

INFRASTRUCTURE Intelligence

Big night for a big industry

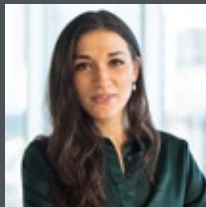
Inspirational industry shines at
Consultancy and Engineering Awards

See pages 16-17



SPRING BUDGET

ACE writes to
chancellor
pages 4-5



ROUNDTABLE

Net zero and
skills shortage
pages 10-11



DECARBONISING TRANSPORT WEEK

Campaign set for 6-10
March
pages 24-25



Join the national body powering infrastructure exports

Infrastructure, capacity building and international development

britishexpertise.org



Working in partnership with



Contents

4-7: ACE and EIC news
Spring budget, Scotland, EIC.

8-9: Skidmore Review
Industry welcomes Skidmore Review on net zero.

10-11: Roundtable
Net zero and the skills shortage emerge as key themes for 2023.

16-17: Consultancy and Engineering Awards
Inspirational industry shines through at hugely successful awards event.

20-21: Transforming and decarbonising infrastructure delivery
Andy Bowles and Mark Coates describe how the industry is decarbonising infrastructure delivery.

24-25: Decarbonising Transport Week
Brand new campaign set for series of events during 6-10 March.

26-27: Water and waste infrastructure
Neil Gregory outlines why inflation must not delay urgently needed improvements to our water and waste infrastructure.

28-30: News
HS2, Elizabeth line, Hydrogen village.

Contact us



Editor:
Rob O'Connor
roconnor@infrastructure-intelligence.com



Commercial director:
Ian Parker
iparker@infrastructure-intelligence.com



Reporter:
Sarah Walker
sarah@infrastructure-intelligence.com



Design and production:
Calvin Bone
hello@calvinbonedesign.com

ATKINS

Member of the SNC-Lavalin Group

The Infrastructure Intelligence digital magazine is delivered in association with Atkins.

Get the latest infrastructure news on our website and sign up to our **FREE twice weekly email alerts**.

[Register now](#)

The views expressed in Infrastructure Intelligence are not necessarily those of the **Association for Consultancy and Engineering (ACE)**.

Produced for the industry by the Association for Consultancy and Engineering (ACE).

Message from the editor



Welcome to the latest edition of our digital magazine. It's been an incredibly busy start to the year, and there's lots of important work coming up on the horizon.

The Association for Consultancy and Engineering has called for green growth and major infrastructure delivery to be essential elements of the Spring Budget on 15 March. (see pages 4-5).

Both are pivotal to the UK's prospects of social and economic recovery in the years ahead, and I'm sure the industry will be keeping a very close eye on the budget in March.

Net zero and the future skills shortage were also key themes raised by leading industry figures at one of our roundtables earlier this year. Find out more on pages 10-11.

We also look forward to the first ever Decarbonising Transport Week, which has a series of online events and activity during 6-10 March. Find out more on pages 24-25.

We also have exclusive features on the importance of not letting inflation delay urgently needed improvements to our water and waste infrastructure – and also the lessons nature can provide to our cities on resilience and wellbeing.

And our front cover is unashamedly dedicated to the Consultancy and Engineering Awards, which proved to be an inspirational night for an inspirational industry. (see pages 16-17).

Thanks for reading, we hope you enjoy the magazine, and please feel free to visit us online at www.infrastructure-intelligence.com – where you can sign up for our free twice-weekly newsletter, packed with a mix of news, features and industry opinion.

Rob O'Connor
Editor, Infrastructure Intelligence

Budget must focus on green economy and infrastructure

Focus on green economy and infrastructure is central to sustainable economic recovery, says ACE.

Focus on green economy and infrastructure is central to sustainable economic recovery, says ACE.

A clear focus on the green economy and infrastructure is vital to the UK's economic and social recovery, and should be essential elements of the upcoming Spring Budget on 15 March.

That's according to the Association for Consultancy and Engineering (ACE), who have written to chancellor Jeremy Hunt and his treasury team ahead of the keenly-anticipated spring statement.

ACE champions infrastructure and the built environment. Its member firms employ over 60,000 people in the UK and over 250,000 worldwide, contributing more than £15 billion to the UK economy and over £570 billion globally.

Together, they also play a pivotal role in delivering ambitious plans to achieve net zero by 2050.

ACE chief executive Stephen

Marcos Jones was pleased to see a focus on innovation and infrastructure in the Autumn Statement delivered on 17 November last year, and also welcomed the creation of a dedicated Department for Energy Security and Net Zero as part of a mini-government reorganisation earlier this year.

He now hopes the chancellor will press ahead and build on that momentum with the Spring Budget.

Stephen Marcos Jones said: "A clear focus on the green economy and infrastructure is vital to the UK's economic and social recovery, and the opportunity ACE and EIC members have to deliver net zero solutions is immense.

"Whether that's in designing the infrastructure for the transition to green energy, retrofitting old

and existing housing stock, or embedding sustainability into new and existing communities.

"The construction and infrastructure sector has a vital role to play if net zero is to be successfully achieved on behalf of both this and future generations across the globe.

"With that in mind, we would like to see the government make positive budgetary decisions in two areas. First, how we turn ambitions on the green economy and green growth into reality and, second, how we deliver on the infrastructure pipeline, despite tough economic times."

The ACE budget submission includes a set of constructive proposals for transport, procurement, communities and levelling-up, net zero, innovation and future skills and training.



Jeremy Hunt, chancellor of the exchequer.

Transport: Delivering on commitments around HS2 and the Integrated Rail Plan, to realise the economic and social benefits of these projects.

Procurement: Calls for early publication of the infrastructure pipeline. This would give companies and industry opportunities to plan, particularly on issues around recruitment and retention, as well as individual company budgets.

Communities and levelling-up: Looking again at the competitive nature of levelling up funding, but also ensuring that existing successful bids are focused on driving up overall skill levels and promoting net zero projects in areas identified as needing to be 'levelled up'. Also encourage

the use of co-investment between public and private sector to grow investment in place-based projects.

Climate Change and Innovation: Provide a clear and stable policy platform, alongside funding for innovation which gives companies and industry the confidence it needs to innovate, and to prioritise resilience and climate mitigation based-solutions. In particular, a roadmap for developing and deploying R&D and relevant technologies.

Future skills and training: Allocating funding to develop a Climate Emergency Skills Action Plan, aimed at recognising the importance of skills and training to support the green agenda.



"The industry has seen positive signals that the government takes both the challenges and, even more importantly, the opportunities of net zero seriously."

"The built environment sector is constantly innovating and finding creative workable solutions to the main challenges of our time, and is ready, willing and able to meet the challenges and opportunities of net zero absolutely head on."

"It's absolutely realistic to expect that the Spring Budget will go some way to deliver a safe, innovative, resilient, and globally competitive UK built environment sector, driving economic growth by delivering well-connected, socially valuable, and environmentally sustainable places."

Stephen Marcos Jones, chief executive, Association for Consultancy and Engineering.

Read the full ACE budget submission [here](#).



