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## INFRASTRUCTURE Intelligence





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#### **Message from** the editor



his edition of *Infrastructure* Intelligence has a strong focus on the government's long-awaited levelling up white paper Launching the paper, minister Michael Gove outlined 12 "bold missions" which he claimed would shift focus and resources to Britain's 'forgotten' communities. So, can the government deliver on its promises?

The early signs are not so good. Industry reaction to the white paper was mixed, with the prime minister's flagship programme variously described as "a missed opportunity that fails to spread opportunity across UK" and criticised for setting one part of the UK against another.

More regional devolution is being promised by the government as a key part of levelling up and the white paper recognises this cannot be delivered by Whitehall alone. The National Infrastructure Commission has welcomed steps to broaden devolution to empower more local leaders to develop tailored infrastructure plans as part of their growth strategies. However, words are cheap and the government needs to shift control from Westminster to the regions.

It's likely that the elected metro mayors will have a key role to play in this regard, especially in the area of transport, but this will mean major reform to the way that local transport funding is allocated. Having local councils and city regions bidding against each other for small pots of cash is no way forward - we need to see long-term devolved funding deals that make a difference.

Despite all the hype around levelling up, it's real delivery on the ground that will make a difference and, as ever, the proof of the pudding will be in the eating.

#### Andy Walker,

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## TfN appoints former transport secretary as new chair

"I'm pleased to be able to welcome Lord

McLoughlin to Transport for the North

experience in transport and the public

sector, which I know will put him in good

stead for this challenging and important

New Transport for the North chair,

Lord McLoughlin, said: "I believe firmly in

the potential of the north of England and

professional career just how vital reliable,

know from my personal experience and

cost-effective and sustainable transport

is to people and business. I have followed

the work of TfN since the start. I was

transport secretary when it was set up

and so I am delighted to be the new chair

of this passionate, dedicated and visionary

as our new chair. He has a wealth of

he north's political and business leaders have approved the appointment of Lord Patrick McLoughlin as the next chair of the Transport for the North (TfN) partnership board and main board.

Lord McLoughlin (pictured below) has had an extensive career in UK politics for more than 30 years, serving as MP for Derbyshire Dales between 1986 and 2019. His experience in government included two years as government chief whip from 2010 to 2012, two years as chairman of the Conservative Party and chancellor to the Duchy of Lancaster from 2016 to 2018 and four years as secretary of state for transport between 2012 and 2016.

He joins the regional sub-national transport body at a crucial time, with the organisation moving to a co-sponsor role on Northern Powerhouse Rail while seeking to secure continued investment in the region's transport infrastructure to aid levelling up and boost economic growth.

Louise Gittins, interim chair of Transport for the North, said:

organisation.

"A key focus for the TfN board remains the need to press the case as to why its preferred approach to Northern Powerhouse Rail remains fundamental to securing the long-term economic future of the north. The government's Integrated Rail Plan goes against the best interest of people in the north and fails to deliver the step-change in rail services that is the only sustainable, long-term solution."

CLC seeks new co-chair as Mitchell steps down



he Construction Leadership Council (CLC) is looking for a new co-chair after announcing that Tideway CEO Andy Mitchell (pictured above) will step down from his position in spring

Mitchell co-chairs the CLC alongside minister for business and industry Lee Rowley MP. He was originally appointed in October 2018, since when he has lead the organisation and indeed the construction sector through the Covid pandemic, in the process firmly establishing the CLC as the key body driving change across the sector.

The CLC was created in 2013 to work between industry and government to identify and deliver actions supporting

UK construction in building greater efficiency, skills and growth. The cochair role provides overall leadership and coordination of the CLC and is appointed by the industry and the Department for Business, Energy and Industrial Strategy.

Andy Mitchell commented: "I am extremely proud of what we have achieved together in the last three years. It is clear that not only did we play a major role in leading the industry through the pandemic but in the process, we have managed to get a unity and coherence in the industry not seen before. We are now, with credibility and confidence, laying out plans for the industry's development in the future. With a little over 18 months to go before we start commissioning on Tideway, it is right that I now dedicate my full focus to the project, but I wish the CLC the very best for the future."

Expressions of interest for the co-chair role should be emailed to construction. enquiries@beis.gov.uk The deadline for applications is Thursday 31 March 2022.

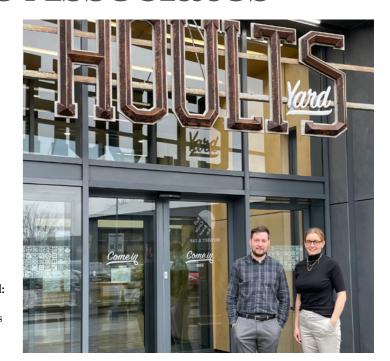
### First office outside Scotland for David Narro Associates

Associates (DNA) has continued its expansion by opening a new office in Newcastle, its first location outside Scotland. The DNA office in Newcastle is the firm's sixth and is based at Hoults Yard in the Quayside and Ouseburn area of Newcastle.

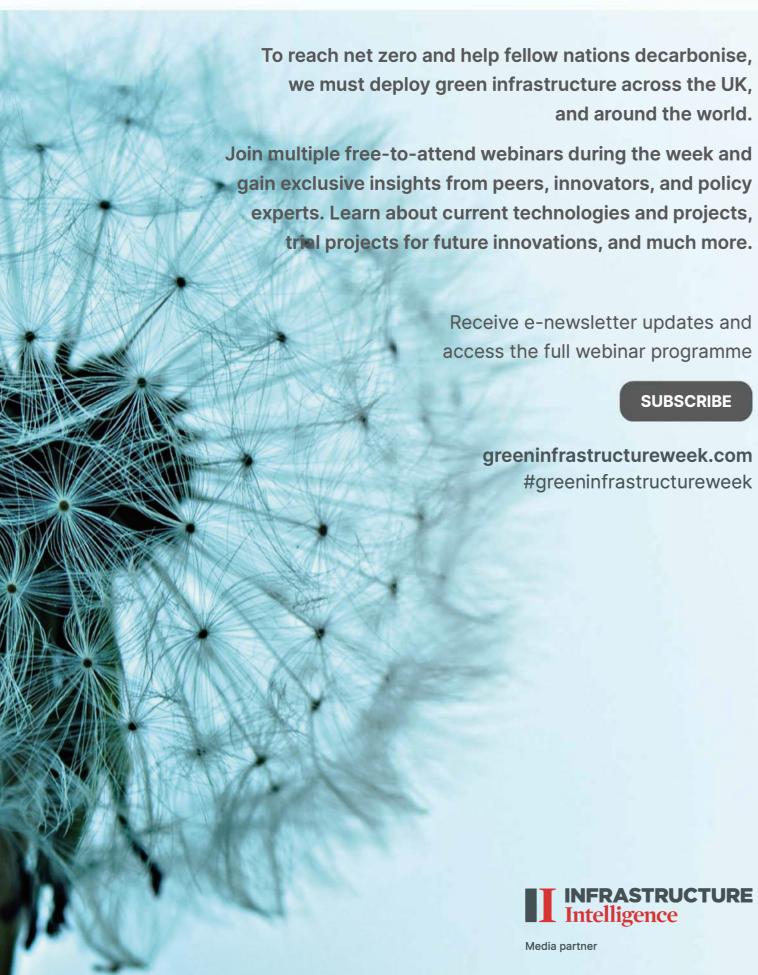
DNA is joining an eclectic mix of small and medium enterprises at its new location, including architects, other engineers, environmental consultants, PR and marketing agencies, artists, charities, film and media companies. The new space will be an ideal base from which to grow the practice in the north east of England and further afield and the new DNA team in Newcastle has hit the ground running with a broad range of projects already on the go.

Working from the Newcastle office will be senior engineers Bill Calder and Jennifer Hogarth (pictured right outside the new office). Calder has a keen interest in conservation and architectural engineering while Hogarth, who has worked in the north east for some years, brings established contacts in the area as well as extensive experience in residential properties and multi-storey buildings.

David Narro Associates' managing director, Ben Adam, commented: "I'm delighted that the Newcastle base is opening, as we've been considering expanding our presence to England for some time. There's a great surge of development in the region, which ties in really well with the architectural engineering side of our business."







