



SPENDING REVIEW

Reaction and analysis following the government's spending review.

page 6-9



ENIVIDONIMENT

Why there can be no net zero without diversity.

page 24-25



PLANNING

Interview with planning chief Victoria Hills.

page 30-31





INFRASTRUCTURE I Intelligence

4: News

New construction minister: Value Toolkit; Construction Playbook launch.

6: Spending review

Reaction to the review and National Infrastructure Strategy.

10: Net zero

Government signals a green industrial revolution.

12: O pinion

Building back better; Climate crisis; Risk and net zero.

14: Post-Covid recovery

Why construction can be catalyst for economic recovery.

15: Regional growth

How the tools for levelling-up are being put into place.

16: 2021 look ahead

We look forward to a big year for infrastructure in 2021.

18: Public engagement

Infrastructure needs to communicate better, say MPs.

19: Brexit

The Covid crisis has put any concerns over the ramifications of Brexit into perspective.

20: Social value

How to truly build back a better Britain.

22: Environment

We interview the chairman of the influential Climate Change Committee, Lord Deben.

24: Net zero

Why there can be no net zero without diversity.

26: ACE news

Scotland; Collateral warranty agreements; Future of the Workplace; 2021 opportunities.

29: EIC news

Upping the policy pace on climate change.

30: Planning

Our interview with Victoria Hills, CEO of the Royal Town Planning Institute.







Contact us



Editor: Andy Walker 07791997602

awalker@infrastructure-intelligence.com



Reporter: Rob O'Connor 07790 585396

roconnor@infrastructure-intelligence.com



Ian Parker 07894 053961 iparker@acenet.co.uk

Commercial Manager:



Design and production: Riccardo Gualandi 020 7227 1891 rgualandi@acenet.co.uk

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

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



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

Produced for the industry by the Association for Consultancy and Engineering (ACE). ©2021 Infrastructure Intelligence.

Message from the editor



7elcome to the first Infrastructure Intelligence magazine of a new year. Like everyone, I hope that 2021 will see the coronavirus crisis abating due to the brilliant work of scientists and medics so that society can get back to something approaching normality, whatever 'normal' is in these post-Covid times.

We know that the aftershocks of the pandemic will be felt for some time, especially economically, and in the UK there is a real danger of the economy taking a double hit over the next 12 months as we contend with the aftermath of Brexit as well as the coronavirus. It is likely that we will be living with uncertainty for at least the first part of 2021, but I believe there is a real opportunity for our industry to make a positive impact over the next 12 months.

The construction and infrastructure sector is crucial to the UK's economic recovery because of the boost to employment it can provide and as a result of the significant social and economic benefits that welldesigned, sustainable infrastructure bring to communities across the land. As we report in this issue, social value, 'levelling up' and diversity will rightly take centre stage this year and Infrastructure Intelligence will ensure that the industry's voice is heard so that our sector can play its full part in the post-Covid recovery.

Let's make 2021 the year of infrastructure delivery - a year that our industry really demonstrates the positive role it plays in improving people's lives up and down the country.

Andy Walker,

Editor, Infrastructure Intelligence 07791 997602 awalker@infrastructure-intelligence.com



Kwasi Kwarteng is new construction minister

wasi Kwarteng has been appointed as the UK government's new construction minister, replacing Nadhim Zahawi who has become minister for vaccine deployment.

Kwarteng, MP for Spelthorne in Surrey, has been at the Department for Business, Energy and Industrial strategy since July 2019 where his remit included energy, carbon budgets and green finance. That remit is now expanded to include construction and the nuclear sector.

Hannah Vickers, chief executive of the Association for Consultancy and Engineering, welcomed the appointment of Kwarteng and praised his predecessor. She said: "I would like to welcome Kwasi Kwarteng to the role of construction minister and look forward to meeting with him as soon as possible. I hope he continues the effective work of his predecessor who engaged constructively with all parts of the industry throughout extremely challenging times. I would also like to thank Nadhim Zahawi for his contribution and support of the Construction Leadership Council (CLC) which has brought the industry together during this difficult period. I am sure his successor will continue in the same collaborative spirit."

Kwarteng becomes the 18th construction minister since 2001. His predecessor, Zahawi, was appointed to the post in August 2019 and was the third person to hold the post during that calendar year. Infrastructure Intelligence editor Andy Walker said: "It is to be hoped that Kwasi Kwarteng has a longer period in post than his predecessors as construction minister. Otherwise, it will be nigh on impossible for him to have the time to build up the contacts with the industry and understand the sector's complex issues in order to be effective in his new role."

Read more online at www.infrastructure-intelligence.com

Toolkit for a value-based future

he countdown to the Construction Innovation Hub's much anticipated Value Toolkit began in earnest in December, with the launch of a new interactive digital resource to help clients navigate through the crucial steps involved in value-based decision-making.

The new resource outlines the step-by-step journey through the three core modules of the Toolkit: value definition, client \S market approach and evaluation \S measurement.

The Value Definition module will facilitate a clear and consistent articulation of the value drivers which will underpin client decision-making;

The Client & Market Approach module will enable optimisation of delivery models and commercial strategies to maximise value and outcomes; and,

The Evaluation & Measurement module will help clients to develop a robust approach for evaluating options and measuring performance to support informed decision-making.

A collaboration between the Construction Innovation Hub and experts across industry and government, the Value Toolkit is a new approach, digital tool and supporting guidance which will empower clients and policy makers to make outcome-led, better informed, value-based decisions.

Directly supporting the objectives set out in the CLC Roadmap to Recovery and the newly published Construction Playbook, the Toolkit will enable better decision-making throughout the whole investment lifecycle from business case through to procurement and delivery and operation, improving the outcomes of each investment.

The final Value Toolkit will be launched in the Spring of 2021.



Playbook plan to modernise construction

he government has published the long-awaited Construction Playbook to build on the recently published National Infrastructure Strategy and support the government's ambition to transform infrastructure networks over the next decade so that the UK can build back better, faster and greener.

The Construction Leadership Council (CLC), through its own members and wider links with the industry, has collaborated and supported the combined efforts of the Cabinet Office and Infrastructure & Projects Authority, with input from across the public sector, to develop the Playbook and to endorse its aim of creating a more strategic relationship between government and the construction sector.

Andy Mitchell, co-chair of the CLC, said: "The publication of the Construction Playbook is significant. It aims to embed a new approach to the procurement and delivery of construction projects and programmes, which is more collaborative, engages the whole supply chain, encourages investment in innovation and skills and supports a more sustainable, resilient and profitable industry, capable of delivering higher-quality, safer and better performing built assets for its clients. It will create the foundation for a new approach to construction, where we can utilise digital and offsite manufacturing technologies to increase the capability of the industry and accelerate the delivery of built assets."



Construction Innovation Hub programme director Keith Waller called the Playbook "a critical game-changer in our transformative journey as a sector" and he welcomed the fact that with government the industry now had a collective vision for what the future must look like. "Fundamental transformation has never been more achievable," said Waller.

Jon Kelly, WSP strategic growth director, welcomed the Playbook's publication as an indication that the government understood the power of construction as a catalyst for change and progress. "By promoting modern methods of construction and ensuring their adoption in public procurement becomes the norm, government gives the private sector the confidence to continue investing in these innovative solutions and redouble its efforts to deliver measurable social value, in line with the announced framework," said Kelly.

Spending review boost for construction



The chancellor's spending review announced more cash for housing, transport, broadband, net zero and local construction projects in a much-needed boost for the infrastructure sector.

he chancellor of the exchequer Rishi Sunak's spending review announcement, delivered to parliament on 25 . November 2020, looks to offer much for the infrastructure sector to be happy about. More funding for transport, housing, broadband, net zero commitments and local infrastructure, together with the unveiling of a new UK infrastructure bank based in the north and also the launch of the much-anticipated National Infrastructure Strategy, will all be welcomed by the industry.

The new National Infrastructure Strategy (NIS) promises to deliver "fairer, faster and greener" and sets out the government's long-term infrastructure ambitions to provide a long-term perspective without ignoring the short term. The strategy highlights clear goals and plans to achieve them, with more detail yet to come over the coming weeks and months, unveils multi-year funding commitments for many key infrastructure programmes and confirms the government's commitment to fundamentally change the way it considers and delivers infrastructure across the whole of the UK through a review of the 'Green Book'.

The government says the NIS is not the final word on its infrastructure plans, it is only the first step of a multi-year process to transform the UK's infrastructure networks. The strategy was closely followed by the Construction Playbook and the energy white paper with more to follow with papers on English devolution, a local recovery white paper, a refreshed industrial strategy, union connectivity review and an updated national infrastructure and construction pipeline. Clearly, the government intends to be busy in the months ahead.

