

No one left behind: Working together on the road to net zero

BSI Net Zero Barometer 2024



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Foreword

In June 2019, the UK government enacted legislation to set a net zero emissions target by 2050¹, a global first. Two years later, we commissioned our first Net Zero Barometer survey, asking UK businesses about their understanding of – and efforts towards – this target. It also considered the challenges and opportunities they saw around it.

As we've repeated this survey over the last four years, we've seen the number of organizations saying they're committed to decarbonizing double, from 40% to 83%. However, the UK government's independent advisory body, the Climate Change Committee (CCC), concluded last year that emissions are currently not decreasing at the pace required to meet future targets. In fact, industry needs to accelerate four-fold to meet the government's 2030 targets.²

Why is business commitment to net zero not matched by action on the same scale? We believe that guidance is available to help businesses rise to the challenge and this year's survey highlights three reasons for them to act:

- The risk of climate impacts, such as flooding. For small businesses in particular, taking action is becoming critical for their own ongoing viability.
- The need to see demonstrable decarbonization in the supply chain. Organizations in the supply chains of larger businesses that are taking action towards net zero will gain an economic advantage particularly if these actions are measurable, industry recognized and align with reputable standards.
- **Cost efficiency.** Actions towards ongoing sustainability can reduce costs for organizations, as evidenced by the significant numbers of businesses which have already taken action to reduce their energy consumption, for example.

Whatever the motivator, it's clear that targets are nothing without action. It's our hope that this report will play its part in accelerating that much-needed progress towards net zero.



Scott Steedman CBE Director-General, Standards, BSI

Executive summary

For this fourth edition of the BSI Net Zero Barometer, over 1,000 senior decision makers were surveyed from a spread of UK based businesses.

The survey found that more businesses today believe they're capable of achieving net zero by 2050 than when we began our surveys – 73% compared with 68% back in 2021. More businesses today are also measuring their emissions: 59% of today's businesses measure Scope 3 emissions in full or in part, almost double the 27% of businesses monitoring these in 2021.

Yet, whilst around three-quarters of UK businesses told us they're confident about their ability (73%) and likelihood (77%) of achieving net zero by 2050, only one in three (35%) have actually set themselves the target to achieve it.

As this report will set out, the gap between confidence and action should be a call to arms for business to act on achieving their targets. Data will be key to this, empowering businesses to make smart decisions.

Cost continues to be a challenge for half (51%) of the organizations surveyed, but there are opportunities for businesses to innovate and use standards to position themselves as preferred partners in the supply chain.

Action on net zero should also be seen as an investment in climate resilience – a concern named by a quarter (24%) of businesses in this year's survey – and a long term investment in the future of an organization rather than a short term cost.

While legislation has clearly motivated businesses in rapidly decarbonizing sectors like energy, other sectors are lagging behind for lack of clarity on what action looks like in practice. In a general election year, where much is uncertain around future government policy, standards can offer organizations assured, industry-led pathways to good practice, freeing them up to take action to achieve their goals.

59% of today's businesses measure Scope 3 emissions in full or in part, almost double the 27% of businesses monitoring these in 2021.

Key findings

There is a growing gap in achievement based on a business's size

The data shows that larger businesses are making greater progress than smaller ones. Large firms are more likely to have set targets for net zero than SMEs (63% vs 52%) and are more likely to measure their emissions. For example, 30% of large firms told us they measure, at least in part, their Scope 3 emissions, versus 18% of SMEs. Only 48% of microbusinesses (those with nine employees or fewer) have a net zero policy detailing stages and actions compared with 72% of larger firms, whilst 66% of larger firms are measuring progress on achieving net zero in a standardized way compared with 48% of microbusinesses.



There is also a gap in achievement based on a business's sector

To say there is solely a divergence between little and large is too simplistic. There is divergence between businesses in different industries. Since the groundbreaking net zero commitment of 2019, the UK government has set interim targets both to run a net zero electricity system by 2035³ and to reduce overall national emissions by 78%⁴ by the same year. This year's data shows that businesses affected by these keener targets are, in many cases, making great strides towards achieving net zero.

Businesses in industries that are regulated for net zero are making greater progress on decarbonizing than those in industries which are not:

	Mining, Quarrying and Utilities	Transport	Accommodation and food services	Retail
Have set an overall target to achieve net zero by a specific date	79%	58%	53%	43%
Have reduced their energy consumption	75%	67%	68%	58%
Have developed a net zero policy with stages and actions detailed	75%	61%	50%	43%
Are measuring their progress on achieving net zero in a standardized way	73%	54%	46%	40%
Have applied to certify or assure their net zero policy, either in full or specific parts	71%	53%	41%	37%

Businesses are taking action – but it's not always being measured

Measurement of emissions is crucial to understand the effectiveness of action taken and target setting. The scopes laid out in the Greenhouse Gas Protocol provide a framework for consistent measurement and recording of emissions. Most businesses (83%) we surveyed have taken or are taking some action. However, even though many more businesses measure some of their emissions than when we first began this survey in 2021, there is still a significant gap in measurement. Only 23% of businesses surveyed this year fully measure their Scope 1 emissions. Only 22% fully measure Scope 2, and 18% measure Scope 3 as fully as is possible.

The scopes of emissions are set out in the Greenhouse Gas Protocol⁵:

Scope 1 emissions are those direct GHG emissions which occur from sources that are owned or controlled by the company

Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the company

Scope 3 emissions are a consequence of the activities of the company, but occur from sources not owned or controlled by the company



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Cost continues to be a barrier to action

As with previous years, cost is named once again as a barrier to progress. Half (51%) cited it this year, compared with 44% in 2021.

The issue of cost also highlights the gap between large and small businesses. 47% of SMEs name this as a barrier to progress compared with 32% of firms with over 250 employees. Perhaps in response to this, just over two-thirds (69%) of respondents told us reaching net zero is adding pressure to their organization.

Climate-related risks are the primary driver of action for the first time

As the effects of climate change come closer to home and present meaningful risks to businesses, our data reflects that threat. For the first time in our survey, climate-related risks were named as the primary driver for organizations to take action to achieve net zero.

Achieving net zero is seen not just as a nice to have, as a tick in a legislative box, or even as a bonus to reputation or the bottom line, but as necessary to organizations' existences. Businesses are now taking action towards net zero because of this new understanding of the risk it presents to their own business:

Climate-related risks (e.g. floods, etc.)	24%
Regulatory changes	20%
Client/customer pressure	15%
Reputational risks	10%
Liability/legal risk	8%
Staff pressure	8%
Shareholder pressure	5%
Investor pressure	5%

6

Businesses are looking for clarity from government

Nine out of ten businesses told us there should be greater government support, including financial incentives, for their organization to reach net zero. They are not necessarily looking for preferential treatment. 85% agreed that all industries and organizations should play an equal role in reaching this goal.





Chapter 1

Confidence, consistency and clarity



Confidence in the UK's net zero commitment is strong

Four years into our survey and almost ten years out from the government's interim 2035 targets, this year's Barometer finds UK business leaders confident that these targets are achievable. 77% are either fairly or very confident that their organization is likely to achieve net zero by 2050, 74% are at least fairly confident they know how to achieve it, and 72% will be taking action in the next 12 months towards their targets.

