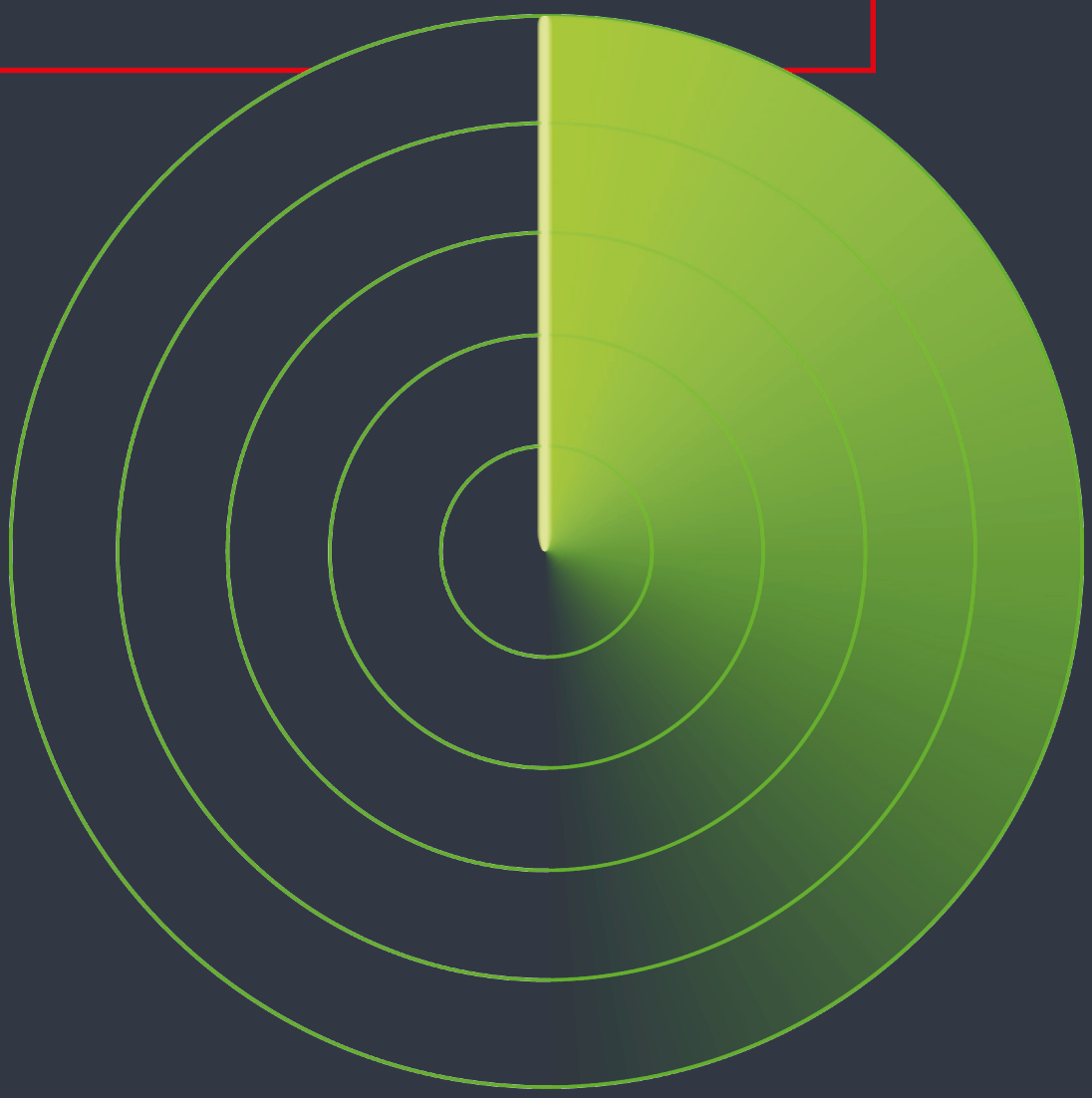
ECONOMIST IMPACT

Ctrl+Shift+Green

The role of IT leaders in navigating net zero



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About this report

Ctrl+Shift+Green: the role of IT leaders in navigating net zero is an Economist Impact report supported by Google ChromeOS. It explores how the role of the IT function is evolving in the context of their companies' net-zero initiatives. This report defines the IT function's remit, presenting a range of strategies they are leading and supporting to contribute to their firms' net-zero targets and the challenges they face in their execution.

The analysis in this report is supported by the findings of a research programme comprising a literature review, in-depth interviews and a survey programme conducted between April and August 2023. The survey gathered insights from 450 senior executives based in 16 countries in Europe,* who were familiar with their organisation's IT-specific sustainability or net-zero initiatives, exploring best practices and ongoing challenges they face. The results of the survey have been further validated through interviews with experts in the field. Our thanks are due to the following people, in alphabetical order (by first name), for their time and insights:

- **Aoife Brophy**, lecturer in innovation and enterprise, Saïd Business School, University of Oxford
- **Deborah Allen**, group director of governance, conduct and sustainability, BAE Systems
- **Marzia Minozzi**, head of legal and regulation, Assotelecomunicazioni-Asstel
- **Roddy Barnes**, group technology strategy director, Bupa
- **Saima Ansari**, senior partner manager, Deutsche Telekom AG
- **Tony Rooke**, former executive director and head of transition finance, Glasgow Financial Alliance for Net Zero

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Executive summary

Amidst a global climate crisis, companies are responding to growing calls from regulators, investors, clients and the public to align with crucial net-zero targets. More than one third of the world's largest companies have now committed to a net-zero target but, given the slow pace of emissions reduction, most companies are at risk of missing these.

However, none of this is achievable without active participation from all corners of the company. All business functions need clarity on their role in contributing towards their organisation's and country's net-zero targets. This research aims to shed light on the role of IT leaders in Europe, given the carbon footprint of enterprise technology. Enterprise technology is responsible for about 350,000 to 400,000 kilotons of carbon dioxide equivalent gases (ktCO2e) across companies globally.[1] This amounts to around 1% of total global greenhouse gas (GHG) emissions and is equivalent to the UK's total carbon emissions. As such, this report delves into how the broader shift to net zero is impacting IT corporate leaders and explores their core challenges on the path to net zero.