Nicola Sturgeon is to stand down as Scottish first minister.

Nicola Sturgeon to stand down as Scottish first minister

ACE pledges to work with Scottish government in its current form, as well as under new leadership, after Nicola Sturgeon announces plans to stand down.

The Association for Consultancy and Engineering (ACE) has pledged to work with the Scottish government in its current form, as well as under new leadership.

The news came as Scotland's first minister Nicola Sturgeon announced her intention to step down from the role after almost a decade at the helm.

In a surprising press conference at Bute House, Sturgeon outlined her

plans in the short term, telling reporters that her decision to resign was "the right decision for the country".

Olivia Smalley, ACE policy lead for Scotland, said: "With any ministerial change in government, effective transition is essential. This is particularly important with regards to the most senior job in government.

"Under the current leadership, the Scottish government has embarked on an ambitious policy direction around net zero, but significant issues remain regarding the economy, growth, and innovation.

"To ensure effective delivery, the supply chain will need clarity on the medium to long term direction of policy.

"Through the soon to be released ACE Scotland Policy Manifesto, ACE

will continue to collaborate with the Scottish government in its current form, as well as under new leadership.

"Our ACE Scotland Committee is committed to improving and enhancing the built environment sector for both large and SME organisations working in Scotland.

"Whilst we await the election of a new first minister, we will continue to engage with relevant officials in Holyrood to advocate for a number of common challenges and positions for ACE members and the wider sector working in Scotland and beyond."

[Click here for further information on ACEs work in Scotland.](#)



EIC kicks off busy start to 2023

Guto Davies reflects on a busy start to the year for EIC and its members.

We are already well underway on what promises to be a busy year for EIC and its members. Our newly formed taskforces are starting to progress their annual plans, and we are soon to launch an exciting new industry wide campaign.

Following the [EIC Advocacy refresh](#) in the summer of 2022, four new taskforces were established which align with the themes of the Environmental Act: air quality, nature and biodiversity, waste and resource efficiency, and water.

These taskforces provide a constructively critical view of the Act's implementation, as well as promote members' skills, knowledge, and expertise in supporting its objectives.

All four of our new taskforces have hit the ground running, hosting roundtables with key stakeholders including Natural England, Defra, Innovate UK, and the British Standards Institution (BSI). Our two working groups on contaminated land and Laboratory Analysis continue their important work, including on the brownfield first campaign.

Readers of *Infrastructure Intelligence* can find out more about our plans for 2023 on the [EIC website](#)

Two recent announcements impacting many of our groups here at the EIC include Natural England's Green Infrastructure Framework, and the UK government's five-year environmental delivery plan.

The new framework, in particular, is timely, because it has the potential to improve existing and create more good quality green infrastructure, and drive the ambition to create and maintain sustainable places. EIC members will be engaging with this new framework, but are keen to understand more on the impact of the standards, given they are going to be voluntary.

The five-year environmental delivery plan, published by government earlier this month, states that environmental protection and enhancement will be embedded into the design and development of new policy across government.

This is particularly important when we consider recent changes to government departments, and the need to ensure effective delivery of the Environment Act. EIC look forward to working collaboratively with government on the next steps.

Finally, readers of *Infrastructure Intelligence* will, I'm sure, be interested to hear about EICs forthcoming 'Innovation Campaign'. The joint campaign, between EIC and the Association for Consultancy and Engineering, will showcase the innovation in delivery from our membership base.

As part of the campaign, EIC will soon release a report on 'barriers to innovation' across environmental industries, and how we unlock some of these challenges to deliver green economic growth. I look forward to presenting our findings and recommendations in due course.

EIC is on the up. Membership provides access to our groups across all environmental topics, exclusive access to our roundtables with senior policymakers and political leaders, access to funding opportunities and the chance to shape the joint ACE/EIC campaigns.

Those interested in joining the EIC can do so by getting in touch with our [membership team today](#)



Guto Davies
is head of policy at the EIC.

Use infrastructure to unlock net zero, says review



Infrastructure and the construction industry in the UK could be key to unlocking net zero, according to the Net Zero Review.

Infrastructure and the construction industry in the UK could be key to unlocking net zero, according to the Net Zero Review.

Infrastructure and the construction industry in the UK could be key to unlocking net zero, according to the Net Zero Review completed by former energy minister Chris Skidmore.

The review highlights the 'historic opportunity' the UK possesses to continue leading the world on tackling climate change, while making 129 recommendations to "seize opportunities from creating a green economy".

The review has been welcomed by leading infrastructure and construction industry figures, many of whom were encouraged by several elements of the report.

Skidmore said the UK's leadership

on tackling climate change had delivered real change at home and led to a global transformation.

But he added more should be done to reap the economic benefits that presents, including making better use of infrastructure and delivering more energy efficient homes.

The recommendations made in the review aim to maximise economic investment, opportunities and jobs - all while working towards achieving legally binding targets to reach net zero carbon emissions by 2050.

"We should be proud of the lead the UK has taken in tackling climate change, having exceeded expectations so far in our race to net zero emissions by 2050," said Skidmore.

"As essential as that is environmentally, it also puts us at an economic advantage globally.

"We lead in areas including clean technologies, science, manufacturing and green finance - areas that, if managed right, can lead to new jobs and strong economic growth.

"In developing this report, we have

engaged with communities, economists and climate experts from across the country through more than 50 roundtables and 1,800 submissions - all of which have led to the Mission Zero findings."

He added recommendations in the report are designed to "make the most of this historic opportunity," so "people in every part of the country can reap the benefits of this both in their communities, and in their pockets".

Official statistics show there are already around 400,000 jobs in low carbon businesses and their supply chains across the UK, with turnover estimated at £41.2bn in 2020.

Both the British Energy Security Strategy and Net Zero Strategy aim to leverage an additional and unprecedented £100bn of private investment, while supporting an additional 480,000 British jobs by 2030.

Professor Lord Stern of Brentford, chair of the Grantham Research Institute on Climate Change at the London School of Economics and Political Science, said



the review had convincingly argued the transition to a net-zero economy is the "growth opportunity of the 21st century".

He added the UK is well-placed to benefit from the increasing demand for net-zero goods and services, "if it makes the right public and private investments".

"It also correctly highlights the critical importance of government creating an environment that is conducive to this investment by

providing clarity, certainty, consistency and continuity of policy," he said.

"I hope the prime minister and his government will respond to the review with the urgency and scale required to prevent this enormous economic opportunity from slipping through our fingers.

"This transition, and the investment and innovation it embodies, are at the core of the UK's growth story for the coming decade."

MISSION ZERO

Independent Review of Net Zero

[Click here to read the full Net Zero Review](#)

Brightly

A Siemens Company

Assets as smart as you are. That's the future we're creating.