77%

of businesses are either fairly or very confident that their organization is likely to achieve net zero by 2050 These figures represent a significant shift, especially given that the external context has not necessarily made it easier for organizations to make or meet commitments. In comparison, in 2021 only 40% of organizations had made a commitment towards net zero and only 21% of those we spoke to then were fully aware of the concept of the net zero targets and what they meant in practice.⁶

These figures should not be dismissed lightly. As Sebastiaan Van Dort, Director of Energy and Sustainability at BSI, explains: "The focus for SMEs has undoubtedly changed since 2019 when the UK government set the original net zero targets. Since then, we've had a global pandemic, an energy crisis prompted by the war in Ukraine, high inflation and a cost-of-living crisis. The primary objective for many SMEs has been survival. Yet there is a genuine commitment from SMEs, and businesses of all sizes, towards net zero, partly because it is the right thing to do, but also because there are advantages to their businesses in terms of responding to consumer demand and winning business when it comes to procuring contracts."

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Sebastiaan Van Dort Director of Energy and Sustainability, BSI

Business remains consistent in its ambition

As understanding of what net zero means has grown, we've seen consistency across our surveys in the desire from business to achieve these goals. In 2022, 71% of those we surveyed had set targets to meet net zero. This year, we found that 76% of all businesses have taken measures to reduce their emissions. Though the number of organizations working towards net zero is growing, it is not the mass mobilization towards net zero that bodies such as the Climate Change Committee are saying is needed to collectively achieve our legally binding national targets by 2050. This raises questions around what will shift the dial for the 24% of businesses surveyed who are still to take action.

Organizations largely named two drivers for action towards net zero - either regulatory changes or climate-related risks. This varied according to sector.

Notably, climate-related risks were cited as the leading driver for action by businesses for the first time in this survey.

Across the board, a growing number (24%), especially of smaller businesses, are considering climate-related risks such as flooding to be a significant driver of action.

By far the biggest driver for mining, quarrying and utilities businesses is regulatory changes, with more than half (52%) naming it as a driver for action. Regulatory changes were also a driver for action for 43% of transport businesses and two fifths of those working in manufacturing.



Which of the following has driven your organization to take action to achieve net zero?

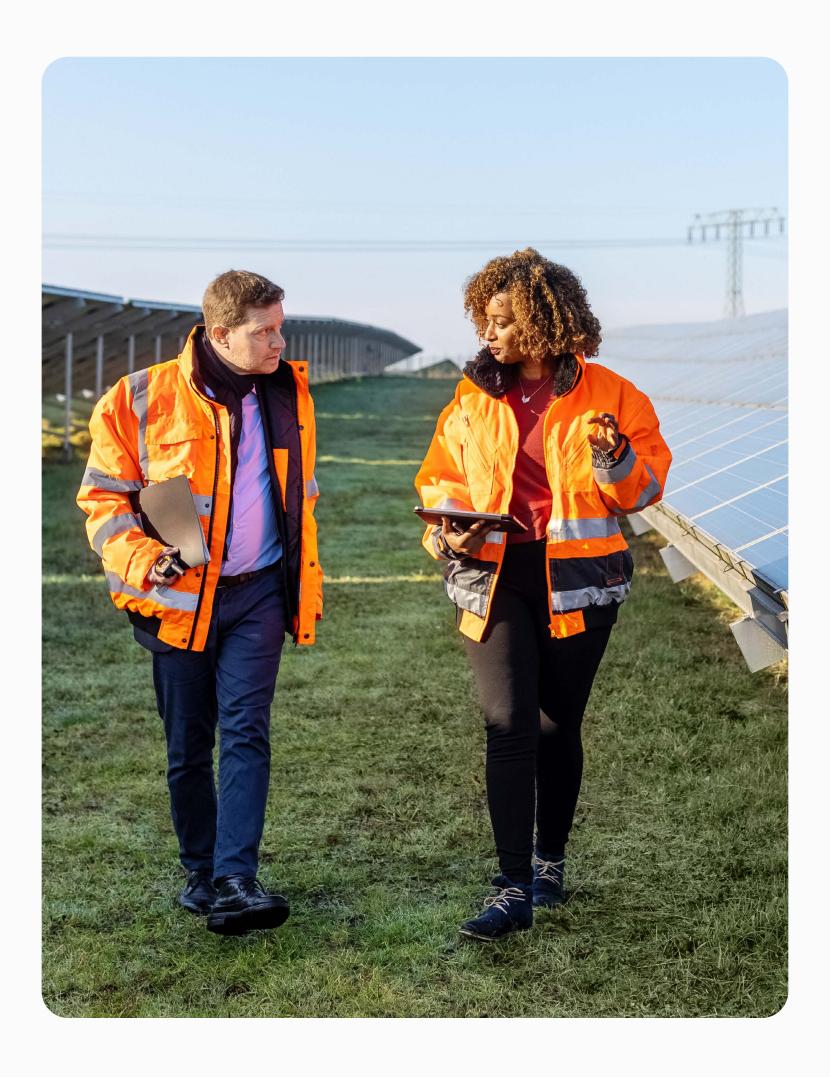
	Accommodation and food services	Production: Mining, quarrying, and utilites	Production: Manufacturing	Health	Retail	Construction	Transport and storage (inc. postal)
Climate-related risks (e.g., floods, etc.)	52%	49%	39%	37%	36%	35%	33%
Regulatory changes	25%	52%	40%	25%	30%	32%	43%



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What is net zero?

The 'net zero target' refers to a government commitment to ensure the UK reduces its greenhouse gas emissions by 100% from 1990 levels by 2050. If met, this would mean the amount of greenhouse gas emissions produced by the UK would be equal to or less than the emissions removed by the UK from the environment. The UK's net zero target was made legally binding by the Climate Change Act 2008 (2050 Target Amendment) Order 2019.⁷



The Energy Act

Confirmed in October 2023, the Energy Act⁸ is the largest piece of energy legislation for low carbon technology and investment in a generation. This piece of legislation is a strong statement of intent from the government to support a low-carbon energy sector. It has a host of new regulatory stipulations but those with a more immediate impact on small businesses in particular include:

- new tender processes for onshore electricity networks
- new laws making the UK the first country to legislate for fusion regulation
- legislation which enables developers to plan with confidence and to encourage investment into fusion
- new laws driving the UK's ambition for a prototype fusion power plant by 2040.
- establishment of the future system operator; and
- moving heat networks under the auspices of Ofgem (meaning the regulator can have more direct control on pricing for vulnerable customers)

Cost: an ongoing challenge

Another consistent message over the last four years has been businesses citing cost as an obstacle towards meeting their goals. In 2022, 45% of decision makers cited cost as a barrier; in 2023, 63% of respondents cited the cost-of-living crisis as the biggest factor that could inhibit progress.

Today, 47% of businesses still report that cost is preventing their organization from taking action to achieve net zero, either at all or to a greater extent. Nevertheless, businesses of all sizes and sectors are becoming aware that taking action towards net zero can reduce operating costs (48%).

As we noted in last year's Barometer, businesses hoping to win major government contracts already have to commit to net zero by 2050 and publish clear and credible carbon reduction plans before they can bid⁹. Understandably then, businesses are looking for support from government to reach the standards government has set. Almost half (45%) of businesses we surveyed strongly agree that there should be greater government support, such as financial incentives, for their organizations to reach net zero.

