

I INFRASTRUCTURE Intelligence

Building a truly sustainable recovery

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DEVOLUTION

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DIVERSITY

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An online event series of webinars, interviews and roundtables

Planning and procurement reform – delivering the nation's infrastructure

Friday 6 November 2020 at 11am

Recent research has highlighted the imperative of certainty in the planning process and having the right decision-making framework for infrastructure investment is more clearly needed than ever before. This webinar will look at what needs to be done and how we make progress.

In the Spotlight interview 2:

Lord Deben, Chairman, The Committee on Climate Change

Wednesday 11 November 2020 at 3pm

Our second In the Spotlight interview features the chairman of the influential Committee on Climate Change, Lord Deben, someone who as well as being an environmentalist has also had a wide experience of government at the highest level.

In the Spotlight interview 3:

Victoria Hills, Chief Executive of the Royal Town Planning Institute

Friday 20 November 2020 at 11am

The third *Infrastructure Intelligence* LIVE In the Spotlight interview features Victoria Hills, Chief Executive of the Royal Town Planning Institute and one of the most high-profile women leaders in construction.

International Roundtable

Friday 27 November 2020 at 11am

This roundtable event will focus on the international sector and examine the key trends, developments and the prospects for UK firms looking to work overseas.

Looking ahead to 2021

Friday 11 December 2020 at 11am

We reflect on a momentous and unprecedented 12 months for the infrastructure industry and indeed global society and look forward to what 2021 may bring.



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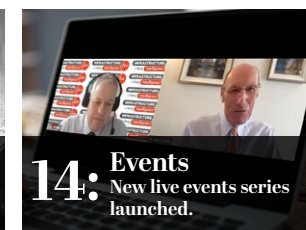
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Message from the editor



I can hardly believe that I am writing my final editor's message of 2020. The last 12 months have flown by and to say that this has been a year like no other is of course the understatement of the century. The Covid-19 pandemic has cast a long shadow over every aspect of our lives - and we are still not free from its far-reaching ramifications.

Despite the difficulties and challenges, the construction and infrastructure sector has been working hard to deliver projects that will help the UK and global economy take steps towards economic recovery in the months ahead. What is clear from the many discussions and debates that *Infrastructure Intelligence* has been hosting recently is that the recovery needs to be both digital and green to be truly sustainable.

Sustainability dominates this issue of the magazine, with article after article making the case for an approach that will enable us to build back greener and achieve net zero. Climate change is still the most important challenge of our age and without the ingenuity and creative solutions delivered by the construction and infrastructure sector, net zero cannot be achieved.

We will return to the crucial issues of digital, sustainability and how our industry delivers real social value during our editorial and events programme next year. Until then, let me be the first to wish all our readers a safe and restful festive season when it finally arrives, together with a 2021 that proves to be more certain than the 12 months we have just experienced.

Andy Walker,
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Tunnelling complete at Bank tube station



Tunnelling work at the project to modernise and expand Bank Underground station in London has been completed, marking a major milestone in the project. The tunnelling, which forms part of the programme to expand the size of the station by 40%, has seen more than 1.3km of tunnels constructed since May 2017.

The project to enlarge the station has involved constructing a new southbound running tunnel for the Northern line, with the existing tunnel to be converted into a passenger concourse with six new cross passages linking to the platforms on either side. Three new escalator barrels have also been excavated to link the Northern line to the DLR and to the new entrance that is being built on Cannon

Street, and a new link tunnel will connect the Northern and Central lines.

Stuart Harvey, TfL's director of major projects, said: "Bank tube station is a crucial link between many lines and is one of the busiest interchanges on the tube network. Work restarted on site again in May and this is a huge milestone for the project. Once completed, there will be more space underground for customers to change from one line to another making journeys quicker and more comfortable for those travelling into the city."

The tunnelling has seen more than 200,000 tonnes of material excavated from under the city of London, one of the most historic areas of the country. The work was often intricate and great care was taken to avoid disrupting any of the 31 listed buildings along the route of the new running tunnel. With space at such a premium above ground, extra space was excavated below ground to store spoil and allow workers to continue to carry out their work.

The new parts of the station delivered by the project will open in 2022.

Teesside set to become UK's first hydrogen transport hub

Teesside is set to become the UK's first ever hydrogen transport hub, under plans announced by transport secretary Grant Shapps at the end of September.

Bringing together representatives from academia, industry and government to drive forward the UK's plans to embrace the use of hydrogen as an alternative fuel could, say ministers, create hundreds of jobs while seeing the region become a global leader in the green hydrogen sector.

The DfT have commissioned a masterplan to understand the feasibility of the hub and how it can accelerate the UK's ambitions in hydrogen. The masterplan, expected to be published in January, will pave the way for exploring how green hydrogen could power buses, lorries, rail, maritime and aviation transport across the UK.

The aim would then be for Teesside to become a global leader in industrial research on the subject of hydrogen as a fuel, as well as research and development hub for hydrogen transport more generally, attracting hundreds of jobs and boosting the local economy in the process.

The news was announced on the same day a hydrogen-powered train enjoyed a trial run on the UK mainline for the first time. The train trials, known as HydroFLEX, have been supported with a £750,000 grant from the Department for Transport and

follow almost two years' development work and more than £1m of investment by both Porterbrook and the University of Birmingham.

Tees Valley mayor Ben Houchen said: "Hydrogen is playing a massive part in our future plans. We already produce more than 50% of the UK's hydrogen, so by becoming the home of the National Hydrogen Transport Centre, we can properly utilise this and fully unleash our area's potential. Teesside has led the world in steel manufacturing and engineering for generations. Now we can become a trail blazer in the industries of the future."



Arcadis warns of 'two-speed' construction sector

Construction is likely to temporarily become a 'two-speed' industry, characterised by high growth rates in infrastructure set against 'slow-growers' in the industrial and commercial sector, Arcadis has warned. They say that a second wave of Covid-19, combined with a looming final Brexit date of 31 December, will further dent already low investor confidence and that this is likely to suppress the demand for construction in the near future.

The analysis is highlighted in Arcadis' latest Autumn Market View, entitled *A Long Way Back*. The quarterly analysis of the UK construction market looks across sectors and regions to deliver a tender price forecast to inform clients about what is going on in UK construction, helping financial decision making for projects and programmes.

In the long term, Arcadis predicts the return of above-trend inflation for all sectors from 2023 onwards, mainly driven by constraints in the labour market. However, the timing depends on how quickly demand levels pick up and, with high levels of risk associated with Brexit and Covid, planning for recovery is particularly difficult. It will therefore be important for businesses to explore measures aimed at shoring-up overall business resilience, including how they engage with the supply chain, as well as reviewing risk transfer mechanisms and delivery strategies to understand and mitigate any impacts from unexpected delays or shortages.

Simon Rawlinson, head of strategic research at Arcadis, said: "Over the last six months, construction has been subject to multiple extremes, with a dip in output in April followed by a sharp increase in output of around 20% in June and July. Ongoing economic and political challenges will continue to have an impact, so it is no surprise that confidence levels across the sector hang in the balance."



MPs call for full delivery of HS2's eastern leg

MPs, civic and business leaders from the Midlands and the north have called for full delivery of HS2's eastern leg from Birmingham to Leeds, reports *Rob O'Connor*.

A group of MPs, civic and business leaders from across the Midlands and the north has written to prime minister Boris Johnson calling for the full delivery of HS2's Eastern Leg from Birmingham to Leeds.

In a letter to the prime minister, the cross-party group cites a new report which demonstrates stark social and economic inequalities between the eastern and western regions of the Northern Powerhouse and Midlands Engine.

Mind the gap: The role of HS2's Eastern Leg in bridging England's east-west divide, authored by campaign group HS2 East, highlights that communities surrounding the eastern leg of HS2 Phase 2b suffer from lower productivity, poorer social mobility and receive lower levels of transport investment than communities surrounding its western leg, set to run from Birmingham to Manchester.

Signatories cite HS2's eastern leg as an essential investment to address these inequalities, highlighting the huge regeneration schemes it is set to catalyse across the East Midlands, Yorkshire and the north east, creating over 150,000 highly-skilled jobs.

Productivity along the eastern leg of HS2 Phase 2b was found to be 10% lower than along its western leg, while the three eastern leg regions; Yorkshire and the Humber, the East Midlands and north east have the three lowest productivity rates in England, falling 35%, 33%, and 32% below that of London.

These eastern leg regions were also home to twice as many 'social mobility coldspots' than the western leg regions; areas where local authorities were within the worst 20% UK-wide for a range of criteria including the education provided to deprived children, the grades they receive and the jobs they secure.

Writing before the government is expected to publish its Integrated Rail Plan, which is examining how best to integrate Phase 2b of HS2 with Midlands Engine Rail and Northern Powerhouse Rail, the leaders are clear that all HS2 phases must be delivered in full, with both the eastern and western legs built to the same time scale.

Darren Henry, MP for Broxtowe, said: "The government has committed to levelling-up the UK economy and delivering the eastern leg of HS2, in full, is an essential step in doing this. As well as creating thousands of highly skilled jobs, the eastern leg will also speed our transition to a cleaner, greener transport network. Poor access to transport is a key indicator of social deprivation, we need this investment to improve local and regional connectivity and speed the way to a productive recovery from Covid-19."

Hilary Benn, MP for Leeds Central, said: "We know that the full economic potential of the north is not being tapped and that children who grow up poor in the eastern regions of the Midlands and the north are more likely to stay poor and less likely to achieve social mobility. We need to do something about this, and investment in HS2's eastern leg will help to create jobs, unlock regeneration and increase productivity that our communities need if these divisions are to be reduced."

