



Nearly 75% of District, County, Unitary & Metropolitan Councils plus eight Combined Authorities/City Regions have declared a Climate Emergency to date. So all those working within and for the public sector are seriously considering how their organisation can reduce its impact on the environment whilst working within restrictive financial times.

Our chosen theme for SPACES over the coming year will be Net Zero Carbon and the Climate Emergency, and looks to support our members by organising webinars and technical meetings to cover various aspects and challenges on the topic to assist in project delivery.

As a collaborative organisation, encapsulating all the professions of the Built Environment, we are focussing on how we can work together to meet the UK target to bring all greenhouse gas emissions to net zero by 2050. The emphasis will be on real experiences, lessons learned and the need to work collaboratively to deliver workable solutions to reduce our carbon emissions.

Between Monday 7th June and Friday 18th June, we are holding a Virtual Conference with experts from client side, design, construction, academia & the public sector will be discussing Zero Carbon, the Climate Emergency and why we must act now!

There will be the variety of our previous annual Study Days on a wide range of subjects including:

- The Latest Technologies
- Regulations and Standards
- Insights Into Sectors – Schools, Houses, Offices
- Refurbishment
- Design Tools

Thank you to our sponsors for this year





## Programme Week 1

**Monday 7<sup>th</sup> June 2021 @9:00am**

### **Keynote - Managing Ventilation in COVID Whilst Minimising Energy Use**

Dr Shaun Fitzgerald FEng, Director, Centre for Climate Repair at Cambridge University

**Monday 7<sup>th</sup> June @4:00pm**

### **Addressing the Climate Crisis in Essex**

Samantha Kennedy, Director, Environment & Climate Action, Essex County Council

**Tuesday 08 June 2021 @9:00am**

### **The rise of ESG (Environmental, Social, and Governance) in the real estate market and how digital twins help**

Sadaf Askari ICL Partner Business Manager for IES

**Tuesday 08 June 2021 @4:00pm**

### **Climate Change Action Plan**

Stephen R Hodder MBE PPRIBA, Principal Director Hodder + Partners, Chair Construction Industry Council, Professor Manchester School of Architecture

**Wednesday 09 June 2021 @9:00am**

### **The Challenge of Zero Carbon in the Housing Sector**

Dr Laura Mansel Thomas CEng FCIBSE MEI, Senior Partner at Ingleton Wood LLP

**Wednesday 09 June 2021 @4:00pm**

### **Decarbonising Education**

Helen Groves, Director and John Ridgett Associate Director Atkins

**Thursday 10 June 2021 @9:00am**

### **Lifecycle of Net Zero Carbon Buildings**

Alasdair Donn, Head of Building Performance Group Sustainability, Willmott Dixon

**Thursday 10 June 2021 @4:00pm**

### **Leicester City Council PM 2.5 study using portable air quality monitors and near real time dispersion model**

Dr Jolanta Obszynska, Transport Development Officer – Air Quality, Leicester City Council

**Friday 11 June 2021 @9:00am**

### **London Energy Transformation Initiative LETI's Climate Emergency design guide**

Dr Joe Jack Williams, LETI and Associate Researcher, Feilden Clegg Bradley Studios

## Programme Week 2

**Monday 14 June 2021 @9:00am**

### **Keynote – Enabling the delivery of Net Zero Carbon**

Prof Alan Jones, President, RIBA

**Monday 14 June 2021 @4:00pm**

### **What planning can do to achieve net zero carbon?**

Victoria Hills MRTPI FICE, Chief Executive, Royal Town Planning Institute



**Tuesday 15 June 2021 @9:00am**

**Dame Hackitt Review and Zero Carbon**

Dr Hywel Davies, Technical Director, CIBSE

**Tuesday 15 June 2021 @4:00pm**

**Carbon Net Zero – where are we and what do we need to do**

Alex Gee, Operations Director, NPS Group, Dorrian O’Neil Business Development Consultant, Norse Group Ltd and Paul Cockaday, Director - Energy and Carbon at Norse Energy.