## Scottish government confirms takeover of ScotRail

The Scottish government has hailed a "new beginning" for ScotRail as it confirms a move to public ownership for the national train operator.

he Scottish government has confirmed that all ScotRail services will transfer into public ownership from 1 April 2022. In a statement to the Scottish parliament on 9 February confirming the transition, transport minister Jenny Gilruth also invited elected members and rail unions to take part in a national conversation on the future of rail services, to help shape the creation of "an affordable, sustainable, customer focused rail passenger service in Scotland, in a post pandemic world".

Gilruth said she was also looking forward to working closely with wider partners including women's organisations and the British Transport Police to improve the public transport system, make it safer and build on the work already underway.

Speaking at Holyrood, Gilruth said: "I can confirm that the transition of ScotRail into Scottish government control will take place on 1 April 2022. Whilst that's good news, it's clear that much work still needs to be done - and in a collaborative way - to ensure the long-term sustainability of rail operations in Scotland, to best meet the needs of the people we all represent.

"I want to kick-start a national conversation about what our new beginning for ScotRail should look like - an affordable, sustainable, customer focused rail passenger service in Scotland in a post pandemic world. I invite all



members who have a genuine interest in the future of ScotRail, to get involved and work with me to shape the change that needs to happen."

Gilruth said that rail staff had a vital role to play in shaping and delivering a successful future railway for Scotland and praised their work in going above and beyond throughout the pandemic. "We want to take all of ScotRail's staff with us on this journey into Scottish government ownership. That's why this invitation is also extended to the rail unions. We know the unions are passionate about the industry, and through open and frank discussion we can work together to harness that aspiration for the future," Gilruth said.

Responding to the news, the Railway

Industry Association (RIA) called for a swift and seamless transition to the new ownership structure. RIA Scotland head, David Clarke, said: "RIA and our members urge that the transition to the new structure is made as seamless as possible, so rail suppliers can continue to deliver effectively, to time and budget, without any hiatus in work.

"Rail suppliers across Scotland and the UK support thousands of jobs and drive investment and economic growth and have the capabilities to build a net zero railway. As the Scottish government delivers these changes, it is important it prioritises engaging closely with the supply chain, which plays a pivotal role in building, maintaining and upgrading the country's rail network."

Social value Social value

## How SMEs can win more work using social value

SMEs would do well to familiarise themselves with the Social Value Model because it contains many measures that place smaller firms at an advantage when bidding for public work, says Thrive's Neil Macdonald.

mall businesses aren't exempt from the need to demonstrate social value when they bid for public contracts. And an SME that finds itself in competition with the big players is certainly not at a disadvantage. In fact, the Social Value Model goes a long way to level the playing field, giving the edge to SMEs in a lot of areas as well as making it easier to partner with Tier 1 and 2 contractors.

The government's Social Value Model has brought muchneeded clarity to the question of what counts as social value and how should it be dealt with in public procurement. It helps explain the rules stated in government procurement policy note PPN06/20, which specifies that a minimum of 10% weighting be given to social value in decisions to award central government contracts.

SMEs are given particular prominence in a number of areas.

- Covid-19 recovery under MAC 1.3 "Supporting organisations and business to recover".
- Tackling economic inequality under MAC 2.1 "Create opportunities for entrepreneurship and help new organisations to grow, supporting economic growth and business creation".
- Tackling economic inequality under MAC 3.1 "Create a diverse supply chain to deliver the contract including new businesses and entrepreneurs, start-ups, SMEs, VCSEs and mutuals".

So, contracting authorities are obliged to give equal consideration to bids from organisations of these types when assessing social value, because it is government policy to ensure that they are fairly represented in public procurement

The wording of MAC 3.1 says this very clearly, stating "whether as prime contractors or within the supply chain, it is essential that [small businesses] have the

same opportunity to tender for and, where appropriate, win government contracts as other firms". It is particularly important to highlight that point about "within the supply chain".

SMEs that embrace social value are in a strong position, even when they're not bidding for public contracts directly. That's because they can help large Tier 1 and 2 contractors to meet their social value obligations and that can be a big plus point when it comes to winning business further down the supply chain.

#### advantage?

Social value is all about the additional benefits brought to a local community or environment as a result of projects being carried out there. SMEs' positions in their communities are a big plus here. Small businesses tend to hire locally and many contracts will specify increasing employment in affected areas as an objective. Locally focused SMEs will be providing all of their employee training, apprenticeships and work experience opportunities in those areas as well.

SMEs are also frequently deeply

So, with contracting authorities required to give at least 10% weighting to social value considerations in awarding contracts (and many giving more), these points go a long way to counterbalance the big players' strengths when in direct competition.

But when looking for sub-contract work, by making it easier for primary contractors to quantify the value of

How does social value give SMEs an

embedded in their communities sponsoring events, engaging with local business associations making it easier to be responsive and consultative in designing and delivering projects. Crucially, SMEs tend to have relationships with other local businesses, which is advantageous in diversifying project supply chains. National and international organisations would need to spend considerable time and money to replicate these factors which simply flow from being an SME! Measurement is also harder for huge companies that don't have immediate visibility over all their activities.

Click here to find

out more about how

to use the Impact

Evaluation Standard

to measure and

report your social

supply chain activities, SMEs that have a clear view of their contribution to larger projects will find themselves singled out as preferred partners.

#### How the Impact Evaluation Standard helps SMEs win with social value

Notwithstanding all the above, many SMEs don't realise just how much the Social Value Model stacks things in their favour. In fact, some see it as red tape - another box to tick - that benefits contractors with dedicated bidding expertise. That's not the case.

The Social Value Model goes to great lengths to help SMEs understand what they need to report on by providing a list of some 52 different metrics. Even so, some of these can be hard to put into practice. The language used is often quite abstract. It can be hard to see how many of the things your business is already doing could be classified as social value.



**Neil Macdonald** is the chief executive of online software platform and consultancy Thrive. If you believe your business could benefit from social value support or measurement, you can contact Neil at neilm@ thrive-platform.com

That's where a framework like the Impact Evaluation Standard is invaluable. It digs down further into the Social Value Model's metrics to give a comprehensive 109 metrics, along with robust proxy values for all of them. This makes it very simple to translate non-monetary benefits into valid, recognised cash equivalents.

Just consider some of the areas that SMEs can report on.

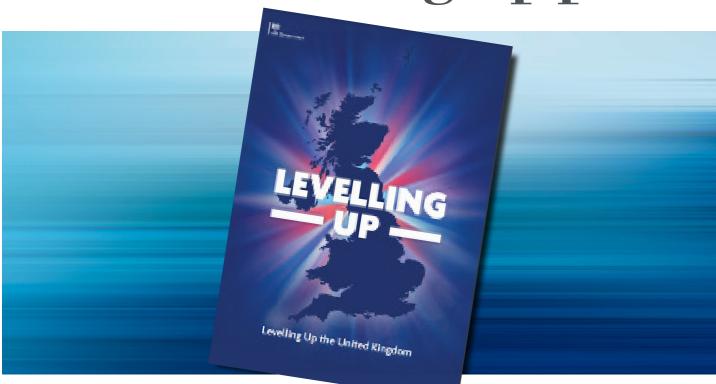
- Jobs, apprenticeships, or other recognised training places created and/or completed.
- Work experience hours and placements offered.
- Learning interventions (mock interviews, mentoring, CV advice, etc) provided.
- Steps taken to treat suppliers fairly and pay them on time.
- The value of subcontracts awarded to other SMEs.
- Enhancements made to the natural environment in the course of delivering the work.
- Reductions in waste and improvements in recycling.

And that's just the tip of the iceberg. The social value revolution is a massive opportunity for SMEs to help make their environments and communities stronger and more resilient, as well as accessing a larger share of public spending themselves.



Levelling up Levelling up

## Government unveils longawaited levelling-up plans



More regional devolution will be a key part of levelling-up, say the government, but Labour claims the plans contain no new money and no fresh thinking, writes *Rob O'Connor*.

he government finally unveiled its long-awaited levelling-up white paper in the first week of February, outlining 12 "bold missions" to shift focus and resources to Britain's forgotten communities.

The largely aspirational strategy, unveiled by levelling up secretary Michael Gove, will take until 2030 to achieve and aims to improve services including housing, broadband and transport, plus a potentially major shift in power to the English regions.

Many of the 12 missions are existing government policies, with funds already allocated to them, but Gove says they will be enshrined in law for the first time.

Although broadly welcoming the aims of the white paper, the infrastructure and consultancy sector gave a decidedly mixed response to the much-delayed plans (see pages 12 & 13), with concerns raised on policy and financial clarity and an alarming lack of emphasis given to climate change.

