

Sustainable Intent, Unsustainable Web: Why the Gap?

Research into the
sustainability of UK
purpose-led websites

September 2025



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Executive Summary

As the environmental impact of digital technologies becomes more visible, many purpose-driven organisations remain unaware that their websites may be in conflict with their sustainability goals. Our research into low-carbon website explores awareness levels, common barriers, and the support organisations need to reduce their websites' carbon footprint.

Auditing 100 websites across purpose-led sectors, we found the average site emits 2.16g of CO₂ per first visit. While 84% are hosted on renewable energy, most perform poorly: 64% received an 'F', likely due to inefficient code, oversized media, and a lack of basic performance techniques. Even sustainability consultancies, B Corps, and environmental charities showed a disconnect between their mission and their digital execution.

Awareness remains limited. Just 27% of respondents were familiar with tools to measure website emissions, and most had never assessed their own sites. Misconceptions about the carbon impact of digital platforms persist, often reinforced by greenwashed messaging from the tech industry. The main barriers to action are a lack of technical knowledge, limited resources, and other organisational priorities.

Organisations expressed a strong appetite for structured support. The most requested were technical assistance, funding opportunities, practical guidance, training, and policy templates. These would help bridge the gap between intention and implementation, particularly for charities and small organisations.

To address this, Oxygen has launched a Website Sustainability Audit, a practical service to help organisations understand, measure, and reduce their digital impact. With regulations such as the European Accessibility Act being brought into play, the case for embedding sustainability in digital strategy is stronger than ever.

This research shows a clear readiness to act. What's needed now is accessible, sector-specific support to help organisations align their digital footprint with their values.

Introduction



Objectives of this research

Since we were founded, Oxygen has worked exclusively with mission-driven organisations across our three core pillars of sustainability, inclusivity and accessibility. But since becoming independent in September 2024, we have seen a huge contrast between organisations that are doing great things for the planet, and the carbon footprint of their website. For us, any organisation doing good should be taking steps to improve their digital sustainability or improving their knowledge on the topic.

We strive to be thought leaders and to share knowledge to improve awareness and understanding of digital sustainability. We know we can't save the planet on our own, but we feel passionate about doing what we can to support

brands that are doing good. The aim of this research is therefore not to criticize organisations about their carbon heavy website, or berate them for not having a digital sustainability strategy, but is to understand three things:

- where knowledge levels currently stand
- what the barriers are to improving digital sustainability
- to provide tools, solutions and education to help organisations take steps to improve

With this report, we hope to enlighten and educate, and to help purpose-driven brands in becoming the most sustainable versions of themselves that they can be.

About Oxygen

We know you're doing good things. We want everyone else to know, too.

Oxygen is not your average agency. A curated team of creatives and strategists, we work with passionate brands that are shaping the future for the better. From building beautiful, sustainable websites, to

designing impact reports that make waves, we're driven by a shared passion for purpose. And we bring that energy to every project we take on.

What is digital sustainability?

Digital sustainability refers to the creation and management of digital technologies in ways that support long-term environmental, social, and economic well-being. It involves designing software, hardware, networks, and data centres that minimise energy consumption, reduce electronic waste, and promote ethical practices across their lifecycle.

This concept also emphasises the responsible use of digital tools to support sustainability goals, like reducing carbon emissions, enhancing resource efficiency, and ensuring digital inclusion. As digital transformation accelerates across industries, digital sustainability has become a critical focus for organisations aiming to balance technological innovation with environmental stewardship and social responsibility.

Statistics from 2025 show that the digital sector contributes an estimated 3% to 4% of global greenhouse gas emissions (for comparison, the airline industry accounts for 2.5%) and with the rapid growth of digital technologies, emissions could increase by 60% by 2040, meaning a total contribution to GHG emissions of 6.7%⁽¹⁾. Presently, it is estimated that 4 billion people are sending, searching and streaming over the internet⁽²⁾.



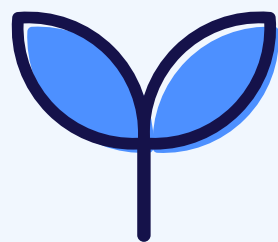
By 2040, emissions by the digital sector could represent 6.7% of global emissions.

The team at Oxygen were alarmed by these numbers: for starters, we know that the carbon impact of the aviation industry is well-known and well-documented, and that many people and companies have begun taking steps to reduce the number of flights that they take. By contrast, far more people use the internet (arguably even more since the COVID-19 pandemic and rise of AI technologies), yet many remain unaware that everything we do online has a carbon footprint. This makes the issue of digital sustainability a truly global and underrepresented issue. The number of data centres and water usage for cooling them is set to double in just two years – showing that the carbon footprint of the internet isn't a problem that is going away anytime soon, or without intervention.

What is a sustainable website?

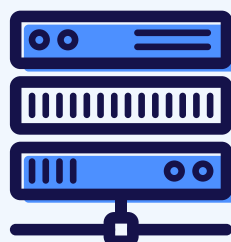
A key tool to help organisations achieve their digital sustainability goals is to have a low carbon, sustainable website. These are websites that are built, designed and maintained in such a way that can minimise their environmental impact, while remaining efficient, accessible and user-friendly.

Key characteristics of these websites are:



Efficient design

These sites use lightweight code, compressed images and minimal resources to ensure fast loading times and lower data transfer.



Green hosting

They are hosted on servers powered by renewable energy or data centres committed to energy efficiency and carbon reduction.



User and device optimisation

The sites are accessible across devices and optimised for low-bandwidth users, following UX best practices, reducing the energy used by end-user device.



Longevity and scalability

They are built with clean, maintainable code that reduces the need for frequent redesigns or overhauls, extending the website's useful life.



Digital ethics

They prioritise data privacy, security, and accessibility to ensure responsible use of digital tools.

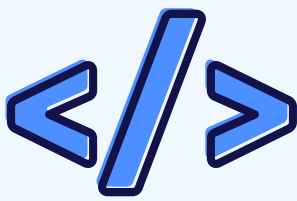
The business case for sustainable websites

There are several key reasons as to why sustainable websites are an important tool for organisations looking to take sustainable steps, in addition to having benefits to a business as a whole.

A sustainable website is not only better for the planet, but is essential for enhanced and positive business performance, user satisfaction and long-term digital resilience.

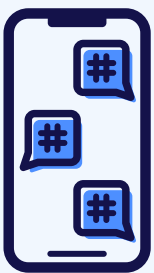


There are changes in the digital landscape, such as the introduction of the **European Accessibility Act** in June 2025⁽³⁾, which strives for equal access to digital products and services. Accessible and sustainable design principles are closely intertwined, so acknowledging regulatory changes is a step in the right direction to future-proof any business.



Optimisation

Sustainable websites are optimised to reduce data usage, through cleaner code, smaller file sizes, and compressed images, minimising energy consumption and carbon emissions from data centres, networks, and user devices.



Improved user experience

Helping to combat greenhouse gas emissions, a sustainable website improves performance, with faster loading times, better user experience, and enhanced accessibility, especially on slower internet connections.



Search ratings

Sustainable sites reduce bounce rates and increase engagement, signaling quality and relevance to search algorithms. Growing emphasis on environmental responsibility means a sustainable approach enhances brand reputation and attracts backlinks, further boosting SEO performance.



Cost efficiency

Reducing resource-heavy features and optimising server usage can lower hosting and maintenance costs over time, making sustainability both environmentally and financially beneficial.



Reputation and responsibility

Having a sustainable website demonstrates a company's commitment to environmental responsibility and ethical digital practices, strengthening brand trust and credibility. Particularly important in organisations that have certifications such as B Corp or Planet Mark.



Regulation and compliance

With increasing regulations and expectations around sustainability, building an eco-friendly digital presence helps organisations stay ahead of compliance requirements and align with global sustainability goals.

Approach



Our research combined three complementary approaches: a technical audit of websites, a broad-based online survey, and a series of in-depth interviews. Together, these methods offered both quantitative insights and qualitative understanding of where the sector currently stands and where it might go next.

Website audit

We began by conducting an audit of 100 website homepages belonging to UK-based mission-driven organisations. We selected the homepage as typically (though not always), this is the most visited and most important page of an organisation's website, and most often sustainability issues presenting on the homepage, will also occur elsewhere on the website. These were divided into four categories:

- 25 B Corps (product-based companies only, to avoid overlap with service providers),
- 25 sustainability consultancies,
- 25 general charities, and
- 25 environmental charities.

These websites were selected at random from publicly available directories and databases to reduce selection bias and provide a representative cross-section of the sector.

Each site was assessed using the [Digital Beacon](#) tool which measures the carbon impact of websites. For every website, we logged:

- First-visit CO₂ emissions (measured in grams),
- First-visit page size (in megabytes),
- Whether the site is hosted on a renewable energy-powered server or offers carbon offsetting.

The grading system is based on the Digital Carbon Rating Scale devised by the team at [Sustainable](#)

Digital Beacon offers a grading system for websites, based on the below tiers:

A+	< 0.095g
A	< 0.185g
B	< 0.34g
C	< 0.49g
D	< 0.65g
E	< 0.85g
F	> 0.85g

[web design](#), and is commonly used across different Website Carbon calculators. **A score of E or higher represents a website lower in emissions than the global average.** In general, websites with above average page sizes were found to share similar characteristics, namely large image files, unoptimised pages and excessive script usage.

After collecting the data, we calculated averages for each category, enabling us to identify patterns and differences across sectors. We have used median scores instead of the mean to represent average values, as the presence of several inflated results skewed the data. The median provided a more representative measure of typical emissions.

Online survey

To better understand the human side of digital sustainability - especially awareness, challenges, and motivations - we designed and distributed an online survey aimed at individuals working within UK-based mission-driven organisations.

The survey included a mix of multiple-choice and open-ended questions. Key themes included:

- Understanding of digital sustainability concepts
- Current practices around low-carbon websites
- Perceived barriers to implementation
- Opportunities for making sustainable digital practices more accessible

We promoted the survey through relevant networks, mailing lists, and social media platforms to ensure wide reach and representation. Respondents remained anonymous, and participation was entirely voluntary.

Interviews/case studies

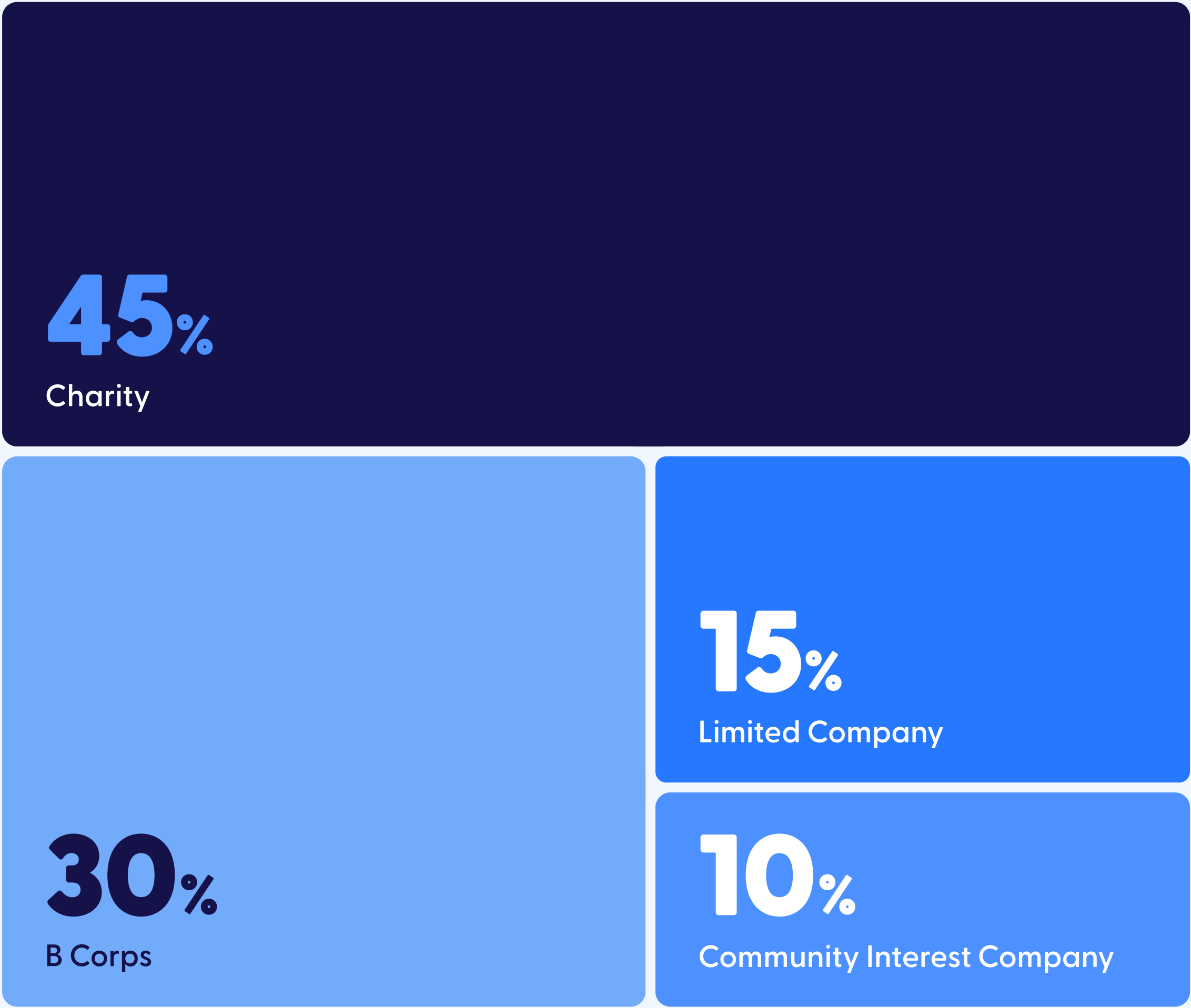
Finally, to bring depth and real-world context to our findings, we carried out a series of short interviews with key individuals across the digital sustainability space. These included:

- Professionals who have successfully transitioned to lower-carbon websites
- Professionals working in the environment or sustainability space who have not yet moved to a sustainable website
- Experts and advocates working to make the digital world more environmentally responsible

These conversations helped surface nuanced insights, real-life experiences, and practical strategies that aren't always captured through data alone. We have included them as case studies below.