**Wednesday 16 June 2021 @9:00am**

**Net Zero Carbon: what does it cost?**

Annabel Clark, Associate Director, Sustainability Specialist, Steve Jackson, Regional Director and Peter Dunn Associate Director, .Faithful+Gould

**Wednesday 16 June 2021 @4:00pm**

**Energy and emissions data drops for RIBA Plan for Use and Soft Landings projects**

Dr Roderic Bunn, Building Performance Analyst, WMEboom

**Thursday 17 June 2021 @9:00am**

**An introduction to FCBS CARBON for schools: Understanding carbon from the outset**

Dr Joe Jack Williams, Associate Researcher, Feilden Clegg Bradley

**Thursday 17 June 2021@4:00pm**

**Do Green Buildings Cost More?**

Michael Cross, Head of Partnerships and Innovation Group Sustainability, Willmott Dixon

**Friday 18 June 2021 @9:00am**

**Young Visionaries Closing Session**

Matthew Smith Principal Building Surveyor/ BIM Manager at Concertus Design and Property Consultants Limited, Alexandra Ratcliffe Associate Director – Sustainability, Pick Everard, and Dr Guy Schmidt, Head of Compliance and Performance, Pick Everard

**Our Sponsors**

**Atkins**

**Faithful+Gould**

**IES**

**NPS**

**Willmott Dixon**



## Programme Week 1

**Monday 7<sup>th</sup> June 2021 @9:00am**

### Keynote - Managing Ventilation in COVID Whilst Minimising Energy Use

Dr Shaun Fitzgerald FREng, Director, Centre for Climate Repair at Cambridge University

*Chair for the Session: [Jackie Lowe](#), SPACES President*

This session will explore the issues of reducing energy use associated with heating, ventilation and cooling whilst ensuring spaces are ventilated appropriately. The importance of adequate ventilation has been raised significantly during the COVID pandemic, but the topic is pertinent for general health and well-being, as well as of course our ability to tackle further pandemics. The session will describe a number of different approaches to hybrid ventilation and show case some world-leading designs.

Shaun undertook his degree studies at Cambridge University before joining the faculty at Stanford University where he led the Geothermal Research Programme. In 1997 Shaun moved back to the UK to spend 5 years with Bain & Company strategy consulting, before returning to Cambridge University to undertake research into natural ventilation of buildings. This research and associated consulting work led to Shaun founding Breathing Buildings in 2006.

As CEO he oversaw the growth of the company, led the multiple financing rounds with venture capital firms, and assisted government in the review of regulations for school buildings in order to ensure provision of well-ventilated and low energy teaching environments.

Following the successful sale of the company to Volution, he left in 2018 in order to take up the position as Director of The Royal Institution. Shaun then took up the position as Director of the Centre for Climate Repair at Cambridge University in 2020.

Shaun is a Fellow of the Royal Academy of Engineering, a Member of the SAGE Environmental Modelling Group and one of the authors of the CIBSE Emerging from Lockdown series.

**Monday 7<sup>th</sup> June @4:00pm**

### Addressing the Climate Crisis in Essex

Samantha Kennedy, Director, Environment & Climate Action, Essex County Council

*Chair for the Session: [Richard Davidson](#), SPACES Member and Virtual Conference Sponsor*

Samantha will be discussing The Essex Climate Action Commission: working across Essex to build a more resilient, low carbon county.

Samantha is Director of Environment and Climate Action at Essex County Council, driving the authority's response to the climate challenge. She leads a broad portfolio of services including waste, energy, flood resilience, green space, outdoor education, culture and heritage. She brings a wealth of experience with a career spanning leadership roles in central Government, Transport for London and the Energy Saving Trust.



Tuesday 08 June 2021 @9:00am

## The rise of ESG (Environmental, Social, and Governance) in the real estate market and how digital twins help

Sadaf Askari ICL Partner Business Manager for IES

Chair for the Session: [Alex Gee](#), SPACES Zero Carbon Lead and Virtual Conference Sponsor

Environmental, Social and Governance (ESG) is moving up the agenda very quickly. It has gone from niche and narrow to a necessary part of institutional investing and asset management.

The real estate sector has been subject to an evolving wave of new legislation as the Government continues to respond to ESG-related issues, including the recent report by the Financial Stability Board's Task Force on Climate-related Financial Disclosures' (TCFD).

ESG has never been more important in the transition to a net zero economy. Organizations should provide the key metrics used to measure and manage climate-related risks and opportunities.

When considering the jump to "how", first there is need to apply a forward-looking lens and to develop a framework that clearly addresses the physical and transition risks and opportunities that exist. The digitisation of the construction industry enables commonality across some ESG KPIs and is helping real estate professionals get to grips with built environment data in order to ensure delivery of safe, efficient, healthy buildings to work, rest and play in.

Our mission at IES is the How. We believe Digital Twins are the key to decarbonising the built environment and will thereby play a crucial role in facilitating a global green recovery. Fully scalable from a single building to an entire city, our ICL technologies goes beyond BIM to create a live Digital Twin which responds and behaves like its real world counterpart. Delivering the data-driven information needed to uncover significant energy, carbon, capital and operational savings, while taking account of resource use, transport, social, health and economic factors.

