

# The global race to zero

## Property and Infrastructure Carbon Survey 2023

A holistic view of how climate change  
is being tackled across the industry

November 2023

# EXECUTIVE SUMMARY

**If the property and infrastructure industry is to succeed in driving down its carbon emissions, shared insight is pivotal.**

For our fourth annual carbon survey, we conducted an independent poll through Censuswide, to collate the views of over...

**3,000**

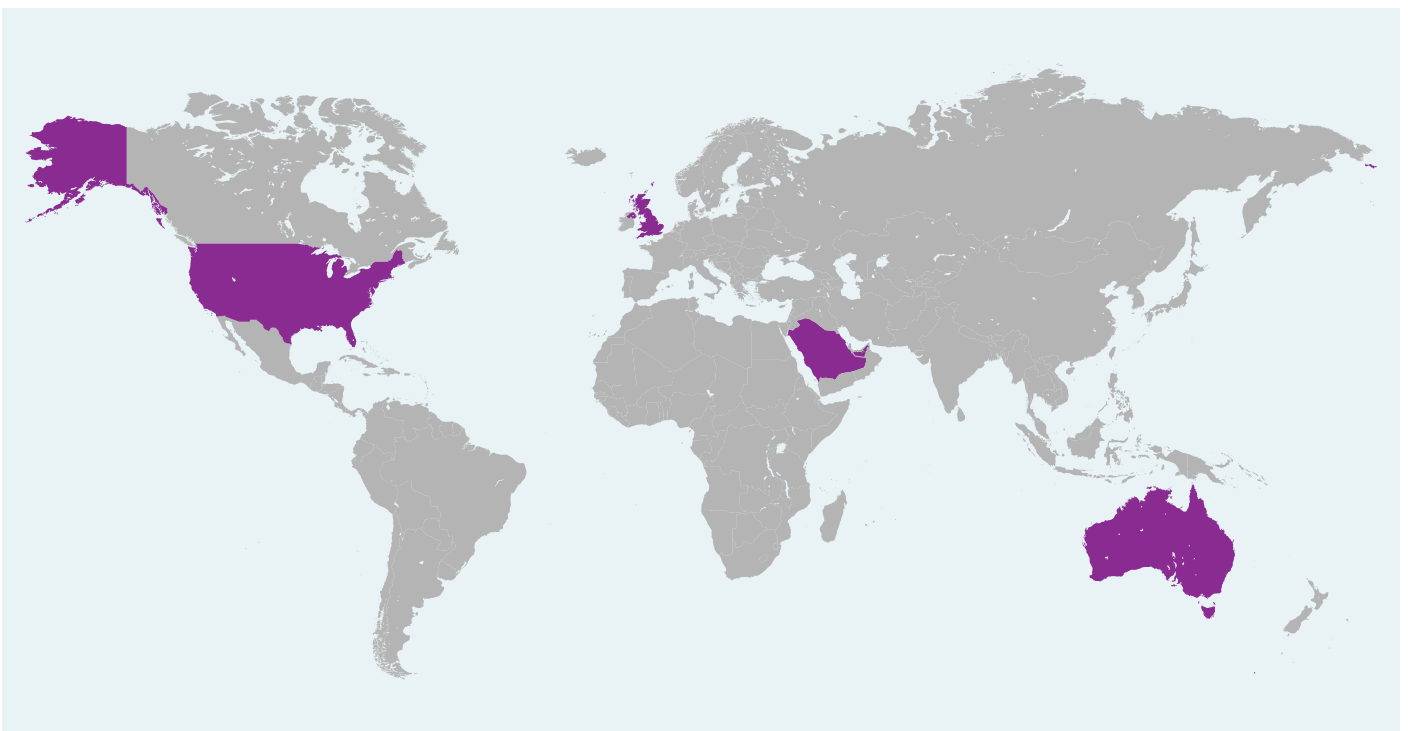
senior business leaders on how organisations are tackling the carbon challenge more broadly.

There is not only good intention but now solid action to enact change, yet many of the same challenges are rearing their head.

