z\]](#)

## E

**Education and Employers Research** - Online research library marks its tenth anniversary. This online library provides a comprehensive repository of different and effective approaches to employer engagement and careers education. It brings together the latest thinking with selected research published over the past 40 years. Education and Employers [online]. Available at: [www.educationandemployers.org/research-type/research-library](http://www.educationandemployers.org/research-type/research-library) [accessed 23 March 2022]

**The Economics Network** [online] provides publications, events, and other resources to support university teachers of economics throughout the UK and worldwide. Available at: [www.economicsnetwork.ac.uk](http://www.economicsnetwork.ac.uk) [accessed 23 March 2022]

**EngineeringUK** is a not-for-profit organisation, which works in partnership with the engineering community to inspire tomorrow's engineers and increase the number and diversity of young people choosing academic and vocational pathways into engineering. EngineeringUK [online]. Available at: [www.engineeringuk.com](http://www.engineeringuk.com) [accessed 23 March 2022]

**Engineering and Physical Sciences Research Council** (EPSRC) is the main UK government agency for funding research and training in engineering and the physical sciences, investing more than £800 million a year in a broad range of subjects – from mathematics to materials science, and from information technology to structural engineering. EPSRC [online]. Available at: [www.epsrc.ac.uk](http://www.epsrc.ac.uk) [accessed 23 March 2022]

**English Heritage** cares for over 400 historic buildings, monuments, and sites – from world-famous prehistoric sites to grand medieval castles, from Roman forts on the edges of the empire to a Cold War bunker. English Heritage [online]. Further information is available at: [www.english-heritage.org.uk](http://www.english-heritage.org.uk) accessed 23 March 2022]. Note: English Heritage has now separated into two organisations. If you are looking for information on listing, planning, grants or heritage research and advice, please visit **Historic England**.

**Estates Gazette** The UK's largest commercial property news team. *Estates Gazette Interactive* [online]. Available at: [www.egi.co.uk](http://www.egi.co.uk) [accessed 23 March 2022] incl. ***Estate Gazette, News from the nationals*** – Round-up of the top property stories with quick links.

**European Real Estate Society** (ERES) was established in 1994 to create an international real estate network between academics and professionals across Europe. ERES [online]. Further information is available at: [www.eres.org](http://www.eres.org) [accessed 23 March 2022].

**ERES Digital Library** [online] and available at: [www.eres.org/index.php/activities/libraryeres](http://www.eres.org/index.php/activities/libraryeres) [accessed 23 March 2022]

**[Back to A to Z]**

## G

**Great Buildings** [online]. Available at: [www.greatbuildings.com](http://www.greatbuildings.com) [accessed 23 March 2022] provides a database of buildings around the world and across all historic periods. You can search the database by building names, place, or architect name. It provides access to 3D models, photographic images, and architectural drawings.

**Glenigan** [online]. Available at: [www.glenigan.com](http://www.glenigan.com) [accessed 23 March 2022] provides UK construction project sales leads, market analysis, forecasting, and company intelligence.

**Global Research Gateway**: CBRE's online resource for real estate research and reports. CBRE Global Research Gateway [online]. Available at: [www.cbre.com/research-and-reports](http://www.cbre.com/research-and-reports) [accessed 23 March 2022]

**Global Construction Review** – An online journal from the Chartered Institute of Building (CIOB) [online]. Available at [www.globalconstructionreview.com](http://www.globalconstructionreview.com) [accessed 23 March 2022]

**The Green Construction Board** (GCB) is a consultative forum consisting of key members of UK construction and property industry. GCB [online]. Further information is available at: <https://cic.org.uk/projects/project.php?s=green-construction-board> [accessed 23 March 2022]

**The Guardian, Housing network** – providing insight, advice, and best practice from your community. The Guardian, Housing network [online]. Further information is available at: [www.guardian.co.uk/housing-network](http://www.guardian.co.uk/housing-network) [accessed 23 March 2022]

**The Guardian, Higher Education / Universities** [online]. Further information is available at: [www.guardian.co.uk/higher-education-network](http://www.guardian.co.uk/higher-education-network) [accessed 23 March 2022]

**[Back to A to Z]**

## H

**Health and Safety Executive (HSE)** is the national independent watchdog for work-related health, safety, and illness. HSE are an independent regulator and act in the public interest to reduce work-related death and serious injury across Great Britain's workplaces. HSE [online]. Available at: [www.hse.gov.uk/index.htm](http://www.hse.gov.uk/index.htm) [accessed 23 March 2022]