The key findings of this report are:

IT leaders have a multi-faceted role to play in contributing to corporate net-zero targets, with a primary focus on carbon footprint data collection. Almost half of the executives surveyed state that their IT functions are extensively working on data collection and analysis of carbon footprint across business operations (48%). But almost equally important are other key activities, including identifying strategies to optimise or minimise energy consumption across business operations (46%); reducing, collecting and recycling the company's electronic waste (44%); and selecting and managing vendors of IT equipment and software as part of a sustainable sourcing strategy (42%).

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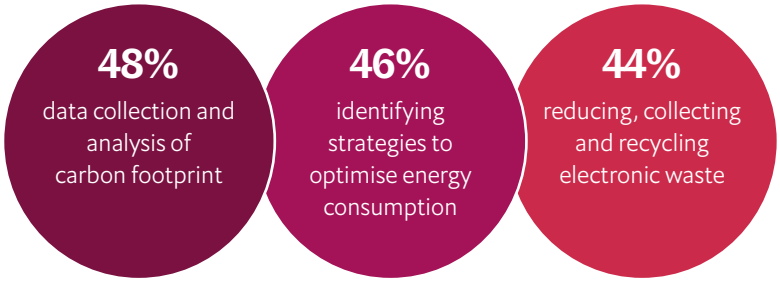
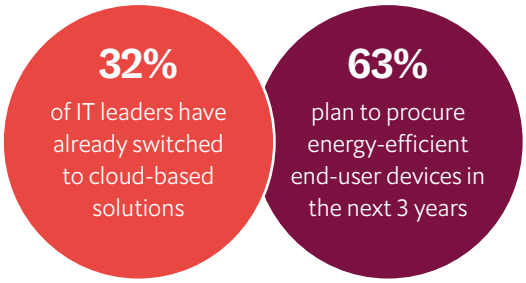
IT's core net-zero responsibilities:



To adapt to corporate net-zero strategies, IT leaders are urgently seeking solutions that can support net-zero targets across the board, from office operations to remote working. To reach net-zero targets, IT functions have already switched to cloud-based solutions (32%), which can improve energy consumption compared with hardware, and make it easier to allow flexible working and working from home, which has also been adopted by 31% of surveyed IT leaders. Almost 30% of respondents have also started upskilling IT professionals to gain knowledge of sustainability best practices (29%). Moreover, there is a sense of urgency within the IT function regarding net-zero measures. For all of the measures that IT leaders could potentially implement to support their companies' net-zero targets, over 80% have either implemented them or plan to within the next three years. Priorities for the next three years include embedding net-zero targets into the digital strategy (cited by 66% of executives), optimising/reducing the number of devices per employee (65%) and procuring energy-efficient end-user devices and technologies (63%). Only a relatively small share (<18%) plan to wait beyond three years to implement net-zero measures.

Solutions that can support net-zero targets:



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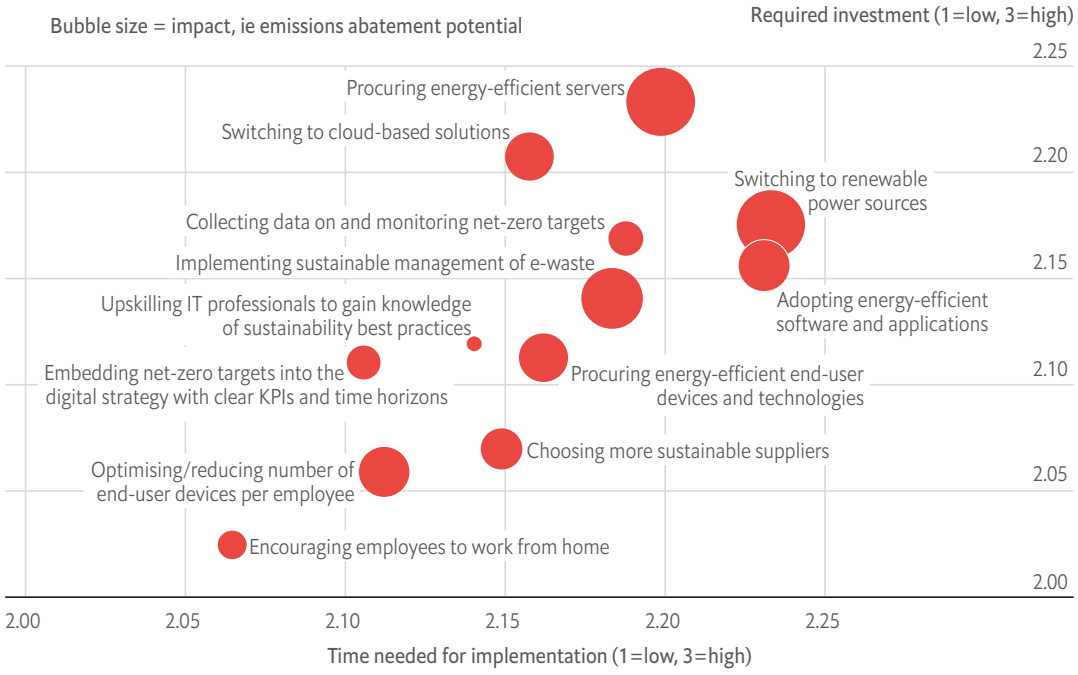
However, IT leaders may have so far focused on the less costly, low-hanging fruit, such as work from home initiatives, which may not contribute significantly towards net-zero targets. Among the most implemented measures are encouraging employees to work from home (cited by 31% of executives) and upskilling IT professionals on sustainable practices (29%), but these have the lowest emissions abatement potential. Encouraging employees to work from home also requires the least investment according to 25% of respondents, the least amount of time and effort to implement (23%) and is the most likely to be the quickest to have an impact within two years (32%). Meanwhile, measures with the highest emissions abatement potential include switching to renewable power sources (46%) and procuring energy-efficient servers (45%). Understandably, these are also some of the most costly measures, and require the most time and effort to implement according to respondents.