Read more online at
www.infrastructure-intelligence.com



Artist's impression of new mixed-use development next to Sheffield Midland station.

Local regeneration to build back greener

The government's ambitions for accelerating the path to net zero could be shifted up a gear with alternative financial support for local regeneration, reports *Rob O'Connor*.

The UK government's ambitions for levelling-up, improving social cohesion and accelerating the path to net zero could be shifted up a gear if alternative financing capability is made available to support local regeneration, according to construction industry leaders.

The Construction Leadership Council (CLC) has developed the Greener Regeneration Scheme, showing how the government could empower local authorities and their development partners, to take the lead in the post-Covid revitalisation of towns and cities.

The new research follows hot on the heels of a call by the Association for Consultancy and Engineering for local authorities to be empowered to build resilient post-Covid communities (see page 28) and demonstrates how a new approach could accelerate construction jobs for the next three years, stimulate a local-led economic recovery plan, whilst delivering long-term benefits for communities.

The proposal has been developed with the support of local authorities, LEPs and private sector developers, seeking to create the optimum environment for aligning public and private sector interests.

To illustrate the tangible outcomes a shift in approach would deliver, the CLC has described the opportunity with tangible case studies. In Stevenage, for example, the fund would deliver 1,860 homes three years earlier than currently planned, a new town centre four years earlier, and 1,250 additional homes delivered six years earlier.

Similarly, the shift in approach would support and enhance local regeneration programmes by bringing projects to market more rapidly, harnessing some of the longer-term social outcomes needed in some of the most deprived areas.

Andy Mitchell, CLC co-chair, said: "Covid-19 has had incalculable effects on all our lives and on the whole UK economy. It is, however, a chance for a gearshift in how we deliver construction in the UK and the opportunity not only to build back better, but to build back greener."

"With the right support, local authorities and their development partners can deliver targeted investment that will not only create jobs but will deliver for communities and businesses in all parts of the UK. We are calling on the UK government to take steps to empower local authorities to lead the UK's economic recovery and deliver the sustainable future we will need to succeed in the post-pandemic world."

Hannah Vickers, chief executive of the Association for Consultancy and Engineering (ACE), spearheaded the research on behalf of the CLC. She said: "We know there is a long-term demand for regeneration activity across the UK, not only to deliver ambitious housing targets, but to support levelling-up and growth at a local level. This fund will ensure that regeneration schemes also deliver on government's long-term ambitions on net zero and in doing so will open up projects to interest from private and institutional investors who are also seeking clear social and environmental returns."



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Click here to download the CLC report, *Greener Regeneration Fund – Unlocking local ambition*.



SG1, the partnership between Stevenage Borough Council and Mace that will deliver new investment into the heart of Stevenage Town Centre.

Celebrating the UK's leading infrastructure exports

The annual awards celebrating the best of UK infrastructure exports went virtual for the first time this year. *Andy Walker* attended the online event which announced the winners.

The winners of this year's British Expertise International Awards, the UK's principle forum for celebrating the very best of UK infrastructure exports, were announced at a virtual ceremony on 21 October. Entries are open to all UK-based professional services firms working internationally and this year's bumper crop of submissions came from a wide range of companies and individuals who have made an outstanding contribution to the sector.

Infrastructure Intelligence is a media partner for the awards and is working closely with British Expertise International (BEI) to help promote its work and that of its members to a wider audience. BEI, the UK's leading membership organisation for UK-based companies exporting infrastructure services, presented the awards with efficiency and some panache as a dinner-suited BEI CEO Tom Cargill introduced the event, hosted on the Brella virtual event platform. The event was a great example of a business association raising the profile of its members in extremely challenging times.

Keynote speaker, James Duddridge, minister for Africa at the Foreign, Commonwealth and Development Office praised the role of BEI members working overseas and also the excellent work undertaken by BEI in assisting firms in doing business. "Thank you for championing UK exports in challenging times," he told the audience at the event.

The first award was the **International Positive Social Impact Award**, which is made to the organisation that was judged to have demonstrated innovation, excellence and lasting positive social impact within the last 24 months. The winner was the British Council for its Ceibal en Ingles international partnership created to overcome the challenge of teaching English to Uruguayan primary school children, who otherwise would not have the opportunity to learn because of a shortage of teachers. Mott MacDonald was highly commended for its Pakistan Education Innovation Fund project.

Next up was the award for **International Development: Physical Project**, which goes to the most effective international development of a physical project undertaken by a UK based company. Always a highly competitive award, the winner was Mott MacDonald for their project, Energy Security and Resource Efficiency in Somaliland, which aims to promote renewable energy and improve access to affordable electricity. Cardno Emerging Markets was highly commended for their entry, Improvement of the Roads Maintenance System for use by the Dar es Salaam Local Authorities.

The third award, for **International Development: Non-Physical Project**, was won by HR Wallingford for D-MOSS – A space-based early-warning system for dengue fever. The system combines satellite data with weather forecasts and a hydrological model to predict dengue outbreaks up to six months in advance. Two entries



British Expertise International CEO Tom Cargill speaking at the virtual BEI Awards 2020 event.

were highly commended - Scriptoria for its cloud-based database helping to explore and manage diseases threatening crops in sub-Saharan Africa and Crown Agents for providing value for money assessment services to the Ministry of Finance in Ghana.

The topical **International Environmental Impact Award** celebrates the efforts of British companies in tackling the environmental challenges abroad in the increasingly important struggle against environmental change. The winner of this award was Winch Energy for its project in Sierra Leone for the design, installation, operation and maintenance of off-grid electricity generating capacity in the northern region of the country.

The award for **International Collaborative Project** was won by Resurgence for their entry, "Developing Risk Awareness through Joint Action". They assembled a unique team of British, Kenyan and Tanzanian meteorologists, community development experts, risk communication specialists, city officials, residents and broadcasters to create Africa's most inclusive city and community localised weather forecasting and early warning service which has supported millions of people's livelihoods. Two entries were highly commended – ICF (Putting China in Control of its Carbon

Emissions) and Mott MacDonald (The Fleming Fund Options Consultancy Services – Maternal and Newborn Improvement).

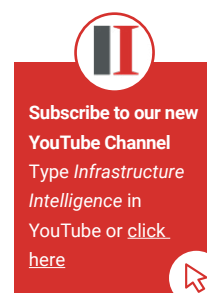
The sixth award, for **International Architecture and Design Project** went to Kilburn Nightingale for its work on the British Embassy, Kathmandu in Nepal. The project includes newbuild and refurbished offices for FCO and DFID staff and housing facilities for staff in the existing compound. Judges were impressed with a culturally and environmentally sensitive project and a design that respects and engages with its natural surroundings.

The ever-popular **Young Consultant of the Year award** saw strong competition to win a prize which rewards those that already have significant achievements on the international stage and show great future potential. This year's winner was Ingrida Kerasauskaite, the portfolio lead on anti-corruption at international advisory company Palladium. Recognised as an expert in anti-corruption, Kerasauskaite is frequently invited to speak at high-level events in the UK and internationally and has already published a book on the topic. Highly commended were Chris Quick from Turner and Townsend and Nur Saleh from Global Partners Governance.

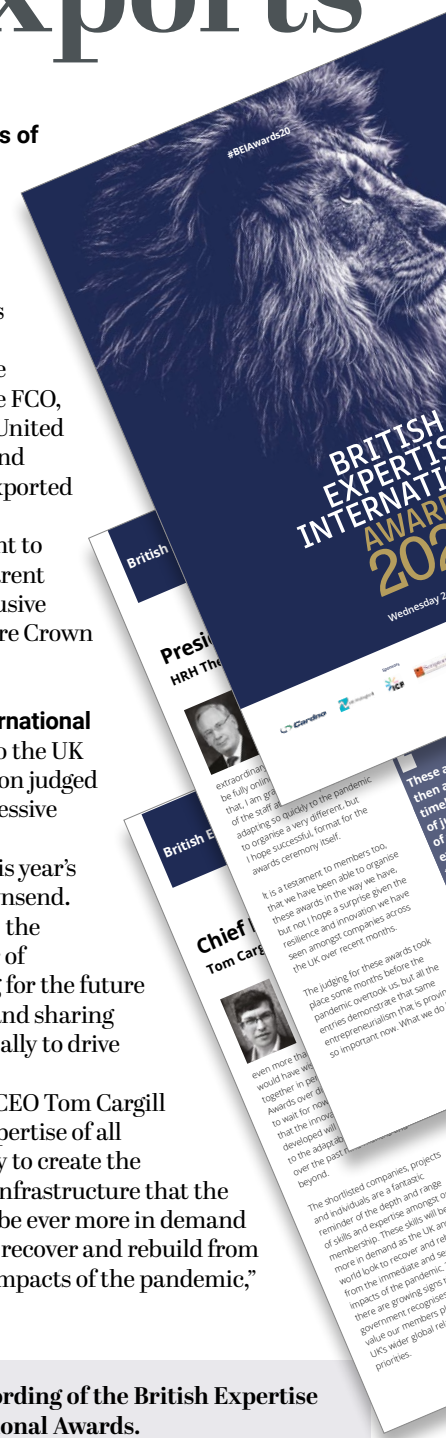
The **International SME Business of the Year award** showcases organisations with fewer than 250 employees and this year's winner was The International Governance & Risk Institute (Govrisk). Within a decade of its existence, GovRisk has become a trusted partner of high-profile clients worldwide, including the FCO, DFID, DIT, EBRD, World Bank, United Nations, foreign governments and private clients, and they have exported British expertise worldwide, promoting the UK's commitment to the rule of law, stable & transparent business environment and inclusive growth. Highly commended were Crown Agents Bank and Landell Mills.

