NBS

Sustainable Futures Report **2022**

Contents

Thank you to all 608 people who took the time to complete the survey, and to the organisations shown below who supported us by promoting it to their members and networks. We are extremely grateful.

Foreword

Climate change is a global issue of utmost importance, and construction has a major role to play. At NBS, sustainability is a high priority for us. We recognise that the specification content and guidance we provide can help to make a positive difference to our future built environment by assisting users to specify sustainable outcomes. We also recognise the role that we must play as a company in building a sustainable future and making a positive impact on our community.

As we approached autumn 2021 and the COP26 conference drew nearer, we wanted to ask the construction industry about sustainability. What does the term mean to the industry? How important is sustainability to construction professionals? What sustainability information is required by, and provided to, the industry, and how often are sustainable outcomes achieved? These were just some of the questions that we were looking to answer when we launched our Sustainable Futures Survey in September 2021. This is our third survey on sustainability, and it continues to ask some of the same questions, enabling us to track trends.

Thank you to the 608 construction professionals who took the time to complete this survey and share your thoughts on sustainability. We also thank the organisations that promoted the survey, ensuring the representation of a cross section of the industry, including specifiers, contractors, clients and suppliers. Within the survey, we committed to planting a tree for every completed survey. As a result of this great response, we have been able to plant 608 trees at Doddington North, Northumberland.

In this report, we set out the findings of the research, looking to paint a picture of sustainability in the construction industry. The report will cover:

- What sustainability means to the industry
- Drivers and barriers to sustainability
- How sustainability is approached, & targets measured
- Some comparisons over time

We hope that you enjoy reading the report and find the information valuable. We'd love to hear your feedback on this report.

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Introduction

Between September and December 2021, we conducted our Sustainable Futures Survey, looking at what sustainability means to construction professionals, drivers and barriers to sustainability, and construction professionals' attitudes towards sustainability. 608 construction professionals took part. Nearly three quarters of respondents described their project roles as consultants, but we also had responses from the other main project roles: suppliers, constructors and clients. Where relevant, we will compare the views of people with these different roles throughout the report.

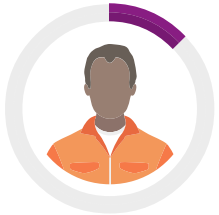
Responses came from a cross section of the industry, including companies of all sizes and those from various professional disciplines. Interest in the survey was mostly from the UK, but we had responses from across the world. A full respondent profile is available at the end of the report.

This was our third survey looking into sustainability; we last researched this topic in our 2014 Sustainability Report. Throughout the report, where it is possible, we will make comparisons to past results, as well as draw out any differences between groups of respondents.

A brief description of our methodology, both for carrying out the survey and the analysis of the results, is available at the end of the report.

Respondents' role on a project

74%
Consultant, designer or specifier



11%
Supplier of products or materials

7%
Constructor, contractor or subcontractor

5%
Client

Defining sustainability

Sustainability is a broad topic, one which many people define differently and covers numerous aspects of environmental, social and governance issues. Before looking at sustainability in detail and thinking about what influences it, we felt that it was important to understand what the term means to respondents, as well as whether that definition has changed since our last survey in 2014.

What is sustainability?

We asked people how they would define sustainability in their own words. There was considerable variation within the definitions in terms of which elements of sustainability they emphasised, but there were some common themes. Very broadly, many consider sustainability to be about striking a balance between the resources that we use to live our lives and the welfare of the environment.

'The ability to sustain a comfortable human life without compromising the environment'.

'Ensuring the longevity of the planet by considering the impact of actions and adjusting them to make a minimal impact'.

'It is the balance of the environment in which it lives, efficiently taking advantage of resources and generating the least possible impact'.

Many expand on this further by highlighting the need to protect the environment for future generations with some providing similar definitions to the official definition of sustainable development coined in the Brundtland Report in 1987.

'Meeting the needs of the present without compromising the needs of the future generation'.

'The ability for the built environment to be designed in a way that is sustainable for the planet and society as a whole for many generations'.

There were some opposing views. Not everyone was positive about sustainability, with some being sceptical and questioning whether sustainability exists or if it does whether anything can be done to stop climate change. Others view it as a buzzword.

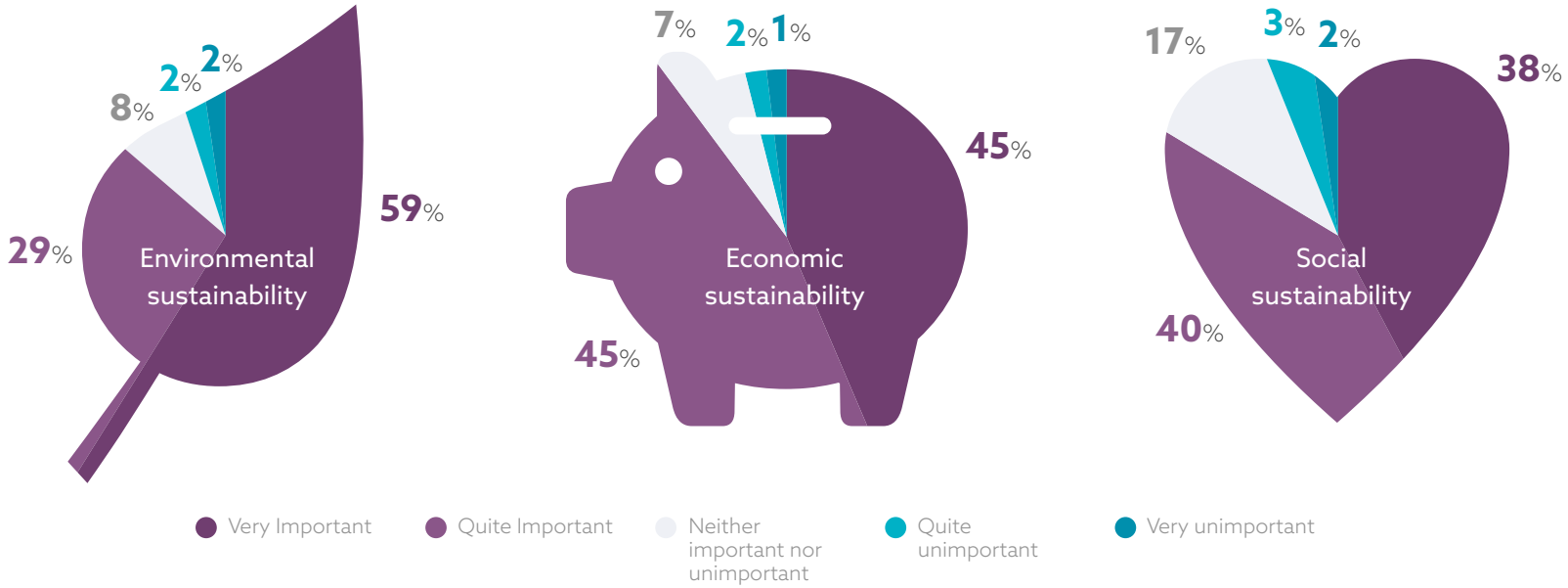
'Sustainability has become a meaningless buzz word'.

Some respondents chose to highlight the three aspects of sustainability within their definition: environmental sustainability, economic sustainability and social sustainability.

'I would break it down into 3 sub-sections: economic sustainability, [environmental] sustainability and social sustainability. Sustainability to me is when each of the mentioned sub-sections are meeting the needs of today without compromising the future'.

We wanted to explore these three aspects of sustainability in more detail. Respondents were asked to tell us how important each of the aspects are to the projects that they work on. Around nine out of ten respondents view both economic and environmental sustainability as important, with 59% considering environmental sustainability as very important, and 45% classing economic sustainability as quite important. More than three quarters of respondents also see social responsibility as important, but only 38% think that it is very important. Clients appear to place a greater level of importance on social sustainability than those with other project roles. The perceived levels of importance of these aspects of sustainability are very similar to those we saw when we last researched sustainability in 2014.

How important are the following aspects of sustainability to the projects you work on?



In 2019, the RIBA defined a set of eight sustainable outcomes as part of their RIBA 2030 Climate Challenge. The eight sustainable outcomes are:

- Net-zero operational carbon
- Net-zero embodied carbon
- Sustainable water cycle
- Sustainable connectivity and transport
- Sustainable land use and bio-diversity
- Good health and wellbeing
- Sustainable communities and social value
- Sustainable life cycle cost

These sustainable outcomes correspond to key UN Sustainable Development Goals and can be delivered on projects of all scales.

We wanted to understand the respective importance of each of these sustainable outcomes to the projects that respondents are working on. Perhaps unsurprisingly, achieving 'Net-zero operational carbon' ranked as the most important outcome, closely followed by 'Good health and wellbeing'. 'Sustainable land use and bio-diversity' ranked third. Achieving 'Net-zero embodied carbon', which the RIBA 'Sustainable Outcomes Guide' describes as being "twin targets under the concept of Whole Life Net Carbon", only appears fourth in respondents' overall ranking list. Of the eight sustainable outcomes, 'Sustainable connectivity and transport' ranked bottom, with 'Sustainable communities and social value' in seventh place.

Please rank the following sustainable outcomes in order of importance to the projects you work on from high to low

Item	Overall rank	Rank distribution	Score	No. of rankings
Net-zero operational carbon	1		2,812	522
Good health and wellbeing	2		2,742	523
Sustainable land use and bio-diversity	3		2,555	524
Net-zero embodied carbon	4		2,342	517
Sustainable life cycle cost	5		2,247	523
Sustainable water cycle	6		2,235	522
Sustainable communities and social value	7		2,142	516
Sustainable connectivity and transport	8		1,848	522

Although achieving 'Net-zero operational carbon' achieved the highest score, the high scores that the other sustainable outcomes achieved demonstrate that all of the RIBA sustainable outcomes are important. For 'Sustainable communities and social value', and 'Sustainable connectivity and transport'; the lower ranking will likely be a result of a high volume of respondents focusing on building design and not the wider master planning. Removing carbon from the built environment, however, is a clear focus.

Common misconceptions

To understand what sustainability means to the industry, we also wanted to learn about the common misconceptions that construction industry professionals hear about or experience when it comes to sustainability. The main misconception about sustainability is that it is too expensive, and therefore difficult or more costly to achieve.

'The biggest misconception about sustainability in the construction industry is the [belief] that sustainability is very expensive and impossible to achieve'.

'That in order to be sustainable, it must cost the client a heavy financial investment; when in actual fact many sustainable qualities can be designed into the development by maximising site orientation, building depth, massing etc'.

'More cost which might be true for construction but not if seeing whole lifecycle when building [is] in operation phase'.

Whilst it is true that some solutions cost more, they can provide savings whilst a building is in use. Furthermore, respondents' comments suggest that the cost is something that should be weighed up against the benefits that sustainable solutions will provide to the environment.

Several misconceptions also relate to various elements of sustainability being considered in silos, such as only focusing on carbon emissions or the environment.

'Sustainability in construction is only about emissions through energy consumption'.

