



Our Sustainability Strategy

# Building New Futures



**Balfour Beatty**



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# Foreword

2020 will go down in history as a watershed year. Not only because of the devastating impact COVID-19 has had on health, wellbeing and economies, but also because of how it has caused governments, business leaders and ordinary citizens to acknowledge that rebuilding the global economy must not come at the expense of the planet.

We cannot simply pick up where we left off before COVID-19 hit. In recovering from one global crisis we must not make another – climate change – worse. From the Green Industrial Revolution launched by British Prime Minister Boris Johnson to the \$2tn Green New Deal promised by US President-elect Joe Biden, and Hong Kong Chief Executive Carrie Lam’s recent commitment to further Hong Kong’s Climate Action Plan 2030+, governments are investing to ensure that economies bounce back stronger but without the huge increase in carbon emissions which accompanied the last financial recovery.

As a linchpin of global economic growth, the construction and infrastructure industry will be central to a sustainable recovery. New, low carbon infrastructure – which Balfour Beatty is perfectly positioned to deliver – will play a leading role in stimulating growth and creating high-skilled jobs for the future. But as we deliver new infrastructure, we must keep at the forefront of our minds that our industry has a significant environmental and waste footprint.



Balfour Beatty has long been at the forefront of sustainability, having achieved a 51% reduction in carbon emissions since 2010 and last year, over 97% of our waste across the

UK and Hong Kong avoided landfill. Our recent commitment to increase the proportion of our UK workforce in ‘earn and learn’ positions – apprenticeships, graduate positions and sponsored students – to 5.7% further demonstrates our commitment.

But things have moved on since the last iteration of our Sustainability Strategy. Our understanding of the scale of the challenge and the tools now available to help us respond have improved. That’s why we have refreshed and updated our Sustainability Strategy, “Building New Futures”. That’s also why, five years on from the start of our Build to Last transformation programme, we’ve refreshed our Group Cultural Framework to include ‘Sustainable’ as a new value, alongside Lean, Expert, Trusted and Safe.

“Building New Futures” charts a course for us to go further, faster. It’s been developed with input from key stakeholder groups in the UK, US and Hong Kong, and is focused on the three areas most important to our business – the environment, materials and communities. It sets firm 2030 targets, including a formal commitment to set a science-based target to reduce carbon emissions, and outlines our 2040 Ambitions to go Beyond Net Zero Carbon, to Generate Zero Waste and to Positively Impact More than 1 Million People.

For us, it’s about being responsible and leaving a positive legacy.

Balfour Beatty will step up. We will play our part, moving our business forward, sustainably, and in doing so we will help build a better future for everyone.

**Leo Quinn**  
Group Chief Executive  
December 2020

Images on cover:

Top - Penny’s Bay COVID-19 Quarantine Facilities, Hong Kong

Right - Apprentice on site at Audley Coopers Hill retirement development, Surrey, UK