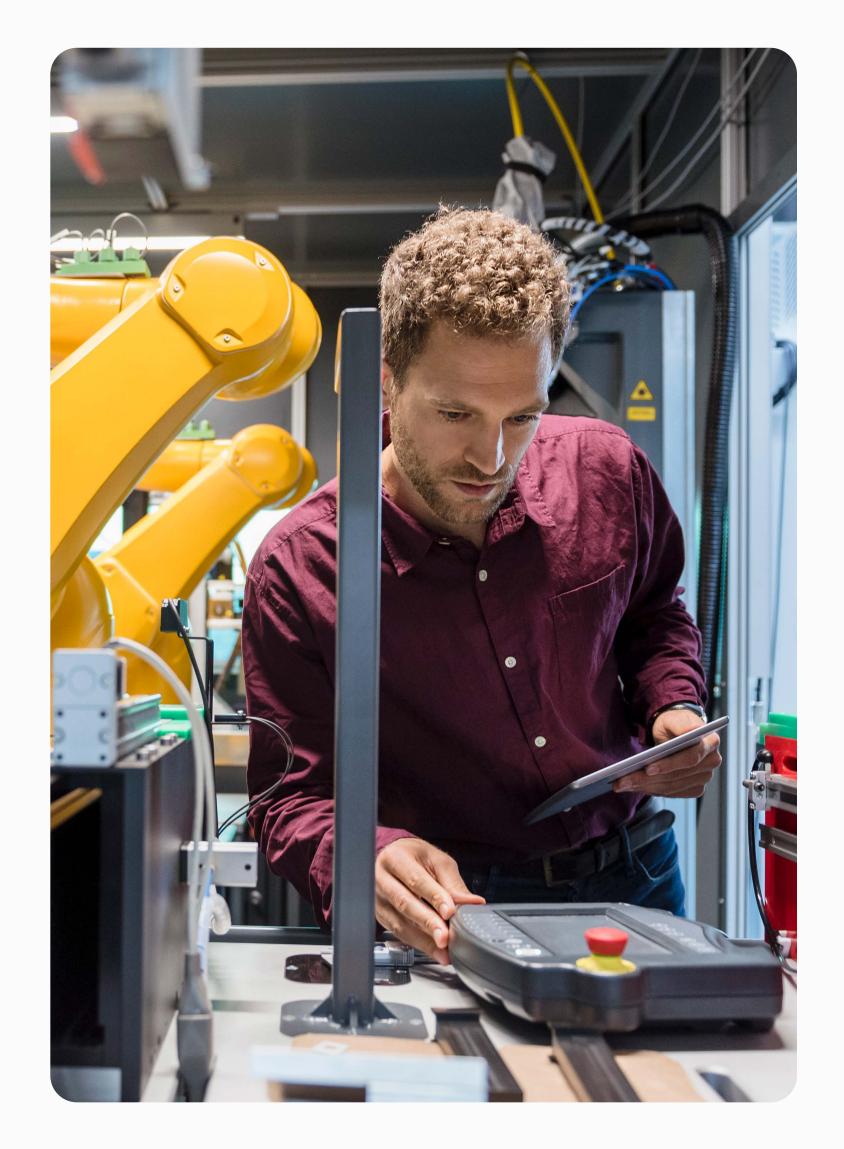
It is therefore interesting to note that 77% of businesses also agree that it is fair their organization contributes to the country reaching net zero, even if it comes at an economic cost. Perhaps this is evidence of the fact that, beyond government mandate, businesses are increasingly aware of both their responsibility towards net zero and the economic advantages of doing so. Many businesses we surveyed had taken actions towards net zero such as waste and energy reduction, which have demonstrable cost cutting benefits.

Given that research also suggests that the supply of goods and services to enable the global net zero transition could be worth £1 trillion to UK businesses by 2030¹⁰, it's clear that net zero may well be an economic opportunity in waiting, and could be a potential game changer for business.

77%

of businesses agree that it is fair that their organization contributes to the country reaching net zero, even if it comes at an economic cost





An opportunity for concerted action based on well-measured data

As we continue to navigate the cost-of-living crisis, it's unsurprising that over the last 12 months businesses have largely progressed work towards net zero with 'quick wins'. 54% of businesses have taken energy reduction measures and 50% have switched to LED lightbulbs.

While most businesses (83%) we surveyed have taken or are taking some action, the opportunity arises to turn action on quick wins into broader, more concerted action. Measurement of emissions is key to this, as this data can guide businesses on where action would be most effective. Though many more businesses measure some of their emissions than when we first began this survey in 2021, there is still a significant gap.

This year's survey found that only 18% of the organizations we spoke to fully measure their Scope 3 emissions and over a third (35%) don't measure them at all. Given that Scope 3 emissions can represent over 90% of a company's Scope 1, 2 and 3 emissions¹¹, it's clear there is more work to do.

Where 71% of businesses with over 250 employees have set up or are in the process of setting up a team dedicated to implementing their net zero policy, only 45% of SMEs have. Nevertheless, free tools already exist to provide SMEs with a recommended step by step approach to planning their transition and considering what measures they will need to take to show emissions reductions according to planned milestones. BSI Flex 3030¹² is just one example of this kind of resource, which can begin to help organizations in the supply chain to start planning how they measure their emissions.

Clear guidance and support are required, as well as greater understanding of how the opportunities of net zero could outweigh the challenges. Just under a fifth (19%) have a net zero policy with clear actions and stages. Even so, there's reason for optimism as a further 31% are in the process of creating this. Where there is a lack of guidance from legislation, a standardized and accredited approach can give businesses the assurance that their work reflects best practice, and that can be recognized by those they do business with.

18%

of organizations fully measure their Scope 3 emissions. Over a third (35%) don't measure them at all.

Lack of policy clarity is inhibiting progress

After cost, the most significant obstacle cited by businesses over the last 12 months was uncertainty over the current government's (38%) and the next government's (35%) green commitments.

To set this in context, in September 2023, the Prime Minister announced a delay on the ban on the sale of new petrol and diesel cars from 2030 to 2035. He also announced an increase by 50% to £7,500 in cash grants for people to transition from gas boilers to heat pumps. There would be "far more time" to make this transition from gas, and the scrapping of plans to force landlords to upgrade the energy efficiency of properties.¹³

Meanwhile in February 2024, Labour cut its own green investment pledges. A change to a previously promised £28 billion green package has been reduced to an as-yet-undeclared amount for the duration of the next parliament.¹⁴

The figures in our survey underline the ongoing requirement for clarity from policymakers – not just in terms of what net zero is and how to achieve it, but also how they fit into the bigger national picture. Again, standards can play a role here in offering consistent, peer-reviewed methodologies that are industry-recognized for businesses to take action without being at the mercy of policy changes and political shifts.

"After all the upheaval, elections and uncertainty of the past few years, businesses are still committed to net zero," says Van Dort. "Now businesses are looking for a long-term stable policy direction and regulatory framework that will encourage investment and support SMEs to take action and invest in net zero."



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Sebastiaan Van Dort

Chapter 2

Welcome to the just transition



Even as the headline statistics show progress and some optimism, this year's survey also reveals that action towards net zero can significantly vary depending on a business's size and sector. In some cases, this divergence in action is striking.

The data shows an emerging gap between smaller microbusinesses of between one and nine people and larger firms with 250 or more employees.



In our survey:

- 12% of microbusinesses told us their organization had not taken any action towards net zero as yet, compared with only 4% of large firms
- only 48% of microbusinesses have a net zero policy compared with 72% of larger firms
- cost is a challenge to almost half (48%) of microbusinesses compared with 32% of larger firms
- two-thirds (66%) of larger firms are measuring net zero progress in a standardized way compared with 48% of microbusinesses; and
- the number of large firms who have applied to have their net zero claims audited by an accredited body (59%) is almost double that of microbusinesses (36%)

Net zero is an existential challenge for smaller businesses

Whilst larger firms cited regulatory changes as the main driver (28%) behind their actions towards net zero, for microbusinesses the drive is more existential. A quarter said climate-related risks such as flooding were their main driver for action.