The industry will particularly welcome the positive commitments in the strategy to increase the emphasis on the quality of design in infrastructure projects and specifically the commitment to support the National Infrastructure Commission's recommendation for all major national infrastructure projects to have a board-level design champion supported by a design panel, to





help ensure schemes are built sustainably to a high standard, looking beyond their core function to add value to communities and the natural environment.

Commenting on the chancellor's statement and the publication of the National Infrastructure Strategy, Hannah Vickers, chief executive of the Association for Consultancy and Engineering, said: "Our industry will be broadly happy with these announcements. We had the surprise of a £7.1bn National Home Building Fund and there were important strategic moves too. The intra-city transport settlement will give local bodies more control over transport decisions and their own budgets, but we still would have liked to have seen more progress on Northern Powerhouse Rail - a missed opportunity for a clear and demonstrable commitment to levelling-

The chancellor gave no extra details of the government's much vaunted 'Project Speed' initiative, with those hoping for a list of projects to be announced that were in line for fast tracking coming away disappointed, for now. Hannah Vickers





said that the focus had to be on delivery to power much-needed growth. "I'd like to see all energies focused on delivering a strong pipeline of projects across the country, so our industry can kickstart growth, act as the catalyst for postpandemic recovery, and meet ambitions on levelling-up," she said.

On levelling-up, Rishi Sunak is clearly placing much store on a new £4bn crossdepartmental Levelling Up Fund that will invest in local infrastructure in England. The chancellor says any local area will be able to bid directly to fund local projects - but they must be delivered within this parliament and they must command local

Announcing the new fund, which will be managed jointly between the Treasury, the Department for Transport and the Ministry of Housing, Communities and Local Government, Sunak said: "The fund will take a new, holistic, place-based approach to the needs of local areas. Projects must have real impact. They must be delivered within this parliament. And they must command local support,



including from their member of Parliament. This is about funding the infrastructure of everyday life: A new bypass. Upgraded railway stations. Less traffic. More libraries, museums, and galleries. Better high streets and town centres."

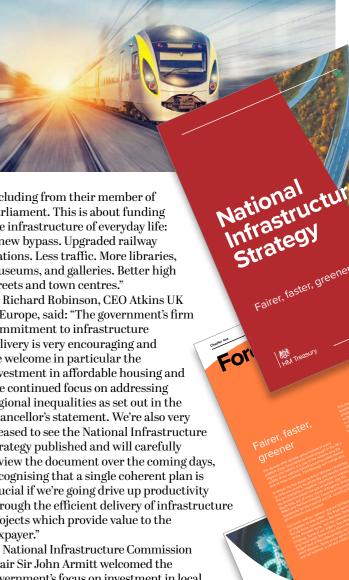
Richard Robinson, CEO Atkins UK & Europe, said: "The government's firm commitment to infrastructure delivery is very encouraging and we welcome in particular the investment in affordable housing and the continued focus on addressing regional inequalities as set out in the chancellor's statement. We're also very pleased to see the National Infrastructure Strategy published and will carefully review the document over the coming days, recognising that a single coherent plan is crucial if we're going drive up productivity through the efficient delivery of infrastructure projects which provide value to the taxpayer."

National Infrastructure Commission chair Sir John Armitt welcomed the government's focus on investment in local infrastructure but said that more local control would be needed to deliver it. "To achieve the aim of levelling up, more long-term funding and control for cities is necessary to bring transformational urban public transport projects to places outside London," he said.

"The Commission will monitor government's progress on delivery and very much hope this strategy marks the beginning of a renewed focus on long term infrastructure policy around which industry and investors can plan with confidence," said Armitt.

Click here to download the National Infrastructure Strategy

Type Infrastructure Intelligence in YouTube or <u>click</u>



Industry welcomes National Infrastructure Strategy

The construction industry gave a positive welcome for the National Infrastructure Strategy, but calls grow for further detail on key issues in the government's spending review.

eading industry figures broadly welcomed the chancellor's spending review and publication of the keenly anticipated National Infrastructure Strategy in November last year. However, some in the industry are awaiting further detail on a number of key issues before commenting on how effective the National Infrastructure Strategy is likely to be.

Sir John Armitt, chair of the National Infrastructure Commission, said the strategy was "an important moment, given the vital role infrastructure can play in supporting economic recovery and growth across the whole of UK, as well as tackling climate change". Armitt said that the NIC was pleased to see that the strategy responds closely to its own independent assessment of the country's infrastructure needs and how to address them.

The government's commitment to 'levelling up' was welcomed, with Hannah Vickers, chief executive of the Association for Consultancy and Engineering, saying: "The £4bn Levelling-Up Fund can potentially be a catalyst for locally-led regeneration, but we hope to see its scope expanded and capability deployed ahead of the UK Infrastructure Bank. This will ensure we maximise its potential impact on recovery, rather than focus on individual tactical project investments."

Civil Engineering Contractors Association chief executive Alasdair Reisner said: "The vision set out by the chancellor is one in which investment in infrastructure is a key priority for delivering growth and creating jobs across all parts of the country. The creation of a National Infrastructure Bank, to be based in the north of England, will enable the strategic investment businesses and communities require."

Alex Vaughan, chief executive officer at Costain, said: "Infrastructure investment needs effective and agile governance, structure, and processes to ensure it can realise the desired economic, environmental, and social return behind the

government's vision. Careful consideration of local as well as national aspirations will ensure the social, environmental and economic value of infrastructure projects delivers the government's vision to level up, decarbonise and meaningfully improve the lives of local communities."

Leo Quinn, Balfour Beatty group chief executive, said: "We welcome the scope and vision of the National Infrastructure Strategy. The focus on sustainable infrastructure is particularly key to ensuring we really do build back better and greener futures." Andrew Davies, chief executive at Kier Group, said: "Ambitious capital investment in the health, education, justice and defence sectors and the improvement of transport connectivity between regions presents a real opportunity to stimulate the economy and will create jobs and opportunities for businesses, large and small."

Ben Lewis, infrastructure and energy director at Barton Willmore, said: "There are a lot of positives to take from the strategy but there is equally a lot of content that has already been announced. Further detail is needed in key areas, the Energy White Paper and the UK Hydrogen Strategy being two. Until we have that detail, it is difficult to see how effective the National Infrastructure Strategy will be."

Highlighting the 'levelling up agenda, Patricia Moore, UK managing director at Turner & Townsend said: "The message from government is that infrastructure is to take a central role in narrowing the north-south divide. However, investment must be made in the right way if we are to successfully







"An important moment, given the vital role infrastructure can play in supporting economic recovery and growth across the whole of UK, as well as tackling climate change."

Sir John Armitt, chair of the National Infrastructure Commission.

"We welcome the scope and vision of the National Infrastructure Strategy."

Leo Quinn, chief executive at Balfour Beatty.



"The message from government is that infrastructure is to take a central role in narrowing the north-south divide."

Patricia Moore, UK managing director at



"The funding that has been announced to date is just the beginning of the investment that is needed."

Colin Wood, chief executive, UK and Ireland,

build back better from Covid-19. The National Infrastructure Strategy focuses on connectivity – we now need central and devolved governments to align this plan with improved social and economic infrastructure too. The aim should be to 'level up' by 'linking up' – connecting communities in a way that supports jobs. Investment needs to be made in a way that delivers economic, social and environmental value for communities, at the same time as building capacity and skills capability within the sector itself."

Donald Morrison, people & places solutions senior vice-president Europe at Jacobs said: "It's good to see a long-term, sustainable, infrastructure strategy – not just for our industry, but for rebalancing the economy as a whole. Creating social value is vital for levelling up. We must attach outcome-focused goals to all infrastructure funding promises."

Colin Wood, AECOM's chief executive for UK and Ireland said: "The chancellor has shown that the government has quite rightly recognised the important role infrastructure will play in our post-pandemic recovery, but we're still not seeing levels of funding needed for us to truly deliver and support that recovery. The funding that has been announced to date is just the beginning of the investment that is needed."

Tom Bridges, UK cities advisory leader at Arup, said: "Whilst there is much to be welcomed in today's announcement, there is now a need to develop a clear, coherent and long-term plan for levelling-up and transitioning to a green economy." Simon Rawlinson, head of strategic research and insight at Arcadis, said: "This was a real statement of confidence in our industry, motivated by a belief in creating jobs and driving growth across the country through investment."