Bottom - North Coastal Live Well Health Center, California, US

# Building New Futures

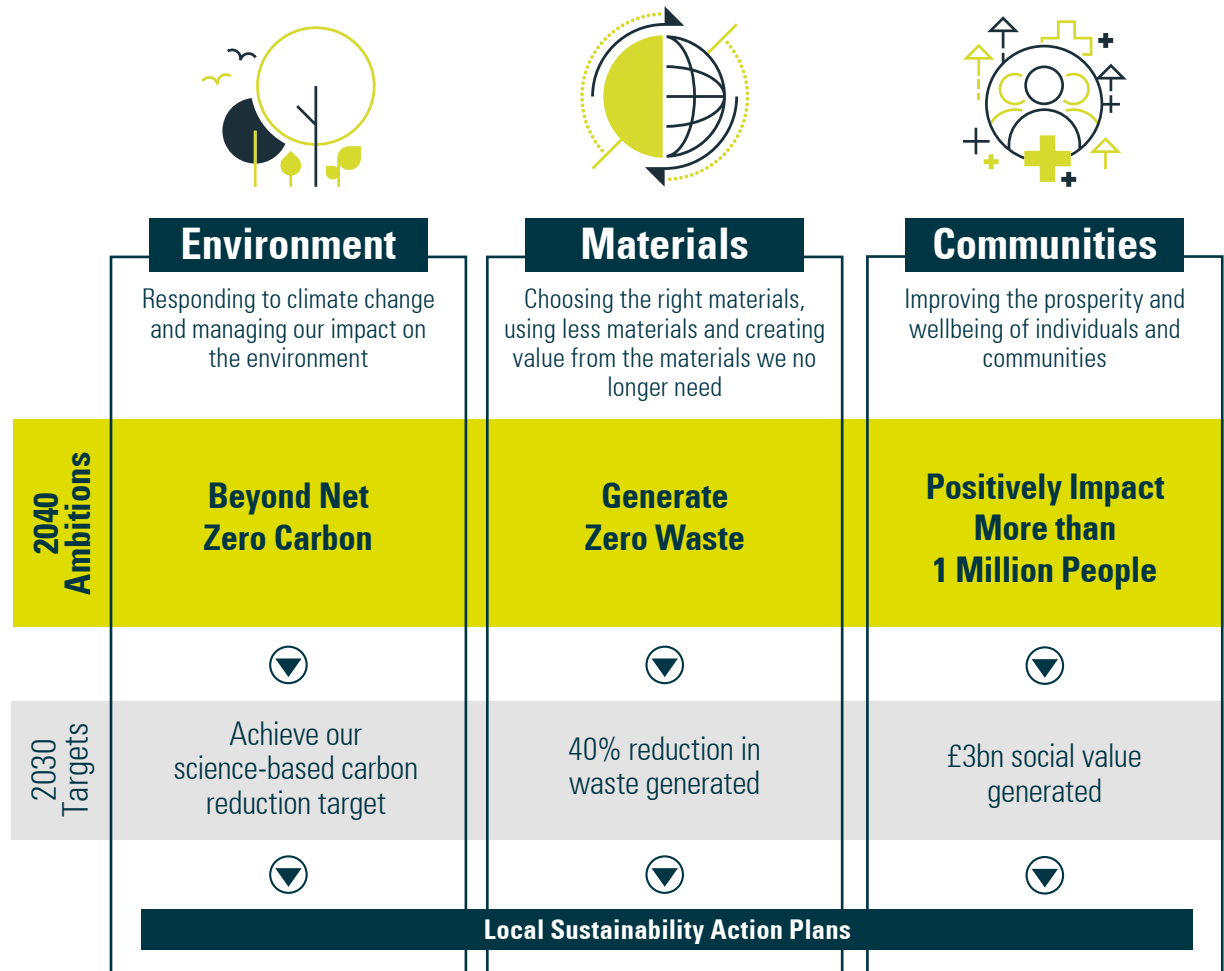
Balfour Beatty prides itself on being a responsible, sustainable business. Our refreshed Sustainability Strategy embodies our ambition to go further to reduce our environmental footprint and to have a positive, sustainable impact wherever we work.

But ‘Sustainability’ is not a one-size-fits-all approach. So, in line with Balfour Beatty’s “think global, act local” guiding imperative, our aim is to set out our global goals, to provide an overarching framework and empower our colleagues to take action to deliver a better future in their geographies. Across the UK, US and Hong Kong, each of our businesses are now developing bespoke Sustainability Action Plans to ensure we address specific local challenges and priorities and leave a positive legacy in the communities we serve.

Uniting each of our Sustainability Action Plans are our three 2040 ambitions:

- Beyond Net Zero Carbon
- Generate Zero Waste
- Positively Impact More than 1 Million People

Underpinned by our 2030 targets and aligned to the UN’s Sustainable Development Goals<sup>1</sup> (SDGs) which provide a blueprint to achieve a better and more sustainable future for all, each of our 2040 ambitions focuses on an area that has been identified as the most material to our business by key stakeholder groups including our customers, employees, shareholders and the communities we operate in. Each area is aligned to one or more SDGs with our Strategy as a whole focussing on the parts of SDG 9 – Industry, Innovation and Infrastructure<sup>2</sup> - that are most relevant to us.



### Did you know?

Our Environmental, Social and Governance (ESG) performance is measured through the FTSE4Good index – a series of benchmark sustainable investment indices. Our MSCI ESG AA rating<sup>3</sup>, which measures resilience to long term industry material ESG risks, benchmarks us as a leader in managing ESG risks.



3 1 – <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>  
 2 – <https://sdgs.un.org/goals/goal9>  
 3 – <https://www.balfourbeatty.com/msci>

# Beyond Net Zero Carbon

In the rapidly changing world we live in, making a positive contribution to communities requires all of us to pull in the same direction and to be bold in ensuring that how we operate helps, rather than hinders, in addressing the big societal challenges we all face. Without question, climate change is chief amongst those global challenges.