Over the last twelve years, [Sadaf](#) has consulted on a wide range of real estate and energy projects in award-winning design consultancies and technology companies. Using IES' unique integration of digitised physics, AI and machine learning, she has helped decision makers create a digital twin to track ESG KPIs across portfolios and also to analyse all the various decarbonisation options, identify and weigh up the risks and potential and monitor progress towards net-zero targets over time.

Tuesday 08 June 2021 @4:00pm

## Climate Change Action Plan

Stephen R Hodder MBE PPRIBA, Principal Director Hodder + Partners, Chair Construction Industry Council, Professor Manchester School of Architecture

Chair for the Session: [Andrew Rowe](#), SPACES Finance Director

In June 2019, built and natural environment organisations met with the Chair of the Committee on Climate Change, Lord Deben, to discuss the need for action in the face of climate change. Those attending agreed on an urgent and concerted response to achieving the UK's 2050 net zero carbon emissions target. The Construction Industry Council, the representative forum for professional bodies, research organisations and specialist business associations in the construction industry, will imminently publish a hugely ambitious action plan for built environment professionals. The action plan is being adopted by 29 different institutions, including those for architects, surveyors, engineers and landscape architects, who have come together in an unprecedented way to tackle the climate and biodiversity crises.

[Stephen Hodder](#) was educated at the School of Architecture, University of Manchester, where he gained a Distinction in the Bachelor of Architecture degree. Following University, he joined Building Design Partnership in 1981 and became a member of the Royal Institute of British Architects in 1982.



He has been in practice since 1983 and in 1992 formed Hodder Associates which won the Royal Fine Art Commission/ Sunday Times Building of the Year Award for Colne Swimming Pool in Lancashire later that year.

In 1996 Hodder Associates, now Hodder+Partners, received the most important award in British Architecture for a single building, the inaugural RIBA Stirling Prize for Architecture for the Centenary Building, University of Salford. The Practice has now won over forty major awards.

He was RIBA President 2013-15, having previously been Vice President Membership, Nations and Regions.

He regularly acts as an assessor for architectural competitions and awards, most recently for the RAIC International Prize and sits on the Design Review Panel for Places Matter!

He was awarded an MBE for services to architecture in the Queen's Birthday Honours List, 1998.

He received an honorary doctorate in 2006 from the Manchester Metropolitan University for his regional, national and international contribution to architecture and won the Roses Design Award of 'Architect of the Year' in the same year.

Stephen has written and lectured widely, has been a visiting examiner at a number of schools of architecture and visiting Professor at the Birmingham School of Architecture, the Belfast School of Architecture and the University of Salford, School of the Built Environment.

He is currently external examiner at 'Ion Mincu' University of Architecture and Urbanism, Bucharest and Professor of Architecture at the Manchester School of Architecture.

Stephen received an honorary fellowship from the University of Central Lancashire in 2013 and elected as Chair of the Construction Industry Council (CIC) for 2019-2021.

**Wednesday 09 June 2021 @9:00am**

### The Challenge of Zero Carbon in the Housing Sector

Dr Laura Mansel Thomas CEng FCIBSE MEI, Senior Partner at Ingleton Wood LLP

*Chair for the Session: Greg Keeling, SPACES Events Director*

Rapid progress towards Zero Carbon in the built environment is essential if we are to meet the challenge of Climate Change and housing will be a key component of this. The existing housing stock must be significantly improved and new homes should be zero Carbon – or better. The challenge is made more difficult by different ownership models – how do we persuade owner occupiers of large homes to decarbonise – as well as through the technical complexities of dealing with old and even listed buildings. Building high quality new homes should be the easy part – but is the infrastructure there to make it happen? Laura will try to guide us through some of the issues and some of the solutions.

Laura Mansel-Thomas began her career in engineering as a Design Engineer at WRc plc in 1993. After completing a PhD in Chemical Engineering at Imperial College, London, specializing in the treatment of toxic industrial wastewaters, she joined Max Fordham and Partners in 1996. Early projects included a number of schemes for Churchill College, Cambridge, designing warm air and district heating systems from first principles.

In 1999 Laura moved to Atelier Ten as a Senior Mechanical Engineer, where she stayed until 2010. She spent many years as project engineer for the low energy Sloane Robinson Building at Keble College and the refurbishment of the Ashmolean Museum in Oxford, and became an Associate Director in 2007. She joined Ingleton Wood LLP in 2010 as an Associate, becoming Director of Engineering in 2011 and a Partner in 2014. Laura oversaw the growth of the M&E discipline from around 20 to over 40 people and in April 2021 she became Senior Partner. Laura is also HR Partner and oversees training and apprenticeships across the practice.