Now in our fourth year, we have expanded the range of global markets who have taken part in this research, polling business leaders in:

- The United Kingdom
- The United States of America
- Australia
- United Arab Emirates
- Kingdom of Saudi Arabia

In what has been yet another tumultuous year for economies around the world, the data is clear – sustainability remains on the agenda. In fact, in markets that have previously been less mature in carbon reduction, it's moved several places up the agenda.



Evidently, the understanding of carbon globally has only continued to ascend. If 2022 was the year governments and businesses, in locations previously behind the curve, began the transition from talk to action, then 2023 is the year we began to see the first buds of that action in bloom. COP28 will begin in the UAE just after the launch of this report, bringing together industry, policymakers and the public to discuss the big issues in tackling climate change. An important update for this year's agenda is a specific conference day on Urbanisation and Built Environment – which aims to get to the heart of GHG emissions in our cities.<sup>1</sup>

In such a pivotal year we are emboldened to see that in the UK and US alone, 82% of businesses have a carbon reduction strategy for their portfolio, compared to 61% in 2022. A leap forward that should give us all hope that businesses are stepping up to the plate and taking personal responsibility where they can. In further evidence of ambitious action, businesses seem more willing than ever to invest significant revenue back into tackling climate change, with 54% believing that between 5-20% should be reinvested. It's all promising but is it enough?

As our survey now includes three new markets from previous years, it is compelling to see some of the differing perspectives they bring. Over the last four years, we've seen the UK in particular become an increasingly mature market when it comes to prioritising carbon and sustainability within business decision-making. The results we will expand upon in this report show how quickly other regions are developing – an exciting prospect for the global effort against climate change.

Challenges and barriers to success remain consistent with previous years but with a considerable gap between different regions, it is clearer than ever that collaboration is imperative for the industry to move forward at pace. However, for collaboration to take place there must be a group that stands up to take the executive role. Our data points to a large portion of business leaders expecting government bodies to take this role and it would seem this group has the strongest mandate to lead the way.

We also invited Mace clients to take part in our annual global survey (for the fourth consecutive year) that specifically focused on property and infrastructure portfolios and views of the industry. This did not paint such a resoundingly positive picture of progress. 90% of respondents believed that property and construction's progress on decarbonisation was about the same as in previous years. Furthermore, 58% said that far more needs to be done to cut emissions, almost exactly the same percentage that said this in our 2021 and 2022 surveys.

In the rest of this report, we will first examine the results of our global polling of business leaders, examining broader understanding of and responses to decarbonisation. In the second section, we will look at the data from our own clients, going deeper into the industry's attitude and crucially where they see carbon reduction going next.



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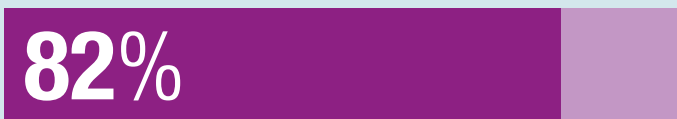
# 1. GLOBAL POLL FINDINGS

## We know that the built environment is crucial in fighting climate change, particularly within global cities.

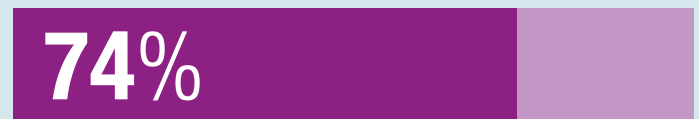
Research from the World Green Building Council in 2023 revealed that despite covering 2% of the world's surface, megacities contributed to half of all resource consumption and a staggering 70% of CO<sub>2</sub> emissions.<sup>ii</sup> Heavily urbanised areas have no choice but to bring emissions down, and fast.

While there is still a long way to go in the fight to save the planet, our findings show that industries within the built environment are rapidly improving their positive impact. As they continue to commit to clearly entrenched strategies and increasingly place sustainability alongside commercial success, enabling the pursuit of a more sustainable world.