That is why Balfour Beatty has set out its ambition to go Beyond Net Zero Carbon by 2040.

We know that the building and construction sector has a significant environmental footprint. It accounted for the largest share of both global final energy use (36%) and energy-related CO<sub>2</sub> emissions (39%)<sup>1</sup> in 2018. As such, the industry has a key role to play in abating the terrible consequences of climate change being seen across the world.

That's why we're taking action to reduce the net carbon emissions of our direct and indirect operations to zero by 2040, by continuing to implement the Institute of Environmental Management and Assessment's (IEMA) Greenhouse Gas Management Hierarchy<sup>2</sup>.

To really shift the dial on this, we're collaborating with our supply chain partners and aiming for all products and materials we procure to be net zero carbon by 2040. In limited cases where we aren't able to reduce emissions, we will invest in

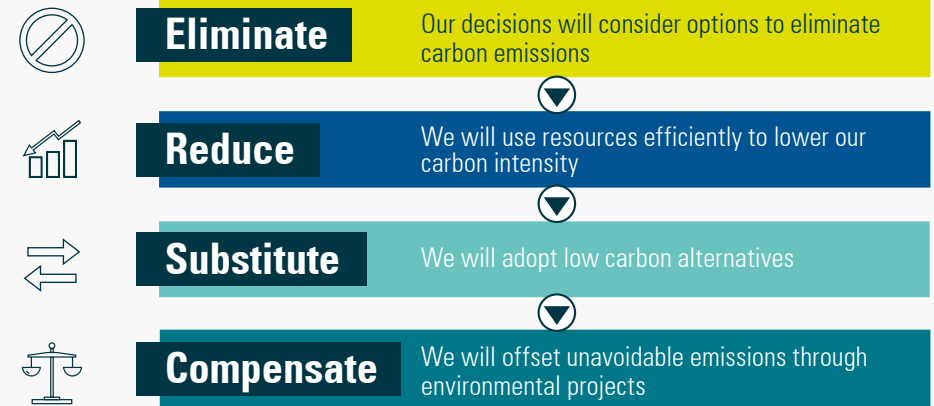
environmental projects, in the form of carbon offsets, to make sure we go beyond net zero carbon by 2040.

Here's some of the actions we're taking:

- Working with our supply chain partners to report and reduce embodied carbon in materials they supply to us
- Developing new solutions and technologies to drive net zero outcomes for our customers by collaborating across the value chain
- Switching to renewable electricity across all our operations
- Decarbonising our plant and fleet, including switching from diesel to electric, hybrid or hydrogen powered solutions

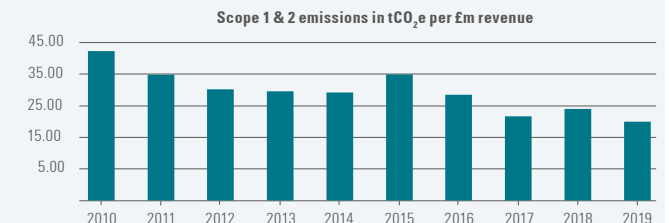
<b>2030 target</b> Achieve our science-based carbon reduction target <sup>3</sup>	<b>Measurement</b> Scope 1, 2 and 3 emissions	<b>Primary UN Sustainability Development Goal</b>	<b>13</b> CLIMATE ACTION 
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## IEMA's Greenhouse Gas Management Hierarchy<sup>2</sup>



## Did you know?

We've reduced our carbon emissions by 51% since 2010.



4 <sup>1</sup> – <https://www.unenvironment.org/resources/publication/2019-global-status-report-buildings-and-construction-sector>  
<sup>2</sup> – <https://www.iema.net/document-download/51806>  
<sup>3</sup> – We have formally committed to setting a science-based target to reduce our carbon emissions which we will be agreeing with Science Based Targets initiative

# Beyond Net Zero Carbon

## What we're doing now



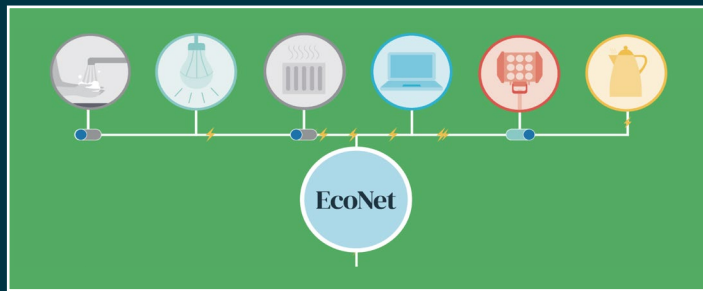
### Hong Kong: Enertainer – creating an emission free future for construction

Our Hong Kong joint venture, Gammon, has collaborated with a Hong Kong based start-up, Ampd Energy, to develop the next generation of clean energy for construction sites.

