

**CONSTRUCTING
EXCELLENCE**
delivered with bre

CONSTRUCTING EXCELLENCE 2019

Our Members

Our National Members are drawn from across the supply chain. They collectively employ over 250,000 people in the sector and turn over around £60 billion. Our client members spend around £10 billion each year on construction projects.

Clients

Acivico
Aster Group
Crossrail
East Riding of Yorkshire Council
EDF ENERGY (NNB GenCo)
Environment Agency
Heathrow Airport Limited
Hightown Housing Association
Horizon Nuclear Power
Igloo
Imperial College London
LHC
London Underground
Magnarox
Nationwide Building Society
Northumbrian Water
North West Construction Hub
Royal Mail Group
Scape Group
Sellafield
Southern Construction Framework
Westfield Group

Contractors

Astins
blu-3
Bowmer & Kirkland
Cara Group
Extraspace Solutions
Galliford Try
Higgins Construction
ITC Concepts
Kier Group
Sir Robert McAlpine
Willmott Dixon

Consultants

Blacc Consulting
Burgess Salmon
CARES
Cast Consultancy
CH2M
FaulknerBrowns Architects
Greenwood Consultants
Invennt
IPInitiatives
LCMB
Pick Everard
Pinsent Masons
Project Five Consulting
PTP Associates

pw2.0.com

Rider Levett Bucknall
Rift Group
Simpler
Synaps Limited
Stackhouse Poland
Trowers & Hamblins
Turner & Townsend
Visionality
WSP | Parsons Brinckerhoff

Specialists, Manufacturers and Suppliers

Aggregate Industries
Baxi Heating
BIM Academy
Coubari
Estates and Infrastructure Exchange
Glenigan
Graphisoft UK
Management Process Systems
Polypipe
Structural Timber Association
Tata Steel
Trimble Solutions UK
Waterloo Air Products

Associates

BRE
British Property Federation
Chartered Institute of Building
CIC
CL:AIRE
European Construction Institute
Institute for Collaborative Working
Loughborough University
National Association of Construction Frameworks
UK Green Building Council
University of Reading

ECI members

Air Products
ECITB
Fluor
GlaxoSmithKline
Kingsfield Consulting International
Mammoet
Mckinsey & Company
Procter & Gamble
Shell Projects and Technology
WSP

Foreword by our co-chairs



Mark Farmer
CEO, Cast

We would like to thank all those involved in the Constructing Excellence movement for their continued support in 2018. Constructing Excellence provides a key role as the industry faces considerable challenges combined with significant opportunities for change. It is our collective role to drive positive change through 'Words into Action'.

2018 has been quite a year for the construction industry. National media has shone a spotlight on the issues of poor quality and fragile business models that we have been working against for some time. Through the Construction Sector Deal the government is making unprecedented investments in R&D and using its own procurement mechanisms to drive performance. The time is right for 'words into action'.

Our mission of 'positively disrupting industry delivery processes to transform performance' launched in 2017 is very much reflected in the sector deal. Our vision of clients procuring for value, digitally-enabled collaboration and standardisation through manufacturing-based construction, is fully aligned with the Construction Sector Deal. Our movement is working to translate this vision into action.

Our sister organisation, ECI, is looking at very similar challenges in the engineering construction sector and is focussing on how to improve productivity and drive out waste on capital projects, through increased digitalisation and standardisation.

Generation4Change remains a highlight of the movement and their drive to increase diversity and attract new entrants into the sector will provide firm foundations for the industry of the future.

The launch of our KPI portal allows us to put data at the heart of industry change. Our members' commitment to sharing data and benchmarking performance will enable us to demonstrate clear value from embracing the Constructing Excellence principles.

Our mission and vision are being embraced across the globe. This year saw the launch of Constructing Excellence in Qatar under the leadership of Don Ward. This will act as a hub to drive a culture of collaborative working across the Wider Gulf.

Phil's appointment as a Trustee of the BRE Trust reinforces the key role that Constructing Excellence plays as a core dissemination partner for the Trust, whose mission is to enable transformational change within the built environment through research, demonstration and education. This opens up considerable opportunities for Constructing Excellence members to access some of the transformative research and knowledge taking place within the BRE Group.

In 2019 we aim to build on these great foundations to increase alignment across the movement and provide greater influence and engagement with the wider industry.

Finally, thank you to all our members, theme groups, ECI members, G4C national and regional groups, regional centres, local clubs, international partners and many other stakeholders and collaborators for your continued support of our organisation. We hope this report does justice to your work, and we look forward to working with you in 2019 to deliver excellence.



Phil Wilbraham
Expansion Programme
Director, Heathrow Airport



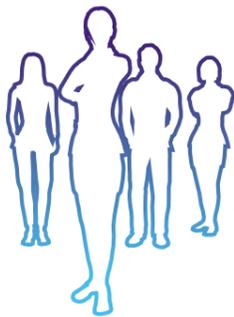
David Whysall
Managing Director,
Turner & Townsend



8 regional centres and 36 best practice clubs make us the leading platform for change in the built environment



Over 100 regional winners go forward to our annual national awards



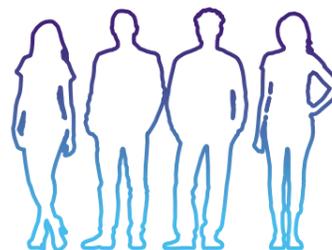
Over 1,500 leaders of the future in 10 regions are the driving force behind G4C



We are tracking industry performance with **19 years** of KPI data



We have a global outreach with **8 members** of the Constructing Excellence International Alliance



Each year Constructing Excellence holds over approximately 250 events with more than **17,000 participants** and raised over £26,000 for charity through the annual awards programme

Vision

Excellence through collaboration

Constructing Excellence is a platform from which to stimulate, debate and drive much needed change in the Construction and Built Environment sector. Our thought leading members from the entire supply chain – clients, industry and users – share a vision for change through innovation and collaboration.

Constructing Excellence is funded and governed nationally by corporate membership, and invites anyone who wants to be part of the change process to become active members.

Our national members collectively employ over 250,000 people in the sector and turn over around £60 billion. They spend around £10 billion each year on construction projects, accounting for nearly 20% of new build spend in the sector.

Our mission

“Positively disrupting the industry delivery processes to transform performance.”

Our vision

Superior outcomes from new delivery models featuring:

- A **client-led transformation** by procuring for outcomes and value.
- Increased **standardisation and pre-manufactured content**.
- Digitally enabled integrated teams working collaboratively** with long-term relationships and aligned commercial arrangements.

Our strategy to deliver excellence

Our core activities are designed to deliver our vision of excellence:

Measuring Performance:

Focussing on data, benchmarking and practical tools for change.

Showcasing innovation and best practice through:

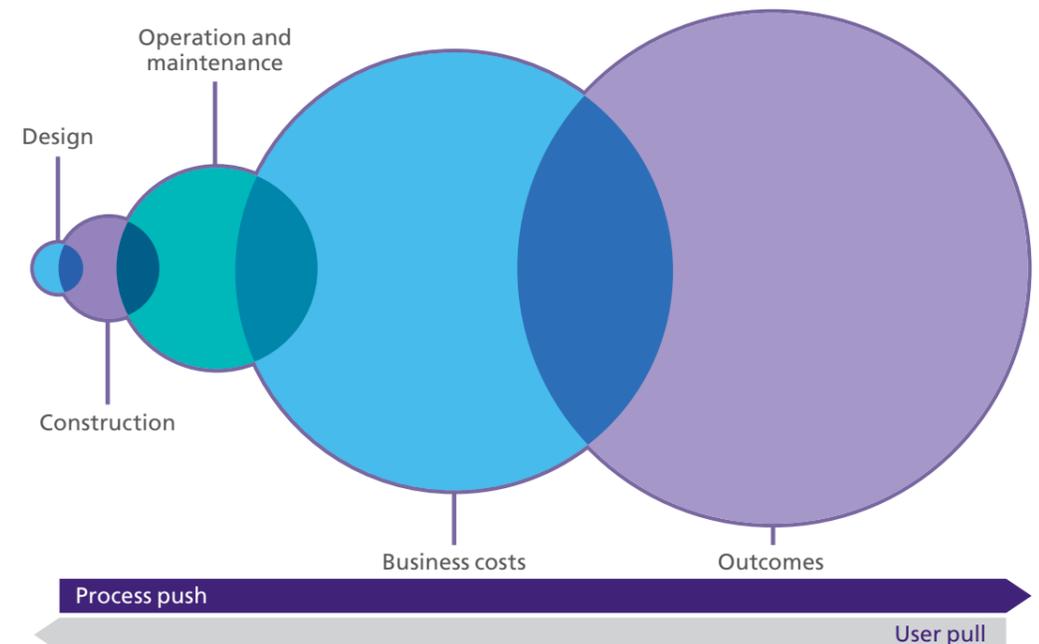
- Pilot and demonstration projects.
- Regional and national awards programme.

Connecting our networks more effectively for impact:

- National, regional and local activity.
- The next generation through Generation4Change.

Influencing and enabling sector policy by:

- Working in partnership with other bodies to work in partnership with government including CLC and Industrial Strategy for a sector deal which makes a difference.
- Providing opportunities for Constructing Excellence and its members to be hard-wired into sector transformation.



Theme Groups

Our Theme Groups are the core of our work programme, they explore the burning issues of industry change. In 2018 each of the Theme Groups have focussed on alignment with the core aspects of our vision with a focus of turning Words into Action.

Nuclear



Chairs Adrian Worker,
Jacobs and Ben Pritchard
Inventt

In 2018 this group continued to respond to the productivity challenge in the nuclear construction sector. In 2018 we published Challenging the mindset in nuclear construction: 'Construction Factory Thinking' with the support and endorsement of key sector organisations including EDF Hinckley Point C, Horizon, Sellafield, Nuclear Industry Association, World Nuclear Association, ECITB and ECI.