46%
switching to renewable power sources

From quick wins to the long game

Normalised scores representing the percentage of responses to "What is the expected level of investment and time needed for the following net-zero initiatives, and what is their impact?"



Source: Economist Impact survey (2023)

This graph appears later on within this report, labelled as Figure 6

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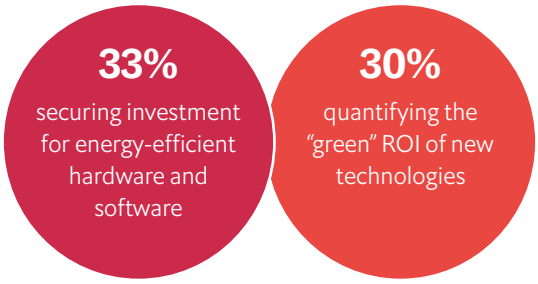
Financial obstacles for the IT net-zero journey:



The focus on low-hanging fruit could be attributed to challenges in securing investment for energy-efficient hardware and software. This was the leading obstacle facing IT leaders in their journey to net-zero, cited by 33% of respondents, underpinned by **difficulties in quantifying the "green" return on investment (ROI) of new technologies** (cited by 30%). This may explain why IT leaders are implementing cheaper, but less impactful, initiatives. However, financing is not the only issue. The problem also lies with changing rules and company mindset.

To conduct its core net-zero activities, **the IT function needs to engage with the procurement team more than any other function.** In particular, engagement with the procurement team was vital for selection of vendors for IT equipment and software (according to 50% of respondents) and for data collection and analysis of the organisation's carbon footprint (43%).

Engagement with procurement is important for:

However, challenges in data collection stem from difficulties in collaborating with external rather than internal stakeholders. Just over 30% of executives cited collaboration with external stakeholders such as IT suppliers as a challenge in data collection, compared with 23% who cited difficulties with collaborating with internal stakeholders. This offers one

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reason why executives feel that the procurement team is the most important function to engage with on data collection and analysis of their organisation's carbon footprint, given their role in coordinating with external stakeholders. At the same time, lack of clarity over metrics to track and lack of data availability were cited by far fewer executives as challenges in data collection (14% and 18%, respectively) suggesting the issue lies more with the process of collecting data rather than identification of the types of data needed for net-zero assessment.

Scope 3 emissions are just as important as scope 1 and 2 emissions in assessing a company's IT carbon footprint. The top source of a company's IT carbon footprint, according to 45% of executives surveyed, is their IT equipment and software suppliers' production and distribution activities, which fall under scope 3 emissions. End-user devices and hardware (eg laptops and smartphones, among others), which fall under a company's scope 1 emissions, are the second-largest source of their IT carbon footprint, cited by 41%. This further stresses the importance of engaging with the procurement team.

41%
of IT leaders cited end-user devices and hardware as the second-largest source of their IT carbon footprint

Looking to the future, greater engagement with IT leaders at the highest levels is likely to change mindset and improve the team's readiness to implement net-zero initiatives. Two-fifths of executives in companies where IT leaders are engaged at the highest levels (C-suite) characterise their IT functions as "completely ready" to implement net-zero initiatives, suggesting more needs to be done from the top down to integrate the IT function in strategic discussions on sustainability. Meanwhile, in companies where IT leaders are not engaged at the highest levels, just 9% feel the same level of readiness.

40%
of IT leaders that are engaged at the highest levels say their IT functions are "completely ready" to implement net-zero initiatives

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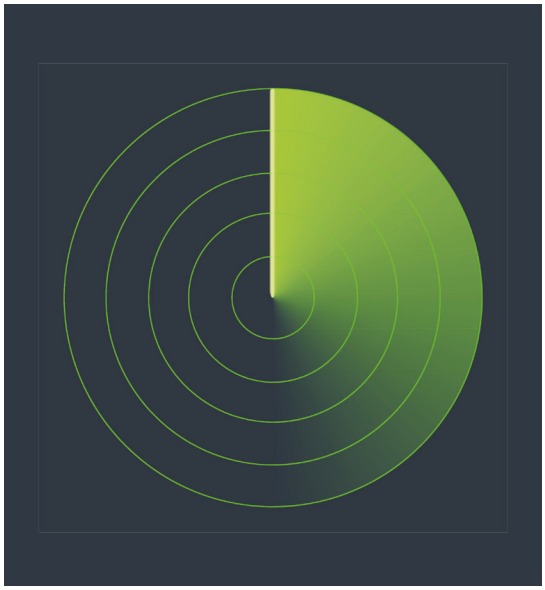
Introduction

Climate change and its associated impacts are a critical agenda item for international organisations, governments and businesses as well as individuals. Under the aegis of the United Nations Framework Convention on Climate Change (UNFCCC), countries came together in 2015 and set ambitious goals under the Paris Agreement: to limit the temperature increase to 1.5°C above pre-industrial levels. To reach this goal, global carbon emissions need to reach net zero around mid-century.[2] More than 70 countries, including but not limited to the countries/regions with the largest emission shares—China, the US and the EU— set a net-zero target. However, these targets cover only about 76% of global emissions.[3]

The role of businesses is equally important in this fight against global warming and climate change. Not only is their contribution vital to achieve national targets, but research also suggests that there is business sense in moving towards net zero. Corporate climate action can drive innovation strategies, save costs, mitigate risk, unlock better stakeholder relations and build brand and reputation.[4]

Business progress towards net zero is already visible. Over 3000 businesses and financial institutions are working with the Science-Based Targets Initiative to reduce their emissions in line with climate science.[5] From 2019 to 2020, the percentage of companies declaring a net-zero target nearly doubled.[6] But the extent of company action depends on its size, sector, location, governance structure and strategic focus.[7] Action from the different departments and functions of a business will also differ and each of their individual strategies and solutions will influence the success of company-wide net-zero goals.