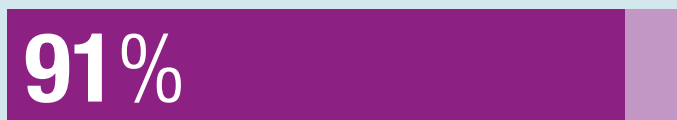
### Key findings



**of businesses now have a carbon reduction plan in place for their property/infrastructure portfolio.**



**of business leaders actively put carbon reduction before profit in last 12 months.**



**of respondents stated that their interest in working for a business would be impacted by its sustainability efforts.**



**of respondents believe that governments are most responsible for reducing the carbon footprint of buildings and infrastructure.**

# 2023 – TURNING PLANS INTO ACTION

**Together, those responsible for the built environment are continuing to step up their efforts, rising to a challenge that is becoming ever more urgent.**

Business leaders are mobilising and organising on the topic of carbon reduction, with 82% of our survey respondents stating that they have a carbon reduction strategy in place for their property and infrastructure portfolio.

This indicates a high level of engagement with carbon-based commitments, and it is likely that international legislation has played a role in incentivising businesses.

In the US for example, with 84% of respondents saying they have a carbon reduction strategy, high-profile legislative changes have already come to fruition. Most notably, the Inflation Reduction Act has now seen 272 new clean energy projects in small towns and big cities across the US, totalling \$278 billion in new investments.<sup>iii</sup> Similarly, the UAE's own commitments, including an update of its Nationally Determined Contributions in mid-2023 has catalysed tighter goal setting from its businesses, 91% of whom claimed to have a reduction plan in place.

The UK, on the other hand, has experienced a more turbulent year in terms of sustainable progress. In September, the UK Prime Minister publicly announced an easing of some of the UK's net zero policies. Whilst still committing to net zero by 2050, initiatives such as phasing out gas boilers and combustion vehicles were delayed.<sup>iv</sup> This is still expected to have longer-term implications for overseas investment in clean technologies, with companies no longer as incentivised to adopt them. This struggle is backed up by the Climate Change Committee's 2023 report to parliament, which states that the UK has lost its status as an international leader on net zero, with a policy framework lacking urgency.<sup>v</sup>

**Globally...**

**82%**

**of businesses now have a carbon reduction plan in place for their property/infrastructure portfolio.**

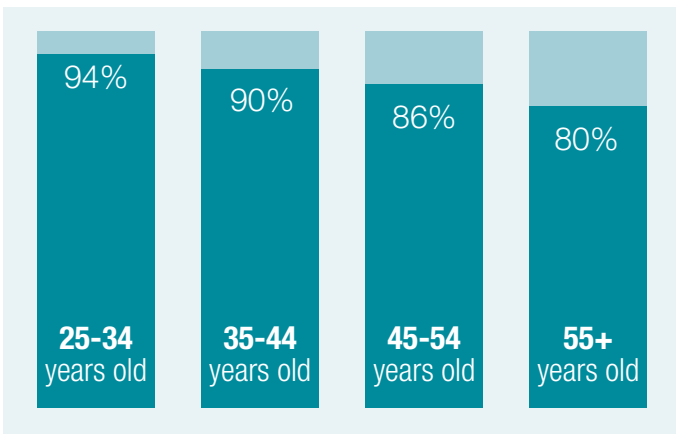
Finally, in Australia we see policymakers taking steps to revise and strengthen incentives. The most prominent is the federal government's revision of the Safeguard Mechanism, designed to put Australia's biggest industrial polluters on a pathway to net zero by 2050.<sup>vi</sup> This is a prime example of the importance of not only setting policy but reflecting and improving upon it where necessary to support net zero ambitions.

There is no doubt that any progress in the face of the carbon challenge is positive. In 2023, the soaring price of energy and concern around international energy security has continued unabated. European gas prices have risen by 1/3 between September and October 2023. Last year's concerns around reliance on Russian gas supply remain but have now been compounded by the conflict in the Middle East, causing anxiety around fossil fuel imports from this region as well.<sup>vii</sup> For businesses to emerge from such a year with a wholesale increase in their net zero goal setting is an encouraging indicator of carbon's importance.

# TOP TALENT WON'T SUFFER 'GREENWASHERS' GLADLY

**As sustainability has crept up the agenda for global businesses, society too has taken the importance of being environmentally conscious to heart.**

Research on consumer habits has shown that 30% of consumers would change or refrain from purchasing from a brand that they believed was not sustainable.<sup>viii</sup> This purpose driven decision making is even more emphatic when looking at how people would choose their potential employers. Our research has found that 90.6% of respondents' decision to join a company would be impacted by that company's sustainability efforts. We also see a generational divide across demographics:



This is a cast iron case for businesses to demonstrate that they are purpose-led and environmentally responsible, lest they risk losing out on the top talent of the future.