Other volumes in the "Productivity Series" of reports on Processes and tools, Digitalisation, and Procurement, will be published in the first half of 2019. The group will then move on to address the theme of digital transformation in nuclear construction. Participation is always welcomed from national members and from other organisations who have value to add.

Research, Innovation and Skills



Chairs Jon de Souza,
Galliford Try and Caroline Key
CITB

The group seeks 'an innovation-active sector with a strong exchange of knowledge and ideas with the research and knowledge base of the further and higher education sectors.'

The group focuses on how the research and academic communities can interact with industry to advance the research, innovation and skills required to deliver the Constructing Excellence Vision of 'transforming disrupting the industry delivery processes to transform performance.'

The group showcases excellence in research, innovation in skills in specific areas and identifying gaps in skills, knowledge and research. The first such seminar will consider the role that behaviours and psychology play in industry performance. The group is currently researching what is happening in other countries and industry sectors which have more open and transparent cultures and behaviours. It was agreed that we needed to look outside the sector, bringing in experts and academics from other disciplines to delve deep into this issue.

Offsite Manufacturing and Technology



Chairs John Lorimer,
BIM Academy and Darren Richards
Cogent

The Constructing Excellence Offsite Group is exploring the benefits and drivers behind the use of pre-manufactured and offsite based systems. The group uses practical demonstrations and visits to delve into the opportunities and benefits around offsite technologies. Run in collaboration with the Offsite Hub highlights for 2018 include:

The Tata Steelpark in Wolverhampton where the group gained an understanding of what the construction sector can learn from the automotive sector.

The Advanced Manufacturing Research Centre's Factory 2050 in Sheffield, where the group saw practical examples of how emerging technologies can be applied in construction settings.

GSK's Factory in a Box, where the group learnt about how digitalisation and modularisation are being applied in the pharmaceutical space.

Explore Manufacturing Centre near Worksop, where the group saw first hand how this pioneering facility is driving productivity and the application of manufacturing principles in the construction sector.

The Stewart Milne Factory in Witney, where the group saw how timber technologies are playing a key role in the move towards offsite and standardisation.

The group also provided evidence to the House of Lords Inquiry on Offsite Manufacture for Construction and were the driving force behind the introduction of an offsite category in the 2018 Constructing Excellence Awards.

In 2019 the group will continue its programme of seeking out great examples for learning and consolidate these findings into a series of industry tools and guidance.

Digital



Chair Tom Oulton
Turner & Townsend

The mission of the Digital group is to make sure the digital transformation of the industry is at the core of everything Constructing Excellence does, as with similar industry wide transformations around health and safety and sustainability in recent years. The group is challenging the other theme groups to define what this transformation means for their subject area, and what obstacles the Constructing Excellence Digital group can help to clear.



Asset Management



Chair John O'Brien
LCMB

The Asset Management Theme group has been a dissemination partner on the Whole Life Performance Plus (WLP+) project. WLP+ is an Innovate UK supported project focussed on improving workplace productivity and performance by improving Indoor Environmental Quality (IEQ). The project has developed knowledge that can be used to optimise workplace productivity and well-being. The project outcomes are summarised in a joint Constructing Excellence and British Council for Offices report published in November 2018 and will be disseminated through the asset management theme group meetings over 2019.

Sustainability



Chair Paul Toyne
London Sustainable
Development Commissioner

The group is working with colleagues in ECI on how new delivery models and the move towards digitalisation is an opportunity to drive sustainability. The group will look at specific aspects of sustainability and how it relates to the move towards data and manufacturing. The group is using the United Nations Sustainable Development Goals as a framework with an initial Focus on Goal 12 – Responsible Consumption and Production. The group are identifying where the good examples of existing practice are; what role for data and technology; how to ensure against perverse outcomes; and agree what support is required for companies to deliver. If successful we would then plan to explore another SDG.

Funding Finance and Insurance



Chair Madoc Batcup
Synaps Limited

This group targets strategic issues that affect the alignment of commercial drivers in the worlds of finance and project delivery. In 2018 we updated our report of views on the future of insurance in the construction sector, working with national member Stackhouse Poland and major insurance companies. In 2019 we will be supporting an exercise to interview investors on their views of project viability and future funding models in the engineering and process construction sectors.

Client's Forum



Chair Phil Wilbraham
Heathrow Airport

Clients form an integral part of the Constructing Excellence movement. Clients and owners face particular challenges and have some very specific issues where value is added by sharing and learning with other client members. This group allows clients to have open and honest discussions with their peers on the challenges that they are facing.

In 2018 the Forum has looked closely at the Cabinet Office New Models of Procurement, including a deep dive into the Dudley College Insurance Backed Alliancing Project.

Collaborative Working



Chair Kevin Thomas
Visionality

This group continues to represent a resource for members to share experience and to support and mentor others trying to introduce collaborative approaches. It's not easy, but the benefits are well proven! In 2018 the group was delighted to receive the final report of the first pilot to use IPI @, the first example of a new class of procurement and delivery model now known as Insurance-Backed Alliancing. It was also delighted when the same client (Dudley College) announced it would be delivering its next project using the same model – a massive vote of confidence for what many in Constructing Excellence see as a transformational model. Much more detail on the website.

Procurement



Chair Ann Bentley
RLB

In 2019 Ann Bentley will take on the chairmanship of this theme group, she is also leading on this theme for the Construction Leadership Council (CLC), and this represents an important alignment of our work with that of the CLC and the Infrastructure and Projects Authority (IPA) of the Cabinet Office.

The group enjoys participation from across the supply chain, academia and government, all sharing experience and providing wider thought leadership to address procurement-related barriers to improving productivity in the sector.

An important subgroup has focused on social value (see box), and our CEO Don Ward has continued to chair the New Models of Procurement working group, reporting annually to the IPA on the continued successes of the three new models which continue to facilitate 15-20% reduction in capital costs through collaborative approaches: Cost Led Procurement; Integrated Project Insurance (see box overleaf); and Two Stage Open Book.

APRES – Action Programme for Responsible & Ethical Sourcing

Chair Prof Jacqueline Glass
UCL



APRES is a group of industry and academic partners committed to embedding the responsible and ethical sourcing of materials, products and services into the construction industry. Its activities include hosting a major annual conference and producing guidance on responsible sourcing for the construction industry. In November the group ran the 8th Apres Conference 'If not now, then when? Responsible Sourcing and Procurement for Infrastructure Projects'. The group is currently exploring the role that KPIs can play in measuring responsible sourcing.



Social Value

Chair Rob Wolfe
CYH



Responsible businesses generate both economic and socioeconomic or social value. We have made a lot of progress since our first Social Value Task Group in March 2016. We have had input from a diverse group of stakeholders from Construction Frameworks to social entrepreneurs. What has been clear is that there are a number of differing views in the industry. As we enter the final strategic stage of the forum we have met our aims to provide the industry with a Constructing Excellence:

- Definition of social value,
- Consensus on how to measure social value, and
- A practical, useable roadmap for clients, contractors and communities at every stage in their journey to create, monitor and measure social value in the built environment.

The next step for the group in 2019 will be to take the strategy into action; campaigning with and supporting Constructing Excellence members to collaboratively achieve their aspirations for a more socially responsible industry.



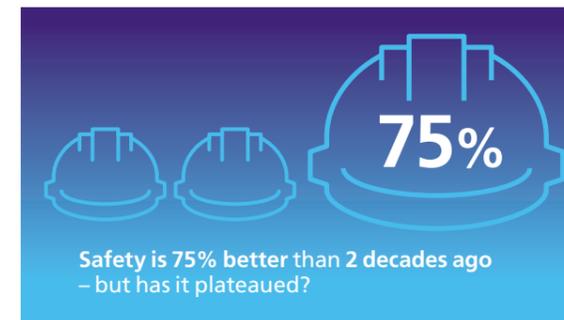
Performance measurement and KPIs

Constructing Excellence launched our new SmartSite KPIs portal this year. It is a critical tool for comparing any project or portfolio with a) others in peer group, b) CE members c) national performance, d) other sectors, e) international performance. Any organisation that wants to pool their data should get in touch for a discussion about the terms on which we should do this, adding value to both our data sets. National members of Constructing Excellence have privileged access to the tool, as well as the ability to influence the future direction of this critical stream of our work through our new Performance Measurement Forum. The Performance Measurement Forum will review the current core set of KPIs in the context of right measures for the Construction Sector Deal, productivity, social value, and demonstrating the benefits and business case from transformational approaches such as offsite, BIM.

It is hard to believe that it is 20 years since Don Ward chaired the government-sponsored committee which first defined these our industry standard KPIs and published the annual performance report. Those of a certain vintage may have nostalgic memories of drawing lines on wallcharts.

Since then Constructing Excellence had been the go-to place for what and how to benchmark, and have provided the tools to enable people to measure and compare their own performance on the basis of 'apples with apples', as a basis for prioritising improvements. Our primary objective is to encourage any client, contractor, consultant or supplier to compare their own data and ask the question "Why... (is my data like that?)" – after which they are drawn naturally into the cycle of benchmarking, a vital strategy for driving business improvement.

Industry Performance in 2018



SmartSite KPIs

Performance measurement and productivity software



SmartSite KPIs has been developed in collaboration with BRE under the strategic direction of our cross-industry membership.

What is it?

SmartSite KPIs is an online tool that lets you benchmark the performance of your projects against the rest of the construction industry using the established and nationally recognised Constructing Excellence KPIs.

By measuring and comparing your project and organisational performance you can improve your productivity and demonstrate excellence.