Laura has always been interested in the communication of engineering ideas, particularly around low energy building design and sustainability. She was a Member of Council for the University of Essex from 2010 to 2015, also becoming a member of the Audit and Risk Committee and helping to recruit their first Sustainability Champion. Since 2016 she has been a Colchester Ambassador, working with other businesses and the Local Authority to drive inward investment into the Colchester area. In 2020 she was appointed as a Commissioner for the Essex Climate Action Commission and is particularly involved in the Built Environment Special Interest Group. Laura has been a technical reviewer for CIBSE for some years as well as an Accreditation Moderator, has been on CIBSE Council since 2019 and has just become a member of CIBSE Board in May 2021.

**Wednesday 09 June 2021 @4:00pm**

### Decarbonising Education

Helen Groves, Director and John Ridgett Associate Director Atkins

*Chair for the Session: [Mark Appleyard](#), SPACES Head of Profession - Construction*

A look back at successes to date in decarbonising educational buildings (both higher education and DfE schools) and a summary of the key challenges found in achieving net zero for new build and existing educational buildings – highlighting tools and methodologies to facilitate the task.

Helen is a highly experienced architect who leads the Atkins education team nationally. She is passionate about the importance of well-designed education buildings, and works with our clients from pre-concept data & briefing to post delivery, to create exciting and engaging learning spaces.

John heads-up the Higher and Further Education sector in London and the South East. He is currently working with Atkins HE and Research + Innovation teams to drive thought leadership on future teaching and learning spaces as well as the journey to Net Zero. John believes in the importance of collaborative design and meaningful consultation with stakeholders and starting every new project with an open mind.

**Thursday 10 June 2021 @9:00am**

### Lifecycle of Net Zero Carbon Buildings

Alasdair Donn, Head of Building Performance Group Sustainability, Willmott Dixon

*Chair for the Session: [Greg Keeling](#) SPACES Event Director*

Alasdair will be discussing the key steps to net zero carbon buildings and the importance of lifecycle evaluation in carbon and cost terms - case study examples from various Willmott Dixon projects.

[Alasdair](#) joined Willmott Dixon's Group Sustainability team in early 2007 as Principal Consultant, and now as Head of Building Performance manages the team responsible for all support to our construction businesses on building/energy performance on projects across all sectors. Willmott Dixon devotes its own internal resources to study how its projects perform in use, and Alasdair has been involved in multiple technical assessment projects, POE studies, and process improvement initiatives in the area of building and home energy performance. Alasdair is a Non-Executive Director of BSRIA, a member of their Soft Landings Technical Network, and is a member of the CIBSE 'Homes for the Future' group.



Thursday 10 June 2021 @4:00pm

## Leicester City Council PM 2.5 study using portable air quality monitors and near real time dispersion model

Dr Jolanta Obszynska, Transport Development Officer – Air Quality , Leicester City Council

Chair for the Session: [Richard Daniels](#), SPACES Technical Advisor

In 2019 Leicester has been awarded funding from Defra to deliver project titled “PM 2.5 study using portable air quality monitors and near real time dispersion model ”.

The main aims of the project were :

- improve air quality in Leicester, and subsequently the health of residents, with specific reductions in PM2.5
- supporting the Smart City concept in Leicester and improve the air quality cityscape.
- provide evidence for:
  - woodburning initiatives based on evidence of impact.
  - campaigns to promote walking and cycling and to encourage modal shift in the city
  - enable the development of future AQAP actions including the encouragement of modal shift
  - develop evidence-based policies and enforcement strategies to improve air quality.

This presentation will showcase the delivery of this successful project along with all of the outcomes and lessons learned.

[Dr Jolanta Obszynska](#) is a Transport Strategy Officer – Air Quality at Leicester City Council, responsible for the Air Quality Management Area in Leicester as a statutory obligation , air quality monitoring in Leicester and also for modelling of air pollutants. She is involved in policy work and various transport projects aiming to improve air quality in Leicester. She received her PhD at the MRC Toxicology Unit at University of Leicester in the field of molecular biology. Jolanta has got a wealth of experience working on various project both at local, national and European level and has plenty of project management experience, Jolanta is a secretary to the “ Leicester, Leicestershire and Rutland Air Quality Forum” , she is also a member of a committee for” Investigation of Air Pollution Standing Conference”, a member of Defra local authorities advisory group and a member of “East Midlands Air Quality Network” for Public Health England.