Our Survey Participants

What type of organisation do you represent?

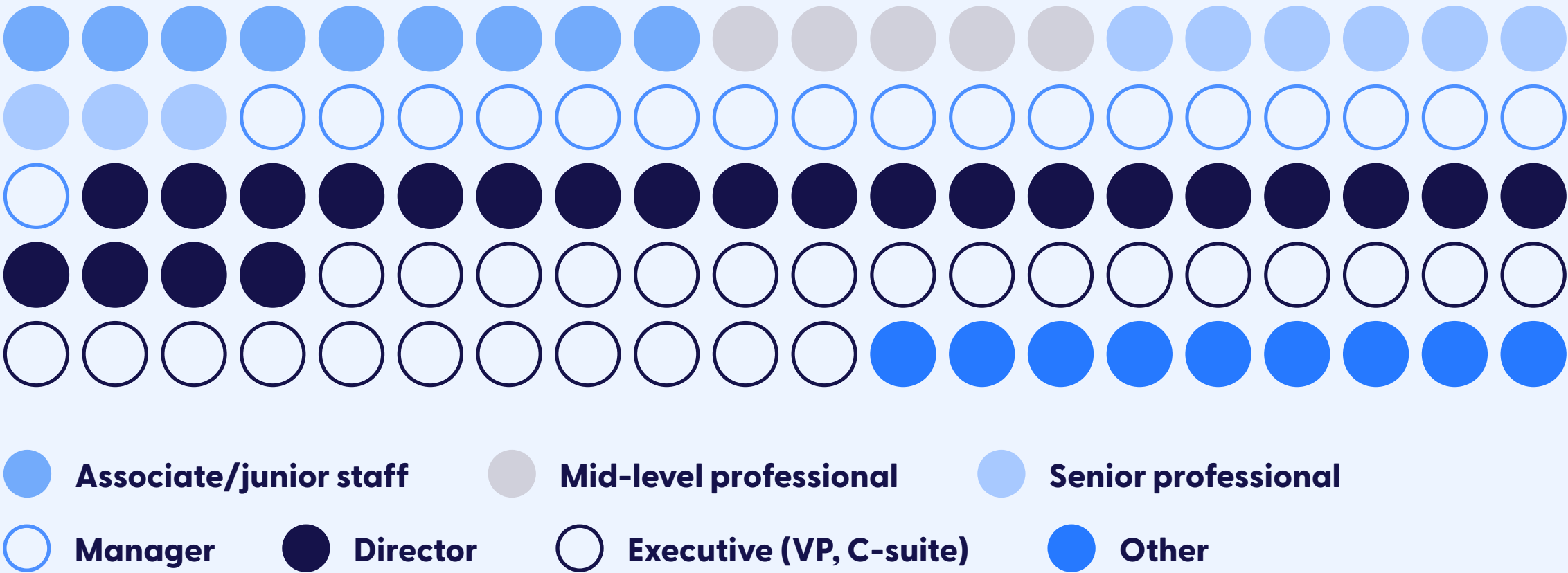


What type of organisation do you represent?

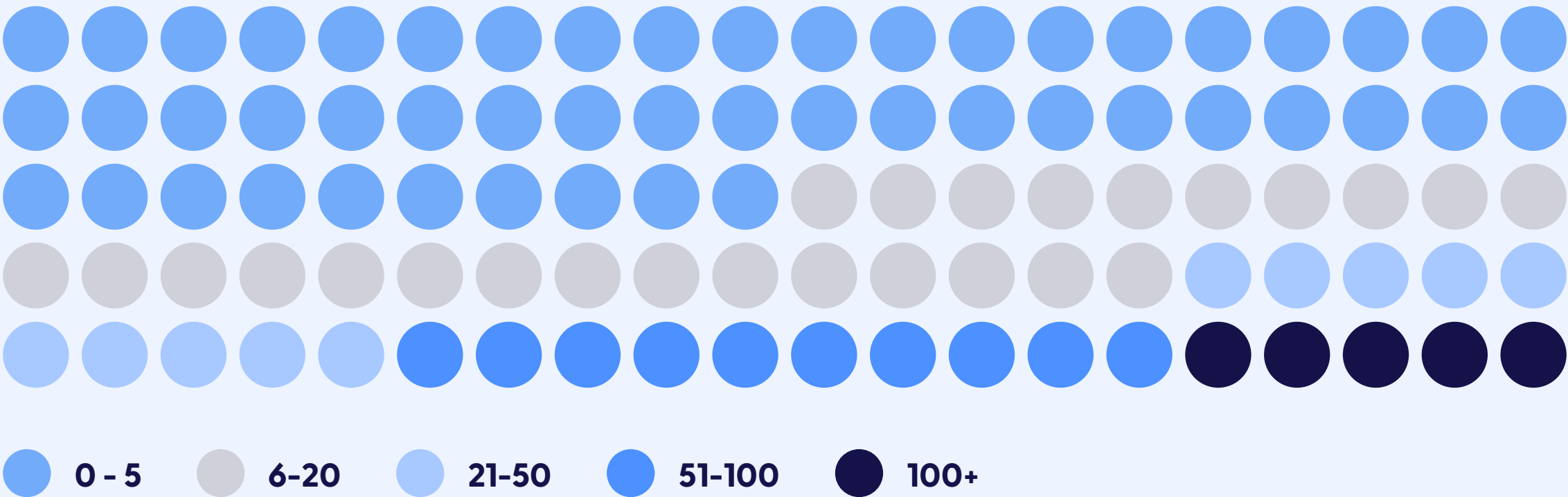


Our Survey Participants

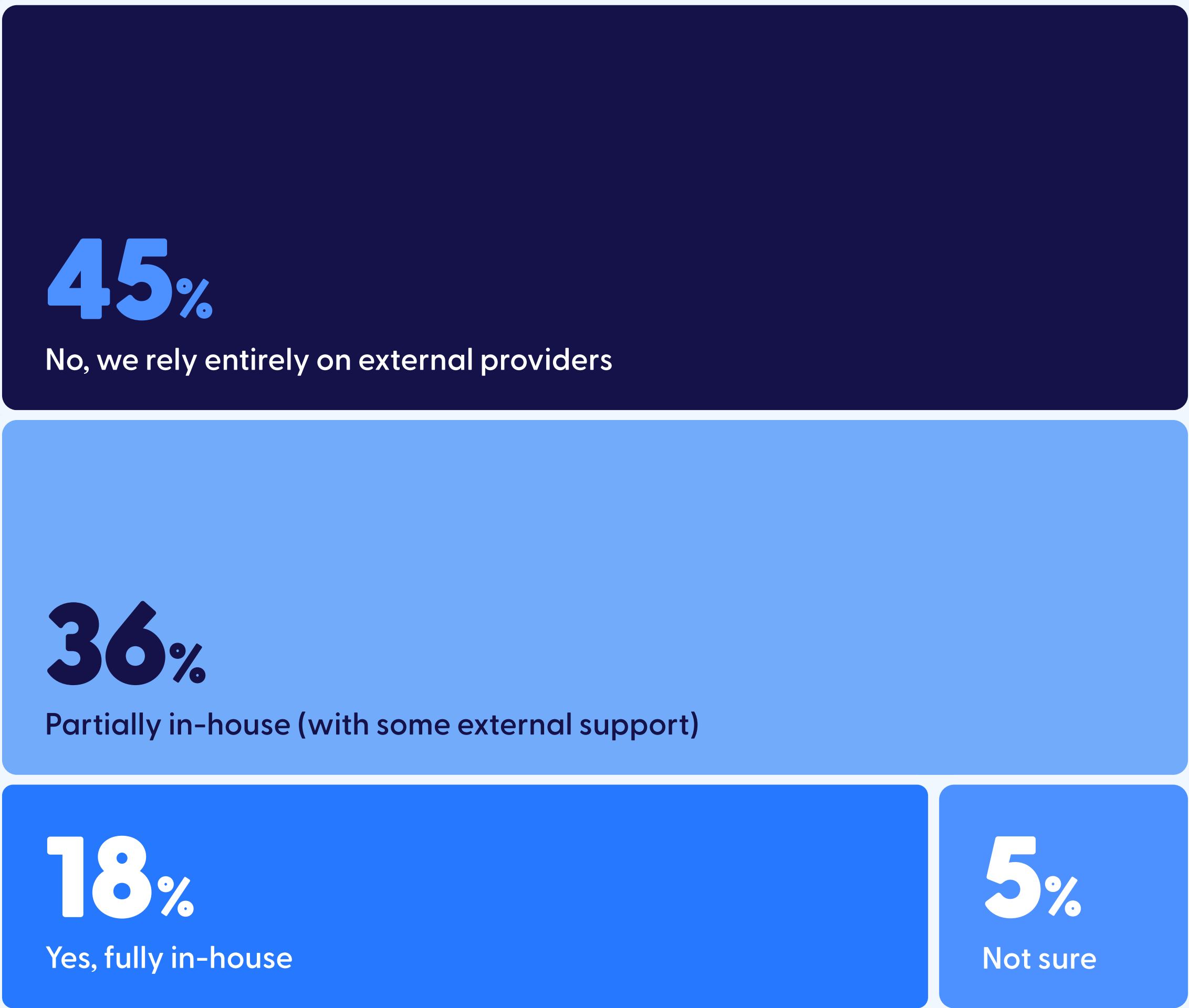
What is your current level of seniority?



How many full-time equivalent staff are in your organisation?



Does your organisation have an in-house digital or web team?



Findings



The findings of this research highlight key patterns, relationships, and implications that emerged from the data. By analysing the results in detail, the study not only addresses the original research question, but also uncovers trends that contribute to a deeper understanding of the subject of sustainable websites.

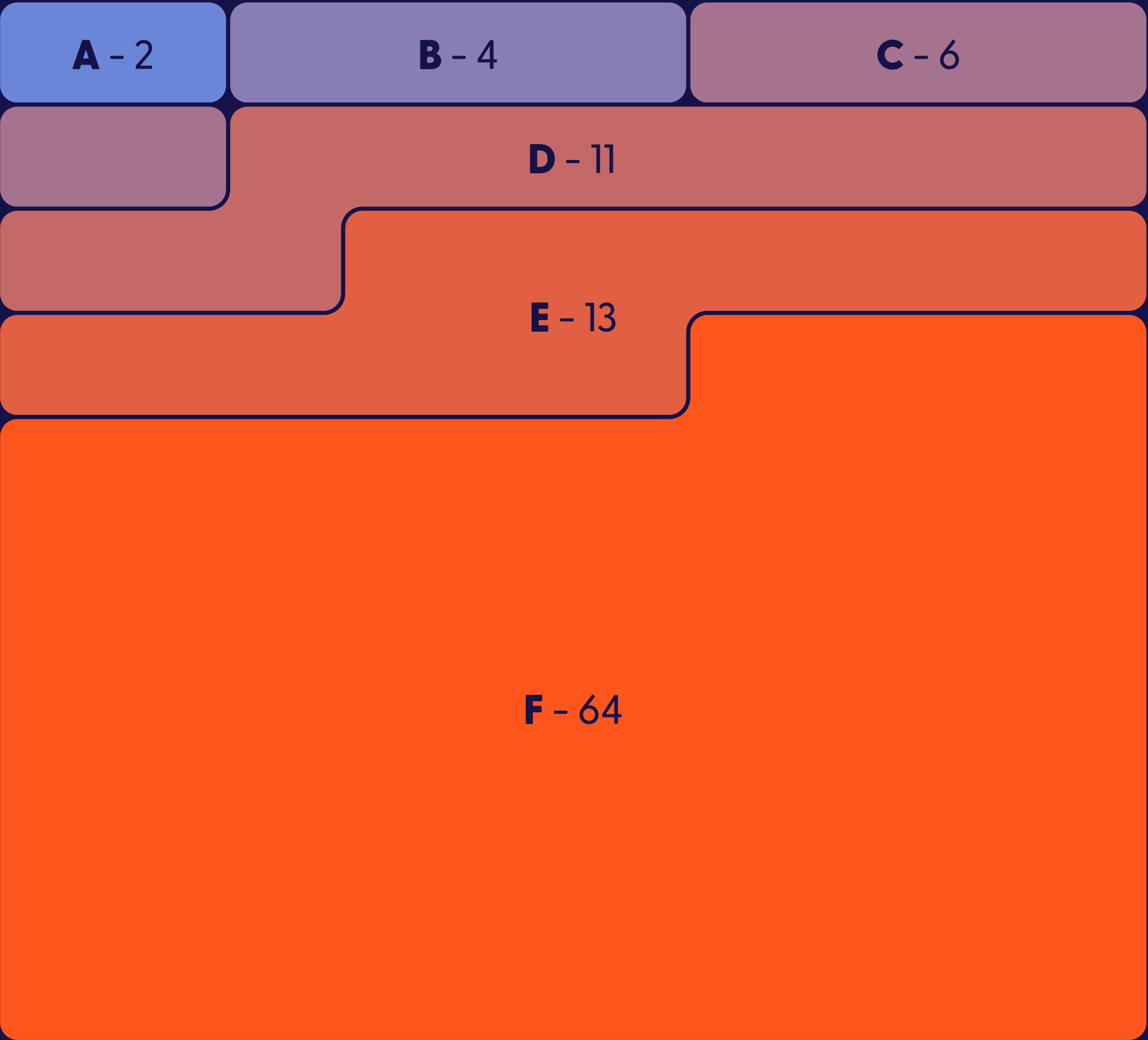
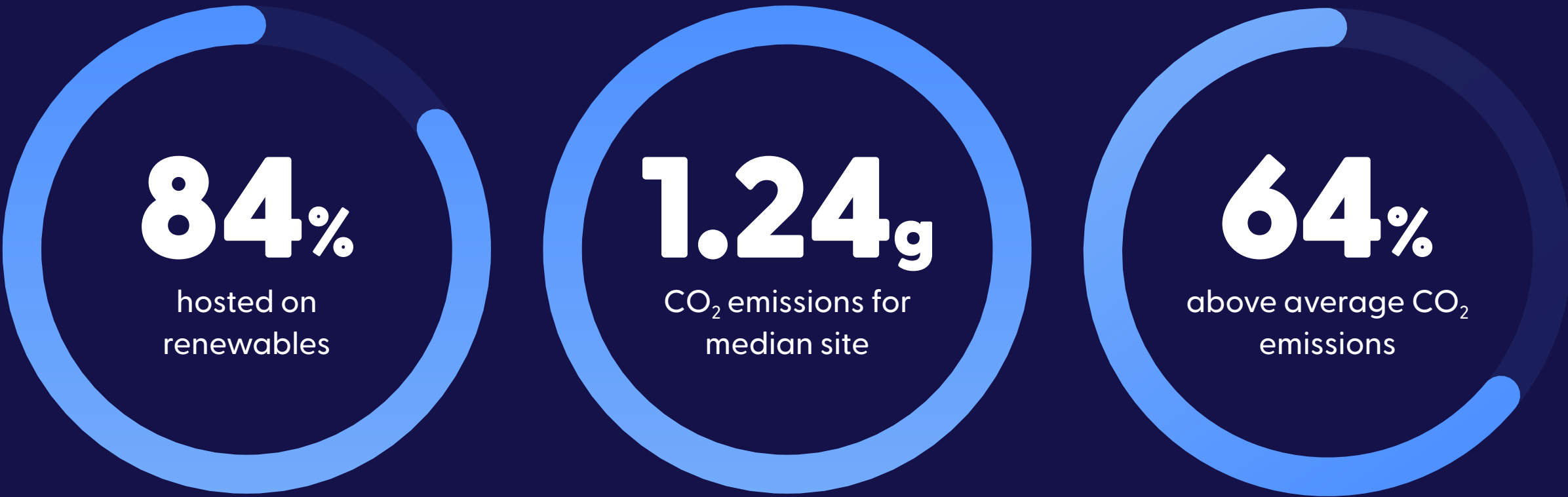
Overall data across all categories