Jim Coleman, head of economics at WSP, said: "The chancellor's willingness to leverage the power of infrastructure investment to help the country recover from the health crisis and economic downturn gives business and communities reassurance that he remains committed to the levelling up agenda and the transition to net zero. For the UK to achieve net zero emissions by 2050, significant advances will be required in skills and training as much as in technology, infrastructure and funding."

Towards a green industrial revolution

In the year that the UK hosts the COP26 international climate change conference, it's appropriate that the nation's drive for net zero is proceeding on many fronts, reports *Andy Walker*.

n the space of three weeks at the end of last year, a flurry of announcements on the environment and net zero signalled the government's intention to drive forward with a green industrial revolution. Firstly, we had prime minister Boris Johnson's £12bn ten-point green plan which brought praise from environmental groups and plaudits from the construction and infrastructure sector. The government says the plans will lead to the creation of 250,000 jobs, with many aimed at the north of England, Scotland, the Midlands and Wales.

Eye-catching policies included a pledge to end the sale of petrol and diesel cars and vans by 2030, ten years ahead of the previous schedule and another pledge to quadruple offshore wind power capacity within a decade. The PM also trailed investment of £525m on new nuclear power, £1bn in 2021 for funds to insulate homes and public buildings, using the existing green homes grant and public sector decarbonisation scheme as well as an extra £200m for carbon capture initiatives. Welcoming the government's announcements, Chris Stark, chief executive of the Climate Change Committee, said: "The plans announced will transform Britain for the better, bringing new opportunities and new investment."



Lord Deben, chair of the Climate Change Committee

Hard on the heels of the PM's green pledges, we saw the Climate Change Committee (CCC) launch what it described as the world's first ever detailed route map for a fully decarbonised nation. CCC chairman Lord Deben described its Sixth Carbon Budget as "a key to the future". The CCC's budget charts the decisive move to zero carbon for the UK and highlights that polluting emissions must fall by almost 80% by 2035, compared to 1990 levels – a big step-up in ambition because just 18 months ago this was the UK's 2050 goal.

To deliver this, say the CCC, a major investment programme across the country must be delivered, in large measure by the private sector. That investment will also be the key to the UK's economic recovery in the next decade. The CCC says the Sixth Carbon Budget can be met through four key steps - take up of low-carbon solutions, expansion of low-carbon energy supplies, reducing demand for carbonintensive activities and land greenhouse gas removals.

Lord Deben said: "This is a key to the future as far as we are concerned. The alternative not to do it is hugely more

expensive and means, in a sense, that we would be investing in the past and not in the future. I don't underestimate for one moment the challenge that this is, nor the ambition which it puts forward. But what this report does is to give the nation the way to do it. We have decided we have to do it, here is how we do it."

Finally, December saw the government set out its net zero ambitions in an energy white paper which outlined the specific steps the government will take over the next decade to cut emissions from industry, transport, and buildings by 230 million metric tonnes – equivalent to taking 7.5 million petrol cars off the road permanently – while supporting hundreds of thousands of new green jobs.

Business and energy secretary Alok Sharma said: "The plans establish a decisive and permanent shift away from our dependence on fossil fuels, towards cleaner energy sources that will put our country at the forefront of the global green industrial revolution. Through a major programme of investment and reform, we are determined to both decarbonise our economy in the most cost-effective way, while creating new sunrise industries and revitalising our industrial heartlands that will support new green jobs for generations to come."

As ever, the devil will be in the detail of all these welcome announcements and pledges and the government's resolve is likely to be tested by some powerful vested interests in the months and years ahead. That resolve can be bolstered by the construction industry which will be crucial in building the infrastructure that will help to underpin many of the prime minister's ambitious pledges.

The industry will need to be bold in speaking up and speaking out on issues and in holding the government's feet to the fire on its green promises. As Mathew Riley, UK managing director of international environmental consultancy Ramboll, said: "If we are to become a global leader in achieving net zero and taking effective action on the climate crisis then rapid implementation of this plan must be a priority - time is absolutely of the essence.

"The UK originally set one of the most ambitious targets for net zero but to remain global leaders in climate action we need to move further and faster. While a welcome move, the government's tenpoint plan comes worryingly close to the wire."

Emma Pinchbeck, chief executive at
Energy UK, said: "The energy industry
will do our bit to innovate, supporting
our customers so that they benefit
from the net zero transition and
investing in the green infrastructure
we need – but clear policies from
government help us do that. This
is what the white paper – and
other publications over the next
year – should provide."



Three things to build back better



Lizi Stewart is managing director transportation at Atkins

any of us are finding a new 'normal' in how we live and work alongside this pandemic. But for the transportation sector, we have yet to find what that new 'normal' might look like.

For me there are three things we must get right in order to not only recover from this crisis but emerge stronger than ever - deliver on the diversity and inclusion business case, improve confidence in our ability to deliver and build momentum behind a 'green' recovery.

Deliver on the diversity and inclusion business case:

Diverse teams deliver better financial returns, they are more innovative, they can better spot risk, they have higher levels of customer satisfaction and employee engagement. We have nothing to lose and everything to gain by putting our money where our mouth is and delivering on the business case for diversity and inclusion. For the future of our sector and our country, we need this diversity to help us unlock more from our transportation investments.

Improve delivery confidence: Transportation investment is proven time and again to support economic growth, both on a local and national level. To receive that precious investment from government, we need to be able to demonstrate we can be trusted and that the client bodies and the supply chain will work together to make intelligent decisions, protect every pound and deliver that much needed value for money. Benchmarks, predictive analytics, machine learning and the

use of artificial intelligence can all help make these decisions easier and more assured. Our destiny is in our own hands. The more trust and confidence we can breed in our ability to keep our promises, the more investment we will receive. The economics are on our side – infrastructure investment is good for the economy.

Ensure a green recovery: Last, but not least, we need to make sure the projects we bring forward, and the solutions we provide, are in line with meeting our net zero targets. Projects being stalled due to Covid is frustrating; these projects being reimagined to ensure they're carbon neutral and better for the environment can be inspiring. We can also take this as an opportunity to reassess the balance of our transport network, and create the infrastructure needed for more sustainable transportation.

There is one thing that underlines all three of my points above, and that's collaboration. Covid has brought out the best in us when it has come to collaboration in 2020. Let's lock that in as part of our cultural DNA so that we can 'build back better'.

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

http://www.infrastructure-intelligence.com/article/nov-2020/three-things-we-must-do-now-%E2%80%98build-back-better%E2%80%99



Mathew Riley is the UK managing director of international environmental consultancy Ramboll.

Action not words will address climate crisis

he UK government is way behind other nations in meeting its zero carbon goals and there is an urgent need for more clarity on how it plans to move at the scale and speed required to address the climate crisis. It is understandable that both the pandemic and Brexit have dominated this year, but now is the time to put climate action back at the top of the agenda.

We need clear targets and bold statements for every sector. Crucial to rapid implementation will be a clear and detailed policy framework that enables both public and private sector to plan their own strategies. We must move past declarations of intent and really get down to the detail if we hope to address climate challenge at the scale and speed needed.

Rapid social and behavioural change is crucial in preventing a climate crisis. It is ultimately policy that changes behaviour and so the government must deliver definitive policy commitments to drive the cultural changes needed to meet zero carbon goals and develop a more sustainable society.

Effective and sufficient investment is equally as critical as policy and promises otherwise such announcements are purely paying lip service to the environment crisis. We must also make the route to green financing much clearer in both the private and public sector – these pledges will be hard to implement if we can't actually follow the money.

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

http://www.infrastructure-intelligence.com/ article/nov-2020/action-not-words-neededaddress-climate-crisis





Bill Zuurbier is chairman of risk management consultancy, Equib.

Prioritising risk and achieving net zero

In order for the UK to meet its target of net zero infrastructure by 2050, the CBI said that the government needed to give the construction sector more control and clear regulatory guidelines to support the delivery of its National Infrastructure Strategy. However, a greater risk focus is also essential to support the transition by keeping projects on time and on budget.

Making risk a greater priority at the outset and throughout the design stage will be critical to facilitate informed decision-making by investors and prevent costs from overrunning. Whereas in the past, risk management and analysis would have been regarded as core skills for project managers, today there

is often an over-reliance on bespoke software. As a result, genuine risk management experience has become harder to come by.

If steps are not taken to understand the opportunities and threats facing green infrastructure projects, this culture of over-optimism could stand in the way of the UK's net zero transition. Given the uncertainties resulting from the pandemic, investors are understandably more risk-averse, so presenting them with a realistic view of risks from the planning stages of initiatives is key. This will enable projects to be delivered within budget and to agreed timescales.

