DIGITAL CONSTRUCTION SUMMIT
15 MAY 2019 • PINSENT MASONS AUDITORIUM • LONDON

THE KEY EVENT FOR DIGITAL DECISION-MAKERS IN THE BUILT ENVIRONMENT SECTOR
Welcome

The Digital Construction Summit is organised by Atom Publishing.

Atom publishes Construction Manager, BIMplus and Global Construction Review for the Chartered Institute of Building.

For queries about the Digital Construction Summit 2020, and to register your interest, please contact:

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Welcome to the Digital Construction Summit 2019. This is a new event to assess construction’s digital progress to date, the benefits and barriers – and the next steps the industry needs to take.

The event brings together clients, contractors, architects, consultants and suppliers, who will discuss how widely BIM Level 2 has been adopted, present best practice case studies, look at the growing role of data and the journey towards the UK government’s ultimate goal of a digital built Britain.

The sessions include a presentation and debate chaired by AECOM’s David Philp, looking at the latest BIM thinking, new digital technologies and the possibilities of robotics and automation. Project experiences will come from BDP, Atkins, Skanska, Willmott Dixon, BAM and others. The latest government thinking will be presented by the Cabinet Office’s Alex Lubbock and Roy Evans. There will also be perspectives from clients including John Lewis, the University of Birmingham and the Met Office.

The digital skills challenge will be explained by CITB’s Steve Radley, and there will be a discussion on the digital implications of Dame Judith Hackitt’s ‘golden thread’. We also hear from Bryden Wood’s Jaimie Johnston on Platform DfMA, Alex Small from Tata Steel will explain the role of product data, and IT giant IBM will provide its perspective on construction’s digital challenge, courtesy of global BIM lead Paul Surin.

Special thanks to our partners for the event, Pinsent Masons, who are the hosts, the Chartered Institute of Building, CITB and CADS. You will be able to visit stands in the networking area to learn about the latest services and products from CITB, Ed Controls and Zutec.

Enjoy the day.

Will Mann, editor, Construction Manager
Denise Chevin, editor, BIMplus
0830
Arrivals and coffee

0855
Introduction
Graham Robinson, global business consultant, Pinsent Masons

0900
Discussion: How digital technology can transform the built environment sector: progress to date, challenges and opportunities
David Philp, global BIM/IM consultancy director, AECOM (chair)
Neil Thompson, director of digital construction, Atkins/SNC Lavalin
Roy Evans, client solutions lead, Government Property Agency (Cabinet Office)
Dr Jennifer Macdonald, senior BIM consultant, PCSG
Dr Noha Saleeb, professor of creative technologies and construction, Middlesex University
James Daniel, head of digital engineering (infrastructure services), Skanska

- The government’s BIM Level 2 mandate: how effectively is it being delivered?
- Data, the Internet of Things, and digital asset management strategies
- AI, robotics and automation: new machines for construction’s digital age
- How the Soft Landings process fits with BIM
- The role of the PAS 1192 suite and ISO 19650
- Key drivers for process and productivity transformation
- Plus, other trends and innovations identified by the Chartered Institute of Building’s Digital Technologies and Asset Management Special Interest Group
0945
The Construction Innovation Hub: Harnessing new technologies to boost built environment productivity
Sam Stacey, challenge director – Transforming Construction, UK Research and Innovation
- The role of the Construction Innovation Hub and the industry’s Sector Deal in driving digital change
- The Transforming Construction Challenge – what technologies are targeted and how can construction companies benefit?
- Examples of digital technologies and projects that have already been approved for grant funding
- What technologies from other industries could help transform construction?
- Looking beyond BIM at other digital technologies that will change the industry – smart sensors, data, DfMA, robotics, AI, AR and VR

1010
The architectural digital perspective: BIM Level 2 progress, challenges and benefits
Alistair Kell, principal at BDP and head of information technology and process
- BIM, information management and understanding how to bring new technologies into the design process
- BDP’s experience of working to BIM Level 2
- Projects where digital processes have worked well – and where they have not
- Benefits and business efficiencies achieved through BDP’s digital strategy – and next steps