The median CO₂ emissions across all sites was 1.24g per first visit, with 84% of websites hosted on renewable energy. However, the performance grading revealed a significant gap in optimisation, with a majority – 64 out of 100 – receiving an ‘F’ grade, and only 2 achieving an ‘A’. There was a large disparity between the smallest and the largest websites, with the best performing website emitting just 0.104g CO₂ per first visit in contrast to the largest, emitting a staggering 12.758g. For context, the emissions for 1000 people visting the median site is equivalent to the emissions for producing one 2-ply toilet roll, while the emissions for 1000 people visiting the largest site is equivalent to the emissions for a one way flight from New York to Boston.

Beyond high-resolution images, common issues contributing to higher carbon emissions include codebases with unoptimised JavaScript or CSS,

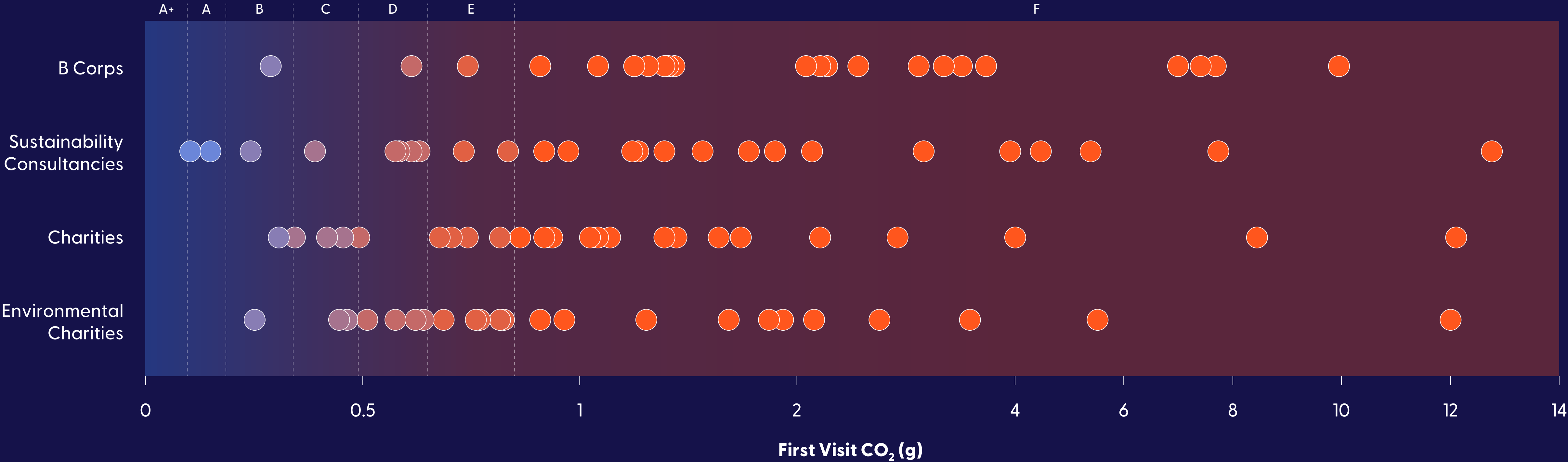
uncompressed video files set to autoplay, inefficient third-party scripts such as ad trackers and analytics tools, poorly implemented fonts (e.g. multiple web font weights loaded simultaneously), and a lack of caching or content delivery network (CDN) usage. These elements increase the amount of data transferred and processed with each visit, consuming more electricity on both the server and user end. Even sites hosted on renewable energy can contribute to higher emissions when visited from devices or regions powered by fossil fuels.

While a high percentage of websites are hosted on renewables suggesting an awareness and desire to have some sort of digital optimisation, overall site efficiency and emissions reduction remain significant challenges. Many websites, even those aligned with sustainability, perform poorly, suggesting a need for better digital sustainability practices across all sectors.



Overall data across all categories

Distribution per category



B Corps

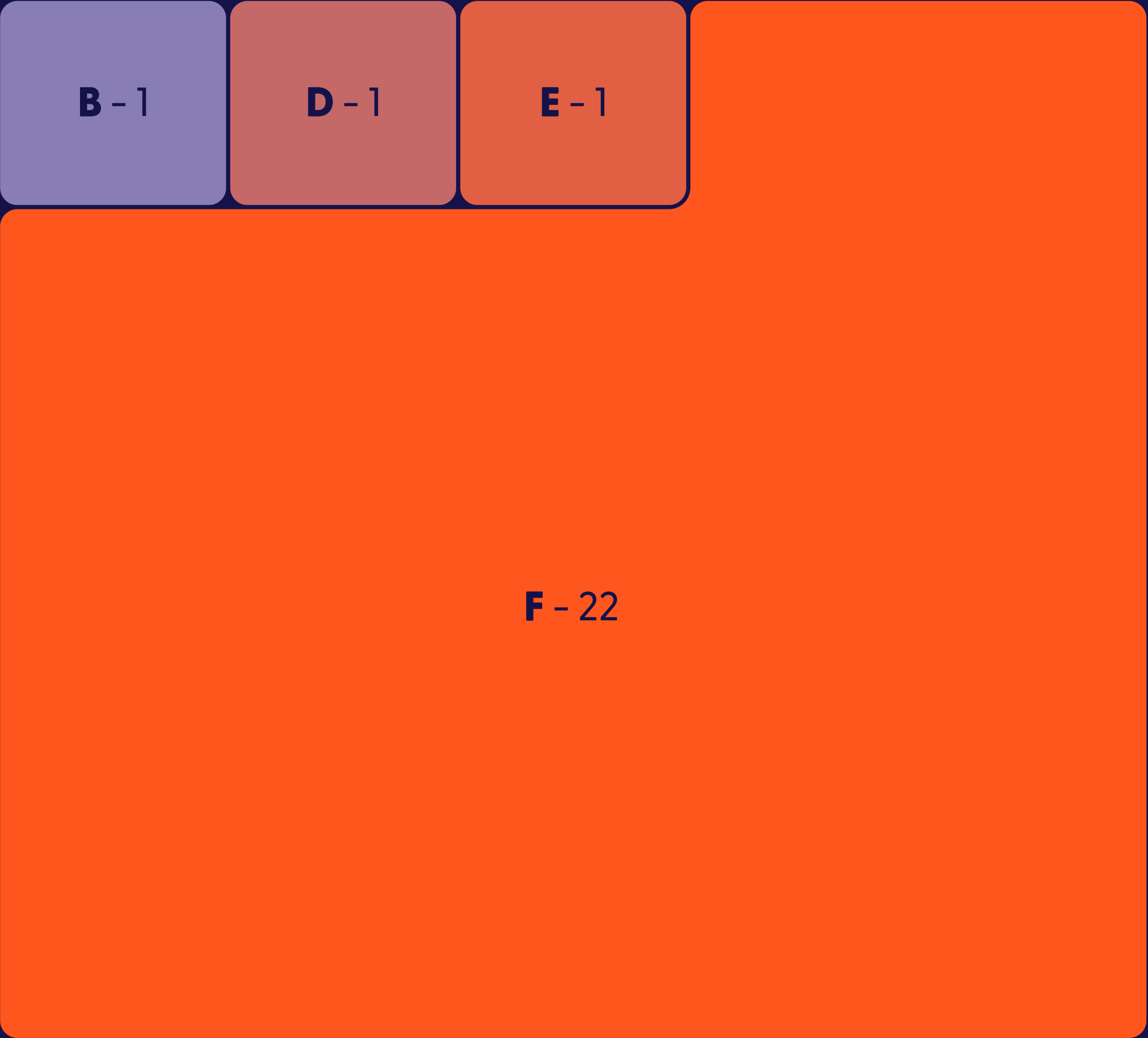
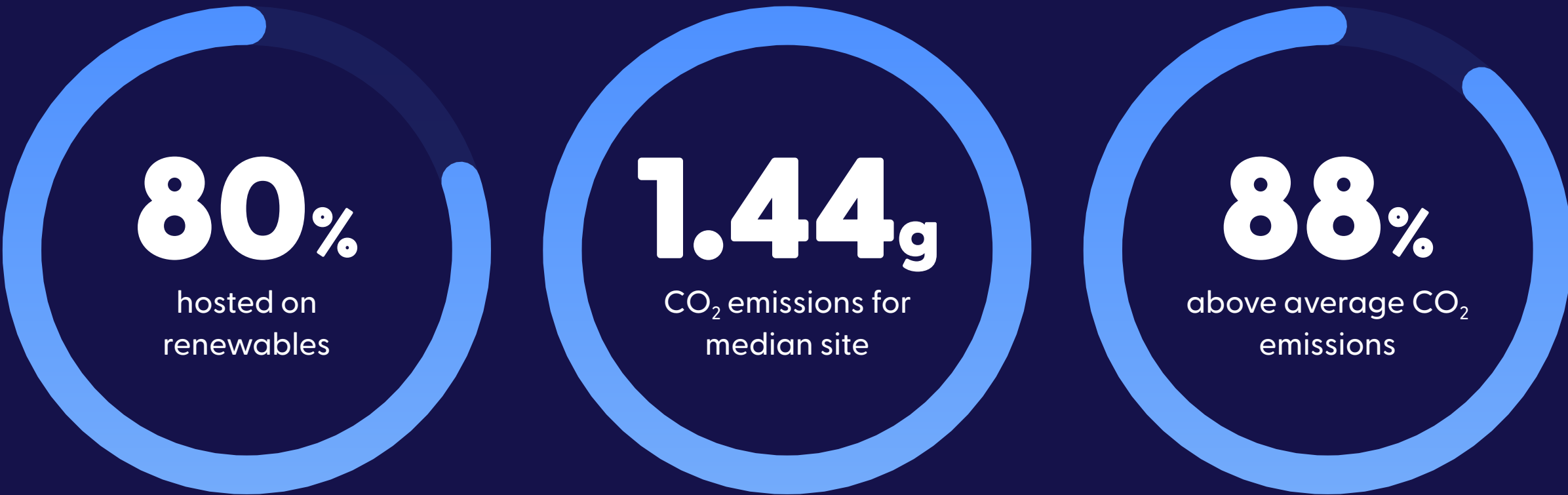
B Corps stood out in the study for their relatively high median CO₂ emissions per first website visit (1.44g), which places them as the least efficient sector examined. Just 5 of the 25 websites tested fell below the overall median emissions.

Furthermore, only 80% of B Corp websites were hosted on renewable energy-powered servers, below the cross-sector average. This figure is especially striking given B Corps’ broader ethical positioning and commitments to environmental and social responsibility. The gap suggests a misalignment between their brand values and their digital operations.

The grading data supports this disconnect: out of 25 B Corp websites assessed, the overwhelming majority

(22) received an ‘F’ rating based on standard web sustainability criteria, such as energy efficiency and emissions per visit. Only one site achieved a ‘B’, while the rest were spread thinly across the remaining low-performance grades.

This discrepancy points to a larger issue: digital sustainability is not currently addressed within the B Corp certification standards. While B Corps are evaluated across a range of areas, the environmental pillar does not include criteria for website or digital footprint emissions. As digital infrastructure becomes an increasingly significant contributor to global emissions, this omission creates a blind spot in how sustainability is assessed and practiced within the purpose-led sector.