Industry wise, the 12 key aspirations include a 40% public investment increase in research and development, improved local public transport connectivity, nationwide gigabit-capable

broadband and 4G coverage, with 5G coverage for the majority of the population, key changes to regional housing funding and what ministers are describing as the biggest shift of power from Whitehall to local leaders in modern times.

However, the Labour Party said the plans contained no new money and little fresh thinking, with shadow levelling up secretary Lisa Nandy accusing Gove of "rehashing" plans for his white paper, "some of which are so old they were actually originally made by Gordon Brown when he was the Labour prime minister back in 2008".

A key change in housing will see the current '80/20 rule' scrapped. The rule, which leads to 80% of government funding for housing supply being directed at 'maximum affordability areas' - in practice, London and the south-east - will be scrapped, with much of the £1.8bn brownfield funding instead being diverted to transforming brownfield sites in the north and Midlands. The metro mayors will be allocated £120m of this funding.

And the proposals could see a

potentially huge shift of power from Whitehall to local leaders throughout the English regions. The government says that it recognises that if it tries to level up the UK alone it will fail – a clear recognition of strong local leadership by mayors including Andy Street (West Midlands), Ben Houchen (Tees Valley) and Andy Burnham (Greater Manchester), with the government keen to replicate this success across England.

As a result, the government has invited the first nine areas to agree new county deals to begin negotiations for a new mayoral system. The nine areas will be Cornwall, Derbyshire & Derby, Devon, Plymouth and Torbay, Durham, Hull & East Yorkshire, Leicestershire, Norfolk, Nottinghamshire & Nottingham and Suffolk.

The white paper also announces negotiations for a new mayoral combined authority deal for York and North Yorkshire and an expanded mayoral combined authority deal for the north east, as well as negotiations for 'trailblazer' devolution deals with the West Midlands and Greater Manchester to extend their powers - with these deals acting as blueprints for other mayoral combined authorities to follow. By 2030, say ministers, every part of England that wishes to have a 'London-style' devolution deal will have one.

Levelling up secretary Michael Gove said: "Not everyone shares equally in the UK's success. For decades, too many communities have been overlooked and undervalued. As some areas have flourished, others have been left in a cycle of decline. The UK has been like a jet firing on only one engine.

"Levelling up and this white paper is about ending this historic injustice and calling time on the postcode lottery. This will not be an easy task and it won't happen overnight, but our 12 new national levelling up missions will drive real change in towns and cities across the UK, so that where you live will no longer determine how far you can go."

But, reacting to the proposals, Lisa Nandy, Labour's shadow secretary of state for levelling up, said: "This is deeply deeply disappointing. There is no new money, no new powers. For all the slogans, when it comes to delivering, all we get is a government out of ideas and out of energy. We deserve so much more ambition than this. Ministers have had two-and-a-half years to get this right and all we've been given is more slogans and strategies, with few new ideas"





Minister for levelling up Michael Gove and his Labour shadow Lisa Nandy.



# Industry gives mixed response to levelling up white paper

The government's long-awaited levelling up white paper has received a decidedly mixed response from the construction and infrastructure sector.

he government's keenly anticipated levelling-up white paper (see pages 10/11) received a very mixed response from a range of leading industry figures when it was finally unveiled in early February. Despite being launched in a blaze of publicity, the prime minister's flagship programme was variously described as "a missed opportunity that fails to spread opportunity across UK" and criticised for setting one part of the UK against another.

Below, we have included an edited selection of opinion on the white paper that landed here at Infrastructure Intelligence.

Click here to read a further selection of industry responses, which first appeared online at Infrastructure Intelligence on 2 February 2022

Opinion Opinion



#### Guto Davies, head of policy at the Association for Consultancy and Engineering (ACE), said:

"While the 12 national missions are welcome to drive activity and ensure spending remains both targeted and on track, they are nothing without properly structured long-term financing for local government to realise these political ambitions. We do, however, welcome the longer-term view on levelling up. The truth is there is no panacea and only sustained investment over the longer-term will address systemic and chronic issues. ACE is looking forward to continuing its role as a practical partner on levelling up and will engage with the government on the forthcoming levelling up and regeneration bill which was previewed in the white paper."

### Gillian Charlesworth, CEO of the Building Research Establishment, said:

"Local authorities will need clear support and direction if they are to deliver high quality housing within the community, but how in practice this can be achieved was missed by the white paper. Another key area of opportunity missing from the paper is a clear and long-term plan for decarbonising our buildings and training the hundreds of thousands of retrofit workers needed to deliver net zero. Measures that support a clear and effective plan to improve the quality and sustainability of the UK's housing stock should be at the forefront of the government's levelling up agenda, but the white paper signals a missed opportunity to outline this."

#### Sir John Armitt, chair of the National Infrastructure Commission, said:

"We now have a clearer idea of what the government means by levelling up and it is ambitious in its scope and aims. We need an equally ambitious implementation programme if we want to achieve tangible change in the space of eight years. The white paper recognises this cannot be delivered by Whitehall alone and we welcome steps to broaden devolution to empower more local leaders to develop tailored infrastructure plans as part of their growth strategies. But this needs to be matched by urgent and fundamental reform of how local transport funding is allocated, with a shift from short term funding pots over which councils bid against each other, to long-term devolved funding deals."



#### Andrew Jones, AECOM cities programme leader, said:

"Whilst 2030 is setting the stall out for a long-term plan, it doesn't go far enough to recognise that we need a generational strategy if we are to truly level up the country. The success of its missions will depend on local and devolved administrations having the resource and skills to achieve what's possible. Cash-strapped local authorities have insufficient numbers of experienced staff to make the case for and then deliver new schemes. They will need support."



### Stefanie O'Gorman, director of sustainable economics at Ramboll, said:

"While the ambition of the levelling up white paper is welcome, the piecemeal nature of the funding falls short of delivering the transformational change needed to create future-proofed liveable places. Investment must be strategically deployed to create longterm value. However, instead of providing a holistic, national strategy which local areas can tailor to their needs, the burden has been placed firmly on local authorities in a bunfight for funding. Climate resilience and adaptation is glaringly absent from the levelling up white paper. Climate resilience and decarbonisation strategies must be embedded into public realm schemes from the outset if they are to be called a success."



#### Richard Bonner, city executive for the north at Arcadis, said:

"Overall, Arcadis welcomes the overarching ambitions of the levelling up white paper and the direction and support towards our great northern cities and towns. More broadly, while there is much to celebrate in the white paper, we look forward to seeing greater clarity on funding and how that funding will be implemented to deliver what has been promised effectively and in line with the ambitious targets set."



**Opinion**Devolution

## Levelling up white paper won't deliver real change

Despite the hype, the government's levelling up white paper falls way short of what's needed to deliver real change, says think tank boss *Sarah Longlands*.

s an organisation with a keen interest in and focus on improving the health and vitality of local economies, the Centre for Local Economic Strategies (CLES) has much to say about the government's levelling up white paper. Crucially, we believe that the document falls far short of the six tests we set ahead of its release.

Firstly, on its purpose. Levelling up is, at long last, evolving from a catchy electoral slogan and we now have an emerging basket of indicators for success. But it's not yet clear how these national ambitions will translate into local delivery which supports opportunities for everyone and there is nothing in the indicators about addressing wealth inequality or poverty.

Secondly, money. New analysis shows that previously announced levelling up funding is going to the wrong places, with local and combined authorities having to complete endless application forms



Sarah Longlands is the chief executive of the Manchesterbased Centre for Local Economic Strategies.



to Westminster. Further clarity is needed on how funds will be allocated going forward to ensure that the poorest and most deprived areas are given priority.

Thirdly, on jobs. The ambition set out in the white paper to increase pay, employment and productivity fails to recognise the urgent need to protect the lowest paid and most vulnerable in our jobs markets. Previous government interventions here – such as freeports – have done little to deliver decent jobs to the local people who need them the most.

Fourthly, ownership. To deliver on its promises, levelling up must enable business growth that supports local forms of enterprise, with ownership structures that retain wealth and opportunity for the benefit of local people. Continuing to enable big business to extract money from communities will only continue to drive down living standards and life expectancy rather than helping people to live good lives.

Fifth, devolution. The introduction of new mayoralties is welcome, but the success of new devolution arrangements will only be as good as the foundations upon which they are built. Powers and freedoms remain limited to those which enable the attraction and retention of investment, typically from larger global investors.