It is in KSA that we find the most emphatic results, with just over 95% of respondents saying their decision to join a company would be 'impacted' and two-thirds of this group saying it would be 'very impacted' shows how seriously the workforce in this country take sustainability in terms of career planning.

Stepping back to the global picture, breaking down the responses by sector shows the following:

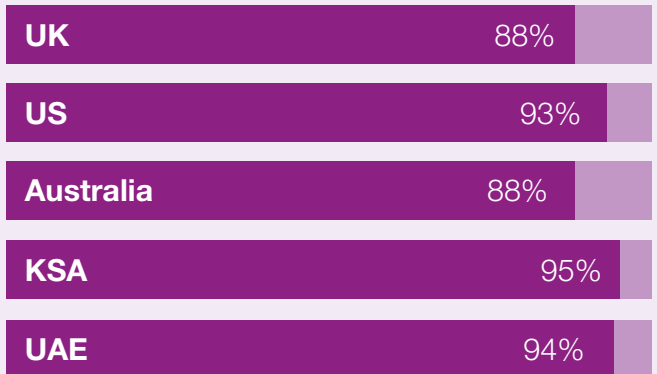
## Top five sectors

Legal	96%
Construction	94%
IT & Telco	94%
HR	92%
Arts & Culture	92%

## Globally...

**91%**

**of respondents' decision to join a company would be impacted by that company's sustainability efforts.**



To see construction business leaders rank so highly among predominantly professional services sectors is a testament to our own industry's work in baking sustainability and carbon reduction into working culture. It also reflects the fact that the built environment is such a significant contributor to global greenhouse gas emissions (37%) and that its employees recognise the importance of their role. At Mace, we believe that every role is a carbon role and are delighted to see construction leaders across the world share this feeling.

# PUTTING OUR MONEY WHERE OUR MOUTH IS

**We know that especially in this still-developing stage of combatting carbon reduction, good intentions and even codified plans are not enough. There is a need for substantial investment to embed sustainable technologies and tools that will deliver net zero carbon.**

There is an acknowledgment amongst businesses that this investment is required. 55% of respondents believe that over 5% of business revenue should be reinvested in tackling climate change. Going further, almost a quarter feel that over 20% should be reinvested.

This is a positive indication of sustainability’s role in the business firmament and is backed up by clear evidence that carbon reduction is increasingly being put ahead of profit. Globally, 73% of business leaders could definitively say they had put carbon reduction before profit over the last year. Comparing just the UK & US responses, they have ballooned from 25% of businesses in 2022 to over 70% this year – a remarkable leap forward. This represents a near 50% increase on 2022. Even more impressively, The 84% of leaders in the UAE who reported putting carbon ahead of their profits saw a particularly high result at 84%, this was 20% higher than those in the UK (64%) and 8% higher than those in the US (76%).

The drive to make a greater financial investment in carbon reduction is essential to the development and implementation of cutting-edge technology at scale. With the seismic impact of AI technology set to redefine the world of work and our ability to process vast quantities of data, there is immense potential to propel decarbonisation. This is primarily expected to be achieved through AI’s ability to predict and track patterns, then allowing it to recommend optimal use of resources and energy in the construction and operation of buildings. An innovation of this scale is much needed, with the Intergovernmental Panel on Climate Change’s (IPCC) sixth assessment report suggesting that global warming will exceed 1.5°C within the 21st century, forecasting failure to meet international targets.<sup>ix</sup> Creating, maintaining, and staffing an AI-enabled built environment will be a costly endeavour and require substantial upfront financing for the necessary tools and talent to be assembled.