Why would it benefit me?

Use established KPIs – The Constructing Excellence set of construction KPIs have been used for 20 years, and are recognised by government and industry.

Improve productivity – Systematically improve your performance by measuring business critical success factors and comparing with others.

Demonstrate excellence – Provide evidence that your projects and organisation perform highly when compared to the rest of the industry.

Data Intelligence – Benchmark performance data from your projects and organisation using a modern digital tool and a recognised methodology.

Elsewhere in the movement

Annual Conference – The Fourth Industrial Revolution – Towards Industry 4.0

Sponsored by Baxi Commercial, Burges Salmon and Invennt, our 2017 conference saw the launch of our new mission and vision. The conference used panel sessions to explore the key questions including ‘Will traditional delivery models become obsolete?’ and ‘Is data the currency of the future?’.

Interactive polls were used throughout the day to verify how participants viewed offsite manufacturing and technology. 61% of respondents were positive that their organisation were in a good position to exploit the full benefits of offsite manufacturing and technology, whilst only 11% felt negative. On the topic of whether traditional delivery methods will become obsolete the participants were less convinced, with just 38% believing they would become obsolete and 37% thinking they would be around for a while. Over 80% of participants agreed that data was the currency of the future. 70% believed that the 4th industrial revolution is just getting started with lots of opportunities to embrace.

In 2018 the conference looks at 20 years since the launch of Sire John Egan’s Rethinking Construction. It will look at how we can build on 20 years of industry leadership and maximise the current unique opportunity for change.

Members forums

Each year we hold 3 members forums that provide an opportunity for members to get together and discuss issues and themes that are impacting them. This year we covered:

Procurement, Social Value & Responsible Sourcing, January 2018 hosted by Burges Salmon

Organisational Resilience – Are we built on a house of cards? May 2018 hosted by Trowers & Hamlin

Research and innovation needs to deliver our vision, September 2018 hosted by Burges Salmon



Elsewhere in the movement

Leaders breakfasts

Run in partnership with blu-3 and Advance Consultancy Ltd, and sponsored this year by Tony Gee and Aggregate Industries and Balfour Beatty our quarterly business breakfasts held under the Chatham House rule typically bring together 30-40 senior industry leaders, clients and others to openly debate burning issues. Our 2018 roster of speakers was:

Simon Rawlinson, Arcadis and the Construction Leadership Council

Humphrey Cadoux-Hudson, Managing Director, Nuclear New Build, EDF

Amanda Fisher, MD FM Defence and Justice, Amey

Kate Hall, Design Director, HS2

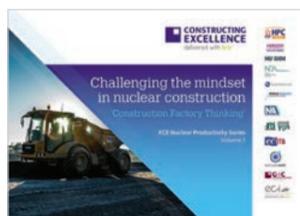
Sophie Gowland, Assistant Quantity Surveyor, blu-3

Briony Coombs, Site Engineer, Thames Tideway Tunnel, BLB Joint Venture

Steve Rowse, Chairman of Chartered Institution of Highways & Transportation

Following the September meeting an initiative with Balfour Beatty to create a 'no walk by' culture to sexism within construction. Applications to attend these events especially from national members are welcomed at any time. The forward programme is available on the website.

Reports and publications



Challenging the mindset in nuclear construction: 'Construction Factory Thinking'

This is the first paper in the Productivity Series, from the Constructing

Excellence Nuclear Group, that seeks to support this work and is focused on how highly productive environments can be developed with an aim to stimulate a necessary change in mind set by raising productivity as a priority issue in all nuclear construction and decommissioning projects, including those considered mega projects (all referred to as nuclear projects).

The paper considers the various delivery models being deployed by owners and developers (clients) but primarily seeks to highlight a collection of best practices captured from other sectors used in developing highly productive factories where significant similarity exists. Hence 'Factory Thinking'. It explores what productivity is, why construction factory thinking needs to be considered, how it can be applied to both 'Green Scenario' involving design or a 'Brown Scenario' where design is complete. It highlights proven processes and tools, that will be the subject of additional papers in the Productivity Series, and identifies several areas to be explored recognising high productivity in the construction element is dependent upon design inputs and other constraints by way of regulation and site specifics.

Recognising the reputational issues such a change in mindset by the nuclear industry is critical to ensuring clients gain value and investors gain confidence to support nuclear projects and the viability of the nuclear industry.

Response to House of Lords Inquiry on Offsite Manufacture for Construction 1 May, 2018

In May the Offsite Manufacturing & Technology Group contributed to the House of Lords Science and Technology Committee currently carrying out an inquiry into offsite manufacture for construction. The committee is considering the potential benefits of offsite manufacture for construction and any drawbacks and obstacles to its wider use. It also considers how Government policy, particularly around public procurement, might need to change to encourage economically and environmentally sustainable practises in the construction industry that could facilitate offsite manufacture.

Organisational Resilience – Are we built on a House of Cards?



This report, written by Project Five Consulting, provides an overview of how resilient the industry is in relation to a range of internal and external factors – explores the role of organisational resilience in enabling construction companies to adapt to changing conditions. It addresses the evidence of failure, posits why they fail, considers the issues, areas of risk, and proposes how to build resilience and the benefits therein of doing so for the individual companies and the sector as a whole.

The report has identified the construction industry as a key enabling sector for the wider UK economy. A resilient sector should be good for UK plc. However, it has a higher rate of failure than the average across all industry sectors. This fragility is underpinned by structural issues that characterise the weaknesses in the industry.

Prospectus – Insurance Backed Alliancing A game-changing journey on the first project using the IPI model at Dudley College



The Integrated Project Insurance model is the most innovative of the new models of procurement promoted in the Government Construction Strategies 2011 and 2016–2020, and as such must undergo successful trials under the Trial Projects Delivery Programme before it can be rolled out across Government Departments. Research funding from Innovate UK under its "Rethinking the Build Process" competition has supported the project under the title "Delivering more for less under the IPI model", and a cross-industry consortium with the University of Reading as academic partner has collaborated with Constructing Excellence in rigorous monitoring and analysis of the first IPI pilot project, the design and construction of a further education facility called "Advance II" at Dudley College, West Midlands.

This report presents the IPI model as the first of a new generation of alliancing models, bringing together established collaborative working practices with independent risk assurance and a unique cost-overflow insurance, capable of being applied to a vast range of projects in the public and private sectors.

Blockchain – feasibility and opportunity assessment



A new report from BRE Trust in collaboration with Constructing Excellence explores opportunities to address challenges in the built environment industry using blockchain technology.

Distributed Ledger Technology (of which blockchain is one application) is a digital record of the economic transactions or changes in the ownership of an asset. The information is shared and continually

updated on a network of computers simultaneously, whilst secured through cryptography. This means that while allowing digital information to be distributed, but not copied, a blockchain is both transparent and incorruptible.

The issues it covers include:

The potential for better 'track and trace' of products throughout their life cycles, to give a clear picture of where they came from, who supplied them and who installed them,

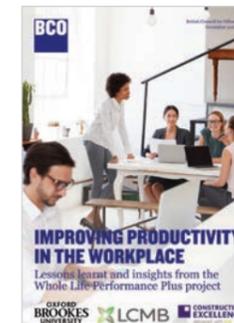
the evolution of distributed energy systems to support more localised energy creation and use,

the use of blockchain technology to help tackle modern slavery and human trafficking by creating more transparency in construction supply chains,

connected districts and cities with the Internet of Things.

Blockchain technology offers a distributed system of registers, all of which are connected through a secure validation mechanism.

Improving productivity in the workplace



Constructing Excellence has been researching the impact of the built environment on organisational performance and value since its earliest days. Its aim is to ensure that the real estate delivered by the construction industry benefits society, organisations and the individual.

WLP+, which is co-led by LCMB Building Performance Ltd and Oxford Brookes University, is the

most comprehensive study of the impact of the indoor environment on workplace performance in the real world, and Constructing Excellence is a proud contributor.

G4C 2018/2019

– A new direction for G4C

A new direction for G4C



As the young professional voice of the UK built environment industry, and an integral part of Constructing Excellence, G4C (Generation for Change) is a network which exists to connect, challenge and shape a better industry. We feel uniquely placed to help spearhead progress on topics that, as a sector, we've yet to adequately address.

That's why we've embarked on a new strategy to take us forward over the next two years. This is in support of the Constructing Excellence mission to positively disrupt the way our industry operates to transform performance. Central to this is our focus on two core, intertwined themes which we think will be key to unlocking our industry's true potential – image and diversity.

For an industry which creates gleaming beacons of humanity, bedrocks of civilisation and sits at the heart of the fabric of modern society, we have an amazing knack of shying away from telling our story to an audience beyond our own. For too long, we have let other people speak for us instead of communicating with a single, shared narrative that can engage, inform and captivate the public.

As young professionals, we see the power and importance of brand identity, marketing and image. After all, we're the generation who have grown up in a world filled by it. For a lot of people, the notion of brand in a B2B industry doesn't seem to sit comfortably. Marketing has been seen as something which can be turned on and off. Add to that our innate conservatism, and often parochial and short-term instincts, and you can see how the problem perpetuates.

An intrinsic part of our image problem is that we're still perceived as an industry which isn't open to all. Our inability to attract and retain a diverse workforce reinforces this – we have to ask ourselves why we've yet to shift the dials in female participation and those from under-represented backgrounds. Women make up just 2% of all apprenticeships starting in construction (UCATT, 2015), while the UK has the lowest percentage of female engineering professionals in Europe (Perkins Review of Engineering, 2013). This is despite many good intentions, initiatives and positive noises.