'Sustainability is just about the environment'.

The Passive measures of a built asset offer the most feasible lower cost solution when designing, but must be factored in at the concept stage. Sustainability cannot be a bolt on.

'Sustainability in construction is only about emissions through energy consumption'.

'Sustainability is just about the environment'.

'I feel that a misconception is that if you use environmental and low energy items you are doing your part - however, if you have 10 low flush toilets in a house it isn't reducing the materials and impact as much as it would if you only needed 2 low flush toilets'.

Concerningly, respondents identify several misconceptions relating to both how sustainability can be incorporated into a design and the processes followed, as well as it being optional – or something which can be ignored.

'That it can be applied in the later stages of design. It has to be considered from the outset, and it should be a part of every decision and discussion'.

'That it is a tick box exercise, or something that can be added on at later stages ... sustainability is inherent in the design and strategies should always be considered from an early stage'.

'That a gradual change over the next 30 years will be sufficient, when in fact we require urgent change'.

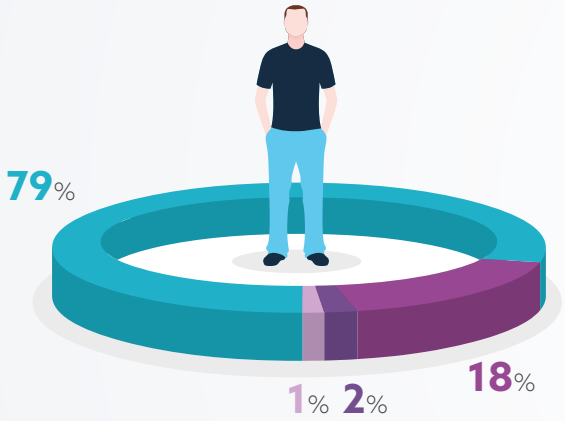
'That the climate crisis 'isn't too bad' and can be fixed by one thing (that someone else will do)'.

Sustainability influences

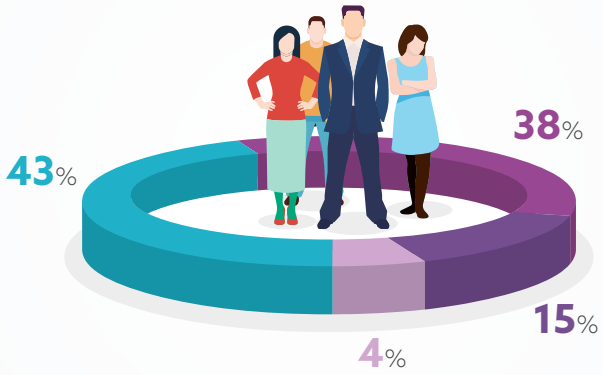
Having gained an understanding of what sustainability means to the construction industry, we wanted to explore what and who influence a project's sustainability credentials, and an organisation's approach to sustainability. Respondents were asked to tell us how important sustainability is to them personally, the executive or leadership team within their organisation, and their organisation as a whole. It's evident from the results that respondents' personal views have a significant impact: 79% tell us that sustainability is very important to them personally, with a further 18% saying that it is quite important. In contrast, just over four out of ten respondents say that it is very important to their executive/leadership team and their organisation as a whole. Younger respondents, especially those aged between 18 and 34, are less likely to believe that sustainability is important to either of these groups.

How important is sustainability to...

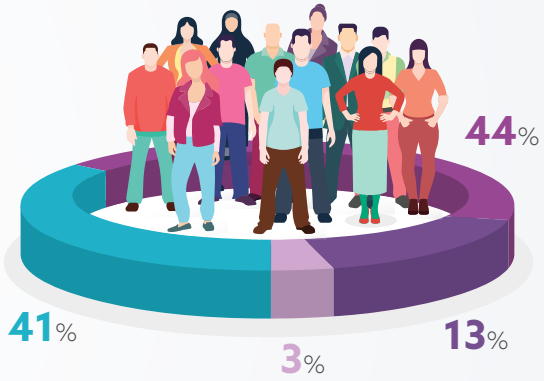
You personally?



The executive / leadership team within your organisation?

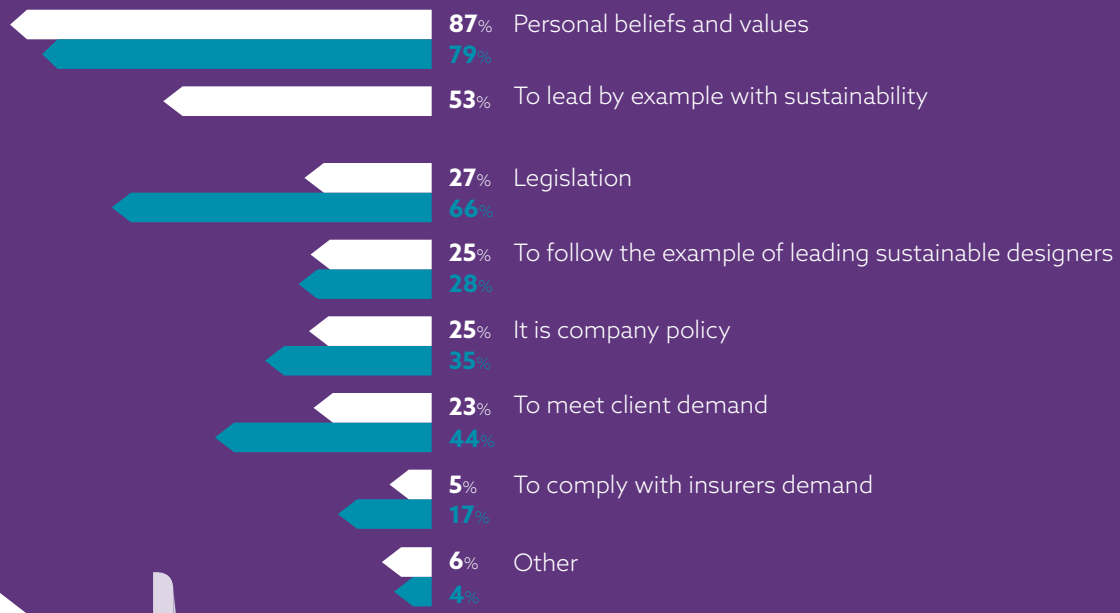


Your organisation as a whole?



Very important
Quite important
Not that important
Not at all important

Sustainability drivers



It is to be expected that those with definitive views on a topic, whether positive or negative, will be more likely to respond to research about that topic. In the case of this research, respondents' interest in sustainability may help to explain some of the gap between the personal importance of the subject to respondents and its perceived importance to their wider organisation.

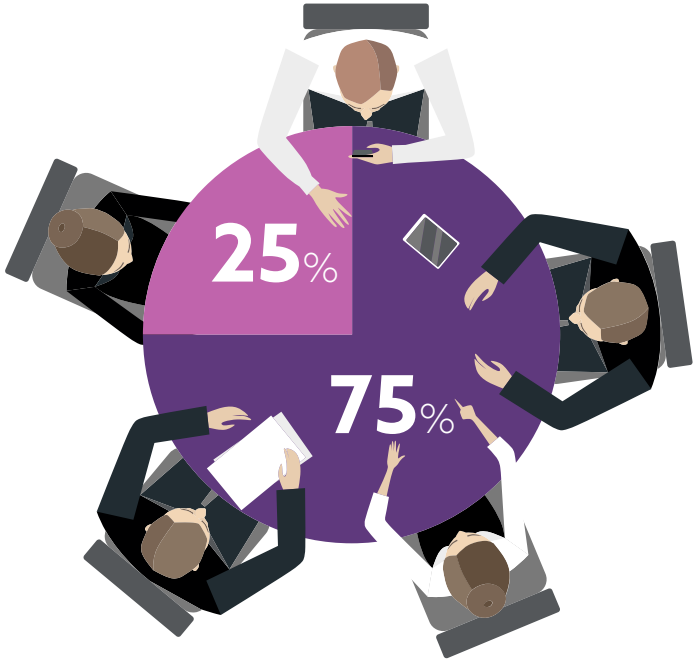
When asked why they personally think about sustainability, the primary reason was their own personal beliefs and values: 87% cited this as the reason. 53% also indicated that they like to lead by example with a sustainable approach (this was not included as an option in the 2014 survey). When you compare this with results from our NBS Sustainability Report 2014, it's clear that the construction industry's views and behaviour relating to sustainability are increasingly driven by people's own beliefs and values, and less influenced by legislation and the beliefs of other people. The percentage stating that they consider sustainability because it is company policy has dropped by 10% points to 25%.

It is perhaps not surprising that legislation is having less of an impact. Certain sustainability criteria is required to meet Building Regulation but there is generally a lack of legislation in this area. In recent years the Government has dropped initiatives such as the 'Code for Sustainable Homes' meaning most efforts are voluntary. Those working on new-build projects are particularly likely to be driven by their personal beliefs and values, as well as their desire to lead by example with a sustainable approach.

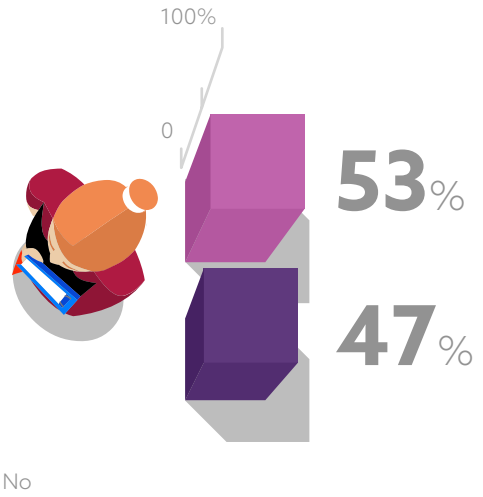
So, what does this mean for companies and how committed they are to sustainability? Positively, three quarters of respondents indicate that sustainability is a board-level agenda item, meaning that for many – though not all – sustainability is getting discussed on a regular basis. But less than half employ someone to ensure that sustainable outcomes are achieved on projects. It is larger organisations (with over 51 employees) that are more likely to specifically employ someone to ensure that sustainable outcomes are achieved.

Thinking about your organisation and sustainability...

Is sustainability a board-level agenda item?