"Very small businesses are focused on the bottom line," says Sara Walton, BSI's Sector Lead for Sustainability and Net Zero. "Unlike larger organizations, they don't have a team looking at compliance for them or doing all the reporting. Nevertheless, they know they should take action so they can continue to tender for work in their supply chains and be part of the procurement process and the overall value chain."

Since 2018, large businesses¹⁵ have had to report on their energy use as part of statutory Streamlined Energy and Carbon Reporting (SECR)¹⁶ ¹⁷. As significant contributors to the Scope 3 emissions of larger organizations, the 30% of microbusinesses that have measured their emissions have a clear advantage. It aligns with larger businesses' attempts to quantify these types of emissions both upstream and downstream.

Larger businesses are discovering they can't reach net zero alone

More larger firms have reduced emissions across the supply chain (89%) than microbusinesses (69%). For smaller businesses considering their future viability, there is an opportunity for them to align with the reporting requirements of their larger counterparts in order to assure their future.

This is crucial when you consider that, according to the Greenhouse Gas Protocol, Scope 3 emissions can be as much as 90% of any business's total emissions. In many instances, microbusinesses are within the Scope 3 of larger firms, as part of their supply chain.

90%

Amount Stage 3 emissions can comprise of any business's total emissions, according to the Greenhouse Gas Protocol.



"What's compelling about the story of net zero is that we are all interconnected," says Emily Faint, BSI's Senior Policy Manager for Net Zero. SMEs are key to larger organizations meeting their net zero targets. That gives those who are able to demonstrate action on net zero first a huge commercial advantage – the opportunity to become a supplier of choice in a market where regulatory requirements are rapidly emerging.

"We will soon be entering a phase in the market where if you can't account for your emissions in the same way you do your finances and your legal compliance, you won't be able to run your business," Faint adds.

What is the just transition?

According to the UK Parliament, "While definitions differ, the aim of just transition approaches is to address potential sources of unfairness to provide better outcomes for different groups of people." ¹⁹

This is where the concept of a just transition, until now mostly applied at a transnational level, comes into play in business. "To bring in business, microbusinesses have to be part of the net zero agenda," adds Walton. "They will have to demonstrate it in a way that's clear, transparent, consistent and recognized by both their market and their customers. That's where SMEs require more support."

Industry standards are one way businesses can clearly demonstrate the actions they're taking. If used throughout a business's supply chain, standards can ensure clarity on emissions and decarbonizing that is coherent for those organizations, as they seek to be accountable to their shareholders, clients and customers.

"Likewise, if large businesses are reliant on their SME suppliers to achieve their own targets, they should be considering what resources they have or what collaboration opportunity exists to support their SME suppliers to do so," says Faint. "It's good for larger businesses if the SME suppliers decarbonize, and it's also good for society as a whole – if we want jobs and thriving economies to live in – if small businesses continue to do well in this net zero transition."

If large businesses are reliant on their SME suppliers to achieve their own targets, they should be considering what resources they have or what collaboration opportunity exists to support their SME suppliers to do so."



Emily Faint Senior Policy Manager, Net Zero, BSI

Chapter 3

A tale of two sectors





Just as there are emerging disparities in action between businesses of different sizes, there are also growing gaps between businesses based on their sector. According to the CCC, the bulk of the UK's emissions reductions over the last decade have been from the electricity supply sector alone²⁰. If we are to achieve our overall net zero targets, action must be taken by organizations in other sectors, albeit that some are greater contributors to emissions than others.

This year's survey clearly demonstrates a growing disparity between those businesses operating within sectors such as utilities, which are ahead in working towards the UK Government's 2035 target of a net zero electricity system, and sectors such as retail, which differ in their operations and are also subject to different regulatory pressures. These sectors will need to take a different approach to meeting net zero targets, given different factors affecting their industries.

Mind the gap

The contrast between these two sectors in particular was most stark in our survey, as this table illustrates:

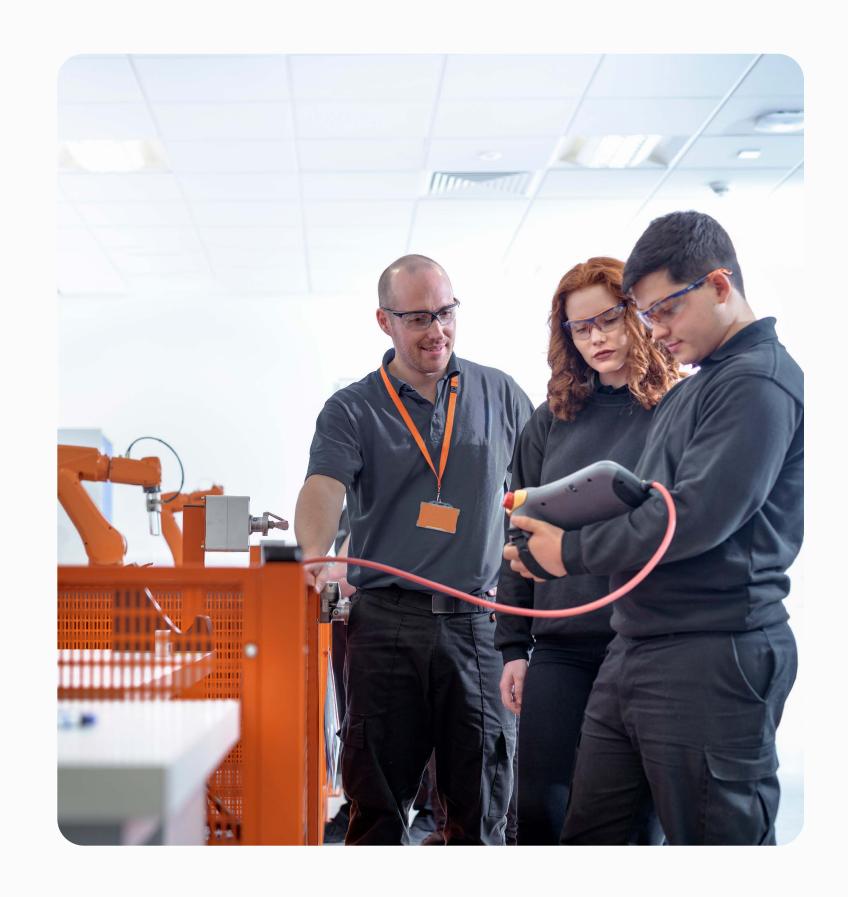
	Mining, Quarrying and Utilities	Retail
Have set an overall target to achieve net zero by a specific date	79%	58%
Have reduced their energy consumption	75%	58%
Have developed a net zero policy with stages and actions detailed	75%	43%
Are measuring their progress on achieving net zero in a standardized way	73%	40%
Have applied to certify or assure their net zero policy, either in full or specific parts	71%	37%

The vast majority of mining, quarrying and utilities businesses (91%) have made progress on their reporting compared with businesses in retail where only just over half (53%) have done so. However, more retail businesses (54%) see reducing costs as a benefit of taking action to achieve net zero compared with 45% of the former.

There are lessons to be learned for businesses in all sectors in examining the underlying factors behind the successes and challenges at both ends of the spectrum.

80%

Proportion of UK energy that comes from fossil fuels, despite the UK having the fastest decarbonizing electricity system in the world.



Mining, quarrying and utilities

The UK has the fastest decarbonizing electricity system in the world.²¹ But as of the last set of the UK's Environmental Accounts produced by the Office for National Statistics, 80% of the UK's energy was still coming from fossil fuels. In contrast, energy from renewable sources accounted for 13% of all energy use in the UK in 2021²².