Relevant publications, products, services and/or other achievements, include:

- [“Air Quality management Guidebook”](#)
- [“ Integration of traffic management and air quality control \(iTRAQ\)”](#)
- [“iTRAQ – An Integrated Traffic Management and Air Quality Control System Using Space Services”](#)

Friday 11 June 2021 @9:00am

## London Energy Transformation Initiative LETI's Climate Emergency design guide

Dr Joe Jack Williams, LETI and Associate Researcher, Feilden Clegg Bradley Studios

Chair for the Session: [Richard Daniels](#), SPACES Technical Advisor

[Joe](#) is an Associate and researcher at FCBStudios and, alongside Ian Taylor, leads environmental research at the practice, identifying, developing and enabling research across sectors and projects. His specialism is the influence of the school building on the students studying within, measuring perceptions, environmental performance and building forms as well as predicting, measuring and mitigating carbon impacts of architecture. He has taught at a number of universities in the UK and is part of core research groups within Architects Declare, CIBSE and LETI.





## Programme Week 2

**Monday 14 June 2021 @9:00am**

### Keynote – Enabling the delivery of Net Zero Carbon

Prof Alan Jones, President, RIBA

*Chair for the Session: [Helen Newman](#), SPACES Head of Profession - Architecture*

“Climate Emergency” declarations are good, but action and outcomes are what is really needed to deliver zero carbon. Professor Alan Jones, President of the Royal Institute of British Architects will explore a range of strategies, support and actions needed to enable the delivery of a zero carbon built environment.

Alan Jones is President of the Royal Institute of British Architects (2019-21) and Professor of Architecture at Queen’s University Belfast, a member of the UK’s Russell Group of universities.

The RIBA represents a UK and global membership of over 40,000 and as its President Alan has championed the value of architects to society, to deliver client and governments’ commitments on zero carbon, greater safety and performance, well-being and stronger and healthier communities.

Alan’s built work is cited in design guides and has received various awards and commendations. His achievements as RIBA President include a radical new framework for long term development of the profession and setting the long-term goals for the 200th anniversary of the RIBA.

**Monday 14 June 2021 @4:00pm**

### What planning can do to achieve net zero carbon?

Victoria Hills MRTPI FICE, Chief Executive, Royal Town Planning Institute

*Chair for the Session: [Jenifer Jackson](#), SPACES member*

Victoria Hills MRTPI FICE is Chief Executive of the Royal Town Planning Institute with over 22 years in senior roles in planning, transport, organisational leadership and development. She latterly led the UK’s largest regeneration project at Old Oak.

Using the convening role of the Institute, she makes the case for resourcing planning and advocating the important role of putting planning at the heart of government delivery for the quality places that people want to live in. She is driving forward delivery of the RTPI’s Corporate Strategy for the 25,000 member strong RTPI, focussing on raising the profile of planning, elevating the value of professionalism, and promoting a diverse and inclusive profession to ensure genuine representation of the society in which we work. Victoria is also currently serving as a Commissioner on the Essex Climate Action Commission and sits on the Advisory Group to the Government’s COVID-19 Recovery Commission.

**Tuesday 15 June 2021 @9:00am**

### Dame Hackitt Review and Zero Carbon

Dr Hywel Davies, Technical Director, CIBSE

*Chair for the Session: [Steve Rufus](#), SPACES Vice President and Head of Profession - Engineering*

Hywel is Technical Director of CIBSE, the Chartered Institution of Building Services Engineers, a role he has held since June 2007. He leads the technical and policy development work of the Institution, particularly focused on those policy areas that influence the performance of buildings, including Building and Energy related Regulations and Building Information Modelling. He participates in a range of government and industry policy development groups. CIBSE members are familiar with his monthly contribution on legal issues for the CIBSE Journal. He is also engaged in research projects on technical and policy issues, particularly energy efficiency, BIM and other regulatory matters.



Tuesday 15 June 2021 @4:00pm

## Carbon Net Zero – where are we and what do we need to do

Alex Gee, Operations Director, NPS Group, Dorrian O'Neil Business Development Consultant, Norse Group Ltd and Paul Cockaday, Director - Energy and Carbon at Norse Energy.

Chair for the Session: [Paul Inch](#), SPACES Marketing Advisor

[Alex](#) joined the NPS Group in June 2013 having worked in the public, private and international sectors.

Prior to this, Alex was Head of Project Co-Ordination for UNEP-WCMC, leading on the commercial viability of international environmental projects that ranged from preserving International Protected Areas to Climate Change, working across Institutions such as the UN, the EU and International NGOs.

Since joining the NPS Group, Alex has had responsibility for managing Group Quality and Compliance and has had operational responsibility for NPS Archaeology prior to becoming Operations Director for NPS Peterborough, running the Estates and Asset Management joint venture with Peterborough City Council.