## Globally...

**74%**

**of business leaders could definitively say they had put carbon reduction before profit over the last year.**

**UK**

64%

**US**

76%

**Australia**

70%

**KSA**

83%

**UAE**

84%

*“Businesses are conscious of the risk that ignoring carbon reduction poses to their performance. Conversely, they are also acknowledging the opportunity it presents, with many leaders now recognising that sustainability and profit are not mutually exclusive.”*

**James Low**

Global Head of Responsible Business

# STEPPING UP – WHO DO BUSINESS LEADERS BELIEVE SHOULD TAKE CHARGE?

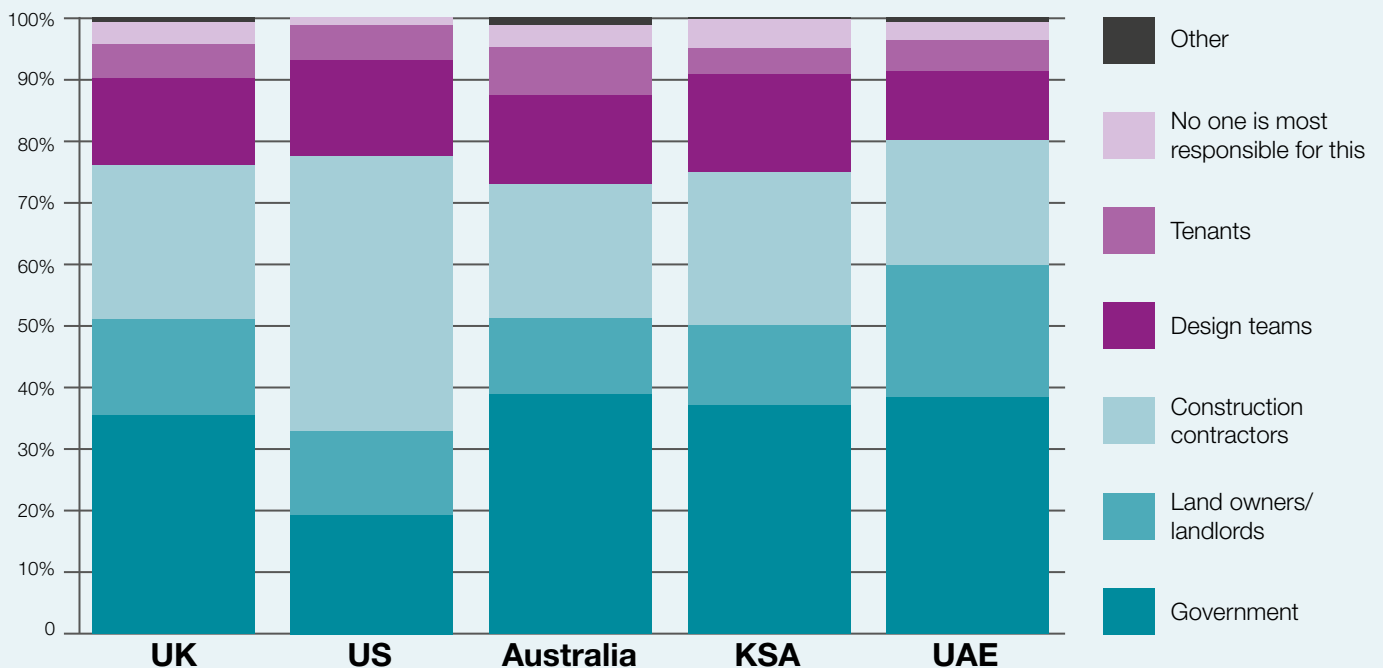
**The opportunity for new technology to make an impact on sustainability, while positive, does raise the question as to who should take the leading role in finding the solutions.**

Our survey found that 36% of respondents believe that government is most responsible for the carbon footprint of our buildings. Far from a definitive majority, but enough to show where business leaders are looking for guidance. The ability to impose legislation and provide financial incentives for businesses is an important reason why government bodies are often deemed accountable for progressing climate change and decarbonisation. However, our data on which other groups may be seen as responsible sends a clear call to action for our own industry:

Deviating entirely from other global markets, 44% of United States respondents believe that construction contractors are the most responsible group in tackling the decarbonisation of our buildings and infrastructure, against an average of 24% across all respondents. This may point to a more independent private sector, less accustomed to federal involvement, and still at the stage of self-motivated decarbonisation.

As a construction contractor, Mace is well aware of the importance of our role in supporting our clients and partners, having set a goal of securing the delivery of a 10 million tonnes of carbon reduction for our clients by 2026. Even so, it is compelling to see such a strong call out from business leaders across the world for the construction industry to take a leading role.