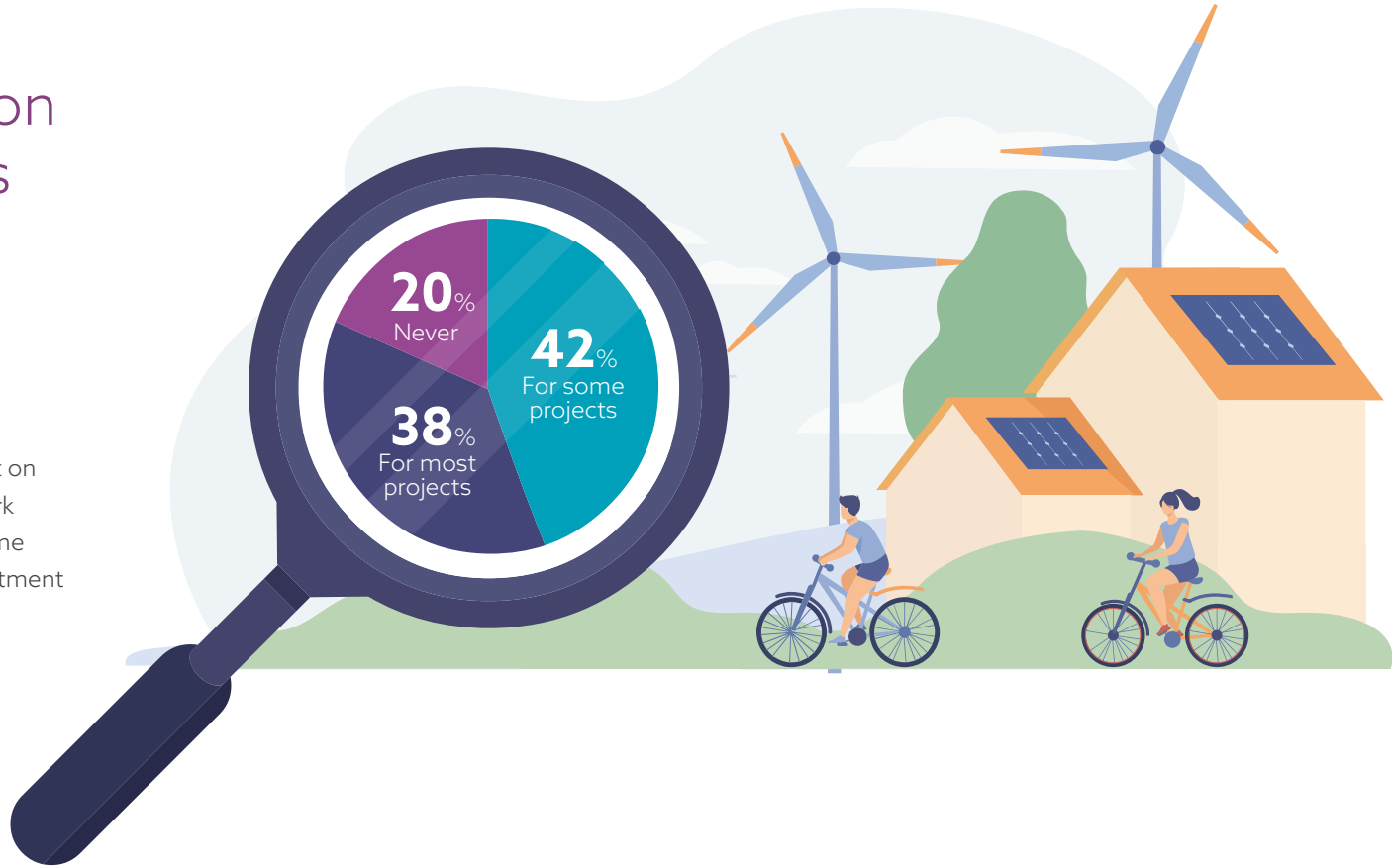


Is anyone employed to ensure sustainable outcomes are achieved on your projects?

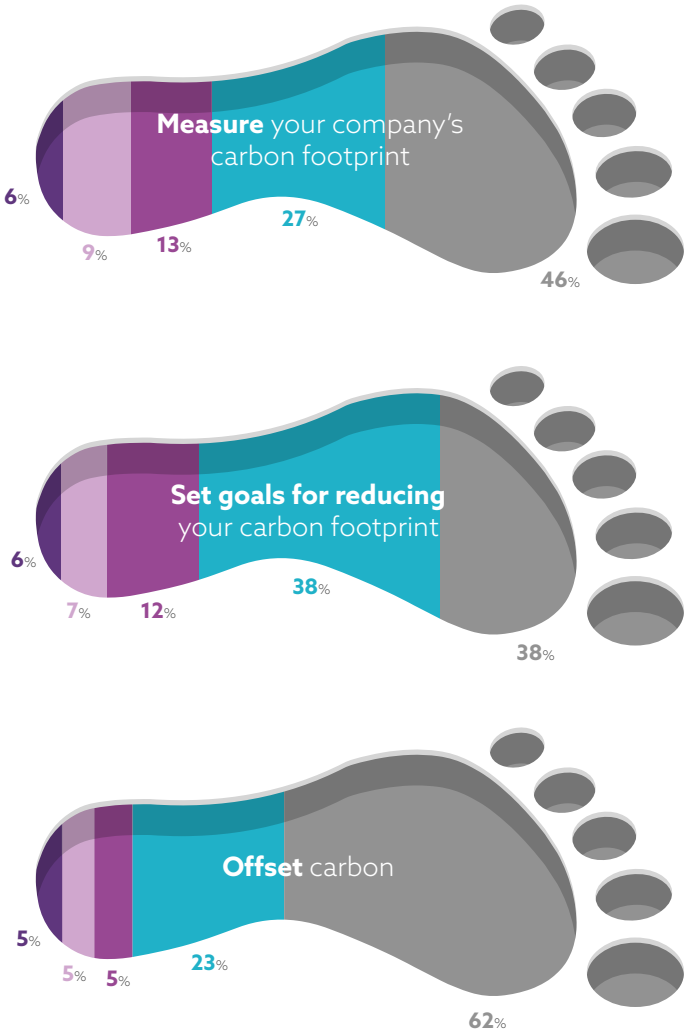


How often do you measure and report on sustainability metrics for the projects your organisation works on?

Many respondents' companies measure and report on sustainability metrics for the projects that they work on: 38% do this for most projects, and 42% for some projects. Overall, companies are showing a commitment to sustainability.



How often does your organisation do each of the following?

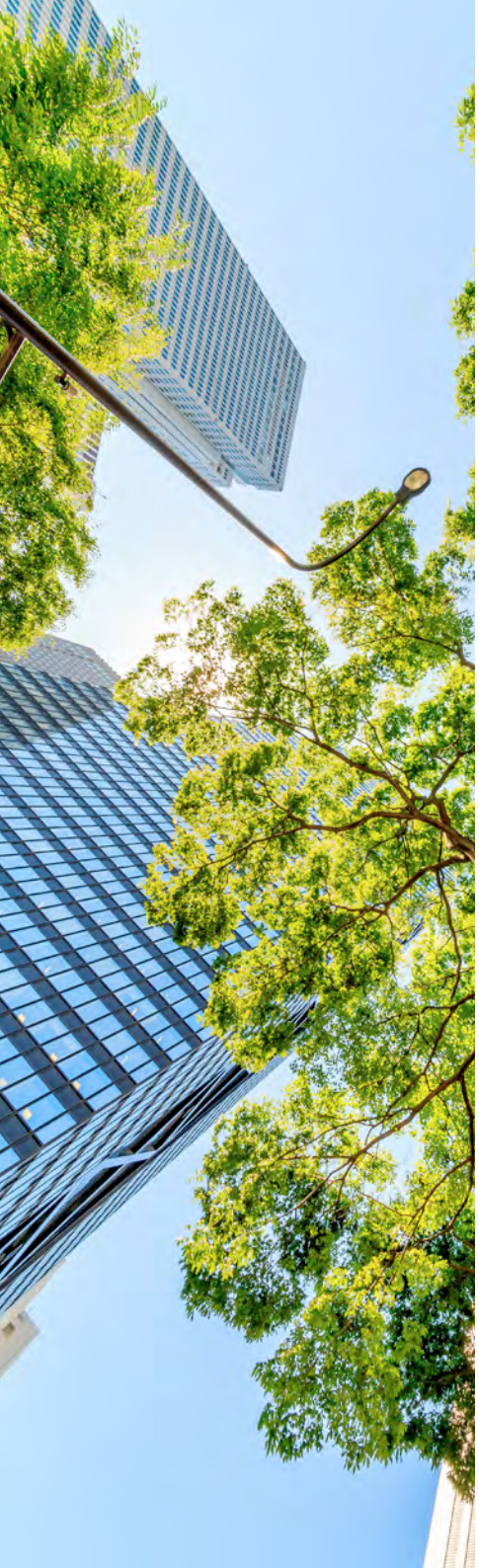


We also wanted to consider how often companies measure, report on and act on their own carbon footprint. Just over half of respondents (54%) tell us that their company measures their carbon footprint at least annually, with only a few doing so monthly or more often. It is larger organisations that are more likely to measure their carbon footprint.

More people were able to say whether their company sets goals for reducing their carbon footprint – 446 people answered the question, compared to 414 telling us whether their companies measure their carbon footprint. Around two thirds of respondents (62%) tell us that they set goals for reducing their carbon footprint at least annually. Fewer tell us that their company offsets carbon – 38% do this at least annually, with 62% telling us that they never do this. It's clear from some respondents' comments that there is some scepticism over the value of offsetting carbon.

'[A common misconception is that] you can just offset things. There is still an element of destruction that comes with 'new' materials, and it is not just carbon that is part of the problem'.

Larger companies, as well as those working on light refurbishment projects, are more likely to offset carbon.



Within the construction industry, there are many people involved on a project: each with different roles. They may work collaboratively alongside each other, or continue a project from where another left off. The relationship is not always easy. We wanted to explore this relationship in connection to sustainability, and the level of influence that the main project roles have over whether sustainable outcomes are achieved on a project.

It's clear that respondents see the client as having the largest influence, followed by the designers or consultants, such as an architect or engineer. Clients have an important role to play in sustainability. They are the ones who will set out the brief for the project and highlight what they want in terms of sustainability. They are also the ones who, later on in the project, can work with the contractor to ensure that any value engineering does not affect the sustainable outcomes. They can't do it alone though: the designer or consultant must turn this brief into a design that meets their sustainability needs, as well as other needs, and complies with Building Regulations.

Respondents see the constructor, contractor or subcontractor, and the supplier of products or materials, as having less of a role. However, they all have a part to play, and if they work together collaboratively can ensure that the sustainability goals are not lost as a project progresses, and that sustainable outcomes are achieved. Clients often recognise the influence they have, with people in this project role more likely to cite themselves as having a larger influence alongside the designers / consultants.

Please rank the following roles according to who has the biggest influence over whether sustainable outcomes are achieved on projects

Item	Overall rank	Rank distribution	Score	No. of rankings
The client	1		1,930	542
The designers/consultants e.g. architect or engineer	2		1,561	538
The constructor, contractor or subcontractor	3		968	531
The supplier of products or materials e.g. manufacturer or distributor	4		936	536

Lowest rank — Highest rank

Barriers to achieving sustainability

As well as positive influences on sustainability, there are negative influences. So, what are the main barriers to achieving sustainability? Respondents were asked to identify the three main barriers that they experienced to delivering sustainability. For half of respondents, these are lack of client demand (52%) and the cost of achieving sustainability (51%). Nearly four out of ten cite sustainable products being 'value-engineered' out (38%) and lack of government policy/regulation (37%) as key barriers.