The result is the Enertainer, a lithium-ion battery storage system intended as the primary source of power for machinery with high peak demand on-site, which significantly reduces CO<sub>2</sub> generation and reduces noise pollution.



Scan or click on the QR code to watch the Enertainer video



### UK: Reducing on-site carbon emissions by up to 80%

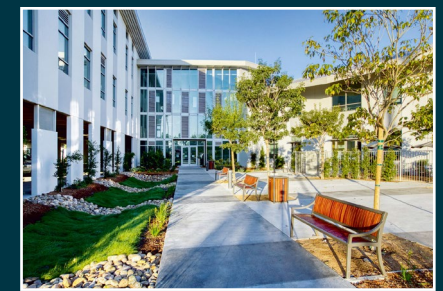
Managing the power supply to our site compounds, our new EcoNet technology automatically turns appliances and equipment off when not in use, including over weekends and when sites are not occupied. This helps to regulate consumption when demand is at its highest, reducing demand on grid connections or diesel generators used to power sites.

Developed in collaboration with Sunbelt and Invisible Systems, EcoNet was first trialled on our East Leeds Orbital Route project, a large-scale highways contract to build 7km of outer ring roads around Leeds city centre. In the first six months of use, it resulted in an 83% reduction in carbon emissions by optimising the heating, hot water and external lighting schedules.

EcoNet has been rolled out across 21 sites in the UK to date, with plans to further roll it out to 50 sites by summer 2021, and a commitment to use it on any new site that has more than six cabins. Once fully embedded, it will save a minimum of 2,200 tonnes of carbon dioxide emissions per year.



Scan or click on the QR code to see a short animation on how EcoNet works



### US: Maximising sustainable design principles at the North Coastal Live Well Health Center

Working with HMC Architects, we designed and built the first county-owned zero net energy medical office listed in California.

The architecture, engineering, landscaping and building systems were designed for efficiency and ease of maintenance. The facility, which has achieved LEED Platinum Certification - a mark of quality and achievement in green building - features several water and energy conservation measures and maximises passive cooling techniques as well as the use of renewables.

# Generate Zero Waste

Waste has become a growing environmental threat which has a significant impact on public health and on our natural environment. We aim to be bold and set the pace in addressing this.

From the depletion of natural resources to the emissions and runoff generated by landfill and the pollution associated with manufacturing and processing materials, waste is an issue of increasing global concern. As cities grow and populations increase, so will the demand for infrastructure and the raw materials required for its construction. The construction and infrastructure industry needs to take action now to make sure it is acting responsibly.

Curbing the amount of waste our schemes generate, recovering materials and properly managing the waste we do create has long been a priority for Balfour Beatty. We are proud of our track record in this area which last year, in the UK and Hong Kong, seen us divert 97.5% of our waste from landfill.

But our aim is to go further and to do more. That's why we are setting out a clear ambition to generate zero waste from our operations by 2040.

To make sure we deliver this, we'll be working with our partners right from the start of every new scheme to make sure we're looking for solutions that Generate Zero Waste through design and construction, applying the waste management hierarchy shown opposite. Where this is not possible, our priority will be to maximise the value of materials throughout their lifecycle.