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In this report, we take a closer look at the role of the IT function in navigating net zero, given the crucial role it plays in collecting carbon footprint data and optimising the energy usage of digital systems. The research focuses on the European market, given that it is one of the world's largest carbon emitters and the rapid momentum in the region towards net-zero targets. For example, as an integral part of the European Green Deal, the EU has committed to be climate-neutral by 2050[8] while the UK's 'Net Zero Strategy: Build Back Greener' sets out policies and proposals for decarbonising all sectors of the economy to meet the country's net-zero target by 2050.[9]

In the subsequent chapters of this report, we explore the changing role of the IT function in organisations, in the context of net-zero priorities, focusing on data collection and cross-functional interactions. This report presents the key contributors to the IT function's carbon footprint, highlighting the differences in scope 1, 2 and 3 emissions and further elaborates on the specific solutions that IT leaders are adopting to rein them in. Finally, this report assesses the challenges facing the IT function in their journey towards net zero.

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Chapter 1: The changing role of the IT function

The journey to net zero is no longer just the mandate of the Chief Sustainability Officer or dedicated sustainability teams. Instead, navigating the corporate net-zero landscape should be a collaborative effort, including all business functions, from procurement and logistics to finance and IT. "The companies who are leading in net-zero best practices are thinking holistically about net zero as being about the future of the way they do business", says Aoife Brophy, departmental research lecturer in innovation and enterprise at the Saïd Business School, University of Oxford. As part of this thinking, "these companies are seeing that net zero affects all areas of their business and strategy", she explains. "Having that focus at the highest level allows a much longer term strategic focus across all functions, including IT." According to a study by Gartner, a technology research and consulting firm, by 2025—in only two years—50% of chief information officers (CIOs) will have performance metrics tied to the sustainability of the IT function.[10]

Tony Rooke, former executive director and head of transition finance at Glasgow Financial Alliance for Net Zero, highlights that it is crucial for the C-suite to be involved and engaged. "They need to understand what is happening with their clients, as well as in the organisation, to be able to put

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together the R&D and investment strategy for their products and services. The integration of these evolving needs into the net-zero journey is crucial to their business success."

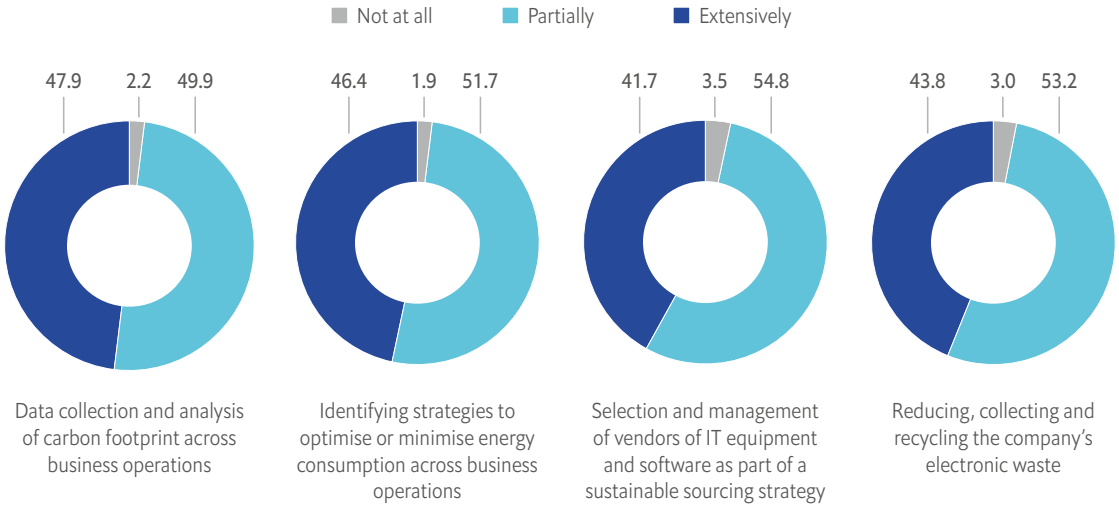
The IT function has found itself in a prime position, playing a multifaceted role to facilitate collaborative net-zero efforts across the business. One of the core areas in which the IT function has specific value is in the realm of data.[11] Almost half of the executives surveyed by Economist Impact state that their IT functions are already extensively working on data collection and analysis of carbon footprint across business operations (48%). Indeed, their company's focus on net-zero initiatives has notably impacted the IT function's management of corporate data: this activity was the second-most impacted according to 54% of surveyed IT leaders. Saima Ansari, senior partner manager at Deutsche Telekom AG, mentions that while data collection is important, the level of granularity of the data and what one derives from it is essential.

But, importantly, the IT function's net-zero priorities do not stop at data collection. Almost equally important are other core activities, including identifying strategies to optimise energy consumption across business operations (46%); reducing, collecting and recycling the company's electronic waste (44%); and selecting and managing vendors of IT equipment and software as part of a sustainable sourcing strategy (42%).

"[But] data really forms the foundation for a lot of other decision making, including that related to net zero", explains Ms Brophy, "and the role of the IT function is closely linked to a company's data readiness". To ensure progress towards net-zero targets, there is a need for companies to develop internal capabilities for measurement, reporting and verification of the various aspects of the net-zero strategy.[12]

Figure 1: Working across the board

% of responses to "How does the IT function contribute to the execution of your company's net-zero initiatives?"



Source: Economist Impact survey (2023)