Upfront investment in risk management at an early stage, combined with risk-centric project management skills, will help to make the 2050 net zero target more achievable.

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

http://www.infrastructure-intelligence.com/ article/oct-2020/risk-centricity-key-achieving-netzero-infrastructure



Post-Covid recovery

Regional growth

Construction can be catalyst for recovery

The construction industry has a key role to play in unlocking wider economic growth and fuelling the post-Covid recovery, argues Arup's *Geoff Hunt*.

he construction sector employs over 8% of the total workforce across the UK and represents 8% of GDP. Many will find it surprising that this is around eight times larger than the contribution of the automotive industry to our national economic output. Furthermore, we influence over 30% of GVA through the impact of the users of the built environment we design.

Despite the size of our contribution, we are nimble. Although some were hit hard in the early stages of the pandemic, we recovered quickly and importantly we still have the potential for growth and creating jobs rapidly. As long as we maintain a winning mix of blended skills – the engineers, planners and project managers – our industry will continue to deliver for clients and society and will fuel our future economic recovery.

With all of this in mind, I was delighted to read ACE's proposals submitted as part of the comprehensive spending review which focused on increasing the resilience of our industry. We have lived with uncertainty for a while and with local lockdowns and a second wave this winter, we will have to live with it a little while longer. The tangible steps that ACE outlined to provide more clarity and increase our resilience should be backed by all business leaders in our sector.



Geoff Hunt is chief operational officer of Arup in the UK and an ACE board member.

Firstly, business confidence could be boosted thanks to the Infrastructure and Projects Authority republishing the procurement pipeline every six months. I know that for Arup's leadership team it helps us plan ahead and gain a detailed view of the short- and medium-term picture. For many it is likely to also have an impact on jobs and future skills needs. It would allow us to identify when progress has stalled or slowed and nudge clients into understanding why and how we can help in getting progress restored.

Secondly, there is plenty that could be done now to accelerate the design and development phases for some of our pipeline projects – even if they are a while away from being signed-off. Starting the planning and design processes early seems like a common-sense approach to ensuring that over the longer term the due diligence is completed in time and projects properly costed and valued. It will also mean that our industry doesn't face a cliff edge with large gaps in procurement. We need to be creating a conveyor belt of projects to deliver more clarity for businesses.

Finally, suggesting a significant review and update of the national policy statements to ensure they reflect society's net zero ambitions, as well as the national infrastructure strategy, would create additional certainty around what we need to plan, design and how. As well as making our job easier it will attract additional private sector investment in infrastructure.

The government has, so far, taken the right steps with the furlough/job support schemes and offering loans to help us see through the crisis to date. Recognising the construction industry's potential contribution to recovery should be the next step, allowing the sector to act as a catalyst for wider growth.



Tools for levelling-up are being put into place

Regional levelling-up can give a boost to the north and drive national growth as the UK emerges from the pandemic, says *Dave Beddell*.

his announcements by the chancellor on the changes to the 'Green Book', the trailing of the prosperity fund, the establishment of a new National Infrastructure Bank and devolved transport authorities, are all welcome steps towards helping our regions realise their full potential. Rishi Sunak has put the tools for the country's levelling-up agenda firmly in place.

As a proud northerner myself, I know how important this agenda is to our great cities and regions. Whether in Newcastle, Hull, Leeds, Manchester, or Liverpool, all are united in experiencing decades of comparative under-investment, poor transport links and underperforming productivity. That these are also among the worst hit areas in terms of the health and economic impacts of the pandemic is no coincidence either.

The final piece in the puzzle will come with Northern Powerhouse Rail. When it is finally announced, it will provide the glue to the super-region, allowing us to be considered a single economic unit, all the while connecting people to new opportunities. It will also ensure that our cities remain close



Dave Beddell
is vice chair of the
Association for
Consultancy and
Engineering and also
head of strategy and
growth at AECOM.

allies and partners and not competitors. Frankly, the fact that we did not have more progress on this from the chancellor today is a missed opportunity for a clear and demonstrable commitment to levelling-up.

Changes to the 'Green Book' are a symbolic shift in culture and while the UK Infrastructure Bank can potentially provide new sources of capital for investment, it will need to move beyond commercial loans if it is to succeed. From its future campus in the north, the bank could support projects across the UK, but there are some obvious caveats around how quickly this will be the case.

The chancellor's surprise announcement of a £4bn levelling-up fund, which draws strongly on the principles of the Construction Leadership Council's proposals for a new local infrastructure fund to accelerate growth and recovery, can potentially become a catalyst for locally-led regeneration in its own right. I hope that over time its scope and capacity is expanded.

The £220m pilots for the UK Shared Prosperity Fund should also be welcomed. Replacing EU funding, there is no reason that we couldn't use this to tackle further inequalities through investment in freeports and enterprise zones. With more flexibility in our approach now possible, we can encourage low-tax jurisdictions to attract inward investment to more deprived areas.

The tools are nothing without an investment in capability, which the bank will hopefully provide. But more than this, it will ensure local leaders can seize the opportunity for a seismic shift in the levelling-up agenda as projects finally move from drawing board to reality. But we will also need to ensure that these investments are truly sustainable and help us realise our long-term net zero ambitions – something that was lacking in this week's announcement.

However, by connecting the dots and bringing everything into sharper relief, the strategy has also confirmed in my mind that regional levelling-up will, in fact, be the catalyst for national growth as we emerge from the pandemic.



Projects like the new railway station at Middlesbrough will help level up the UK

Abigyear for infrastructure in 2021

Our final *Infrastructure Intelligence* Live webinar of the year looked ahead to 2021 and the prospects for the construction and infrastructure industry. *Rob O'Connor* reports on what was said.

f the panellists at the final Infrastructure Intelligence Live event of the year on Friday 11 December 2020 are correct then net zero, social value, digital transformation, local community engagement, diversity, the future workforce and an increased focus on medium-sized infrastructure projects will be key themes for our industry to watch out for in 2021.

A panel of leading industry figures reflected on a momentous and unprecedented 12 months for the industry and looked forward to what 2021 may bring politically, economically and socially and the potential impact on the construction and infrastructure world. With the government's spending review and National Infrastructure Strategy signalling a big boost in spending for the construction sector, could the industry be on the cusp of a boom period in the months ahead?

Lizi Stewart, managing director of

"Being much more hands-on in delivering local projects will help generate more local economic activity and create jobs."

Hannah Vickers, chief executive, Association for Consultancy and Engineering.

transportation at Atkins, focussed on social value, procurement and continued industry collaboration. "Value for money is going to be very important," she said. "Giving something back to the taxpayer when we're competing for funds with vital public services like the NHS and schools means more focus on value for money, so the scrutiny will be intense. We absolutely need to spend our precious pounds incredibly well," she said.

Association for Consultancy and Engineering chief executive Hannah Vickers highlighted the importance of medium-sized infrastructure projects and increased local engagement as a vital part of a longer-term recovery. "Coming into next year we have long-term ambitions around levelling-up and net zero," said Vickers. "But 2021 will be a year of medium-sized infrastructure interventions. We obviously have big infrastructure projects in the pipeline, but I think we'll see the rise of medium-sized infrastructure on a much more local level," she said.

"The proposed new National Infrastructure Bank is a good opportunity for the industry to work at a local level and make what we have already fit for purpose. We can unlock a lot of progress and deliver for society. Being much more hands-on in

delivering local projects will help generate more local economic activity and create jobs. Don't be afraid to get stuck in," said Vickers.

Georgia Hughes, a senior management consultant at Arcadis and chair of the ACE's Emerging Professionals group, emphasised the importance of developing the future of the workforce and bringing diversity to the fore to help meet the challenges in a period of rapid change.

"2020 has been a year of fast-paced change and 2021 will be no different," said Hughes. "We also need to look beyond next year and to the next three to five years, starting the

ds with vital and schools money, so the solutely need decisive decade for carbon reduction. As incredibly an industry, we have a huge responsibility to support the nation's drive to net zero, to provide better quality of life, design in inclusive ways and support the societies and that we work in," she said. "We also need to retern look beyond our engineers and consultants ambitions and look towards a much wider and creative future workforce. What we do is changing.

Costain managing director for transportation Sue Kershaw focussed on the continued importance of industry collaboration, diversity and social inclusion all combining to help change people's lives for the better. "We've seen genuine courage and resilience during 2020," said Kershaw. "There's been authentic collaboration in bucket-loads right across the sector. The power of that is incredible. Going forward, now is the chance to start again. Collaborative working will be nurtured and diversity encouraged. Post-Covid, we will come out this a much better and more diverse sector," she said.