With more than 20 years experience, Brightly Confirm is the ideal solution to manage all of your infrastructure assets in one single, dependable platform. Brightly's industry-leading Asset Management solutions enable you to:

- Make smart investments in your assets
- Prioritise cost of operations
- Build sustainable, safe and thriving communities

To discover asset management for smart assets visit - brightlysoftware.com or scan me to find out more



Net zero and skills shortage must remain high on 2023 agenda

Leading industry figures emphasised net zero and the skills shortage while discussing opportunities and challenges for 2023. *Sarah Walker reports.*

The need to attract more people into the construction industry, while keeping net zero high on the agenda must remain priorities in 2023.

Those were two of the key themes to emerge at a high-level roundtable with leading industry figures, organised by *Infrastructure Intelligence* and Atkins.

Chairing the event, Kat Brown, social impact and ESG manager at Bruntwood, recognised that Brexit had “dealt the industry an interesting hand over the last five years” and also commented on how some of her civil engineering graduate peers had shunned the industry for careers in finance.

She asked the panellists about the many barriers the industry faced to address skills shortages and how it could rise to the challenge of net zero.

Addressing the skills shortage

Karen Brookes, director of people and infrastructure at Sir Robert McAlpine, said the industry had a lot of competition from other sectors when it came to attracting talent, at a time when

innovation around net zero and digital transformation is required in the sector.

She added major employers and organisations needed to become better at working together to address the skills shortages and education was also key, starting with primary school pupils.

“It’s about educating young people and educating parents, who often think construction is digging holes,” she said.

“They don’t recognise that there are a massive number of roles that people can do in a construction environment.”

She added as people are having to work longer into their lives, it was also important to tap into the skills and experience of older people too.

Isabel Coman, director of engineering and asset strategy at Transport for London and Terry Stocks MBE, director at Faithful+Gould and UK head of public sector and education, echoed Karen’s view about the need to “educate society” about the fantastic career you can have in construction.

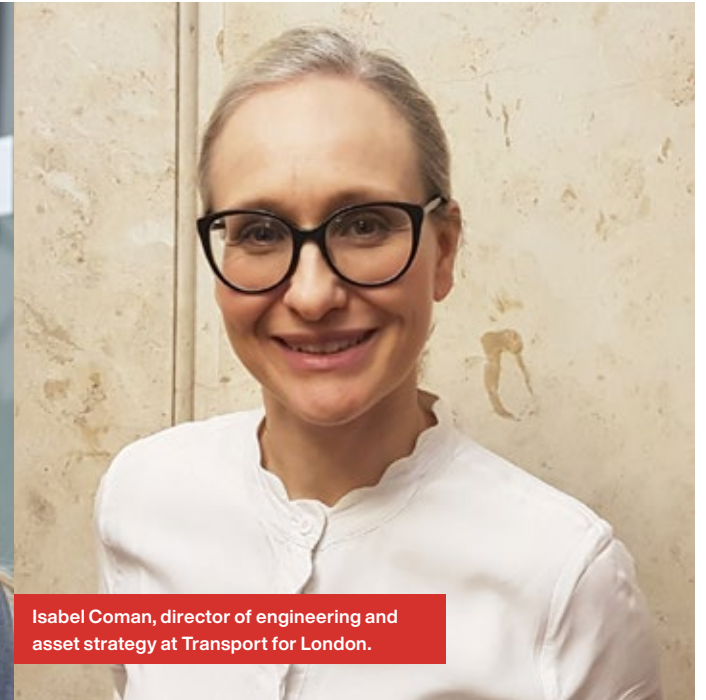
Coman said: “Our industry is open to everyone. I really believe there are very few people with whatever skillset or capabilities they have who couldn’t work in our industry and contribute.



Kat Brown, social impact and ESG manager at Bruntwood.



Karen Brookes, director of people and infrastructure at Sir Robert McAlpine.



Isabel Coman, director of engineering and asset strategy at Transport for London.



Terry Stocks MBE, director at Faithful+Gould and UK head of public sector and education.



Richard Robinson, chief executive of Atkins UK & Europe and deputy co-chair of the Construction Leadership Council.

“We need to ask people “what would you like to do?” because there’s so many different skills and thinking that we need, to deliver right across the whole spectrum, from working in control rooms to heavy construction.”

Stocks said: “We’ve got a demographic profile in our industry that’s older than we would like and by 2026 we will need 266,000 people just to stand still – that’s without growing.”

He noted many of the people who embark on civil engineering courses and college courses in construction go on to work in other industries.

Meanwhile, he noted news reports on the construction industry often use images of people working on building sites rather than at computers, providing a skewed image of the industry.

“We are finding it hard to keep [people], so perhaps there is something there around messaging and about being part of solutions to problems,” he said.

“We’ve got global warming, but the best place to try and solve that is within the construction industry.”

Net zero and digital transformation

Richard Robinson, chief executive of Atkins UK & Europe and deputy co-chair of the Construction Leadership Council, noted “every part of the economy is short of staff” and “throwing people at the problem” is no longer an option when it comes to growing the construction sector.

“Driving that productivity improvement that’s long overdue is the thing that we have to do and I think fortunately, we are at a tipping point with digital innovation and digital

“Our industry is open to everyone. I really believe there are very few people with whatever skillset or capabilities they have who couldn’t work in our industry and contribute.”

- Isabel Coman, director of engineering and asset strategy at Transport for London.

The roundtable – UK Construction: challenges and opportunities in 2023 – was organised by *Infrastructure Intelligence* and Atkins.

transformation in our industry,” he said.

Robinson added it was important to also keep net zero high on the agenda, maintaining the momentum he believes started at COP 26 in November 2021.

He says with the UK’s current political situation around inflation and the reporting of the cost of living crisis, this had “slipped down the agenda”.

However, he added he doesn’t think it’s affected progress on net zero within the industry and there is now a “strong financial case” for continuing the “tremendous things” that are happening in the drive towards net zero.

What will it take to support zero-carbon emission flights?

Jacobs' Chris Pickard looks at how airports can prepare now if they are to be ready to fuel hydrogen-powered aircraft and become catalysts to support wider decarbonisation initiatives.

Airports worldwide continue to make significant progress in reducing their carbon emissions, but without decarbonising aircraft, overall reductions from the aviation sector will be limited.

Meanwhile, the aerospace industry is working hard to decarbonise aircraft through the design and development of new methods of propulsion. While rapid progress continues in the development of sustainable aviation fuel (SAF) and battery-electric propulsion, hydrogen is being explored as a potential zero-carbon emission fuel.

Research into the use of hydrogen continues to gain pace, with projects such as the UK Aerospace Technology Institute's (ATI) FlyZero programme demonstrating its feasibility. As such, commercial aircraft powered by liquid hydrogen are anticipated to be in operation by the mid-2030s, with smaller gaseous hydrogen fuel cell aircraft potentially in operation within this decade.

To achieve rapid decarbonisation of aviation and net zero by 2050, multiple approaches will be needed. SAF, more efficient engine technology, operational processes improvement, and hydrogen all have a potential role to play.

Of these, the infrastructure required for hydrogen aircraft is perhaps the biggest challenge, from the need to generate and supply vast quantities of green hydrogen, to the ability of airports worldwide to provide standardised equipment and processes needed

to safely operate these aircraft.

