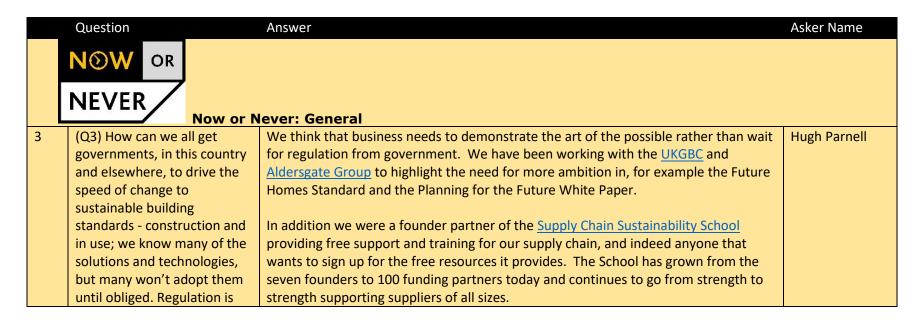


Willmott Dixon Sustainability strategy launch 29 September 2020 Questions from the session



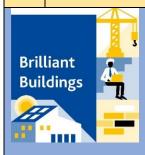
	key but has been steadily weakened since 2010	We were also a pathfinder for the <u>Carbon Trust's Supply Chain Standard</u> where we	Ben Humphries
		mapped our supply chain emissions and offered free advice to any of them that	
	(Q63) How will Willmott	wanted to save money on fuel and cut carbon emissions. Believe it or not we	
	Dixon look outwards too, to	struggled to get take up, but on average saved partners 30% on their carbon	
	help bring other players in	emissions.	Tom Hull
	the industry up to the same		
	standard?	Most recently we were a founding signatory to <u>UK Contractors declare</u> and have	
		longstanding collaborative <u>relationships</u> with many other organisations.	
	(Q64) It is very encouraging		
	to hear the promise of a step	We are also Board members of BSRIA and corporate members of BuildUK, ICRS, IEMA	
	change. Are you confident	and CCS.	
	that WD can deliver on the		
	strategy without further		Wazed Khan
	impetus from central		
	government to make the		
	industry as a whole work		
	harder?		
	(Q93) What initiative WD is		Anonymous
	taking to proactively		Attendee
	cooperate with other players		Accended
	in order to drive an industry		
	wide behaviour change?		
	(Q101) Will Willmott Dixon		
	unite with other contractors		
	to break these barriers?		
10	(Q10) How do we reconcile	We think that Covid has been a massive catalyst for change and lens for innovation.	Richard Walford
	sustainability with new	Rather than slowing down what we are trying to do as part of Now or Never, Covid	
	trends arising from Covid	has shown us that we can adapt and change, we can adopt new technology, and that	
	where people are motivated	we can try new things and learning from failures when they don't go as planned. For	
		example, we predict that we will have cut business mileage by 50% by the end of	

	to move away from cities and	2021; we estimate that this alone will have saved three working weeks per person	Anonymous
	towns?	across the business. Many of our people will have transitioned to working 50% from	Attendee
	(Q19) With particular emphasis on the notion that development results in increased vehicle trips and therefore increased emissions (often resulting in refused planning applications): given the behaviour changes in respect of greater on-line shopping, home working and deliveries and the greater uptake of electric vehicles as well as improved carbon emission efficiency in the build - do we need to re-think how we assess Sustainable Development to reflect the modern world and how the world will look in 10 years'	home and many of our roles that we considered wholly site-based have proved not to be so. We had been working hard to implement these agile working changes in support of our gender diversity ambitions but Covid has helped accelerate things. Many people have found a much better worklife balance and we believe that the ability to work virtually will attract people who have never considered this industry before.  The pandemic has also taught us that going forward we will value different things. Whether that's access the green space, an area for a workstation at home, or the ability to walk and cycle for more journeys. We think it's really important that we plan our communities to be ready for both the future climate, also to meet the needs and enhance the well-being of the people that live and work in them.	
54	time? With the clock ticking, we	Businesses and organisations are increasingly defining their own purpose and we	John McCay
	need all businesses and countries to have a common	have been talking about our purpose beyond profit for nearly 30 years at Willmott Dixon. At a national and international level, we believe that the United Nations	
	purpose.	Sustainable Development Goals have provided the most holistic and crosscutting	
	Will we get a collective purpose?	"northern star" for businesses and countries to align behind in tackling the climate, biodiversity and social crises. That is why we used them to provide a framework for	
	purpose:	developing our three themes within Now or Never.	

61	Really interesting presentation, it's great to see a large organisation like WD really pushing to put people and planet alongside profit. How far will you take this with your client base? Will you refuse to work with clients that don't align with your vision? That's a difficult call in challenging times but I don't think the sector can achieve what it needs to without removing (or drastically changing the mindset of) short term thinking, cap-ex driven, clients.	We believe that our customer base also recognise that the world is changing environmentally and socially. Our aim is to be their supplier of choice and to work with them because they share our values.  In parallel we also want to develop our standard products and platforms and ultimately all our projects to be sustainable by design: not optional, not added cost, but simply what you get if you come to Willmott Dixon.  We recognise there could occasions in the future where we have to make a difficult decision about whether to work with a particular customer. Ultimately, we want to get to a place where if the customer is happy to work with us they will get a sustainable product as standard.	Anonymous Attendee
66	Do you think that the focus is more on 2040 for the ambitious stuff and the real fear is on cost and not the climate or the change that Sophie is talking about?	It is a sad fact that today always trumps tomorrow – there's an inevitability of human nature that drives us to prioritise the short-term and urgent rather than the long-term and important. That's why we have thought very carefully about setting a ten year strategy and have set internal targets every year to make sure that we don't put off getting started. We recognise the need to take early action and embed new behaviours to provide the foundations to achieve our ultimate ambitions. We also know that many of us like to have all the answers before setting out on a journey. However, our approach to date has been to take an 80/20 approach; to tackle to the 20% of issues that deliver 80% of the benefits. We are prepared to "have a go" and not let perfect be the enemy of good. By the time we need the tackle the last 20% the world, the technology and even our culture and behaviours will have moved on in ways we haven't even thought of yet!	Darren Evans
106	Do WD operate on internal Levy/'Tax' for each tonne of embodied carbon produced	We have reduced our operational carbon emissions intensity by 61% since 2010. We have done this using performance management and by penalising our regional businesses by requiring them to pay to offset the emissions that they have produced.	John Marland