There are some differences in opinion between people who carry out the different project roles. Contractors are more likely to see contractual risk as a barrier to achieving sustainability. This is not a surprise in a construction landscape, where materials shortages have led to longer lead times, and therefore a risk that the required products might cause a project to overrun. Alternatively, suppliers are more likely to view sustainable products being 'value-engineered' out as a barrier. Clients are more likely to see a lack of management commitment and a lack of sustainable performance information from manufacturers as barriers to delivering sustainability.

Many of these barriers are not insurmountable. We have already seen the role that the client has to play in influencing sustainability, and they can stipulate the sustainability criteria that they require. However, if they haven't done this, the designer can discuss the issue with them – perhaps they just haven't thought about it, or hold one of the common misconceptions about sustainability. When we considered the common misconceptions in the construction industry, we learnt that one of these was the perception that achieving sustainability is expensive. By working collaboratively, the entire project team can help to identify solutions that are cost-effective, including considering not just the initial cost but the ongoing running costs.

'That it has to be incredibly expensive but if it is designed in from the start it need not be. So retrofitting can be very expensive due to thermal bridging from the ground and at eaves'.

*from manufacturers

Attitudes towards sustainability

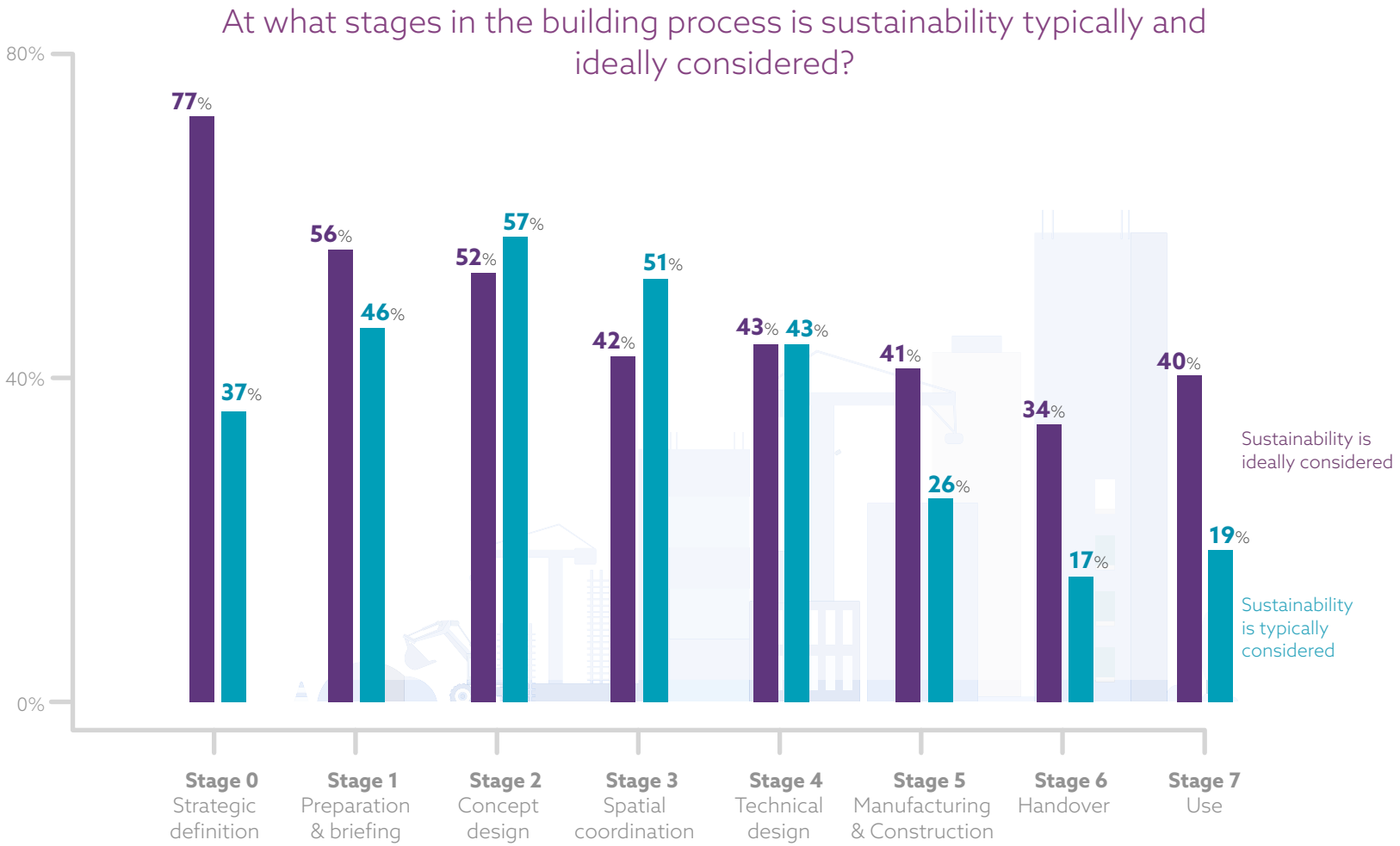
We have already seen that sustainability is important to many of the respondents, but how do their other views compare? In this section, we will look at what approaches are taken when working on a sustainable project, how often sustainable outcome goals are set for projects and whether they are achieved, and overall thoughts about sustainability and predictions on when companies may achieve net-zero.

Approaching sustainability

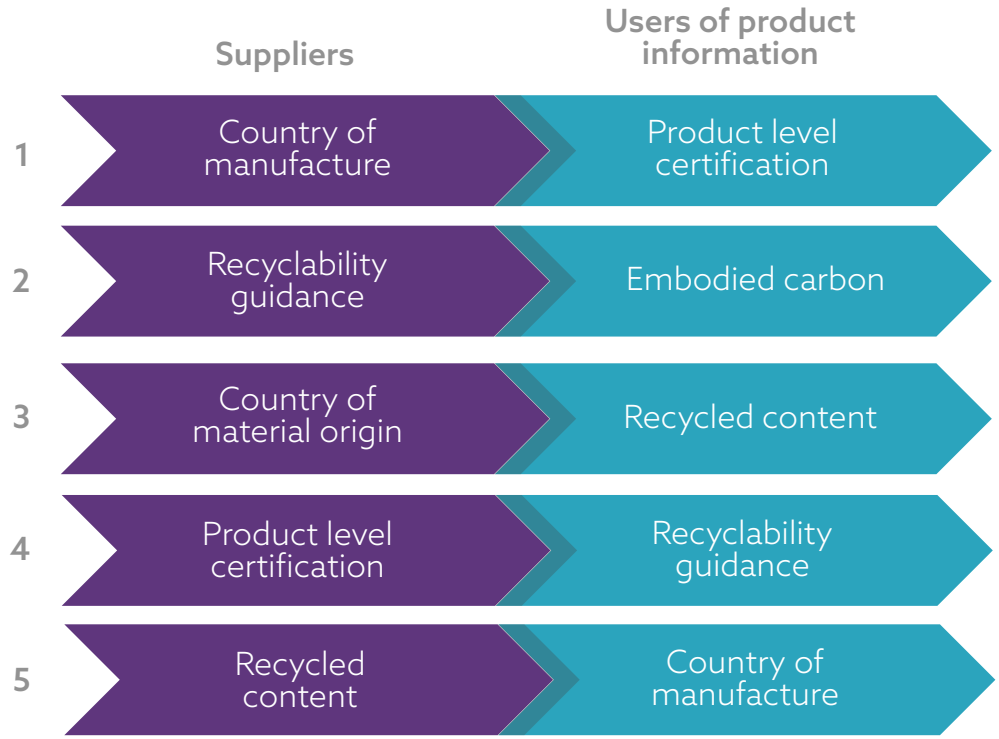
We start by reviewing when sustainability is typically considered (based on the RIBA Plan of Work Stages*) , and when it should ideally be considered. Just over a third of respondents (37%) tell us that they typically consider sustainability at Stage 0 – 'Strategic Definition'. This gradually increases over the next few Stages to over half considering it at Stage 2 – 'Concept Design' (57%) and Stage 3 – 'Spatial Coordination' (51%). It then starts to tail off, reducing significantly from Stage 5 – 'Manufacturing and Construction', when only 26% consider sustainability. Those working on deep retrofit projects are more likely to consider sustainability at Stage 1 – 'Preparation and Briefing'. Those who are very or quite confident in their sustainability knowledge and skills are also more likely to typically consider sustainability earlier during Stages 0 and 1, and later in a project's timeline at Stages 5 and 6, indicating that they understand the value of incorporating these requirements throughout a project's life cycle.

In an ideal world, respondents want to start considering sustainability earlier: over three quarters (77%) want to start considering it at Stage 0 – 'Strategic Definition'. This ties in with the aspirations of the RIBA Plan of Work 2020 Overview, which at Stage 0 suggests that respondents "Develop high level, measurable, ambitious and unambiguous project Sustainability Outcomes to define the Client Requirements, following initial consultation with internal Project Stakeholders". Respondents believe that sustainability should ideally continue to be considered throughout the project timeline: particularly through Stages 1 and 2. Around 40% of respondents believe that sustainability should also be considered between Stage 3 – 'Spatial Coordination' and Stage 7 – 'Use'.

*The questionnaire referred to the 2013 RIBA Plan of Work stages. Within the report these have been updated to reflect the RIBA Plan of Work issued in 2020.



87% of clients recognise the need to consider sustainability early on: making them more likely than people in other project roles to say that they should ideally consider sustainability at Stage 0 – 'Strategic Definition'. In part, this may be a reflection of their role being involved in the project at the very beginning rather than getting involved later as contractors and suppliers tend to.



The sustainability performance of products will vary considerably and can be described in several different ways. We wanted to understand what sustainability metrics suppliers choose to publish about their products, as well as what the sustainability information users of product information are mainly looking for when selecting products on a sustainable project. We presented a list of 11 different sustainability metrics that suppliers could provide about their products, as well as giving respondents the option to tell us that they provide other metrics not included in the list, and asked suppliers to tell us all the metrics that they provide.

A minority of suppliers told us that they did not provide any of the sustainability information listed, whilst another small minority provided everything. On average, suppliers told us that they provided four different kinds of sustainability information. Users of product information (including consultants, constructors and clients) were presented with the same list, and were asked to tell us the three main sustainability metrics that they look for when selecting products to help prioritise these.

The diagram to the left shows the top five sustainability metrics selected by each group. We see a lot of overlap in the types of metrics included in the top five, but there are differences in the order of importance. The number-one piece of information that suppliers provide is country of manufacture; whilst users value this information, it only appears at number five in their list. In contrast, users feel that product level certification is particularly important: something that suppliers often provide, but not as regularly as other information. Users of product information tell us that the second most common sustainability metric they look for is information on embodied carbon. This is something that suppliers provide, but not as regularly; however, they do list country of material origin in their top five which, though not the same, will have some overlap. Additionally, they do provide information on the country of manufacture.