Better perception, better talent, better performance



So it seems startlingly obvious to us that we need to do something different. Britain has one of the most extensive national infrastructure programmes in Europe, while national housing targets are extremely ambitious. If we are to create the built environment our country needs, we simply have to expand and upskill our talent pool, quickly. According to a report by Arcadis (2017), we need to recruit over 400,000 people each year until 2021 – that's one person every 77 seconds! Attracting and retaining the brightest and best, from all backgrounds and communities, will be key to the health, vibrancy and success of our industry.

We believe a career in the built environment provides an unrivalled opportunity to learn, develop, travel the world, earn a great living and witness the tangible outcomes of our work. But the reality is that talent is choosing other, more 'glamorous' sectors who better sell themselves – whether tech, consultancy, banking or IT. Too many people in our industry are here because they 'fell into' the sector. Yet happy accidents do not make a business model.

If we succeed at attracting more people from more backgrounds, not only will we help alleviate the skills shortage, we'll also improve performance. As an example, McKinsey's Diversity Matters research (2015) showed that companies in the top quartile for racial and ethnic diversity are 35% more likely to deliver superior financial returns, relative to their industry peers.

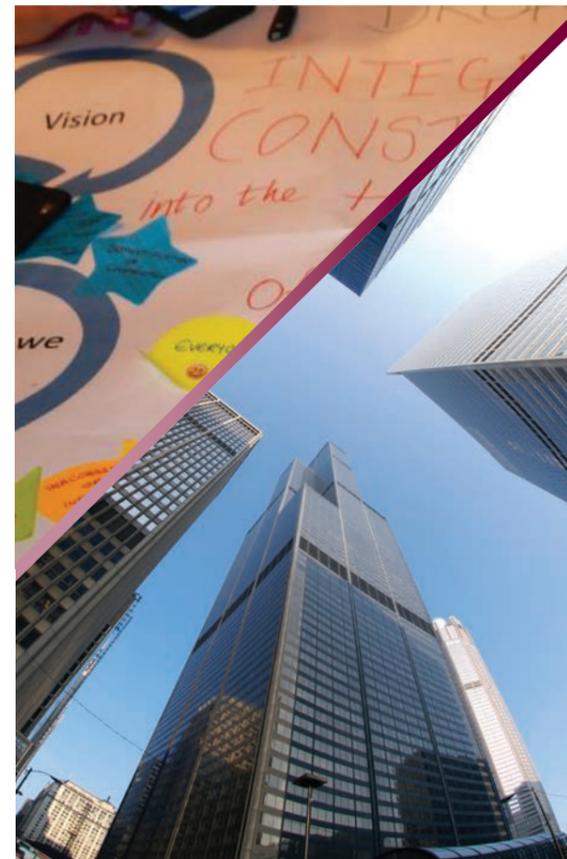


Bouncing back



In May G4C held our first national conference – 'Bouncing back: a new narrative for construction'. A half-day event held at a ping pong bar in East London, it brought together young talent from across the country to discuss how we could present a new, more dynamic and engaging outward image – one which better reflects the great things we do every day. Organisations who supported the event included The Building Research Establishment (BRE), Construction Industry Training Board (CITB), Build UK and the Chartered Institute of Public Relations (CIPR).

It's clear that young professionals want to see our sector showcase itself with more vigour and vim. We want to speak with one voice and bring our work to life in a language which resonates with everyday people. We need to inject some real personality and create a pool of recognisable faces who can represent and talk about the whole industry. We want to be bold, confident and creative in how we sell the incredible breadth of opportunity we offer, to a new audience. Many possible mechanisms were explored, from a YouTube channel and 'rock star' campaign, to video games and even a sitcom!



A plan for change – the #77campaign



Our conference was the first step towards change. We're now asking industry to unite behind a campaign to attract talent. The industry needs to recruit one person every 77 seconds. So our call to action is the '#77campaign' – a challenge to industry to create sub-77 second video content to promote and tell the story of our industry, with the aim of attracting someone to join. By providing a window into our world, we can present a new face and tell the real story of the built environment.

G4C is uniquely placed to be able to join the dots and provide a young professional perspective. We recognise we're not the first to tackle these issues, which is why we will now begin to explore partnering with organisations who share our ambition – including the CITB, Build UK, the Construction Leadership Council, the B1M video channel and chartered institutions. We'll also explore partnering with organisations and networks not usually associated with construction.

In addition to this outward-facing campaign, we want to help industry internally to raise its game in driving greater people diversity and inclusion. We believe that better diversity performance will drive better perceptions and attract people from more backgrounds, in a self-fulfilling cycle. That's why we're proposing a new diversity 'handbook' to demystify the concept of diversity and help companies with some simple steps, suggestions and links to third party resources. The aim is to facilitate improvements to recruitment, procurement, working practices, data monitoring and in turn, diversity performance. We want to engage with industry to generate some positive case study material which can be used to feed into the #77campaign.

Work with us



We believe young professionals sit at the heart of the solution to these issues. As recent entrants to the sector, we understand why we joined and what may motivate others to follow suit. We can relate to young people in education who are making choices about their future and provide a relevant, accessible insight into what life is like in the built environment.

We look forward to reporting on our progress at this year's Constructing Excellence Annual Conference, to take place in December. In the meantime, if you're aware of industry organisations who wish to work with us, support the #77campaign and create a new narrative for construction, please get in touch at getinvolved@g4c.org.uk.



We continue to facilitate an international alliance of similar organisations who share ideas and seek to collaborate. We welcome contact from any cross-industry best practice organisation around the world which shares our aims, values and activities. In 2018 we were delighted to welcome visiting delegations from Hong Kong, Malaysia, New Zealand and Singapore, and we also supported the first conference of the international network of BRE Innovation Parks.

Members of the Constructing Excellence International Alliance December 2018

Building and Construction Authority, Singapore

Bygherrefoereningen (Danish Association of Construction Clients)

Constructing Excellence in New Zealand

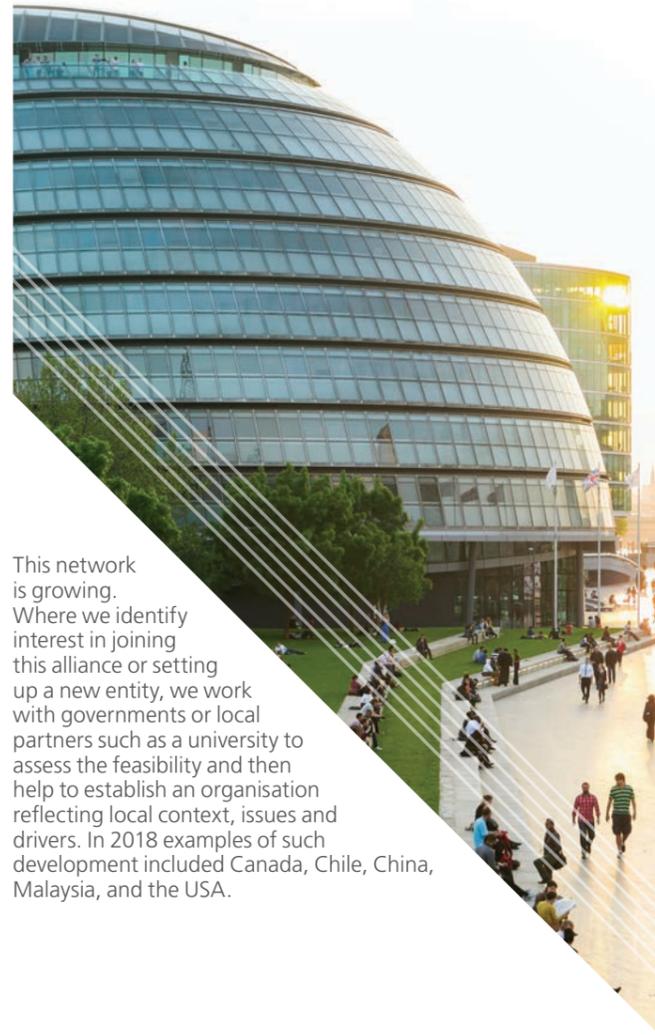
Constructing Excellence in Qatar

Hong Kong Construction Industry Council

Project Norway

Sustainable Built Environment National Research Centre, SBENRC, Australia

Vernieuwing Bouw, Netherlands



This network is growing. Where we identify interest in joining this alliance or setting up a new entity, we work with governments or local partners such as a university to assess the feasibility and then help to establish an organisation reflecting local context, issues and drivers. In 2018 examples of such development included Canada, Chile, China, Malaysia, and the USA.



Constructing Excellence in Qatar



Eng. Ahmad Al Ansari,
Head of the Technical
Office, Ashghal

In March 2018 Ashghal, the Public Works Authority of the state of Qatar, launched Constructing Excellence in Qatar. UK CEO Don Ward committed to be based in Doha as part of the agreement to ensure success.

Ashghal's initiative aims to promote and apply best practices, encourage innovation, and adopt latest technologies in order to improve and develop the construction sector in Qatar and to leave a knowledge legacy that will be utilised and developed over the long term.

This is seen as a major contribution to the achievement of Qatar's National Vision 2030.

The Qatar strategy is founded on the core value of Collaboration, and has three main components:

Benchmarking and Demonstration Projects:

Identifying and sharing examples of successful good practices, and applying new interventions and developing models, while measuring their impacts.

Learning Events, Training and Qualifications:

Developing learning events and training programmes for the industry, with the option of obtaining formal qualifications and professional body membership.

Showcasing and Awards: Promoting the results and achievements of successful Qatar construction programmes and projects, and developing an awards programme to recognise the best local construction companies and projects, while also seeking recognition in international awards.

The initiative addresses a wide range of topics such as health and safety and worker welfare, project delivery including lean construction and BIM, sustainability and procurement.