	to help incentivise reducing Carbon emissions. I see British Land operate do this and Bruntwood are looking at 'Shadow Tax'	The benefit for our business model that it means that the issue is then managed locally, and the results to date speak for themselves.  We are likely to take a regional approach to embodied carbon too.  As a contractor that owns no property – our business model is very different to a	
		company like British Land or Bruntwood. Our aim is to keep things simple, local and transparent. Whilst we don't rule out internal costs of carbon in the future, our simpler approach is currently driving the outcomes we seek.	
113	How will WD measure. outcome benefits from this commitment against SDGs. Going beyond the organisation, supply chain and contributing to just net- zero? SDG on procurement over SV/ESG given the positive steps today.	We will measure our outcome benefits in several ways. For example, we have been measuring outcomes and impacts including Social Return on Investment in our social value work for several years now. We have encouraged others to use the same proxy measures from the Social Value Portal so that we can compare and benchmark our results to aid the sharing of best practice and increase the pace of change.  (See also answer to Q22)  From our building performance measurement and verification, we will be able to measure the in-use performance of our customers' buildings compared to benchmarks and calculate lifetime benefits.  Back in 2016, we completed a Total Value five capitals analysis across all our sustainability outcomes. For 2016 we calculated that we had a net benefit for sustainability of £157m. This was a resource intensive exercise, which gave us a big number, and reinforced that we are focussing on the right things. Such a number might be useful for some organisations who are at the start of their journey, to convince their Board or shareholders of the benefits of sustainability. As an organisation we have moved beyond those cost benefit conversations and want to focus on delivering the right outcomes for our customers and our communities.  Whilst we will continue to calculate the benefits of what we are delivering as part of verified benchmarks and accreditation in line with established methodologies, we	Jason Longhurst

are mindful that wider benefits accrue from the actions of many parties both directly
and indirectly. Collective impact must be acknowledged and celebrated by everyone
that has helped to make a difference.



## Brilliant Buildings: net zero operation and future climate-ready

2	Do you encourage your clients to engage and understand Smart buildings - would this be advantageous to your owner occupier clients?	Incorporating feedback from sensor technology to improve building performance in various ways is becoming common on many of our projects. Examples of this are organic+ response lighting controls from our partner Whitecroft, or our own Energy Synergy <sup>TM</sup> measurement & verification process - <a href="https://www.willmottdixon.co.uk/energysynergy">https://www.willmottdixon.co.uk/energysynergy</a>	Rob Whitham
4	The performance gap and addressing a real energy target (net zero or Energy Use Intensity) requires modelling and the earlier the better. Is this something Willmott Dixon can do internally / will invest in externally?	Our approach on modelling for net zero carbon outcomes, which is certainly key at an early project stage, is to work with external design team partners to achieve this – stronger expertise and aligned ownership/accountability are key reasons for this.	Paul Chatwin
5	Willmott Dixon does not design all of the buildings it builds, how is it going to fulfil its obligations on these buildings?	We believe in working collaboratively with all our customers at whatever design stage we are involved to improve sustainable outcomes – in the new strategy for example we will start to offer a design pathway to net zero carbon for all new projects where we are involved early, and for some aspects of the net zero approach	Michael Hardware

		(PV investment or Energy Synergy <sup>™</sup> monitoring for example) they can be adopted by customers whatever the project type/structure.	
8	How will measures to cut carbon affect building cost? Will clients be willing to swallow these costs or will it all come down to political will and policy?	Net zero carbon buildings deliver significant operational cost and emissions benefits that offset any potential additional costs – so whole life cost is the key driver here. UKGBC has done some interesting cost assessments on this - <a href="https://www.ukgbc.org/ukgbc-work/building-the-case-for-net-zero/">https://www.ukgbc.org/ukgbc-work/building-the-case-for-net-zero/</a>	Ben Heath
9	We can develop significantly less impactful catering systems than are typically adopted throughout the industry, but initially they cost more. If the client is unwilling to buy that whole life cost benefit, how is it delivered in a competitive market?	Reduced operating cost/emissions electrical services is a key part of the net zero carbon journey — while there is no easy answer to the 'no linkage between opex savings and capital cost investment' issues, making sure total energy usage measurement & verification is a key part of making these potential savings transparent. On our Energy Synergy™ projects, catering energy usage is transparently measured and tracked to support this.	julian shine
12	How will you measure a building being 'better'? what key metric you will use to measure? and what are you chasing or insisting from your partners, supply chain and clients?	In the context of Brilliant Buildings 'better' means lower operating costs, operating emissions and embodied carbon impacts – by measuring and making all of these metrics transparent as project outcomes, we can start to improve these for all project stakeholders	Darren Evans
16	What role do you see for offsetting in achieving net zero carbon outcomes in the buildings you deliver?	We are following the UKGBC Advancing Net Zero framework approach to achieving these outcomes – offsets may be needed in the short term, especially in relation to embodied impacts, but longer term the solution has to be increased on site renewable generation or additional grid renewables investment. That's one reason why we are supporting alternatives to onsite generation such as our community solar energy offer. Please see our website soon for news on that.	Anonymous Attendee