**Who, if anyone, is most responsible for reducing the carbon footprint of buildings and infrastructure?**





# COP28 INSIGHT



## An interesting trend to pair with the question of where responsibility for dealing with the carbon challenge lies is to look at confidence in cross-sector moments such as COP.

The UNFCCC's annual conference has become the pre-eminent global conference on ESG and specifically building the roadmap to net zero.

COP28, which will take place in the UAE, promises to deliver much of the same guidance, in a region that has ambitious net zero plans. There have been accusations from certain quarters of stagnation and distorted purpose of the conference, suggesting faith in it may be waning.<sup>x</sup> The fact that 50% of global business leaders believe COP28 will enable greater collective commitments and subsequent action and 48% believe it will offer clear guidance to sectors shows that opinion is very much split. Even drilling down into sectors does not show overwhelming support for COP. Manufacturing & Utilities were the sector most confident that COP28 would provide clear guidance for their sector (58.5%) with Sales, Media & Marketing showing the lowest confidence at 33.3%.

Unsurprisingly, the UAE (64.5%) noted the highest level of confidence in COP28 providing clear sector guidance, with 62.4% believing it would force greater action through new global commitments. Host countries being more bought into COP events is nothing new, as looking back to our survey in 2021, the year that the UK hosted COP26, 70% of leaders in the UK believed that it would deliver some sort of impact.

The issue lies in how this level of support tails off after the event. Two years on from their hosting of COP26, only 40% of UK business leaders believe COP28 will deliver some impact in inspiring industry discussions. Could we see a similar decline in the UAE by 2025?

This data shows that a slim majority of business leaders still value the landmark moment COP provides for the global community. However, to continue having a positive influence on decarbonisation, COP28 has a lofty challenge to prove its value.

# 50%

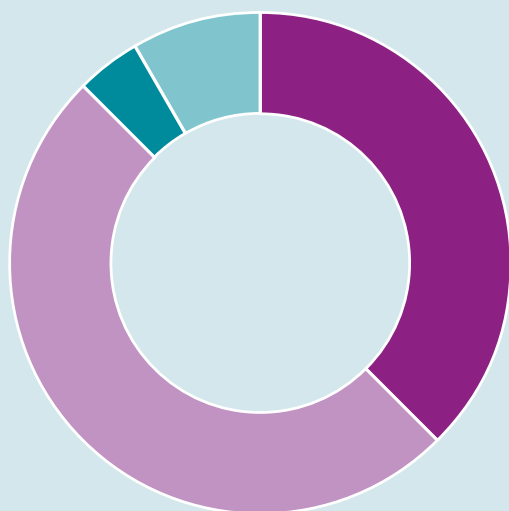
**of global business leaders believe COP28 will enable greater collective commitments and subsequent action.**

## 2. OUR CLIENTS' JOURNEY

**Taking a more in-depth look at our own clients, we are seeing more modest progress compared to previous years, not in terms of the understanding of carbon reduction solutions, but in measurable progress towards ambitious targets.**

In the last year, the majority of our clients and supply chain believed that progress in carbon reduction was 'about the same' as in previous years, almost two-thirds said that much more needs to be done to cut carbon emissions. For a sector that has been making consistent gradual improvement, these responses could point to a need for more transformative leaps forward.

**In your view, how much progress in carbon reduction has the property and construction industry made in 2022?**



- 38%** More than previous years
- 50%** About the same as previous years
- 8%** Less than previous years
- 4%** Not sure I can answer this

### Are far-off goals encouraging complacency?

As our broader research showed, the vast majority of businesses have established strategies for carbon reduction and indeed the response from our clients is no different, with 83% having a strategy in place for their portfolio. Despite these seemingly solid foundations, opinion is much more split on the urgency of tackling climate change.