Diversity must be brought to the fore," said

Andrew Howard, managing director of communications and public affairs consultancy BECG, emphasised recovery, risk management and resilience as three key issues for 2021. "2021 is going to be a challenging year. Covid is not going away and Brexit is going to massive," said Howard. "Recovering from the economic shock of Covid, having strong risk management and embedding resilience into the industry are going to be three key things for the year ahead and beyond," he said.

"Next year will be the year when the UK redefines its position on the world stage - and the green industrial revolution is a key part

"2021 is going to be a challenging year. Covid is not going away and Brexit is going to massive."

Andrew Howard, managing director of communications and public affairs consultancy, BECG.

of that," he said. "The environment is going to be massively significant. There's going to be a plethora of environmental initiatives in the run-up to COP26. We have a new construction minister with a background of supporting renewables and I think we'll see a government looking for quick wins, taking positive action, and working with the industry. The national infrastructure agenda is massive," said Howard.

Andy Walker, Infrastructure
Intelligence editor, said: "This was the
19th event we have held during 2020 and
a fitting end to our series of live events
that has seen thousands of industry
professionals sign up to attend and hear
from industry experts on a range of
issues. We are looking forward to 2021, to
organising a new series of events with our
strategic partner BECG and to debating
and tackling the key issues facing the
construction and infrastructure sector
over the next 12 months."





Click here to view the 2021 Infrastructure Intelligence Live series of events. http://www.infrastructure-intelligence.com/tablet-events



Click here to watch a recording of the "Looking ahead to 2021" webinar. https://www.youtube.com/watch?v=wEy9VbzWzTQ

"We also need to look beyond next year and to the next three to

five years, starting the

reduction."

Georgia Hughes, senior management consultant at Arcadis.

decisive decade for carbon

Communicate better on infrastructure, say MPs

Around half of MPs say that the government and other promoters of major infrastructure have failed to communicate the importance of major infrastructure programmes to the public, a new poll has found.

he YouGov poll, commissioned by specialist communications consultancy BECG, surveyed a cross-party group of 100 MPs and found that around 40% of Conservative MPs believe communication has been "ineffective" in engaging the public in vital projects from nationwide full fibre broadband to transport for regional cities.

The poll results were released on the day that the government announced its centrepiece National Infrastructure Strategy and ahead of the muchanticipated energy white paper and followed the prime minister's ten-point green plan unveiled to great fanfare in November.

Asked to what extent would access to further information about the local benefits of infrastructure projects help to allay public concerns about the potential negative impacts, the poll revealed that more than 75% of MPs thought that more information would reduce public concerns, while only 20% of MPs believe that people understand the benefits of infrastructure projects. Meanwhile, 37% of MPs believed that the public did not understand the benefits of major infrastructure projects.

Ally Kennedy, board director at BECG, said: "Our poll shows that there has been a collapse in confidence among MPs of all parties on engagement with the public in



Ally Kennedy, board director at BECG.

major infrastructure projects. Meeting this challenge is crucial if the government is to restore public confidence and support for these projects. This is critical to achieving the government's stated policy of 'levelling up' the country post-Covid and post-Brexit, particularly in the so-called 'red wall' areas in the north and The Midlands where the government is determined to focus its efforts."

The government's National Infrastructure Strategy outlined its response to several recommended targets for the UK, including: - $\frac{1}{2} \frac{1}{2} \frac{1}$

- For half of the UK's power to be sourced from renewables by 2030;
- £43bn of stable long-term transport funding for regional cities;
- · Nationwide full-fibre broadband by 2023; and
- Infrastructure to support close to 100% of new electric vehicle sales by 2030.

Given that only a fifth of MPs think communities generally understand and appreciate the benefits of infrastructure projects and almost double this proportion believe they do not, it would seem that there is much work to be done by the industry in getting its message across, both to the public and to opinion formers and decision-makers at Westminster.

The BECG-commissioned YouGov poll interviewed a representative sample of 100 MPs (38 Conservative, 43 Labour) online from 13-31 October 2020.

Click here to download the full results of the MPs' poll.



Covid puts Brexit into perspective

Initial forecasts of a 5% drop in GDP due to Brexit have been set in the shade by the economic ramifications of the Covid crisis, but the danger of a double whammy blow to the economy is all too real, writes *Andy Walker*.

t the start of the year, most economic and political commentators were in agreement that the UK economy would undergo some choppy waters as a result of Brexit, but the challenges could be overcome because of the country's underlying economic strength, new trade deals and strong industry sectors like construction which could take up the slack. But then came Covid and now it seems that all bets are off and there is a real danger of the economy taking a double hit over the next 12 months.

In truth, no one really knows what will happen when the UK finally leaves the EU. At the time of writing, the transition talks deadline had been extended again and it now seems highly likely that the UK will exit the Union at the end of the year without a deal. Despite the CBI saying back in June last year that "business cannot prepare for a no-deal Brexit in the middle of a pandemic", that is exactly the prospect that is staring them in the face at the start of 2021.

The Construction Leadership Council's Brexit Working Group has been producing and signposting business guidance and information to help the construction industry get ready and be prepared to maintain business continuity at the end of the transition period. It



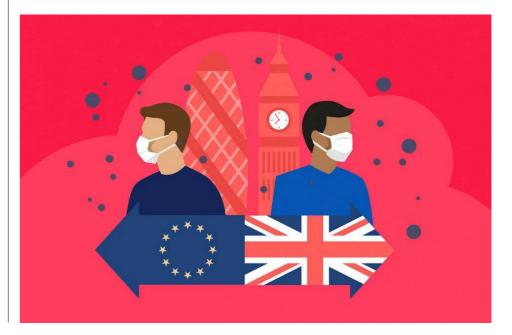
"I see Brexit as an opportunity, not a threat," says Ramboll UK managing director Mathew Riley.

has also been championing opportunities for the construction sector in the numerous ongoing trade deal negotiations but so far these have been few and far between. So, like such much of the last 12 months, uncertainty is the order of the day yet again.

Ramboll UK managing director Mathew Riley commented: "The economic impact of Covid has dwarfed that of a no-deal Brexit. The economic forecasts about Brexit pre-Covid indicated a 5% drop in GDP would be catastrophic, yet here we are one year later facing a drop of over 10%. So, while Brexit does compound the ongoing economic uncertainty, Covid-19 has certainly put it into perspective."

However, striking an optimistic note, Riley said: "I see Brexit as an opportunity, not a threat. Yes, there will undoubtedly be some short-term impacts at construction site level activity, but we need to make 2021 The Year of Delivery! With the imperative around climate action, the launch of the Construction Playbook, the opportunity to embrace the power of innovation on a meaningful scale to redefine how we work and make our industry more attractive, means there can no longer be any excuses. I truly believe our industry has the technical experts across all disciplines who can solve the most complex of problems, we just need to create the right environment for them to deliver."

It is to be hoped that Riley's optimism is infectious and that any economic hit from Brexit is short lived. The government certainly needs a thriving construction sector to help power the UK's economic recovery and overcome the twin threats of Covid and Brexit.



Building back a better Britain

The new National Infrastructure Strategy will require the right kind of determination from industry and government to deliver its promises in a way that serves all corners of the UK, says Jacobs' Donald Morrison.

espite being one of Europe's richest economies when measured per head, Britain is currently the most unbalanced on the continent. Disparities between the regions run deep across the country, with average incomes throughout the north west, south west, West Midlands and Wales as much as 30% lower than in the capital and 40% of the UK's output currently produced in London and the south east.

For too long, our industrial strategy has prioritised GDP growth and business prosperity on a macro scale, while the social value of infrastructure investment - community building, inclusive development, connectivity and environmental sustainability - have been denied the dominance they deserve.

For this reason, I very much welcome a National Infrastructure Strategy committed to 'levelling up' Britain's economy via robust $\,$ investment and policy promises that are dedicated not only to rebuilding, but to re-balancing too. We, as industry leaders, must

support chancellor Rishi Sunak's levelling promise of boosting opportunities so "those living in all corners of the UK get their fair share of our future prosperity".

The strategy's promise to introduce a £4bn Levelling Up Fund comes as a particularly welcome commitment, as does the establishment of a National Infrastructure Bank based in the north of England. But perhaps the most significant news is the Treasury's updated review of its 'Green Book', the government's method of appraising the value of projects, to ensure they support the levelling up

This may seem a dull technicality to pinpoint, but this set of regulations in fact has substantial impact, determining how - and, crucially, where - government investment is allocated. The Green Book has long been criticised for favouring London and the south east, so the Treasury's reprioritisation of these principles indicates an important and necessary step forward.