21	How do we persuade our customers, in the context of economic pressures to go beyond national or local sustainability performance criteria?	Going beyond mandated performance criteria is all about costs vs benefits – transparent measurement of benefits and outcomes from projects where we have pushed standards, is a key evidence item to help us convince investors this makes long term sense	Mark Nolan
23	Do you expect that to achieve your Brilliant Building ambitions there will be an increase in capital costs that some of your existing and future clients will not be able to support?  Will you turn down opportunities where you are unable to influence a design that doesn't meet your goals?	We believe in working collaboratively with all our customers at whatever design stage we are involved to improve sustainable outcomes – in the new strategy for example we will start to offer a design pathway to net zero carbon for all new projects where we are involved early, and for some aspects of the net zero approach (PV investment or Energy Synergy <sup>TM</sup> monitoring for example) they can be adopted by customers whatever the project type/structure. The key issue for the short term on net zero is to show what can be done and use those examples to move the goalposts of 'the possible' - rather than turning down opportunities, we will be working full time to achieve net zero in as comprehensive a way as we realistically can on all project opportunities and in <b>collaboration</b> with customers  See also answer to q61	Kingsley Clarke
25	Are clients ready to procure the projects you want to deliver? How do you see framework procurement helping you in your ambitions?	Customers see value in frameworks to help them deliver their project outcomes in the most efficient and cost effective way possible. Early involvement of project team partners is a key means to help us all achieve stretching targets like net zero – leading frameworks provide a best value route to this. So customers seeking to use those frameworks would be supported in commissioning the kind of projects we want to deliver.	Chris Clarke
26	How will you know that buildings are net zero carbon? As a client we need to ensure the same definition of net zero carbon is agreed, and measured and verified in a consistent way across the industry. Is there a clear	We are adopting the UKGBC Advancing Net Zero Framework approach to defining this at the D&B stage – this involves meeting designed energy use intensity (kWh/m2.yr) targets for the building, maximising on site renewables, avoiding fossil fuels and agreeing sourcing of offsite renewables. At operational stage our Energy SynergyTM approach will be used to measure and verify that the building is achieving it's planned performance in line with net zero. I believe the UKGBC is considering an external verification scheme along with its guidance docs suite – a revision of the guidance on renewables is due to be issued for industry consultation soon	greg keeling

	EU/BS standard or similar to test and verify net zero carbon has been achieved?		
33	How will you approach the challenge of clients with fixed capital budgets perceiving that net-zero buildings have a higher capital cost than those that just meet current legislation?	Through working collaboratively with customers, ideally from an early stage via leading framework routes, the probability of meeting affordable capex and whole life cost targets are significantly increased – this is the challenge for whole construction sector on net zero, and we want to be leading the way on that	Tom Allen
41	Are you working with public bodies, such as councils, for them to change their approach and tendering to be more environmentally conscious?	We are always happy to collaborate with any of our customers or public stakeholder groups to say how we as tenderers should be challenged to meet sustainable goals on our bids – we have been doing this with several groups in the run up to the strategy launch and would always be happy to talk further	Michael Hardware
43	We are facing increasing pressure on budgets and programmes? How are these challenges met alongside your sustainability drive?	We believe in working collaboratively with all our customers at whatever design stage we are involved to improve sustainable outcomes – in the new strategy for example we will start to offer a design pathway to net zero carbon for all new projects where we are involved early, and for some aspects of the net zero approach (PV investment or Energy Synergy <sup>TM</sup> monitoring for example) they can be adopted by customers whatever the project type/structure.  Through working collaboratively with customers, ideally from an early stage via leading framework routes, the probability of meeting affordable capex and whole life cost targets are significantly increased – this is the challenge for whole construction sector on net zero, and we want to be leading the way on that	Paul Vorster

44	What key innovations are on the horizon which can help WD achieve these goals and which one is the biggest enabler for achieving true net zero carbon	One innovation opportunity that we looking to exploit to a significant extent is the fact that renewable energy generation, if designed in up front and of sufficient scale, is now as cost effective as buying grid energy. Along with demand reduction and energy management that's the key to true net zero	William Burkitt
45	What are your views on adopting Passivhaus (where appropriate) to actually deliver on quality as well as low energy as well as healthy spaces?	Passivhaus deliver great quality and performance benefits and we are firmly convinced it's the right solution for many new builds – take a look at the case study examples here for evidence of this <a href="https://www.willmottdixon.co.uk/asset/15528">https://www.willmottdixon.co.uk/asset/15528</a>	Paul Chatwin
50	How are you addressing the practice of "Value Engineering"? Often where measures to reduce costs during more detailed design and construction can lead to buildings not achieving the required environmental standards in operation, despite having been designed to meet or even exceed these standards during the early planning stages.	The key here is to make the consequences of 'value engineering' transparent to the project team, in terms of how they might impact on performance outcomes and operating costs – that's a key benefit of using the Energy Synergy approach from early design stage - <a href="https://www.willmottdixon.co.uk/energysynergy">https://www.willmottdixon.co.uk/energysynergy</a>	Anonymous Attendee
56	Having a long term 10 year+ commitment is critical. What do you see as the quick wins that you can do almost right away to achieve the most impact?	We have a detailed internal action plan to implement short term processes to start moving us towards the 2030/40 goals straight away. One example of this is our community solar energy offer being proposed for all new projects, and we will also be working with customers to integrate this with a pathway to net zero carbon for each of their new/refurbished buildings.	Matt Andrews

57	How much will you rely on offsetting for zero carbon homes in operation? And why aren't you also looking at true zero carbon, which includes un-regulated energy?	We are following the UKGBC Advancing Net Zero framework approach to achieving these outcomes – in this framework <b>all</b> energy usage is counted not just regulated. Offsets may be needed in the short term, especially in relation to embodied impacts, but longer term the solution has to be increased on site renewable generation or additional grid renewables investment. That's one reason why we are supporting alternatives to onsite generation such as our community solar energy offersee our website soon for news on that	Anonymous Attendee
59	What will be done to ring- fence the design the zero carbon principles on building design? These are often the first target for 'value- engineering' (cost cutting)?	The key here is to make the consequences of 'value engineering' transparent to the project team, in terms of how they might impact on performance outcomes and operating costs – that's a key benefit of using the Energy Synergy approach from early design stage - <a href="https://www.willmottdixon.co.uk/energysynergy">https://www.willmottdixon.co.uk/energysynergy</a> We will judge success as net zero buildings delivering outcomes for customers, not just ticking a D&B achieved box.	Shaun Hoppins
65	How are your key clients reacting to your aspiration to be the most sustainable building contractor in the UK?	A good question and one our customers will ultimately judge us on. We feel more and more customers across all our key sectors can see benefits in sustainable building outcomes and I'm sure the whole industry will be drawn in that direction. Healthy competition to be leader in delivering this is a good thing.	Neil Ainsworth
67	Willmott Dixon do not design and sell their own products - like an electronics company or a car maker - how can you design what a customer wants and offer it to the market at the price they want	That's true and achieving sustainable goals on bespoke project design is the key challenge. Through working collaboratively with customers, ideally from an early stage via leading framework routes, the probability of meeting affordable capex and whole life cost targets are significantly increased – this is the challenge for whole construction sector on net zero, and we want to be leading the way on that.	Steve Elkin
70	What verification measures are Willmott Dixon using to demonstrate net zero carbon has been achieved?	Verification is the core of our Energy Synergy <sup>™</sup> approach - <a href="https://www.willmottdixon.co.uk/energysynergy">https://www.willmottdixon.co.uk/energysynergy</a> . On pilots of this approach we have already shown significant savings in % operating cost reduction, and we'll be using this approach on virtually all new projects going forward.	Diana Lock