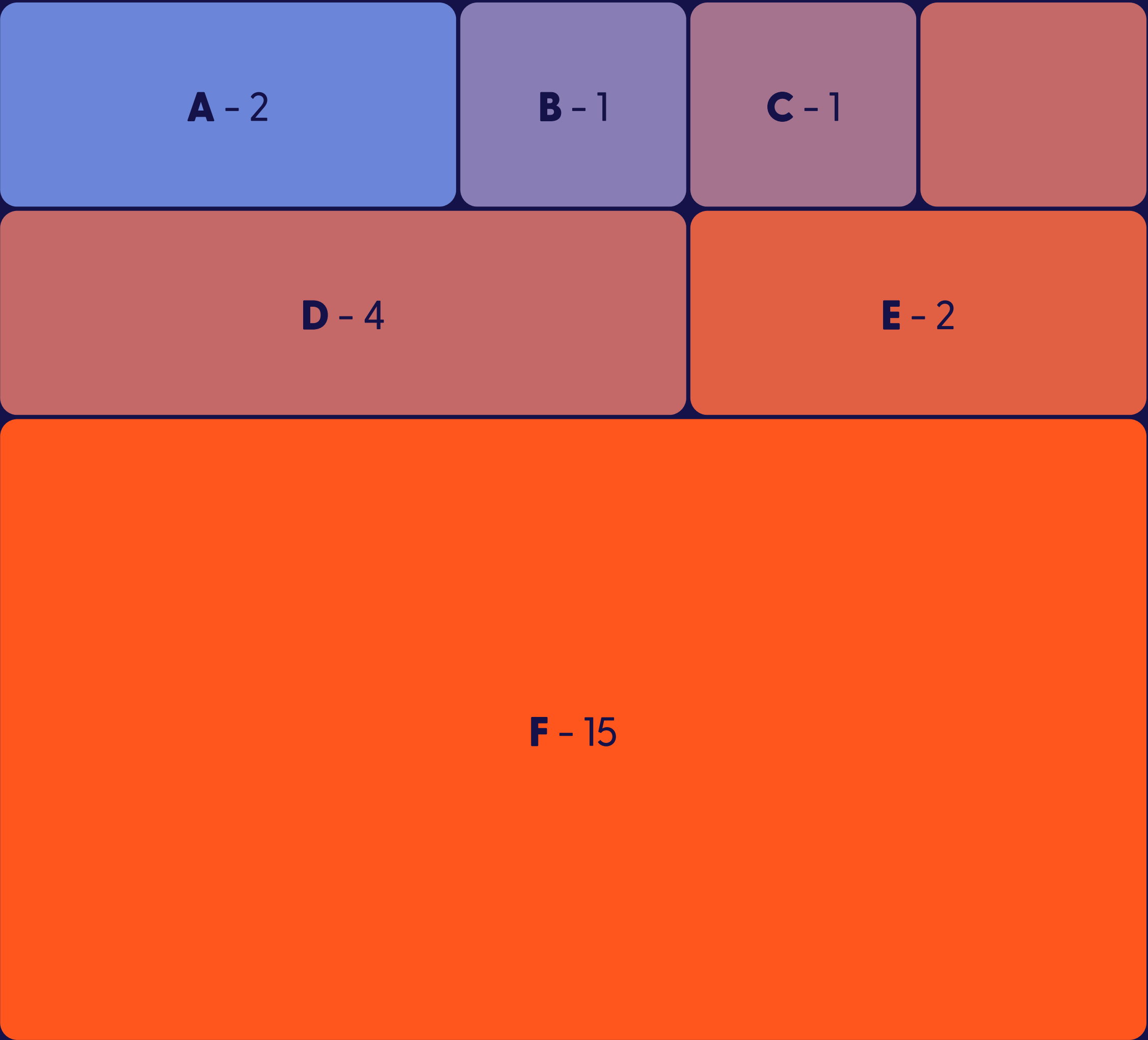
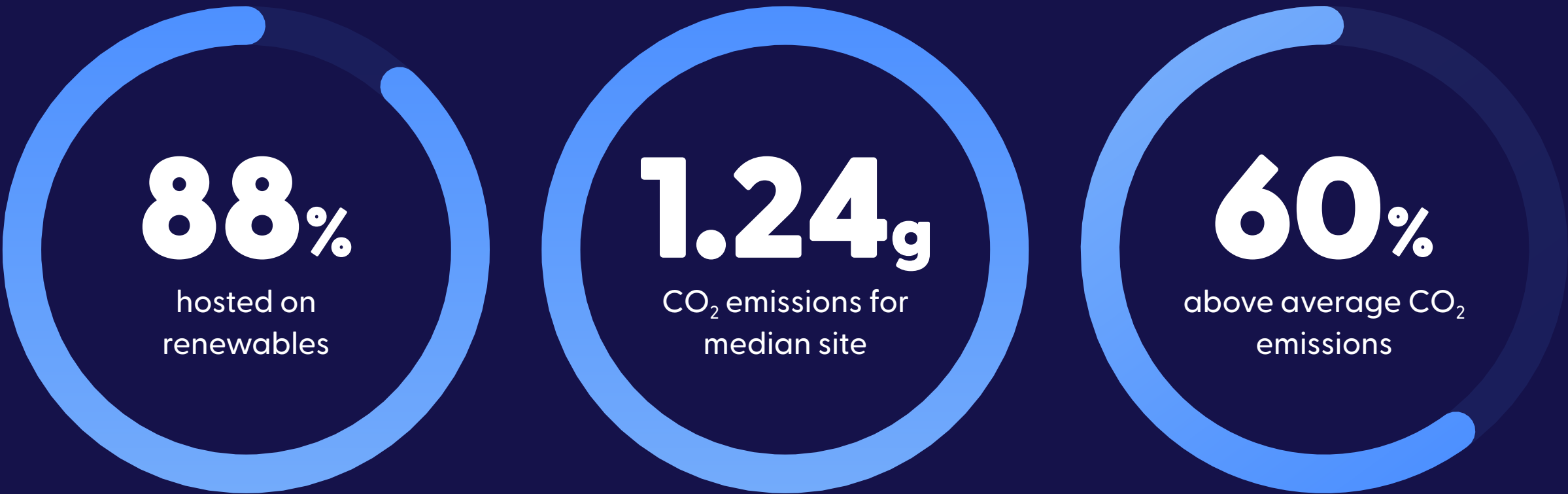


Sustainability consultancies

On the surface, sustainability consultancies performed reasonably well in some areas. Over 50% of sites had emissions below the overall median, while 88% of these sites were hosted on renewable-powered infrastructure.

Yet despite these encouraging signs, their median CO₂ emissions per visit stood at 1.24g – well above the global average. However, looking at the results in isolation paints a more nuanced message, with the highest emitting site across all 100 (12.758g) sitting alongside the three lowest (0.106g, 0.149g and 0.24g) in this sector.

15 out of 25 sustainability consultancy websites received an ‘F’ for digital sustainability, while only two achieved an ‘A’. This skew towards the lowest grade is particularly striking for organisations whose core business involves helping others reduce environmental impact. While some did perform well (with a handful of sites achieving grades from ‘A’ to ‘C’) these were the exception rather than the rule. For organisations that advise others on climate strategy, digital sustainability should not be a blind spot. Their websites are both a communications tool and a demonstration of credibility; if they are inefficient, high-emission, or poorly optimised, it undermines the trust placed in their expertise.



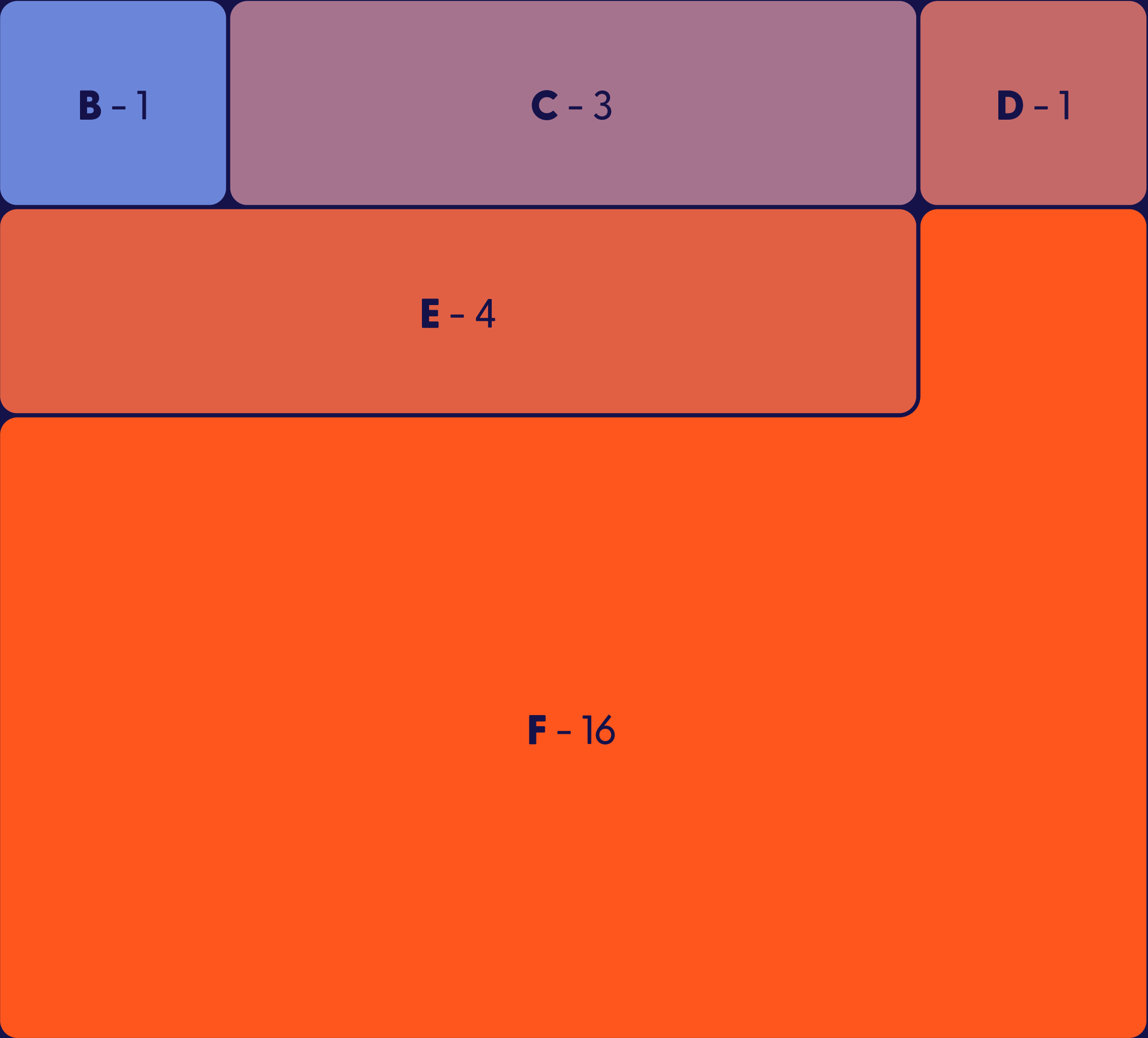
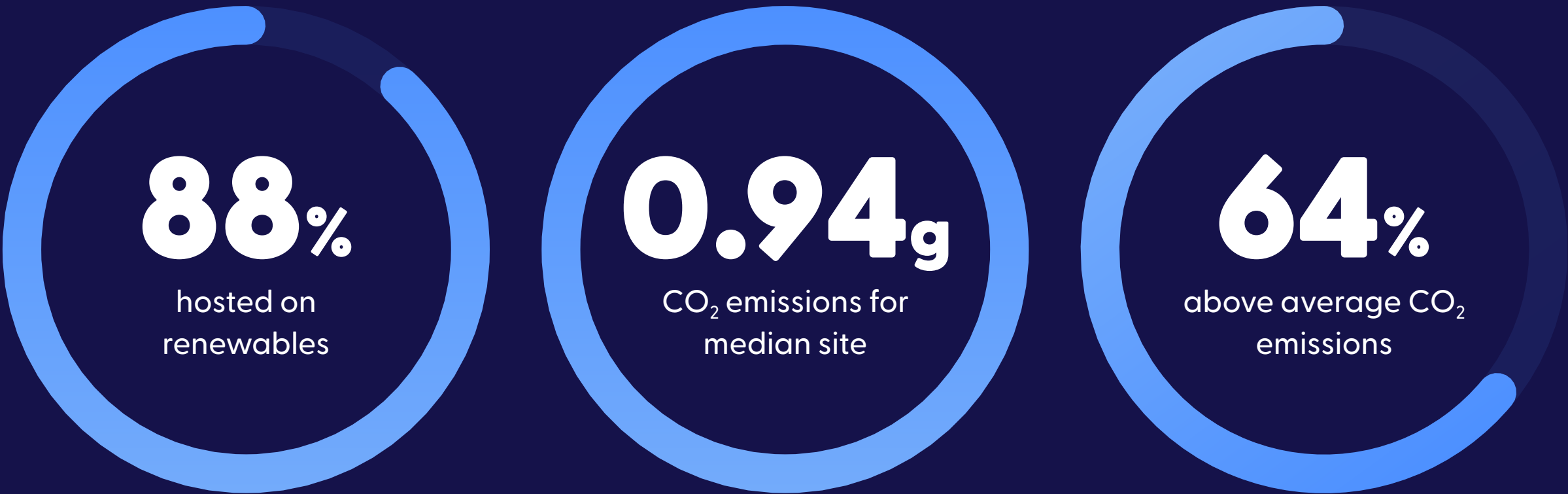
Charities

For charities, their median CO₂ emissions per first website visit (0.94g) was significantly lower compared to B Corps and Sustainability Consultancies. 88% of their websites were hosted on infrastructure powered by renewable energy, notably above the overall average. In spite of this, 64% of sites scored an ‘F’ rating, therefore having emissions above the global average.

Only five sites scored between ‘B’ and ‘D’, reflecting a widespread lack of front-end optimisation. These results indicate that while hosting choices may be relatively green, the websites themselves are often heavy, inefficient, and potentially excluding users with lower bandwidth or less powerful devices. It’s important to contextualise these findings within the realities many charities face. Non-environmental

charities, particularly smaller ones, often operate with limited digital budgets, outdated infrastructure, and lean in-house tech teams (if any at all). Their digital strategies may prioritise accessibility, inclusion, and content clarity over performance and emissions, aligning more closely with their social missions. Many will focus their resources on ensuring their sites are usable by people with disabilities, older audiences, or those using assistive technologies, areas where they often outperform more commercially focused organisations.