Studies such as FlyZero suggest that most commercial flights will require the use of liquid hydrogen, due to the low volumetric density of gaseous hydrogen. To be stored and used as a liquid, hydrogen needs to be cooled to -253°C, presenting unique challenges for an airport environment.

Recognising the scale of the infrastructure challenge, FlyZero – working with Jacobs – **investigated the feasibility of providing the required infrastructure at airports.**

The project identified three major pathways and the associated infrastructure for hydrogen supply and operation at an airport, depending on the airport's size, location and demand for fuel.

The first pathway is likely to initially apply at all airports, with hydrogen generated off-site and transported to the airport by tanker. For many smaller airports this may be all that is needed on an ongoing basis, operating in a similar way to their current supply of traditional fuel.

However, for larger airports, as demand increases, the logistics of supplying hydrogen by road or rail may become infeasible with hundreds of tanker deliveries being required each day.

Therefore, the second pathway considered the supply of hydrogen through a gaseous hydrogen pipeline, requiring on-airport liquefaction and storage capability.

While it may be possible for airports

to generate hydrogen on-site, the high energy requirement for electrolysis of green hydrogen is likely to make this unattractive, especially for larger airports where demand for hydrogen is high. As a result, the supply of hydrogen through a gaseous pipeline may become the preferred solution for large hub airports.

Despite the high on-airport energy requirement, the third supply pathway investigated the infrastructure required to provide electrolysis, liquefaction and storage at an airport.

Although unlikely to be used for large airports with high demand, this remains a potential option for smaller airports, particularly where plentiful renewable energy is available.

In the future, multiple complementary technologies and fuels will likely be operated in parallel at most airports. However, without knowing if or when new aircraft will be introduced, airport owners face the challenge of preparing for

multiple and uncertain future scenarios.

Airports may feel there is little they can do to plan for future fuels like hydrogen, with no choice but to act reactively as aircraft technology develops.

However, infrastructure and investment planning are needed today to enable the effective use of hydrogen in the future.

Early planning and implementation of compatible infrastructure offers airports sustainability and resilience, positioning them to capture new carriers and route connections as airlines move towards the use of new technology.

Airports can begin preparing by considering early adoption for their own and other stakeholders' use, such as by handling agents, transport providers, local industry and freight distributors.

With early adoption that stimulates an integrated hydrogen ecosystem, airports not only prepare for the eventual use of hydrogen as an aircraft fuel but also become catalysts to support

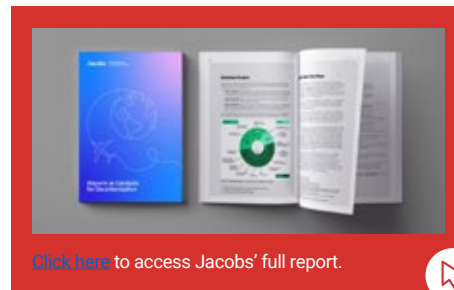
wider decarbonisation initiatives.

The certainty of demand that this ecosystem provides also allows longer-term investment in infrastructure, knowing that there will be a positive return on investment.

Providing the infrastructure needed for hydrogen aircraft presents a challenge to industry, requiring deep collaboration and innovative thinking. Encouragingly, momentum continues to build with many new collaborative projects and initiatives underway, giving hope that the required infrastructure will be ready to support the introduction of the future generation of aircraft.



Chris Pickard is transportation sustainability specialist at Jacobs.



[Click here to access Jacobs' full report.](#)



A narrowbody hydrogen-powered aircraft concept developed by the ATI's FlyZero project. (Image courtesy of UK Aerospace Technology Institute).

Learn from nature to become more resilient

WSP's *Ludo Pittie* reflects on how cities can learn from nature to become more resilient.

With COP27 and COP15 behind us, many policymakers and businesses are now reflecting on the agreements made and how to adapt our urban infrastructure to be more resilient to our changing climate.

With over half of the world's population living in urban areas, cities are high energy consumers and produce more than 60% of global greenhouse gas emissions. However, they are also the social, economic, and political hubs of society and are particularly vulnerable to the effects of climate change.

Adapting our cities to be more resilient is vital to enhance sustainability and nurture a strong sense of community for urban citizens.

Placing nature at the heart of planning decisions could be the solution for more sustainable and resilient urban development. Unlike cities, nature has evolved over millions of years and can provide many valuable insights into how to develop a thriving urban ecosystem.

For example, nature-based solutions can support greater water resilience in cities. In a concrete jungle, pavement and concrete are not only resource and carbon intensive to make but also increase urban temperatures, flooding and water pollution.

Grounding cities in soil can respond to these effects. By increasing permeability with porous materials and sustainable

drainage systems, such as swales and raingardens, not only can streets and urban courtyards better retain rainwater to reduce flooding and stormwater pollution, but they can also strengthen biodiversity and serve as beautiful, restorative spaces for community enjoyment.

If you look up in a city, its buildings will capture your imagination. Just as a city's buildings support the social, economic and political lives of thousands of individuals, a forest's trees similarly serve as a home for a variety of plants and animals.

However, while trees continue to nurture new life after death, providing shelter, habitat and nutrition, buildings are rarely repurposed once vacated. Over 10% of the world's total carbon emissions come from materials and construction of buildings alone; by continuing to demolish buildings that could be partially reused or retrofitted, developers ignore the embodied carbon emissions that come with building anew.

Instead, to reduce this cost, we should adapt buildings or vacant sites for new uses and recycle existing materials for reuse on new developments on-site or elsewhere.

Moreover, how can we make existing buildings more effective and efficient? The forest canopy is complex: it is the most biodiverse part of the forest, moderates temperatures below and captures the greatest amount of energy. We already collect energy on rooftops, but when

combined with a green roof, solar panels are on average over 3% more efficient.

A green roof also reduces energy usage, can enhance biodiversity and be used for social activities too, all of which are beneficial in reducing operational carbon emissions.

As we see the continual decline of biodiversity globally, the importance of cities to protect nature cannot be ignored or neglected.

While we are used to thinking of the natural and built environments as distinct

opposites, our cities are dependent on nature for their success, so it is vital that we recalibrate our approach to urban building so our cities are better aligned with the natural world.

Cities around the world are already considering how to integrate nature with urban environments. In the UK, for example, the 2021 London Plan emphasizes the importance of high quality urban green infrastructure for the capital's development, with the Urban Greening Factor helping local councils

implement these nature-based solutions.

Fundamentally, to adapt to the demands of the future, we must think of cities as part of a wider network, in a similar way to a forest where everything works together to create a thriving, healthy environment.

Understanding how these different elements interact can inform how we design adaptive communication, transportation and energy networks of the future. Can we explore how a building can have multiple sustainable uses? How can energy captured by green roofs

be used by local micro grids, power electric buses or underground rail?

By acknowledging the interconnected nature of cities, we can design our urban spaces to meet the needs of both the natural environment and the people that call them home.



Ludo Pittie
is head of landscape architecture and urban design at WSP.



By acknowledging the interconnected nature of cities, we can design our urban spaces to meet the needs of both the natural environment and the people that call them home.