The ninth and final award, **International Business of the Year**, is made to the UK professional services organisation judged to have achieved the most impressive overall business performance internationally during 2019. This year's clear winner was Turner & Townsend. With 110 offices in 45 countries, the company has seen another year of exceptional growth, reinvesting for the future and transforming its business and sharing and exporting its expertise globally to drive continued success.

Summing up the event, BEI CEO Tom Cargill paid tribute to the skills and expertise of all those who are working tirelessly to create the transformational projects and infrastructure that the planet needs. "Those skills will be ever more in demand as the UK and the world look to recover and rebuild from the immediate and secondary impacts of the pandemic," said Cargill.



Click here to watch a recording of the British Expertise International Awards.



More local powers vital to level up North/South divide

Devolving real powers and funding and putting communities at the heart of post-Covid infrastructure are vital to levelling up the north, said the speakers at a recent *Infrastructure Intelligence* webinar.

Devolving real powers and funding to the regions, and putting people and communities at the heart of future post-Covid infrastructure planning to help tackle deep-rooted social issues, were the key themes at an *Infrastructure Intelligence* Live event on Friday 2 October 2020.

Key regional leaders, Greater Manchester mayor Andy Burnham and Liverpool City Region mayor Steve Rotheram, were joined by Jessie Joe Jacobs, the woman bidding to be the first female mayor in the country in the Tees Valley, on a panel which also included representation from the North of Tyne Combined Authority, IPPR North, Arcadis and event series strategic partners, BECG.

Hosted by *Infrastructure Intelligence* editor Andy Walker, the three influential politicians and other panellists all brought their own clear insight in discussing the role of infrastructure investment in levelling up the North/South divide.

Andy Burnham said that Westminster had under-invested in the north for decades, and that the Covid pandemic had ruthlessly exposed long-standing inequalities in the country. "Levelling-up as a concept needs to be redefined because of the pandemic," said Burnham. "It needs to be more than high-profile, hard-hat projects. Levelling-up needs to be about people, not just about funding," he said.

He then outlined how homes, jobs, transport, digital infrastructure and a green recovery were all vital to help level-up the north/south divide. "Homes build health and we need infrastructure funding and support to build affordable eco-friendly homes for social rent," he said.

"Transport has got to change dramatically in the north and we need the same levels of investment as TfL. We need the funding and the powers to deliver a modern integrated and affordable transport system, to help make public transport a more preferable option than the car," said Burnham. "There's also a real potential to create jobs in building a green recovery, with retro-fitting buildings an important part of reaching our 2028 carbon-neutrality target."

And, in a clear message to the industry, Burnham said: "The north needs a transformation and we need infrastructure companies to work together and think about places and placemaking, rather than just working from project-to-project."

Steve Rotheram said that infrastructure was "massively important pre-pandemic and it was now much more important than ever". "We've been disproportionately hit by Covid and we're going through a terrible period in our history," said Rotheram. "Before the pandemic, we were the fastest growing city region and we still have ambitious plans for the future. Transport is critical for the future, but our plan for building back better embraces a green revolution including digital connectivity and renewable energy. It's not a begging bowl, it's a genuine opportunity for investment that will see a great return for UK plc," he said.



Metro mayors Liverpool City Region's Steve Rotheram (left) and Greater Manchester's Andy Burnham were part of a high-profile roundtable panel discussing the North/South divide.

Jessie Joe Jacobs said that real local and regional decision making was vital and, highlighting examples of infrastructure often not being good enough at neighbourhood level, she emphasised that community wellbeing and social return on infrastructure investment should be a priority.

"If we're going to level up, we need to include smaller towns and villages in any infrastructure plans," said Jacobs. "Real power of devolution should be rooted in strong local communities, with power in the hands of local people who are connected to their communities. We're still having to sell plans to the treasury. We don't want to go the treasury with a begging bowl, we need to have that money in the north. In levelling-up, we don't want to bow our heads to Whitehall and be grateful for anything they decide to give us. It's not good enough," Jacobs said.

Debbie Francis, Arcadis city executive for the north, emphasised that levelling-up was not a competition between north and south, saying: "It's essential that infrastructure and housing go together. Stronger and healthier communities have to be at the heart of any future investment plans."

Marcus Johns, research fellow at IPPR North, described the UK as one of Europe's most economically divided countries, with a hefty difference in transport spending compared to London, while Dr Henry Kippin, director of economic growth at North of

Tyne Combined Authority, highlighted the importance of physical, social and digital infrastructure working together for the benefit of the whole community.

Political communications consultant Kevin Whitmore, director, head of north at BECG, said: "There's been a consistent theme here today - a consistent and clear voice from the north. We need to see levelling-up go hand-in-hand with devolution, with more powers and funding given to local communities. Infrastructure investment needs certainty, and we don't have that at the moment."

Infrastructure Intelligence editor Andy Walker said: "It is clear that local leaders in the north will not stand by and allow their regions to be left behind any longer. Devolving power and funds to local leaders who know their communities is vital and emphasises the difference that positive infrastructure investment can make to adding social value to communities and helping to tackle some very deep-rooted issues in society."



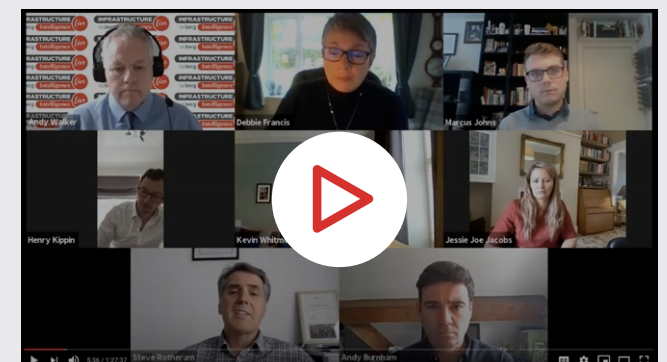
Liverpool City Region mayor Steve Rotheram (left), Tees Valley mayoral hopeful Jessie Joe Jacobs and Greater Manchester mayor Andy Burnham, three of the speakers at the recent *Infrastructure Intelligence* roundtable.



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Future leaders challenge conventional thinking

With the government proposing to spend £600bn on infrastructure over the next five years, the potential for the industry is rapidly expanding. Yet, several projects are delivered late or overspent.

One of the biggest causes of this is Optimism Bias - the tendency to be overly optimistic about project cost, timeframes and benefits. Arcadis wanted to understand the views of Gen Z on the topic, a group that will make up a third of the workforce in ten years' time.

We identified three main factors contributing to project cost and time overruns.

Firstly, optimism bias in the form of inaccurate forecasting at planning stages is a significant factor. Should it be tackled, recent PMI research has suggested there is a potential for a 13% improvement on programme cost efficiency through effective planning.

Secondly, behavioural factors such as internal politics, poor communication and stakeholder management were raised. Finally, the importance of strong leadership was recognised to drive clarity around project vision and greater diversity within teams.

By combining these views with the experience and technical knowledge of current generation leaders, we identified six areas for opportunity:

1. Focus on project outcomes: Adopt procurement models that do not promote aggressive behaviours between clients and contractors and the potential adoption of Project 13 recommendations, providing more incentives to deliver on time, consider long-term value and create more collaborative relationships.



Leila Behzadi-Spencer is a junior consultant at Arcadis.

2. Strengthen the role of the Infrastructure and Projects Authority and the use of NIP:

This will provide benchmarks, guidance and lessons learnt, enabling efficient delivery, and increasing demand certainty, unlocking private investment.

3. Invest in skills: There is a need to identify new models to grow skills such as training apprentices as well as shifting the training focus to look at leadership and technical skills equally.

4. Enhance collaboration: This will enable a two-way culture allowing for regular communication and the ability to work together to identify solutions.

5. Better use of technology: Technology, combined with better collaboration with infrastructure-focused tech start-ups, will enable faster project delivery, cost-effectiveness, increased productivity and improved user experience.

6. Increase the use of data: By using data throughout projects, particularly benchmarks and evidence-driven scheduling and cost planning, we will see early identification of issues and more exact project planning.

These ideas may not all be new, but they have not all necessarily been used to their full potential. My hope is that these recommendations can unlock the full value of the public investment, restore public trust and confidence, leverage further private investment and improve quality of life.

Click here to read an extended version of this opinion piece on our website.

<http://www.infrastructure-intelligence.com/article/sep-2020/challenging-conventional-thinking>



Rob Jones is director, people and organisations at Arup.

Who will lead all this change the industry needs?

The wider infrastructure industry has a great deal of work to do in cultivating the next generation of leadership and needs to start now. There are only two ways to find leaders – grow your own or buy them from others. But what guarantees that leaders hired from elsewhere are going to be better than those you already have?

You don't have to look too hard in infrastructure and transport to understand that ultimately there's a relatively

defined pool of people distributed amongst a number of organisations (from operators and clients, to contractors and consultants) moving around from one company to the next.

If we can agree that there aren't enough leaders to go around and that the need for leadership is imperative, how are we going to develop them? Plainly, this is not a sustainable way to develop leaders and our industry can't rely on happenstance if it's to successfully navigate the complexities and uncertainties ahead. There needs to be a systemic change to the way we develop leaders.

But there is another, more important imperative. The role we play in shaping and operating the built environment for millions of people. This alone should necessitate the investment and collaboration that's needed to develop excellent leaders, who can deliver the change we say we need for the wider benefit of society and the planet.

Click here to read an extended version of this opinion piece on our website.