**HSE, Health & Safety in the construction industry** [online]. Further information is available at: [www.hse.gov.uk/construction](http://www.hse.gov.uk/construction) [accessed 23 March 2022]

**HSE Publications** [online]. Available at: [www.hse.gov.uk/pubns/index.htm](http://www.hse.gov.uk/pubns/index.htm) [accessed 23 March 2022]

**Heritage Alliance** - The largest coalition of heritage interests in England, the Heritage Alliance is the umbrella body for national and major regional Heritage NGOs. Heritage Alliance [online]. Available at: [www.theheritagealliance.org.uk](http://www.theheritagealliance.org.uk) [accessed 23 March 2022]

**Heritage Update: the online edition** of the fortnightly Heritage Alliance's **Heritage Update** e-bulletin [online] and available at: [www.theheritagealliance.org.uk/update](http://www.theheritagealliance.org.uk/update) [accessed 23 March 2022]

**Heritage Help** - Created by the Joint Committee of the National Amenity Societies, Heritage Help offers information and advice on matters related to the management and protection of local historic environments. Heritage Help [online]. Available at: <http://heritagehelp.org.uk> [accessed 23 March 2022]

**Higher Education Academy (HEA)** – The Higher Education Academy champions excellent learning and teaching in higher education. The HEA are a national and independent organisation, funded by the four UK Higher Education funding bodies and by subscriptions and grants. Note: HEA is now **Advance HE**.

**Higher Education Empirical Research (HEER)** Database comprises summaries of the latest published research on a range of topics related to higher education. HEER [online]. Available at: [www.srhe.ac.uk/links/higher\\_education\\_statistics\\_and\\_research.asp](http://www.srhe.ac.uk/links/higher_education_statistics_and_research.asp) [accessed 23 March 2022]

**Historic England** is the public body that looks after England's historic environment. Historic England champion historic places, helping people understand, value and care for them. Further information is available at: [www.historicengland.org.uk](http://www.historicengland.org.uk) [accessed 23 March 2022]

**Historic Environment Local Management (HELM)** - provides accessible information, training, and guidance to decision makers in local authorities, regional agencies, and national organisations whose actions affect the historic environment. Note: All HELM web content on the Historic England website [online] and available at: <https://historicengland.org.uk/services-skills/training-skills/helmtraining> [accessed 23 March 2022].

**Home Builders Federation (HBF)** represents and serves its members in a range of ways that include Ensuring senior politicians and government officials are aware of housing issues and the challenges faced by our members; and working with Government officials to ensure housing

policies are introduced that facilitate housing supply, in a way that is workable for the industry [online]. Available at: [www.hbf.co.uk](http://www.hbf.co.uk) [accessed 23 March 2022]

**House Building Careers** (part of HBF). Here you will be able to learn about the home building industry and how it benefits you, your community, and the country as a whole [online]. Further information available at: <http://housebuildingcareers.org.uk> [accessed 23 March 2022]

**[Back to A to Z]**

**Inclusive Design Hub for the Built Environment** is a collection of the latest guidance and best practice on inclusive design in the built environment and a project of **The Design Council** [online]. Available at: [www.designcouncil.org.uk/projects/inclusive-design-hub-built-environment](http://www.designcouncil.org.uk/projects/inclusive-design-hub-built-environment) [accessed 23 March 2022]

**INFABODE** connects its community of users with industry information from the Real Estate sector on one customisable online platform. Infabode reduces the amount of time people spend trying to access key information from the Real Estate industry. **INFABODE** [online]. Available at: [www.infabode.com](http://www.infabode.com) [accessed 23 March 2022]

**Institution of Civil Engineers** (ICE) is a registered charity that strives to promote and progress civil engineering. ICE [online]. Available at: [www.ice.org.uk](http://www.ice.org.uk) [accessed 23 March 2022]

**ICE Virtual Library** [online]. Available at: [www.icevirtuallibrary.com](http://www.icevirtuallibrary.com) [accessed 23 March 2022] is a free database that indexes all ICE journals.