Regulation has been a driver of change

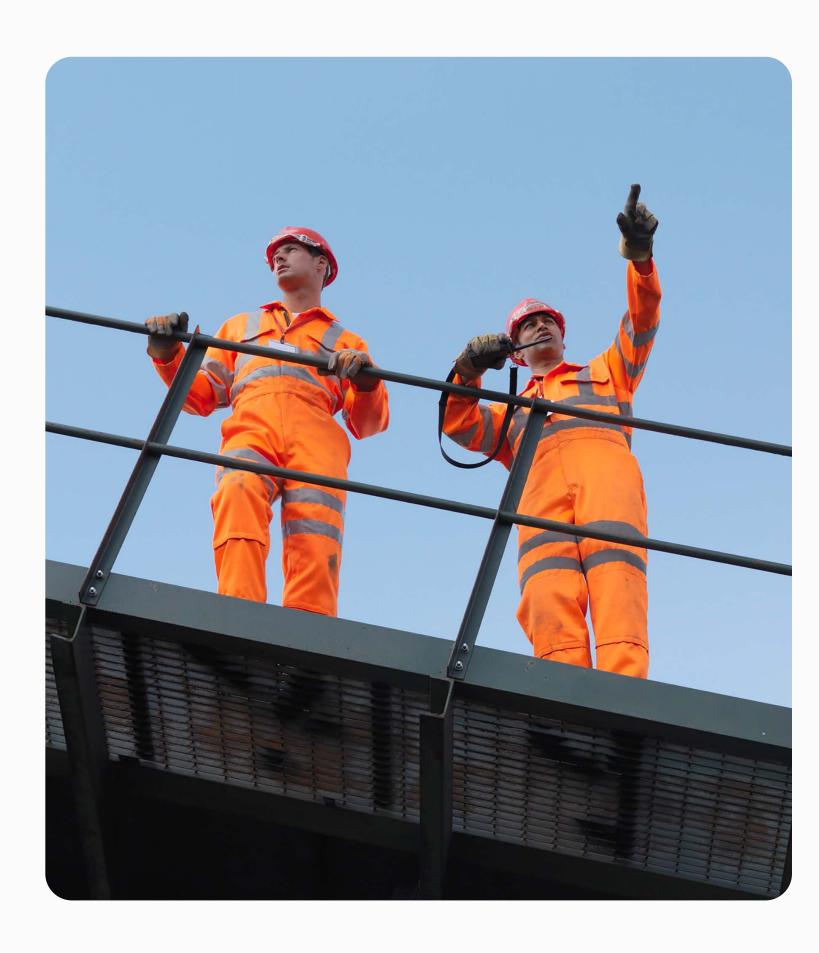
Therefore, significant focus has fallen onto the energy sector as key to reducing overall national emissions. In 2023, nine out of ten (90%) mining, quarrying and utilities businesses reported that they have made progress on reducing emissions across their organization. 88% have made progress on an emissions reduction in their supply chains. The same percentage (88%) have made progress on emissions removal both within their organization and across their supply chain.

The UK government has multiple different initiatives and policy documents which outline net zero more broadly, but also different low carbon technologies that they want to support. These include the UK Battery Strategy²³ launched in late 2023, the UK's Critical Minerals Strategy, published in March 2023²⁴ and the British energy security strategy²⁵ published in April 2022.

All of these set ambitious commitments, making it unsurprising that just over half (52%) of businesses operating in the mining, quarrying and utilities sectors reported that regulatory change was their main driver for taking action on net zero.

90%

Proportion of mining, quarrying and utilities businesses that reported that they have made progress on reducing emissions across their organization.



Still, as with all those we surveyed, businesses in this sector named cost as an obstacle to them taking action towards net zero (44%). This was alongside the 43% citing difficulties in finding suppliers with net zero credentials as part of their supply chain. For almost a third (32%), there was a lack of available financing such as support from banks or government to invest in green technology.

The data suggests many organizations in this sector may only be acting if they have to – either because of regulation, to mitigate climate-related risks (49%) or to manage reputational risk (40%).

32%

Proportion of mining, quarrying and utilities businesses who named lack of available financing such as support from banks or government to invest in green technology as an obstacle to net zero action.

"Investing in the sustainability edge of your company might have a competitive advantage on the market, but that doesn't necessarily translate into increased profits or lower costs yet," says Abbey Dorian, Energy Sector Lead for BSI. "Tackling Scope 2 and 3 emissions is a significant investment.

It costs businesses a significant amount of money to even understand what these emissions are. Without a clear indication that they're going to have to meet some regulatory requirements or even procurement requirements, smaller companies with tighter budgets are choosing not to make that investment."

In fact, 56% of mining, quarrying and utilities businesses say uncertainty over the current government's green commitments is one of the wider factors having an impact on their organization's ability to take action to achieve net zero, either at all or to a greater extent, in the past 12 months.

Innovation and digitization have accelerated the transition

In spite of this uncertainty about the current government's green commitments, other sectors have a lot to learn from the experience of those that are accelerating progress towards net zero. UK utility firms in particular have been successful in decarbonizing thanks to innovative approaches, leveraging digitization to optimize their systems and reduce emissions.

An example of the application of digital technologies to accelerate the transition to net zero is the National Grid Electricity System Operator (ESO) Virtual Energy System taskforce. They are responsible for facilitating an ecosystem of connected digital twins²⁶ of the entire GB energy system to maintain the network more proactively and solve wider system challenges critical to the net zero transition. These include energy optimization and carbon reporting.

"New technologies will need to be seamlessly and digitally integrated to achieve net zero by 2050, and this has been an opportunity for SMEs in this sector," says Dorian. "As the energy system becomes digitized, ensuring processes, products and protocols are interoperable will be a significant enabler to market access."

In light of this, standards can offer an opportunity to reduce costs. She continues: "Utilities and energy businesses have been successful in this space because they've been thinking about innovative approaches to decarbonize. One example is the use of AI in the nuclear energy industry. One nuclear facility operator in particular has used AI to reduce 90% of its administrative burden. Another has used a combination of data, machine learning and digital twins for predictive maintenance, an important consideration for climate adaptation whilst also extracting up to 30% reduction in maintenance costs. Digitization has proven a really cost-effective and interesting way for them to decarbonize or support the decarbonized economy. Businesses in other sectors could take the learning from this."

As the energy system becomes digitized, ensuring processes, products and protocols are interoperable will be a significant enabler to market access."



Abbey Dorian Energy Sector Lead, BSI

Retail

As with other sectors, retail businesses report that climate-related risks (36%), regulatory changes (30%) and reputational risk (25%) are the main drivers for their organizations to take action towards net zero. Notably, 18% of retail businesses surveyed said they had not taken action to achieve net zero yet. This compares with only 2% of businesses working in energy-related sectors, and 11% of all the businesses we surveyed.

Businesses in this sector also named their three main obstacles as cost (51%), lack of available financing to invest in green technology (36%) and supply chain (33%) i.e. difficulties in finding suppliers with net zero credentials, or of being informed about the actions suppliers are taking towards this goal. Nevertheless, though progress is noticeably slower, retail businesses are moving forward.

Two-thirds (66%) have made progress on emissions reduction measures within their organization, and 61% on reductions in their supply chains. When it comes to emissions removals, 59% of retail businesses have made progress within their organizations and 61% across their supply chains.

To what extent has your organization reduced its energy consumption to achieve net zero?