<http://www.infrastructure-intelligence.com/article/oct-2020/who-will-lead-all-change>



Gerard Toplass is executive chairman of Pagabo.

Caring for mental health must continue post-pandemic

As the construction industry has historically had higher-than-average rates of suicide and negative mental health, it's crucial that we all work together in order to look after our construction workforce, especially as the second wave of the pandemic begins to emerge.

The topic of mental health in the construction industry has long been a challenging one to discuss. Construction is a largely male-dominated industry, and thanks to a traditionally butch stereotype, many of these workers won't have felt particularly comfortable talking about their feelings and emotions. Thankfully, changes both within the industry and

in wider society are changing this, but there is still a way to go.

Only a couple of decades ago, we looked at the rates of accidents on site – and thanks to cross-industry collaboration we've been able to identify the root cause and make changes to bring those accident rates right down. We now need to do the same with mental health.

We now have a clearer idea not only of the scale of the mental health crisis in the sector, but crucially how we can help our workforce to have a voice, speak up and seek help when needed.

As someone from the generation where we were told to shrug things like mental health off, pull our socks up and get on with it, it was encouraging to hear that these conversations are being had in the open – it's a huge step.

Click here to read an extended version of this opinion piece on our website.

<http://www.infrastructure-intelligence.com/article/oct-2020/all-one-caring-mental-health-construction-must-continue-post-pandemic>

Live events series off to great start

The new *Infrastructure Intelligence* Live autumn event series of online webinars, interviews and roundtables has been well received, reports Rob O'Connor.

Following the success of our summer series of webinars which saw more than 2,000 construction industry professionals signing up to attend a total of ten events, we launched a new *Infrastructure Intelligence* Live autumn series of events, delivered in association with our strategic partner BECG.

This new series of online webinars, interviews and roundtables got off to a great start with a webinar on “Deliver, deliver deliver – infrastructure priorities post-Covid”, which highlighted political and public engagement, strong diverse leadership, industry collaboration and simplified procurement as key themes. Panellist Rachel Skinner, soon to be president of the Institution of Civil Engineers, summed up the mood of many at the webinar, saying “Our industry shouldn’t use Covid as an excuse for delaying change and reverting back to business-as usual.”

Our opening webinar was followed by a fascinating first in the Spotlight interview on 22 September, which saw National Infrastructure Commission chair Sir John Armitt answer questions on a range of issues as well as reflecting on his long and

illustrious career as an infrastructure leader. Sir John made an impassioned plea for the industry to work together, saying “Collaboration needs to be open, all the time between all sectors – clients and industry working together. That means more honesty and collaboration in a very specific and honest way.”

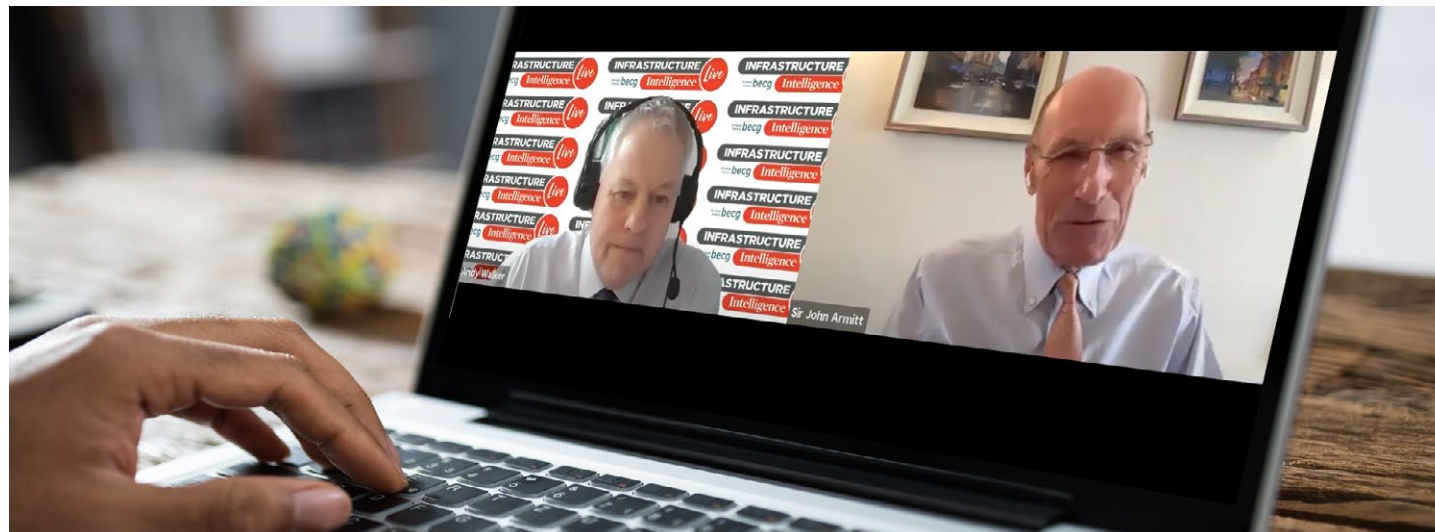
Friday 2 October saw us host an impressive line-up of regional politicians and industry experts at a Northern Metro Mayors Roundtable event (see full report on pages 10 and 11) and then a “Delivering a green recovery” webinar during which panellists called for bold action to tackle the climate crisis and to above all be optimistic and have dialogue with government. Speaking at the webinar, Donald Morrison of Jacobs said: “We need a new level of ambition, integrated infrastructure solutions and a holistic longer-term approach. We should look at net zero commitments as a moral imperative, and a new opportunity to assess social value and infrastructure.”

Future events in the *Infrastructure Intelligence* Live series include a webinar on planning and procurement reform, In the Spotlight interviews with Committee on Climate Change chair Lord Deben (see page 23) and Royal Town Planning Institute chief executive Victoria Hills, an international roundtable organised with British Expertise International and an end of year webinar looking ahead to 2021 and the prospects for construction and infrastructure.

Make sure you don’t miss out on these events – book your free place today!

Read more online at
www.infrastructure-intelligence.com

Click here for details of all our *Infrastructure Intelligence* Live events and to book places.
<http://www.infrastructure-intelligence.com/tablet-events>



Infrastructure Intelligence editor Andy Walker interviewing National Infrastructure Commission chair Sir John Armitt during one of our recent live online events.

Make or break decade for net zero

There are opportunities within the government’s comprehensive spending review to embed a new approach to net zero, argues Sarah Prichard.

The original plan was for the UK to be hosting COP26 in a few weeks’ time. Politicians, media and the public’s attention would have been focused on Glasgow and a national conversation would be happening around net zero. Fast-forward to today; the event has been postponed and instead attention is focused on living through a second wave of the coronavirus pandemic this winter.

Whilst COP26 might have been delayed, the issues can’t be put aside. Net zero is as ambitious a target, as challenging to society and as difficult for companies to deal with, as it was 12 months ago. If anything, recent events have revealed that our systems and society aren’t always best placed to deal with significant existential crises.

However, I was delighted to see that the opportunity of the comprehensive spending review (CSR) was seized by ACE to champion practical and tangible solutions to embed a new approach across government. Alongside economic recovery and levelling-up, ACE’s submission to the CSR champions a carbon neutral future and rightly claims that the 2020s are a



Dr Sarah Prichard
is UK managing director of Buro Happold and chair of the ACE and EIC net zero taskforce.

“make or break” time for net zero. This is the moment to ensure all government departments are fully on board with the agenda, whether COP26 is taking place or not.

The overarching themes of ACE’s submission were how to create a flexible and resilient future. Climate resilience is a big part of this, and we will need significant investments in flood and coastal defences to ensure our communities can withstand a changing environment. Broader than this however, ACE argues that we will have to switch to a fully functioning zero emission economy. ACE members will deliver the buildings and retrofit our infrastructure to ensure it is compatible with this aim.

To kickstart our move to a fully net zero economy, the CSR suggests investments in carbon capture and storage and hydrogen projects, in a move which should also be welcomed in our traditional industrial heartlands owing to the new green jobs created.

Outside of significant capital spend however, ensuring the planning regime locks in the idea that high-carbon infrastructure is impossible, delivering better regulatory systems to nurture robust environmental markets and encouraging the take-up of the Construction Innovation Hub’s value toolkit – which finally allows us to move away from lowest cost to a more rounded definition of value – will be vitally important too.

As chair of ACE and EIC’s joint net zero taskforce, I have witnessed first-hand how integral both sets of members are to a carbon free future. Whether as the designers of our built environment or the developers of new environmental technology, ACE and EIC members have to not only be part of the conversation but lead the world towards a net zero future.

ACE’s submission to the comprehensive spending review is a great example of how our industry is finding the practical, tangible and realistic solutions to the biggest challenge we face.



Climate activist Greta Thunberg speaking at the COP25 event last year in Madrid.

Future-focused infrastructure is key to sustainability

The infrastructure the world builds post-Covid must be economically, socially and technologically sustainable to meet current and future challenges, says *Joseph Losavio*.

The 'great reset' post-Covid will be shaped by the infrastructure we plan, design and construct. And infrastructure development is likely to take a leading role in national economic recovery efforts in the wake of the pandemic. Historically, it has been a significant factor in catalysing economic growth.

There is also a tide of opinion swelling towards the idea that the world we build after this pandemic needs to be significantly different to the one we had before. The dual economic and health shocks of 2020 seem to have increased the appetite for change, offering a rare window for radical thinking.