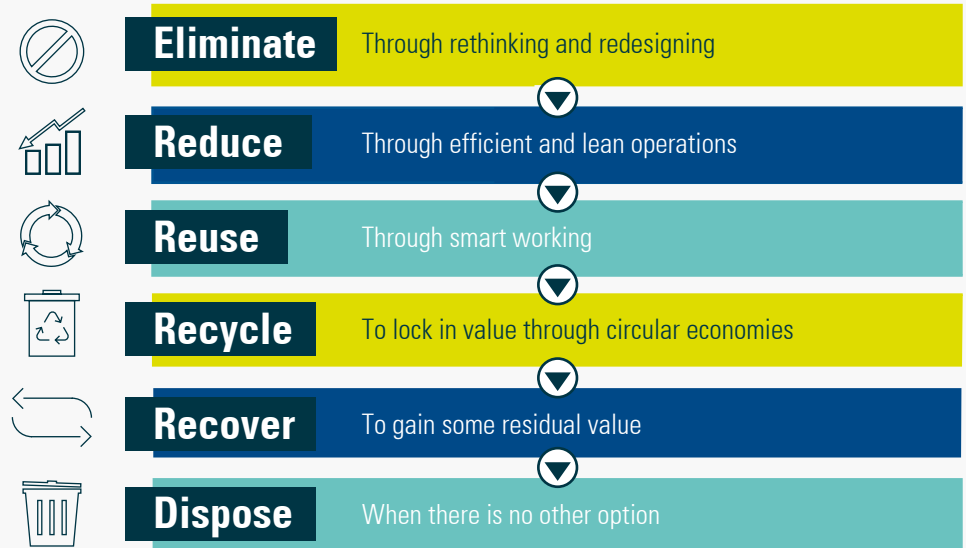
Bringing all of the parties – customer, designer, contractors and supply chain partners – to the table from the outset will allow projects to be developed in a manner that eliminates waste by design and enables circular economy initiatives such as take back schemes for packaging and unused materials to be utilised.

Increased demand for materials and dwindling natural resources will help drive the development of innovative new ways of working that will help us achieve our ambition to Generate Zero Waste by 2040. Modern methods of construction, such as off-site manufacturing and modularisation, will also help to streamline the sector's operations, helping to reduce waste and activity on-site and delivering significant quality, productivity and safety benefits.

Modern tools and construction methodologies such as virtual and augmented reality and scanning technologies will also help to reduce waste, with smart material selection and management leading to a high percentage of an infrastructure asset being recycled at the end of its lifecycle. To date, we have delivered significant value to our customers by applying this approach and recycling aggregates and clay on highways projects, as described on page 7.

<p><b>2030 target</b></p> <p>40% reduction in tonnes of waste<sup>1</sup> generated per £1 million of revenue<sup>2</sup></p>	<p><b>Measurement</b></p> <p>Tonnes of waste<sup>1</sup> generated per £1 million of revenue</p>	<p><b>Primary UN Sustainability Development Goal</b></p>	<p><b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION</p> 
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## Waste management hierarchy



## Did you know?

In the UK and Hong Kong, we diverted 97.5% of our waste from landfill in 2019.

# Generate Zero Waste

## What we're doing now



### UK: Smart materials management saves £2 million

Working on the M4 Junction 3-12 motorway upgrade, our materials management team have made nearly £2 million of savings through on-site reprocessing of 340,000 tonnes of aggregate and clay that was then reused on the project.

This was achieved through redesigning part of the project to follow circular economy principles with the clay that was originally going to be removed from site used to create embankments. Other materials that were reprocessed were subsequently used as sub-base materials.

A further benefit of this approach was the reduction in the haulage of materials and associated emissions. The team estimates that approximately 340,000 km of lorry movements were saved during an 18-month period.



### UK: 89% reduction in materials delivered through innovation

Our signalling renewals teams working at Hither Green, London have developed a new anchor post system to support elevated cable routes. The new anchor post foundation uses steel micro-piles that are driven into the ground, removing the need to use cast in-situ posts.

Using this Network Rail approved system has delivered:

- 73% embodied carbon reduction on materials
- 89% material saving
- 60% time saving on foundation installation
- 40% cost saving
- Zero on-track plant and zero water consumed
- Reduced safety risks



### Hong Kong: Modular Integrated Construction reduces environmental impacts

During phase two of the Penny's Bay COVID-19 Quarantine Facilities project in Hong Kong, Gammon designed and sustainably fabricated 700 temporary quarantine units in just 87 days.

Completing 95% of all works using modular integrated construction methods, the team achieved:

- 68% reduction in waste sent to landfill compared to traditional construction methods
- 38% reduction in carbon intensity measured against a typical residential project average
- 76% reduction in water intensity

# Positively Impact More than 1 Million People

Infrastructure already has a hugely positive impact on people’s lives. From transport links which help people access jobs, leisure activities and friends and family, to the assets which deliver the water and energy to homes and businesses around the world, its impact is felt every second of every day.