**International Council for Open and Distance Education** (ICDE) is the leading global membership organisation for enhancing the quality of open, distance, flexible and online education, including e-Learning. ICDE [online]. Available at: [www.icde.org](http://www.icde.org) [accessed 23 March 2022]

**Institute of Historic Building Conservation** (IHBC) is the principal professional body for building conservation practitioners and historic environment specialists working in England, Northern Ireland, Scotland, and Wales, with connections to the Republic of Ireland. IHBC [online]. Available at: [www.ihbc.org.uk](http://www.ihbc.org.uk) [accessed 23 March 2022]

**Institute of Workplace and Facilities Management** (IWFM) – Formerly the British Institute of Facilities Management, BIFM is now the IWFM. The workplace has been incorporated into their new brand so that the status of the professional can help take careers further, regardless of specialism. IWFM [online]. Further information is available at: [www.iwfm.org.uk](http://www.iwfm.org.uk) [accessed 23 March 2022]

**IWFM Insight** – discover leading research and resources for the workplace and facilities management profession. IWFM Insight [online]. Available at: [www.iwfm.org.uk/insight](http://www.iwfm.org.uk/insight) [accessed 23 March 2022]

**IWFM News** – discover the latest news affecting the profession and gain expert insight and advice. IWFM News [online] Available at: [www.iwfm.org.uk/news](http://www.iwfm.org.uk/news) [accessed 23 March 2022]

**IWFM Digital Magazine, facilitate** - Informing workplace and facilities management professionals. IWFM *facilitate* [online]. Available at: [www.facilitatemagazine.com/](http://www.facilitatemagazine.com/) [accessed 23 March 2022]

**ITcon** – The **Journal of Information Technology in Construction** is a peer-reviewed scholarly journal on the use of IT in architecture, civil engineering, and facility management. *ITcon* [online]. Available at: [www.itcon.org](http://www.itcon.org) [accessed 23 March 2022]

**[Back to A to Z]**

## J

**JISC Library Hub Discover** – Library Hub Discover replaces COPAC\* and SUNCAT, offering increased coverage of university libraries along with new facilities and improved response times. Library Hub Discover currently contains 42,397,777 records created from 106,833,532 records contributed by 144 institutions. Jisc Library Hub Discover [online]. Available at: <https://discover.libraryhub.jisc.ac.uk> [accessed 23 March 2022].

**JORUM Archive** – After 13 years delivering and sharing content across the higher education, further education and skills sectors the Jorum service and website was retired on 30 September 2016. However, many of the open education resources (OER) that were available in Jorum, access to their Jorum Archive can be accessed via the JISC website [online]. Available at: [www.jisc.ac.uk/website/legacy/jorum](http://www.jisc.ac.uk/website/legacy/jorum) [accessed 23 March 2022] where you can also gain access to JISC's full digital resources offer.

**Journal of Online Learning and Teaching (JOLT)** - The **MERLOT Journal of Online Learning and Teaching** is a peer-reviewed, open-access, online publication that aims to promote scholarship in the use of the Internet and web-based multimedia resource in higher education.

**JournalTOCs** is the largest, free collection of scholarly Journal Title of Contents (TOCs) [online]. Available at: [www.journaltoCs.ac.uk/index.php](http://www.journaltoCs.ac.uk/index.php) [accessed 23 March 2022]

**[Back to A to Z]**

## K

**[Back to A to Z]**

## L

**Leeds Beckett University's – School of the Built Environment, Engineering and Computing** [online]. Further information that includes Subject Area Research – 1) Civil Engineering and Building Services Engineering, 2) Planning, Housing and Human Geography, and 3) Surveying, Construction and Project Management is available at: [www.leedsbeckett.ac.uk/school-of-built-environment-engineering-and-computing/research](http://www.leedsbeckett.ac.uk/school-of-built-environment-engineering-and-computing/research) [accessed 23 March 2022]

**Leeds Beckett University's - Leeds Sustainability Institute** [online]. Further Information is available at: [www.leedsbeckett.ac.uk/leeds-sustainability-institute](http://www.leedsbeckett.ac.uk/leeds-sustainability-institute) [accessed 23 March 2022]

**Leeds Beckett University – The Library** [online]. Available at: <http://libguides.leedsbeckett.ac.uk/home> [accessed 23 March 2022]

**Lexology** is a comprehensive source of international legal updates, analysis, and insights. Lexology publish in excess of 450 articles every day from over 1,100 law firms and service providers worldwide across 50 work areas in 25 languages. Lexology [online]. Available at: [www.lexology.com](http://www.lexology.com) [accessed 23 March 2022]