The truth for many businesses and governments is that they are still basing their goals on 2040 and beyond, realistic milestones perhaps, but also easy to view as a distant problem that will naturally reveal its own path in due course. Indeed, 25% of our surveyed clients have only committed to net carbon positivity by 2040 and half have not even committed to be net zero carbon beyond 2040. To realise progress year-on-year, targets should become more specific and all-encompassing in terms of Scope 1, 2 & 3 emissions. An approach gaining increasing traction across industries is Science-based targetting, which promotes goal setting against the latest climate science and aims to foster accountability. A closely defined method such as this could prove pivotal in realising GHG emissions at the scale required.<sup>xi</sup>

## Barriers and opportunities

Consistent with what we reported in 2022, the sector's biggest challenge to carbon reduction was again cited as the need for more scaled technology and solutions, with 41.6% citing a lack of available low carbon technical/ commercial delivery expertise. Other common factors preventing further decarbonisation included aging building stock that was unable to be optimised for carbon reduction. A possible remedy to this issue could be more widespread use of retrofitting estates with more energy efficient and flexible components, without having to demolish sites. Mace has examined this issue in an insight report titled Transform & Renew.

In terms of those factors that would most accelerate change, respondents emphasised the importance of financial incentives, tax, and legislative levers. Pairing this insight with our earlier exploration of the group considered to be most responsible for decarbonising buildings and infrastructure, our partners clearly expect a step change to come from governments/ policymakers.

## Future solutions

With the evident progress in overall understanding of carbon reduction and increased ambition in targets, the logical next step is to consider where the breakthrough of tomorrow will come from. There are certainly a range of solutions that our clients are already considering and believe will have future impact, most prominently, greater reuse of materials within a circular economy and the proliferation of modern methods of construction such as offsite manufacturing. The former is something that we at Mace believe will be hugely influential in reducing the embodied carbon of our cities – we explore the potential of circularity in depth in our recent insights report Closing the Circle.



[Click here to read the report](#)



[Click here to read the report](#)

# 3. RESPONSIBLE BUSINESS CONSULTANCY SERVICE

**At Mace, one of our core priorities is to pursue a more sustainable world and support our clients in tackling the carbon challenge.**

We support our clients to understand and challenge sustainability and social value ambitions, embed innovative solutions and deliver industry-leading transformation that tackles social inequalities and reduces climate impacts. Since 2012, Mace has been driving sustainability efforts through the industry; working with businesses of every scale, in every sector and across hundreds of locations to adopt best practice solutions and make change happen. From carbon reduction programmes, sustainability strategies and green building certifications, to social value delivery frameworks, behaviour change programmes and ESG reporting; our specialist team blends strategic advice, sector knowledge and proven delivery methods to redefine ambitions and provide certainty of commercial and social viability.

We work with clients at every stage of the sustainability journey, from scoping opportunities and setting targets, to developing strategies and exploring investment opportunities. As we all strive to do the right thing, joining forces is key.



**James Low**  
Global Head of Responsible Business, Mace  
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If you want to have a chat about anything related to the work we are doing around the world and how we can support your business in achieving ambitious sustainability goals, please email:

[stepswithoutfootprints@macegroup.com](mailto:stepswithoutfootprints@macegroup.com)

## 4. REFERENCES

- i. <https://www.cop28.com/en/thematic-program>
- ii. <https://worldgbc.org/article/19-global-cities-commit-to-making-new-buildings-net-zero-carbon-by-2030/#:~:text=Buildings%20in%20urban%20areas%20are%20one%20of%20the,enormous%20opportunity%20for%20progress%20on%20bringing%20emissions%20down>
- iii. <https://www.americanprogress.org/article/the-inflation-reduction-act-has-transformed-transportation-decarbonization-with-major-implications-for-epa-vehicle-standards/>
- iv. <https://www.theguardian.com/politics/2023/sep/20/uk-net-zero-policies-scrapped-what-do-changes-mean>
- v. <https://www.theccc.org.uk/publication/2023-progress-report-to-parliament/>
- vi. <https://www.abc.net.au/news/2023-03-27/greens-safeguard-mechanism-labor-agreement-bandt-bowen/102148956>
- vii. <https://www.theguardian.com/business/2023/oct/22/as-a-global-energy-crisis-returns-the-uk-push-for-a-green-economy-makes-even-more-sense?ref=biztoc.com>
- viii. <https://www.bcg.com/publications/2022/uk-consumer-interest-in-sustainability>
- ix. <https://www.ipcc.ch/report/ar6/syr/resources/spm-headline-statements>
- x. <https://www.euronews.com/2023/10/24/should-this-years-cop28-be-the-last>
- xi. <https://sciencebasedtargets.org/>