This is the information that users of product information need about sustainability, but how else can they be supported in meeting sustainable outcome targets on a project, and what other processes do they follow? It's clear that users of the product information would like more manufacturers to provide sustainability performance information about their products: 92% told us that they agree with that statement overall, with close to two thirds of them (62%) telling us that they strongly agree.

'There needs to be a consistent information bank of honest carbon footprint and lifecycle cost'.

'Manufacturers often can't provide data on [responsible] sourcing, life cycle, carbon footprint, waste and recycling procedures, production footprint and energy footprint, toxic material content, i.e. plastic'.

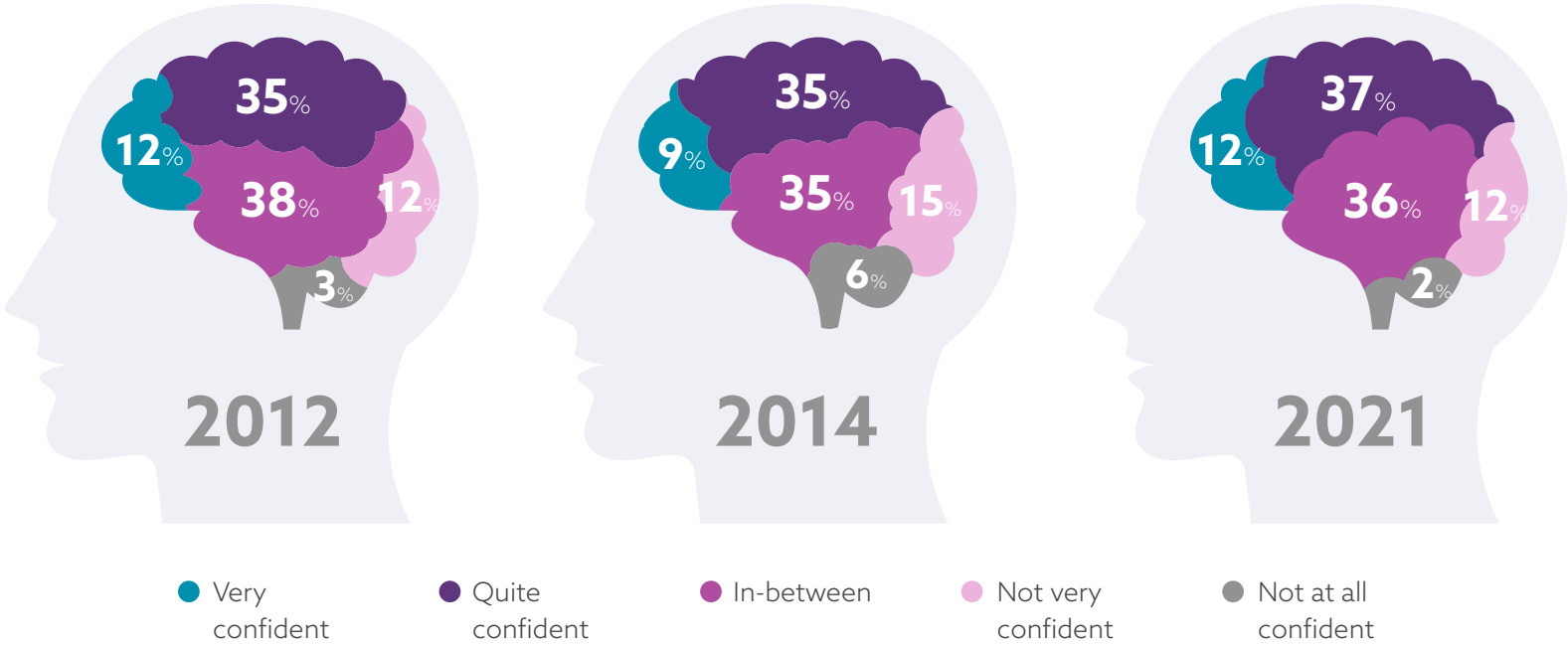
Nine out of ten users of product information also agree that a robust specification is important to achieving sustainable outcomes, with six out of ten telling us that they strongly agree. Almost half agree that they will only specify a named manufacturer on a project if they have declared better-than-average sustainability credentials, or that a product's sustainability credentials are the most important factor when specifying products. In part, this is impacted by some respondents who work in local authorities or similar, which are not allowed to specify named products, whilst others expand on this to explain that sustainability needs to be considered alongside several other factors.

'Generally, I go toward more sustainable products at least UK made but would rather it noted the geographic source of materials.'

How strongly do you agree or disagree with the following statements?

Just under half of respondents tell us that they are confident in their knowledge and skills of sustainability in relation to the projects or products that they work on; however, only one in ten are very confident. Respondents' confidence levels have remained largely the same over time, but how can respondents' confidence be improved, and what impact does this have on them achieving sustainable outcomes on their projects? We explore the answer to this in the next section.

Sustainability knowledge and skills confidence levels over time

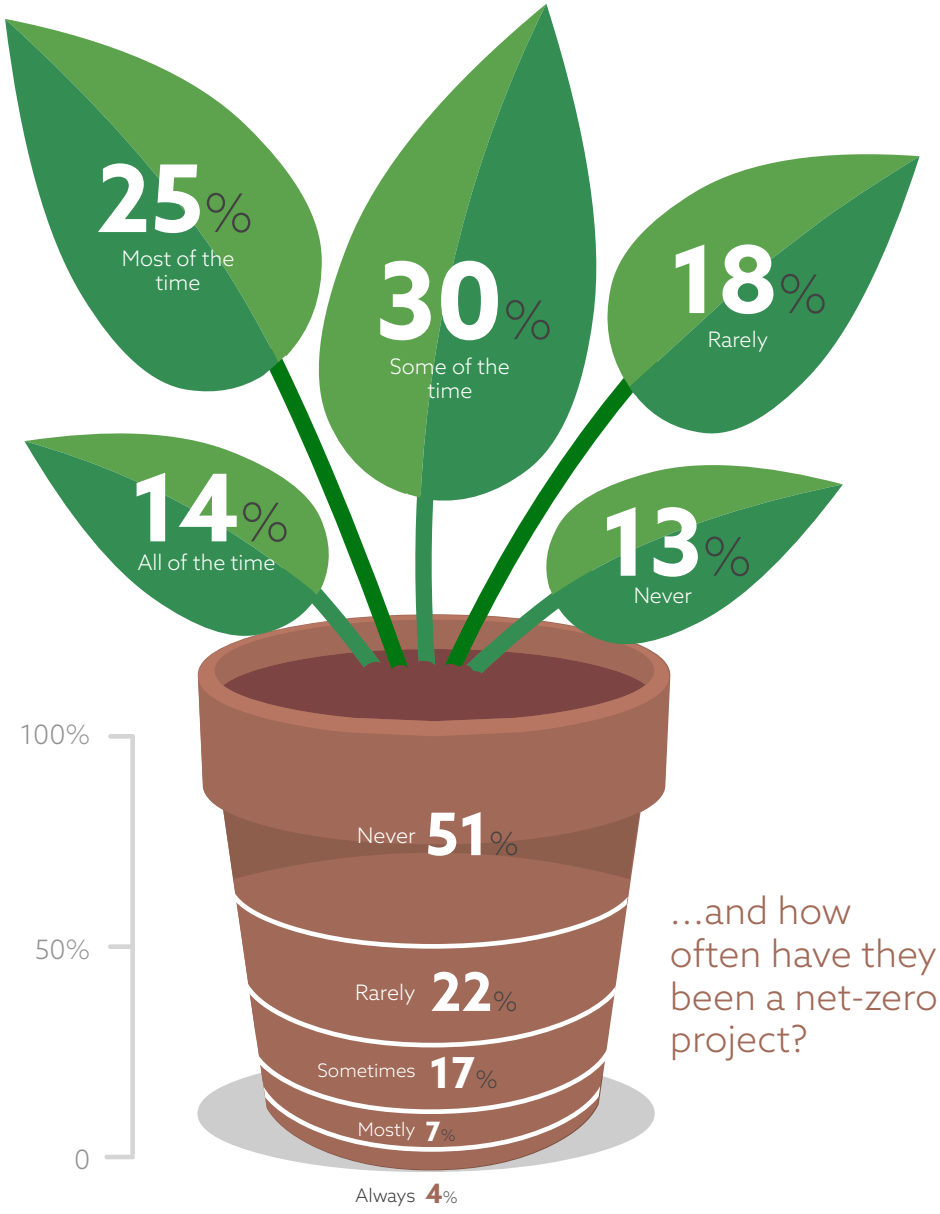


Measuring and achieving sustainability goals

Before we look at how often sustainable outcomes are achieved, we first consider what proportion of projects have had such targets in the last 12 months. Seven out of ten respondents tell us that, in the last 12 months, the projects they have worked on have had sustainable outcome targets at least some of the time. Only 14% had these targets all the time, and 25% most of the time.

We also wanted to explore whether people have worked on any net-zero projects. Heimpel writing for Ecologi defines net-zero as "reducing emissions in line with latest climate science and balancing remaining residual emissions through carbon removal credits". Respondents tell us their projects have been a net-zero project less often: only 4% of respondents tell us that all their projects in the last 12 months have been a net-zero project, whilst over half of respondents have never had a net-zero project in the last 12 months. Those who are confident in their knowledge and skills of sustainability are more likely to set sustainable outcome targets at least most of the time, as well as have some net-zero projects.

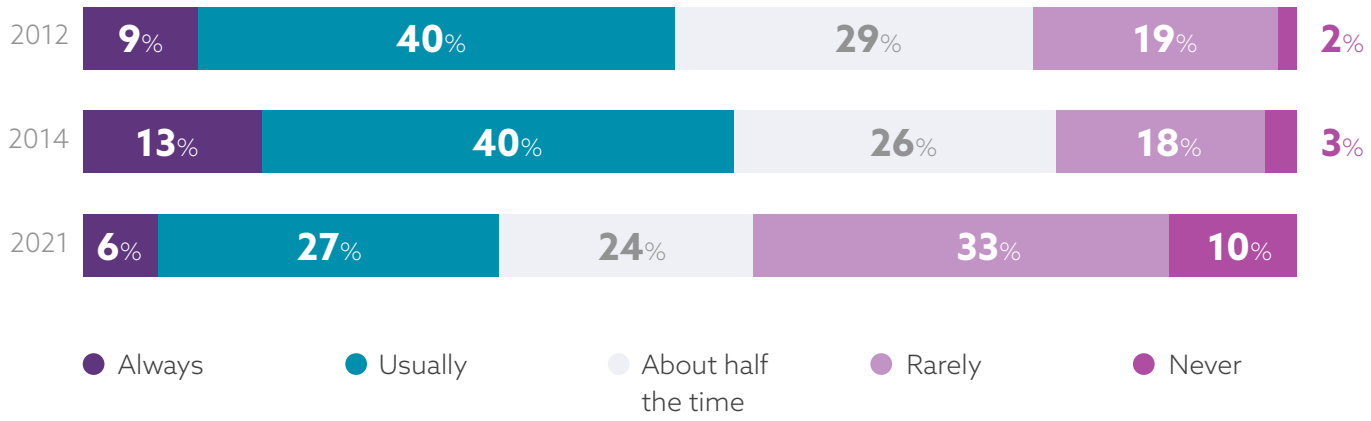
In the last 12 months how often have the projects you've worked on had sustainable outcome targets?