In addition to his responsibilities in Peterborough, Alex has spent the last 12 months as Interim Head of Property at Cambridgeshire County Council, working closely with the Energy Investment Unit supporting the implementation of zero carbon projects.

Alex specialises in delivering strategic projects that require multi-partner collaborations to facilitate change, and building high performing teams that focus on delivering commercial benefits.

[Dorrian](#) has been working at the NPS Group for over three years as a Business Development Consultant responsible for account management and developing marketing and sales strategies to support company growth, vision and performance.

Sitting in the Placemaking and Regeneration team, Dorrian is responsible for promoting and delivering architecture and design services for sustainable housing developments, in particular Passivhaus and Net Zero schemes.

Prior to NPS, Dorrian worked at a London Borough and set up a successful trading company in the property and planning sectors. She has also enjoyed being part of digital start-ups in the 'Tech for Good' industry, helping to develop and promote technology for the environmental and healthcare sector. Before this Dorrian worked at a FTSE 250 corporate where she has experience managing large scale projects across property, design, technology and the built environment.

Specialising in business development, project management and business transformation, Dorrian is passionate about shaping and delivering services that create sustainable communities and have a positive impact on society.

[Paul](#) joined the NPS Group in April 2010, having previously worked in the construction and civil engineering industry.

Prior to joining NPS, Paul was responsible for the successful leadership of Laing O'Rourke's European environmental sustainability strategy around key areas of: Performance and Improvement, Waste Management and Resource Efficiency, Climate change Impact, Design for Off-Site Manufacturing, and Biodiversity.

Since joining the NPS Group, Paul has a key Group-wide role in promoting, developing and delivering the NPS Group's energy, carbon and climate change services. He also provides support to Group customers and internal teams on all environmental and energy-related issues including compliance.

Paul is successfully leading a range of challenging energy reduction projects across the UK, including the operational management of Norse Energy, the Group's in-house Special Purpose Vehicle (SPV) holding over 2,200 solar and biomass assets.



Paul is passionate about ensuring that exceptional sustainable solutions are delivered, providing a positive impact to the communities in which we serve and work in.

**Wednesday 16 June 2021 @9:00am**

### Net Zero Carbon: what does it cost?

Annabel Clark, Associate Director, Sustainability Specialist, Steve Jackson, Regional Director and Peter Dunn Associate Director, .Faithful+Gould

*Chair for the Session: [Andrew Rowe](#), SPACES Finance Director*

The session will focus on the costs associated with achieving Net Zero Carbon on a project. We will be detailing a cost guide we have recently produced to help with understanding NAC costs and using examples of three local authority projects we have recently delivered and are delivering.

Annabel is an Associate Director in our Strategic Asset Management with over seven years of experience.

Annabel is a qualified BREEAM Assessor and Accredited professional. This role involves providing design advice and practical application of energy efficient building solutions. Annabel works to influence the improvement measures to improve the inherent energy efficiency of the building, encourage the reduction of carbon emissions and encourage efficient operational energy management. Annabel has a good understanding of energy efficiency through her work on a range of energy efficiency loan application assessments for Salix Finance. Annabel's enthusiasm for projects is invaluable, her innovative approach assists the team with achieving our goals. Annabel has been supporting our clients write their Net Zero Carbon policies and she is accomplished in leading design teams to enhance asset value, reduce cost and risk in support of the sustainable reputations of our clients.

Steve is a Regional Director of Faithful+Gould and heads up the Residential Sector in the London and the South East business. He comes from a cost management background and has extensive residential experience across all procurement routes, both in the public and private sector. Steve has acted as Project Director on multiple large mixed-use regeneration schemes and has a detailed understanding of development appraisals and their key drivers. Steve specialises in sustainable developments, working with clients to achieve their Net Zero Carbon rating. He is an expert in unlocking viability.

Peter is an Associate Director and Chartered Quantity Surveyor with extensive experience of all pre-and post-stages of project delivery. Peter has expertise in cost managing large refurbishment schemes from Listed buildings to high spec new office buildings, regularly working with clients who need to maintain their business operations during phased construction periods.

Peter has been the driving force behind Faithful+Gould's Sustainable Cost Guide which you will hear more about in this session.