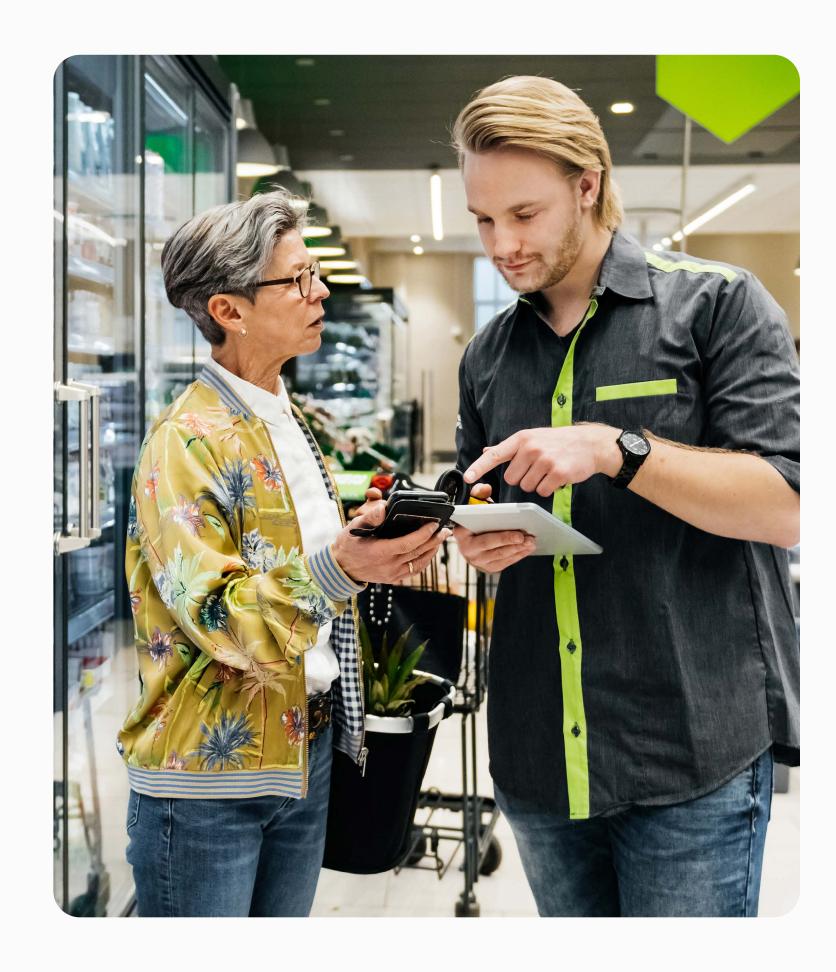
Mini	roduction: ng, quarrying, nd utilites	Production: Manufacturing	Health	Transport and storage (inc. postal)	Acoomodation on and food services	Construction	Retail
	75%	72%	69%	67%	68%	63%	58%

Where reducing energy use has been a favoured action for many firms, 58% of retail businesses named this as an action they had taken. This is the lowest of all the sectors we surveyed.

"Retail businesses can be at the mercy of others who control their destiny," says Todd Redwood, BSI's Global Managing Director – Consumer, Retail and Food. "Retailers are generally not the owners of their buildings and so the energy they use for lighting, air conditioning, refrigeration and so on, is somewhat at the mercy of their landlords."

18%

Proportion of retail businesses that said they had not taken action to achieve net zero yet.



Small changes can create significant progress

Redwood points out that those retailers who do own or control their properties have a lot of opportunity to take action. Small changes such as closed refrigeration cabinets for chilled and frozen goods can reduce costs for supermarkets in the face of rising temperatures and contribute to a reduction in emissions²⁷. Others in food retail have been examining the formulation of frozen food in order to store it at warmer temperatures than the customary -18°C. Research published at the start of 2024 from Nomad Foods²⁸ found frozen food could be stored 3°C warmer without any detrimental effect, but with up to 10% reduction in freezer energy use.

In the UK, Tesco has also reported a saving of 4GWh on energy costs (a 10% reduction) and more than 835 tonnes of CO2e in a 21-month trial using AI technology. Chill temperatures across Tesco's estate were increased by 1°C, which might have seemed counter-intuitive, but resulted in major savings without impacting food waste.²⁹

Innovations like this are vital for food retail, where waste is the biggest source of emissions. According to WRAP³⁰, globally, 25 to 30% of total food produced is lost or wasted. The Intergovernmental Panel on Climate Change estimates food waste contributes up to 10% of total man-made greenhouse gas (GHG) emissions³¹. In the UK, food waste from all sectors is around 10.7 million tonnes with a value of over £22bn a year.³²

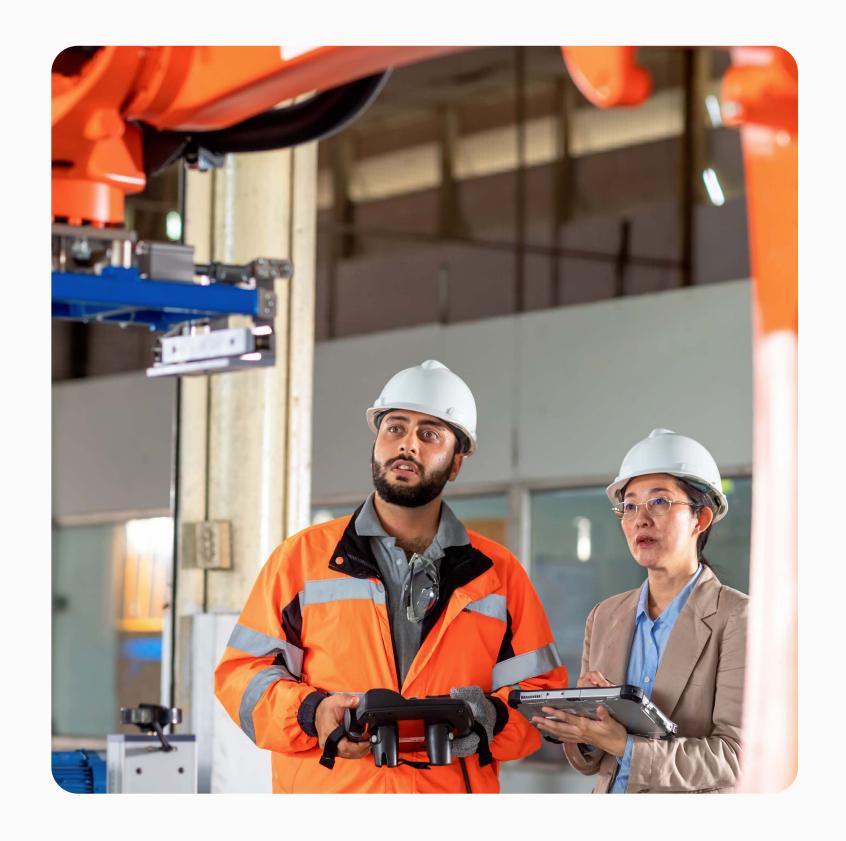
Standards can alleviate the challenge of ethical sourcing and supply chains

Like food retail, the fashion industry faces its own challenges. Estimates suggest it produces about 10% of annual global carbon emissions³³, more than maritime shipping and international flights combined.³⁴

"There are enormous issues across the supply chain for retail businesses. Are they using responsible sourcing, are they using less water, are they encouraging their consumers towards a lower carbon lifestyle?" says Redwood. "Where mining businesses are more business-to-business centred, retail businesses are very consumer focused and are often working within tight margins. Business might be asking the mining industry to decarbonize, but if consumers aren't demanding change from retailers, they don't feel the same pressure."