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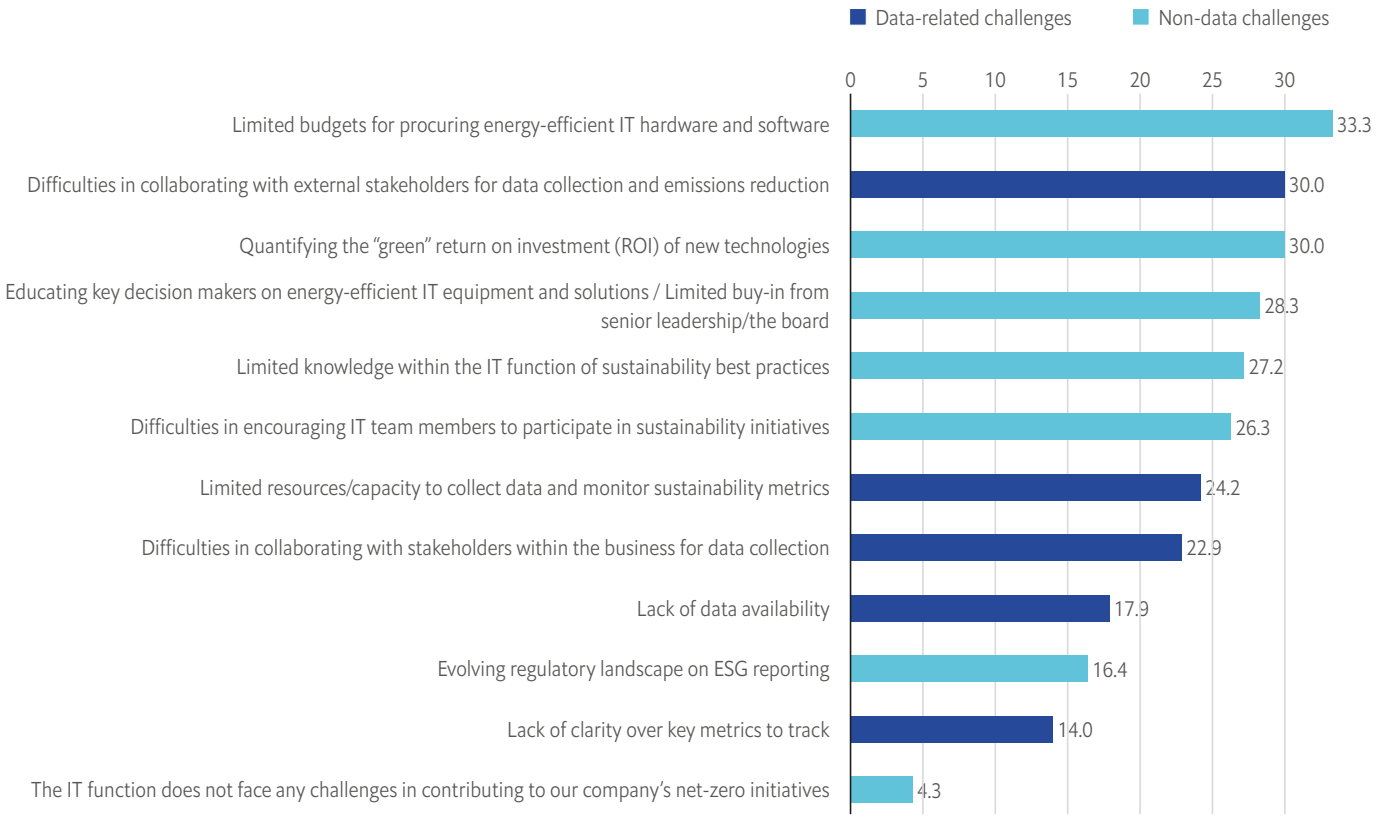
The data deep dive

However, with data comes difficulty. Specifically, IT leaders are facing challenges in collecting emissions data from external rather than internal partners. Among the various challenges IT executives face in meeting net-zero goals, one third of surveyed IT executives cite collaboration with external stakeholders such as suppliers as a challenge in data collection, compared with only 23% who cite difficulties with collaborating with internal stakeholders.

This is not to say that there are no data hurdles internally. Rather, collection is a lingering pain point. Almost a quarter of respondents are struggling with limited resources and capacity to collect data and monitor sustainability metrics (24%), a little higher than the share of executives who find collaborating with internal stakeholders challenging (23%). Interestingly, some of the more traditional challenges with data collection, such as a lack of clarity over metrics to track and lack of data availability were cited by far fewer executives (14% and 18%, respectively). These contrasting challenges suggest that while IT leaders are relatively confident that the relevant data needed for net-zero assessment exists within the business, they are less confident in their ability to extract this data from various functions.

Figure 2: Data difficulties

% of responses to "What are the main challenges preventing the IT function from meeting net-zero goals?"



Source: Economist Impact survey (2023)

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Effective collection therefore demands greater collaboration. "The IT function can lead the way for other business functions, whether you are talking about HR, legal or finance", explains Roddy Barnes, group technology strategy director at Bupa, "and technology plays a crucial role in setting up the processes and systems needed for alignment". Over two thirds of respondents state that, across business functions, engagement with the procurement and purchasing teams is most vital for data collection and analysis of the organisation's carbon footprint (43%). The procurement function is an essential partner for IT leaders in the journey to net zero; it serves as the main liaison with external stakeholders such as suppliers of IT equipment and software. Procurement teams also have greater insight into the carbon footprint of IT equipment used across the company, which can inform IT leaders' decision making.

Overall, IT leaders will need to improve data collection processes to ensure data is easy to collect, relevant and usable. This will be essential as regulators continue to increase ESG disclosure requirements for companies, and as shareholders and consumers increasingly demand hard evidence of the sustainability of the company's products and services.[13] In 2017, shareholders sued the Commonwealth Bank of Australia for failing to disclose climate change-related risks in its annual report.[14]

Beyond collaboration, IT leaders could turn to innovative digital solutions that allow them to effectively collect and monitor emissions data across the business, ranging from artificial intelligence to blockchain.[15] For example, luxury goods company, Kering, has developed and deployed the Environmental Profit & Loss (EP&L) account, a tool that measures carbon emissions, water consumption, air and water pollution, land use, and waste production along the company's entire supply chain. The tool ensures the company has full visibility of its environmental impacts, which are quantifiable, comparable and convertible into monetary values. The organisation uses this tool to optimise its sustainability strategy, processes and procurement.[16]

It is clear that the role of the IT function is continuing to evolve in light of their company's focus on net-zero initiatives. Beyond the primary focus on data collection, IT leaders are broadening their mandates, turning their attention towards a diverse set of new initiatives that can further support emissions reduction. We explore IT actions to contribute towards corporate net-zero targets in the next chapter.