The programme started with a lean pilot to improve site productivity, implemented in collaboration with Parsons Brinkerhoff, consultant for Ashghal's Local Areas Infrastructure Programme. Seminars have been held with the Chartered Institute of Building, the Chartered Institute of Arbitrators, the Royal Institution of Chartered Surveyors, and the Institution of Civil Engineers, which were attended by over 400 specialists in the governmental and industrial sectors.

For 2019, new Ashghal Contract Requirements have been introduced which include best practices in lean and productivity improvement, in order to facilitate enhanced delivery of projects, and Constructing Excellence will be monitoring and reporting on these demonstration projects. We will also be extending its work with organisations such as Qatar University, Qatar Foundation's Green Building Council, the Supreme Committee for Delivery and Legacy, Qatar Rail, and Qatari Diar. We also plan to launch an awards programme to recognise and celebrate success.

For more information please contact:
don.ward@constructingexcellence.qa



European Construction Institute

About ECI

The **European Construction Institute (ECI)** is the sister organisation to Constructing Excellence, and addresses the same challenges in the process engineering sector including oil and gas, petro-chem, pharma. In September 2017 it became part of BRE and was integrated with Constructing Excellence, having previously been ran by Loughborough University.

It is a pan-European network of like-minded organisations focussed on delivering construction excellence. Its aim is to improve the competitiveness of its members through the sharing of knowledge and application of best practice to enable them to meet the challenges of world-class project delivery in Construction and Engineering Construction.

This enables significant collaboration between the 36 members of ECI and the Constructing Excellence movement. The differentiation between CE in the Built Environment and the ECI in Engineering Construction in the international market together with the transferable expertise, experience and resources within and between these organisations strengthens both for mutual benefit.

With regional centres in the UK, Italy and Benelux, ECI is Europe's only transnational learning and improvement network covering the entire project cycle for Construction and Engineering Construction.

ECI's network of clients, contractors, professional consultancies, specialists and support organisations, brings together major figures from the most respected global companies. Our members identify the crucial issues facing the industry. Then, through their involvement and ECI's strong links with leading universities across Europe, we undertake practical research to deliver engineering best practice and powerful learning opportunities of direct relevance to member organisations. By doing so, we facilitate continuous improvement within the industry, ensure the highest levels of standards on projects, and support the on-going development of a highly skilled construction workforce.

ECI's focus on construction and engineering excellence spans organisations and projects of varying sizes, from small regional projects to international mega construction projects. ECI is focussed on achieving a strong, globally competitive European construction industry and operates on the principles of:

Establishing the evidence

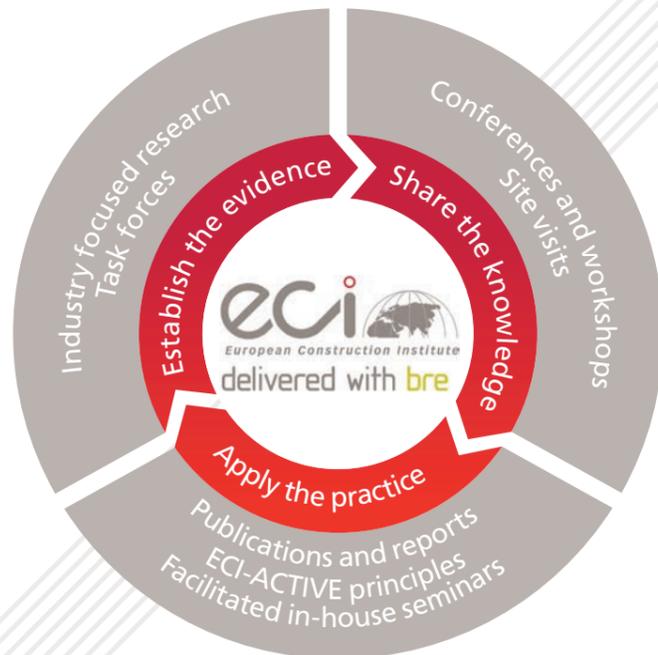
Providing industry-focussed evidence through collaboration between professional companies and selected academic institutions.

Sharing the knowledge

Facilitating processes for capturing, accessing and sharing knowledge.

Applying the practice

Encouraging member companies to implement best practice and safely deliver enhanced value to all stakeholders.



Member events in 2018

In the first year of ECI's operation in its new guise, the focus has been on understanding the drivers and challenges of owners and investors in the sector and responding to this with activities focused on a twin track of continuous improvement and radical transformation.

Member forums in 2018 – Feb (Amsterdam), May (London), October (Amsterdam)

OS2/Prairie Dog

Clients roundtable – October

Total participation in the above events numbered about 200.

ECI Executive Steering Group

We remain indebted to the members of this group which sets the work programme for ECI and ensures value is maximised for members:

John Fotherby, Kingsfield Consulting

Andy Brown, ECITB

Frank von Willert, McKinsey

Paul van Weert, Shell

Will Page, Fluor

Scott Fernie, Loughborough University

Peter Kay, WSP

We welcome applications for membership of ECI. Participation is essential to us, and membership is free to national members of Constructing Excellence.

For more information see www.eci-online.org.



Facts and figures

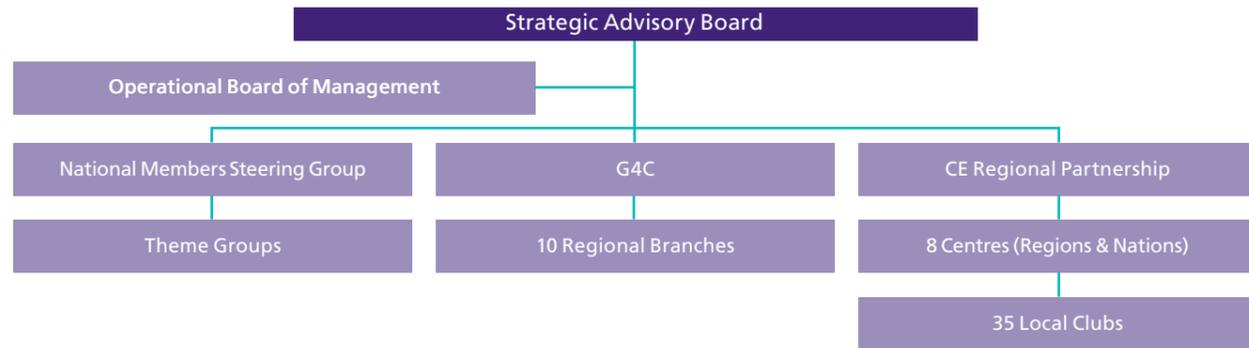
Constructing Excellence was established in 2003 when the government-funded Construction Best Practice Programme and Rethinking Construction merged. These dated back to Sir John Egan's government task force report Rethinking Construction in 1998 and were run by BRE. The membership-funded Be organisation became part of Constructing Excellence in 2006, this combined the membership-funded Reading Construction Forum and Design Build Foundation which were both founded in the early-mid 1990s.

Phil Wilbraham, Mark Farmer and David Whysall became the 6th chairs of Constructing Excellence succeeding Murray Rowden of Turner & Townsend, Ian Reeves CBE of Synaps LLP, Vaughan Burnand of Shepherd Construction, Bob White of Mace, and the founding chairman Peter Rogers CBE of Stanhope. Don Ward has been chief executive since 2008, following Bob White and Dennis Lenard.

On 19th August 2016 Constructing Excellence Ltd was acquired by BRE, becoming part of the BRE Trust group of companies.

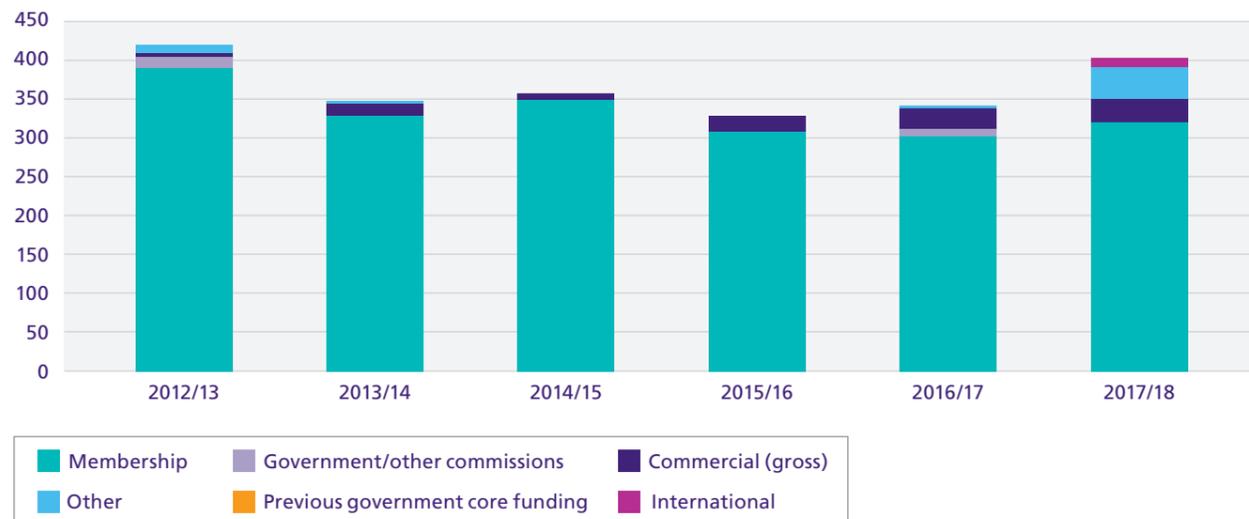
National governance

The national governance structure of Constructing Excellence brings together all parts of the nationwide movement as follows.