**Local Government Association** (LGA) is the national voice of local government. They work with councils to support, promote, and improve local government. LGA [online]. Available at: [www.local.gov.uk](http://www.local.gov.uk) [accessed 23 March 2022]

**LGA Knowledge Hub** - Knowledge Hub is the public sector's professional social network which helps people in local government connect and share online in a secure environment [online]. Available at: <https://khub.net> [accessed 23 March 2022]

**[Back to A to Z]**



## M

**Multimedia Educational Resource for Learning and Online Teaching** (MERLOT). The MERLOT project began in 1997, when the California State University Center for Distributed Learning (CSU-CDL) developed and provided free access to MERLOT [online]. Available at: [www.merlot.org/merlot](http://www.merlot.org/merlot) [accessed 23 March 2022]. MERLOT is a curated collection of free and open online teaching, learning, and faculty development services contributed and used by an international education community.

**[\[Back to A to Z\]](#)**

## N

**Naomi Korn Associates – Copyright Resources** has developed free and openly licensed copyright, licensing and data protection help resources. Naomi Korn Associates [online]. Available at: <https://naomikorn.com> [accessed 23 March 2022]

**National Building Information Modelling (BIM) Library**, the construction industry's free-to-use resource of the NBS (trading name of RIBA Enterprises Ltd) standard BIM content [online]. Available at: [www.thenbs.com/our-tools/nbs-national-bim-library](http://www.thenbs.com/our-tools/nbs-national-bim-library) [accessed 23 March 2022]

**National Building Specification** (NBS) is an integrated global platform for everyone involved in the design, supply, and construction of the built environment. NBS [online]. Available at: [www.thenbs.com](http://www.thenbs.com) [accessed 23 March 2022]

**NBS Knowledge** [online] is available at: [www.thenbs.com/knowledge](http://www.thenbs.com/knowledge) [accessed 23 March 2022]

**NBS Publication Index** [online] - this index provides information about key industry documents which are or have been available in The Construction Information Service (CIS), or cited in NBS Guidance. Further information is available at: [www.thenbs.com/Publicationindex](http://www.thenbs.com/Publicationindex) [accessed 23 March 2022]

**NBS Digital Construction Conversations podcasts** – New to 2021, NBS are talking to inspirational industry leaders about the trends and technologies impacting the construction industry – from sustainability to regulations to change management. NBS Digital Construction Conversations [online]. Available at: [www.thenbs.com/podcast](http://www.thenbs.com/podcast) [accessed 23 March 2022]

**National Skills Academy for Construction** (NSAfc) is an industry-led framework supporting clients and contractors to identify, develop and realise employment and skills solutions across construction projects. CITB, NSAfc [online]. Available at: [www.citb.co.uk/national-skills-academy-for-construction](http://www.citb.co.uk/national-skills-academy-for-construction) [accessed 23 March 2022]. Note: It is facilitated by the Construction Industry Training Board (CITB).

**The National Trust** protect historic houses, gardens, mills, coastline, forests, woods, fens, beaches, farmland, moorland, islands, archaeological remains, nature reserves, villages, and pubs. The National Trust [online]. Available at: [www.nationaltrust.org.uk](http://www.nationaltrust.org.uk) [accessed 23 March 2022]

**National Trust's Land & landscape** [online]. Available at: [www.nationaltrust.org.uk/land-and-landscape](http://www.nationaltrust.org.uk/land-and-landscape) [accessed 23 March 2022]

**New Civil Engineer** (NCE) a weekly magazine published for the Institution of Civil Engineers (ICE). NCE [online]. Available at: [www.nce.co.uk](http://www.nce.co.uk) [accessed 23 March 2022]

**[\[Back to A to Z\]](#)**

## O

**Online Learning Consortium** (OLC) is devoted to advanced quality online learning by providing professional development, instruction, best practice publications and guidance to educators, online learning professionals and organisations around the world. Online Learning Consortium [online] and further information is available at: <http://onlinelearningconsortium.org/> [accessed 23 March 2022]

**OLC's Online Learning** – the official journal of the Online Learning Consortium. *Online Learning* [online]. Available at: <http://onlinelearningconsortium.org/read/> [accessed 23 March 2022]

**Open Education Resources, Research Hub** – OER Hub gathers research on the impact of open education resources (OER) on learning and teaching practices. OER Hub [online]. Further information is available at: <http://oerhub.net/> [accessed 23 March 2022]