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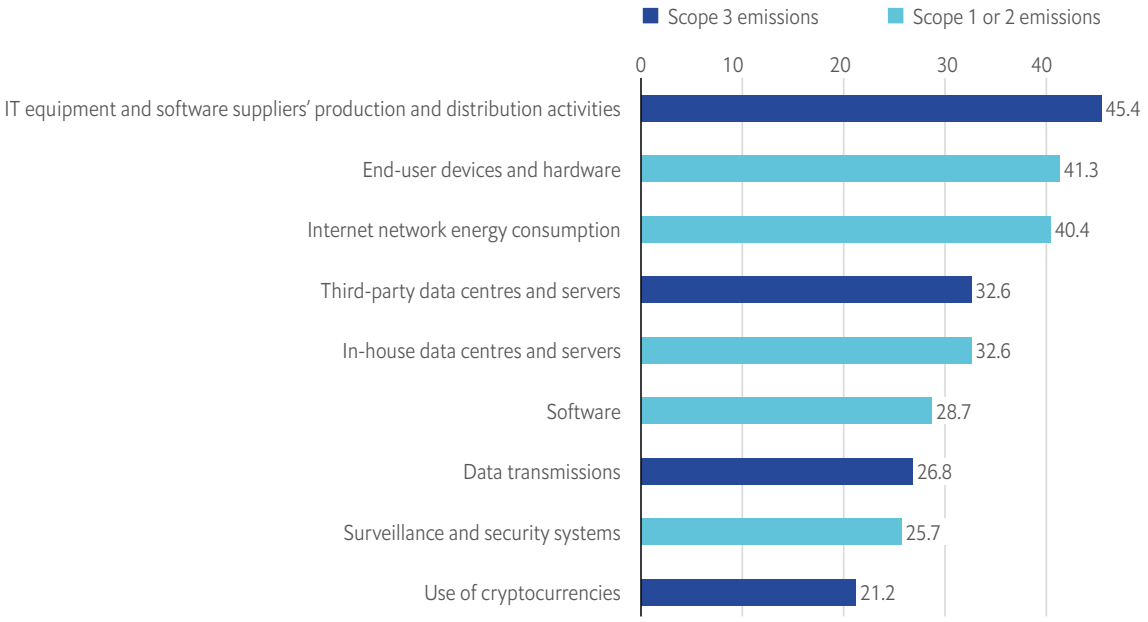
Chapter 2: IT initiatives to contribute towards net zero

The importance of engagement between the IT function and other stakeholders, both internal and external, is even more evident when considering the types of emissions it is trying to mitigate. A closer look at the primary sources of emissions that contribute to the IT function's carbon footprint reveals that scope 3 emissions—the indirect emissions that come from across its value chain—matter just as much as scope 1 and 2 emissions.

The leading contributor to the IT function's carbon footprint, according to 45% of executives surveyed, is the production and distribution

Figure 3: Following the carbon footprint

% of responses to "What do you think are the greatest sources of your company's IT carbon footprint?"



Source: Economist Impact survey (2023)

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activities of IT equipment and software suppliers, which fall under a company's scope 3 emissions. Ms Brophy highlights, "it is now expected of companies to not just reduce their own emissions, but also to take responsibility for their indirect emissions. This is a big challenge for the IT function". She explains that the IT function will need to coordinate with, as well as put pressure on, the suppliers of their hardware and software, which can be challenging.

End-user devices and hardware (eg laptops and smartphones, among others), which fall under a company's scope 1 emissions, are the second-largest source of the IT carbon footprint, cited by 41%. This type of enterprise technology emits about 350,000 to 400,000 kilotons of carbon dioxide equivalent gases (ktCO2e) across companies globally, which amounts to around 1% of total global greenhouse gas (GHG) emissions and is equivalent to the UK's total carbon emissions.[17] Following this, 40% of respondents cited internet network energy consumption—categorised under scope 2 emissions—as a significant emissions contributor.

The varied sources of carbon emissions attributed to the IT function are driving leaders to adopt a holistic and multifaceted approach to mitigation. As such, IT leaders are looking at solutions that can support net-zero targets across the board, from office operations to remote working. To reach net-zero targets, the most highly-adopted measure among those surveyed is switching to cloud-based solutions (32%), which can improve energy consumption compared with in-house servers. US-based hospitality company, Choice Hotels International, Inc., is one company that has embraced the cloud. Said to be one of the first hospitality companies to make a strategic commitment to shift systems entirely to the public cloud, Choice has leveraged the technology to deliver cost benefits and energy efficiencies. This has allowed the company to run three times the workload with three times more carbon emissions avoidance.[18] The company is on track to be 100% in the cloud by the end of 2023.[19]