Hugely important night for a hugely important industry

Winners announced at Consultancy and Engineering Awards, where industry inspiration shone through.

Katie Prescott, *The Times'* technology business editor: "The list of projects highlighted tonight was absolutely mind-blowing."



The keenly anticipated Consultancy and Engineering Awards saw leading industry figures and projects showcased at a hugely successful celebration on Thursday 19 January.

The 2022 Awards, rescheduled after the original date last November was postponed due to a rail strike, took place at London Marriott Grosvenor Square.

Highlighting the best people, projects and businesses from the world of consulting, engineering and the built environment, the Association for Consultancy and Engineering's (ACE) prestigious awards returned as an in-person ceremony for the first time since a pre-pandemic 2019.

Sponsored by industry communications specialists *BECCG* and expertly hosted by Katie Prescott of *The Times*, the evening ceremony brought together more than 280 colleagues from ACE member firms, clients and other stakeholders.

ACE CEO Stephen Marcos Jones described the gathering as "a hugely important night for a hugely important industry." He said: "The standard was exceptionally high, and the projects

that ACE members are either leading or involved in make a real difference to UK society on a day-to-day basis.

"A huge congratulations to all the worthy winners on the night and the highly commended entries. A special thank you to headline sponsor BECG for their support and to category supporters Mott MacDonald and WSP for helping to make the night happen."

ACE member Mott MacDonald was the big winner on the night. Shortlisted six times, they won two awards for their work on the BIM Pathfinder project with the Foreign and Commonwealth Office, and Best Transport Project for their work for Crossrail on the Elizabeth line. In addition, Caroline Reeson was named Emerging Professional of the Year.

Best digital project was awarded to WSP for their work creating immersive virtual designs at Old Oak Common for HS2, best social value project to AECOM for their work on the Northumberland Line, and Best Net Zero project to Waterman Group for their materials passport approach.

Meanwhile, Ramboll was named

Inclusive Employer of the Year, and Apprentice of the Year went to Hannah Mehr of Arup.

There were also Best Consultancy Awards for Lewis Hubbard Engineering (micro), Narro (small and medium) and BWB Consulting (large).

Arup, Costain, DT Global, Mott MacDonald, RYBKA, Super Structures Associates, and WSP were highly commended for entries across the categories.

ACE chair David Baddell said: "It's been really refreshing to see people come together like this. It's sometimes easy to lose track of the great work this industry does throughout society. Tonight reminds us of the strengths we have as an industry – it's almost like a reset of optimism after the abyss of the last few years."

Awards host Katie Prescott, *The Times'* technology business editor, said: "The list of projects highlighted tonight was absolutely mind-blowing. A series of inspirational entries that are key to rebuilding the economy and positively affecting peoples' day-to-day lives all across the UK and beyond."

The winners and shortlisted entries at the Consultancy and Engineering Awards 2022 were:

Best UK Consultancy (micro):

Winner: Lewis Hubbard Engineering.
Highly commended: Super Structures Associates Ltd.
Shortlisted: CC Hydrodynamics and Rail Power Solutions.

Best UK Consultancy (small and medium):

Winner: Narro.
Highly commended: RYBKA.
Shortlisted: Dougall Baillie Associates & Harley Haddow.

Best UK Consultancy (large):

Winner: BWB Consulting Ltd.
Highly commended: Costain.
Shortlisted: Buro Happold, Pick Everard & WSP.

Best Digital Project:

Winner: WSP.
Highly commended: Mott MacDonald.
Shortlisted: AECOM, Amey & Royal HaskoningDHV.

Best Transport Project:

Winner: Mott MacDonald.
Highly commended: DT Global.
Shortlisted: Amey & Waterman Group.

Best Social Value Project (sponsored by WSP):

Winner: AECOM.
Shortlisted: Atkins, Buro Happold, Costain & Mott MacDonald.

Best Net Zero Project:

Winner: Waterman Group.
Highly commended: WSP.
Shortlisted: Mott MacDonald & Ramboll.

Best International Project:

Winner: Mott MacDonald.
Highly commended: DT Global.

Inclusive Employer of the Year (sponsored by Building Inclusivity):

Winner: Ramboll
Shortlisted: AECOM, Costain & WSP.

Apprentice of the Year (sponsored by Mott MacDonald):

Winner: Hannah Mehr (Arup).
Highly commended: Callum Kantounas (WSP).
Shortlisted: William Hoare (Mott MacDonald), Aaron Oakes (Stantec), Conor O'Loughlin (Ramboll), and Matthew Turner (WSP).

Emerging Professional of the Year:

Winner: Caroline Reeson (Mott MacDonald).
Highly commended: Lindsay Borthwick (Arup).
Shortlisted: Peter Goff (Buro Happold), Kieran Ronnie (AECOM), Ryan David Simmonette (Amey) and Lowri Swygart (WSP).

Click [here](#) to view a full gallery of photos from the evening, including all the winners, on the ACE website.



Hannah Mehr (Arup). Apprentice of the Year.

MPs raise questions over “rushed” UK Infrastructure Bank

MPs question independence, strength and value of first deals by UK Infrastructure Bank.

An influential all-party group of MPs has raised questions about the independence and added value of the first investment deals of the UK Infrastructure Bank (UKIB).

The Public Accounts Committee (PAC) has said the UK Infrastructure Bank was created “in haste” which meant it operated with “weak financial governance and very close to the treasury for its first year”.

The committee has raised questions over the independence and added value of first investment deals; staffing and governance challenges; and said it has received little assurance the UKIB will not be sold off like the Green Investment Bank.

The committee’s concerns include the UKIB operating without an effective audit and risk committee and outside the UK’s Corporate Governance code.

UKIB has deployed £1bn of its

initial £22bn capital in 10 deals so far, but the committee has questioned claims that these will fill gaps in private sector investment markets.

So far, UKIB has provided financing to deliver broadband and build solar farms, a move the committee argues are “relatively common projects”. The committee has said in its report that “there is no clear strategic approach to balancing the risk of investment in new markets with the risk to taxpayer money”.

The UKIB was set up in response to the scale of the investment challenge facing the UK, particularly from the government’s net zero and levelling up commitments.

Dame Meg Hillier MP, chair of the Public Accounts Committee, said: “The UKIB was set up in haste to shore up the government’s stalled promises on net zero and levelling up, as we lost £5bn a year of

European infrastructure funding to Brexit.

“It’s really not clear what the UKIB is doing that the market wasn’t already, or would be doing with better functioning tax incentives – as just one example.

“The treasury didn’t need to reinvent this particular wheel, with all the attendant risk to benefit, value and taxpayers’ money. The predecessor Green Investment Bank was also sold to the public as an ‘enduring institution’ and then sold off to the Australian private sector five years later. It’s now turning bumper profits.

“We need more assurance from government that lessons learned are being implemented and the catalogue of policy and spending errors we’ve seen will not be repeated.”

[Click here](#) to read a full version of this story.



Content rich webinars for the journey ahead

Decoupling transport from fossil fuels is a must and will play a significant role in the UK reaching net zero.