**Open Praxis** – published by the International Council for Open and Distance Education – ICDE, *Open Praxis* is a peer-reviewed open access scholarly journal focusing on research and innovation in open, distance and flexible education. *Open Praxis* [online]. Available at: <https://openpraxis.org/> [accessed 23 March 2022]

**Open University (OU) UK** [online] and available at: [www.open.ac.uk](http://www.open.ac.uk) [accessed 23 March 2022]

**Open University (OU) UK, Institute of Education Technology** [online] and available at: [www.open.ac.uk/iet/main](http://www.open.ac.uk/iet/main) [accessed 23 March 2022]

**Organisation for Economic Cooperation and Development (OECD) iLibrary** is the online library of the OECD, featuring its books, papers and statistics and is the gateway to OECD's analysis and data. Note: It replaced SourceOECD. OECD iLibrary [online]. Available at: [www.oecd-ilibrary.org](http://www.oecd-ilibrary.org) [accessed 23 March 2022]

**[Back to A to Z]**

## P

**Parliament.uk, Research briefings** produced by the House of Commons Library, the House of Lords Library and the Parliamentary Office of Science and Technology (POST). Parliament, Parliamentary business, Publications and records, Research briefings. Parliament.UK [online]. Further information is available at: <http://researchbriefings.parliament.uk> [accessed 23 March 2022]

**Planning, BIM & Construction Today** – The PBC Today website has compelling and informative features, news and products for a diverse audience serving a wide construction sector. PBC Today [online]. Available at: [www.pbctoday.co.uk/news](http://www.pbctoday.co.uk/news) [accessed 23 March 2022]

**Planning Advisory Service** (PAS) provide consultancy and peer support, training sessions and online resources to help local authorities understand and respond to planning reform. PAS [online]. Available at: [www.local.gov.uk/pas](http://www.local.gov.uk/pas) [accessed 23 March 2022].

**Planning Officers Society** (POS) is the voice for public sector planning practitioners, pursuing good and effective planning practice within local government [online]. Available at: [www.planningofficers.org.uk](http://www.planningofficers.org.uk) [accessed 23 March 2022]

**The Planning Portal** is the UK Government's online planning and building regulations resource for England and Wales [online]. Available at: [www.planningportal.co.uk](http://www.planningportal.co.uk) [accessed 23 March 2022]

**The Prince's Foundation** was created by the merging of The Prince's Foundation for Building Community, The Prince's Regeneration Trust, The Great Steward of Scotland's Dumfries House Trust and The Prince's School of Traditional Arts in 2018. This combined force enables the charity



to achieve HRH's goal of creating harmonious communities, through three core tiers. The Prince's Foundation [online]. Available at: <https://princes-foundation.org> [accessed 23 March 2022]

**Property People's Network** (PPN) is open to all interested in land and property and provides a forum to network through a range of social activities and visits [online]. Available at: [www.ucem.ac.uk/student-community/property-peoples-network](http://www.ucem.ac.uk/student-community/property-peoples-network) [accessed 23 March 2022]

**Property Week** – Commercial property news. *Property Week* [online]. Available at: [www.propertyweek.com](http://www.propertyweek.com) [accessed 23 March 2022]

**[Back to A to Z]**

## R

**Regeneration and Renewal – Placemaking Resource incorporating Regeneration & Renewal magazine** [online]. Available at: [www.placemakingresource.com](http://www.placemakingresource.com) [accessed 23 February 2022]

**Residential Landlord** – an online resource providing Landlord Resources, a Document Download Centre (containing templates and free tenancy agreements to amend and use as required), news and views, advice, and guidance [online]. Further information is available at: [residentiallandlord.com](http://residentiallandlord.com) [accessed 23 March 2022]

**Revo – Retail. Property. Community** (formerly BCSC (British Council of Shopping Centres) is the professional body and authoritative voice for retail property and placemaking-led regeneration and for the management of and investment in shopping places [online]. Further information is available at: [www.revocommunity.org](http://www.revocommunity.org) [accessed 23 March 2022]

**The Royal Institute of British Architects** (RIBA) is a global professional membership body driving excellence in architecture [online]. Further information is available at: [www.architecture.com](http://www.architecture.com) [accessed 23 March 2022]

**RIBA Library** – Visit the RIBA Library [online]. Available at: [www.architecture.com/contact-and-visit/riba-library](http://www.architecture.com/contact-and-visit/riba-library) [accessed 23 March 2022]