Finally, local government. The white paper, yet again, fails to acknowledge the hard graft of local authorities in supporting local economies that work for their places. The government must prioritise a clear and stable settlement for local government finance going forward, to rebuild the basic foundations for levelling up – including decent public health, social services and planning.

Even with 332 pages to fill out the detail, and after two years of hype, the levelling up white paper lacks the focus and finance to get to the root of the problem – and that is an economic system which fails to give people a stake in their local place through, for example, decent work, housing and transport. This inequality, made worse by the pandemic, is what is driving down living standards and life expectancy rather than helping people to live good lives.

The government's levelling up white paper doesn't offer a coherent roadmap for economic change but a scattering of special projects which together will do little to alleviate the challenges faced by those who have not only been left behind but kept behind for decades.

## Convention of the North calls for levelling up collaboration

Latest Convention of the North event calls on the government for firmer investment commitments to facilitate economic growth and social transformation.

focus on collaboration, accelerated devolution of powers and funding and ending competition between northern cities and towns and other parts of the country were the main messages from the third Convention of the North held on 8 February 2022 in Liverpool.

The event brought together northern civic, business and community leaders including metro mayors, local enterprise partnership chairs, third sector leaders and politicians to participate in discussions to deliver concrete plans for the north and its post-Covid recovery.

Secretary of state for levelling up, housing and communities, Michael Gove, delivered the keynote speech which focussed on the importance of the north playing its part in a national effort to tackle regional inequalities through more devolution and the empowerment of accountable local actors working in the interests of the north on behalf of both public and private sectors.

He said: "Wherever you stand on the political spectrum, and wherever your background comes from, levelling up has to be the central economic and social and moral mission. We simply can't go on with the gulf between rich and poor, north and south growing. It's not simply a matter of social justice. It's also a matter of economic efficiency.

Steve Rotheram, mayor of the Liverpool city region, said: "Today has been a really important opportunity for leaders across the north to come together and speak with one voice and for Michael Gove to listen. Our message to his government is crystal clear - levelling up can't be delivered from the top down so work with us to make it happen.

"Levelling up has to be about more than shiny buildings and promises of big investment. It has to be about improving people's life chances, delivering opportunity for long-forgotten places and righting long-term systemic regional inequalities. A strong north is good for London and for UK plc too. We have the blueprint for the brighter, fairer, more successful country that we are all fighting for – now we need government to back us to help make those plans a reality."

Sir Roger Marsh, chair of the NP11 group of 11 northern local enterprise partnerships, said: "We have all the ingredients, recipe and resolve needed to drive the north's renaissance - strengths in net zero and low carbon industries, life sciences, digital and advanced manufacturing.

"But to be truly effective we need to have the right tools made available to all of our region's leaders so that we can all contribute positively to the country's balance sheet. The levelling-up agenda sheds some light on how this might be achieved but we also need further, firm commitments for long-term investment in the north. The prize for this investment will be economic growth for social transformation."



Levelling up secretary Michael Gove (centre) and Liverpool city region mayor Steve Rotheram (centre, right) at the Convention of the North event.

## Green Infrastructure Week to highlight UK's net zero pursuit

Green Infrastructure Week from 25-29 April 2022 will champion the need for investment in sustainable infrastructure.

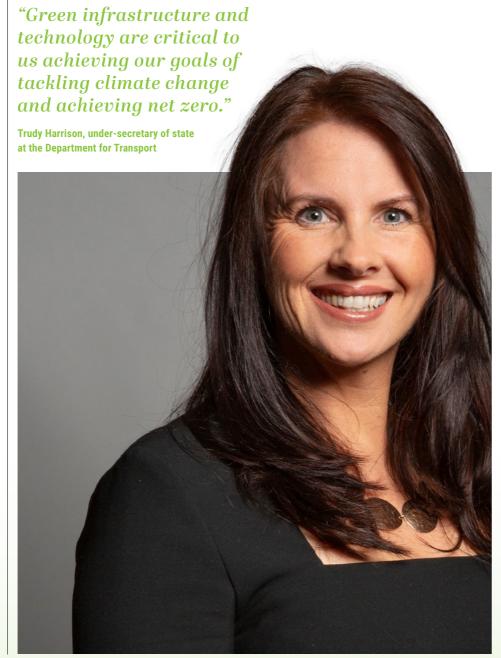
🕇 he inaugural Green Infrastructure Week is taking place from 25-29 April 2022 and is set to be an annual event. Sponsored by AECOM it is supported by dozens of partners including the Association for Consultancy and Engineering, Anaerobic Digestion and Bioresources Association, Carbon Capture & Storage Association, Energy Networks Association, Innovate UK, Nuclear Industry Association, UKRI, World Biogas Association, Make UK, Zemo Partnership and BEAMA. Infrastructure Intelligence and World Hydrogen Leaders are the week's two media partners.

Green Infrastructure Week highlights the British technologies that will be used to deliver the biggest gains in the global transition to net zero. It will deliver insight and commentary for the whole ecosystem of people and organisations involved with green infrastructure, from private and public sector buyers to developers and investors, regionally, nationally, and internationally.

#### **Exclusive webinar programme**

The week will play host to over 20 free-to-attend webinars where attendees can gain exclusive insight from peers, innovators, and policy experts - helping the marketplace learn about technologies and projects today, trial projects for future innovations, green finance and much more.

Each day will start with a keynote webinar looking at one aspect of the government's ten-point plan for net zero, including hydrogen, nuclear, transport,



green finance and offshore wind. (see promotion right).

Ambassador for Green Infrastructure Week and undersecretary of state at the Department for Transport, Trudy Harrison, said: "Green infrastructure and technology are critical to us achieving our goals of tackling climate change and achieving net zero, and Green Infrastructure Week will bring together and showcase the world-class ability we have within our research, science and engineering sector that will help drive us towards our

"Whether you are in the supply chain for Britain's nuclear energy programme, involved in rolling out EV charging infrastructure, or carbon capture and storage, or renewable energy, or any other part of the government's ten point plan, I am encouraging everyone to get involved and I am proud to be an ambassador for Green Infrastructure Week."

#### Society needs net zero and green infrastructure will deliver it

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

Why are governments opting for 2050? Because green infrastructure will be the workhorse of net zero and green infrastructure programmes take time and some require billions of pounds in investment.

Former BBC science editor David Shukman said: "Getting to a net zero world to head off the worst of climate change simply won't happen without the right foundations. And the challenge of designing and building them is on the scale of when the UK's railway network was first laid out during the industrial revolution. So, Green Infrastructure Week is a vital forum for exchanging ideas about the big ideas and essential investments needed to get us onto a cleaner pathway."

#### Why is Green Infrastructure Week important?

The green industrial revolution underpinned by the ten-point plan will mobilise £12bn of government funding and require £36bn of private investment to deliver. Prime minister Boris Johnson said: "We will turn the UK into the world's number one centre for green technology and finance, laying the foundations for decades of economic growth."

Green Infrastructure Week is aligned with the government's position and will highlight world-class skills and services in research, science and engineering and also recognise the technologies already moving at pace.

The challenge is to not only deliver green infrastructure in the UK to reach net zero, but to sell on the international stage to drive the economy and global decarbonisation - in a global market anticipated to be worth several hundred billion pounds by 2050.

To keep up to date with Green Infrastructure Week news and webinars you can sign up for e-updates at www.greeninfrastructureweek.com



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## Embracing disruption in construction

Digital software specialists Deltek and *Infrastructure Intelligence* have published a ten-point plan to help companies embrace disruption and succeed in 2022.

new industry white paper outlines a ten-point plan identifying the key challenges and strategies for success arising from increasing disruption across the construction industry.

Published by *Infrastructure Intelligence* in partnership with digital technology specialists Deltek, *Embracing Disruption in Construction* includes insights from leading industry specialists from Turner & Townsend, Civic Engineers, Sutcliffe and Deltek.

Andy Walker, *Infrastructure Intelligence* editor, said: "The construction sector is being challenged like never before by a range of issues that, taken together, have the potential to radically change the way the industry works. A combination

of sustainability requirements, cost pressures, skills scarcity, digitalisation and a new breed of player entering the sector, looks set to transform construction businesses in the years ahead.

"One thing the pandemic has shown us is that digitalisation is here to stay. Firms have had to embrace technology and staff have adapted to new ways of working. It's clear that to be competitive and relevant in an ever-changing business landscape companies will need to ensure they and their staff are up to date with the latest digital developments. This white paper and its ten-point plan is an excellent place to start."