Join our free-to-attend exclusive webinars offering all stakeholders a dedicated platform to voice opinions, share evidence, explore strategy, and garner expert insight.



**INFRASTRUCTURE
BANK**

decarbonisingtransportweek.com

[#DecarbonisingTransportWeek](https://twitter.com/DecarbonisingTransportWeek)

**DecarbonisingTM
Transport Week**

6/10 MARCH 2023

Transforming and decarbonising infrastructure delivery

Regardless of progress at COP27, *Andy Bowles* and *Mark Coates* describe how the industry is getting on with transforming and decarbonising infrastructure delivery.



Meetings such as COP27 may leave people disappointed at the lack of international progress and coordination, but the Transforming Infrastructure Performance summit show progress is advancing.

Many across the world have been disappointed by the lack of progress on climate change made between COP26 held in Britain in 2021 and COP27 held in Egypt last year. A lack of involvement and focus on the built environment, one of the biggest contributors of CO2, was glaringly obvious.

However, forums such as the Transforming Infrastructure Performance Summit hosted recently by Bentley Systems show that meaningful changes are happening in the UK's infrastructure sector.

Indeed, Nick Smallwood, CEO of the Infrastructure & Transport Authority took to the stage at the summit to describe a "refreshing" level of progress.

As one of the main focus areas of the UK's 'Transforming Infrastructure Performance Roadmap to 2030', Nick stressed the importance of the government seeing that all infrastructure has an interface with the natural environment.

We worked with the government to produce its roadmap and digitalisation guide because, as Nick points out, something like this is essential if a client wants to make its priorities clear to contractors and partners from the beginning.

For instance, on the A12 road improvement scheme, we were able to see the temporary site of their sustainable energy set-up, something that uses solar, hydrogen and wind to meet current power demands, without any connection to the electricity grid. The aspiration is that this will be

developed on a larger scale for the scheme's main construction site.

UK still playing catch up

However, the UK construction sector is not yet where it should be in comparison to other countries. In fact, it's only at about 40% of the required level, a "huge issue" according to Nick given the scale of projects such as Crossrail, Northern Powerhouse Rail and Hinkley Point C. Digitalisation is at the heart of enabling this change to happen, assisting the government in building schools, prisons and hospitals, either by managing the complex range of programmes and tools needed to manage a project or through automation and offsite manufacturing.

Aside from new schemes, the success of retrofitting and looking at the future of our existing assets and infrastructure also depends on digitalisation. For example, logging and assessing the condition and usage of assets to judge how and when they need to be maintained or replaced. Some of the government's largest projects have made huge strides by embracing a digital approach to ensure efficient management in the future. Crossrail, where construction began in 2009, has created a 'digital twin' of its network including stations and rail lines, providing more accuracy in its design and construction. Hinkley C has gone above and beyond the government's digital expectations, using a shared data platform for aspects such as engineering design, construction and commissioning. A completely integrated 4D model also means partners can work together more efficiently as a coherent team, rather than just a sum of their parts. Nathan Marsh, chief digital officer at Turner & Townsend, who also attended the summit, stressed the importance of frontloading a project. By using digital tools to look at complex challenges such as design, data, integration, and net zero before the scheme even begins, we can identify the types of technology and data the projects will be using. Although this might be a lot to bear in mind at the very start, this approach drastically reduces the chance of issues later on while increasing overall productivity and efficiency. Rather



Mark Coates

is international director of public policy and advocacy at Bentley Systems.

than technology driving people further apart, this strategic approach should also empower contractors "to think like a network, rather than just individuals connected by a contract and a schedule", Nathan said.


Digitalising UK infrastructure

Both speakers acknowledged the lack of public confidence in the UK's ability to deliver large-scale infrastructure. However, with both sides of the client and contractor relationship taking more responsibility for the outcome, and increasing interest in the digital tools to enable efficiency, they were confident this trend could be reversed. From the contractor's point of view, taking this seriously will be particularly important. The UK would move to an era of more proactive government, asking for details such as whole-life carbon projections of a project and closely examining productivity. This shouldn't be a rod the industry uses to beat itself with, but instead is a chance to make meaningful change, whether building a school or delivering infrastructure which levels up the economy. Meetings such as COP27 may leave people disappointed at the lack of international progress and coordination, but the Transforming Infrastructure Performance summit show progress is advancing. Sharing best practice across the industry as we move closer to the roadmap's 2030 deadline will be crucial to achieving success.



Andy Bowles

is senior regional director - Northern Europe, at Bentley Systems.



225,000 extra workers needed by 2027

New report shows 225,000 extra workers needed to meet UK construction demand by 2027.

New figures from the Construction Industry Training Board (CITB) have revealed that almost 225,000 extra workers will be required to meet construction demand within the next four years.

The CITB's annual Construction Skills Network (CSN) report shows that 44,980 extra workers a year (224,900 in total) will be needed between now and 2027.

If the projected growth is met, 2.67m people will work in the construction industry by 2027.

To support this need, the Construction Industry Training Board (CITB) has invested almost £50m of levy to support over 22,000 apprentices to help them join the industry.

Tim Balcon, CITB chief executive, said the report shows that "the need to recruit and retain talent in the sector has never been greater".

"To bolster industry's resilience, CITB will strive to attract and train a diverse range of recruits for industry, equipping them with modern skills for rewarding construction careers," he added.

Construction output is set to grow for all nations and regions; however, recession is expected this year with slow growth returning in 2024.

The major sectors for demand are private housing, infrastructure, and repair and maintenance.

Training, development and upskilling remain major priorities for the industry. CITB is investing in apprenticeships, launching a range of targeted initiatives, and working collaboratively with industry, to help the construction sector have a skilled, competent and inclusive workforce.

CITB continues to provide targeted support to SMEs through grant and funding and through support in accessing training and funding. Since April 2022, CITB's engagement team has supported SMEs on 26,976 occasions.

They also offer funding aimed specifically at smaller companies such as the Skills and Training Fund. Companies with fewer than 250 PAYE employees can access up to £25,000 annually (depending on their size).

Experience Hubs across England

and Wales are creating a talent pipeline to meet the needs of local construction employers and to support construction career opportunities for people from local communities.



Partners



Media partners



decarbonisingtransportweek.com

#DecarbonisingTransportWeek

Decarbonising[™]
Transport Week

6/10 MARCH 2023

Decarbonising Transport Week to highlight Britain's pursuit of net zero

The inaugural Decarbonising Transport Week is taking place between 6-10 March 2023 and will be an annual event.

Organisers of the first ever Decarbonising Transport Week say the campaign is set to highlight the challenges that the UK needs to overcome to deliver the biggest gains in our global transition to net zero.

Also celebrating the achievements to date, a series of online events between 6-10 March will deliver a range of expert insight and commentary for the whole ecosystem of people and organisations involved with decarbonising transport.

That includes a range of people and organisations, from fleet owners looking to decarbonise their business operations to public transport operators looking to decarbonise our urban and rural spaces, and from investors to policy influencers – regionally, nationally, and internationally. All parties are welcome.