We have a duty to hold the government to account on its promises, as well as to perform our own share of the necessary self-reflection, in order to ensure that we play our part in embedding sophisticated modes of measurement that go beyond simply delivering a project on time and on

The adage "only what gets measured, gets managed", first coined by management consultant Peter Drucker, industry is undeniably dominated by a focus on measurement, a symptom of our exacting culture and mind-set as fall out of pace with the changing world. The modes of measurement we venerate are often narrow in scope, led by commercial realities of competing in a competitive market, and outdated public sector procurement practices. We must now up our game and exhibit the level of ambitious vision required to meet the societal challenges the UK is facing.

It has long been acknowledged that infrastructure is the backbone of a solid and resilient economy, but we believe it has the power to buttress strong, vibrant and inclusive communities, too. Efficiently planned and developed infrastructure has even been shown to underpin the achievement of up to 80% of the United Nations sustainable development goals.

The Social Value Act passed by government in 2012 indicated a promising start on this path to a re-evaluating infrastructure decision-making. The more recent measures outlined this year by the Cabinet Office, stating that businesses seeking to win government work must set out how they will also deliver on social value priorities from 2021, confirm that the centring of social impact in infrastructure planning is steadily climbing the government's agenda.

But there is more that could be done to position social value

seems poignant here. The infrastructure engineers. However, we are beginning to







Social value needs to be at the heart of infrastructure investment to ensure that the UK can build back better.

with still greater precedence in decisionmaking. Recognising this challenge, our partners Simetrica-Jacobs have developed the world's first set of equity weights, using a methodology approved by the Treasury's Green Book, for effectively quantifying social value in infrastructure planning that has already been put to into action in partnership with the Department for Transport.

This is the kind of innovation in planning, utilising digital modelling and data to inform decision-making in a way that reflects social as well as monetary value, that will enable government and businesses to deliver the prime minister's 'levelling up' agenda via shrewder, more objective decisions and to work together most effectively. It is my hope that with this move toward considered data-driven planning, will come a means for social value to take precedence where traditional 'cost v benefit' strategies once dominated.

The UK government must therefore follow through on its commitments to take into consideration not only how best to invest its infrastructure funding, but also where the structural support will be most beneficial. An 'outcome-based' model for infrastructure planning, with social value embedded at its heart, will be essential in ensuring the UK can build back better as a unified nation.

The time to 'think think' before we 'build build' is now, to make sure we're designing infrastructure that will be of long-term benefit to all of us socially, environmentally and economically. Only then can we be confident that communities feel our projects are being developed for them, not simply provided to them.



Donald Morrison is people and places solutions senior vice president Europe and digital strategies at Jacobs.

America has rejoined the world, says CCC chairman

Climate Change Committee chair Lord Deben calls for UK and global policy certainty in the fight to achieve a net zero and safeguard the environment. *Rob O'Connor* reports.

But Lord Deben has continued to champion the environment and the hugely influential chairman of the Climate Change Committee (CCC) is delighted that, after the US presidential election, America has now 'rejoined the world' in the fight to achieve net zero.

Interviewed live online last November by *Infrastructure Intelligence* editor Andy Walker, it was clear that Lord Deben's passion, knowledge and enthusiasm for the environment continues to shine as brightly today as it ever did. As the Rt. Hon John Gummer, Lord Deben was the UK's longest-serving secretary of state for the environment (1993 to 1997). He also held several other highlevel ministerial posts, including secretary of state for agriculture, fisheries and food (1989 to 1993).

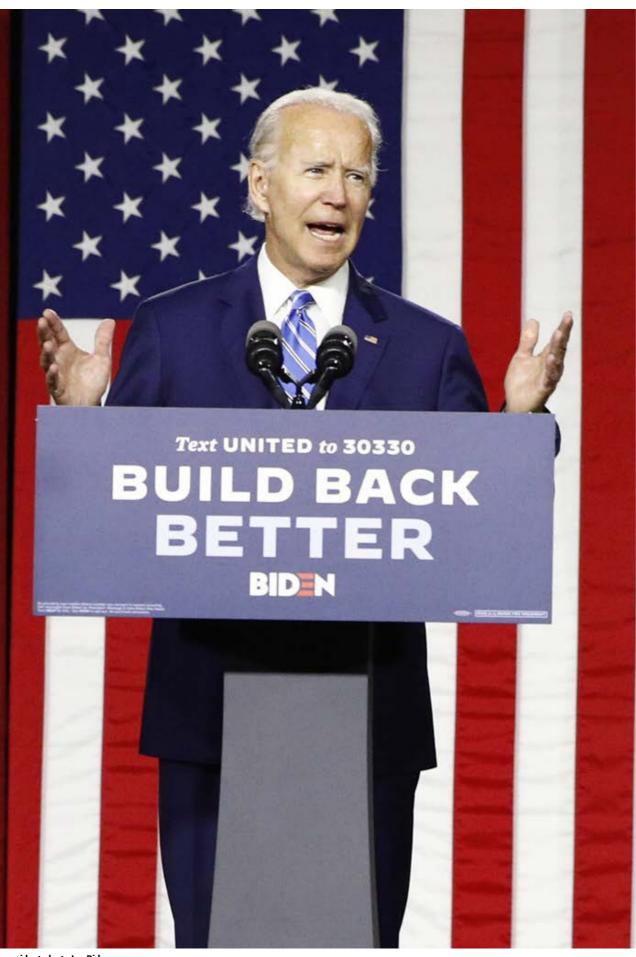
As environment secretary he introduced the Environment Act 1995 and the Landfill Tax, which was the first such environmental tax in the UK. The *BBC Wildlife Magazine* described Gummer as the "Environment Secretary against which all others are judged", placing him as one of its top ten environmental heroes. In 1997, he was also awarded the Royal Society for the Protection of Birds Medal and was described by Friends of the Earth as "the best Environment Secretary we've ever had".

Lord Deben has consistently championed an identity 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. Lord Deben clearly has wide experience and knowledge of government and how the system works, but what made him want to get involved in tackling climate change?

"It was literally the science," he said. "I began reading about it when I was at the ministry of agriculture and became convinced that the climate was changing. In terms of influence, we were lucky that Margaret Thatcher was a scientist, and she quickly became convinced. We were fortunate to have a scientist as prime minister.



Lord Deben, chair of the Climate Change Committee.



US president elect, Joe Biden.

She said to me: 'There are two people in this government who believe in climate change. You and me. Therefore, we have a majority.'"

Lord Deben has worked with every prime minister since the 1980s, and credited David Cameron for his environmental aspirations. "David Cameron was crucially important, both in opposition and as PM. We have to give him real credit, although he didn't pursue zero carbon homes. Theresa May made sure net zero was enshrined in law, and Tony Blair and Gordon Brown pushed legislation. The big failure was that people have been too slow. However, if Boris Johnson does what says on net zero, he may well be the one who makes this succeed."

Turning to the present day and the UK government is following a legally binding policy of achieving net zero by 2050. But is this target good enough or fast enough? Lord Deben said the government needed to create a level playing field for the industry to step up to the plate, but also called on the industry to speak with one clear voice in bringing climate change solutions to the table.

"Industry needs regulations from government, the sort of regulation that means it's fair to compete properly on level playing field," he said. "Procurement policy needs to be absolutely in tune with the government's commitment to fighting climate change. That should mean you don't get the job if you're not meeting the net zero challenge. That said, the industry should be much more vocal and united. It's traditionally never quite been securely single-minded with one voice. It should argue its points internally and then speak with one voice," he said.

But for all the UK's 2050 net zero aspirations, it is obvious that a concerted global effort is vital to save the planet from climate change – with America's intention to rejoin the Paris Agreement and the clear commitments needed from COP26 all highlighted by Lord Deben.

Welcoming the US presidential election result, he said: "It's hugely important. America has rejoined the world. Trump was virtually a lone voice, and he either wouldn't or didn't want to realise that growing numbers of US companies are adapting to climate change, and Joe Biden can carry that baton."

Describing his hopes for COP26, he said: "We need nations to commit to significant net zero improvement. It's a great pity we're not part of the European Union. It's very damaging to leave the EU, but there it is. It looks like US is going to rejoin the global voice, so it's up to us to play our part very strongly.