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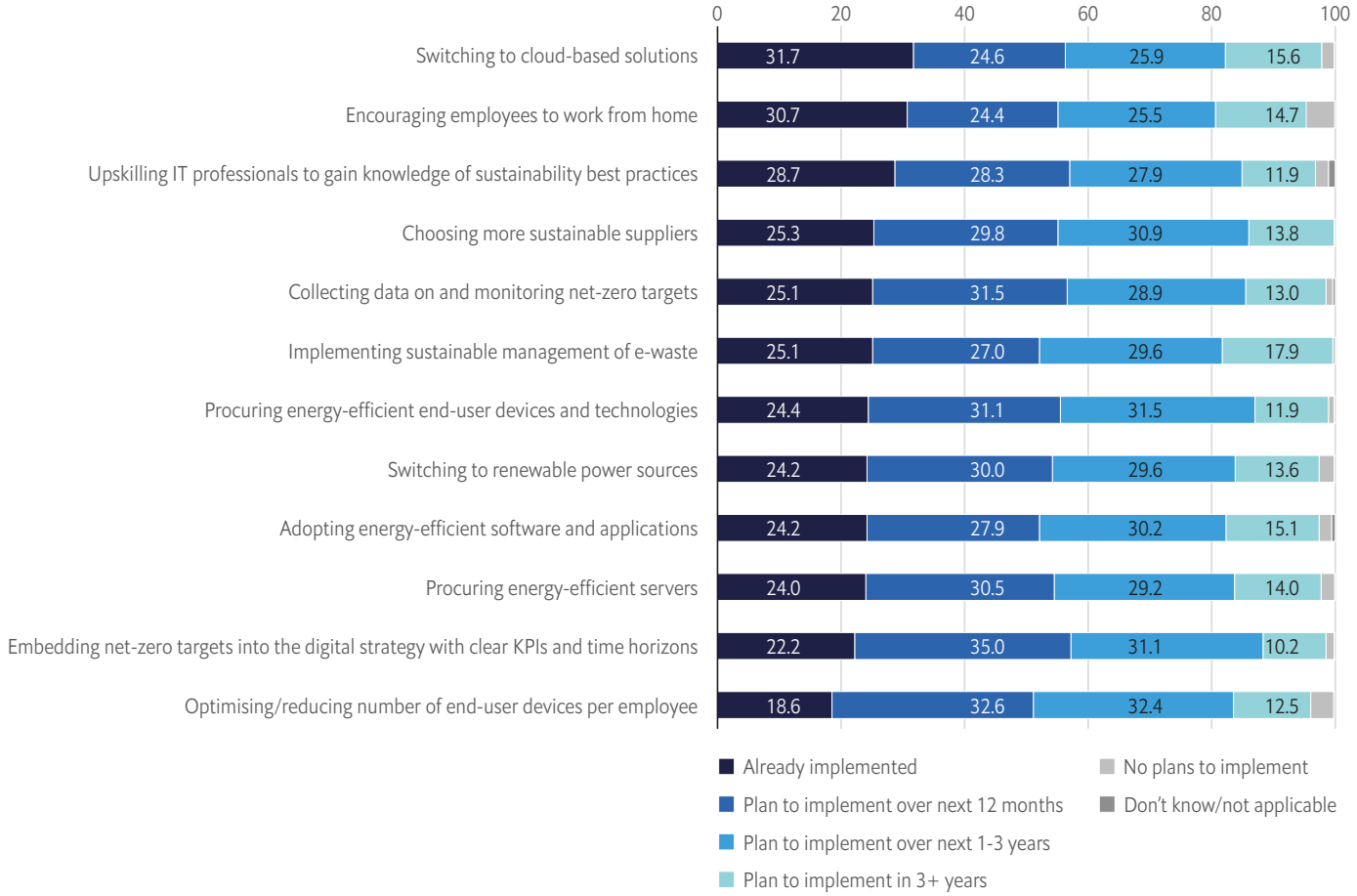
Figure 4: Adoption, adoption, adoption

% of responses to "To what extent is your company's IT function adopting the following measures to reach net-zero targets?"



Source: Economist Impact survey (2023)

A switch to the cloud can also facilitate greater remote working—IT leaders have made a strong push for work-from-home initiatives to support their companies' net-zero initiatives (31%). While such a shift had a notable, albeit temporary, impact on carbon emissions during the pandemic—global CO2 emissions dipped by 17% in April 2020 compared with peak 2019 levels[20]—the effectiveness of work-from-home initiatives in reducing emissions rests on how sustainable at-home behaviours are. Companies will need to instil a culture of sustainability throughout their workforce and provide support for employees to adopt a more sustainable work-from-home set-up, ranging from encouraging efficient residential energy use to providing more sustainable devices, in addition to those that enable employees to be productive.[21] Just under 30% of IT leaders have already started doing this by upskilling IT professionals to gain knowledge of sustainability best practices.

One such organisation that has made notable pledges to curb IT emissions and drive the digital net-zero agenda is NHS Digital, the arm of the UK's national healthcare service that focuses on

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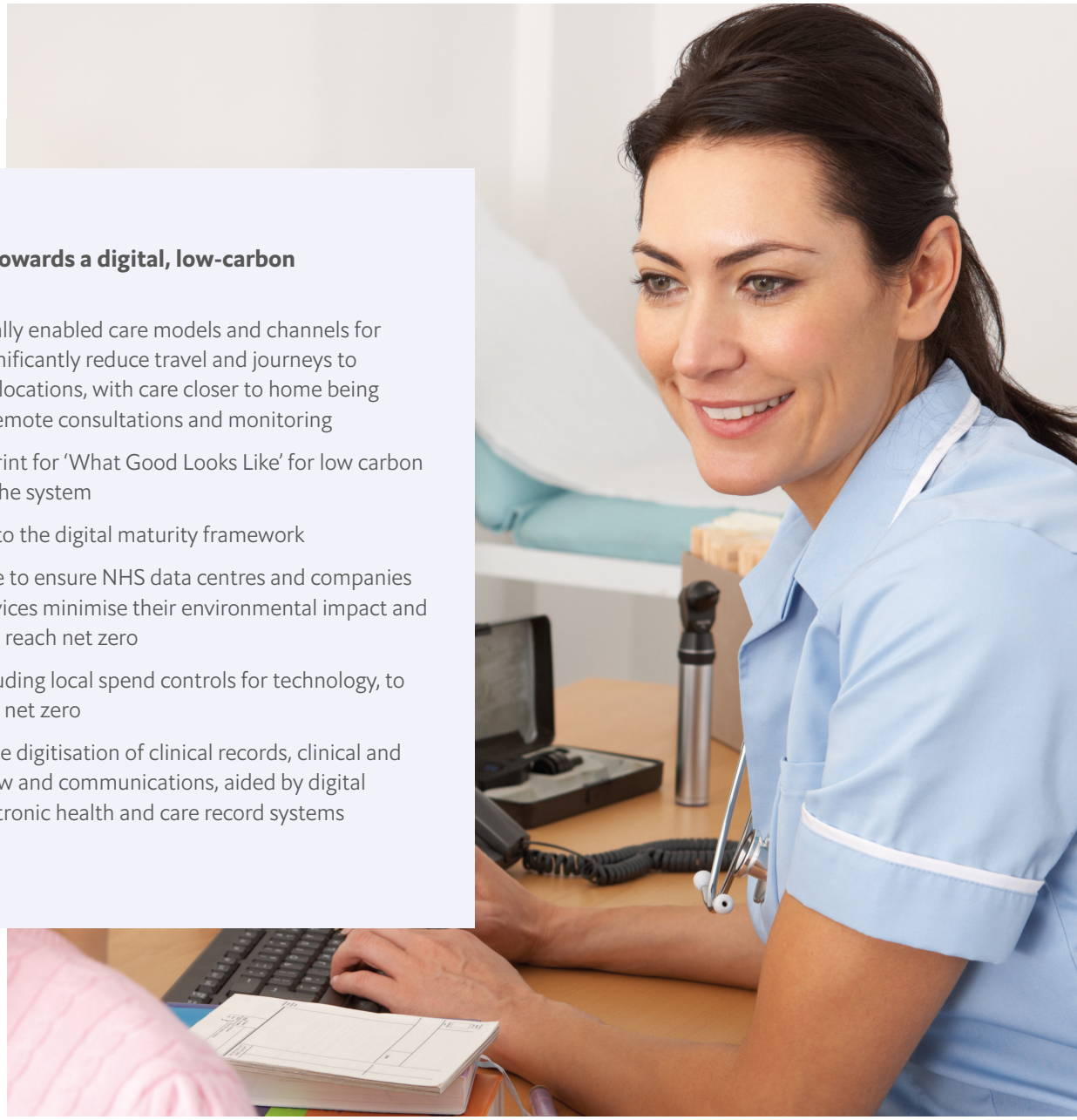
designing, developing and operating the NHS' IT and data services. According to NHS Digital, its supply chain is currently estimated to emit 456 ktCO2e from information and communications technology (ICT), which equates to over 90,000 gasoline-powered passenger vehicles driven for one year.[22] In an attempt to mitigate this, the organisation has pledged to implement three types of net-zero initiatives: reducing travel, embedding net-zero targets into their digital strategy and incentivising sustainable technology adoption.[23]