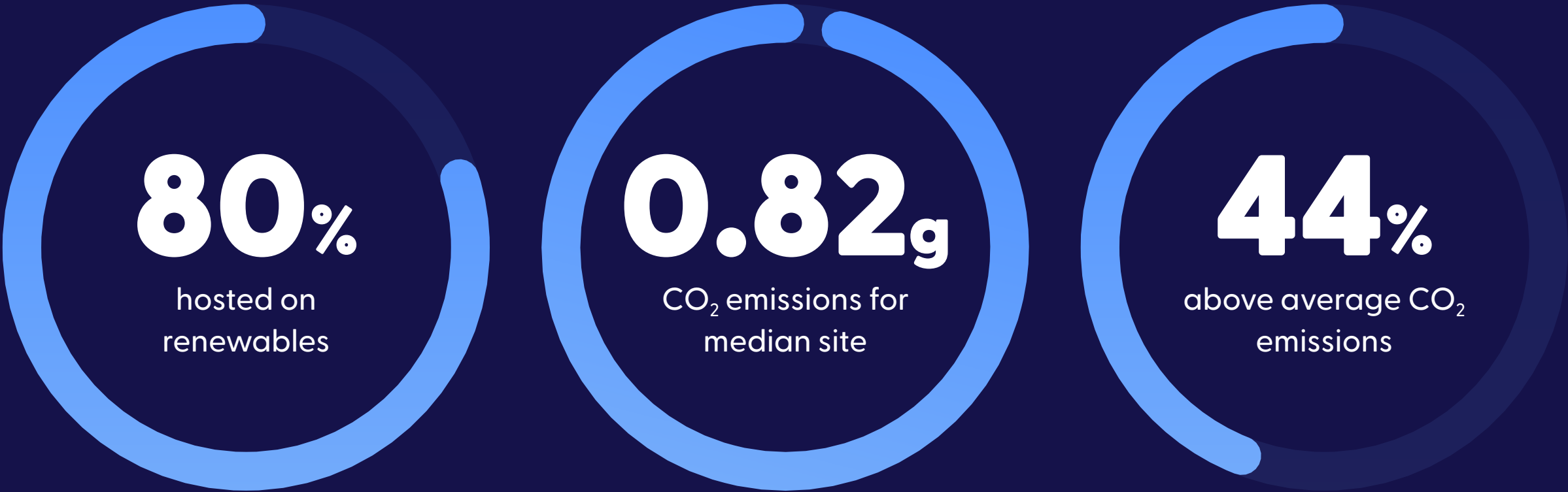
Bringing digital sustainability into the conversation for charities could therefore offer a win-win: aligning environmental responsibility with their existing commitments to inclusion and social good.



Environmental charities

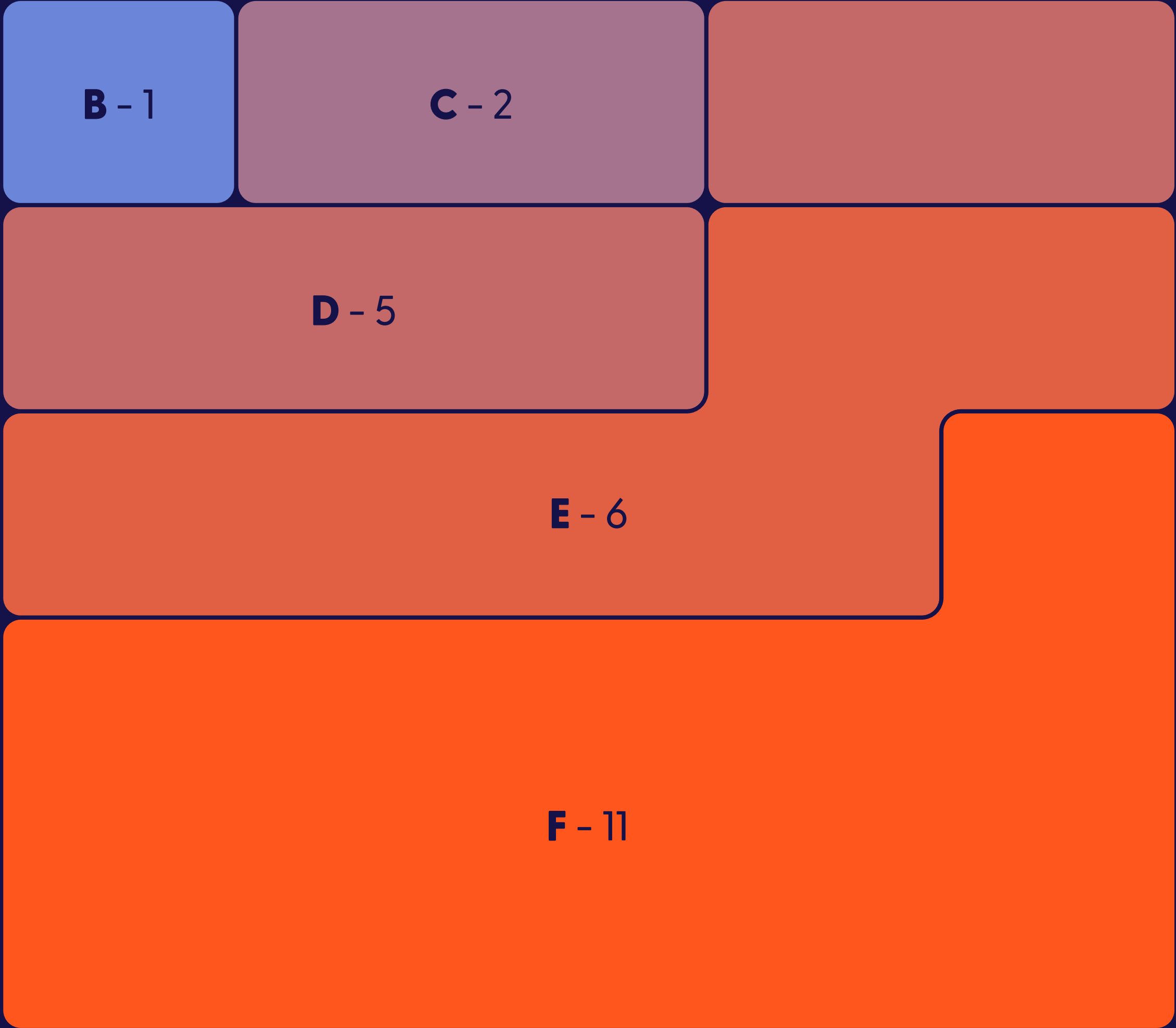
Environmental charities, whose core missions often focus directly on climate action, conservation, and ecological sustainability, showed some of the most encouraging data in terms of digital emissions. Their websites recorded the lowest median CO₂ emissions per first visit at 0.82g, the only sector with a median website scoring better than the global average.

However, a closer look at technical performance reveals a more nuanced picture, with only 1 out of 25 environmental charity websites received a grade above ‘C’. Despite the 11 receiving an ‘F’ representing 44% of the group, this sector was the only one with fewer than 60% of its sites scoring above the global average. The remaining sites were spread across the mid-to-lower grades (‘D’ and ‘E’).



Renewable hosting rates were also unexpectedly modest: only 80% of environmental charities used renewable-powered hosting, a figure that lags behind sustainability consultancies and non-environmental charities. Given their environmental focus, this is a surprising oversight, and represents a missed opportunity for leadership in sustainable web infrastructure. However, this group may also face budget constraints and capacity issues when it comes to in-house website expertise.

With growing awareness of the environmental impact of digital systems, environmental charities are uniquely positioned to lead by example.

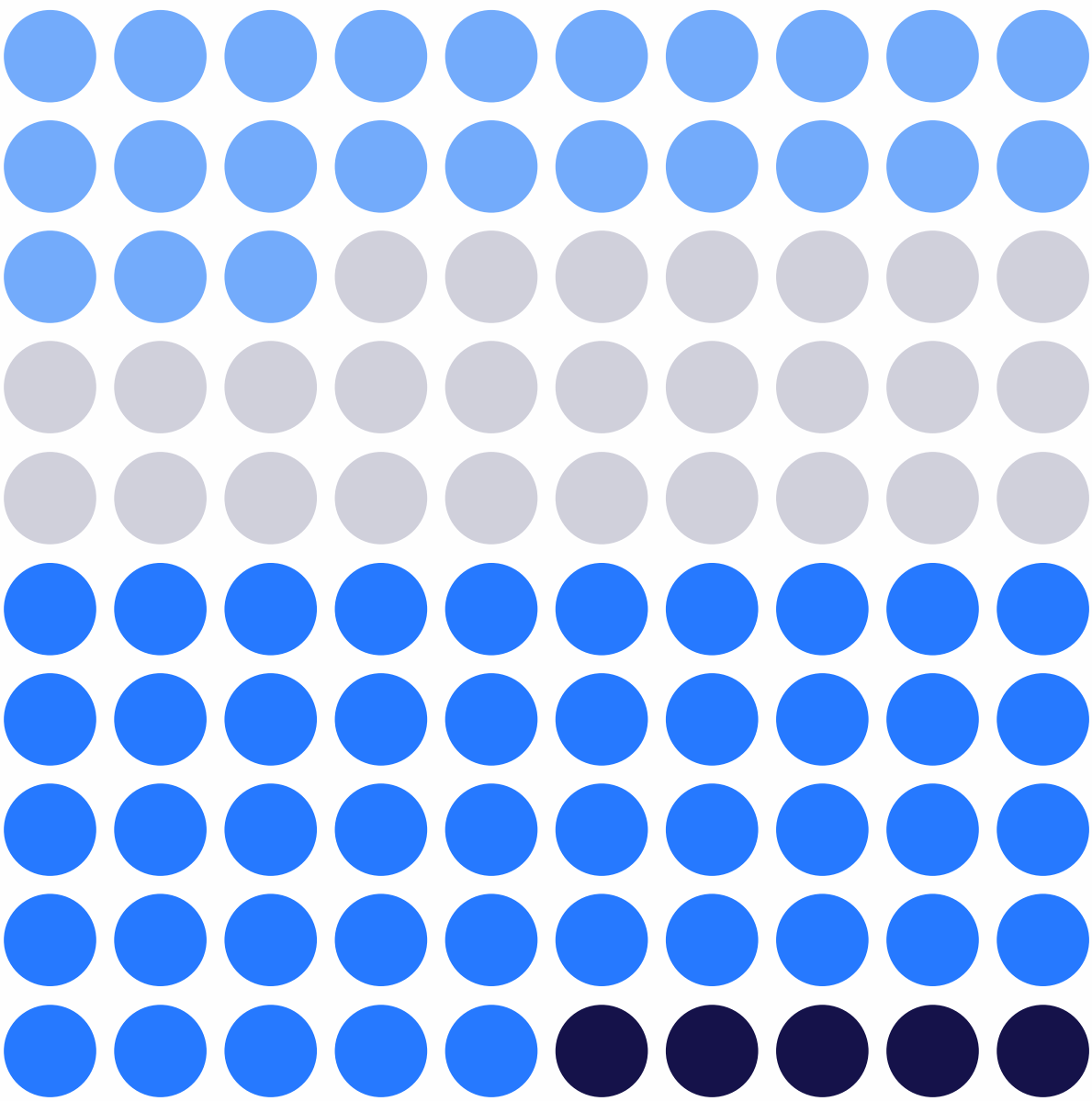


Current Awareness Levels



This section of the report looks into, within UK mission-driven leaders and organisations, where awareness levels stand of both digital sustainability as a whole and website sustainability in particular.

How familiar are you with the environmental impact of websites?



- Very Familiar
- Somewhat familiar
- Heard of it but don't know much
- Not familiar at all

While interest in sustainable web design tools – such as the Website Carbon Calculator and Green Web Foundation – is growing, a big awareness gap persists among both users and web professionals. In a survey of US-based professionals and website managers, 84.6% of general internet users were unaware that websites produce carbon emissions, and 63% of website owners didn’t know that their own sites contribute to environmental pollution⁽⁴⁾. Most strikingly, 73% of website professionals had never measured their site’s carbon footprint, highlighting a critical knowledge gap in the industry. In our own research, 54% of respondents had heard of the term website sustainability prior to taking our questionnaire; higher than other sources but perhaps unsurprising given the number of climate and environmental organisations in our network.

Case Study

Jonathan Bell, Co-Founder at Sprout



“Even the name ‘the cloud’ is misleading, it makes us think of something light, clean, and harmless floating in the sky, rather than a vast network of energy-hungry datacenters.”

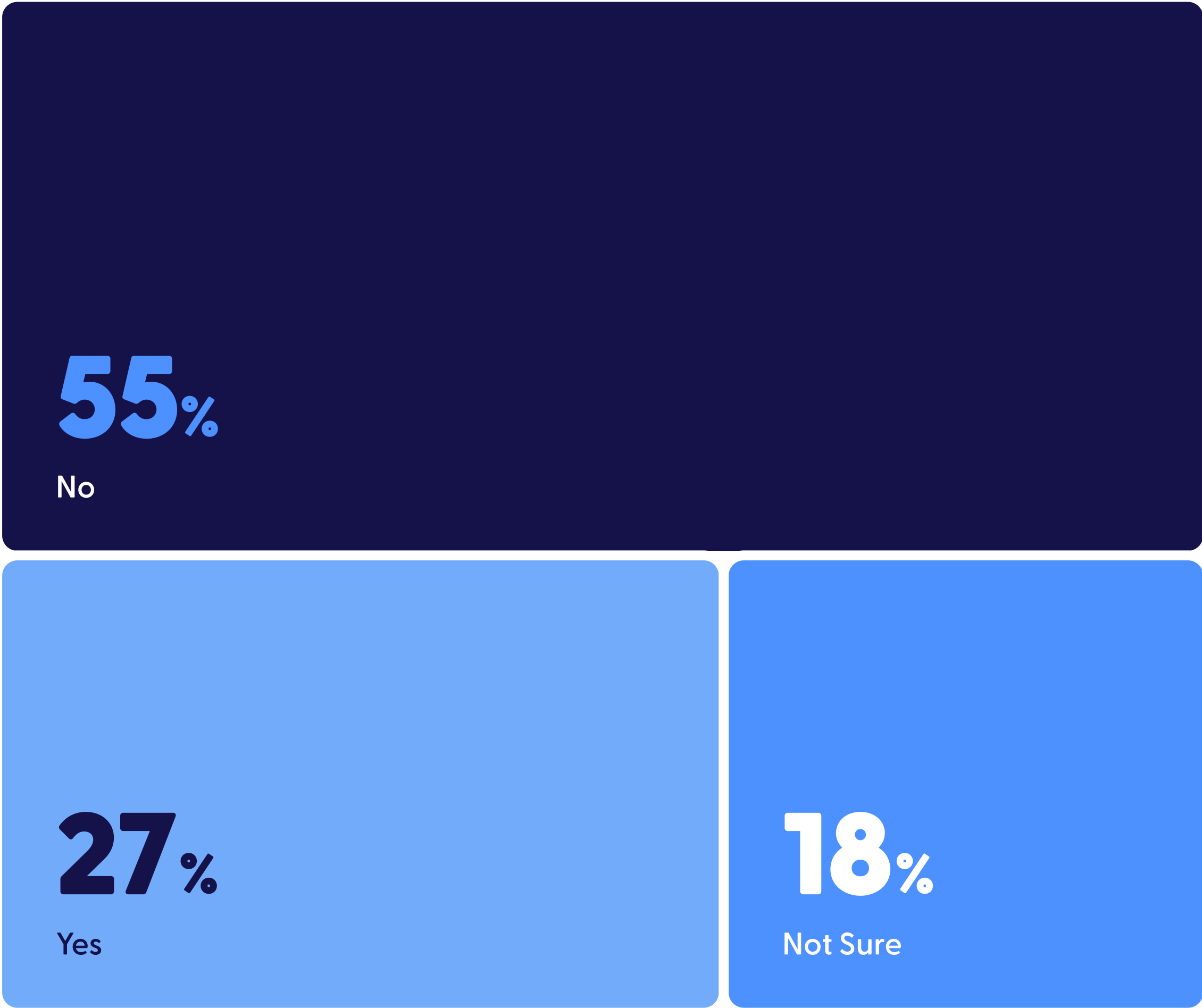
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Jonathan Bell, Co-Founder at Sprout*, a low-carbon website builder, notes that big tech companies may hold some responsibility for the levels of greenwashing we see in the digital world. “I think part of the problem

is that for the longest time going digital was framed as the sustainable choice – ‘go paperless, go green’. That message stuck, and only in the last few years, with conversations about the environmental impact of AI and, before that, blockchain, has this started to shift. I think big tech companies and hyperscalers have reinforced this misconception by marketing their digital services as inherently green. They are actively harming the digital sustainability movement for their own gain.”