Income

Membership subscriptions accounted for 88% of our funding in 2017-18



Board of Management



Phil Wilbraham
Heathrow
(Co-Chair)



Mark Farmer
Cast Consultancy
(Co-Chair)



David Whysall
Turner & Townsend
(Co-Chair)



Murray Rowden
Turner & Townsend
(Chair Constructing Excellence International)



John Fotherby
Kingsfield Consulting International
(Chair ECI)



Milica Kitson OBE
Constructing Excellence in Wales (Chair CE Regional Partnership)



Tim Whitehill
Project Five Consulting
(Stood down July 2018)



Catriona Lingwood
CE in the North East



Peter McDermott
CE North West



David Sutton
EDF (representing CE South West)



Phil Henry
Polypipe



David Ferroussat
Heathrow



Vince Lydon
Sir Robert McAlpine



Brendan Morahan
Invennt



Robin Lapih
HS2
(G4C Co-Chair)



Caroline Key
CITB
(G4C Co-Chair)

The National Team



Don Ward
Chief Executive



Alison Nicholl
Associate Director



Colm Quinn
Project Manager



Beena Tanna
Commercial Manager

Constructing Excellence Regional Partnership

The Constructing Excellence Regional Partnership of independent centres around the UK is a vital part of the Constructing Excellence movement. Some centres are governed by higher education institutions, others are independent not-for-profit organisations. All have a formal Memorandum of Understanding with Constructing Excellence and provide regionally-focused events and support. As a partnership, we are now embarking on a Constructing Excellence membership review with Constructing Excellence National, The Board of Management and the National Member Steering Group. We hope to have the outputs ready to launch in early 2019.

The Regional Partnership has had another great year with the Awards programme. The Grand Final on 16 November was everything you would expect of a National Awards Dinner.

The Constructing Excellence clubs network continues to be the largest voluntary network and movement across the construction sector. Our 36 local best practice clubs, each have their own independent volunteer committee, which reach out locally to SMEs by providing monthly breakfast or evening meetings, typically with a speaker on a Constructing Excellence theme and with the natural bi-product of networking.

In 2018 we launched 2 new best practice clubs in Surrey and the East Midlands.

London and South East SECBE operates in London and South East and delivers on innovation, inspiration and collaboration

Innovation

SECBE galvanised the 9 Constructing Excellence Clubs in London & South East to deliver an 'Innovation' seminar to open London Build 2018 conference and exhibition. With a programme of influential speakers drawn from the Constructing Excellence network it was standing room for delegates keen to engage.

Inspiring Future Talent

SECBE's shared apprenticeship scheme, CoTrain, employs and supports over 50 apprentices and host contractors, from recruitment through to full time employment. Building on its work with young people, SECBE is creating a new 'Inspiring Future Talent' schools engagement programme. A network of county-based teams of companies will work together and with local CE Clubs to engage and inspire school students to pursue built environment careers.

Collaboration – saving lives

CLOCS Champions say 'yes' to membership fees confirming their commitment to achieving **the safest construction vehicle journeys**. Led by SECBE, CLOCS Champions are working together to prevent the annual tragedy of 500 pedestrians, cyclists and motorcyclists being killed or seriously injured in collisions with HGVs on Britain's roads.

Clubs

Berkshire
Croydon
Hampshire
Kent
London
Milton Keynes
Oxfordshire
Sussex
Surrey

Working together for
**successful
innovation**

Constructing Excellence Breakfast
23rd Oct 2018 | London Build Expo



Constructing Excellence Midlands

The newly re-branded Constructing Excellence Midlands was launched in October 2018 at the Midlands Construction Summit.

Throughout the Midlands communication of best practice has been through individual local clubs but the rebranding to Constructing Excellence Midlands allows all that knowledge and experience to be communicated by those clubs to a larger area. By linking together the clubs do not lose their individuality but strengthen their links and ability to communicate their knowledge for the benefit of themselves and others.

Constructing Excellence Midlands Board has been set up together with a Leadership Council of 36 industry pioneers. The plan is to provide a vehicle to improve the performance of the Midlands construction industry through collaborative working, integrated supply chains and lean processes. In 2019 Constructing Excellence Midlands will deliver a series of 'Thought Leadership Forums' covering Construction Clients, Marketing, Sustainability & Innovation, Digital & Offsite, Procurement & Productivity and Generation for Change for those 35 years and under.

Clubs

Birmingham Best Practice Club
Black Country Constructing Excellence Club
East Midlands
FORCE (Coventry & Warwickshire)
Herefordshire & Worcestershire Constructing Excellence Club
Shropshire Constructing Excellence
Constructing Staffordshire: Excellence

East of England

Constructing Excellence in the East of England continues to support the development and growth of clubs in the region. The Norfolk club continues to go from strength to strength with its own awards programme and a lively programme of activities that extend into Suffolk. The Herts & Beds club is working through local partners to deliver a programme of activities that drive the principles of excellence through collaboration across the 2 counties. The newly launched Cambridge Oxford Corridor continues to grow, as organisations in the area are keen to understand how they can get support on the planned infrastructure corridor.

Clubs

- Norfolk
- Herts & Beds
- Cambridge Oxford Corridor

Constructing Excellence South West

The CESW vision of 'Creating an industry of opportunity' reflects the enormous opportunity that lies within the South West Construction sector and the imperative to promote this opportunity. 2018 has been a year of significant change within CESW, building upon the successes of previous years in readiness for sustainable growth.

The three key objectives of CESW are to 'Share Knowledge & Best Practice', to use that knowledge to 'Influence' clients, stakeholders and Government and to provide 'Networking' opportunities as a bi-product of us doing that. This will be achieved through our network of six Thought Leadership Forums and nine Clubs all of which continue to be central to our future success.

CESW 'deliverables' are really beginning to gain traction and influence change with the Development Bank of Wales adopting our Development Finance Guide as an example and the Adopt a School campaign goes from strength to strength.

Clubs

- Bath
- Bristol
- Cornwall
- Devon/ Exeter
- Dorset
- Gloucestershire
- Plymouth
- Swindon/Wiltshire
- Somerset

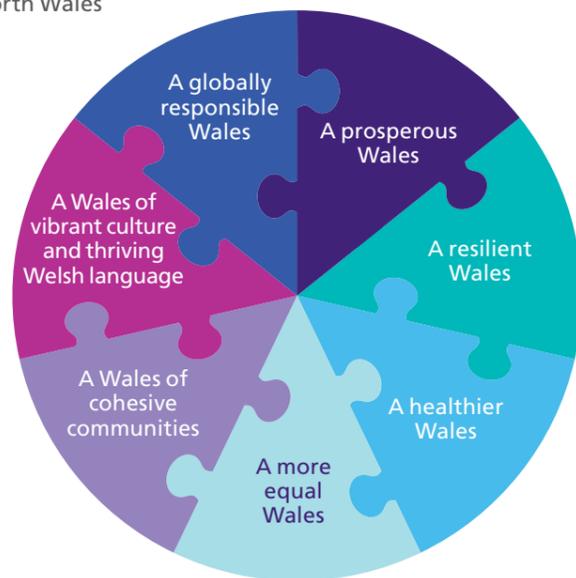
Constructing Excellence Wales

Constructing Excellence in Wales is the united voice of Welsh construction, representing every part of the supply chain. It is an independent, self-funding membership body campaigning to highlight the industry's role in creating a built environment in Wales that's fit for the future.

CE Wales is focusing all its attentions in the coming year on the Wellbeing of Future Generations (Wales) Act 2015 and its impact on the Built Environment sector in Wales. All bodies responsible for projects in Wales that receive public funding must understand and explain how their projects will support the intentions of the Act. CE Wales will be working with the industry in Wales to develop a framework to assist in the delivery of the Act for our sector. The ambition is that this Framework will develop into an industry standard for Wales.

Clubs

- South West Wales
- South East Wales
- North Wales



Yorkshire and Humber

Currently developing a partnership with the YorHub network to facilitate greater knowledge exchange between industry and academia.

Highly successful programme of events including:

Over 400 attending 2018 Constructing Excellence Yorkshire and Humber Awards with shortlisted projects from across all the sub-regions and representing the full regional supply chain. Notable winners included Willmott Dixon as Building Project of the Year winner for the National High Speed College for Rail in Doncaster and Balfour Beatty for the Tadcaster Bridge which won the Civils Project of the Year.

Series of breakfast events across the region with topics including Brexit, Offsite construction, mental health, adjudication and the legal angle as well as site tours of shortlisted constructing excellence projects.

4 BIM/Digital Half Day conferences through the thinkBIM network, co-located with the Constructing Excellence Digital Theme Group.

Panel Debate on the collapse of Carillion based on the "Organisational Resilience: Are we built on a House of Cards?" report.

Launch of the "Disrupting Construction event series in October 2018 – in line with the new Constructing Excellence strategy we launched our new regular event, an evening of networking and quickfire presentations covering some of the key ways in which sections of the industry are responding to the challenges going forward.

G4C Awards delivered for the fourth year through the G4C Yorkshire team of Caroline Key, Lydia McGuinness and Tim Guest.

Club

Yorkshire & Humber

North East

Constructing Excellence in the North East hosts all Constructing Excellence's activity in the region including the North East Club and two G4C networks, North East and Tees Valley. Events held throughout the year include CPD seminars, the North East Construction Summit, specialist conferences, networking and social events.