The infrastructure that results from this momentum must be the type of sustainable infrastructure that can help societies meet the challenges of the future. But what do we mean by sustainable? While often understood to mean environmentally sound, sustainable infrastructure has a much wider framing. These projects and systems must also be economically, socially and technologically sustainable to truly meet the moment and endure well beyond it.

There are six elements of sustainable infrastructure: -

1. Environmental resilience - This includes mitigating the environmental impacts of projects as well as building-in resilience to the effects of climate change already underway.



Joseph Losavio is the World Economic Forum's specialist on cities, infrastructure and urban services.

2. Benefit-sharing - Including communities in the planning and design process of infrastructure development, considering the needs of the socially and economically vulnerable and ensuring access to essential services to underserved communities to ensure the benefits are dispersed widely.

3. Social acceptability - By engaging with all stakeholders to respect local sensitivities and understanding their needs, the resulting service will be affordable, will respect local customs and will integrate special groups where needed to preserve and enrich the social fabric of communities.

4. Economic and institutional effectiveness - Safeguarding value-for-money leads to projects that are financially sustainable and fairly and transparently regulated. Focusing on this area can also embed knowledge and skills that can guide the development of future projects.

5. Future-proofed - Future-proofed projects secure adequate maintenance for assets over their lifecycle and plan for aging and end-of-life management. This aspect is ever more important in our increasingly connected world, where futureproofing must also include considering the opportunities and risks of future technology and business model disruptions.

6. Critical mass potential - A vital component that improves strategic planning ability, replicability and financing scalability.

This allows for successful projects that can be implemented repeatedly in different places, saving time and money in the development process.

These six qualities can help ensure that the infrastructure we build is sustainable in a variety of ways. While they are comprehensive and may seem ambitious, they are by no means impossible to achieve.

There are many infrastructure projects built around the world already that can serve as guides. A group of hospitals developed by Meridiam for the Turkish government incorporates all of these qualities, from focusing on environmental resilience by becoming the first public-private partnerships in Turkey to feature comprehensive environmental, social and governance (ESG), Sustainable Development Goals and climate monitoring reporting, to critical mass potential by developing a specific framework for executing on these types of healthcare sector projects.



The story is much the same with the Saïss Water Conservation Project developed in Morocco and backed by the European Bank for Reconstructing and Development. To integrate social acceptability, a stakeholder engagement plan was developed that included an emphasis on supporting the creation of women-led businesses to improve female economic inclusion. Futureproofing was also a focus to ensure the long-term viability of the fragile water source, with technical cooperation grants mobilized to monitor the water level and control water extraction.

These are just a few of the examples of the many projects that provide sustainable infrastructure and establishing a clear definition of the characteristics of sustainable infrastructure is an important factor in financing its construction. With governments fiscally constrained by efforts to stabilise their Covid-ravaged economies, they will likely have to draw on multiple sources for financing to fund sustainable infrastructure development, including the private sector.

ESG-focused investments have become ever more attractive and are projected to increase in value when the pandemic

wanes. More concretely definitions help create an investable asset class that can draw in the financing needed.

The pandemic has laid bare a world in crisis. Environmental degradation and climate change continue to threaten lives and livelihoods around the world. Economic inequality within and between societies is becoming untenable. Long-running injustice and exclusion has forced a worldwide reckoning with how we treat one another.

To address these deficiencies, economies and societies must be supported by high-quality, future-focused infrastructure. As all our successes depend ever more on developing in an economically, environmentally and socially sustainable way, we must focus on how we can build the infrastructure to support the architecture of a better future for all.



This article draws from the findings of the recent World Economic Forum report, *Six Qualities of Sustainable Infrastructure in Action*.

Recovery must be zero carbon and inclusive

The UK's economic recovery must be tied to decarbonisation and inclusive growth and avoid the temptation to focus only on short-term economic recovery and jobs, says *Donald Morrison* of Jacobs.

Action on climate is a race against time and the consequences are critical if we want to avoid another crisis. One that will be far worse and irreversible. The COP26 Race to Zero campaign launched recently is designed to mobilise renewed levels of leadership from businesses, cities, regions and nations to spur a zero-carbon recovery that commits more national governments to set net zero targets.

The global umbrella campaign aims to rally actors outside of national governments to send a resounding signal that businesses, cities, regions and investors are united in meeting the Paris goals and creating a more inclusive and resilient economy. The campaign is driven by science and aggregates net zero commitments from a range of leading networks and initiatives across the climate action community.

This is the greatest business opportunity since the industrial revolution and it is now time to turn the vision into real action for all businesses and stakeholders.

We are at a pivotal stage in the UK's journey to a greener economy where a real scale of change is required. The climate challenge will touch every area of the economy and society in the years ahead. We know we need to be transformational to accelerate emissions cuts in line with the required 1.5-degree limit of climate change. Green transformation goes hand in hand with job creation, a growing economy and better quality of life.

We have the innovation and the supporting technology. Business is on board. Jacobs like many responsible businesses is leading by example, setting ambitious climate action commitments (committing to 100% renewable energy and net zero carbon in 2020 and a long-term goal to be carbon negative by 2030).

Recovery finance should be directed to decarbonisation, while also ensuring broader societal needs and environmental enhancements are met. It can't just be about chasing net zero carbon or decreasing unemployment in isolation and at all costs. Investment and policy decisions and solutions need to address and seek to balance across all our societal, economic and environmental needs. And one of the tools we can all use to help achieve that balance are the UN Sustainable Development Goals – to ensure decisions we are making now contribute positively towards a sustainable future.

In June, the UK government's climate advisory group, the Committee on Climate Change, released their latest annual progress report to parliament, which was also a timely reminder that a Covid-19 recovery plan fully aligned with the UK's 2050 net zero climate target is vital and achievable with strong coordination and taking the right action now. Decisive, transformational change requires new and thoughtful public spending, the incentivisation of private investment and new policy levers and fiscal stimulus measures. This will enable the UK to build back greener, fairer and more resilient.



Donald Morrison is senior vice president at Jacobs People and Places Solutions UK/Europe.



Advancing low carbon projects – like renewable energy and storage, nuclear energy, building retrofits, education and training in low carbon industries for the unemployment and nature regeneration – make financial sense for the government. They can generate higher rates of return and create more 'green' jobs.

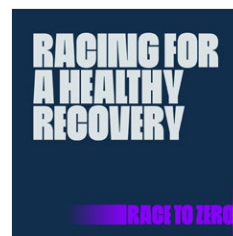
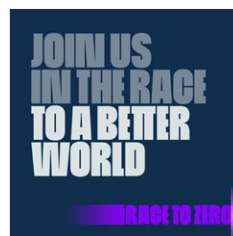
As we look ahead, attaching more outcome-focused goals on all infrastructure funding can change the way projects are procured, planned, designed and delivered – maximising societal, environmental and economic benefits in the long-term.

Measuring and incorporating social value into the lifecycle of infrastructure projects is becoming increasingly important to informing sound and sustainable decision-making now. Our Simetrica-Jacobs partnership is helping our clients understand how they can transform local, city and regional decision-making. Tools like TotalValueXTM are used to evaluate, measure and quantify social value of transport and other infrastructure projects.

Simetrica wrote the technical guidelines on social value measurement in the UK for the Organisation for Economic Cooperation and Development and many other governments across the world. And, through these guidelines, social value has become mandatory in policy evaluation in the UK and increasingly so in other countries.

The time for action is now. Aligning government policy and business commitment to deliver ambitious environmental solutions, resilience and inclusive growth. With the support of some of the largest businesses in the UK, the government has the power to effect real change and to create a springboard for success.

This is our collective opportunity to work together to deliver a 'decade of difference' for climate change, sustainability and a fairer, more equitable society. Let's use it!



The COP26 Race to Zero campaign is aimed at driving progress towards a zero-carbon recovery.

Post-Covid recovery needs to be digital

Infrastructure leaders predicted a digitally driven post-Covid recovery when they discussed key issues at a business roundtable hosted by Atkins and *Infrastructure Intelligence*, reports Rob O'Connor.

Infrastructure leaders are predicting a digitally driven post-Covid recovery and a return to a pre-crisis outlook within 18 months, according to a confident new report by Atkins. The report, *Infrastructure Insights: COVID Impact and Recovery*, was the basis for a compelling online roundtable on 21 October entitled "How can construction embrace digital innovation to accelerate the UK's post-Covid recovery?"

The roundtable saw leading industry figures discuss the pace of digital transformation and highlight lessons the sector could learn from other industries. There was general agreement that the sector will not emerge from the pandemic crisis in the same form and it was also clear that senior decision makers want to see digital innovations from the design, engineering and consultancy sector to help support their organisations.

Richard Robinson, Atkins UK CEO, outlined how the company was accelerating its future digital programme in an industry that has so far been

traditionally resistant to change – even to the point where the industry was even lagging behind industries such as hunting and fishing in terms of digitisation.

"Construction is the least digitised of any sector and this is the root cause of poor productivity," said Robinson. "Covid has shown that attitudes and behaviours can change quickly. That presents a big opportunity, but also a big leap for digital to fill that space," he said.

Dr Beth Morgan, founding partner at the consultancy Digital Outlook, said that the changing face of future industry leadership would help see a huge digital transformation take place in the sector. Morgan, who also lectures on digital issues at UCL, described her recent experience of teaching an international cohort of digital engineering management students.