Greenwashing in the tech sector often hinges on this simplistic equation of ‘no paper = sustainability’, ignoring the complex and often hidden environmental costs of digital technologies. While it’s true that digital tools can reduce the need for physical materials like paper, this benefit is often overstated and used to mask the energy demands and emissions associated with digital consumption.

Are you aware of any tools that measure the carbon footprint of a website?



Consequently, the vast majority of the world’s websites remain “dirty” from a carbon perspective. There are an estimated 1.8 billion live websites, and most lack eco-friendly design or hosting practices, resulting in a web landscape where sites typically emit ~1.76 g CO₂ per page view, and more complex ones much higher⁽⁵⁾. Together, these figures

reveal a clear issue: although digital emissions are becoming recognised, the majority of sites remain carbon-intensive. Very few organisations audit, report on, or optimise their site emissions in a structured way, despite accessible tools and benchmarking standards.

Website sustainability audit

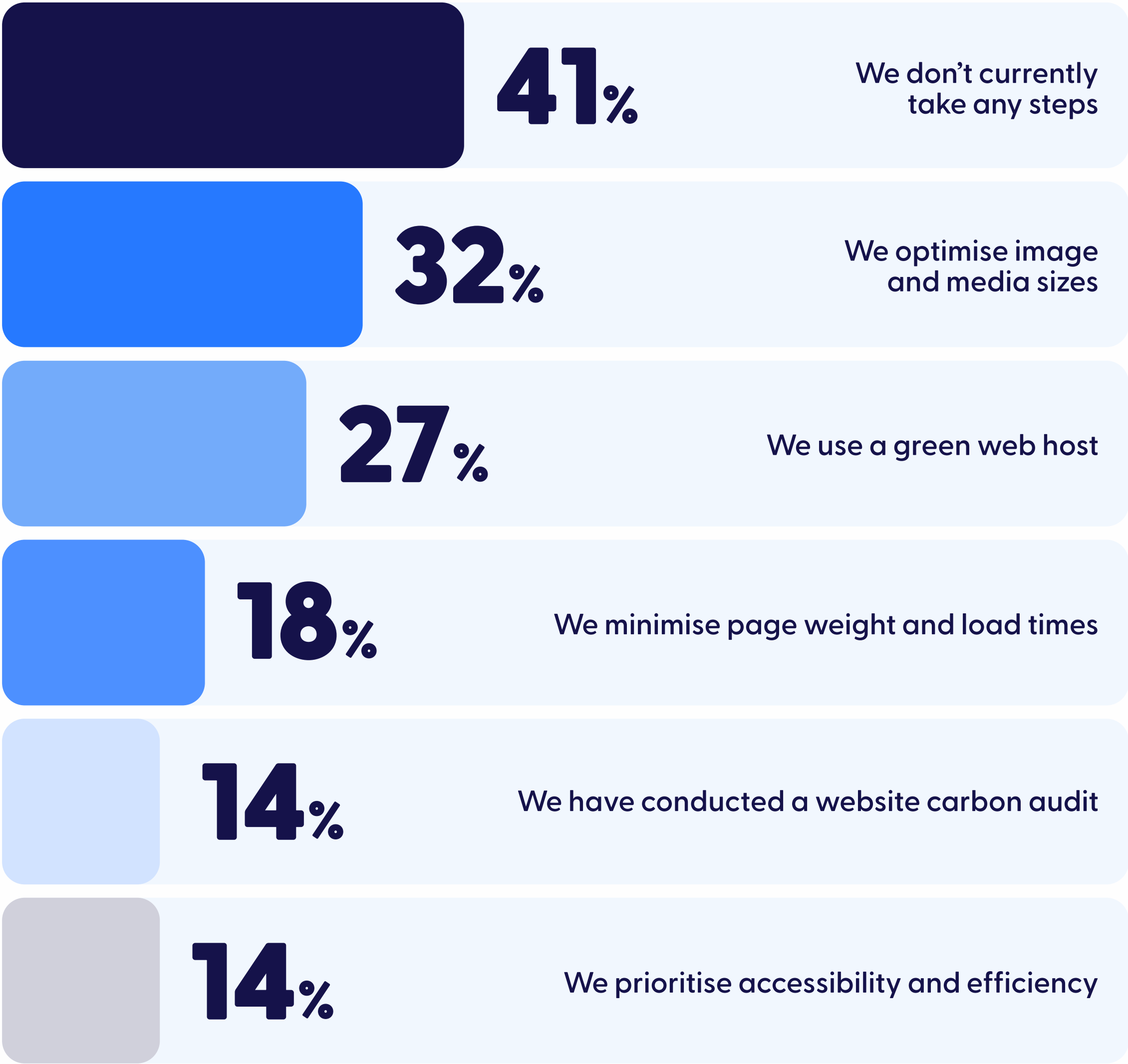


Actionable strategies to reduce your carbon footprint

To begin to combat this problem, Oxygen has created a website sustainability audit, a low-cost, efficient service, designed to help organisations assess their websites’ environmental impact and discover opportunities for improvements. We provide a comprehensive analysis of the website’s

carbon footprint whilst also suggesting how internal web teams can improve the user journey to help people get where they need to go quicker. Once collated, we guide our clients through actionable strategies to enhance their website and reduce their carbon footprint.

Has your organisation taken any steps to reduce the environmental impact of your website?



41% of those who completed our survey answered that they currently don't take any steps to reduce the environmental impact of their website, which underlines a real need for education, standard-setting, and support. As Jonathan Bell notes, "I think the largest barrier to low-carbon websites is the awareness gap. Most people haven't even heard of low-carbon web design, and aren't aware of the benefits it brings for people and the planet." Education, then, is a big consideration that those working in digital need to consider.

27% of respondents noted that they use a Green Web Host, notably lower than our website analysis (84%). Hosting contributes to about 15% of a websites' carbon footprint⁽⁶⁾, so, whilst hosting a website on renewable energy-powered servers is a positive step toward sustainability, it is not sufficient to ensure a low carbon footprint. A website can still be carbon-heavy due to the elements we noted above, all of which increase energy consumption during user access and data transfer across networks⁽⁷⁾. Moreover, end-user devices and data transmission networks often rely on fossil fuels, meaning the energy used to load and interact with a site isn't always green⁽⁸⁾. There are no current statistics on how many websites globally are hosted on renewable platforms, but

wider data suggests that the world's data centres collectively consume more energy than all of Germany, and that energy consumption accounts for between 30 and 50 per cent of a data centre's operating costs⁽⁹⁾.

Concerningly, only 14% prioritised accessibility and efficiency – meaning not only are their websites not sustainable, but they are also not catering to up to the one in four people in the UK that live with a disability⁽¹⁰⁾, representing £274 billion in spending power in the UK. 73% of disabled customers experience accessibility barriers on more than a quarter of websites they visit. These users abandon sites they can't navigate, and the Equality Act 2010 makes inaccessibility a legal risk. Improving a websites sustainability and accessibility, as we mentioned above, are deeply intertwined and therefore there is a strong business case for organisations to improve their user journey, improve responsiveness, and create cleaner interfaces with less cognitive overload. 14% of respondents from our data said that they first heard of website sustainability through working with Oxygen as their design agency, which highlights a salient point on the importance of agencies taking initiative and acting as a partner throughout the process of a web build,

Has your organisation taken any steps to reduce the environmental impact of your website?

meaning they provide an educational role instead of something that is purely transactional. Throughout our day-to-day work we often come across design agencies who work with organisations on the frontlines of climate change work, that have created websites for their purpose-driven clients that are not sustainable. Agencies have a responsibility to educate clients in this space and push-back should a design element be unnecessarily heavy. If all agencies committed to inherently using sustainable design principles, the digital landscape would look very different.

It's also important to build networks of learning; for example, Clean Creatives have a network in the UK of a variety of agencies that look beyond competition to how we can improve the sector as a whole. It can be often overlooked in a business environment, that organisations in this space are all working towards the same goal of a more green and fair planet.

In addition, embedding digital sustainability requirements into the procurement process has the potential to significantly accelerate the adoption of low-carbon websites, by normalising them as part of expected project delivery. As social and environmental impact considerations are increasingly integrated into procurement (often through weighted scoring systems that reward sustainable practices), there is a clear opportunity to extend this approach to digital services. If tenders or project briefs explicitly award points or preference to agencies and freelancers who demonstrate sustainable digital practices, such as low-carbon web design, this creates a clear incentive for suppliers to prioritise these efforts. Without such requirements, many smaller providers may not see the commercial value in investing time or budget into sustainable approaches. However, once digital sustainability becomes a standard feature of procurement, it sends a strong signal that low-carbon websites are not just a bonus, but a baseline expectation and therefore shifting the norm across the industry.

Case Study

Amanda Bronkhorst – Founder, JUST ONE Tree



Amanda founded JUST ONE Tree in 2019 after realising how a coordinated network of individuals, schools and businesses, could make a real difference to the climate crisis by simply planting trees, which cost just £1 each through her organisation. They restore life on land, in the oceans and help to shape the next generation of planet-conscious thinkers, including a JUST ONE Tree Day in schools helping to raise funds for reforestation while educating children.

To date* they have planted over 5 million trees in 16 countries, removing 1,374,206 tonnes of CO₂ from the atmosphere and are now an official partner in the UN Decade on Ecosystem Restoration.

Amanda set up her website by herself to launch with, in her own words, “not being aware of digital sustainability, using the cheapest platform I could that worked with the domain name I had chosen”. About 3

years ago, someone pointed out to her that her website was carbon-heavy and she tried to move to a green host, but couldn't due to the platform she was on. The main barrier she came across, was there is a lot of imagery on her site and at the time as a solo founder with a small team, going through the website & compressing all the imagery on there in an effort to reduce the sites carbon footprint, wasn't something she had the time to do. Still doesn't – so in the case of this organisation doing amazing things for the planet, the main barrier to change is absolutely time.

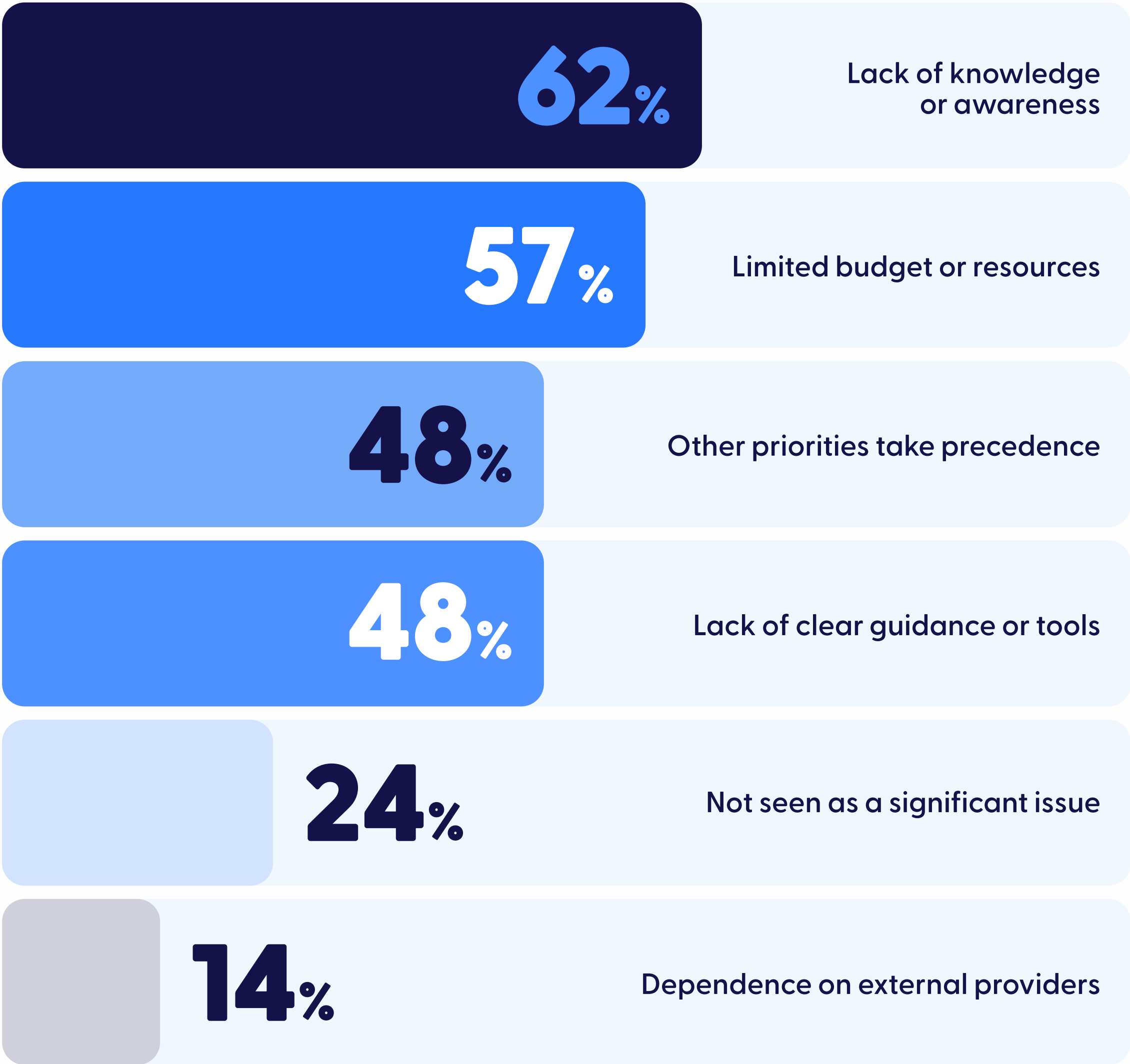
Amanda has since made conscious decisions to try and improve their digital sustainability, such as not sending emails to dormant clients, compressing new images as they are uploaded to the website and considering how to display videos on their site to be more carbon friendly, and her increased awareness of this issue means it has been raised higher on their priority list for the future.