**RIBA Home > Knowledge and resources > Resources > RIBA Plan of Work** [online]. Further information is available at: [www.architecture.com/knowledge-and-resources/resources-landing-page/riba-plan-of-work](http://www.architecture.com/knowledge-and-resources/resources-landing-page/riba-plan-of-work) [accessed 23 March 2022]

**Royal Institution of Chartered Surveyors** (RICS) is an independent body committed to setting and upholding the highest standards of excellence and integrity in land, property, and construction. RICS [online]. Available at: [www.rics.org/uk](http://www.rics.org/uk) [accessed 23 March 2022]

**RICS > News & Insights** [online]. Available at: [www.rics.org/uk/news-insight](http://www.rics.org/uk/news-insight) [accessed 23 March 2022]

**RICS > Upholding Professional Standards** [online]. Available at: [www.rics.org/uk/upholding-professional-standards](http://www.rics.org/uk/upholding-professional-standards) [accessed 23 March 2022]

**RICS Publications** - RICS publishes a range of journals that are **free** to view online. Available at: [www.rics.org/uk/news-insight/publications/](http://www.rics.org/uk/news-insight/publications/) [accessed 23 March 2022]

**RICS Library Services and Online catalogue** - 2500 electronic documents selected and catalogued, plus books, magazine articles, law reports and transcripts [online]. Available at: <https://library.rics.org/> [accessed 23 March 2022]

**Royal Town and Planning Institute** (RTPI) is the UK's leading planning body for spatial, sustainable, and inclusive planning and is the largest planning institute in Europe with over 23,000 members. In 2014 they celebrate their Centenary. RTPI [online]. Available at: [www.rtpi.org.uk](http://www.rtpi.org.uk) [accessed 23 March 2022]

[\[Back to A to Z\]](#)

## S

**Savills Research** – Savills Research, Insight & Opinion provides advice and analysis to clients across the UK, with specialists in commercial, residential, and rural property research [online] and available at: [www.savills.co.uk/insight-and-opinion/research.aspx](http://www.savills.co.uk/insight-and-opinion/research.aspx) [accessed 23 March 2022]

**Shoosmiths Insights & articles** – Shoosmiths is a major UK law firm with a network of offices working together as one team. Read the latest insights, articles, and commentary from Shoosmiths or explore their content library that include – Placemaking; Real estate; Diversity & Inclusion; Litigation & disputes; Governance; Employment, and more. Shoosmiths [online]. Available at: [www.shoosmiths.co.uk/insights](http://www.shoosmiths.co.uk/insights) [accessed 23 March 2022]

**Specification Online** – the free to use news and online products resource for specifiers working across the architectural and building sector [online] and available at: <http://specificationonline.co.uk> [accessed 23 March 2022]

**Supply Chain Sustainability School** represents a common approach to developing sustainability competence in the supply chain. It is a free resource available to any supplier and is part of their continued commitment to lead the industry into a brighter, more sustainable future. Supply Chain Sustainability School [online]. Further information is available at: [www.supplychainschool.co.uk/uk/default-home-main.aspx](http://www.supplychainschool.co.uk/uk/default-home-main.aspx) [accessed 23 March 2022]

[\[Back to A to Z\]](#)

## T

**The Telegraph – Property and construction industry** - The latest news, analysis and share prices on Britain's biggest construction and property companies. The Telegraph, Property and Construction Industry [online]. Available at: [www.telegraph.co.uk/property-and-construction-industry](http://www.telegraph.co.uk/property-and-construction-industry) [accessed 23 March 2022]

**Tomorrow's Engineers** brings together resources and evidence to support the engineering community in getting the most out of their engagement activity. Tomorrow's Engineer [online]. Available at: [www.tomorrowsengineers.org.uk](http://www.tomorrowsengineers.org.uk) [accessed 23 March 2022]

**Trust in Digital Repositories** (TrustDR) – a research project that examined how to effectively manage the legal aspects of digital collections of learning resources and produced a policy development toolkit. TrustDR [online]. Available at: <https://trustdr.digitalinsite.co.uk> [accessed 23 March 2022]

[\[Back to A to Z\]](#)

## U

**UK BIM Framework** – The overarching approach to implementing BIM in the UK. Further information on BIM Standards, Guides and Resources. UK BIM Framework [online]. Available at: [www.ukbimframework.org](http://www.ukbimframework.org) [accessed 23 March 2022]