The comprehensive ten-point plan covers the following key areas: -

- 1. Covid-driven rethink is changing the way we work
- 2. Digitalisation is here to stay
- 3. Investment in tech, skills and training
- 4. Increased focus on productivity
- 5. Net zero and the sustainability challenge
- 6. A welcome focus on value social and environmental
- Industry resilience positive bounce back from the pandemic
- 8. Purposeful innovation
- 9. Embrace disruption (don't be disrupted by it)
- 10. Collaboration, collaboration

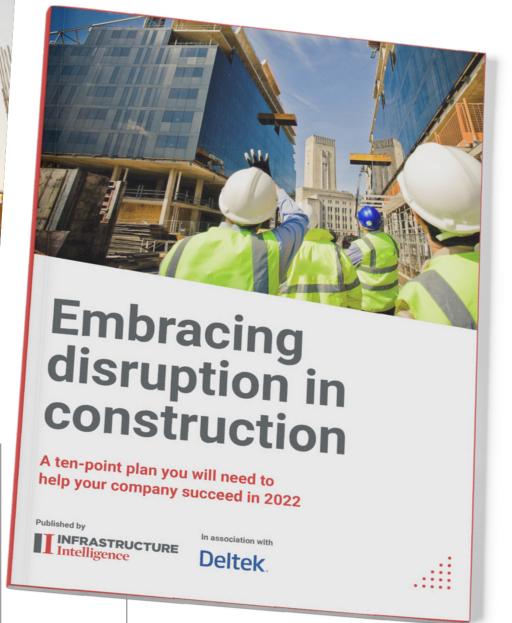
Deltek's Nick Nieder said: "One of the things we are very focused around is purposeful innovation – looking at what a business needs and how we can support them. It's not about being shiny and new for the sake of it. It's about being simple and practical – and clients that weren't previously match-fit that have embraced new technology are now accelerating.

"They've embraced new technology and made changes for the right reasons, taking on board new ways of working to improve productivity and sustainability with the best use of data. And, from a risk management perspective, if you've got the right information in the right hands, you'll make the right decisions."

Nathan Marsh, chief digital officer at Turner & Townsend, said: "Our sector is facing a whole range of changes and we have no option but to navigate them successfully. The opportunity is there for the industry to operate in a more consistent way, embracing new technology and new ways of working. We mustn't get stage fright and should work together more in collaboration as an industry."

Sean Keyes, managing director of north-west based SME consultancy Sutcliffe, said: "There's no turning the clock back – digitalisation is completely here. It's vital to invest in digitalisation, to keep investing in technology and to keep improving on a continual basis."

Andy Walker added: "Disruption and digitalisation go hand in hand – and both are here to stay. By investing in skills, digital literacy, and the right technology with the right digital strategy, the industry can embrace disruption rather than be disrupted by it. *Infrastructure Intelligence* is delighted to publish this white paper with Deltek to help our industry embrace the challenges ahead."





<u>Click here</u> to download the *Embracing Disruption in Construction* white paper.

### **Deltek**

To find out more about how Deltek is helping construction firms improve efficiency, drive productivity and reduce risk, visit www.deltek.com

Digital Digital

## Machine learning can help transform project delivery

The infrastructure industry is battling traditional obstacles and newer pandemic-related challenges. The answer to overcoming both lies in empowering human talent with digital solutions to unlock foresight, says Jacobs' *Anton Turrell*.

he way society engages with public infrastructure is changing and both those procuring and delivering major programmes must evolve with it. The infrastructure industry deserves more disruption – change that will benefit it in the long-term, to support greater societal equity and the achievement of netzero carbon targets.

It's a complex and frustratingly disjointed industry, with multiple stakeholders and initiatives filled with thousands of moving parts, analogue processes and ever-extending timelines. Some of the most common obstacles include dated technical standards, siloed data sources, poor stakeholder collaboration and a lack of integrated systems thinking.

Only a few companies in this industry have truly evolved within the context of digital transformation. The McKinsey Global Institute analysed 22 primary industries for overall digitisation rates, and it showed that construction was second to last. One of the biggest obstacles to progression is the challenge of introducing new technology and processes midway through a project. The pandemic's supply-chain disruptions, forced site closures and employee shortages have placed even greater pressure on production schedules.

However, it's not all grim news. Several pioneers are leading the way with disruptive technology from the fourth industrial revolution, including automation, artificial intelligence (AI), cloud computing and robotics.

AI and its subset, machine learning, are pivotal technologies for capital projects. They offer the potential to build truly iterative solutions that leverage predictive analytics to empower better future decisions. They are powerful digital transformation levers for the delivery of major projects and programmes, and we're utilising them in three critical areas - the application of historical data, risk management and project collaboration.

#### The project solution for the future relies on past lessons

The real strength of machine learning is defined by the quantity and quality of the data you feed it. Up until now, there have been vast amounts of historical project data in the capital projects industry, but most of it is siloed or unused. There is enormous potential for companies to use this data to train and improve machine learning models. A high volume of quality data, in combination with the

power of machine learning, can lead to better conclusions and outcomes, from cost and risk estimation in the planning stage to deploying predictive analytics in the operating stages.

Cost and risk estimations for capital projects are traditionally complex, laborious tasks with many variables. Machine learning can process data from previous projects and transform it into prediction models using pattern recognition. This results in more accurate predictions for project scheduling, but it can also be used to test environmental conditions or improve the quality of project designs. One of the leading AI-powered construction simulation and optimisation platforms is already cutting costs by 11% and build time by 17% on average.

The best part is, these models only get better with time. As industry-wide digitisation increases and more data is available, the models will become even more accurate and robust.

AI can reduce risks and improve safety standards

Combined with computer vision, a specialist video and photo processing field of AI, machine learning can quickly sort and analyse unstructured data like photos and videos, helping to interpret and understand the visual world. It can track progress on a construction site and flag safety risks.

One of the leading AI engines has been trained with more than 17 million examples of construction-specific photos and videos. It automatically detects more than 100 safety hazards on job-site imagery, ranging from slip hazards like standing water through to defects in walls and even poor body positioning on manual tasks.

This detection function isn't restricted to photos and videos. Machine learning can also be paired with natural language processing, which automatically manipulates natural language, both speech and text, by software. It allows machines to read and understand human language. It can look through contracts, order documents, field inspections or



Anton Turrell
is the director of
transformation for
Jacobs' major projects
and programmes group.

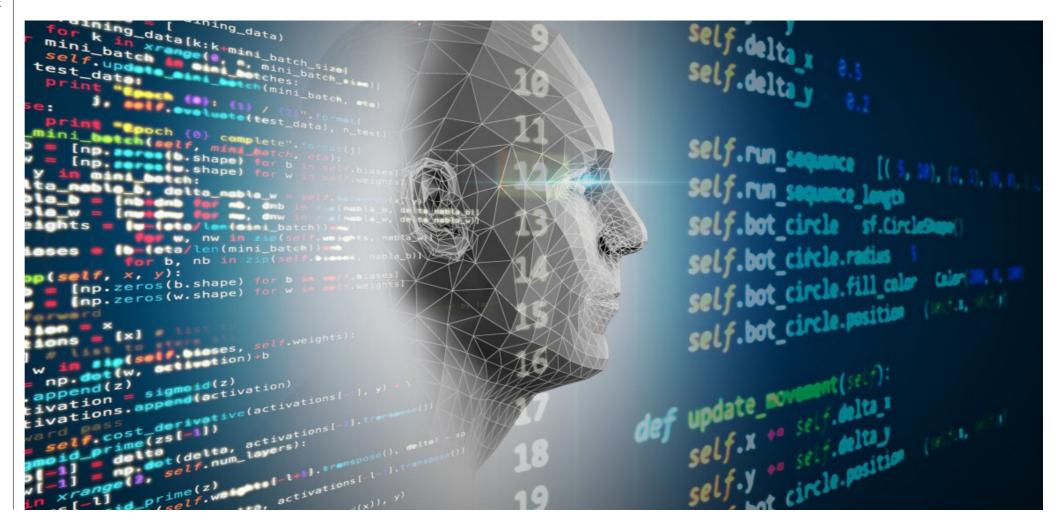
stakeholder communication and raise flags about potential conflicts, mistakes or unnecessary risks.