72	How do we find a balance between delivering buildings that perform as designed and meet the environmental goals whilst meeting the difficult commercial challenges which seem to be intensifying?	Difficult commercial challenges will always exist. Through working collaboratively with customers, ideally from an early stage via leading framework routes, the probability of meeting affordable capex and whole life cost targets are significantly increased – this is the challenge for the whole construction sector on net zero, and we want to be leading the way on that. Delivering examples of how we can achieve this, and documenting the outcomes we create, gives us gold standard evidence to make the case for competing funds. For example we are committed to ensuring all our future standardised products and platform offers are net zero carbon in operation.	Anonymous Attendee
74	I didn't see any mention of life cycle and design for disassembly. Will the brilliant buildings be easy and safe to recycle?	The whole life impacts of our buildings are wrapped up in the embodied carbon and lifecycle assessment tools we'll now be using on new Brilliant Buildings projects – end of life impacts are a key part of this.	Ashley Oates
75	Under Design & Build the Contractor's involvement is mostly too late in the design process to have big impact-do we need a procurement shake up in the industry?	Collaborative procurement routes are being used more and more by customers and we see their long-term value for sustainable outcomes. Government led frameworks are also starting to break the mould on the usual D&B routes. A shake up may happen, but the construction delivery industry needs to show how it can be done.	Anonymous Attendee
79	How will you make this resonate with customers, particularly those who focus strongly on capital cost?	Some customers may say they are not interested in sustainable buildings. But all want low operating costs, great spaces for people and social returns are important to them, as well as meeting budget limitations. It's not enough for us to deliver a sustainable badge, it has to deliver these outcomes for them – then we stand a chance of convincing them.	Anonymous Attendee
83	How can you incentivise Local Authorities to catch up with your great ambitions?	We believe in working collaboratively with all our customers at whatever design stage we are involved to improve sustainable outcomes – in the new strategy for example we will start to offer a design pathway to net zero carbon for all new projects where we are involved early, and for some aspects of the net zero approach (PV investment or Energy Synergy <sup>TM</sup> monitoring for example) they can be adopted by customers whatever the project type/structure. So 'low hanging fruit' can still make a significant difference to outcomes.	Annie BREWSTER

85	How can Willmott Dixon influence clients to subscribe to the vision when it doesn't always have influence on the design and the price is given in a competitive environment.  Moreover we are stuck with CapEx and OpEx budget separation (rather than TotEx) which on the face of it is diametrically opposed to this goal.	Separation of capex and opex budgets is always going to make investment in sustainable outcomes harder. Our biggest opportunity to show customers the way to show them evidence of where their peers have taken a step forward in aiming for Brilliant Buildings and achieved good outcomes, including affordable capex costs. Where our design influence is limited, our ability to deliver added value on top of that design might be the way we are judged in the market.	Steve Elkin
96	There are so many property businesses who are struggling with property stewardship - especially of old, graded buildings, both in embodied and ongoing impacts. How will you share your insights with them and inspire them to step forward, when they are not your clients?	Great examples of sustainable refurbishments with demonstrated outcomes are the key to success here − aspects of Brilliant Buildings such as PV investment or Energy Synergy™ monitoring for example can be adopted by many customers whatever the scale of project	Nadine Exter
107	How will you measure and verify the carbon performance? How will you be able to access the data under GDPR regulations?	Verification is the core of our Energy Synergy <sup>TM</sup> approach - <a href="https://www.willmottdixon.co.uk/energysynergy">https://www.willmottdixon.co.uk/energysynergy</a> . On pilots of this approach we have already shown significant savings in % operating cost reduction, and we'll be using this approach on virtually all new non-domestic projects going forward. On domestic projects where GDPR is a potential issue, our plans are to build in low cost and data-anonymised energy monitoring as a standard feature of future projects	Shaun Hoppins

117	There is no doubting the
	ability for new buildings to
	be designed and constructed
	to be great buildings. The
	bigger question relates to the
	existing building stock and
	how we upgrade them to
	mitigate the impact they
	continue to have on the
	environment, it is here that
	cost becomes a bigger
	challenge for customers and
	their decision making
	processes.

dependent on your major

Great examples of sustainable refurbishments with demonstrated outcomes are the key to success here – aspects of Brilliant Buildings such as PV investment or Energy Synergy<sup>™</sup> monitoring for example can be adopted by many customers whatever the scale of project. Refurbishment is often better in embodied carbon impacts terms as well of course.