1035
Coffee

1055
The government view on construction’s digital progress – and next steps
Alex Lubbock, head of digital construction, Infrastructure & Projects Authority
- Government BIM priorities to date – and where construction has delivered
- Where there are still gaps – areas the industry needs to focus on
- Next steps for government in pushing digital uptake in construction

1120
Discussion: What digital service offering do customers want from their constructors?
Garry Fannon, head of digital, Willmott Dixon (chair)
Ralph James, FM & technical services manager, MET Office
Richard Draper, BIM and digital assets manager, University of Birmingham
Elena Simcock, information manager, University of Birmingham
Richard Baggaley, project manager, iMET Building – Cambridgeshire Regional College
- What are the barriers for customers when considering adopting digital processes?
- What potential benefits are they most interested in?
- What went well and exceeded expectations?
- What would clients do differently on the next project?
- What’s the best advice they would offer to a customer who is on the fence?
- How customers can use digital tools to plan a building’s functionality
- BIM’s role in assessing whole-life costs
- Using digital models for asset monitoring and maintenance in the operational phase
• 1200
Moving towards DfMA: How digital is transforming reinforced concrete design
Jason Colcombe, product specialist, CADS

• A changing industry – the growth of digital design and offsite manufacturing
• How specialist software is transforming efficiency of reinforced concrete detailing
• Key advantages of 3D structural design and successful project examples
• Potential for improving detailing in structural steel, timber and masonry

• 1220
The tech perspective: IBM’s view on construction’s digital challenge
Paul Surin, global lead for BIM and digital construction, IBM

• The importance of interoperable data – security, blockchain, data structure
• A future vision of a digitised supply chain
• Digital construction and regulation

• 1245
Lunch

Afternoon

• 1330
The Digital Twin: Why, what and how
Richard Saxon CBE, associate director, Deploi BIM Strategies

• Each silo of the built environment currently has its own digital approach
• How the ‘Digital Twin’ idea links them up by connecting BIM to smart applications
• A whole-life common data environment can integrate data sources

• Data flow will improve decisions but also enable in-use optimisation
• What works for aerospace and automotive is now ready for buildings

• 1400
Discussion: Digital records post Hackitt – the ‘golden thread’
Jack Ostrofsky, head of design and technical, Peabody
Scott Sanderson, partner – technical & BIM, PRP Architects
Andrew Pryke, managing director, BAM Design
George Stevenson, founder and managing director, ActivePlan
Anne-Marie Friel, partner and digital specialist, Pinsent Masons
Denise Chevin, editor, BIMplus (chair)

• Moving on from BIM Level 2 to put more emphasis on asset data – the nub of the ‘golden thread’
• How can contractors benefit from knowing what products and materials they install?
• How can asset data be managed more effectively, to benefit the whole life cycle of the building/infrastructure?
• What is the key data that constructors should provide to clients and FM operators?
• Improving data handover at completion
• Liabilities construction companies potentially face through non-compliance or poor practice
• Using contracts to incentivise different players in the supply chain to share data – and discourage transfer of risks from one party to another
• How will insurance industry influence change construction risk management and attitudes to the golden thread?
1450
Unlocking construction’s digital future: a skills plan for the industry
Steve Radley, policy director, CITB

- How digital technology is changing the industry and its skills requirements
- What are the key digital skills required – BIM, visualisation tools, big data analysis, robotics and automation
- Which companies are leading the way in developing their staff’s digital literacy
- How CITB is working with the CLC, government and industry to increase digital skills levels
- What funding for digital skills is available, what companies can apply for it, and how
- What immediate steps should companies be taking to boost digital skills among their staff

1520
Coffee

1540
Product data: The foundations of a digital built Britain
Alex Small, BIM and digital platforms manager, Tata Steel

- BIM experiences working with architects, clients and tier 1 contractors
- Structured, interoperable, linked data – its role in manufacturers’ digital strategies
- Potential for digital collaboration among manufacturers and the wider supply chain
- Examples of tools and platforms that could help drive digital construction