Barriers to Adoption



A key part to tackling the issue of digital sustainability is to understand why this disparity might be occurring. If an organisation is working in the Environment sector (or even if they are not but are a committed B Corp for example), what is stopping them from addressing this issue?

Barriers to adoption



Interestingly, website sustainability is often overlooked in digital strategies with sustainability goals more likely to be linked to supply chains or operations⁽¹⁾. Our data shows that over 60% of respondents put ‘**lack of knowledge**’ at the top of the list of barriers, supporting this. Interestingly, amongst the respondents representing charities, this was the most common answer alongside ‘lack of clear guidance’, with budget concerns being the least common in this group.

Only 50% of B Corp respondents noted that website sustainability was important to their values and mission, with the other 50% answering ‘neutral.’ This is interesting because emissions are a large feature of the B Impact Assessment, so perhaps these organisations are not yet equating their digital carbon footprint with the rest of their supply chains. Additionally, 50% of respondents said it was in their existing strategies or policies, yet B Corps emerged as the group with the most carbon intense websites.

We found that that the cost of web design is a major stumbling block for even well-intentioned organisations. Whilst budgets are subjective to a particular organisation, there are two important points to make here:

- There are steps that any organisation can employ, no matter their budget, to cut down the

emissions of their website. You can find out more about these in the tools section below.

- If an organisation is looking to upgrade or redevelop their website, then building it in a sustainable way costs no more than a typical web project. In fact, there is a business case to build it as lean and light as possible, as mentioned above.

When we spoke with Nick Billingham, Managing Director of Charity People, he agreed with this sentiment: “I think also, in terms of barriers, charities might assume it costs more to have a sustainable website and therefore it goes to the bottom of the pile in terms of priority, but actually if you are redoing your website anyway, it won’t make any difference to the cost and if you aren’t in a position to do that right now, there are lots of small changes you can make that will make a difference to your websites carbon emissions”.

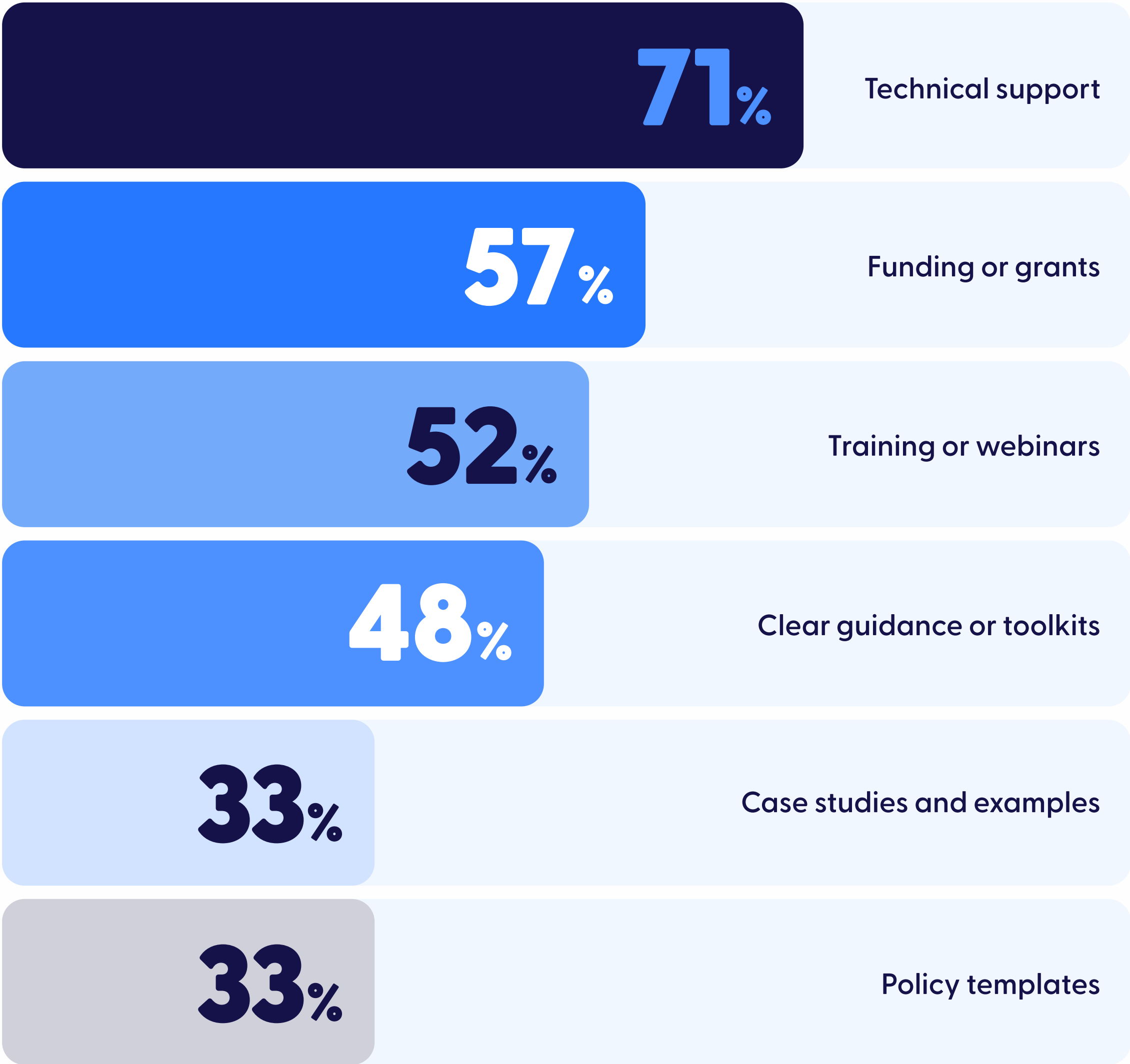
A final barrier is priorities. Research repeatedly shows that there is no one-size-fits-all approach to organisational sustainability, with sustainability teams being under-resourced, or sustainability being the responsibility of other teams. This means that competing priorities often get in the way of sustainable action. Furthermore, websites usually encompass hugely varying departments of any given organisation, meaning that buy-in and project management can be very difficult.

Opportunities & Implementations



This section outlines the key implementation areas where meaningful impact can be made, from choosing green hosting providers to applying sustainable design principles and aligning with emerging digital sustainability standards. These practices not only help reduce a website's carbon footprint but also contribute to faster performance, greater accessibility, and improved visibility in an increasingly AI- and search-driven internet.

What kind of support would help you take action on website sustainability?



The findings from our survey reveal not only the appetite for more sustainable practices in website design and development, but also the specific tools and frameworks that people feel they need to bridge the gap between intention and implementation.

The most popular response was **technical support**, selected by 71% of respondents. This highlights a key learning: while guidance and motivation exist, many organisations feel unequipped to translate sustainability principles into technical change. Technical support refers to direct, hands-on assistance in areas such as website audits, infrastructure optimisation, and performance enhancements. In practice, this might involve engaging with specialists who can evaluate a website’s carbon footprint, recommend energy-efficient hosting providers, and streamline front-end design to reduce unnecessary data loads.

Following on from that, **funding or grants** was selected by 57% of respondents. This reflects the reality that, for many organisations, especially charities, public sector bodies, and small businesses, the cost of making their websites more sustainable is a significant barrier. Funding can be used to cover everything from redesign costs to consultant fees and software licenses, however, there are few funding opportunities

specifically for digital sustainability, and for those that exist, awareness of these sources remains low. This highlights an opportunity for organisations and funders to develop clearer signposting, application support, and tailored grant pathways for sustainable digital work.

The third most selected form of support, cited by 52% of respondents, was **clear guidance or toolkits**. These are vital for translating general principles into practical, effective action. In recent years, there has been growth in the availability of such resources, from the W3C’s Web Sustainability Guidelines, which offer a comprehensive framework across hosting, content, design, and governance, to resources like the Sustainable Web Manifesto and the Green Web Foundation’s directories and checklists. However, there is still room for more sector-specific guidance, particularly for charities, where sustainability policies are often underdeveloped in digital contexts. Toolkits that include step-by-step action plans, carbon calculators, and procurement advice would empower organisations to take independent, well-informed steps.

Training and webinars were widely supported, with 48% of respondents indicating they would benefit from educational opportunities. Live and recorded sessions allow teams to upskill in

What kind of support would help you take action on website sustainability?

sustainable web practices and understand the environmental impact of their choices. Training opportunities are particularly important for non-technical staff and decision-makers, helping them to align sustainability goals with procurement, strategy, and design briefs.

In addition to learning resources, **case studies and examples** were seen as valuable by 33% of respondents. These real-world stories help organisations understand what sustainability looks like in practice, offering inspiration and benchmarking. High-profile examples like WWF UK’s green-hosted and performance-optimised website illustrate the impact of design choices on emissions and usability. Yet, there is a shortage of UK-specific case studies, where organisational

contexts can differ significantly from commercial tech environments. Developing a library of practical examples, particularly those that include before-and-after comparisons, can demystify the process of sustainable web design and provide stakeholders with confidence to take action.

Finally, **policy templates**, chosen by 33% of respondents, were seen as a valuable support mechanism. Organisational change often requires formal policies and frameworks to ensure that sustainability is embedded in decision-making and procurement. The W3C guidelines suggest sustainability roles, governance responsibilities, and product lifecycle planning as best practices, but many organisations need support to translate these into internal policies.

Case Study

Nick Billingham – Managing Director, Charity People



“
It’s certainly changed how we view our digital strategy at Charity People and we consider ourselves fairly well versed in terms of caring about how we operate.
”

Charity People is the UK recruiter for the charity sector, operating for over 35 years. A B Corp since 2024 with an outstanding score of 138.8, they take living their values very seriously as an organisation and as

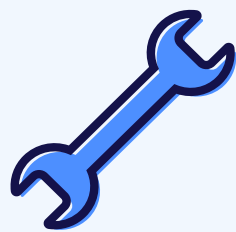
individuals. Charity People worked with Oxygen at the end of 2024 to redevelop their website to update the content and improve the navigation and we ensured it was built with sustainability in mind.

Nick comments that: “To be honest it was a fortunate coincidence that we were working with an agency who knew about sustainable websites and Oxygen educated us as to what that meant. It blows my mind that no-one talks about this existential crisis we are living in and this is just one example of that; everyone uses the internet, organisations rely on their websites to be their shop window and yet, how can you be doing good things, especially if you work in environment and not know the impact of your digital footprint? It’s certainly changed how we view our digital strategy at Charity People and we consider ourselves fairly well versed in terms of caring about how we operate”.

Our recommendations

In summary, the data from our research suggests that while interest in sustainable website practices is growing, organisations are calling out for structured and practical support, particularly in the form of expert technical guidance and funding opportunities. These top-ranking needs reflect a readiness to act, provided the barriers of knowledge and cost can be addressed. Alongside these, the demand for clear toolkits, training, real-world case studies, and policy templates indicates a wider appetite for embedded, long-term change.

To respond to these needs, we recommend:



Technical Support

Prioritising funded technical consultancy to assist with audits, optimisation, and implementation.



Toolkits & Guidance

Developing tailored toolkits and guidance, aligned with sector-specific needs and digital maturity levels.



Financial Support

Improving access to grants and providing support for application processes.



Training Opportunities

Expanding webinar and training opportunities, particularly those designed for non-technical audiences.



Case Studies

Curating UK-based case studies that highlight the benefits and trade-offs of sustainable web decisions.

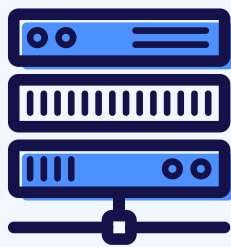


Policy Templates

Providing adaptable policy templates to embed sustainability into organisational processes and procurement.

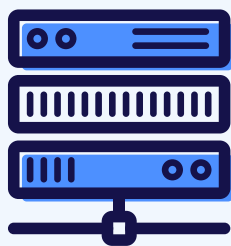
Implementations

Hosting Choices



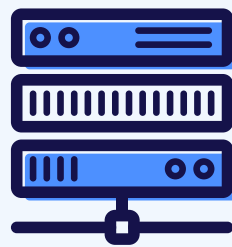
Green hosting provider

Website Carbon suggests that green hosting can reduce emissions by 9%⁽¹²⁾. Providers using 100% renewable energy, carbon offsets, or planting trees help reduce a site’s carbon footprint. A list of verified hosting providers can be found at the Green Web Foundation directory.



Content Delivery Networks

For organisations with a local audience, choosing a Data Server close to your customer base will further help speed up loading times and reduce emissions. For global organisations, using a Content Delivery Network (CDN) can help cache content closer to their end users.