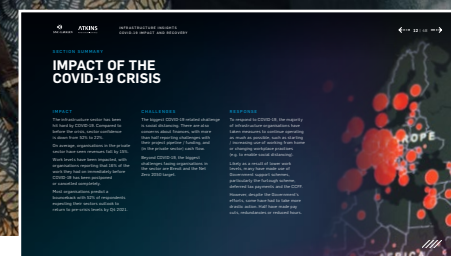
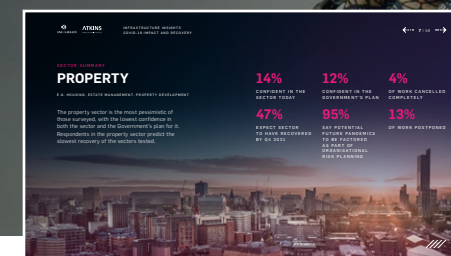
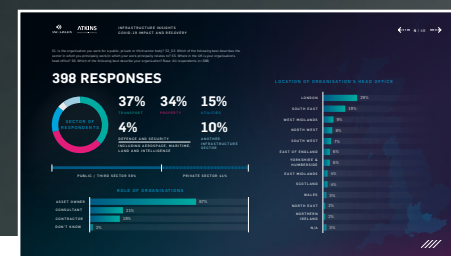
"The comment that stood out was they couldn't believe we're not doing this yet," she said. "They just couldn't believe how slow we're being in taking up these very rudimentary technologies and I think the change we're going to see as that generation moves into leadership positions is extraordinary. I think it's going to accelerate things enormously," Morgan said.

Anna Heaton, infrastructure and transport partner at the legal firm Addleshaw Goddard, highlighted how digital transformation and client expectations on sustainability are combining to drive changing contracting models focussed on innovation and long-term value rather than lowest fixed price. "If we can push people towards achieving better safety standards, more efficient building, getting things done quicker and decreasing unexpected costs that can come out of the planning period – digital technology is a way to do all of that, and that comes from clients demanding it from the contractors," said Heaton.

Alexandra Bolton, executive director at the Centre for Digital Build Britain, stressed the importance of learning the lessons of positive digital transformations in other industries. She said: "Automotive, aviation and manufacturing have done fantastic things for at least ten or 20 years and we, as a construction and wider built environment industry, need to work out what they

Read more online at
www.infrastructure-intelligence.com

IMPACT OF THE COVID-19 CRISIS



have done really well, use that, and work out where we can do things even better."

Steven Broomhead, Warrington Borough Council CEO, said that large public sector organisations and the government itself had to embrace digital transformation and work differently in the future. "All the public sectors have to join the paradigm shift in terms of workplace activity and communications – they have to think about doing their job differently," said Broomhead. "Councils are enablers of construction and I was absolutely determined that Covid would not be an excuse for delaying doing business. We've embraced the digital platform. Digital is a game changer – I can't see us going back to the way we were before," he said.

Jason Prior, partner and co-founder of Prior + Partners made the point that clients were playing a key role in dragging people along at pace with digital transformation. "Covid means all things are now possible compared to previous work models," Prior claimed. "And when we start to look at clients, there's a sense that the better resourced ones are on a similar journey - and as more and more clients change to digital platforms they bring more and more people with them," he said.

Tim Bowen, managing director of strategic development at Keltbray, said that productivity was still a vital issue and urged the industry to embrace digital transformation to keep pace with change. "Clients are increasingly digitising their assets – to remain relevant we need to digitalise our end-to-end offering, sooner rather than later," he said.

Summing up the discussion, Atkins CEO Richard Robinson looked ahead and highlighted the imagination of today's generation of ten-year-olds in embracing digital change. "Today's younger generation are super-interested in building and making things," he said. "They go into their virtual worlds and build whatever they want. They visualise and build things and are just totally unconstrained. I was just reflecting what would they think if they came into our industry now? I think they'd be just really overwhelmed by the constraints.

"The findings set out in our report and discussed at this roundtable represent a compelling and powerful take on the sector and its path forward. While it's clear we need a finalised National Infrastructure Strategy to give us more clarity and confidence, there's an expectation for the private sector to step up the use of technology and data to accelerate the recovery by building back smarter as well as better," Robinson said.

Roundtable moderator and *Infrastructure Intelligence* editor Andy Walker said: "The wide-ranging discussion highlighted a number of vital points that the infrastructure industry needs to take on board. One of the key things that stood out for me was the importance of raising everyone's sights to build a better world – and digital transformation has to be central to that."

Click here to download the Atkins report, *Infrastructure Insights: COVID Impact and Recovery*.



Highlighting the role of women in transport

Women in Transport is a not-for-profit organisation promoting and supporting the advancement of women in the transport industry. Its president, *Katie Hulland*, highlights why you should support them.

Women are underrepresented in transport - at just 20% of the workforce - and it is our mission to shift this to a better balance. To do this, Women in Transport is focused specifically on attraction, career advancement and retention of women within the industry.

Founded in 2005, we now have over 500 members, representing more than 160 different organisations and over 300 different roles across transport. Encouragingly, around 8% of our members are men and these numbers are steadily growing.

Women in Transport is involved in many initiatives to encourage more women into the transport sector. Jobs in transport are often perceived as jobs for men. To change this perception, we showcase the career opportunities available in the industry, provide a network of support and work with government and other organisations to support and progress equality of opportunity.

Our members benefit from our extensive events programme which includes unique experiences, site visits, professional development and networking opportunities. Members also benefit from access to the All-Party Parliamentary Group



Katie Hulland is the president of Women in Transport.

(APPG) for Women in Transport and Advance, our very popular mentoring programme.

Since the start of the Covid-19 pandemic we have introduced a range of virtual workshops and webinars, increased our communications and now host regular, informal online networking sessions to support our members during these challenging times.

Despite the enormous investment in diversity and inclusion, there is still much work to be done as the representation of women in the sector has actually decreased over recent years. Disappointingly, diversity and inclusion is one of the areas that seems to have immediately suffered from cutbacks as a result of the Covid-19 pandemic. We have also seen gender pay gap reporting suspended by the government, although some organisations are still reporting on a voluntary basis.

There is a growing body of evidence and data on the impact of Covid-19 on gender balance and, while there are many challenges to women, it is also providing an opportunity to attract and retain more women in the sector which is vital to economic recovery.

Examples of this include encouraging flexible and remote working and changing organisational culture. However, to recruit more women into the transport sector there also needs to be more emphasis on removing gender bias from recruiting procedures and focusing on skill transference. It is also important when recruiting women to understand the drivers that are likely to attract them to the transport sector.

On the positive side, we have seen companies that were previously opposed to home and flexible working becoming more agile and enabling different and new ways of working. The prize to be gained from harnessing the vast untapped pool of female talent is huge. At Women in Transport we will continue to work to ensure that women understand that there are great careers in the transport sector and to support the development of those working in the industry.



Committee on Climate Change chairman in the hotseat

The chairman of the Committee on Climate Change, Lord Deben, is the subject of our latest In the Spotlight interview on 11 November 2020.

The *Infrastructure Intelligence* Live series of events continues on Wednesday 11 November at 3pm with a live interview with Lord Deben, Chairman of the Committee on Climate Change.

The Committee on Climate Change (CCC) provides independent, expert advice about reducing greenhouse gas emissions to UK and devolved governments and reports progress towards meeting emissions targets to the UK parliament and parliaments in Scotland, Wales and Northern Ireland. The committee is made up of experts in the fields of climate change science, economics, behavioural science, business and industry so an interview with its chairman should be well worth watching.



Lord Deben, chairman of the Committee on Climate Change

As the Rt. Hon John Gummer, Lord Deben was the UK minister for agriculture, fisheries and food between 1989 and 1993 and was the longest serving secretary of state for the environment the UK has ever had. His 16 years of top-level ministerial experience also include minister for London, employment minister and paymaster general.

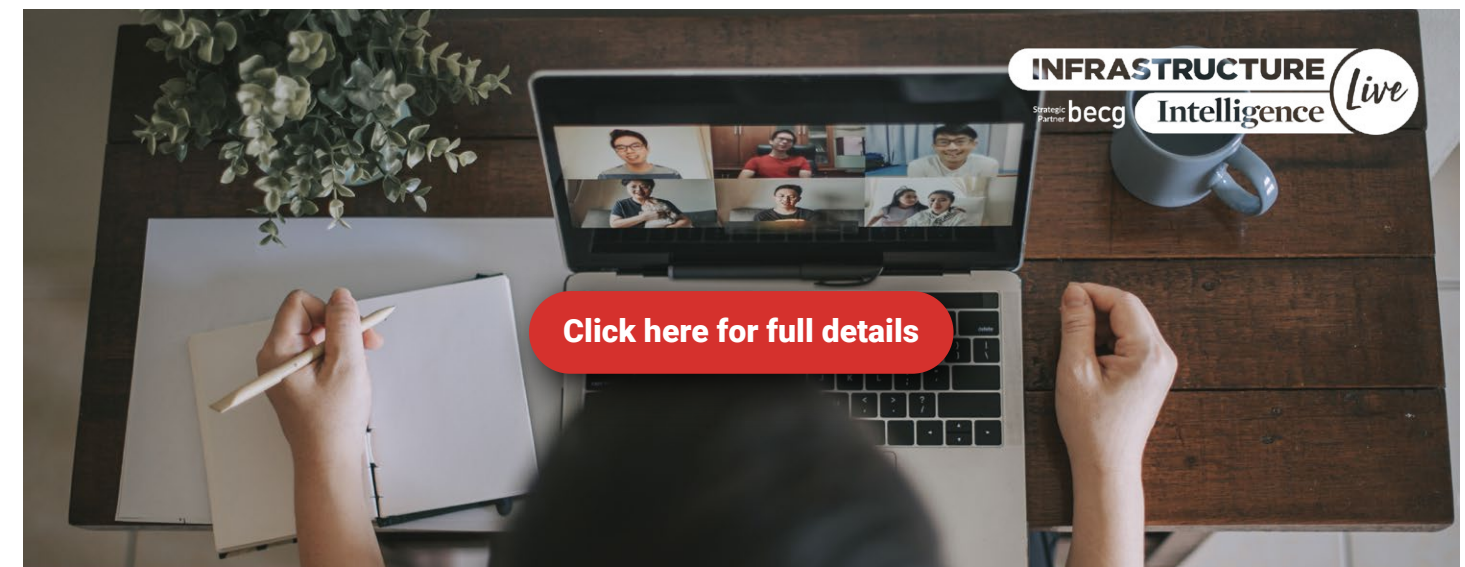
Lord Deben has consistently championed an identity and a linkage between environmental concerns and business sense. To that end, he set up and now runs Sancroft, a corporate responsibility consultancy working with blue-chip companies around the world on environmental, social and ethical issues.