1605
Automated construction using Platform DfMA
Jaimie Johnston, head of global systems, Bryden Wood

- Why construction lags behind industries such as agriculture, manufacturing and mining on productivity
- How the industry can apply learning from other sectors in design and delivery of assets, using the best digital tools and manufacturing processes available
- Implications of the government’s proposed Platform approach to Design for Manufacture and Construction (P-DfMA) – a more standardised approach to working

1630
Digital construction from a client perspective: Using technology to support operational efficiencies
Andy Smith, partner & senior manager, John Lewis Partnership Property & Development

- The John Lewis/Waitrose experience of creating a BIM strategy – the wins and pitfalls
- Key benefits, challenges to overcome – creating value for the client and where the supply chain can support
- Examples of driving value through the use of technology – simpler, cheaper, quicker
- Using BIM and digital to plan upgrades and management of the existing estate
- Moving from design and construct into FM – using data to support asset management – the future vision

1700
Drinks, canapes and networking
David Philp  
Global BIM/IM consultancy director, AECOM

David is director of BIM for the EMEA and India regions at AECOM and is also seconded into the UK BIM Task Group as head of BIM, and part of the Centre for Digital Built Britain team at Cambridge University. He is passionate about the potential of digital technologies and how they can bring added value to customers and unlock new ways of working throughout the entire life cycle.

David has completed the Virtual Design and Construct course at Stanford University, California, is a professor at Glasgow Caledonian University and chairs the Chartered Institute of Building’s Digital Technologies and Asset Management Special Interest Group.

@ThePhilpster

Neil Thompson  
Director of digital construction, Atkins/SNC Lavalin

Neil is director of digital construction for the SNC Lavalin Group, where his role involves identifying and sharing digital innovation, creating new business opportunities and service lines, and encouraging cultural shift across the organisation. Using his background as a construction manager, engineer and economist, he is working to redefine business models, harness robotics and apply digitally driven engineering.

Neil has an MSc in Construction Economics and is an honorary researcher at the Bartlett, University College London.

@Neil_BIM

Roy Evans  
Client solutions lead, Government Property Agency (Cabinet Office)

Roy leads on construction policy across a range of areas for the Government Property Agency at the Cabinet Office. His role has included development of key standards, such as PAS 1192:2, overseeing and chairing the Government Soft Landings procedures and guidance, and helping central government departments implement BIM Level 2 in compliance with Cabinet Office requirements.

He is also the Government Soft Landings lead at the Centre for Digital Built Britain, driving its implementation as part of the BIM Level 2 programme.

Dr Jennifer Macdonald  
Senior BIM consultant, PCSG

Jennifer is an expert in digital technologies, collaborative teamwork practices and innovation in construction. She has worked in the UK and Australia to improve the performance of the industry through harnessing new technologies in an efficient, strategic manner, in both academia and industry.

She specialises in BIM, smart cities, digital engineering, emerging technologies in construction, and data and information management, and has worked with organisations including Transport for London and the Roads Liaison Group.

@JenniferMac80
James Daniel  
*Head of digital engineering (infrastructure services), Skanska*

James is responsible for setting and delivering the digitalisation strategy for Skanska’s Infrastructure Services business. His work includes raising BIM awareness and competence internally and ensuring its supply chain is aligned with Skanska’s digital engineering requirements.

James provides BIM and digital oversight on projects, from the work-winning phase through the whole life cycle, including operations and maintenance, supporting the overall journey of digital transformation.  
@jpricedaniel

Alistair Kell  
*Principal at BDP and head of information technology and process*

Alistair is a registered architect and the principal responsible for information, technology and process at BDP. He has led the strategy which has positioned BDP to be recognised as one of the leading BIM exponents in the UK. His recent work has addressed the business requirements of the government Level 2 BIM mandate, leading BDP to become the first business globally to achieve BRE Level 2 business certification.

Alistair also led BDP’s involvement in the BIM Toolkit, authoring the LoD standard and managing BDP’s development of some 400 object definitions across four disciplines. He regularly presents at conferences and events across the UK and internationally.  
@Alistair_Kell

Dr Noha Saleeb  
*Professor of creative technologies and construction, Middlesex University*

Noha is an experienced consultant and associate professor, who specialises in digital construction, leading international research projects for BIM development on industry projects, and teaching and upskilling professionals. Originally an architect, her research interests include BIM, AI and the intersection of architecture and computer programming.