**Wednesday 16 June 2021 @4:00pm**

### Energy and emissions data drops for RIBA Plan for Use and Soft Landings projects

Dr Roderic Bunn, Building Performance Analyst, WMEboom

*Chair for the Session: [Greg Keeling](#), SPACES Event Director*

Meeting net-zero operational outcomes requires project teams to keep track of operational energy and carbon dioxide emissions throughout procurement and into handover. BRUKL projections and as-built EPCs will not be enough. This talk will present best-practice energy and emissions data-drops consistent with guidance in the 2021 RIBA Plan of Use and 2020 CIBSE TM61 Operational Energy Performance. The recommended data-drops are particularly applicable for Soft Landings and Government Soft Landings



Dr Roderic Bunn has a track record in researching the performance of non-domestic buildings, from their energy and carbon dioxide emissions to measuring the wellbeing and satisfaction of occupants. Bunn lectures widely on building engineering and on the role of human behaviour in building performance, and advises building owners and building design teams on ways to ensure design ambitions are achieved in reality. He is known for devising and co-authoring the definitive industry guidance on Soft Landings,

Roderic has authored a number of industry guides, notably BSRIA BG54 The Soft Landings Framework (2014), BSRIA BG45/2014 How to Procure Soft Landings, and BSRIA BG27 Pitstopping – a reality checking process for Soft Landings. He has also written academic papers on occupant satisfaction and energy use. He was chief editor for the 2006 Department of Education guide: Design of Sustainable Schools: Case studies. Bunn co-authored the forthcoming CIBSE guide TM61:2020 Operational performance of Buildings and authored the CIBSE Technical Memorandum TM62:2020 Operational performance: Surveying occupant satisfaction.

Between 1995-2001 Dr Bunn led the ground-breaking PROBE building performance evaluation research project. This research was instrumental in fabric airtightness standards and energy measurement techniques being included in the UK Building Regulations. He also worked on the Carbon Trust's Low Carbon Buildings Performance programme (2011), and was lead evaluator on InnovateUK's Building Performance Evaluation (2011-2105) and Invest in Innovative Refurbishment (2013-2015) programmes.

Dr Bunn has trained and supported project teams on a variety of Soft Landings projects, covering schools, offices and academic projects, notably the Enterprise Centre at the University of East Anglia.

Roderic has a Doctorate in Engineering from the Bartlett, University College London, and a Master of Research (MRes) focusing on lighting design, occupant wellbeing, and passive solar design. He is a Silver Medallist of the CIBSE and a recipient of the Carter Bronze Medal. He currently teaches on UCL built environment MSc courses, specifically BENV0032: Methods of Environmental Analysis, and BENV0043: Post-Occupancy Evaluation.

**Thursday 17 June 2021 @9:00am**

### **An introduction to FCBS CARBON for schools: Understanding carbon from the outset**

Dr Joe Jack Williams, Associate Researcher, Feilden Clegg Bradley

*Chair for the Session: Steve Rufus, SPACES Vice President and Head of Profession - Engineering*

This talk will introduce FCBS CARBON as a free way of estimating the whole life carbon of a school from the very beginning of the design process, ensuring that the operational and embodied carbon remain part of any design discussion. During this session the following aspects will be covered:

- Introduction to the tool and whole life carbon modelling
- Discussion of how it works
- Demonstration of the FCBS CARBON using a project
- Q&A session

[Joe](#) is an Associate and researcher at FCBStudios and, alongside Ian Taylor, leads environmental research at the practice, identifying, developing and enabling research across sectors and projects. His specialism is the influence of the school building on the students studying within, measuring perceptions, environmental performance and building forms as well as predicting, measuring and mitigating carbon impacts of architecture. He has taught at a number of universities in the UK and is part of core research groups within Architects Declare, CIBSE and LETI.



Thursday 17 June 2021@4:00pm

### Do Green Buildings Cost More?

Michael Cross, Head of Partnerships and Innovation Group Sustainability, Willmott Dixon

Chair for the Session: [Alan Jarvie](#), SPACES Member and Virtual Conference Sponsor

Michael will be discussing Capex vs Opex, is what we value changing? how do we value sustainability? Why is it different now?

[Michael](#) is a Chartered Environmentalist with over 15 years' experience supporting organisations and customers to deliver more sustainable outcomes across the built environment. He led the development of our trailblazing Now or Never sustainability Strategy committing us to the most challenging and ambitious targets in the sector.

He works across all areas of our business to provide leadership and strategic direction accelerating delivery of Now or Never.

Working closely with our supply chain teams, Michael also leads on some of the most challenging aspects of our strategy including our goal for all our supply chain partners to be net zero carbon in operation and all our projects to achieve net zero embodied carbon by 2040.

He also works with our national product team, people team and local sustainability teams as well as our new Collida team to enhance the businesses' approach and focus on innovation.