Transport is the biggest contributor to UK territorial GHG emissions

Campaign organisers say that net zero has become the world's best answer to stopping climate change. The UK became the world's first major economy to pass laws to end our contribution to climate change, committing the nations to reduce greenhouse gas emissions to net zero by 2050.

Why are governments opting for 2050? Because there are whole sectors such as transport that will take decades to transition to net zero, require billions of



pounds in investment, and full sector buy-in to decarbonise effectively.

Chris Skidmore MP, former minister of state for energy and clean growth, and ambassador for Decarbonising Transport Week, said: "Decarbonising Transportation Week will provide a fantastic opportunity for businesses and communities to come together and show how they are leading the way in decarbonising.

"This is an important opportunity to maximise the potential benefits of the transition so that the whole of the UK will achieve its net-zero by 2050 ambitions."

Greg Clark MP, former BEIS secretary of state, and ambassador for Decarbonising Transport Week, said: "Tackling carbon emissions from transport must remain a key government objective if we are to meet our legal requirement

for the UK to be net-zero by 2050.

"Accounting for almost a quarter of all emissions, decarbonising transport offers both challenges and opportunities for government policy in the years ahead. I am delighted to see initiatives like Decarbonising Transport Week championing the cause.

"Policies such as ending the sale of new petrol and diesel cars and vans from 2030 will help to achieve net-zero goals, but we must also create an environment which allows people to feel encouraged rather than forced to make the switch to new vehicles as well as limit the impact this may have on family budgets.

"But with this comes the opportunity to ensure the UK is a leading destination for investment in green technologies and innovation. This means the government must ensure that it commits to goals – and hopefully exceeds – its target of R&D spending accounting for 2.4% of GDP by 2027. Combined with measures to incentivise private sector investment in this field, we can cement our position as a global leader in green technology, encourage the continued development of green industries – such as battery development for vehicles – level-up our communities and cut emissions."



Chris Skidmore, ambassador for Decarbonising Transport week.

Exclusive webinar programme

The week will play host to over 20 free-to-attend live and on demand webinars where you can gain exclusive insight from peers, innovators, policy experts, and other critical stakeholders.

Here are just a few live webinars across the programme:

Chartered Institute of Logistics and Transport

Decarbonising Transport: Visions from Future Leaders.
Monday 6th March 12:30 – 13:30 (GMT)

Rail Freight Group

What is the circular economy and how does rail freight play its part both as a conveyor and a consumer of materials?
Tuesday 7th March 08:30 – 09:30 (GMT)

Innovate UK KTN

Decarbonising Transport Infrastructure with Innovate UK KTN.
Tuesday 7th March 10:00 – 11:00 (GMT)

BVRLA

Plugging the gap: foundations for fleet charging.
Wednesday 8th March 09:00 – 10:00 (GMT)

Binary Carbon (organiser of Decarbonising Transport Week)

The value of women in fighting climate change
Wednesday 8th March 13:00 – 14:30 (GMT)

HyDEX/ERA

The role of hydrogen in decarbonising transport
Thursday 9th March 12:00 – 13:30 (GMT)

More webinars will be added to the programme as the week draws closer. You can register now for several live webinars now at the Decarbonising Transport Week website.



Decarbonising Transport Week is supported by over a dozen partners including the Association for Consultancy and Engineering, Anaerobic Digestion and Bioresources Association, BVRLA, Chartered Institute of Logistics and Transport, Energy Research Accelerator, Environmental Industries Commission, EV Energy Taskforce, HS2, HyDEX, Innovate UK KTN, Rail Forum, Rail Freight Group, Railway Industry Association and Zemo Partnership.

Inflation must not delay improvements to water and waste

Plowman Craven's *Neil Gregory* outlines why we can't let inflation delay urgently needed improvements to our water and waste infrastructure.

As occurrences of sewage spills in the Thames continue to be frequently reported – with pollution warnings issued on almost fifty beaches at one point last summer – calls to upgrade our water and waste treatment infrastructure grow all the more urgent.

The focus of the public agenda appears very much on transport and energy when it comes to infrastructure given their key role, as reiterated by the government, in the UK's economic growth and levelling up ambitions.

Water and sewage infrastructure

Less attention goes to water and sewage infrastructure, which is also critical, especially given the fact that many of our waterways are contaminated and only 14% of rivers in England have a good ecological status.

In his Autumn budget, the chancellor stressed that he was “not cutting a penny” from capital budgets and committed more than £600bn towards, among other things, the delivery of major infrastructure projects.

Indeed, infrastructure remains a key priority, most notably road, rail and nuclear. The latter is seen as a vital solution to moving the

UK towards greater energy self-reliance instead of depending on fluctuating global gas prices exacerbated by the war in Ukraine.

Arguably, keeping capital spending level for the next few years rather than raising it in line with inflation can in many ways resemble a cut. There are certainly some tough choices down the line, with some infrastructure projects likely to be pushed back to make way for

the completion of megaprojects such as HS2 and Sizewell C.

We cannot allow water to slip down the list of priorities. On the back of the budget, the Department for Environment, Food and Rural Affairs (Defra) faces an almost £500m real-terms cut in the coming two years, according to a report from the Liberal Democrats, making it more difficult for the department to deal with sewage spills.

Victorian infrastructure

One of the major reasons that untreated sewage gets into rivers is heavy rainfall, something that we are seeing more of in the UK, along with other extreme weather, as a result of climate change. Yet our storm overflow systems are based on Victorian infrastructure, which is unable to cope with such extremes.

In its Storm Overflows Discharge Reduction Plan, Defra notes that improving water quality is critical not only from a public health but from an environmental standpoint too and that, thankfully, work is already underway to lower sewage spills from storm overflows by water firms (set to reduce 2020 levels of discharges by 25% by 2025). It goes on to set new goals, to improve all overflows into designated swimming areas by 2035.

Inflation at a 40-year high

Despite inflation being almost at a 40-year high, we must keep these priorities intact and not delay much-needed updates and investment into better systems to handle wastewater (including sewage) and storm overflows.

And, as legislation tightens, there is no time to waste. In December, the government released legally binding environmental targets to clean up rivers as well as air, while the Environmental Improvement Plan for 2023 will outline more measures to prevent pollution in waterways from sewers and elsewhere.

Developing more resilient services requires a collaborative push to boost infrastructure, with investments from both government and water companies.

Wastewater treatment facilities also face rising pressure to upgrade and ensure additional capacity to accommodate population growth and other factors. However, the process of upgrading is not straightforward and needs accurate mapping and surveying to be successful.

At Plowman Craven, we were involved in working on the 25 km long Thames Tideway Tunnel ‘Super Sewer’, the biggest infrastructure project ever to be undertaken by the UK water industry, due to be finished this year. The tunnel will connect combined sewer overflows along the riverbanks to keep raw sewage out of the river.

Here, we saw first-hand how data insights from early-stage 3D topographic surveys and underground utilities surveys can help designers pinpoint the best locations for new shafts and vents along the route.