Noha is also programme leader for the MSc degree in Building Information Modelling Management and provides consultancy on BIM implementation and management.  
@NohaSaleeb

Sam Stacey  
*Challenge director, Transforming Construction at UK Research and Innovation*

Sam is leading the Transforming Construction challenge, a £170m research and innovation investment, matched by £250m from industry, to create new construction processes and techniques for building manufacture in the UK. Linked to the Construction Sector Deal, the programme includes funding for research, a new construction network and the creation of an active building centre and innovation hub.

Before joining UKRI, Sam was director of innovation at Skanska UK, a trustee of BRE, and chairman of the National Platform for Construction. He has also worked for Wates Construction and Buro Happold Engineering.  
@UKRI_News
Alex Lubbock
Head of digital construction, Infrastructure & Projects Authority

Alex leads on digital construction for the Infrastructure & Projects Authority at the Cabinet Office. He plays a central role in embedding BIM Level 2 and digital processes across public sector built environment projects, and his work includes implementing the Government Construction Strategy and its drive to improve delivery and performance of infrastructure.

Alex joined the Cabinet Office from Carillion in 2016 and continues to be a leading figure in pushing digital adoption in the construction industry. @lubbock_alex

Garry Fannon
Head of digital, Willmott Dixon

Garry champions BIM and digital at Willmott Dixon, which is one of the biggest users of the technology among constructors and was the first contractor to achieve the BRE BIM Level 2 certification.

As well as embedding BIM within the business, Garry has worked closely with customers to understand how digital processes can benefit them, from design, though construction and operations. With a growing focus on data, he believes digital technologies will continue to unlock more efficient methods of designing, delivering and maintaining physical built assets. @GarryFannon

Richard Draper
BIM and digital assets manager, University of Birmingham

Richard and Elena have worked closely with Willmott Dixon on a number of key projects at the University of Birmingham, including the new Teaching and Learning Centre, which is being delivered to the university’s bespoke BIM standard to ensure the organisation gets the information relevant to its operations.

Elena Simcock
Information manager, University of Birmingham

Richard Baggaley
Independent business consultant: project manager, iMET building

Richard was the client-side project manager for iMET, a new advanced technical training facility anchored by Cambridgeshire Regional College, delivered to BIM Level 2 by Willmott Dixon through the Scape framework.
Jason Colcombe
Product specialist, CADS Software

Jason is the product specialist for CADS RC3D for Revit, which has been designed to enhance the placement, annotation and bar marking of rebar in 3D structures. He is a civil engineer who has worked in the construction industry for several structural design consultants on commercial and government projects. Jason moved into the software environment when joining CSC (now Trimble/Tekla) and, with the evolution of BIM and linking analytical and physical 3D models, he began working directly for an Autodesk reseller. He earned multiple Autodesk certified professional accreditations and remains an authorised Autodesk certified instructor.
@cadsuk

Richard Saxon CBE
Associate director, Deploi BIM Strategies

Richard spent 28 years at the top of one of Britain’s largest architect-engineer practices, and has been involved for 20 years in the reform of the construction industry, with a recent focus on digital adoption.

He continues to advise clients, consultants, constructors and other businesses across the built environment sector from Deploi: BIM Strategies and Consultancy for the Built Environment. He wrote ‘Going Digital’ for the UK BIM Alliance in 2018.
www.saxoncbe.com

Paul Surin
Global lead for BIM and digital construction, IBM

Paul, who recently joined IBM, has a successful track record of innovating and transforming business models challenged by new technologies and market shifts, working in housebuilding, building services, development and at brick manufacturer Wienerberger. He has extensive knowledge of BIM, virtual design, lean construction, data interoperability, blockchain, AI, MMC, manufacturing processes and industry 4.0.