"I also hope we'll commit ourselves and deliver the money for developing countries to play their part. We have grown rich from creating our own pollution, so we've really got to show COP26 we're going to deliver on our promises to find a solution. We have a moral and practical imperative for doing it," he said.





22 Infrastructure Intelligence | January/February 2021 | Infrastructure Intelligence 23

No net zero without diversity

THE LATEST ZION LIGHTS #GMB Says there are no positives of climate change WEATHER C GLASGOW 16°C CD EDINBURGH 15°C △ ABERDEEN 14°c Environmental activist Zion Lights, who left Extinction Rebellion to campaign for nuclear power.

Technological and financial challenges aside to meeting net zero, Sarah Long discusses why a diverse energy sector is also absolutely critical to success.

he recent decision for the UK's COP26 host team to be allmale has quite rightly angered many climate activists, observers and companies focused on climate action.

Tackling climate change – the largest challenge our society has ever had to face – is not a task for one group; it must be addressed by everyone because it impacts everyone. This requires a change in public perception and an increase of the workforce in the energy sector, by a heightened focus on

Increased diversity brings innovation, different ways of approaching problems and understanding, better decisions, access to the widest talent pool, flexibility, and many different brilliant minds with new solutions. In the energy sector it's key to developing new ideas, building as fast as we can and challenging behaviours and perception.



Sarah Long is a bid and strategy lead at Atkins.

In with the new ideas

As well as building more of what we already have (offshore windfarms, nuclear power stations, biomass etc), achieving net zero means developing new technologies such as energy storage, hydrogen generation, carbon capture and storage (CCS), small modular reactors, and efficient methods for power delivery. Innovative solutions aren't, and shouldn't be, left to one social group to source. Greater diversity brings more innovation and

Breaking out of echo chambers within industries that have traditionally attracted from the same talent pool will bring better decisions and improved problem solving - and as with all new technology, different approaches to risk. And in turn, diverse thinking will bring greater cross-sector collaboration such as looking at the UK's old salt caverns and depleted gas fields in the Irish Sea for hydrogen and carbon storage.

All hands on deck

Over the next 30 years we must replace almost all our current generating capacity (built over 60 years) and build as much again, at an estimated build rate of 9-12GW every year. On the ground, this translates as over 300 offshore wind turbines and three combined cycle gas turbines with CCS every year and one new nuclear power station every five years.

Hundreds of thousands of people will be required to deliver over 300GW of this new infrastructure and these roles should be equally accessible by all - in both the name of equality and for the success and survival of the industry.

With the energy sector ranked eighth out of nine industries in terms of a diverse and inclusive workforce, according to Boston

Consulting Group, we have to do more to attract and retain people. Some of the best and brightest minds are choosing fields such as medicine and education, or to move out of the energy industry and into others where they don't feel alienated, out of place, under-valued or overlooked. We have to address the looming industry skills shortage by ensuring that the industry itself isn't driving people away.

With unemployment levels rising post-Covid-19, this is also an opportunity to retrain and encourage people to join an industry crucial to combating climate change.

Challenging mindsets and perceptions

While admirable and encouraged, personal commitments such as planting trees, cycling, stopping flying, and eating less meat are only a few aspects of this climate revolution.

How the UK generates electricity impacts 100% of the population, and major energy new build projects have inevitable impacts - both actual or perceived - on the environment, landscape and daily lives of the surrounding communities. This is particularly relevant to the nuclear industry which has long been negatively impacted by societal perception. An energy workforce more representative of society is better equipped to empathise and communicate to a broad range of people, in understanding the root of their perspectives, fears and concerns. With this, megaprojects are more likely to garner the support of the public and community, and do enough to alleviate concerns, justify design decisions, and achieve the required permissioning.

This can be done through education, listening and feeling of affiliation with those delivering messages. The more diverse the sector becomes, the wider the audience to include in discussions

and gain approval from. One example is Zion Lights, formerly a spokesperson for Extinction Rebellion and now a pro-nuclear lobbyist – when she speaks, people from different backgrounds, genders and schools of thought sit up and

All of us working in the energy sector have a responsibility to influence others about net zero, and what is required. We're not going to meet climate targets without having a diverse cross section of society doing exactly this. Another crucial element is the involvement of the next generation - this is their future and they must be included in the conversation.

After the COP26 team was announced, the government stated: "The UK is committed to championing diversity and inclusivity throughout our COP26 presidency, and our network of leaders, diplomatic representatives and expert voices reflect this in all of their work." Actions speak louder than words - and solving climate change needs collaboration from a diverse group of people representing all parts of society - so why are some of these voices not at the table?

Read more online at www.infrastructure-



Creating a thriving workplace

New report argues industry can meet emerging generation's strong sense of purpose and values.

roduced by ACE Emerging Professionals as part of their contribution to the Future of Consultancy campaign, the Future of the Workplace report urges the industry to make the most of its pivotal role in building society's future, arguing that it has a unique appeal which can meet the emerging generation's strong sense of purpose and values.

Through a series of in-depth interviews with emerging professionals, business leaders and clients, the report has gathered insights on changing attitudes and aspirations, as well as workplace cultures and internal business structures in the built and natural environment. The timing of the project has also provided a snapshot of how the sector has been adapting – in real time – to the impact of Covid-19.

To help achieve the necessary shift in workplace culture that will ensure the industry can successfully attract and retain emerging professionals, the report proposes a 'Workplace Promise' to clearly establish a baseline for a new relationship which will outline what can be expected from employers. In return, it will also outline what is expected of employees if they are to progress to leadership roles within their company.

Building on the foundations of this 'promise', the report has also outlined eight principles to help create a healthy and thriving workplace and suggested the introduction of 'role families' to develop new promotional pathways. The research recommends a vital role for ACE in supporting all members adapt, but especially for SMEs and around key issues such as diversity and inclusion.

The report was launched at a virtual event chaired by Mark Naysmith of WSP in the UK, featuring a keynote introduction from the then construction minister Nadhim Zahawi MP who hailed the, "important work" and highlighted the, "timely and thought-provoking" findings.

Commenting on the report, ACE chief executive Hannah Vickers, said: "As the designers of society's future, our industry is better-placed than many others to appeal to the best of the emerging generation. We can often meet their sense of purpose



and values through the projects we work on, but where many have struggled in the past is in creating environments which attract, support and retain them."

"We cannot meet the challenges outlined by ACE's Future of Consultancy campaign for a better-connected, technology-first approach to the design, development and operation of the built environment, without the next generation being fully on board."

Commenting on the research,
Georgia Hughes, chair of ACE Emerging
Professionals, said: "We're delighted
to input into the vital debate around
the future of our industry. The report's
findings demonstrate what many already
know anecdotally - if given the right
projects to work on and in the right
environment, emerging professionals are
extremely driven, productive, caring and
passionate, and are a great asset for any
forward-thinking company."

"Our recommendations, including around a new Workplace Promise between employers and the next generation, will help businesses create a framework to fully realise their potential."

Shaping the recovery in Scotland

News of some changes at ACE Scotland, as the industry responds to a major consultation on infrastructure investment.

he Scottish government's Draft
Infrastructure Investment Plan
outlines how future investment
decisions will be made and shares a fiveyear programme of further improvements
in the devolved government's approach.

The consultation addresses four important themes: the inclusion of natural infrastructure, a common investment hierarchy approach, assessing the impacts of proposed infrastructure and assessing the carbon impact of future plans.

Following an expert roundtable with members, ACE Scotland suggested recommendations around natural infrastructure, prioritising re-use over new build investments, including connectivity as a key indicator, and using Collating the response was one of the first jobs for Stephen Munro of Allen Gordon in his new role as ACE Scotland chair. He said: "We're delighted to have been asked by the Scottish government to present the views of industry and input into this consultation. The experiences and knowledge shared by our members means we have made a significant contribution to the development of a successful plan. We will continue to make the case for infrastructure's contribution to Scotland's economic, social and environmental wellbeing, as well as championing its role as a catalyst for recovery."

Members will also be pleased to welcome Karis Thain as head of membership, groups and Scotland. She joins ACE from membership organisation Oil & Gas UK and is currently based in Aberdeen.



New ACE collateral warranty agreements published

The ACE Professional Services Agreement 2017 makes provision for the client to request the consultant to provide, or obtain, collateral warranties for the benefit of third parties.

o help make this possible, ACE has published a new document containing two collateral warranty agreements. The two forms of

standard agreement cater for a Beneficiary when: they are a tenant/purchaser; or if they are a funder, which includes "step in" rights.