...and how often have they been a net-zero project?

Sustainability can be judged by many metrics. We have also seen that there are multiple drivers of sustainability, but we wanted to know whether participants felt that these outcomes were being achieved on their projects. Only a third of respondents tell us that they usually achieve sustainability on their projects, with a further third telling us that it is rarely achieved. Compared to our previous sustainability surveys, fewer respondents now tell us that they achieve sustainability on projects. This raises the question why? Further research would be required to fully answer this, but you could hypothesise that it may be connected to the removal of legislation meaning applying aspects of sustainability is often voluntary and may therefore, be missed from a project. Alternatively, perhaps there is now a better understanding of sustainability and people believe there is more required to achieve it than they would have done in 2014. Those who are confident in their knowledge and skills of sustainability are most likely to achieve sustainability, whilst those working on light refurbishment projects are less likely to tell us that they achieve it on their projects.

How often sustainability is achieved on projects over time



Respondents' comments, when asked what more NBS should be doing with respect to sustainability, suggest that their confidence could be improved through more education on the subject.

'Training architects and other building specialist on what and how to work towards/achieve net zero'.

'Educating... users on what sustainability is and what it means to the design and construction team; ... offering guidance on legislation; offering guidance on assessment and analytical tools to test the design against the optimum carbon score; providing guidance on alternative technical or process solutions; offer guidance on how to develop the specification to encompass the most sustainable design solution'.

Product information also helps them to select and compare a product's sustainability performance.

'Make it easier for designers to compare products on an environmental basis'.

'Compelling manufacturers to compile sustainability data across an easy-to-understand standardised format'.

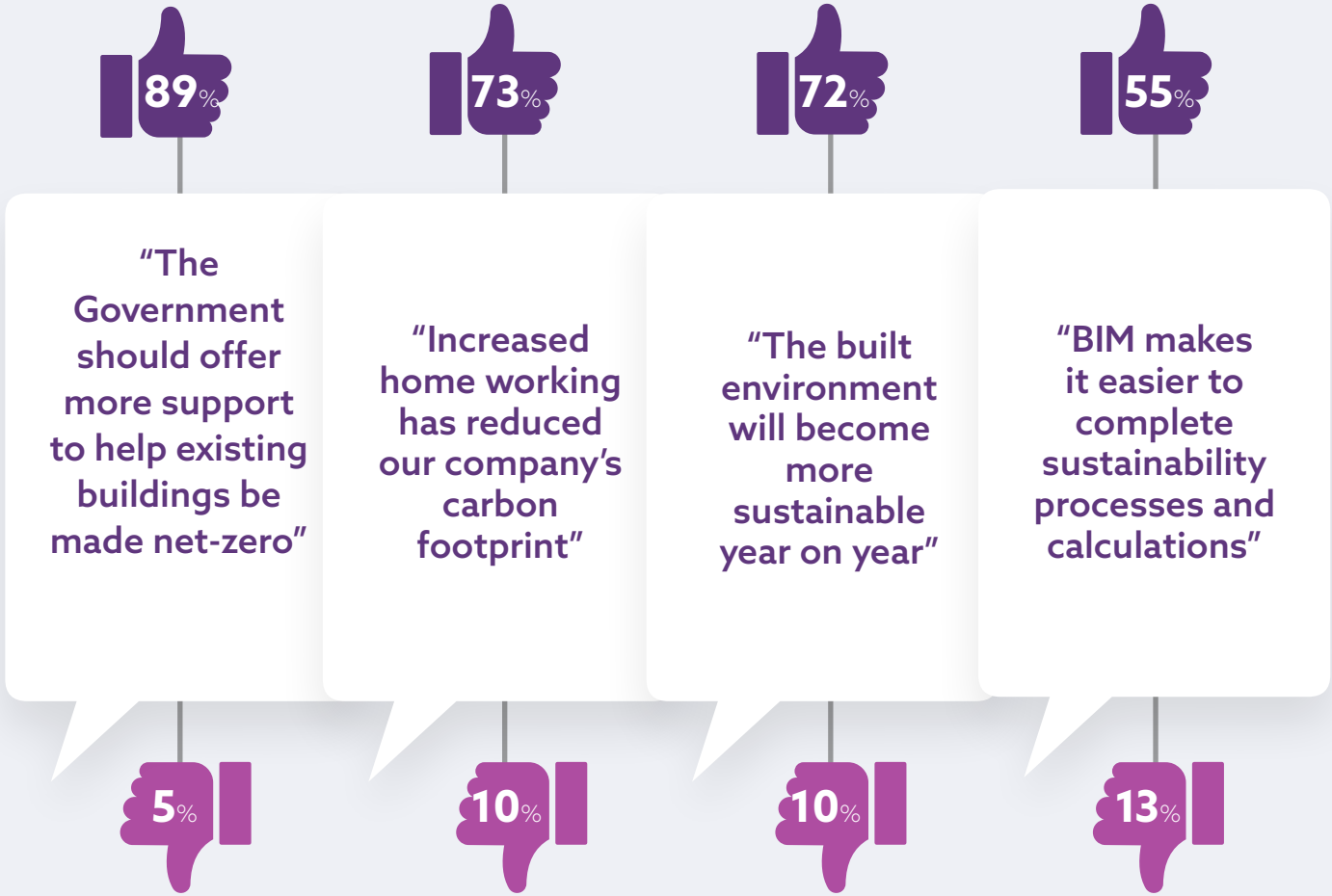
'Encourage more producers/manufacturers with 'green credentials' so that specification of a wider range of systems can be specified easily. Also, to link to carbon calculator tools so that different products can be compared before final specification decisions are made'.

Overall thoughts on sustainability

A particular challenge for the industry appears to be related to sustainability in existing buildings, with light refurbishment projects less likely to achieve sustainability. Nine out of ten respondents (89%) agree that the Government should offer more support to help existing buildings be made net-zero, with 63% telling us that they strongly agree. The 2022 spring budget statement made on the 23rd March announced that VAT on energy saving materials will be cut to 0%, which may begin to provide the kind of support respondents would like to see. Nearly three quarters of respondents agree that increased home working has reduced their company's carbon footprint, and that the built environment will become more sustainable year on year. Home working may have a positive impact on a company's carbon emissions due to a shift of energy use from the business premises to the employee's home. Additional consultation is required to understand if these businesses are measuring emissions resulting from homeworking or just noting the reduction in office energy demand.

For over half of respondents (55%), BIM makes it easier for them to complete sustainability processes and calculations. BIM involves setting out clear information requirements and then following a digital process to ensure that this information is delivered. In terms of measuring the sustainable outcomes on projects with metrics – it is no surprise that BIM and sustainability are interlinked to an extent. Younger respondents, aged 18–34, are more likely to agree with this statement. This echoes findings from our Digital Construction Report, where older respondents are less likely to have adopted BIM.

Do you agree or disagree with the following statements?

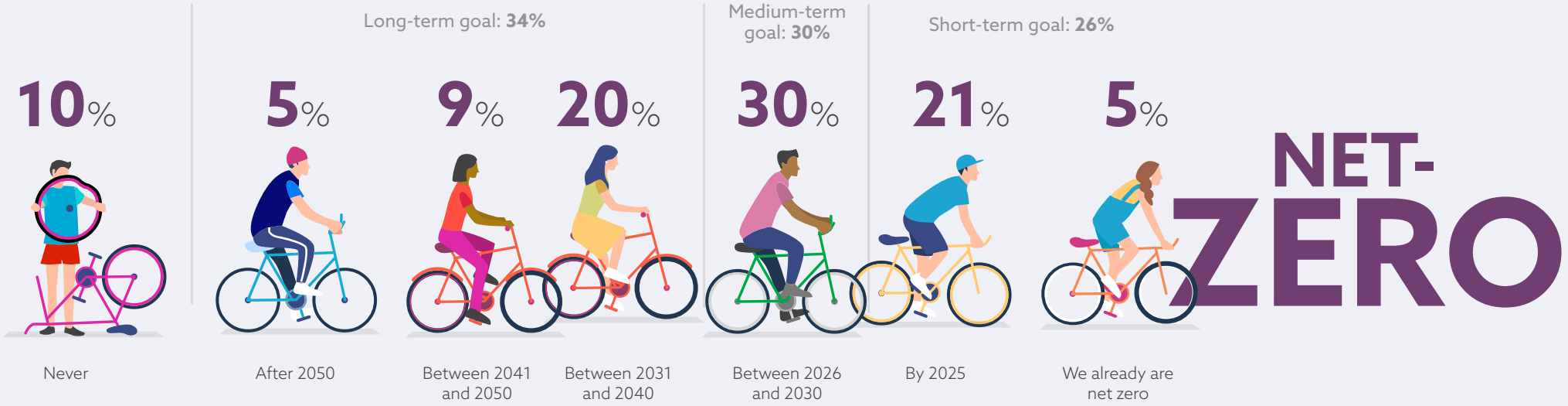


Although many think that the construction industry will become more sustainable in the future, 74% of respondents are frustrated that they can't do more to make the UK achieve sustainability (with 38% telling us that they strongly agree with the statement). It is evident that respondents are becoming increasingly frustrated about what is and isn't in their control when it comes to sustainability. This is likely a reflection of the importance of sustainability to the people responding to our survey, as well as a greater understanding of the challenge that climate change presents.

	2014	2021
Strongly agree	13%	38%
Tend to agree	35%	35%
Neither agree nor disagree	38%	20%
Tend to disagree	9%	3%
Strongly disagree	4%	4%

Many countries have set a target to achieve net-zero. In the UK, the Government has set a target to reach net-zero emissions by 2050; similarly, both Canada and Australia have 2050 targets. We wanted respondents to consider their strategy for net-zero and predict when they will achieve net-zero. Many respondents told us that they did not know, and did not make a prediction. Of the 368 respondents who did make a prediction, the most common answer was between 2026 and 2030: 30% predict that they will become net-zero between these dates. For 34% of respondents, it is a long-term goal that will be reached after 2031. However, there are 15% who do not think that they will achieve the government target: 5% think that they will achieve it after 2050, and one in ten think that they will never be net-zero.

As a business, when do you predict you will become net zero?



Younger respondents (aged 18-34) are more likely to view becoming net-zero as a long-term project. Earlier on, we saw this group less likely to believe that sustainability is very or quite important to their executive/leadership team or their organisation as a whole. These perceptions are likely to be linked.

We wanted to explore what respondents believe will be the next big thing in sustainable architecture. Many respondents refer to the circular economy, and the need to consider and spend more time recycling and reusing existing building stock, rather than newly building everything.