He is a member and a chartered engineer of the Institute of Engineering and Technology, a BIM Level 2 certified practitioner, and has been chair of the Construction Products Europe Digitalization & BIM Task Group, BIM4M2 and vice-chair of BIM4Housing.
@PaulSurin

George Stevenson
Managing director, ActivePlan

George works with building owners to reduce financial, statutory and operation risk by more reliable and constantly updated information. This includes developing processes to simplify capture of asset data from BIM and surveys, and transforming it into an environment that supports elements of Level 3 BIM. He is working with BRE to develop Templater/LEXiCON, a free collaborative initiative to standardise the way attributes and property sets are managed in reusable templates. These developments are contributing to the Transforming Construction initiative as part of the Construction Innovation Hub.
www.activeplan.co.uk
Anne-Marie Friel  
Partner – infrastructure, Pinsent Masons

Anne-Marie has been advising clients in the built environment sector for more than 20 years and specialises in implementation of new risk sharing approaches, including collaborative delivery models, joint ventures, and renegotiations on major infrastructure projects. She lectures on issues affecting the construction and infrastructure sector and is one of Pinsent Masons’ dedicated ‘infratech’ experts, looking at the digital transformation of infrastructure assets.

Jack Ostrofsky  
Head of design & technical, Peabody

Jack leads a team of design and technical specialists within a development management team delivering 2,500 homes a year in mixed-use schemes, growing the portfolio of one of the UK’s largest housing associations, with 55,000 homes across Greater London and the south-east.

He has extensive built environment experience delivering new-build schemes, building surveying, fire risk assessment and strategic asset management. Recently, for another similar housing association, he led the strategic enterprise-wide response to the Hackitt Review and managed all ACM cladding risks across the association’s existing and development pipeline, leading forensic investigations and lodging successful claims against contractors for remedial works.  
@PeabodyLDN

Andrew Pryke  
Managing director, BAM Design

Andrew leads the adoption, development and integration of digital at BAM. His work has enabled clients to adopt BIM across the entire life cycle of their assets, through the use of 3D models linked to data obtained through the planning, design, construction and operations phases.

Andrew sees BIM as a tool for greater collaboration across the entire project team, allowing it to deliver buildings that are easier to manage and maintain, and perform better for the end user.  
@PrykeAndrew

Steve Radley  
Director of strategy and policy, CITB

Steve is responsible for working with the industry and government to create the right environment and support for employers to invest in the skills they need. In his strategy role he helps CITB to decide the best way to achieve these outcomes from a range of options including influencing, research, funding and commissioning. He is also responsible for CITB’s relations with the media.

Steve joined CITB from his role as director of policy and external affairs at the manufacturers organisation EEF (now Make UK). Previously he was chief economist at the Henley Centre and policy adviser – education and training at the Confederation of British Industry.
**Alex Small**  
**BIM and digital platforms manager, Tata Steel**  
Alex is responsible for Tata Steel’s BIM strategy across Europe, a role that includes looking at digital platforms, technology and how the manufacturer can use data in smarter ways.

With seven years as a structural engineer with Arup, and experience working with other manufacturers, Alex is now focusing on the opportunities the UK government’s digital drive offers to construction product suppliers. He believes that by structuring, storing manipulating and sharing data and by collaborating with other manufacturers, they can offer more value to immediate customers and across the whole construction supply chain.

@TataSteelConstr

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**Scott Sanderson**  
**Partner – technical & BIM, PRP Architects**  
Scott’s role at PRP focuses on technical design, design management and BIM. Leading an experienced team, his work emphasises quality, integrated working and building technology, delivering construction documentation for PRP’s UK projects.

Scott has extensive experience in UK housing including high-rise residential, estate regeneration and refurbishment. He also leads PRP’s BIM Steering Group which is tasked with developing PRP’s interdisciplinary BIM capability.

@PRP_News

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**Jaimie Johnston**  
**Head of global systems, Bryden Wood**  
Jaimie leads the application of systems to the delivery and operation of high-performing assets at Bryden Wood. This includes both physical (DFMA) and digital (data analysis and digital engineering) systems for projects in the UK, Europe and Asia, with clients including GlaxoSmithKline, Heathrow Airport and several government departments.