#### Al-powered collaboration is a productivity multiplier

Siloed data and incompatible software can severely hamper progress on any project. Importing data from different sources and collating insights takes up significant time and resources and opens up opportunities for human error. By combining project management workflows into one central cloud-based platform, data can be united from disparate systems. This creates one unified source of truth on a site, a line of sight that's shared in real-time. It closes communication gaps and offers improved data analysis. Adding predictive analytics to this platform provides even more of a productivity boost, as teams can predict and solve problems before they happen.

There's a caveat to this cutting-edge technology. It needs historical data and human talent to truly unlock its potential. AI and machine learning have the capacity to scale up productivity, improve estimations and minimise risk in major programmes. Crucially, they can also provide the ability to see around corners, but this still comes down to humans making the right decision at the right time.

There has never been a better opportunity, nor a more urgent need, to challenge today's practices and prioritise digital innovation, so that we can create infrastructure that will meet the needs of tomorrow.



Interview

## "Join our industry and make a difference!"

In a changing industry, the role of young professionals is becoming ever more crucial. We spoke to Marzia Bolpagni, associate director at Mace and current ACE Emerging Professional of the Year, about her thoughts on the year ahead.

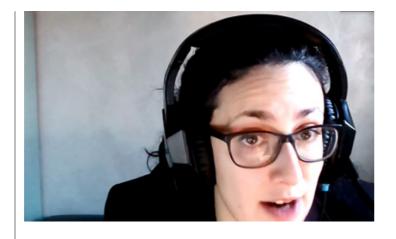
arzia Bolpagni is someone who is clear about her ideas and where the industry in which she works is headed. Asked about the key trends and developments that emerging professionals should focus on in 2022, she highlights a number of areas to keep abreast of. "Sustainability will definitely be a key issue over the coming year. Also, the ethical use of technology, especially artificial intelligence (AI). We can see that there is an emerging trend of the adoption of machine learning techniques and AI, but technology is not neutral, so we need to ensure that we use it and data for the public good.

"Platformisation' is also important – how do you create an offsite module using modern methods of construction? The platform approach looks at other industries, such as the manufacturing sector, to learn lessons, formulate an approach and standardise requirements. It's important that emerging professionals are aware of these different ways of working because we can't really improve our sector if we don't rethink how we deliver our buildings and infrastructure."

#### Keeping ahead of new trends

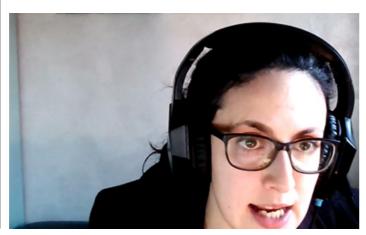
Bolpagni thinks that another emerging trend is smart contracts, blockchain and NFTs (non-fungible tokens), which are starting to change other sectors and are likely to impact the construction industry too. "The automation of repetitive tasks is more and more common in our industry. We also need to keep an eye on what's happening in the metaverse and the trends around 'deep work', a way of working where activities are performed in a state of distraction-free concentration that push your cognitive capabilities to their limits. Emerging professionals that want to be successful need to be across all of these issues," she said.

Another key issue facing the industry currently, according











to Bolpagni, centres around skills and the capacity of consultancy firms to train their young professionals in a way that equips them for the challenges and opportunities of a changing industry.

"There is a need for new skills in the sector, especially in the post-Covid environment, and people leaving university don't necessarily have them and it's hard to find companies that will upskill people in a way that gives them experience of non-traditional working," she said. "Finding the right environment to express themselves is a challenge for emerging professionals but we need to provide this if we are to hold onto them." Says Bolpagni.

#### Critical role of digital

As we know, the pandemic has had a profound effect on everyone who works in the construction sector and digital has really come to the fore. What does Bolpagni think about this and how have recent changes affected emerging professionals? "The pandemic showed how digital capabilities are important in order to allow us to continue working and I think that emerging professionals are well placed here as they have the digital skills that are needed," she said.

"It has also been possible to work for different companies from anywhere. There is of course a negative to all this, in that in an in-person environment you can learn more and when you're working in isolation it is more difficult to progress and develop your career. So, we need to interact more to learn more quickly and engage with colleagues," says Bolpagni.

She also believes that the role of emerging professionals will be pivotal around the net zero issue, given that they have the most to gain from building a sustainable world. "Our sector is responsible for more than 40% of CO2 so it really has a big impact on the sustainability and climate change agenda. My hope for 2022 is that our construction sector becomes recognised as a leader in driving down emissions and achieving net zero. Emerging professionals will have a key role in this area for sure," she said.

#### Attracting new talent

In terms of the new talent needed to drive ahead with issues like net zero and climate change, how does Bolpagni think that the industry can do better in attracting that new talent and ensuring a more diverse sector? "We need to work more closely with students in universities and inspire them. Our sector offers fantastic opportunities, making a real difference to people's lives.

"We need to attract new talent and we need a more diverse workforce. That's why I've become a STEM ambassador. We also need to experience diversity in order to understand better what needs to be done - we must speak up in favour of diversity and also call out negative behaviours and terminology. Unconscious bias is also an issue and we need to address it," she said.

As someone who was named as the Emerging Professional of the Year, what responsibility does she feel to help make change happen? "I was really honoured to receive the award and I will continue to work to fill the gap between academia and industry and also to pursue a sustainable approach. That is my vision. We have to inspire the next generation to join our industry and make a difference. It's an industry that changes lives and we want people to work in it," Bolpagni says.

Building safety

Building safety

## Public-private sector fund needed to fix cladding crisis

Michael Gove's recent commitment to obtain a fully funded action plan from developers to deal with the cladding crisis is only part of a package of measures needed to fix the problem, argues *Clare B Marshall*.

Recent developments have signalled some steps in the right direction, yet years after the Grenfell tragedy, the UK government still drags its heels on cladding. A funding mechanism sufficient to protect all those impacted by dangerous cladding and other building safety issues is still to be ratified. But why?

A safety issue of this magnitude should have been fast-tracked with decisions made in months, not years. Consultation on a new developer tax, industry levies - and Michael Gove's recent commitment to obtain a fully funded action plan from developers - are only part of a package of measures needed to fix the problem.

Procrastination and delay in decision making and government intervention has had other long-term ramifications both for homeowners and business. Take insurance. The government has finally recognised the need to engage with the insurance industry on rising insurance premiums impacting hundreds of thousands of homeowners. This conversation with insurers must also extend into the rising costs (and limited cover available) to businesses for professional indemnity and other important insurances. A further knock-on consequence of the building safety crisis.

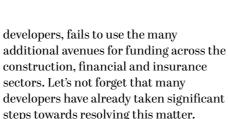
#### Urgent steps and radical thinking

As to the primary issue of fixing unsafe buildings, urgent steps are needed with some radical thinking and collaboration with all key stakeholders - not in a silo with those viewed to have the deepest pockets.

The current focus on only part of the industry, namely



Clare B Marshall is the founder of the business consultancy 2MPy.



These additional avenues arguably, no, crucially, must include manufacturers and suppliers of the cladding central to the issue. And whilst government has committed additional funds, these sums still fall short and fail to recognise a key originating cause - deregulation.

Too often, government gets bogged down in bureaucracy, clouded by process and politics, rather than focussing on the central goals. In this case of ensuring safety, adequate housing, transparency - and that the same mistakes don't happen again. Sometimes commercial enterprises bury their heads in the sand rather than

owning up to problems of their making, leading to long-term reputational damage, too deep from which to recover, and leading to eventual collapse.

#### Pooling resources to fix the problem

Last summer, and as reported in Infrastructure Intelligence, I tabled a recommendation for the public and private sectors to come together, pool resources and create a fund to finally fix the problem.