'Hopefully more retrofitting instead of new build, less demolition of existing buildings, better sustainable active travel infrastructure for new and existing housing, less building on green land/ green belts'.

'Life cycle consideration – an increase in the planning for demolition / refurbishment of a building and designing a fabric which can be easily taken apart and reused or recycled'.

'Retrofitting of redundant office and commercial space for residential use'.

As some respondents highlight, the industry is already doing some retrofitting and repurposing of buildings for alternative uses, but they don't see it happening often enough.

Another key element is expected to be the development of sustainable products and technology, often looking at using newer material, which is lower in carbon or produces less emissions, as well as material that is easier to deconstruct and reuse at the end of its life. However, there is an acknowledgement that such materials need to be economically viable for them to be produced, specified and used.

'Product innovation (new products such as seaweed being carbon negative etc)'.

'Anything that can remove the over-reliance of concrete as part of the building process, so advances in lime alternatives'.

'Nurturing SME to produce technologies and innovative materials that travel less miles'.

For many, there is an important need to look at developing alternative heating and energy sources, and to incorporate these into consultants' designs. Such alternative sources include improving electric batteries, hydrogen power and solar power, among others.

'Development of batteries to allow better use of sustainable energy supplies'.

'Integrating renewable energy into every construction project for all scales'.

'Hydrogen power, carbon sequestration'.

Conclusions

It's clear that people hold strong views about sustainability, though at times these are conflicting. There are some common definitions for sustainability. For many, it is broadly about balancing the use of resources with the welfare of the environment, in order to protect it for future generations. The three aspects of sustainability which are often referred to – environmental sustainability, economic sustainability and social sustainability – are still important to most construction professionals. There are common misconceptions about sustainability though: primarily, that it is expensive, and therefore too difficult and costly to achieve. Whilst some solutions may incur a greater initial cost there are savings to be made in the ongoing running or maintenance costs of the building. Additionally, addressing sustainability early on can help keep costs lower; for instance, respondents discuss solutions in the design process that can be low cost such as the siting and positioning of a building. There is also often a misconception that the various elements of sustainability, such as operational carbon, can be considered in silos. They shouldn't be: they are all linked. Some projects may place greater emphasis on some of these elements than others, but all are important.

It is evident that an individual's own beliefs and values have a significant role in respect to sustainability. Many are driven to try to deliver sustainable outcomes due to their own beliefs and values, as well as wanting to lead by example when it comes to sustainable design. Compared to 2014, they are less driven by legislation and other people's or companies' views. The level of influence that they have over a project – and whether it has sustainable outcomes and achieves them – does vary. There is a general consensus that clients have the largest influence, followed by designers or consultants. This isn't a surprise: clients can include the need for sustainable outcomes in the brief, and are the common link with several parties involved in the design and construction of a project, whilst designers and consultants will have an expectation placed upon them to be knowledgeable in these areas.

Despite this desire to deliver sustainable outcomes, only half of the construction professionals who responded are confident in their sustainability knowledge and skills, with few telling us that they are very confident. High confidence helps to ensure that sustainable targets are set, and the relevant processes followed to ensure that they are achieved. To help ensure that they can deliver sustainable outcomes, construction professionals need more education on the topic of sustainability. The majority of users of construction product information would also like more suppliers to provide sustainability information for their products, especially information on product level certification, embodied carbon, recycled content, recyclability guidance and country of manufacture. Having such information helps them to create a robust specification and make appropriate product choices, which in turn will help achieve a project's sustainable outcomes.

Most companies recognise the importance of sustainability; however, it appears less important to companies as a whole than to specific individuals within them. Despite this, many companies are showing a commitment by discussing it at board-level, and measuring and reporting on sustainability metrics for at least some projects. Some will also measure their own carbon footprint, but not as many. The government announced during COP26 that all listed companies will be required to have a carbon reduction road map by 2030. Forthcoming legislation will likely see the importance of a company's own carbon footprint alter into the near future.

There are clear barriers to achieving sustainability. Mainly a lack of client demand, and the perceived cost of achieving sustainability. Others also cite issues with sustainable products being value-engineered out, and a lack of government policy or regulation. There are also issues with the processes that people follow. Typically, sustainability is considered most often at Stage 2 – 'Concept Design'; it needs to be considered earlier at Stage 0 – 'Strategic Definition', and continue to be considered throughout the project's timeline until the finished building (or structure) is in use. These barriers and issues are not insurmountable; the industry can begin to address some of them by tackling the misconceptions in the industry and changing processes to ensure that sustainability is considered at the start of a project, and continues to be prevalent in all the decisions that are made throughout its use and end of life.

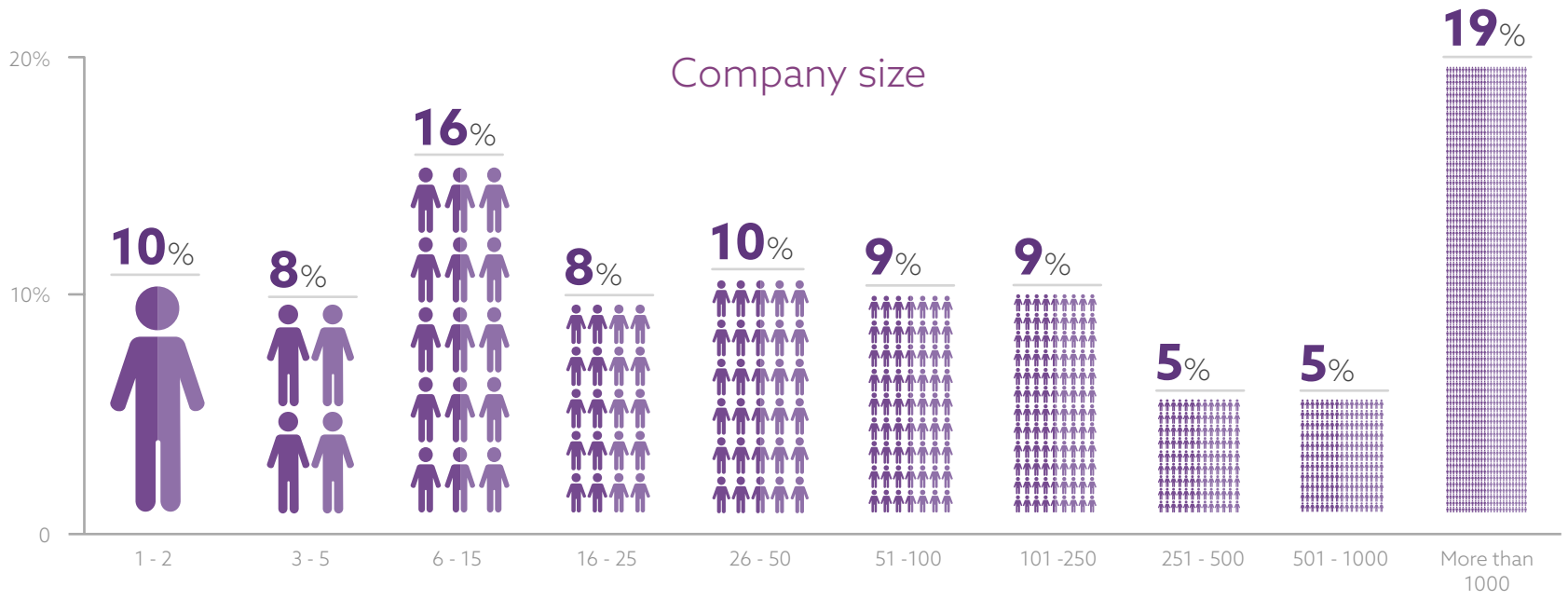
As a priority we need to develop net-zero buildings that promote good health and wellbeing with sensitivity towards land use and biodiversity. But the high-ranking scores that all eight of the sustainable outcomes (as defined by the RIBA) received highlights that they all equally must play their part. Despite construction professionals often being personally motivated to deliver sustainable outcomes, fewer respondents are achieving sustainability – only a third tell us that they usually do. This is a concern.

Looking to the future, it's clear that construction professionals feel a need to consider the retrofit and reuse of existing buildings. Nine out of ten respondents think that the Government should offer more support to help existing buildings achieve net-zero. Individuals are also increasingly frustrated that they can't do more to help the UK achieve sustainability. Becoming net-zero is something that many are working towards, with respondents most commonly estimating that they will achieve it at some point between 2026 and 2030. However, for a third it is a long-term goal, and there are still 15% who tell us that they will miss the 2050 target: either because they think that they will achieve it after this date or because they say that they will never become net-zero. So, what is next for sustainable architecture? Suggestions include a focus on the circular economy, and thinking more about recycling and reuse of existing buildings. There is also an important need for the development and innovation of sustainable products and technology, though for existing products, surfacing of their existing sustainable credentials should be a priority for manufacturers. Finally, the need to focus on developing alternative heating and energy sources is a significant hurdle to overcome.

Respondent profile

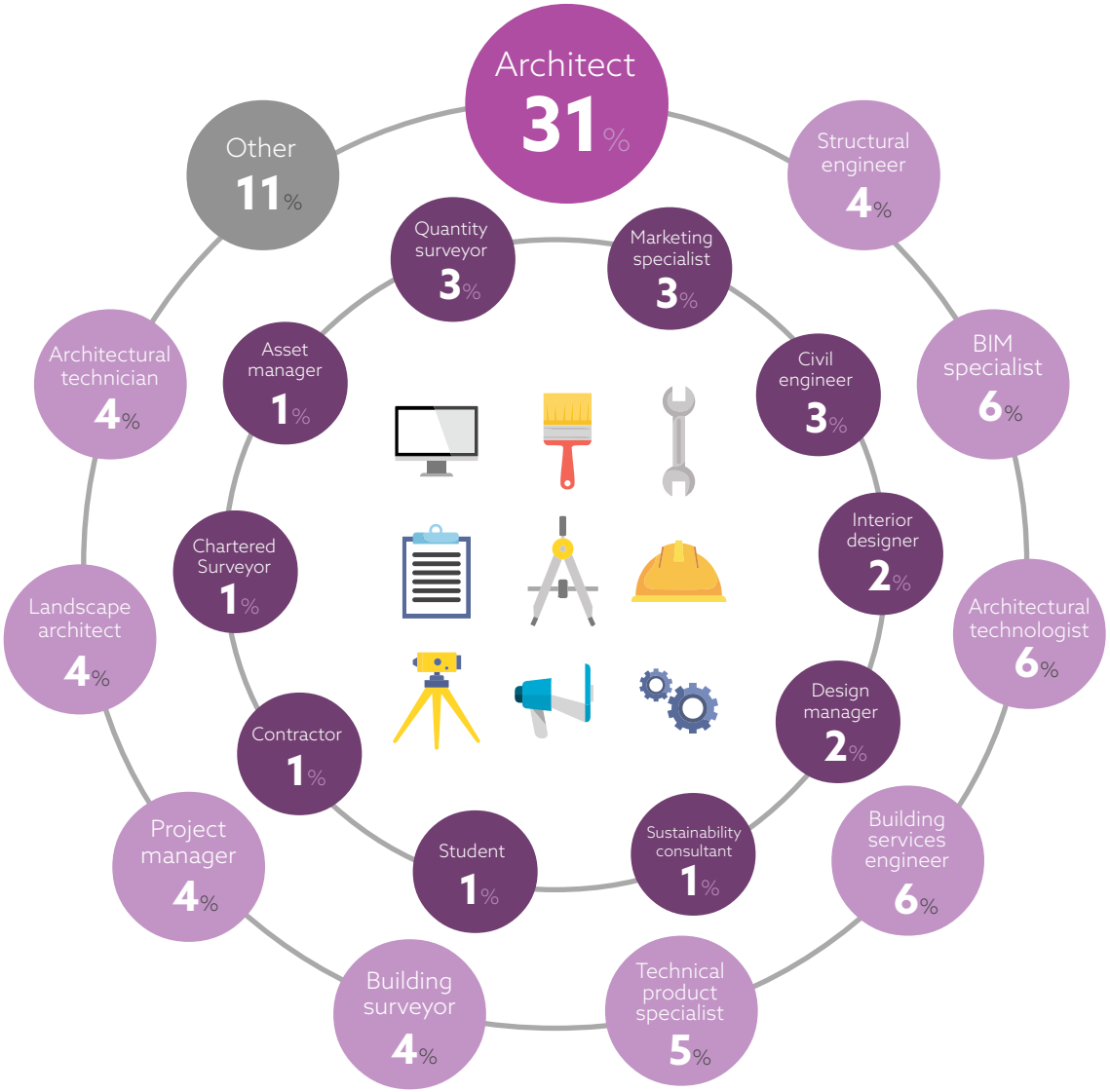
We had 608 responses from a range of construction industry professionals. This is a sample that can be used to draw robust conclusions.