Brilliant Buildings: Supply chain and embodied carbon



and a	Brilliant Bul	laings: Supply chain and embodied carbon	
1	What is WD's plan to change	We will be looking at how to align all elements of our supply chain with the Now or	Anonymous
	all of their site hoarding to a	Never ambitions including site hoardings. If you have products or services you	Attendee
	more sustainable option	believe will accelerate our delivery of Now or Never please get in touch via <u>now-or-</u>	
		never@willmottdixon.co.uk	
13	How can you get the tendering system to reflect whole life performance when contracting bidders tend to be price takers and not price takers. Are you not	Some customers are already asking for a greater focus on lifecycle costing rather than capital cost alone. Being a trusted partner is a key enabler in Now or Never, as part of that we believe there is an onus on Willmott Dixon to offer clear and transparent alternatives that demonstrate the value of more sustainable solutions.	Madoc Batcup

Stuart Jones

Batcup

	clients tendering contracts in a different way?		
14	Where will the embodied carbon be measure from?	We will be adhering to the principles set out in BS EN 15978:2011. Accurate embodied carbon data is becoming more common place in the construction sector as part of Environmental Product Declarations and we are working with our goods partners and consultants to harvest embodied carbon data wherever possible to build up accurate material profiles. This will allow us to predict and ultimately reduce the embodied carbon associated with the final building.	Simon Preston
15	How will WD ensure the supply chain meet the criteria?	Our supply chain is integral to the delivery of Now or Never. We want our supply chain to reflect our values, this is how we build long-term relationships and succeed together. Please see the One Team section of the full Strategy document <a href="here">here</a> for more information.	Simon Preston
24	Inspiring stuff. In our research together this year, we identified the importance of supply chain collaboration in unlocking the barriers to lower carbon construction. How will partnering in your supply chain be part of the answer?	Our supply chain is integral to the delivery of Now or Never. We want them to reflect our values, this is how we build long-term relationships and succeed together. With respect to carbon reduction, we have been partnering with a number of our supply chain organisations as the only contractor to hold the Carbon Trust Supply Chain Standard. By working closely with these businesses, we have been able to realise carbon savings in their operations of over 30% in some cases. The key is sharing common goals.  Please see the One Team section of the full Strategy document <a href="here">here</a> for more information.	Chris Clarke
30	How will you reduce the embodied carbon in your projects? At Conisbee, we are measuring the embodied carbon within our structures so that we have realistic benchmarks from which to improve. Will you be asking all design consultants	We will be adhering the principles set out in BS EN 15978:2011. We are working with our goods partners, designers and consultants to harvest embodied carbon data wherever possible and build up accurate material profiles in order to predict and ultimately reduce the embodied carbon associated with the final building.  We will be asking all elements of our supply chain to take steps to measure and reduce both the operational and embodied carbon associated with their services.	Steve Marks

	including architects, M&E engineers and structural/civil engineers to provide figures for the embodied carbon within their packages so that projects can be improved on?		
32	What about embodied carbon. Will this be taken into account?	Please see the Brilliant Buildings section of the Now or Never Strategy <a href="here">here</a> and question 62	Simon Preston
35	What will you be expecting from your suppliers? Will there be a minimum requirement to qualify as part of your supply chain?	Willmott Dixon has a <u>Sustainable Procurement Policy</u> which sets out our requirements and is in line with the first steps we are taking as part of Now or Never.	Anonymous Attendee
37	How does a mandated supplier ensure all their Environmental & Sustainable advancements are delivered at the right level and fully understood?	We have been working with our mandated partners closely to fully understand the sustainability performance of their products and the value they can add to our project teams and customers. This information is being cascaded across our business and embedded in our systems and procedures. If you represent a mandated partner and are unaware of this work please contact us at <a href="mailto:now-or-never@willmottdixon.co.uk">now-or-never@willmottdixon.co.uk</a>	mark burton
38	Congratulations on your new strategy. Rick Willmott and colleagues mentioned the need to engage the supply chain and customers in order to meet the overall ambition. How will you do this, especially to support SMEs in the supply chain and convince customers who are	90% of our supply chain partners are SMEs. Our experience is that our partners are up for the challenge that Now or Never represents. Many have great ideas and skills which will accelerate our collective progress. Our work so far on supply chain carbon has shown that with the right technical support and developing shared goals our partners can reduce their carbon footprints by 30% within a year and make significant savings on their operating costs. Supply chain partners, us and our customers all benefit from this.  budget constraints are a feature of all construction projects to a lesser or greater degree. More and more customers are already asking for a greater focus on lifecycle	Mark Jenkinson

	not quite bought in or budget constrained?	costing rather than capital cost alone because of the long-term savings it can bring.  Being a trusted partner is a key enabler in Now or Never, as part of that we believe there is an onus on Willmott Dixon to offer clear and transparent alternatives that demonstrate the value of more sustainable solutions.  Please see the One Team and Trusted Partner sections of the Now or Never strategy document <a href="https://example.com/here">here</a>	
39	Great to see your ambitions and plans. How future-ready are our supply chains at this moment & in preparing, for by way of example a 55% reduction in embodied CO <sub>2</sub> ? Thank you!	We work with a range innovative partners in lots of areas including fully electric plant during ground works, low carbon finishes and lighting products as well as powerful new digital design tools. There is huge potential in the expertise and ideas within our supply chain. One of the challenges for all principal contractors is discovering those idea and being able to leverage them and shift them to 'business as usual'.  There also remains some elements of the construction process, and materials we build from, for which we do not yet have a low carbon solution. Working together, to identify these challenges, will allow us to incubate solutions for the future.	Andrew Day
40	Great presentation and ambitions thank you. Can you say a bit more about zero carbon will that include the supply chain and how will that be measured?	<ol> <li>We have split our carbon goals into 3 areas.</li> <li>The operational carbon of the buildings we deliver</li> <li>The carbon associated with the operation of our supply chain and the materials we build with</li> <li>The carbon resulting from our own operation (our direct emissions)</li> <li>Points 1 &amp; 2 are at the core of our Brilliant Buildings theme and point 3 is included with our Better Planet theme. Embodied carbon will be measures by product and by project. Supply chain operational carbon will be measured by the supply chain partner, we have a large supply chain so this will be a gradual transition. We already have robust ways of measuring our own footprint which is published every year in our Sustainable Development Review. Please see the Now or Never strategy document here for more information.</li> </ol>	Diane Crowe
52	There is a gap in knowledge in SME's in what Sustainability means to them and how to embed it into strategy, indeed, many don't	If you have solutions you'd like to share either get in touch with your local Willmott Dixon contacts or email us at <a href="mailto:now-or-never@willmottdixon.co.uk">now-or-never@willmottdixon.co.uk</a>	Helen Taylor