The approach of putting people and safety first would bring a degree of closure to the thousands of households impacted. A fund would remove the need for a myriad of wasteful, stressful and protracted court cases. It would enable transparency as to the real cost of the problem and allow regulatory changes to

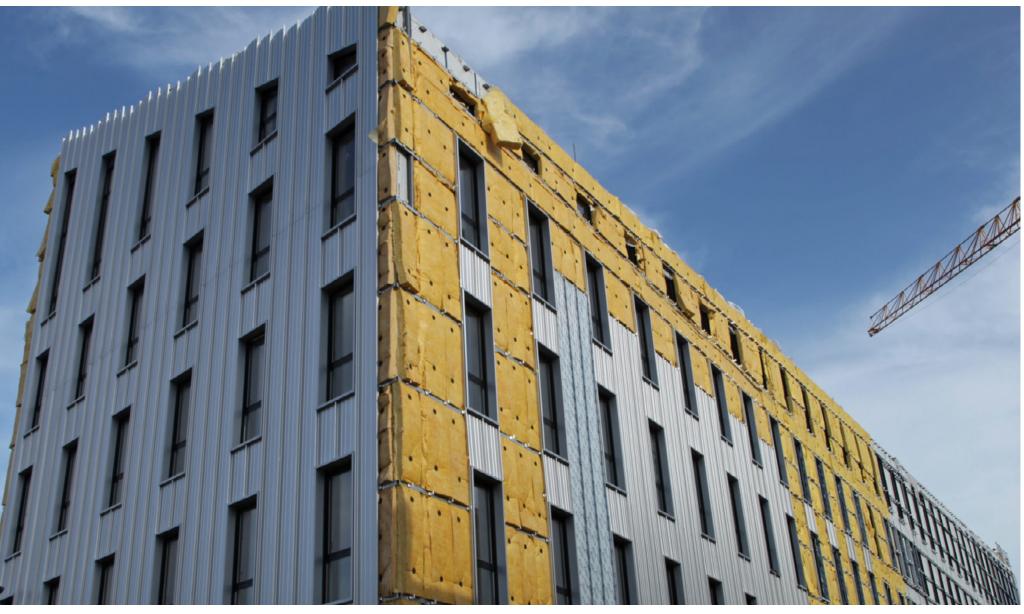
avoid the situation ever happening again. Leaving in the hands of the justice system, only those culpable of serious failings.

With hundreds of thousands of buildings impacted, many stakeholders (not only developers but the wider construction supply chain and insurers) hold significant reserves - monies sitting dormant, ring-fenced in their accounts. Release of these funds, combined with increased government funding, would surely enable the immediate focus of getting on and fixing this now-critical problem.

This idea of a combined fund would be endorsed by many in the private sector and the current timeframes set by Michael Gove create an opportunity for a broad section of industry – many already willing and trying to make a difference – to come together.

Those organisations less willing (and often those most at risk from litigation) must be pressured by the opportunity presented. To come to the table and to avoid the inevitable damage of not doing so.

For the sake of all of the impacted households - and to avoid future catastrophes - government, industry and insurers must work together now before history repeats itself.





## Delivering better, greener and faster through off-site

ACE shares the next instalment in its Project Speed briefing series with the release of a report on realising the benefits of off-site manufacture.

new ACE report, Project Speed & off-site manufacturing, argues that the benefits of off-site will only be realised through greater scale and that government procurement should be leveraged to drive wider adoption. While its previously made pledge resulted in the Department for Education procuring 22 major off-site contracts, other public bodies are lagging behind, with the remaining departments procuring only one between them.

Commenting on its release Guto Davies, head of policy at ACE, said: "Government commitments on off-site need to be realised if we are to see off-site fulfilling its undoubted potential for better, greener and faster delivery in the built environment. Ambitions around levelling-up, net zero and in the more immediate-term around post-pandemic recovery, could all be boosted thanks to a wider adoption of off-site which not only has the potential to unlock

fire safety risks

social value, but offers the possibility for swift delivery."

Other recommendations in the report include, ensuring wider compliance with the Construction Playbook and Value Toolkit, providing more detail on off-site projects within the National Infrastructure and Construction Pipeline, as well as funding training and qualifications for offsite construction skills.

Project Speed & off-site manufacturing also argues the industry needs to play its part by advocating the benefits of off-site to all stakeholders, embracing more collaborative delivery models to realise off-site opportunities, and adopt a more standardised approach to premanufactured components.

Davies added: "Of course, industry has an important role to play too, primarily as a champion for off-site and the opportunities it unlocks, to help overcome long-standing and out-dated misconceptions around the approach."

Trudi Sully (Construction Innovation Hub), Ryan Lester (Gleeds), Dan Hagan (WSP) and Infrastructure Intelligence editor Andy Walker, joined Guto Davies for a webinar on the potential for off-site in February.

Download the briefing and replay the webinar discussion at www.acenet.co.uk/ project-speed

Webinar to discuss PI insurance and

Book your place now at ACE's exclusive member-only webinar on the changing PI insurance landscape with Griffiths & Armour and the British Insurance Brokers Association.

ecent years have seen the professional indemnity (PI) insurance market under intense pressure, but no other aspect has been under more scrutiny than fire safetyleaving many businesses working in construction unable to secure appropriate cover. This has not only jeopardised the ability of firms to undertake the vital remediation work required on dangerous buildings, it has also affected fire-related claims on other projects too.

At a special member-only webinar on Thursday 31 March at 12 noon, hosted

by Michael Brown of Geo Environmental Services Ltd, Craig Roberts, professional risks director at Griffiths & Armour and Alastair Blundell, head of general insurance at the British Insurance Brokers Association, will discuss the ever-shifting sands of the PI Insurance market and fire safety risks.

With insurers often taking different positions, the webinar will explore how the PI market is restricting coverage. In addition, it will cover how uninsured risks can be managed, what the future holds and what initiatives are underway to help those looking to secure

The webinar is vital for anyone involved in purchasing PI insurance, or those negotiating professional services contracts and takes place on Thursday 31 March at 12 noon.

Book now at www.acenet.co.uk/events

## Offering fresh perspectives

A new webcast series from ACE's Emerging Professionals group has just launched covering some of the key challenges and issues facing the industry.

resh Perspectives, a series of six webcasts from ACE's Emerging Professionals group, will feature one-on-one conversations with an inspirational emerging professional on some of the most challenging topics facing the industry.

Broadcast live on ACE's You Tube channel, the interviews will cover a wide range of issues including climate change, digital transformation, making a difference, net zero, starting your own business and working internationally.

Details of the events are listed below.

1.1: How to lead the way on climate change – Premieres Wednesday 9 March at 12 noon. Emerging Professionals chair, Wojciech Szewczak and Tom Worthington, sustainability and carbon consultant at Atkins, explore the take-aways from COP26 and how emerging professionals can lead the way on

1.2: How to become a leader in the digital age – Premieres Wednesday 23 March at 12 noon. Wojciech Szewczak and Emily Scoones, senior computational design engineer at Ramboll, discuss hybrid career paths, accelerating innovation and how digital transformation will change the way the industry works.



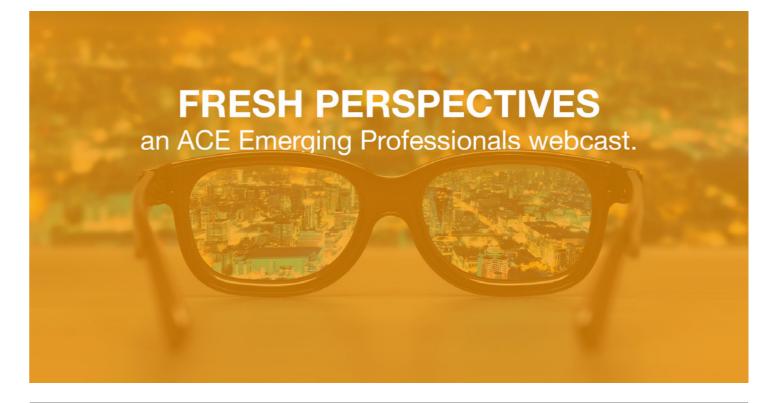
1.3: How to make a difference -Premieres Wednesday 6 April at 12 noon. Wojciech Szewczak and Georgia Hughes, global capabilities and cultural shift programme manager at Arcadis, explore what is means to be an emerging professional today and in the future workplace.

1.4: Is net zero achievable for the construction industry? – Premieres Wednesday 27 April at 12 noon. Hannah Ducas and Diego Padilla-Philipps, technical director at WSP, explore what Net Zero means for the construction industry and how the challenge is being picked up by the sector. This episode coincides with Green Infrastructure Week.

1.5: How to start your own business – Premieres Wednesday 11 May at 12 noon. Emily Scoones and Brittany Harris, co-founder and CEO of QFlow, a tech start-up that is helping to make construction projects more sustainable, discuss entrepreneurship and the challenges of starting your own business.

1.6: How to live and work abroad -Premieres Wednesday 25 May at 12 noon. Kat Brown and Farai Mwashita, international project engineer at CBRE, discuss the challenges and benefits of moving abroad for work.