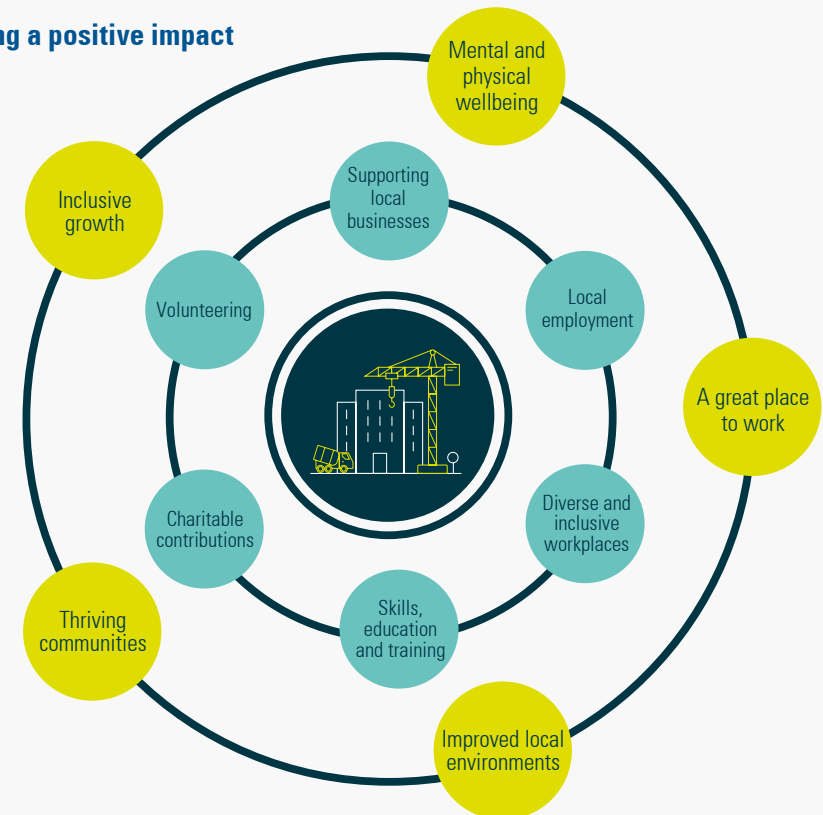
But beyond the immediate benefits of the assets themselves, the sector also has a significant social impact: regenerating communities, driving employment and training opportunities, enhancing biodiversity, supporting small, local supply chain partners and minority businesses, boosting growth. It literally has the power to transform lives and build new and better futures. This ‘social value’ has long been embedded in how Balfour Beatty operates. For us, it’s a core element of leaving a meaningful, lasting legacy in the communities we work with and it has seen the projects we deliver improve the wellbeing and prosperity of many thousands of people. But we want to go further. We want to make it clear how important this is to us by making it our ambition to Positively Impact More than 1 million People by 2040.

Our ambition to Positively Impact More than 1 Million People between now and 2040 seeks to build upon our existing social value measures to capture the broader positive and lasting impact we have on people’s lives. This means, for example, that we’ll look more holistically at the wider impact of the volunteering our workforce undertake, and the number of people positively impacted, rather than simply counting the number of days spent volunteering. It’s about a greater focus on, and increased quality of the outcomes we deliver.

Our many years as a leader in this area will allow us to share best practice and cross-pollinate ideas across our three geographies, which will each have different approaches, priorities and successes. We will continue to review and evolve our approach to measuring our lasting impact on the communities we operate in as understanding across the industry evolves and matures.

<b>2030 target</b> £3 billion social value generated	<b>Measurement</b> Social Value National TOMS Framework <sup>1</sup>	<b>Primary UN Sustainability Development Goals</b>	<b>8</b> DECENT WORK AND ECONOMIC GROWTH	<b>11</b> SUSTAINABLE CITIES AND COMMUNITIES
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## Making a positive impact



### Did you know?

We’ve made a commitment to engage and measure long-term actions for black inclusion in our UK business and were the first construction and infrastructure company to sign the Audeliss and INvolve open letter committing to action. Scan or click on the QR code to the right to see a short video on why we’ve signed this letter and what it means for us and the wider industry.





# Positively Impact More than 1 Million People

## What we're doing now



### Hong Kong: WELL-ness in the workplace

Our Hong Kong joint venture, Gammon, is the first construction company in Hong Kong to have been awarded Gold level WELL Pre-certification for its new head office.