	la pl fo m SN	ven have a strategy. We are aunching a community latform to address this gap or start-ups and nicrobusinesses and growing ME's. Can Willmott Dixon lelp?		
5	er cc yc	What is the scope of your mbodied carbon ommitment? Why aren't ou looking at whole life arbon?	<ol> <li>We have split our carbon goals into 3 areas.</li> <li>The operational carbon of the buildings we deliver</li> <li>The carbon associated with the operation of our supply chain and the materials we build with</li> <li>The carbon resulting from our own operation (our direct emissions)</li> <li>Points 1 &amp; 2 are at the core of our Brilliant Buildings theme and point 3 is included with our Better Planet theme.</li> <li>Collectively these elements contribute the majority of a building's whole life carbon.</li> <li>The final consideration is demolition and disposal of the building at the end of its life.</li> <li>We will be offering all customers a full whole life carbon assessment which will include this and we have set targets to recover all demolition waste at the highest possible level of the waste hierarchy, on our projects.</li> </ol>	Anonymous Attendee
6	ac ca Al tra	low do you intend to chieve net zero embodied arbon without offsetting? also what is your strategy for racking embodied carbon on our projects?	It is possible that by 2040 some elements of the extraction, manufacture and delivery of construction materials will result in carbon emissions. We expect these to be few and relatively low in impact compared to the status quo. It is possible that some level of offsetting or additionality may be required by those who have not eliminated all emissions.  As we get closer to net zero embodied carbon we will be able to give more focus to achieving net zero whole life carbon by coupling embodied and operational carbon budgets.  Our initial focus will be on using the work we have done so far to set baselines for different sectors and build types. New digital design software is also allowing us to	arthur coates

		model and integrate embodied carbon reduction into our designs and track outcomes project by project.	
80	A hypothetical - If embodied carbon calculation was required by regulation for all buildings and minimum embodied targets set next year 2021. How do feel WD or the industry in general would cope with such a change with our current knowledge and systems?	We offer our customers lifecycle carbon assessments (LCA) already. We are beginning to see much more interest in these assessments, especially when coupled with lifecycle cost exercises and this interest is likely to grow.  There are a number of established LCA tools which cater for the construction sector so we do not believe there is any technical barrier to making LCAs a common deliverable on projects.	Anonymous Attendee
97	If the supply chain has existing solutions within their business now as to tackling and managing the sustainability issues you are looking at - how would we collaborate with each other?	We know our supply chain have great ideas and we want to hear them. If you have solutions you'd like to share either get in touch with your local Willmott Dixon contacts or email us at <a href="mailto:now-or-never@willmottdixon.co.uk">now-or-never@willmottdixon.co.uk</a> .	Colin Shaw
103	How do you actually intend to meet the stretch targets for embodied carbon as mentioned (LETI Residential Targets 500 kgCO2e/m2 GIA and 35 kWh/m2/yr) if the specification of structural timber and timber cladding is going to be outlawed by the insurance industry and post-Grenfell regulation?	Using timber frames certainly reduces a building's embodied carbon significantly but its not a suitable alternative for all construction types. So we need to find innovative ways of reducing the carbon associated with concrete/steel frames irrespective of the sector's position on structural timber. In the short to medium term there are ways to do this; shifting to toward a design for manufacture approach allows us to reduce our use of 'C1' concrete mixes and increase the use of fly ash or blast-furnace slag in precast elements which has a big affect. Maximising timber elsewhere in the design especially in residential buildings where there are a lot of fixtures and fittings can make a difference too.	Heidi Collocott

		In the longer term decarbonising the production of energy intensive materials and re-using existing structures is vital.  With regard to operational carbon in dwellings, we have already started work on this and are confident that the LETI 35kWh/m2/yr is achievable.	
110	How are you engaging with your supply chain outside of your approved supply chain such as roofing?	Our mandated partners remain a key part of our supply chain, they will always be our first port of call when looking for sustainable solutions. We will be working with them closely to deliver our strategy ambitions.  Our agreements are reviewed at the end of each term. Where we feel there are gaps in ability to deliver those ambitions we engage with the market to find the best solution.	Roland Jackson
111	So how are you going to change the mindset of the people working with WD?	The values, mindset and behaviour of our people, supply chain and customers underpins our ability to deliver Now or Never. Please read about our enablers in the Now or Never Strategy document <a href="https://example.com/here.">here.</a>	Simon Goldman
112	Will you help to make clear what companies need to do to work with you to improve our products and services, particularly SME companies?	Willmott Dixon has a <u>Sustainable Procurement Policy</u> which sets out our requirements and is inline with the first steps we are taking as part of Now or Never. If you have products or services you believe will accelerate our delivery of Now or Never please get in touch via <u>now-or-never@willmottdixon.co.uk</u>	Anonymous Attendee
124	We would be like to discuss how we can play our part and help out on your journey on sustainability?	If you have products or services you believe will accelerate our delivery of Now or Never please get in touch via <a href="mailto:now-or-never@willmottdixon.co.uk">now-or-never@willmottdixon.co.uk</a> and send us some information	Adam Chapman
126	Can you help me ask the right questions to our materials supply chain for products that give improved sustainability? - please can	Willmott Dixon has a <u>Sustainable Procurement Policy</u> which sets out our requirements and is inline with the first steps we are taking as part of Now or Never.  With regard to furniture and fittings our targets around zero single use plastic, as well as reducing and recycling packaging are key. We are happy to discuss what our	John Baker