Wider infrastructure improvements

Similarly, for wider infrastructure improvements, detailed mapping and surveying can more accurately and efficiently highlight how and where upgrades are most needed and where they can bring the biggest immediate benefits.

When looking at the country's various infrastructure priorities, it should certainly not be a case of choosing one sector over another.

Investing in continuous maintenance and upgrades across rail, energy and utilities (such as water pipes and properly surveying our sewage systems) will all save money and bring many advantages in the long run, so equal standing needs to be given to future-proofing our water and waste infrastructure. With the added payoff of protecting our rivers and the environment for the enjoyment of generations to come.



Neil Gregory

is head of client engagement – utilities, at Plowman Craven.



HS2 appoints Sir Jonathan Thompson as chair

Sir Jonathan Thompson appointed chair of HS2 after almost a year as deputy.

Sir Jonathan Thompson has been appointed chair of HS2 Ltd, driving forward Europe's largest infrastructure project.

Sir Jonathan's appointment comes after he has spent almost a year as deputy chair, and comes at a pivotal time for the HS2 programme.

The Crewe-Manchester Bill is moving through Parliament and work at Euston is continuing to progress and regenerate the surrounding area.

In his role, Sir Jonathan will be providing strategic leadership, oversight and accountability for the HS2 programme, ensuring it is delivered on time and on budget while continuing to create jobs, boost local economies and provide much needed capacity on the railways.

Sir Jonathan said: "During my time on the board, this monumental project has already achieved some incredible milestones and I've seen first-hand how it will transform not only journeys, but the lives of people across the country.

"I look forward to working with our first-class stakeholders and partners in my new role, to ensure this once in a lifetime opportunity fulfils its pioneering potential."

Elaine Holt has been appointed as deputy chair of the HS2 Ltd board. Holt, an existing non-executive director and an expert in both transport and the service industries, will support Sir Jonathan in leading the board.

Sir Jonathan brings decades of experience delivering major projects and world-class leadership having previously served as the Permanent Secretary at both the Ministry of Defence and HM Revenue and Customs.



This is on top of overseeing huge landmark moments HS2 has already achieved during his time as deputy chair, including providing 1,000 apprenticeships and the completion of the first mile of tunnels at Long Itchington Wood.

As well as being the largest infrastructure project in Europe, HS2 is also spearheading new methods of construction such as 2,000 tonne

tunnel boring machines and using new technology to ensure the natural landscape across the route is left in the same, if not better, condition than it was found.

The government outlined its commitment to HS2 in the Autumn Statement, and reiterated its dedication to ensuring the project provides fast, more reliable services and connects people to new job opportunities.



London's Elizabeth Line has now clocked up more than one hundred million journeys since it opened last May.

Elizabeth line clocks up more than one hundred million journeys

London's Elizabeth Line has now clocked up more than one hundred million journeys since it opened last May.

Passengers on London's Elizabeth Line have clocked up more than one hundred million journeys since it opened last May.

More customers than expected have taken advantage of the capital's newest transport link, with 600,000 passengers each day, according to data from Transport for London (TfL), meaning the railway is on track to break even by the end of the 2023/24 financial year.

The Elizabeth line stretches from Reading and Heathrow in the west to Shenfield and Abbey Wood in the east.

Howard Smith, TfL's director of the Elizabeth line, said: "It has been amazing to see the incredible reception the Elizabeth line has received. Our new railway has truly transformed

life and travel in London and the south-east by dramatically improving transport links, cutting journey times, providing additional capacity, and transforming accessibility."

Seb Dance, London's deputy mayor for transport, said the line's "speedy and reliable trains" are helping to encourage people onto public transport.

The final version of the Elizabeth line timetable will be introduced on 21 May, increasing capacity on central London's rail network by 10%, boosting frequency in central London, reducing journey times from the west stations to Paddington and providing new access to Heathrow Airport.

Data has also revealed that the Elizabeth line is one of the most

reliable railways with an overall industry performance (over a four-week period) of nearly 93%, compared to the average of 78.5%

According to TfL's customer satisfaction survey, the Elizabeth line has also achieved the highest score across all TfL services between July and September last year.

The five most popular journeys made on the Elizabeth line all include Tottenham Court Road, with the most popular journey on the line being Tottenham Court Road to Stratford. The popularity of Tottenham Court Road has propelled the station into the top five most used stations in the TfL network, above Waterloo and Liverpool Street stations.

Mott MacDonald to design UK's first proposed hydrogen village

Mott MacDonald to design infrastructure for UK's first proposed hydrogen village in Redcar

Mott MacDonald has been appointed to carry out a detailed design of the high-pressure hydrogen network for the UK's first proposed hydrogen village in Redcar, on the north-east coast.

Northern Gas Networks, which transports gas across the north-east, northern Cumbria and much of Yorkshire, first unveiled a proposal in May 2022 that would see the gas supply for around 2,000 homes and businesses in the seaside town switched from natural gas to low-carbon hydrogen in 2025.

The energy networks team at Mott MacDonald, will design the high-pressure hydrogen pipelines, above-ground storage, and pressure reduction site for the scheme.

The firm is also designing the above-ground process facility that will inject hydrogen into a local salt cavity to provide long-term seasonal storage and security of supply.

Redcar sits within the east coast industrial cluster and close to established infrastructure, including hydrogen production and storage facilities. The proposal would see Redcar become self-sufficient, generating its own hydrogen locally, from renewable sources.

"Hydrogen must be a part of the future energy mix if the UK is to meet its net-zero objectives and we're proud to be involved in such a pioneering project to demonstrate its feasibility as a green



Redcar's Locke Park. Around 2,000 nearby houses in the town could switch from natural gas to become the UK's first hydrogen village.

fuel to heat our homes," said David Fulton, project manager and pipeline portfolio lead for Mott MacDonald.

"We must act now on the climate crisis and this can't be done without decarbonising our heat network."

The government's Department of Business, Energy and Industrial

Strategy is expected to make a final decision on whether the project will go ahead in 2023, once the detailed design has been completed.

Northern Gas Networks estimates that, if approval is granted, hydrogen will be heating homes and businesses in Redcar in 2025.



Fuel management mastered

Reduce your carbon footprint and minimise fuel costs by following FORS policies and procedures.

FORS Gold and Silver Operators report a 3% improvement in their fuel economy.

SAFER SMARTER GREENER



Scan for a free fuel management guide

fors-online.org.uk

08448 09 09 44

@FORS_online

Follow us on



BUILDING & CONSTRUCTION SUMMIT



Scan for more information



20th March 2023

Hilton London Canary Wharf

The Building and Construction Summit is an event for senior construction clients, property development and contracts professionals, and suppliers to the industry. It allows them to meet for one day of focused business meetings and networking.

For more information, contact **Nick Stannard** on **01992 374092** or **n.stannard@forumevents.co.uk**

What makes us different is the way we work, and the way we think.

Listen to our experts discuss many of today's big issues and the future of our industry and the world around us.



snclavalin.com/podcasts

ATKINS

Member of the SNC-Lavalin Group