The WELL Building Standard (version 1) for Interiors, is a performance-based system for built environments that integrates health and wellbeing considerations into the design and fit-out.

The project team considered every aspect from air and water quality to light, comfort and mental wellbeing. Drinking water is filtered to a very high standard while indoor air quality monitors are set up to monitor in real time. Meeting rooms and offices have been designed to minimise noise intrusion and allow undisturbed concentration. Green walls in the communal social hub provide a calming connection to nature and in the open plan office, the height of all desks can be automatically adjusted at the push of a button.



### UK: Bringing construction to the classroom

In collaboration with SCAPE Group and Learn Live, we've been encouraging thousands of young people in the UK to consider a career in construction.

Through a series of careers focused events, that are broadcast live to schools and colleges, employees including graduates and apprentices have shared insights into the industry and answered questions submitted by viewers.

Construction LIVE is one of many initiatives that have contributed to £174 million of social value delivered across 128 SCAPE projects since 2015.



### US: Creating employment and skills opportunities for under represented groups

In the State of Washington, 15% of a workforce must be made up by State registered apprentices. Our project team working on The King County Children & Family Justice Center project exceeded phase I Project Labor Agreements and diversity goals with 26% of the total project hours being undertaken by apprentices - 23% of those apprentices were from a minority group and 7% were women.

The team also set up and completed a 12-month mentor protégé program for small contractors and supply chain partners, which was one of the great successes on this project.



### UK: Increasing our commitment to social mobility and shared prosperity

As a member of The 5% Club, a dynamic movement of employers committed to 'earn & learn' roles as part of ensuring Britain's social mobility and shared prosperity, we already exceed our charter promise to dedicate 5% of our employees numbers to such roles.

In support of our commitment to The 5% Club, which was founded by our Group Chief Executive Leo Quinn, we have made a public declaration to a c.30% increase in our UK 2020 apprentice, graduate and trainee recruitment in comparison to the company's 2019 intake levels.

# Governance

Sustainability has always been at the heart of Balfour Beatty. In 2020, we made 'Sustainable' one of our core values to further drive actions and behaviours across our company.

Our Sustainability Strategy ensures we leave a positive legacy for the people we work with, the communities we work in, and the world in which we operate. We want to enhance our impact on the environment, working with our supply chain partners, customers and communities to ensure our choices are sustainable. Making the right choices is embedded through our operations and supported with a robust governance framework.



## Our values

**We're Lean**  
We create value for our customers and drive continuous improvement

We're thoughtful and agile, continuously challenging our ways of working to improve health and safety and productivity, eliminate waste and enhance quality to make us more competitive.

**We're Expert**  
Our highly skilled colleagues and partners set us apart

Our people are leaders. We're the experts of today and inspire the leaders of tomorrow. We invest in our colleagues, building their skills and knowledge, to develop a passionate, world-class workforce drawn from all parts of our society.

**We're Trusted**  
We deliver on our promises and we do the right thing

We build trust every day by delivering on our promises, always. We're accountable for our decisions and work with the upmost integrity to ensure we're making the right choices.

**We're Safe**  
We make safety personal

Safety is our licence to operate. Nothing is more important than the health, safety and wellbeing of our colleagues and the communities we serve. We are unrelenting and uncompromising in our commitment to achieving Zero Harm.

**We're Sustainable**  
We act responsibly to protect and enhance our planet and society

We leave a positive legacy for the people we work with, the communities we work in, and the world in which we operate. We want to enhance our impact on the environment, working with our supply chain partners, customers and communities to ensure our choices are sustainable.

# Materiality Assessment

We want our Sustainability Strategy to make a difference. We want to make sure it's deliverable and, as a business that values data, that it is both fully measurable and rooted in fact.