Friday 18 June 2021 @9:00am

### Young Visionaries Closing Session

Matthew Smith Principal Building Surveyor/ BIM Manager at Concertus Design and Property Consultants Limited, Alexandra Ratcliffe Associate Director – Sustainability, Pick Everard, and Dr Guy Schmidt, Head of Compliance and Performance, Pick Everard

Chair for the Session: [Jackie Lowe](#), SPACES President

From the 2019 [Young Visionaries](#) SPACES Awards, three of our finalists, Matt Smith, Winner and Ali Ratcliffe and Dr Guy Schmidt, are giving their take on the virtual conference, the work they are doing and what they think needs to happen to reach the target of Net Zero Carbon.

[Matt](#) is a Principal Building Surveyor at Concertus Design & Property Consultants, leading a team of Building Surveyors to deliver a variety of projects. These projects range from capital maintenance to commercial and public sector projects, including refurbishments and new builds. Matt has also been the BIM Manager at Concertus for 5 years, driving the use of digital methods of construction within the business.

In his roles he is involved in reducing the carbon impact Concertus projects have on the wider environment. This includes helping to improve existing building stock for local authorities and the way they perform, as well as taking a lead in the use of digital construction to utilise key tools and processes in the delivery of projects.

[Ali](#) is an Associate Director leading the Pick Everard Sustainability team and currently focused on leading the delivering of what will be the first government funded Net Zero Carbon Operational Energy, BREEAM Outstanding and Biodiversity Net Gain project of that scale (£1.2 Billion) after only joining in 2014, straight out of university as an Assistant Consultant.

Not only is Ali passionate about leading change in the built environment in her professional life but also a silent educator using the familiar phrase "every little helps" in her personal life. A firm believer that if everybody makes a few positive changes to save our planet we'd be taking a collective huge step forward!



[Guy](#) is Head of Compliance & Performance and Social Value lead at Pick Everard. He is currently focused on leading the Social Value strategy development and implementation companywide including our delivery on projects for clients. He is also the Social Value Lead for Perfect Circle who have recently won the Built Environment and Infrastructure frameworks from Scape and is focused on the Social Value delivery for those two frameworks.

Environmental impact is very important to both Pick Everard and Perfect Circle as well as becoming increasingly more critical to clients across the sector and is a key focus for Guy across all Social Value activities and developments including the Net Zero Carbon challenge.

### Our Sponsors

Thank you to our sponsors.

#### Atkins

Atkins is one of the world's most respected design, engineering and project management consultancies.

We build long-term trusted partnerships to create a world where lives are enriched through the implementation of our ideas.

Our lived environment is facing rapid change; to face these challenges, we are radically transforming the way infrastructure is designed, delivered and operated. Our aim is to help create a world that is diverse, sustainable, full of thriving communities and working better for all.

#### Faithful+Gould

Faithful+Gould is a world-leading integrated project and programme management consultancy.

The best people in the business collaborate to bring all of their core services expertise of Cost and Commercial Management, Project Management, Programme Management, Asset Management and Project Controls to every environment and every sector.

We support clients with the construction and management of their key assets, important projects and programmes with an integral focus on improving social benefit to our communities in which we all live and work - it's in our DNA and another example of Constructive Expertise.

#### IES

IES believe that every building of every city in the world can be decarbonised. Our purpose is developing the technology to make that happen.

Our Digital Twin technology facilitates the creation of resource-efficient, healthy and cost-effective built-environments of any size or purpose – supporting citizens, companies, campuses, communities, cities and even whole countries. Simulating and analysing data to give those involved in the creation and management of both individual or entire groups of buildings the information needed to make smarter, more sustainable decisions with confidence.

#### NPS

NPS provides a full range of design, technical and property management consultancy services to local authorities, government agencies and other clients engaged with managing property assets and delivering capital investment programmes. Our multi discipline capabilities and our extensive resources across the UK provide assured and tested deliverability.

## Virtual Conference: Net Zero Carbon & the Climate Emergency



Our key focus is to provide satisfaction and excellent value to our clients. The growth of NPS Group is founded on successful partnerships. We believe this model of engagement develops positive relationships, where knowledge and experience are shared and benefits are maximised.

We have offices throughout the UK which include a number of Joint Venture Companies and acquisition companies.

### Willmott Dixon

Willmott Dixon is a privately-owned contracting and interior fit-out group. Founded in 1852, we have a purpose beyond profit to leave a positive legacy in our communities and environment.

We create value for customers, stakeholders and communities by taking a leadership role in the built environment, working in a sustainable and responsible way and by making a positive impact in the lives of people in the UK.

In September 2020, we launched our new sustainability strategy, 'Now or Never', with a series of ambitious targets to achieve by 2030.