Commenting on its release, ACE agreements consultant, Rosemary Beales said: "These two documents are drafted to work "back to back" with ACE Agreements and designed to place no greater obligation on the consultant, than that which is undertaken by the appointment itself.

"The warranties can be used where the applicable law is that of England, Wales and Northern Ireland or that of Scotland. Where a warranty is required these warranties provide the appropriate benefit to third parties whilst preserving the consultant's position under the agreement entered into."

The price for the new Collateral Warranty Agreements, which are currently exclusively available in a printed version, are £22.00. As always, ACE members have a 50% discount on all ACE agreements. Explore the full range on our site at www. acenet.co.uk/agreements



Out of adversity comes opportunity

By any assessment, the past 12 months have been unprecedented. *Hannah Vickers* reflects on a tumultuous 2020 and looks ahead to recovery.

s I write this, the media are discussing the arrival of the first batch of coronavirus vaccines. Welcoming them to our shores does not mark the end of the crisis by any means, but it does feel like an opportune moment to reflect on what has been – by any stretch of the imagination – an extremely difficult, busy and, at times, sad nine months.

As individuals we've become somewhat numb to the numbers, but many have lost family members, friends and neighbours to the virus. The truth is more will as the vaccination programme is rolled out next year. While we have successfully shut down, then partially reopened, our economy in a bid to slow the march of the disease, what have been the unfortunate side-effects of this decision? Even within our industry – which is better insulated than many others – we have already had to take difficult decisions. It is all too easy to forget the human cost to this crisis.

However, out of adversity comes opportunity and our industry has largely responded well. In spring and summer, we successfully transitioned to working from home and many shared their expertise to support the building of a network of NHS Nightingale hospitals across the UK in record time. We also laid the groundwork to play a huge role in our national recovery in 2021.

Through forums like the Construction Leadership Council, we started to shape concepts that would later become part of the foundation for recovery. Ideas around "building back better" have since been encapsulated in the prime minister's Build, Build, Build speech, his ten-point



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

plan for net zero, as well as the chancellor's infrastructure strategy and Project Speed.

These major speeches and announcements – many of which have successfully cut through to the general public – demonstrate a strong appetite for a construction-led recovery from the government.

The truth is there are a number of obstacles still in our way. We need more progress and transparency on the national pipeline of projects. We need local authorities, LEPs and devolved bodies to be empowered, confident and financially supported to make major investment decisions. We need progress on the levelling-up agenda – an area where the political rhetoric sometimes runs ahead of the reality on the ground. We need expectations on net zero to be better articulated.

However, government support for practical programmes such as the ACE spearheaded Construction Talent Retention Scheme, does demonstrate a sophisticated grasp of the issues we face. This productive working relationship will continue to bear fruit for our members in 2021.

As the vaccination programme rolls out in the first quarter, political momentum will naturally turn to encouraging recovery. We all want to "build back better" but the question now has to be, how can we make this happen?



The construction industry is seen by government as the foundation for recovery.

Upping the policy pace on climate change

With environmental announcements taking place on a seemingly weekly basis, *Matthew Farrow* considers the giddying acceleration of the government's ambition in this area.

Te've got so used to announcements on climate change policy recently that it's difficult to fully comprehend the sheer scale of what is being talked about and the pace at which the policy landscape is shifting.

Once upon a time, back in the 2000s, the UK aspiration was to reduce carbon emissions by 60% by 2050 and at the time this was seen as extraordinarily ambitious. It was then a big deal when the Climate Change Act both made the target legally binding and increased it to an 80% reduction - many argued this would destroy the UK economy and business competitiveness. Eighteen months ago, that 80% target was replaced by the net zero target which in turn means achieving the 80% cut by 2035 – a full 15 years earlier than planned.

This giddying acceleration of ambition has been driven by three things. First the desire of Theresa May and now Boris Johnson to be remembered for more than how they handled



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

Brexit and Covid. Second, the economics has been shifting with both the rising costs of dealing with the changing climate and the falling cost of renewable technologies becoming increasingly apparent. And third, business has reached a tipping point where most CEOs are falling over themselves to be on the right side of the argument and this gives politicians cover to be bold.

The end of last year saw a flurry of announcements as the government grasped the scale and urgency of the task ahead. At the time of writing, net zero strategies for transport and heat and hydrogen are also promised for early 2021, but the truth is we have barely started on the task of developing a realistic net zero policy framework, certainly outside energy policy.

Our recent EIC/ACE report *Net zero:* are we ready shows that for infrastructure there are still no real links between the high-level targets and ambitions and the day-to-day policy tools such as national policy statements, environmental impact assessments and the national policy planning framework.

In particular, we are going to have to create a sub-regional spatial planning framework to address issues such as which areas will be hydrogen and which electrification-led, but the recent planning reform proposals actually go in the opposite direction, with the intention to abolish the 'duty to cooperate' between local authorities. Our analysis also showed a range of granular problems at sector levels such as different sets of regulations conflicting or client business models simply not being compatible with the direction of travel.

The other clear message from our report is that the skills of the consultancy sector are going to be more vital than ever. In the next ten years we need hundreds of thousands of individuals to be running businesses and organisations differently, procuring differently, planning differently. Many of them will turn to our sector for guidance and advice on what they need to do - and we need to have the skills and services ready to help them.



Passionate about places

Clear placemaking vision and effective community engagement should be vital parts of the planning process, says Victoria Hills, CEO of the Royal Town Planning Institute. Rob O'Connor reports.

he concept of 'Total Planning', with a clear placemaking vision and effective community engagement, emerged as a key theme at one of the popular autumn series of ${\it Infrastructure\ Intelligence\ Live\ events\ late\ last\ year.}$

An exclusive live online interview with Victoria Hills, chief executive of the Royal Town Planning Institute, also emphasised the essential role of social value and continued industry collaboration if 'building back better' was to be an effective part of any post-Covid recovery. Hills, one of the most high-profile women leaders in construction, is passionate about planning great liveable places and has an unrivalled insight into London's governance, having worked for all three London mayors.

As a former chief executive of the Old Oak and Park Royal Development Corporation, she also drove forward the early stages of the transformation of the Old Oak and Park Royal opportunity area and previously was head of transport for the Greater London Authority.

In a wide-ranging conversation with *Infrastructure* Intelligence editor Andy Walker, Hills explained her initial motivation for planning and placemaking. "I've always been interested in people and places, and why places came to be where they are," she said. "I specialised in transport and a passion for placemaking developed from there, a real passion for development and how things knitted together," said Hills.

Outlining her own five-point plan for effective placemaking, Hills described her philosophy of 'Total Planning'. "There's five things to emphasise," she said. "You need strong political leadership, strong local leadership with a chief planning officer at the heart of any decision making, proper resourcing with professional staff, vital funding in place and, perhaps most importantly, you need to have the

"Faster better, greener. It sounds great, but how can the planning system support that? Where there's a will there's a way."

Read more online at

Victoria Hills, CEO of the Royal Town Planning Institute



community on board with your plans. All five together are vital for effective placemaking," said Hills.

Describing the overhaul of the "outdated planning system" that the government announced in the summer, Hills said: "I don't think I've seen planning higher on the political agenda than it is now. There's a big culture change on the table here. We've made it very clear that recent planning successes have been delivered within existing

> Click here to watch the interview with Victoria Hills.



frameworks, and we're happy to work with the government, but we're making the case for proper resourcing, and implementing change rather than any 'big bang' change."

Asked whether the government's proposals were not currently joined up enough, Hills replied: "We've currently got a strongly centralised strategy, but what about the bit in the middle? What we really need is to be bring all the players together - local, regional, transport, housing, environmental to pull all the infrastructure together and get the strategy right. It's about getting the right people around the table and getting things done."

The government says it wants to build "Faster better, greener". It sounds great, but how can the planning system support that? "Where there's a will there's a way," said Hills. "There's an urgent need to get on and provide much more social housing. There's a huge opportunity to focus on building the right homes in the right places, but we need more ambitious targets and policy to deliver homes to meet net zero. And making sure that including social value into procurement that saves billions of pounds down the line and improves people's lives would make so much sense," she said.

Hills said that it was crucial to put a place-based vision right of the heart of every project. "The business case is a lot more robust and scrutinised now – it has to maximise the benefits of jobs, homes and communities, rather than just cost benefit ratio. How you value things is going to be a game-changer.

"Added value and placemaking is increasingly important. Invest properly, and you can save billions downstream. It's an exciting time and everyone can win if they work together," said Hills.

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.

















Join the national body powering infrastructure exports

Infrastructure, capacity building and international development

britishexpertise.org



Working in partnership with

