	we discuss outside of this meeting? thanks!	new strategy means for our supply chain partners. Please drop you local Willmott Dixon contacts a line or contact us via <a href="mailto:now-or-never@willmottdixon.co.uk">now-or-never@willmottdixon.co.uk</a>	
Bui Liv	lding es Building Liv	es	
22	How will you assess your impact on local communities? Where will this be reported?	We have independent impact forms to be completed by the people in the community we are aiming to help. These will start to be used immediately. We also report the Social Return on Investment using the external validated TOMs*. Moving forward we know we need to do more though, and I would expect us to link our impact assessment to the "need" that is identified. We aren't yet sure exactly how we will do this. If you have any ideas and want to continue this conversation then please contact <a href="mailto:Sarah.Fraser@willmottdixon.co.uk">Sarah.Fraser@willmottdixon.co.uk</a>	Anonymous Attendee
		*Themes, Outcomes and Measure (TOMs) - Developed by Social Value UK (SVUK). The TOMs Framework provides a recognised reporting standard for measuring social value.	
53	Quite rightly WD is focusing its sustainability strategy on young lives but I'm 63 - what can older members of our community do to help, bearing in mind many of us	Connecting young people and those facing significant barriers to those who can support them will be key to the success of our strategy. If you want to contact <a href="mailto:sarah.fraser@willmottdixon.co.uk">sarah.fraser@willmottdixon.co.uk</a> we can start a conversation about how you could help!	Jim Green

	have spare time, capital and living space, experience and knowledge - Jim Green		
121	I would Like to have my team help you overachieve on NZC in construction (i think that you can get there in less than 20 years) and also in helping young people come out of poverty - who is the best person to develop this with?	If you want to contact <a href="mailto:sarah.fraser@willmottdixon.co.uk">sarah.fraser@willmottdixon.co.uk</a> we can start a conversation about how you could help.	Darren Evans
	tter anet Better Plane	et	
6	What plans do you have to reduce plastic pollution within the industry? This is what we at Changing Streams are focusing on and I would be delighted to engage and discuss with you.	We will focus initially on eliminating single use plastic in our own purchasing decisions (e.g. for our offices, site welfare and events). We will also work with our mandated suppliers to reduce plastic and packaging of their products and also with our Category A and A+ works partners who we work with most closely.  If you have products or services you believe will accelerate our delivery of Now or Never please get in touch via <a href="mailto:now-or-never@willmottdixon.co.uk">now-or-never@willmottdixon.co.uk</a>	Neal Maxwell

	each year being off-set by investing in high-quality carbon reduction projects across the world.  How is this calculated, and will Willmott Dixon continue to invest in these projects after 2030?	We have not made a decision regarding investment in offsetting when we achieve zero-carbon. It is likely that the market for high quality offsets will be heavily oversubscribed by 2030 as many companies rely on them to achieve their net zero ambitions. During the next decade we will also be increasing the impact we achieve through investing in social value, and also through our new initiative to plant 100,000 trees in association with and for the benefit of local communities.	
20	As part of the measurement and verification of carbon emissions, do you see a role for benchmarking across projects/building assets/components? Would that be internally within Wilmott Dixon and the supply chain, or externally too?	Benchmarking is a helpful tool, but relies on the inputs being comparable. For Willmott Dixon emissions we will benchmark office and site cabin efficiency which are directly comparable. Construction emissions and emissions from the supply chain are more variable and therefore challenging to benchmark.  On benchmarking embodied carbon for construction materials/procurement we do plan to benchmark, using digital tools such as ECCOlab, those emissions in kgCO <sub>2</sub> e/m <sup>2</sup> GIFA terms across projects and build options – the reference embodied benchmarks developed by LETI will also be part of our benchmarking of progress.	Chris Fry
28	How are you going to be a zero-carbon business without offsetting, when there's not a zero carbon alternative to gas or gas oil?	Where we are currently using gas or gas oil/diesel, we will need to find zero carbon alternatives. Our first focus is to switch to electric (e.g. getting a grid connection rather than using diesel generators or using electric heating rather than gas heating). It might mean using an alternative (e.g. green gas or renewable hydrogen).	Anonymous Attendee
29	Do you have plans to harness any hydrogen based technologies as part of your future design and construction strategies?	We are not currently trialling any hydrogen based technologies, but we recognise the need to innovate and change to meet our ambitions to this is likely to become one of the options.	Andy Elder

31	When you say you will be zero carbon company by 2030, can you confirm this is for operational energy only so excludes embodied carbon and scope 3?	The ambition to be a zero-carbon company by 2030 relates only to Willmott Dixon's own operations (primarily Scope 1 and 2 with limited elements of scope 3 such as business travel). We have separate ambitions relating to embodied carbon "By the end of 2040, all our buildings and major refurbishments will be delivered with net zero embodied carbon" and supply chain operational carbon "By the end of 2040, our supply chain will achieve net zero operational carbon".	Sarah Gealy
48	Electric vehicles are a brilliant way to reduce impact on site, but how are you managing this against the carbon used to build the vehicles themselves? Will you be purchasing a new fleet or investing in second hand electric vehicles?	Willmott Dixon does not own a fleet of vehicles. All of our vehicles driven by our people on company business are either company cars or owned by the individual.  Embodied carbon makes up a significant portion of a vehicle's carbon footprint but the decision around whether it is more carbon efficient to retain an existing vehicle vs purchasing a new vehicle vs purchasing a second hand vehicle depends on a number of factors including vehicle efficiency of the old and new cars, typical mileage, size and model of car etc.  To incorporate embodied carbon into our strategy we will promote electric vehicles as a priority for replacement of diesel/ petrol vehicles to maximise the carbon savings vs the embodied carbon.  We will be using incentives to encourage our people to purchase electric cars but we have not specified if these are new or second hand.	Anonymous Attendee
51	The notion that you can leave every site better than you found it is something that I find quite challenging. It is hard to imagine how is this is possible on a green field development. What's your view on green field development?	Our initial focus will be on biodiversity net gain. There is a well established methodology for this which involves minimising loss on site, then doing all you can to enhance biodiversity within the site boundaries. It is possible that for some sites it will not be possible to implement a net gain. In these cases, the established process is to look for compensation elsewhere. In addition, we will go above and beyond this with our target to plant an additional 100.000 trees. For wider environmental issues, we are working with other organisations such as UKGBC to establish a similar method for environmental net gain.	Anonymous Attendee