Lengthy supply chains across multiple global markets create an additional challenge for retail businesses, according to Redwood, as they increase emissions. "Without globally agreed standards on what good looks like, there's a challenge for retailers in identifying the source of every element of the products they sell."





Technology offers an opportunity for action that's both cost-effective and meaningful

Yet, as is the case for energy-related businesses, innovation and digital technology offer businesses in this sector opportunities to take meaningful action towards net zero. "To give one example, artificial intelligence is now being used to load trucks in a particular order, not just to get the most in a delivery, but to factor in its route so products are packed in sequence, increasing efficiency and reducing emissions," he says. "And more obviously, those trucks could be electric rather than diesel-powered.

"The most important thing for SMEs working in the retail sector – and in any sector – is to work out where their main emissions lie and to tackle those first," he continues. "Whatever the action is, start by making the most significant effort where there will be the biggest impact."

Whatever the action is, start by making the most significant effort where there will be the greatest impact."



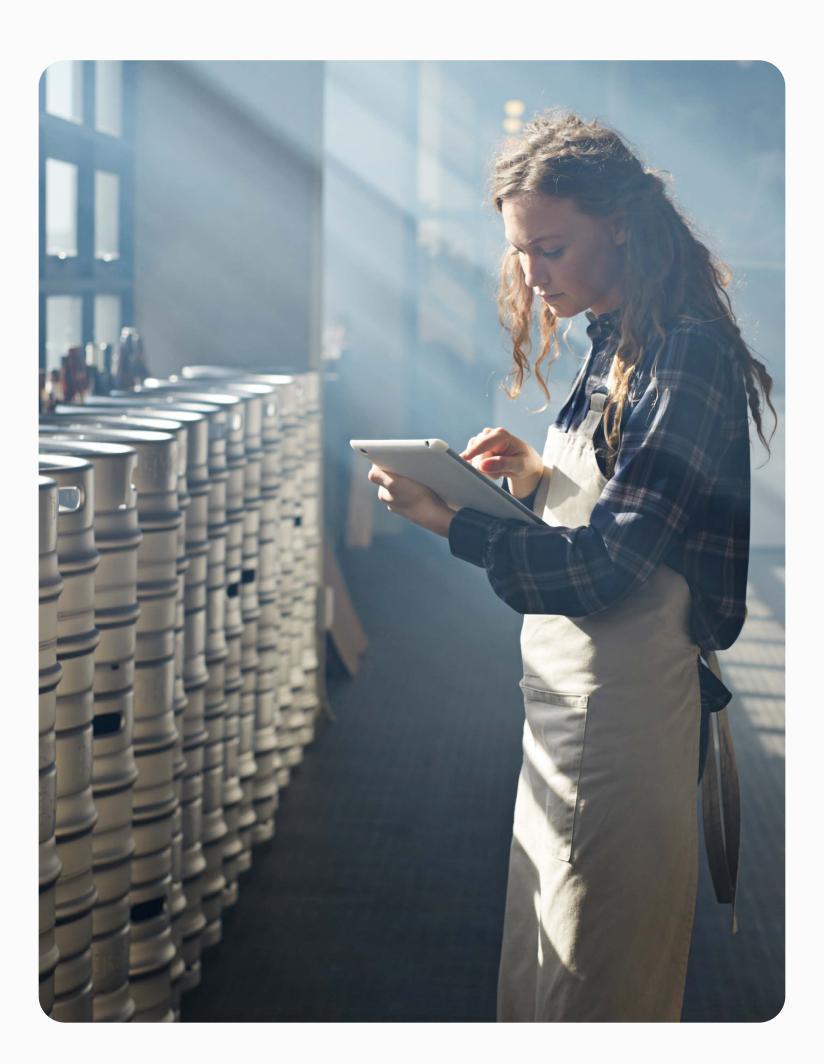
Todd Redwood Global Managing Director – Consumer, Retail and Food, BSI

Conclusions

After four years, our collective ambition to accelerate progress towards and to achieve net zero by 2050 is as strong as ever. Times may continue to be turbulent, but businesses remain confident of their commitment to this goal.

But stating net zero ambitions can only get us so far. If we are to make meaningful progress as a nation towards net zero, businesses need not just to set targets, but to begin to take action towards them. With so many businesses, particularly SMEs, unaware of the full extent of their emissions across Scopes 1, 2 and 3, the first action is clear. Now is an opportune moment for those businesses that have not yet done so to measure their emissions and to consider what they need to do to reduce them.

The gap in net zero progress between small and large businesses, and those operating in heavily regulated sectors versus those that are not, highlights the importance of the principles of a just transition, where all sectors and regions play a part. There is no way to achieve our collective or individual net zero goals if we don't collaborate. It is welcome to see from the data that businesses not only recognize this but are willing to embrace it as an approach.



The evidence is that decarbonizing is possible. The experiences of the many businesses who have already made significant progress, due to being part of industries with an accelerated timeline for decarbonization, could act as a roadmap for businesses in less regulated sectors. Regulation is already creating a level playing field for businesses. Large businesses may have mandatory reporting requirements which smaller businesses don't. Nevertheless, smaller businesses feel the effect of regulation in their role as suppliers to larger businesses.

For smaller businesses looking to get ahead, or even to capitalize on this, standards can point the way, as they already play a key role in informing both policy and regulation. To refer back to the earlier example, BSI Flex 3030³⁵ is a standard designed to help with achieving net zero. It aligns with the ISO Net Zero Guidelines³⁶ and offers guidance and recommended steps towards net zero transition planning for SMEs.

As such, microbusinesses could make the challenge of securing a decarbonized supply chain easier for larger firms, by beginning the work of reducing emissions now. Likewise, large firms could support their microbusiness partners to achieve their goals as part of their own commitment to reducing Scope 3 emissions.

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Key takeaways

The cost to business is always going to be a consideration. Yet, as in previous years, there is a clear opportunity for businesses who get ahead on net zero action to benefit financially from access to procurement contracts and to consumers who want to shop more ethically.

More than that, taking action towards net zero has the potential to allow SMEs to demonstrate their agility. It is an opportunity to adopt and utilize new technology, to innovate with AI and automated tools, and to take advantage of the move towards digitization to both reduce their costs and move forward in decarbonizing.

As always, there are opportunities to be grasped.

Here are the key recommendations of our findings for businesses in the coming 12 months:

Take action on targets, using data to make smart decisions

Having an ambition for net zero, or even targets and a plan, can only take us so far. Whether uncovering the full scope of a business's emissions or to begin work on reducing them, turning ambition into action is vital. For businesses, and SMEs in particular, action will be critical if they wish to stay part of an economic system that increasingly considers due diligence towards decarbonizing to be as vital as financial and legal compliance. As referenced earlier in the report, digitization is accelerating access to net zero solutions. Businesses who have had to advance towards net zero more quickly are leading the way, making use of the data they have to take action and looking at innovative ways to gather the information they require to do it as efficiently and cost-effectively as possible.

7 See net zero as an opportunity to innovate

Achieving net zero is likely to entail some upfront costs for many organizations. But businesses can choose to see this as an investment rather than a burden. In exploring decarbonization strategies to reduce emissions, there are opportunities for businesses to also generate additional revenue and to position themselves as preferred suppliers for businesses looking to partner with others who are taking action towards net zero.