Given the key strategic importance of the CCC's work in advising UK governments and reporting to parliament on progress on reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change, an interview with the chairman of the CCC, someone who has also had a wide experience of government at the highest level, should be a must-attend.

In the Spotlight interview 2:
Lord Deben, Chairman of the Committee on Climate Change

Wednesday 11 November 2020 at 3pm

[Click here to book a place at this interview event.](https://zoom.us/webinar/register/WN_OMeGebg9Rq-XY3Tuz8XXJw)
https://zoom.us/webinar/register/WN_OMeGebg9Rq-XY3Tuz8XXJw



[Click here for full details](#)

The *Infrastructure Intelligence* Live series of events is organised in association with our strategic partner, BECG.

A data scientist on your desktop

Despite launching its new business as the coronavirus pandemic struck, Arcadis Gen is already helping the wider industry adapt and recover from the impact of Covid-19, as *Andy Walker* discovered when speaking with its chief executive Rachel White.

A lot has happened since February 2020, when *Infrastructure Intelligence* last spoke with Arcadis Gen's chief executive Rachel White. The new global digital business launched aiming to be a disrupter in the industry and a positive force for change in the way that infrastructure was delivered.

Now, just eight months later, Arcadis Gen's new Universal Visual Optimizer (UVO) app is already helping organisations and companies of all shapes and sizes worldwide become more agile, recover from the worst impacts of the pandemic and plan ahead with as much confidence as possible.

Describing how UVO has come into its own during the pandemic, White said: "What we found is that lots of asset intensive organisations were trying to restart their operations or reprioritise their operations - and they were struggling to do that quickly because lots of them have very big systems or long processes that take them two or three months to plan a new cycle.

"What UVO does is help them reprioritise their asset portfolio in a very quick period, something in the order of two weeks, rather than months. So it's a prioritisation tool at its heart, but what's perhaps different from other things that may have been on the market before is the fact that it's a very quick-to-implement process and you're effectively getting a data scientist on your



Rachel White, Arcadis Gen's chief executive.

"It's also been very interesting working closely with Dublin Airport. The biggest part of their operation is freight, so they've been relatively unimpacted for part of their business but quite impacted for another part, so they really needed to look at re-prioritising their portfolio."

Rachel White, Arcadis Gen's chief executive



desktop rather than having to run a big enterprise solution which might take six to eight months to run."

Coincidentally, the UVO was already in development earlier this year, but it has been tailored specifically to meet the challenges posed by the ongoing pandemic. "We were developing something about prioritisation at the start of the year, but we listened to our customers and talked to them about the challenges they were facing in the current environment," said White.

"A lot of them were really struggling to restart operations - and to think about, if they had to cut budgets, where do they do that most effectively and what the impacts might be. So, we really wanted to provide something that would help them immediately and be something that boards could effectively use to look at their portfolios on a very regular basis," she said.

White highlighted the positive role UVO is already playing in utilities, rail and aviation. "It can be used by any asset based organisation, but probably the most relevant at the moment would be the utility sector - particularly water and energy, because those organisations have had to adapt to great changes in demand, with more people working from home placing different pressures on the network," she explained.

"It's also been very interesting working closely with Dublin Airport. The biggest part of their operation is freight, so they've been relatively unimpacted for part of their business but quite impacted for another part, so they really needed to look at re-prioritising their portfolio," said White.

"Big rail organisations that have had a big drop in passenger demand - I think the optimisation products that we have really help them think about how they re-prioritise and move forward

without having to go through their lengthy planning cycle to get there," she said.

White explained how a combination of affordable pricing, speed of delivery and access to high-quality data science is also making the UVO an ideal choice for SMEs across the world. "Typical SMEs are finding this ideal. An organisation that wouldn't necessarily be able to access an enterprise solution that could cost tens of millions to implement. This is a very different price point. It's a monthly or annual subscription fee, based on the size of the organisation, so people can get access to a broad knowledge base that they probably wouldn't otherwise have either the time or budget for," she said.

"The difference is our UVO gives access to a higher quality of data science without having their own specialist team in post. That is something the industry hasn't had access to before, so that makes it unique and different," White said.

So, a disruptor in an industry and a world that has seen a much bigger kind of disruption since February. But how has Covid-19 affected Arcadis and how well-equipped is Arcadis Gen to deal with the ongoing pandemic?

"Technology companies have been less affected by the pandemic than other organisations," said White. "Our business model is very robust in this environment. I don't think I appreciated how robust our business model was until we went through this experience. I think it's a very different story for other organisations who've had difficult challenges to deal with.

"The other thing is we've been able to accelerate - we've found ourselves going faster through this pandemic. We've actually made sales across every different part of the globe, and a lot of it is based on the pinpoints that customers have right now. So, they feel very relevant and very pertinent to their challenges," she said.

Looking ahead, White has some clear advice for an industry quickly adapting to face a post-Covid future. "Now is probably a good time for those organisations who haven't invested in a digital transformation to really get to grips with what that means for them and to get their employees trained in a more digitally savvy way," she said.

And you can't really argue with that.

TAC pivots to become 'one-stop' skills resource for industry

New focus and chair for apprenticeship group.

The Technical Apprenticeship Consortium (TAC) has announced that it is pivoting its activity to become a 'one stop' resource for the engineering consultancy industry on skills and apprenticeships. In practice, this means that any member of the Association for Consultancy and Engineering (ACE) or Environmental Industries Commission (EIC) that employs, or is thinking of employing, apprentices can now seek advice, support and guidance from TAC for free.

The move away from its subscription model has been made possible through the financial support of ACE together with a contribution from the Institution of Civil Engineers (ICE).

Since its launch in 2010, TAC has developed and maintained eight apprenticeship standards at either



Kimberly Murphy, apprenticeship and skills manager at the Technical Apprenticeship Consortium.

Level 3 or 6 in civil engineering, building services design engineering, transport planning, railway engineering design and now environmental practice. Last year more than 900 students started one of these eight standards. TAC will continue to manage and support these through its trailblazer groups.

Commenting on the changes to TAC, Director of Membership & Business Engagement at ACE and EIC, Darrell Matthews said: "We've made the decision to move away from a limited subscription model so that more ACE and EIC members can benefit from TAC's expert insight, understanding and guidance. Apprenticeships and skills have never been more important to our industries, which is why I'm sure TAC will have an even greater impact under this new business model."

TAC has also announced a new Chair with Gareth Drought replacing Chris Burton. Mr Drought, HR Director at ACE member Tony Gee and Partners, said, "TAC has done some great work in its first decade and introduced apprenticeship standards which are popular with students and businesses alike. We enter our second decade with a new purpose and vision, and I look forward to helping as many businesses as possible explore the potential for apprenticeships."

Members with apprenticeship queries are encouraged to contact Kimberly Murphy at kmurphy@acenet.co.uk today.

New research from TAC highlights steps to improve apprenticeship system

High-skill and high-tech construction apprenticeships are needed to boost the skills needed in infrastructure projects to drive the UK's economic recovery, according to TAC backed research. Build back better: Improving the apprenticeship system to better support infrastructure, recommends the Government works with the industry to recognise the value of technical and higher-level apprenticeships leading to professional registration, increase the flexibility of the apprenticeship levy, join-up and improve the apprenticeship systems across the UK, and celebrate and promote apprenticeships widely. Download the report now from www.acenet.co.uk



Future of the Workplace report coming soon

Emerging Professionals lead a major new project exploring changing perceptions and expectations.

ACE's group for the next generation of industry leaders, ACE Emerging Professionals, has released details of its upcoming major report, *Future of the Workplace*.

Through extensive research and expert interviews with a range of stakeholders, including emerging professionals from across the built environment sector, the report explores the changing perceptions and

Find out more and book your free place now at www.acenet.co.uk/events

expectations of the upcoming generation with regard to their workplace.

The findings will also be crucial reading for any business leader looking to create welcoming, productive, healthy, attractive and flexible work environments post-Covid.

The report will be launched online on 11 November at 12 noon at an event hosted by the chair of ACE Emerging Professionals, Georgia Hughes, who will welcome guests from WSP, Goodson Associates and Arcadis to discuss the findings.

Commenting on the report's release, Hughes said: "With many business leaders currently exploring new and different ways of working post-Covid, our research will be invaluable to helping them create the flexible, safe and healthy working environments that people now expect."

"Not only will the research address the new normal we're all facing, but it will explore some of the longer-term, structural issues too. Notably, how can we create a work environment that will attract and retain the emerging generation? Of course, we won't have all the answers, but we hope to add substantially to the debate with our new report."

New Brexit briefings available

ACE has released new guidance as the UK approaches the end of the Brexit transition period on 31 December 2020. Originally developed by the Construction Leadership Council's Brexit working group, the first briefing note explores data protection and GDPR and the second movement of people.