All of the webcasts will be available on ACE's YouTube channel, with short previews also shared on the ACE **Emerging Professionals Linked In page** 



## Our members' key role means their voice will be heard

Following his first few weeks in his new role as ACE CEO, Stephen Marcos *Jones* shares some early thoughts on the opportunities for members and the construction sector as a whole.

'd like to take this opportunity to share my early thoughts after my first few weeks at ACE. It is already clear that members have a bright future ahead of them. Longer-term policy aims on net zero, political ambitions to "level up" while "building back better" and our sector's important role as the government's delivery partner of choice, mean they can be confident their voice will be heard by policymakers.

These are all themes that ACE has championed over the years, but I hope that with a refreshed approach the leadership team and myself will be able to re-energise and refocus them over the coming weeks and months, after what have been two extremely challenging years for UK plc and the global economy.

Working closely with the board, member companies and the ACE team, my objective is to define an agreed set of clear value-adding policy priorities and positions for the built environment sector. This will ensure our engagement is not only impactful but provides tangible results in the form of improvements to our members' bottom line – vital as we hopefully start to navigate the challenges and realise the opportunities of a post-pandemic world.

To do this we will need to increase ACE's profile among stakeholders and decision-makers. I hope to see us reenergise our engagement via industry forums, such as the Construction Leadership Council where there is a real opportunity to drive activity for the benefit for the entire sector.

I also want to use the power of collaboration to increase member



Stephen Marcos Jones is CEO of the Association for Consultancy and Engineering.

value. I know that you all have remarkable stories to tell with brilliant examples of design excellence and impactful delivery. We need to ensure ACE, and the other organisations in the group the Environmental Industries Commission and Infrastructure Intelligence, are all providing the best platform possible to showcase this.

One of the reasons ACE was initially so appealing to me was its membership base, which plays a unique role as an enabler for a better world. Whether working on designing solutions for zero carbon, increasing productivity, or creating healthy and resilient communities, members are delivering on some of society's biggest longer-term challenges. This provides a strong foundation for meaningful engagement.

My role is to ensure we are in the best position to deliver this and I am looking forward to becoming more involved in the detail.

## Embracing wider, joined up thinking on waste



Traditional waste management approaches are quickly becoming outdated and waste producers must now embrace wider, joinedup thinking, says SLR Consulting's Richard Garfield.

gainst a backdrop of ever-tightening budgets and increasing legislative pressure, organisations are being pulled by regulations to improve their waste footprint and pushed by householders, shareholders and stakeholders, to ensure that wastes are managed more sustainably, with minimal impact on the environment.

Local authorities, waste contractors and businesses have invested heavily into recycling services and infrastructure, from improving the collection of recyclable materials through to their processing and treatment and yet the UK still only recycles less than half of all household waste. Upcoming changes announced in the Environment Act will focus on improving performance, but significant time and effort will be needed to firstly, understand their impact and secondly, to enact them efficiently.

Schemes that are expected to be a key part of the upcoming Resources and Waste Strategy, including extended producer responsibility and a deposit return scheme, promise new ways of funding resource management. However, there is considerable uncertainty regarding the specific means of funding for both the approaches themselves and the wider infrastructure and service development needed to ensure successful implementation.

For local authorities, the added question of whether food waste collections from all households will become mandatory - and whether this will be fully funded by the government - means that



**Richard Garfield** is technical discipline manager at EIC member, SLR Consulting.

Find out more

at www.eic-uk.

co.uk

about EIC's waste

and resources work

few are currently willing to make service delivery decisions. However, in proactively assessing likely changes to future service delivery models and their associated costs, local authorities will be ready to act when the additional certainty arrives.

On top of this, demands that materials are reused and recycled sustainably, calls to reach net zero, regulations to minimise water and energy usage, the protection of social equality and human rights through workplace equality, ethical operations and sustainable investments, all demand that organisations - rightly - are asked to look at the wider implications of every decision, on every project.

Therefore, the traditional waste management approaches are quickly becoming outdated and waste producers must now embrace wider, joined-up thinking that marries waste and resource management solutions with assessments focused on environmental and social governance, circular economy and sustainability principles.

Encapsulating such a broad range of expectations within any project can be overwhelming, particularly when public money is at stake. However, the increased expectations should be considered as an opportunity to make any project greener, more sustainable, more resilient, more shock-proof and more socially beneficial to local communities.

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Sustainable communities

Sustainable communities

## Redesigning streets for the future

With policymakers expecting infrastructure to deliver on social value, the environment and the needs of communities, designers need to visualise streets differently, says Stantec's *Josh Grantham*.

Te walk our streets every day, but we don't often think about the details - how wide is the road, how high is the kerb, how many houses does it lead to – and, maybe most importantly, who is it designed to serve?

Yet these details are fundamental to street design and many local authorities have dedicated highway design guides for developers to refer to. But our ideas of what streets should be are changing and in response, Suffolk County Council has redesigned the rule book.

The very first highways design guide was created back in the 1960s and since then the guides have become an important tool for developers who need to create streets that are not only safe but that will be approved by the local authority. Streets designed in the planning process often embody the vision of the local authority, incorporating green spaces, active travel options, SUDs etc, but this aspirational vision often falls flat when the highway authority refuses to adopt verges, or maintain street trees. The local highways design guide is the go-between manual to marry the vision of the council with the requirements of the highways authority.

#### Breaking the model

Back in the 1960s, when streets became strategic in terms of housing delivery, the very first guide determined that you should have 6.5-metre-wide roads to enable cars to travel fast from point A to point B. It was a guide that prioritised the driver. Today, our priorities are shifting and policymakers are expecting infrastructure to deliver on aims of social value and the needs of communities, housing requirements, and environmental concerns. This means that designers need to visualise streets differently.

When Stantec started working with Suffolk County Council, they were referring to a highways design guide drafted in 1993 and, recognising the need to update the guide to reflect a more modern view of street design, asked our team to help. The project team began by evaluating how the local communities used their streets and what they might need in the future.



Josh Grantham is a senior sustainable urban infrastructure engineer at Stantec.

During this exercise, it became clear that street design is still very car-led in practice.

Even the 2007 Manual for Streets, one of the leading guides for street design, while advocating a user-led approach, doesn't give much in the way of detailed guidance on how to implement it. The guide introduces the concept of a user hierarchy – pedestrians, cyclists, public transport, cars – but then goes on to endorse a car-led approach to design.

Working together, Stantec and Suffolk developed a new methodology to identify a user-led approach to ensure streets are designed to prioritise those who use them most and don't automatically place the car at their heart.

#### Redeveloping the methodology

The existing model refers to street design using a hierarchy of terminology - primary street, secondary street, tertiary street, and private drive - where classification is determined largely by how many cars use the street in question. The team recognised that while a primary carriageway may cater to cars and buses, it may not cater well to the



requirements of pedestrians or cyclists and so not act as a primary route for these users.

To redevelop the methodology of street design, the team had to create different elements to make up the uses of a street. These elements replace outdated terminology by considering the true users of the street, prioritising cycle routes and footpaths in streets where there are fewer cars, while designing primary carriageways for important public transport routes. This not only leads to streets that are 100% user-led, but also enables local authorities to set developers objectives in delivering streets that fit the needs of the community.

Finally, to emphasise the fact that the new methodology focuses on users instead of cars, Suffolk County Council renamed their highways design guide the street design guide.

#### One guide fits all?

But not every council has a highways design guide. Many rely on national manuals or even guides from other local authorities when it comes to designing their streets. While this may have worked in the past, the recent influx of high-level strategic documents that influence street design means this approach must now be considered with caution.

In recent months, we have seen, or are anticipating, the launch of Manual for Streets 3, LTN 1/20 Cycle Infrastructure Design Note, the update to the National Planning Policy Framework, and a national model design code. In addition, there are several secondary documents, like Healthy Streets and Cycling by Design, which also feed into the mix and must be considered when designing new streets.

Referring to these documents alone leaves much open to interpretation and creates stumbling blocks as the documents fail to advise on how they should be used alongside each other. But most importantly, these national manuals don't consider the needs of local communities, or the local objectives of the councils such as the requirement for more housing, more large developments, or budget constraints. Referring to these manuals without the local context could easily result in identical streets that are cloned up and down the country and meet the needs of no one.

#### The way forward

Councils can call on good consultants to provide support in creating guides that make the most of the national opportunities but in a way that works for local needs. As in Suffolk, who are now waiting for their design guide to be approved by the cabinet in November, councils everywhere can benefit from bespoke guides that will safeguard better street design for the future of their communities.





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