All organisation sizes were represented, with the most common being those with more than 1000 employees (19%). A third of respondents work in a small company employing up to 15 people.



In the last 12 months, which of the following types of work has your organisation been involved in?

85% of respondents tell us they do work on new-build projects: in particular new-build private housing and education. Two thirds work on deep retrofit projects (particularly offices), and six out of ten carry out light refurbishment projects. These projects tend to be offices and private housing.

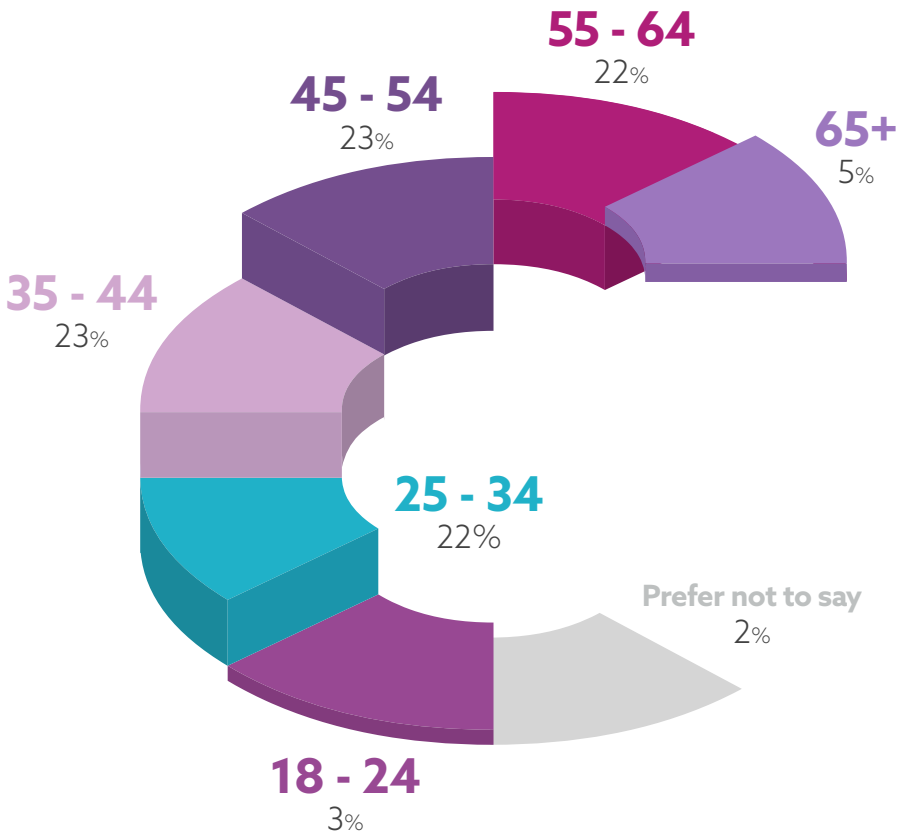


Professional discipline

Nearly a third of respondents describe their professional discipline as architects, followed by BIM specialists (6%), architectural technologists (6%) and building services engineers (6%). But we had responses from a range of disciplines, including surveyors and marketing specialists among others.

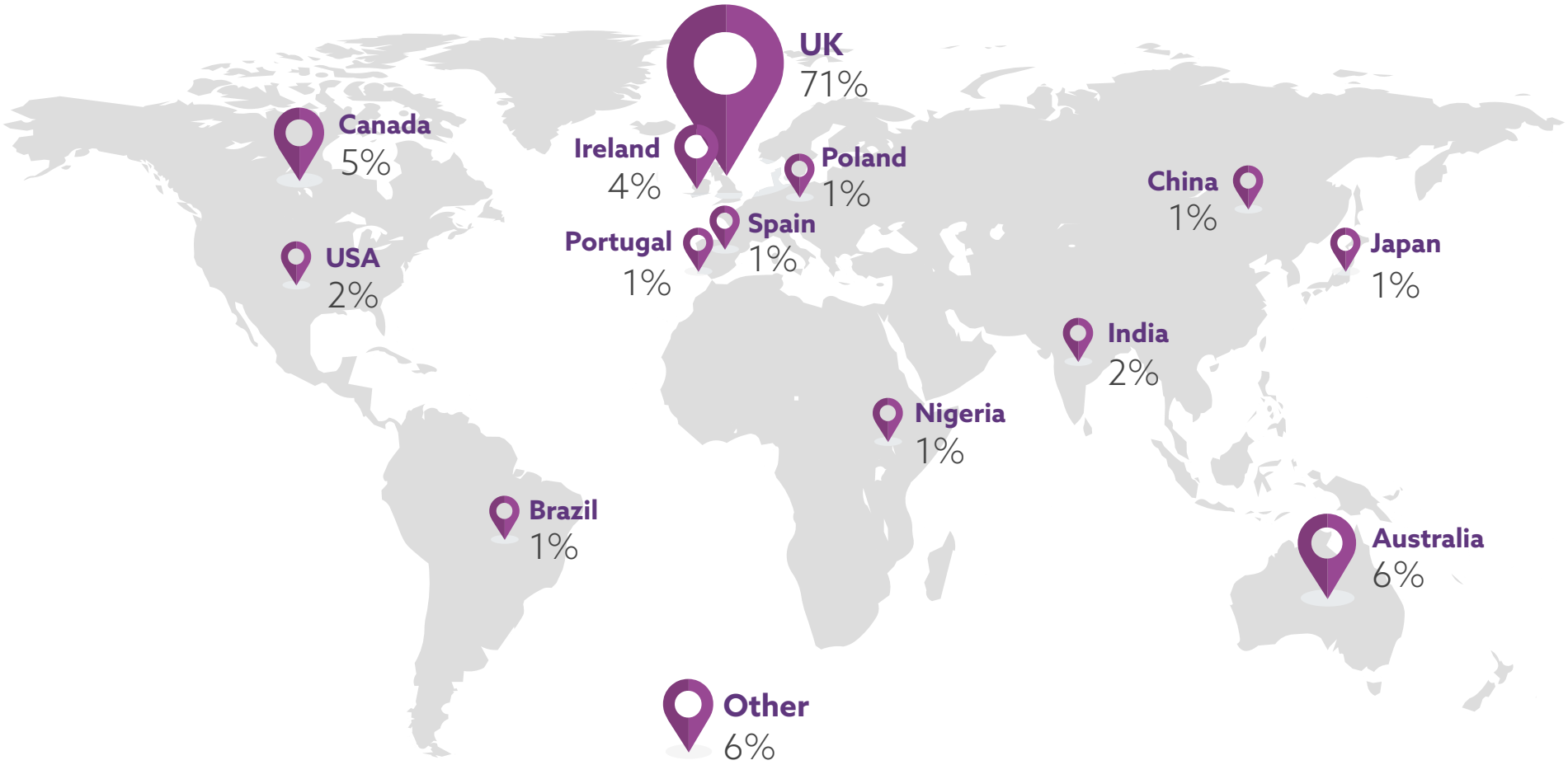
Age

There were professionals of all (adult) age ranges. Nearly half of respondents (47%) were aged between 35 and 54.



Location

Seven out of ten respondents (414 people) were based in the UK, meaning that 29% (173 respondents) were based in other countries including Australia, Canada and Ireland among others.



Methodology

We conducted an online survey between September and December 2021. We publicised the survey by:

- Sending email invitations to construction industry professionals working in the built environment in the UK.
- Posting on social media.
- Sharing on our website, within our newsletter and at relevant events or webinars.
- Working with partners, membership organisations and professional bodies, who very kindly promoted the survey to their networks. We thank these organisations for their support, which we were grateful to receive.

For every completed response that we received, we committed to planting 1 tree through 'Forest Carbon'. We are pleased to have been able to plant 608 trees.

As part of our analysis, we have analysed results by respondents' firmographic and demographic characteristics, such as organisation size, project role, professional role and age. Where this analysis revealed findings of note, we have included them in the report. Where questions have remained consistent, we have compared these to provide trends over time.

Analysis notes:

- The overall sample size is n=608. Unless stated, this (or a slightly lower number) will be the base size. The slightly lower number is explained by a small number of respondents who have sometimes not answered a question; or, where appropriate, respondents answering 'don't know', 'prefer not to say' or 'not applicable' have been removed.
- In some cases, percentages may not add up to 100%. This is due to rounding to whole numbers, or where respondents could provide more than one answer.

NBS

NBS is a global technology platform that combines quality content and connectivity for anyone involved in the design, supply and construction of the built environment.

For architects, engineers, designers and contractors, NBS' specification platform enables them to work smarter and reduce their risk.

For construction product manufacturers, NBS is a digital marketing platform, exposing your products to decision-makers across the construction project timeline, making it easy for specifiers to find, select and specify your products.

To learn more

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Call: 0345 456 9594

Sustainability at NBS

NBS, as part of the Byggfakta Group, recognises the importance of sustainability. As such we endeavour to help the construction industry build sustainabily and have taken steps to improve our own carbon footprint.

To find out more about what we are doing visit: https://www.thenbs.com/about-nbs/our-approach-to-sustainability

We want to hear from you

We'd love to here your feedback on this report, Please click here to share your thoughts.

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