**University College of Estate Management** (UCEM) is the leading provider of supported distance learning for real estate and construction professionals. UCEM [online]. Available at: [www.ucem.ac.uk](http://www.ucem.ac.uk) [accessed 23 March 2022]

**UCEM e-Library** is a comprehensive and valuable online resource, supplementing teaching and learning materials and enabling students to access a wealth of subject-specific and credible

information to support them throughout their studies. UCEM e-Library [online]. Available at: [www.ucem.ac.uk/e-library](http://www.ucem.ac.uk/e-library) [accessed 23 March 2022]

**University of the West of England (UWE), Centre for Architecture and Built Environment**

**Research** (CABER) seeks to develop innovative approaches, procedures, technologies, and techniques that support the design, management, reconfiguration, maintenance and operation of buildings, their fabric, and the environments they create. Note: CABER incorporates the previous Centre for Construction and Property Research (CPRC). CABER [online]. Available at: [www1.uwe.ac.uk/et/research/caber.aspx](http://www1.uwe.ac.uk/et/research/caber.aspx) [accessed 23 March 2022]

**UWE Educational Resources for the Built Environment** (ERBE) produces unique and highly respected educational resources for academic and professional use and incorporates the **Video Project** and the **Construction Website**. Further information can be found on the ERBE website [online] and available at: [www1.uwe.ac.uk/et/cp/erbe.aspx](http://www1.uwe.ac.uk/et/cp/erbe.aspx) [accessed 23 March 2022]

**UWE, ERBE, Construction Films** concentrate on domestic building construction. The films explain the principles of modern construction and, where appropriate, trace its evolution over the last 100 years. ERBE Construction Films [online]. Further information is available at: [www1.uwe.ac.uk/et/cp/erbe/constructionfilms.aspx](http://www1.uwe.ac.uk/et/cp/erbe/constructionfilms.aspx) [accessed 23 March 2022]

**UWE, ERBE, The Construction Website** is an interactive encyclopaedia covering construction, conservation and building history. It is expanded and revised on an annual basis [online]. Further information is available at: [www1.uwe.ac.uk/et/cp/erbe/constructionweb.aspx](http://www1.uwe.ac.uk/et/cp/erbe/constructionweb.aspx) [accessed 23 March 2022]

**UWE, Library, Search for things: A-Z** [online]. Available at: [www1.uwe.ac.uk/library/searchforthingsa-z.aspx](http://www1.uwe.ac.uk/library/searchforthingsa-z.aspx) [accessed 23 March 2022]

**UWE, Research publications and reports** – Providing immediate world-wide open access to all UWE's research output. Research at UWE Bristol [online]. Available at: [www1.uwe.ac.uk/research.aspx](http://www1.uwe.ac.uk/research.aspx) [accessed 23 March 2022]

**[Back to A to Z]**

## V

**Virtual Training Suite** - The Virtual Training Suite is a national eLearning service for Higher and Further Education in the UK, offering FREE "teach yourself" tutorials delivered over the Web, for students, lecturers and researchers who want to learn what the Internet can offer in their subject. This is a public service from **JISC**.

## Y

**Yale Environment 360** - an online magazine offering opinion, analysis, reporting, and debate on global environmental issues. We feature original articles by scientists, journalists, environmentalists, academics, policy makers, and business people, as well as multimedia content and a daily digest of major environmental news. *Yale Environment 360* [online]. Available at: <https://e360.yale.edu/> [accessed 23 March 2022]

**[Back to A to Z]**

## Z

**Zetoc: Informing Research** - The monitoring and search service for global research publications, providing access to over 36,000 journals and more than 59 million article citations and conference

papers through the British Library's electronic table of contents and over 875,000 Open Access (OA) article citations and conference papers from PubMed. Zetoc [online]. Available at: <http://zetoc.jisc.ac.uk/> [accessed 23 March 2022]

(Note: The web links provided were correct at the time of compilation.)

**UCEM e-Library** - The UCEM e-Library has a searchable database ([e-Library > section 9](#)) containing circa 1,000 [Useful web-links to e-Resources](#) for all subject areas covered within our programme of studies, pertaining to the built environment profession and the education sector.

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**University College of Estate Management** (UCEM), Horizons, 60 Queen's Road, RG1 4BS, UK – UK (Free): 0800 019 9697, International: +44 (0)118 921 4696, Email: [library@ucem.ac.uk](mailto:library@ucem.ac.uk)

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