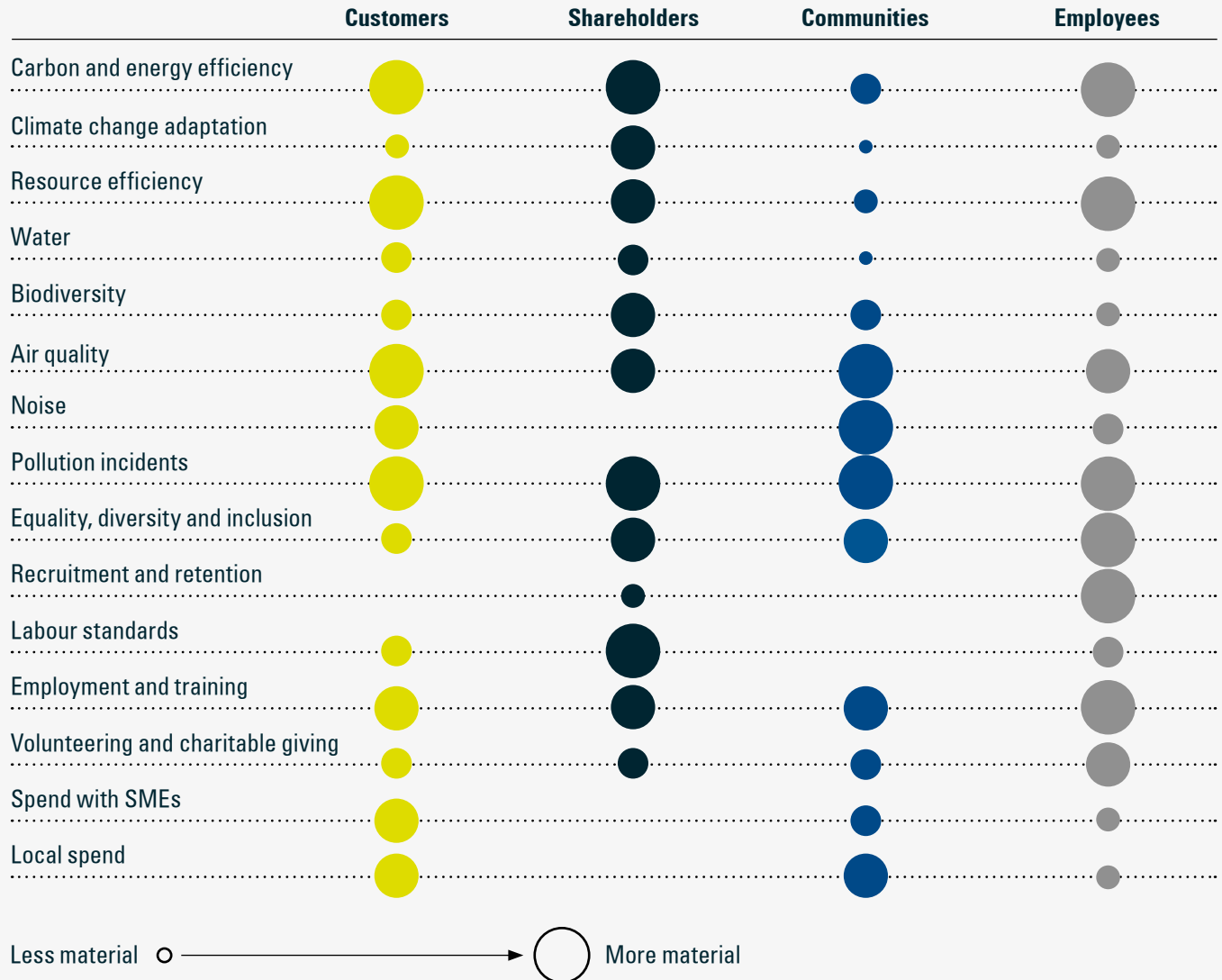
That's why we invested so much time and effort in using both quantitative and qualitative data and consulting a wide range of stakeholders on what it should include.

In 2019, we undertook a survey to identify the sustainability topics that mattered to stakeholders. Perhaps unsurprisingly, carbon, energy and climate change featured prominently alongside resource efficiency. Other topics such as environmental protection, employment practices and community engagement featured highly, as illustrated in the table opposite.

Following the survey, we continued our dialogue with stakeholders to further understand what mattered most to them in each of the areas identified. Based on this feedback, we have developed our Strategy to focus on three key areas: environment, materials and communities and further tested it with our internal sustainability specialists across the UK, US and Hong Kong as well as drawing on information from professional bodies.

## Stakeholder priorities

The table below illustrates the key priorities for different stakeholders, but is by no means exhaustive and can be subjective. The information is based on desktop reviews, customer and people surveys and interviews, but may not represent the views of all stakeholders. The size of the bubble demonstrates the importance of the topic to the stakeholder group.



**Think before you print!**

You can find our Sustainability Strategy online at [balfourbeatty.com/sustainabilitystrategy](http://balfourbeatty.com/sustainabilitystrategy)

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