Constructing Excellence in the North East

T: +44 (0)191 500 7880
www.cene.org.uk

Constructing Excellence in the North West

T: +44 (0)161 295 2650
www.constructingexcellence.org.uk/regions/north-west/

Constructing Excellence in Yorkshire and Humber

T: +44 (0)113 812 1902
www.ckegroup.org/cexcellenceyh

Constructing Excellence in the Midlands

T: +44 (0)174 329 0001
www.cemidlands.org

Constructing Excellence in the East of England

T: +44 (0)333 043 0643
www.constructingexcellence-east.org.uk

Constructing Excellence in London and the South East

T: +44 (0)118 920 7200
www.secbe.org.uk

Constructing Excellence in the South West

T: +44 (0)137 346 8039
www.constructingexcellencesw.org.uk

Constructing Excellence in Wales

T: +44 (0)292 049 3322
www.cewales.org.uk

To achieve this, CENE work closely with partners from across the industry including Professional Institutions, Federations and construction charities. CENE are integral to the development and delivery of the North East Construction Strategy in conjunction with CIC North East and the North East LEP.

The CENE Awards continue to inspire excellence in the North East construction sector and attract significant attention across the region and beyond. The G4C Awards are growing annually too with increased interest evidenced through application, sponsorship and attendee numbers. Communication with Members and the wider industry continues to grow through the weekly e-newsletter, social media and the weekly column in the local business newspaper. Early 2019, CENE are introducing a fully integrated online CPD management system to enhance the offer to Members and supporters.

Club

North East

North West

Constructing Excellence North-West is hosted and delivered by the University of Salford with other regional partners, and with four active Best Practice Clubs in Cheshire, Lancashire, Liverpool and Manchester, and a newly launched G4CNW.

CE North West is focussed on the challenge of driving the national constructing excellence principles of collaboration and innovation through the region, as well as responding to the opportunities for social and economic value improvements afforded by the Northern Powerhouse, the new industrial strategy and Construction Sector Deal, Devolution and the new City Mayors. These opportunities were addressed and debated by 400 delegates at the 45th Annual NW Construction Summit, run with Greater Manchester Chamber and other partners. The NW Regional Construction Awards served to bring the major supply chains together represented by 450 attendees at the Awards Ceremony held, this year, in Manchester. The Clubs have focussed their events on the Construction 2025 and Construction Sector Deal, and Construct Off-Site Conference came to the region for the first time. The Cheshire Club has been given a significant re-launch and the ground work has been laid for a new Best Practice Club in Cumbria for 2019.

Clubs

- Warrington and Wirral
- Lancashire
- Liverpool
- Manchester

2018 Award Winners

The 12th Constructing Excellence National Awards 2018

These took place at a packed Marriott Hotel Grosvenor Square on 16 November 2018. The awards bring together award winners from eight regional events covering the English regions, followed by a national final featuring all the regional winners.

We thank all those who entered, sponsored, judged and hosted this major recognition programme and congratulate the regional winners and the 'best of the best'.



G4C Future Leader

Sponsored by BRE Academy



Winner: Irina Korneychuk – FaulknerBrowns (North East)

Despite many challenges faced when coming to the UK, Irina has not let this phase her. Overcoming those challenges, her confidence peaked gaining two masters degrees both with distinctions. In 2017 for her contributions to the business she won the AJ/Curtins Inspiring Graduate Prize.

Irina is a keen advocate to encourage upcoming young professionals in construction. She leads on the internal mentoring programme; mentors students from Newcastle University, delivered social and educational events as well as personally mentoring the graduates.



Integration & Collaborative Working



Winner: Dudley College Advance 11 Alliance

Speller Metcalfe, Dudley College, IPInitiatives, Fulcro, Derry Building Services, Pick Everard, Metz Architects, BLP Insurance, Rider Levett Bucknall and SECO (West Mids).

The Alliance Board undertook an £11.6m contract to build Advance II, an outstanding education centre providing innovative facilities for engineering and manufacturing, on behalf of Dudley College. A highly innovative project, Advance II is the world's first trial of insurance backed alliancing scheme, using the Integrated Project Insurance (IPI) Model which was endorsed in the UK Government Strategy and monitored by Reading University under an Innovate UK grant.



People Development

Sponsored by Heathrow Airports Ltd



Winner: The Griffiths Skills Academy (Wales)

Griffiths' Apprentice+ Programme is reversing standard industry practice by offering 100% of Apprentices full time positions following their training. They have industry leading completion rates, benefitting the business through higher employee engagement, loyalty, retention and ever reducing staff turnover rates.

Apprentice+ is targeting recruitment of young, disengaged people and benefiting local economies. Griffiths are able to employ local people who in turn spend their wage in local shops, demonstrated by their above industry average 'money multiplier' calculated using the Welsh Government Community Benefits Footprinting Tool.



Sustainability

Sponsored by BRE

Winner: Ysgol Rhyd y Llan

Isle of Anglesey County Council, Wynne Construction and Modcell (Wales).

This scheme deals with the construction of a new area community school to house 150 pupils and 20 nursery places and to replace the three schools of Ysgol Llanfachraeth, Ysgol Ffrwd Win and Ysgol Cylch Y Garn.

The new school site is located within an Area of Outstanding Natural Beauty and is immediately outside the essential setting of Carreglwyd Grade II* Registered Historic Park and Garden.



Innovation

Sponsored by RIFT UK

Winner: Smart M&E Plug & Play for Offsite Construction

Patrick Parsons, Richmond Housing partnership, Legal & General Homes Ltd, Wimshurst Pellereti Architects and Extreme Low Energy (North West).

The current off-site construction market concentrates on the manufacturing of building fabric whether in flat pack or volumetric processes. Very often the integration of the mechanical and electrical (M&E) services are treated in a traditional manner and are installed on site in the same way as they have always been. As a result, the main fabric is delivered and constructed on site very efficiently in a much shorter timescale, but the installation of the M&E is still a lengthy process. By developing a 'plug and play' installation, the installation time on site is reduced and the quality benefits of off-site production including better insulation, air permeability and less potential cold bridges can be maintained resulting in improved internal environments and lower energy costs.



Digital Construction

Winner: M-Sparc

Willmott Dixon Construction, Futurium Ltd, FaulknerBrown Architects, SA Ltd (Wales).

M-Sparc, wanted to transform the local community and leave an economic legacy in Anglesey for years to come, by delivering Wales' first dedicated Science Park. This innovative facility will provide office, workshop and laboratory space for up to 700 people, becoming an important regional centre by attracting start-ups and drawing inward investment from large corporate companies.

The project had a range of key challenges which Willmott Dixon worked to overcome by adopting, advancing and achieving excellence in digital construction.



Health, Safety and Wellbeing

Sponsored by Northumbrian Water Group

Winner: Seymour Civil Engineering (Contractors) Ltd (North East)

Seymour Civil Engineering have always focused on the health and safety of our operatives and preventing workplace injuries with a particular focus on safety. Above and beyond this, a number of schemes have been introduced to increase the importance of health and wellbeing at work and also increase the operative's knowledge of health issues, causes and measures that can be put in place to limit or eradicate these issues.



Preservation and Rejuvenation

Winner: Your New Town Hall, Lambeth

Morgan Sindall, Lambeth and Cartwright Pickard (South East).

The flagship refurbishment of Lambeth Town Hall has allowed the original volume and interiors of this historic building to shine through once again, restoring the Town Hall's place as a public landmark and centre of local democracy.

Whereas before, the area was characterised by complex routes, public accessibility has been improved by providing a new access from a brand-new courtyard. Further improvements were made; to aid visual contrast and way finding, create a new Changing Places Facility and install two new lifts serving all floors.



Value

★★★★★

Winner: Hartlepool Centre for Independent Living

Hartlepool Borough Council (North East).

Research which was carried out back in 2009 quickly identified to Local Authorities to improve the life chances of disabled people around the country and it was clear to invest in this. Hartlepool Borough Council then took the lead to build a new facility utilizing a brownfield site. Beginning with a blank canvas the council designed a new facility which housed a bistro, meeting and training spaces as well as bespoke day service facilities including a spa pool and sensory room which both support the delivery of therapeutic activity to vulnerable people.



SME of the Year

Winner: Wynne Construction (Wales)

With the passion and commitment to delivery excellence in their building designs and solutions Wynne Construction has achieved extraordinary success in 2017, resulting in a growth of 30% turnover. The catalyst for this growth was a successful bid to become a member contractor on the £200m North Wales Construction Framework enabling them to compete alongside four of the big national contractors for projects under the 21st Century Schools Framework. Over the last 2 years Wynne Construction won 60% of the projects procured through the Framework, resulting in orders of over £100m.



Client of the Year

Sponsored by Constructing Excellence North East

Winner: Yorkshire Water (Yorkshire & Humber)

Yorkshire Water embody the highest standards of behaviours, beliefs and vision. Their forward-thinking business plan puts their customers central to their business whilst also addressing environmental, economic and societal future challenges for the water industry. For every £1 of capital investment, £6.9 is reinvested back into the Yorkshire Region.



Offsite Project of the Year



Winner: A14 – Pre-Cast Solution for the River Great Ouse Viaduct

Skanska (East of England).

As part of the A14 Cambridge to Huntingdon Improvement Scheme the new road alignment necessitated the crossing of the River Great Ouse and the associated flood plain. Early contractor involvement was an important factor to the scheme as the construction team looked at a number of options for the River Great Ouse Viaduct in order to find the most efficient and buildable design within the constraints of the project and Highways England's desire to hit challenging efficiency targets. A key element of the construction of the scheme was the pre-cast elements of the composite deck.



Civils Project of the Year

Sponsored by Constructing Excellence



Winner: Pen y Cymoedd Wind Energy Project

Jones Bros Balfour Beatty Joint Venture, Vetenfall Wind Power Ltd and Sweco Ltd (Wales).

This is the largest onshore project in England and Wales. The scheme generates enough electricity to power 188,000 homes.