Both briefings have been created to be working reference documents, with clear links to additional online guidance and tangible action points to help companies prepare as best as possible for next year. Where there are different options depending on the type of future relationship, this has been clearly outlined.

Commenting on their release, ACE's director of policy Matthew Farrow said: "While not necessarily providing definite long-term answers, ACE's new *Brexit Briefings* will help members make informed decisions in difficult times." Find out more and book your free place now at www.acenet.co.uk/events



Boosting confidence of local leaders to build back better



Metro mayors like North of Tyne's Jamie Driscoll will play a key role in developing their area's plans for a post-pandemic future.

The industry and government needs new tools and new thinking to create resilient post-Covid communities, argues *Hannah Vickers*.

Writing about economic recovery may seem somewhat counter-intuitive given the current uncertainty around Covid-19. The only thing I can say with any degree of confidence is that the situation may well be very different by the time you read these words. However, while the timing on recovery may be fluid, my thoughts around the type of recovery we need are not.

When the time is right, we will need to "Build Back Better", as the prime minister is so fond of saying, to create the flexible and resilient post-pandemic communities that society will be demanding. To do this we will need to empower our local leaders to invest now in designing and developing regeneration plans, central to a Covid recovery that builds resilient communities.

Recent proposals shared by ACE in our representation on the comprehensive spending review (CSR) and through the Construction Leadership Council (CLC)'s Greener Regeneration Investment Fund



Hannah Vickers
is chief executive
of the Association
for Consultancy and
Engineering.

are about giving local leaders the tools and assurances to do this confidently.

The CSR was a great opportunity for ACE to put forward a range of practical proposals, including financial support from central government for social infrastructure like new schools and hospitals. Furthermore, we championed the idea that local authorities and LEPs should be given a bolstered role as leaders of our regeneration efforts and through imaginative planning and design reform encourage flexible, multi-use local infrastructure, as well as housing.

ACE has also spearheaded the development of the Greener Regeneration Investment Fund within the Construction Leadership Council. This new £40bn proposal would challenge existing regeneration models, providing access to affordable capital and specialist development expertise. The sums saved would then be reinvested in community, social and environmental projects.

The proposals were launched during this year's Construction Week by myself, ACE chair Paul Reilly of Stantec and Mace chief executive Mark Reynolds. We were all in agreement that this new approach would enable better regeneration but more than this, it could deliver new revenue guarantees for local leaders which would help mitigate against an uncertain future.

Covid-19 has brought into sharp relief the need for more resilience. Commuter patterns and behaviours, the importance of open spaces and the delivery of local services have all been turned on their head by the pandemic. We will also need to overcome historic obstacles if we are to deliver faster, better and greener.

Boosting the confidence of local authorities, LEPs and metro mayors to explore options and develop plans for a post-pandemic future now is the only way they will be delivered swiftly. Waiting for the Covid storm to pass will only lessen the impact of this investment for local communities and for employment.

Brexit's silver lining for the environment

There are risks to the environment from Brexit but, as *Matthew Farrow* explains, some causes for optimism too as the UK prepares to leave the EU.

I well remember the fury and panic that flooded the environmental twittersphere around 4am on 24 June 2016. It was dawning that the UK had voted to leave the European Union and 40 years of environmental laws being largely determined by the progressively minded EU could be coming to an end.

Inevitably and rightly in the four years since there has been a great deal of lobbying to try to ensure that our post-Brexit regulations and trade deals do not undermine environmental standards. And, as we hurtle towards the Brexit end date of 31 December, there is renewed focus by the environmental lobby on the risks ahead – the latest issue being the delayed environment bill and its potential weaknesses.

There are some important issues at stake in this debate but it's worth considering some of the less talked about consequences of Brexit on the green agenda.



Matthew Farrow
is director of policy
at the Environmental
Industries Commission.

One of things I've noticed is how it has made the green groups a more cohesive force. Historically, there was an element of friendly or unfriendly competition for profile, members, corporate engagement etc. But the threat of Brexit has led to much more joint working and formal and informal coalitions across different topics and I think this is something that's here to stay.

Secondly, a green Brexit agenda proved the salvation of Michael Gove, as it allowed him to rebuild his career. After his disastrous attempt to knife Boris in the back during the 2016 leadership election he looked finished as a political force. While Theresa May gave him the Defra role, very few secretaries of state in the last ten years have emerged from that department with their reputations enhanced or even intact. Yet the fact that Brexit meant a chance to rewrite green regulations from the bottom up, gave Gove the intellectual space to reinvent himself as an eco-champion and a minister able to reshape the agenda.

Third, the opportunity to rewrite the Common Agricultural Policy system and replace it through the Agriculture Bill with a more sophisticated attempt to reward farmers for environmental public goods will create a huge new market in carbon offsetting. All those in charge of projects they have promised to make net zero will be pouring money into the offsetting market, allowing much of the farming industry to change its business models to be the providers of nature-based carbon capture and storage.

Lastly, while the threat of Brexit leading to a dilution of environmental standards has always been a real one, it has also freed up space for the green policy community to think more creatively. At EIC for example we have argued that the Canadian system of requiring 'continuous improvement' in air pollution has advantages over the rigid emission limit value system used by the EU.

None of this is to minimise the environmental risks of Brexit. But it does at least show the truth of the old adage that for every cloud there is a silver lining.





The go-to fleet operator scheme for best practice

A voluntary accreditation scheme for fleet operators established in 2008 is now established as the go-to scheme for best practices, says *Paul Wilkes*.

FORS, the Fleet Operator Recognition Scheme, has created a standard that gives its members a clear set of requirements to demonstrate that they run a quality operation. Organisations that specify FORS are able to improve the management of work-related road risk amongst clients, contractors, developers and suppliers.

FORS members are based across the whole of the UK, so organisations that specify FORS in contracts can take full advantage of an environmentally sound, efficient and safe road transport supply chain, wherever their operation is based. This means that all commercial vehicles operating on a company's behalf - from mopeds, taxi and minibuses, to coaches, refuse trucks and heavy goods vehicles - will demonstrate exceptionally high standards.



Paul Wilkes is the business services manager at FORS.

A voluntary accreditation scheme established in 2008, FORS is open to UK and non-UK fleet operators, and to the organisations that award contracts to those operators. With 5,000 members, FORS is now well-established as the go-to accreditation scheme for best practice.

The FORS concession is managed by international consultancy firm AECOM, which has had a long association with FORS over many years contributing to the development of the standard, implementation of systems and scheme support and the delivery of training and audit quality assurance.

It is very simple to write FORS as a condition of business into procurement contracts. Many national infrastructure, construction and local authority-led contracts across the UK already do so, as a route to a quality road transport supply

FORS works with local authorities to help improve the environment

FORS helps councils improve air quality

REDUCE NOx PM HC
LOW EMISSION ZONES
GOVERNMENT TARGETS

How do FORS members improve efficiency and drive smarter?

MONITOR FUEL USE
EFFICIENT VEHICLES
SAFETY & TYRE PRESSURE
MODE SHIFT
ENCOURAGES SUSTAINABLE STAFF TRAVEL
ROUTE PLANNING
ALTERNATIVE FUELS
TRAINING
ANTI IDLING
REDUCE FUEL CONSUMPTION
REDUCE DELIVERY NOISE

How can local authorities work with FORS?

SPECIFY FORS IN PROCUREMENT CONTRACTS
BUILD FORS INTO PLANNING CONSENT AND CONSTRUCTION LOGISTICS
FORS ACCREDITED COUNCIL FLEETS

chain. Local authorities and construction projects that choose FORS can more easily manage work-related road risk, reduce carbon emissions, and meet air quality targets.

FORS is built around continuous improvement, where members strive for even higher operational standards as they progress through the levels of the scheme. FORS accreditation goes beyond basic legal compliance, with our members able to tangibly evidence how they far exceed the legal basics by following our unique mix of driver and management training, robust auditing and statistic-based efficiencies, backed up by a range of online support tools and guidance from our national helpline.

FORS-accredited operators comply with both CLOCS (Construction Logistics and Community Safety) and Transport for London's work-related road risk requirements. FORS silver accreditation can be used to demonstrate CLOCS compliance as the schemes are designed to align, to keep compliance simple.

FORS is about continuous progression, so our members can become safer, smarter and greener with a model to suit commercial vehicles of all types, from

truck, van, coach, bus, taxi and powered two-wheeler operators.

An organisation's FORS journey to accreditation will transform a business into an industry pace setter and a leader in fleet transport best practice. The route to becoming FORS accredited is dependent on the number of operating centres included. By becoming accredited, your business will instil a mindset of continual improvement, joining an elite group of operators that boast exemplary levels of safety, efficiency and environmental awareness.

The accreditation process is clear and straightforward, with lots of support available from the FORS team to guide you along the way.

To find out how FORS can help your road transport supply chain meet its safety, environmental and efficiency needs visit www.fors-online.org.uk/cms/champions



FORS Benefits

The Fleet Operator Recognition Scheme (FORS) is a voluntary accreditation scheme open to UK and non-UK fleet operators, and to the organisations that award contracts to them. With around 5,000 members, FORS is now well established as the go-to accreditation scheme for best practice. FORS members have access to a wide range of benefits enabling them to be safer, smarter and greener. For more information visit www.fors-online.org.uk.

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FORS: Trust is earned

For 12 years, FORS – the Fleet Operator Recognition Scheme – has earned a reputation for driving-up operating standards; to make commercial vehicles and the complex environments in which they work, safer, smarter, and greener for everyone. Trust FORS to deliver on all your transport requirements.



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