Hosting Region

Hosting a website in a location with low grid carbon intensity can significantly reduce its carbon footprint. Grid carbon intensity refers to the amount of carbon dioxide emitted per unit of electricity consumed, and it varies widely depending on a region’s energy mix - renewables like wind, solar, and hydro have much lower emissions than fossil fuels. When data centres that host websites are powered by cleaner electricity, the environmental impact of powering servers, cooling systems, and networking equipment is reduced. Regions with low grid carbon intensity include Norway (uses hydropower for ~90% of electricity) and Iceland, Sweden and Finland, who use a mix of nuclear, wind, biomass, geothermal and hydro energy.

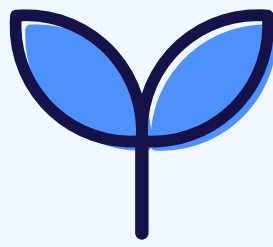
Regulation



Standards and Benchmarks

Popular tools for measuring website sustainability include the **Website Carbon Calculator**, **EcoGrader**, and **Digital Beacon**. The **Green Web Foundation** provides hosting verification, CO₂.js library, and promotes standards like carbon.txt. Emerging Web Sustainability Guidelines (WSG) from W3C are also gaining traction⁽¹³⁾. Accessibility standards like WCAG 2.1 increasingly align with sustainable practices, as they encourage efficient, semantic, and inclusive design with content that is easier to find and understand reducing data transfer and energy consumption.

Strategic



Integration into Digital Strategies or ESG Frameworks

Sustainable web practices are increasingly embedded within broader ESG and digital strategies. Tools like CO₂.js, SWDM, and the Green Web Foundation’s carbon.txt support transparency and enable continuous improvement. Displaying carbon badges or sustainability scores on websites (e.g. via carbon calculator widgets) also builds brand trust and aligns with stakeholder expectations.

Implementations

Use of Sustainable Design Principles

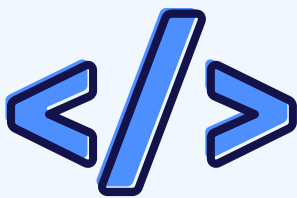
Sustainable web design is all about making digital products like websites and apps more efficient and less polluting, without sacrificing usability or functionality. It's a practical way to reduce carbon emissions, save bandwidth, and create faster, more inclusive user experiences.



Energy efficiency

The goal here is to reduce the amount of energy needed to load and run a website. That means writing clean, efficient code that doesn't make your device (or the servers behind the scenes) work harder than necessary.

- Removing unused JavaScript and CSS
- Avoiding unnecessary animations



Smaller pages, less data

Every extra byte of data your website loads means more energy used, both by your server and your user's device. Large image files and videos are often the biggest culprits.

- Compressing images and using modern formats like WebP or AVIF
- Only including videos if they're absolutely necessary
- Choosing lighter design assets and avoiding bloated templates



Reusable and modular design

Reusing design components and templates not only saves time and reduces the amount of code and complexity on your site.

- Building with design systems and reusable UI blocks
- Avoiding duplicative code and page elements
- Thinking modular from the start to reduce digital waste over time



Accessibility and inclusion

Designing websites that are accessible to all users, including people with disabilities or those on slower devices and networks, is part of creating a sustainable web.

- Making sure pages work without JavaScript
- Designing for low-bandwidth or offline access
- Well defined user journey to reduce number of page loads

Conclusion



Conclusion

This research confirms that while the values of sustainability are deeply embedded across organisations working across the mission-driven space, the digital dimension is still being overlooked. Only 19% of respondents include website or digital sustainability in their current strategies or policies. Over half (52%) do not include it at all, and 14% remain unsure. Yet despite this, the majority, 68%, believe it is either very or somewhat important to their organisation’s mission.

This disconnect is not due to a lack of care, but a lack of clarity, support, and awareness. The perceived cost of building a low-carbon website remains a significant barrier, even though many impactful improvements such as image optimisation, cleaner code, or switching fonts can be implemented with no additional spend. Sustainable web design is not about perfection, but progress, and many organisations are far closer than they think to making a real impact.

It is also clear that green hosting alone is not enough. A sustainable website must also consider efficiency, accessibility, and user experience. Emissions don’t just come from servers, they come from every overloaded page, autoplay video, and poorly optimised code. Responsibility for this does not lie solely with internal teams either – web development agencies must take greater

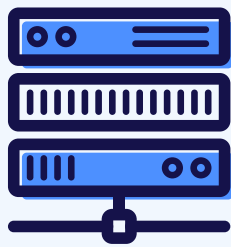
ownership, offering their clients low-carbon solutions by default and educating them along the way.

More broadly, digital sustainability must be embedded into existing standards and frameworks. Movements like B Corp, which already champion ethical and environmental responsibility, have a crucial role to play in formally recognising digital sustainability as part of holistic organisational impact.

Many elements of sustainable web design equate to good web design practice, that gives the user a positive experience whilst showcasing a brand. As Jonathan Bell of Sprout* puts it, “Low-carbon websites can load as much as 20x faster, convert over 30% more, and have improved SEO. They’re not just better for the planet, they’re just better.”

It’s clear that there is an appetite for change, as we see time and again with our clients. Now, the opportunity is to spread the message and empower organisations to make a change. By integrating digital sustainability into strategies, setting clear expectations with suppliers, and making informed, intentional choices online, purpose-driven organisations can ensure their values are fully reflected, not just in what they say, but in how they show up online.

Key learnings



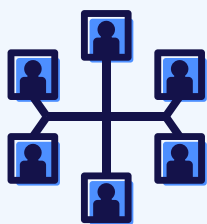
Green hosting is not enough

Without efficient code, compressed media, minimal third-party scripts, and thoughtful, user-focused design, a site can still consume excessive energy, even if it’s powered by renewable sources. True sustainability requires optimising every layer of the digital experience, not just where it’s hosted.



Perceived Cost

Perceived cost is a major factor as to why many organisations have not taken action – we have shown that there are many free steps that can be taken by whoever manages the website



Agencies have a responsibility

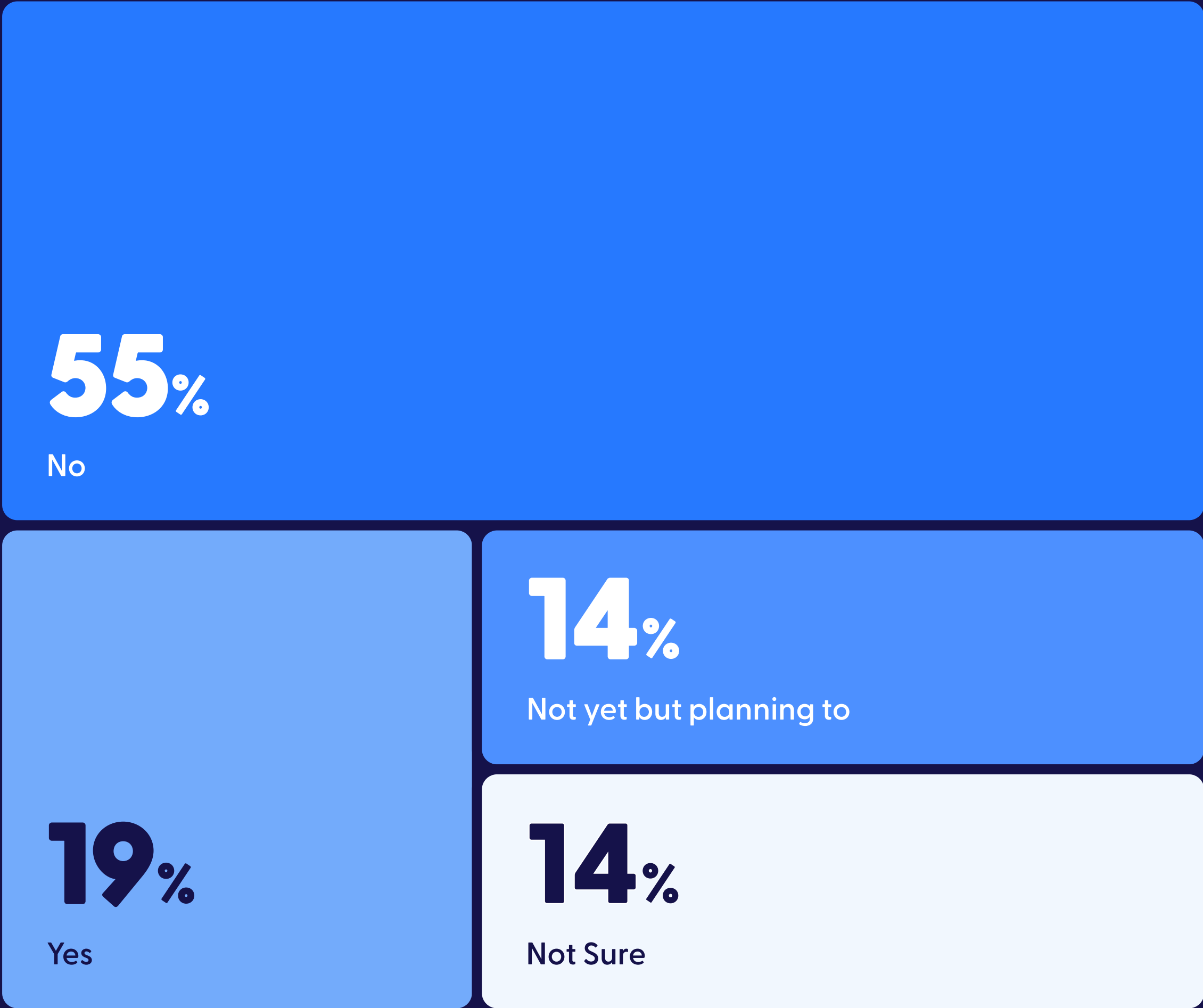
Web agencies possess the technical expertise and industry knowledge needed to make informed, low-impact design choices. As key players in the digital landscape, they are in a unique position to influence clients and stakeholders, spreading awareness about the environmental impact of the web.



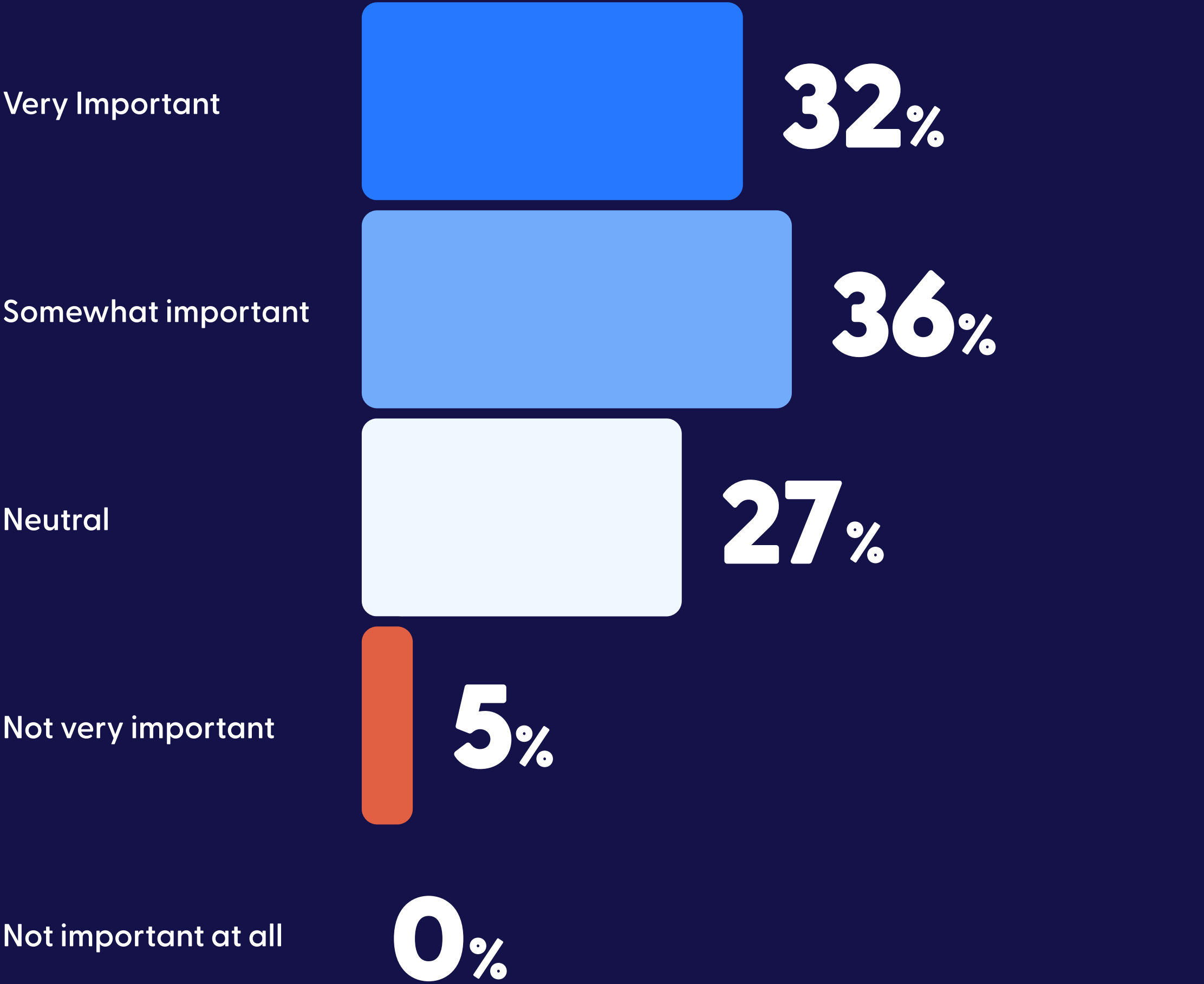
Standards need to embrace digital sustainability

Frameworks like B Corp often overlook the digital footprint of websites & online services. By integrating digital sustainability, these standards can play a crucial role in raising awareness, setting expectations, & motivating organisations to adopt more sustainable digital practices.

Is digital or website sustainability included in any of your existing strategies or policies?



How important do you think website sustainability is to your organisation’s values and mission?



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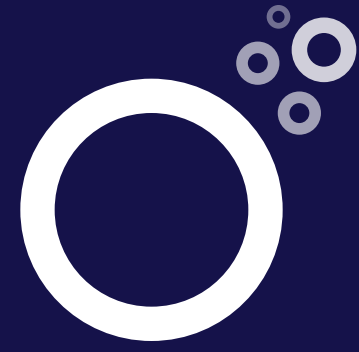
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