Balfour Beatty entered into a Joint Venture with Jones Brothers Civil Engineering to design, procure and install the 76 turbine Pen y Cymoedd Wind Energy Project. 50,000m³ of concrete and 6,000 tonnes of reinforcement were used to construct the 76 turbine bases and crane pads. In addition, around 85km of new tracks were constructed using 700,000 tonnes of rock extracted from borrow pits and 450km of cabling installed. Achieving environmental excellence, waste was segregated for recycling with no waste going to landfill.



Building Project of the Year

Sponsored by Constructing Excellence



Winner: The Christie Proton Beam Centre

Interserve, The Christie NHS Foundation Trust, HKS Architects, Mace Group, Arup (North West).

Interserve was appointed by The Christie NHS Foundation Trust to design and construct the UK's first NHS high energy Proton Beam Therapy facility which began on site in 2015 and completed ahead of programme by April 2018. The construction of the centre is being funded by the Department of Health and will be one of only two high energy NHS proton beam therapy centres. This technically challenging project was constructed in a suburban residential area; on a restricted site; and adjoining live hospital buildings at the UK's busiest cancer hospital treating immunosuppressed patients.



About BRE

BRE Trust Strategy 2017-21 – the key elements

Our vision is to enrich the lives and businesses of citizens by supporting the delivery of sustainable buildings, infrastructure, communities and cities.

Our mission remains to enable transformational change in the built environment through research, demonstration and education as a global charitable Trust.

The strategy outlines our approach to being a digitally led, global leader in the built environment – ensuring that the BRE Trust remains relevant to the needs of the built environment, and extending its impact in the UK and internationally. Underpinning the delivery of our strategy will be the research, testing, validation, knowledge-creation and other services provided to the industry by the BRE Group subsidiary companies.

Specific outputs

Projects completed

Biophilic research and dissemination network, to complement the BRE Biophilic Office Refurbishment project. This Trust supported project has developed an increased engagement with the supply chain associated with this innovative design approach.

Healthy Planning Policy and Monitoring in Southwark and Lambeth. Complementing the long-term Healthy Cities Index project, this review of a local authority planning department and application of research findings informed stakeholders of the social determinants of health through planning policy and public health.

Blockchain Feasibility and Opportunity Assessment. Technological advances are providing the greatest source of innovation in the built environment. This review determines the potential of one such technological advance, distributed ledger technology, outlining where and how this technology could impact our sector

Multi-sensor detector capabilities and comparative performance with smoke detectors. The advantage of multi-sensor detectors over both ionisation and optical smoke detectors, particularly in relation to false alarms, has been largely anecdotal until this scientific analysis. Through experimental tests this research has provided robust evidence for multi-sensor alarms resistance to false alarms when compared to other alarms

New projects started

Fire protection: digital technologies and personal wellbeing. £72.5k

Life-long health effects of poor indoor air quality. £150k

Home for Life. £150k

Suppression of biomass fires. £45k

Centre for Smart Homes. £117.5k

Circadian lighting effects on health and wellbeing and solar shading. £80k

Optimum replacement of detectors. £50k

Lancaster grange: living legacy. £40k

BIM case studies. £70k

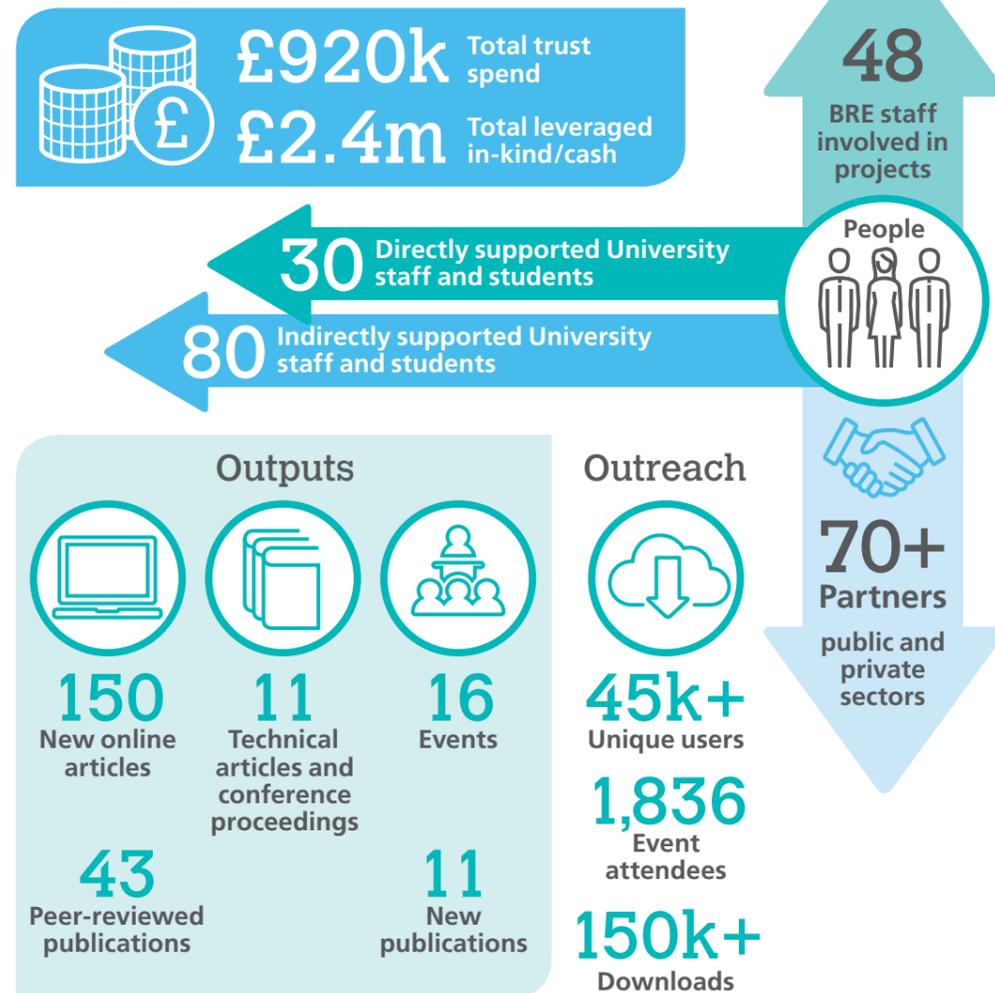
Disseminating knowledge through digital training. £60k

Building resilience to natural disasters. Trust contribution. £157k



Since 1997 the Trust has funded more than £20m of research, produced over 300 new or updated publications and supported more than 300 post-graduates through our university partnerships. We have leveraged significant additional funding from both government and private-sector sources, resulting in a growing network of partners and collaborators of over 150 organisations.

2017-18 Output Metrics at a glance



Other value/linked programmes

£6m
BRE research

£25m
Other collaborative R&D programmes

Extended network

33
Other organisations

BRE Academy

Delivering a skilled workforce

The construction industry workforce must have the skills needed to apply the modern approaches and advanced technologies that will raise efficiency and performance across the construction and operation of our built environment, and deliver an internationally competitive industry.

With an impressive track record of success in delivering training excellence in the built environment, both in the UK and overseas, this year the BRE Academy has been further developing and expanding the reach of its training.

Reaching the next generation of construction professionals

Attracting more women and younger people into the construction sector is critical to the future of the industry. The BRE Academy has been working hard to expand the reach of its training beyond the middle-aged male sector that has previously dominated its courses. Eighteen months ago, the Academy's customers were 93% male and in the age category 45 to 54 – today they are 63% women in the age category 25 to 34.

Working with colleges and universities

The BRE Academy has been collaborating with colleagues and universities to develop expert technical training content that can be licensed for use in a range of construction related higher education courses. Through this programme, some 18 academic partners across various technical disciplines now have gained access to cutting-edge technical knowledge with which to give future generations of construction professionals the knowledge and skills they will need to drive forward a modern and internationally competitive construction industry.

The Academy's BIM Approved Graduate (AG) course, for example, is a higher education programme launched in September 2017. It is designed to fill a recognised gap in the BIM training currently offered in higher education. Universities are able to licence the course and integrate it into their existing modules. The programme will train students to become BIM professionals and fast-track them to certification.

In September 2017, the Academy also delivered a joint BEng and MEng in Civil Engineering in collaboration with the University of Hertfordshire.

New online training courses

The BRE Academy's growing range of online courses is making training from leading experts available at any time and place – bre.ac. Courses on BREEAM, BIM and flood management were among those added during 2017/18:

Training for a career as a BREEAM assessor – a new, online version of training to develop building professionals' skills in BREEAM now provides a route to the BREEAM assessor qualification in the International New Construction scheme – and a career as a licensed BREEAM assessor.

Dealing with flood risks – a new course, An Introduction to Flood Protection and Flood Prevention, has been developed for anyone with responsibility for a building that is a flood risk. The course explains the term 'flood resilience', how to find out if you are at risk, and how you minimise the impact of flooding on your building in future.

BIM for site managers – this BIM for Site Managers course was developed by BRE Academy and the CITB to help site managers to work more efficiently and effectively with BIM. If well implemented, BIM delivers faster, more efficient construction, less mistakes and lower costs over the lifetime of a building.

Expanding training in China

Our BRE Academy has continued to roll out of a range of BREEAM training across China, as part of a programme of upskilling built environment professionals to help meet the Chinese Government's sustainable development targets.

Photo credits

2018 Constructing Excellence National Award Winners.
G4C First Annual Conference Bouncing back: a new narrative for construction, 24th May 2018.
ECI Conference Rethinking how capital programmes are delivered 3rd October 2018.



Get involved

Constructing Excellence welcomes all organisations that share our values and mission. Get in touch to find out how your organisation can become part of the UK's leading movement for change devoted to delivering excellence in the built environment.

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Constructing Excellence is committed to reducing its carbon impact.