He was the co-author of the ‘Design for Manufacture + Assembly’ overlay to the RIBA Plan of Works. He also wrote the strategy documents ‘Delivery Platforms for Government Assets: Creating a Marketplace for Manufactured Spaces’, ‘Platforms: Bridging the gap between construction + manufacturing’ and ‘Data Driven Infrastructure: From digital tools to manufactured components’. Jaimie is the design lead for the Construction Innovation Hub.

@Jaimie_BW

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**Andy Smith**  
**Partner & senior manager, John Lewis Partnership Property & Development**  
Andy is one of the strongest advocates of BIM among commercial clients in the built environment. Under his leadership, the John Lewis Partnership was an early adopter of BIM Level 2, which has been employed with success on new and existing assets across its estate. He sees value in adopting digital process and using data throughout the life cycle – development, design, construction, maintenance and facilities management.
CITB
CITB is the Industrial Training Board for the construction industry in Great Britain (England, Scotland and Wales). CITB uses its research and labour market intelligence to understand the sector’s skills needs, and works with industry and government to make sure construction has the right skills, now and for the future.

CITB is modernising its funding approach to invest in areas that will deliver the best returns for industry, and enable the sector to attract and train talented people to build a better Britain.

Following on from two CITB research reports: ‘Unlocking Construction’s Digital Future: A skills plan for industry’ (October 2018) and ‘Evolution or Revolution’ (March 2019), CITB found that:

- Digital technologies will improve efficiency and productivity, but the construction industry has lagged behind others which are reaping the benefits of this transformation. Small and medium-sized employers in particular find it hard to introduce digital solutions. Getting technical skills is not the issue. The main challenges are:
  - A lack of understanding of the business opportunities digital transformation brings.
  - The leadership required to spell out why the investment is needed, identify and adapt digital technology for their business, and to make it happen.
  - Without this digital leadership, construction companies are likely to struggle to keep up with technological advances and to compete with their rivals. Construction companies need to become ‘digital organisations’.
  - The people who will change the face of construction need to be able to recognise the opportunity and unlock the potential that digital transformation brings.

This funding commission is the first of three to help the industry embrace digital change. CITB invites bids for funds to develop initiatives to help construction leaders implement digital transformation. www.citb.co.uk

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CADS
CADS is an international software company specialising in civil, geotechnical and structural engineering design, analysis and detailing software. Our applications are used worldwide by consulting engineers, civil engineering contractors, builders, national and local governments, structural steelwork and rebar fabricators. CADS employs more than 600 staff globally and has been in business for over 40 years. CADS RC has been the global industry leading software for reinforced concrete detailing for decades. CADS RC runs in AutoCAD and is used by more than 50,000 customers. CADS has used that expertise to produce CADS RC3D for Revit to enhance the placement, annotation and bar marking of reinforcing steel in all kinds of RC structures by extending the powerful reinforcement modelling capabilities of Revit.

CADS has been at the forefront of BIM having developed bi-directional links between Revit and the finite element analysis software we supply. CADS has also developed SMART Estimator which enables scaffolders to create a scaffold model and export it as an IFC file which can be imported into Revit to help with design and planning. The model can also be shared and a virtual fly-through of the structure created.

As well as developing software, CADS has a team of experienced engineers and Revit modellers who can provide fast accurate models from 2D drawings, structural design models and IFC files. According to a client’s requirements, we can generate clash detection reports or more complex models to produce accurate quantity take-offs, cost estimates for bidding, procurement or construction planning. CADS also has a team of MEP BIM specialists to provide an outsourced service for MEP and architectural BIM.

www.cads.co.uk

Zutec
Zutec develops and markets cloud-based software solutions, primarily directed to companies within the built environment. The Zutec platform has been designed to capture and manage data for almost any process across a construction project from design phase right through to operational phase, improving quality, increasing productivity and reducing costs throughout the entire project life cycle.

Zutec provides solutions within project management, data and document collaboration tools, data-enriched 3D models, defect management, project handover and the operation and maintenance of buildings.

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