60	What is your target for biodiversity net gain?	For biodiversity net gain, our approach will be to work in accordance with the forthcoming legislation and with each of our customers to establish an appropriate target for each project. In addition, we will go above and beyond this with our target to plant an additional 100.000 trees – biodiversity gain will be one of the key criteria in selecting partners for this.	Anonymous Attendee
76	How will a complete fleet of electric company vehicles work for those sites that don't offer these parking facilities and/or people that aren't able to charge their vehicles from home due?	In the short term ownership/use of an electric vehicle will be more challenging for our people who are not able to charge at home and/or for those sites without parking facilities. A plug in hybrid offers greater flexibility if there is at least one regular location where it could be charged. We will also continue to provide support for our people to use public transport to travel.  In the longer term, developments like on-street charging points are likely to increase and it is likely that there will be a big increase in the use of shared ownership models like car clubs rather than owning a car.	Anonymous Attendee
77	Does Willmott Dixon use Site Waste Management Plans to measure waste? This is no longer a legal requirement but demonstrates good practice.	We have created a bespoke waste prediction tool that enables us to predict the waste generated on our projects and allows our sites to create a waste management plan- this approach has helped us reduce our wast intensity by 55% since 2012. Waste is then measured throughout the project using our mi project database which records each waste load removed from site.	Diana Lock
89	How do you define 'avoidable waste' and how will you monitor this?	We are using the definition of avoidable waste from the Construction Leadership Council (see <a href="https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2016/05/ZAW-Report-Final-Draft-25-February-2020.pdf">https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2016/05/ZAW-Report-Final-Draft-25-February-2020.pdf</a> ). Our metrics do not yet allow us to fully monitor against this definition so we will be developing these over time. Our first change has been to change from monitoring a waste intensity metric to absolute waste.	Alice Liddell
90	What aspects are you including within environmental net gain and do you have any thoughts on metrics?	We consider that achievement of environmental net gain is the right ambition, but we don't yet have a full working methodology for it. We look forward to developing this by working with others (e.g. currently as part of the UKGBC work on nature based solutions).	Peter Dorans, WLT

92	At the personal level - what are the three main things an individual can to reduce their impact?	There are a number of good websites that can help you with this question. For example the World Wildlife Fund has a personal footprint calculator ( <a href="https://footprint.wwf.org.uk/#/">https://footprint.wwf.org.uk/#/</a> ). Our favourite is <a href="this one">this one</a> from Carbon Footprint which regularly tops "best of" polls.  Some of the easiest things to do are to reduce or stop flying and driving, cut down the amount of red meat you eat, insulate your home or turn your thermostat down by 1degC, and turn off appliances including chargers.	Anonymous Attendee
94	Most buildings contain a lot of steel in both frame and reinforcing. I am interested to know how you will achieve net carbon without offsetting for this material	It is possible that by 2040 some elements of the extraction, manufacture and delivery of construction materials will result in carbon emissions. We expect these to be few and relatively low in impact compared to the status quo. Significant improvements in electrification of production are expected and the sector will need to prioritise re-use of energy intensive materials like steel.  It is possible that some level of offsetting or additionality may be required by those	Jonathan Dronsfield
	With regards to the move to electric vehicles and the possible problems with National Grid supply of electricity, are you also contemplating a move to hydrogen and campaigning for a growth in supply of hydrogen?	who have not eliminated all emissions.  We do not own a fleet of vehicles; our business mileage is from our people driving their own vehicles. Our focus is to encourage our people to adopt the best available technology for cutting emissions — currently electric vehicles. We will keep this under constant review and update accordingly. We continue to work with our peers and beyond our sector eg with the Aldersgate Group to encourage the Government to support the decarbonisation of the transport network.	
99	What are the biggest challenges you face with eliminating waste during construction? data, skills, supply chain etc	Every construction project is different. One size does not fit all and the number of different roles and organisations involved does present a challenge when tackling this issue – particularly in ensuring clear communication and accountability.  This also means that replicating good practice at scale can be a challenge.  Treating waste elimination as a priority has to start during the early pre-construction stages of a project. The ability to influence change diminishes as a project develops.	Brittany Harris

100	Has any consideration been given to incorporating some form of pain/gain mechanism within sub-contracts matched against sub-contractor's achieving both (i) certain targets for minimising waste and energy/water usage on site; and (ii) achieving a better carbon footprint (in terms of both during the works and the building post-completion)?	Willmott Dixon has used such methods to incentivise waste reduction in the past. The challenge lies in determining the baseline from which to form any pain/gain mechanism given there is significant variability in build type and sub-contract packages of work. Where the data is available and a fair and transparent approach can be implemented these types of mechanisms are a useful tool but not a silver bullet. Our underlying approach is to work closely with a trusted supply chain who share our aims and objectives and hence offer solutions to these issues as part of normal working practice.	Michael Bennett
102	We bring science and industry together to drive change to ensure we do things better. We have solutions on supply chain engagement and various initiatives to deliver on our ambitions to reduce the use of plastic in both packaging and materials. Happy to discuss cost.	If you your services can help us accelerate our delivery of Now or Never please send more details including case-studies to <a href="mailto:now-or-never@willmottdixon.co.uk">now-or-never@willmottdixon.co.uk</a>	Neal Maxwell
119	The Demolition industry has one of the highest level of recycling in the UK (average 97%). The construction industry seems to be going more green re plant (green fuels etc), what further can the demolition industry do to	For demolition waste, consider if there is potential to move up the waste hierarchy (more reuse compared to recycling) to maximise value from the material.  And consider how to become a net zero carbon business — what is your current carbon footprint and can carbon emissions be reduced?  And advice and support on how to make future buildings more circular in terms of design for disassembly.	Anonymous Attendee

		provide further green options?		
1	.20	Ensuring sites rely on electricity is dependent on external parties like UKPN who can be very slow - how will you influence this/work around it?	Getting grid connections is very important. We always start the process as early as possible so there is advance warning of any issues, consider options to address any issues (e.g. redesign site set ups to reduce loads) and consider use of IDNOs alongside UKPN. If standalone power is required if these issues cannot be solved, hybrid generators will be used in the shorter term.	Alice Liddell