Consider net zero spending as a long-term investment rather than a cost

For small businesses, the cost of working towards net zero can seem hard to justify. But businesses should also consider the cost of inaction, which could be more costly than investment in net zero now. As more businesses are aware of the impact climate risks could have on the economic sustainability of their activities, perhaps it's time to consider action as a means of ensuring the longevity of their organization. Investing in tools like Life Cycle Analysis can offer businesses cost benefits by evaluating the sustainability of their products and services in a comprehensive manner, identifying potential areas for improvement, enabling informed decision-making and the implementation of more sustainable practices.

Use standards as the key to unlock collaboration

The opportunity is for businesses of all sizes to play a part in working towards net zero goals and to benefit financially – especially if businesses and industries work together.

Large firms can help microbusinesses to do more (as part of their Scope 3 commitments), and microbusinesses can raise their game to win the work from large firms (and help them succeed with their Scope 3 reductions).

Using common standards, methodologies and frameworks across a supply chain of businesses will only help strengthen accountability and transparency for businesses as they communicate their actions to their shareholders, investors and customers.

The environment matters

The government also has a role to play in supporting businesses, not just financially, but by creating a consistent policy environment that frees organizations to invest and innovate towards net zero. In a general election year, where what's next for net zero policy may be unclear but is likely to be at the forefront of discussion, standards can provide a constant in the business environment where government cannot, offering organizations assured, industry-led pathways to good practice that can transcend the uncertainty of elections and changing policy in the national executive.



The role of standards

Standards are transparent and flexible tools for business. They are developed independently and in agreement with the stakeholders and experts who need them and use them. Standards help harmonize best practices in areas where there are diverse sources of information, bringing focus to key principles. They enable those who have their own methods of verification and guidance to come together to achieve clarity.

The international standards body (ISO) is represented by 170 National Member Bodies around the world. Its standards follow the World Trade Organization (WTO)'s principles for Technical Barriers to Trade. BSI is the UK member of ISO and contributes UK expertise to many areas of international standards development. These include those which are specifically for climate and the environment.

Standards in this area include those for energy management, greenhouse gas management, carbon accounting, carbon neutrality and decarbonization of infrastructure. Others include specifications for improving energy efficiency in new buildings and retrofitting older ones.

A new BSI fast-track standard will be of interest to many beginning their journey into net zero transition planning in the UK, particularly those who run SMEs. BSI Flex 3030 is freely available to download. It is a code of practice with recommended steps towards net zero transition planning, as detailed in the diagram on the right.

For international policymakers and larger organizations, there are the ISO IWA 42 Net Zero Guidelines, with which the Flex standard is aligned. IWA 42 has been proposed for further development into an international standard on net zero requirements.

For more information about the transition planning standard and other standards around the subject of net zero, please find further information here.

Process flow for Net Zero Transition Plan Top Management Commitment (5.1.1) Select Competent Staff (5.1.1) Determine Scope and Boundaries (5.2) Quantification of Baseline (5.2) Establish Targets (5.4.1) Develop Implementation Plan (5.4.2) Implement Reduction (5.5.1) Modify & **Update Plan** (5.7)Make Removals (if any) – (5.5.2) Offletting (optional) – (5.5.3) Assess Impact - (5.6) Reporting and Communication (6.1)



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About this survey

A combination of desk research, qualitative and quantitative research was used to create this report. Overall, 1,012 senior decision makers (e.g. Owners, C-Suite individuals, Directors) were surveyed from a spread of UK-based businesses (in terms of size, sector and region). Targets were set to enable the data to be reliably analyzed by different sizes of businesses and BSI's key sectors and were successfully met. Following completion of the fieldwork, the data was weighted against latest ONS (Office for National Statistics) data to ensure that any 'total' figures reported are based on a nationally representative profile of UK businesses (in terms of size).

This is the fourth version of these annual surveys. Previous versions referenced in this report also surveyed around 1,000 senior decision makers from UK based businesses across a spread of sizes and sectors. The methodology and questions have evolved over time, and additional queries have been added in order to track ongoing business progress.



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References

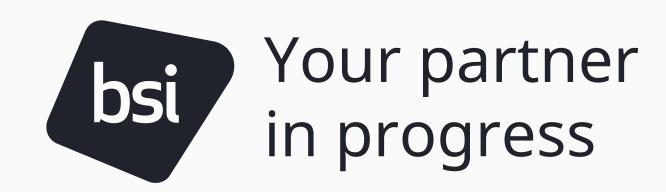
- The Climate Change Act 2008 (2050 Target Amendment)
 Order 2019, legislation.gov.uk, held by the National Archives,
 June 2019
- 2 <u>UK action on climate change</u>, Climate Change Committee, accessed April 2024
- 3 https://www.gov.uk/government/news/plans-unveiled-to-decarbonise-uk-power-system-by-2035
- https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035
- 5 Greenhouse Gas Protocol, p25
- The methodology behind the BSI Net Zero Barometer survey has changed over the last four years. Where comparisons have been made between surveys, care has been taken to retain the language used originally to accurately represent the data.
- 7 <u>Mission zero: Independent review of net zero</u>, House of Lords Library, January 2023 1
- 8 https://www.legislation.gov.uk/ukpga/2023/52/contents/enacted
- 9 https://www.gov.uk/government/news/firms-must-commit-to-net-zero-to-win-major-government-contracts
- 10 https://www.mckinsey.com/capabilities/sustainability/our-insights/opportunities-for-uk-businesses-in-the-net-zero-transition
- 11 Scope 3 Frequently Asked Questions, Greenhouse Gas Protocol, June 2022

- 12 BSI Flex 3030:2024 v1.0 Net Zero Transition Plans
- 13 Live blog, The Guardian, September 20, 2023
- 14 The Guardian, February 8, 2024
- 15 Defined by the Companies Act 2006, as companies that meet two or more of the following criteria: turnover (or gross income) of £36 million or more, balance sheet assets of £18 million or more, 250 employees or more.
- 16 Environmental Reporting Guidelines, UK Government, 2019 updated 2023
- 17 The Companies (Directors' Report) and Limited Liability
 Partnerships (Energy and Carbon Report) Regulations 2018
- 18 Scope 3 Frequently Asked Questions, Greenhouse Gas Protocol, June 2022
- 19 What is a just transition for environmental targets, UK Parliament, accessed April 2024
- 20 UK action on climate change, the CCC, accessed April 2024
- 21 Our progress towards net zero, National Grid, accessed April 2024
- 22 UK Environmental Accounts: 2023, ONS, June 2023
- 23 UK Battery Strategy, Department for Business and Trade, December 2023
- 24 Critical Minerals Refresh: Delivering Resilience in a Changing Global Environment (published 13 March 2023), Department for Business and Trade, March 2023
- 25 British energy security strategy, Department for Energy Security & Net Zero, April 2022

- National Grid ESO launches world-first programme to digitise Great Britain's energy system and advance the transition to net zero, National Grid, November 2021
- 27 Warmer summers risk chilling energy bill rises at supermarkets, Imperial, July 2020 /
- 28 Landmark study from Nomad Foods confirms potential to increase freezer temperatures and reduce carbon emissions, Nomad Foods, February 2024 /
- Tesco uses new AI technology to slash energy costs by 10% Retail Gazette, April 2024
- 30 Action on food waste, WRAP, accessed April 2024
- 31 Special Report, IPCC, 2019
- 32 Action on food waste, WRAP, accessed April 2024
- 33 UN Alliance aims to put fashion on path to sustainability, UNECE, July 2018
- 34 What is fast fashion and how is it damaging the planet?, Zurich, January 2023
- 35 BSI Flex 3030:2024 v1.0 Net Zero Transition Plans
- 36 ISO Net Zero Guidelines (IWA42)



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