BOX 1:

NHS Digital's plan towards a digital, low-carbon transformation

- Implementing digitally enabled care models and channels for citizens that will significantly reduce travel and journeys to physical healthcare locations, with care closer to home being delivered through remote consultations and monitoring
- Developing a blueprint for 'What Good Looks Like' for low carbon digital care, across the system
- Building net zero into the digital maturity framework
- Issuing policy advice to ensure NHS data centres and companies providing these services minimise their environmental impact and support the drive to reach net zero
- Utilising levers, including local spend controls for technology, to incentivise a shift to net zero
- Supporting front-line digitisation of clinical records, clinical and operational workflow and communications, aided by digital messaging and electronic health and care record systems

Source: NHS Digital (2020)

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Priority strategies for the future

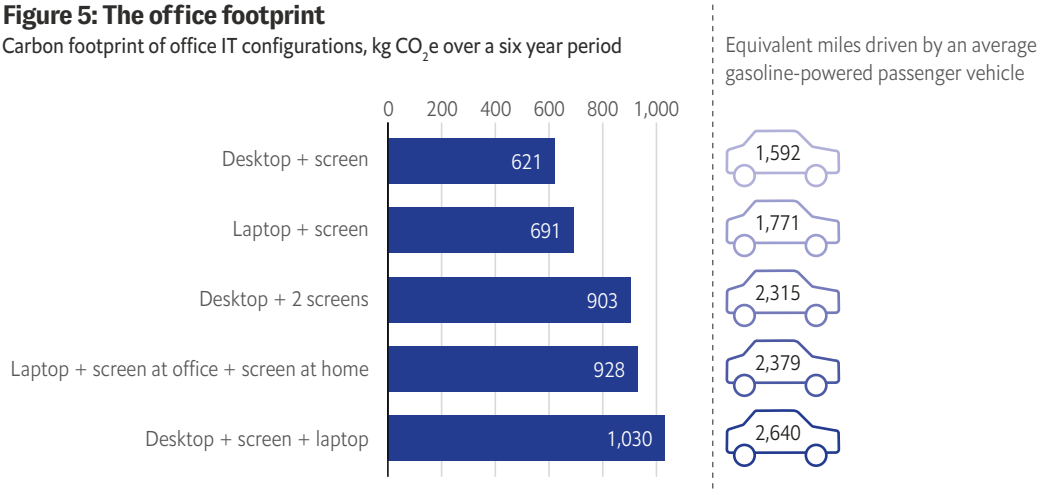
IT leaders are also looking beyond the present. Thinking about the future, respondents are focusing both on the bigger picture and approaches closer to the ground. Two thirds of IT leaders aim to embed net-zero targets into their digital strategies within the next three years. At the same time, respondents have shown ambition towards optimising the number of devices per employee (65%) and procuring energy-efficient end-user devices and technologies (63%). One staff desktop and screen used for a typical eight-hour working day contributes 70g CO2e in GHG due to the electricity consumed. This equates to 621kg CO2e over a period of six years[24]—equivalent to over 1,500 miles driven by an average gasoline-powered passenger vehicle.[25]

"The IT function needs to focus on changing rules and developing new norms around devices", suggests Ms Brophy, "that's a challenging conversation because people want new devices and want to keep up to date". Global healthcare company, Bupa has emphasised its preference for working with suppliers aligned on net-zero goals.

"We're aiming to become a Net Zero business by 2040 across our operations and value chain. To minimise emissions from our technology estate, we always consider sustainability as a key part of our selection criteria when assessing new technologies and have set the expectation that we will prefer suppliers that share the same ambitious Net Zero goals as our own", explains Mr Barnes. This year Bupa hit its target of 60% of its technology spend—the money it spends on third-party IT vendors— going towards suppliers that share Bupa's net-zero goals. It has managed to reach this target ahead of schedule by focusing on education and engagement across technology and procurement leaders so they prioritise this in their buying decision. Bupa also ensure they minimise the footprint of its technology by focusing on IT equipment circularity, ensuring that the devices they procure are designed with the circular economy in mind, including how they are disposed of.[26] Developing a top-down digital strategy complete with net-zero targets while simultaneously implementing bottom-up initiatives is an effective way to target future emissions from all angles.

Figure 5: The office footprint

Carbon footprint of office IT configurations, kg CO_2e over a six year period



Source: University of Oxford (2022), US Environmental Protection Agency (2023)

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As the IT function ramps up its sustainability solutions, there is a sense of urgency to go beyond what is currently being done. Across all of the net-zero measures that IT leaders could potentially implement, over 80% of executives surveyed have either already implemented them or plan to within the next three years. With the rapid growth of digital solutions and the climate emergency more critical than ever, the IT function's urgency is only likely to grow.

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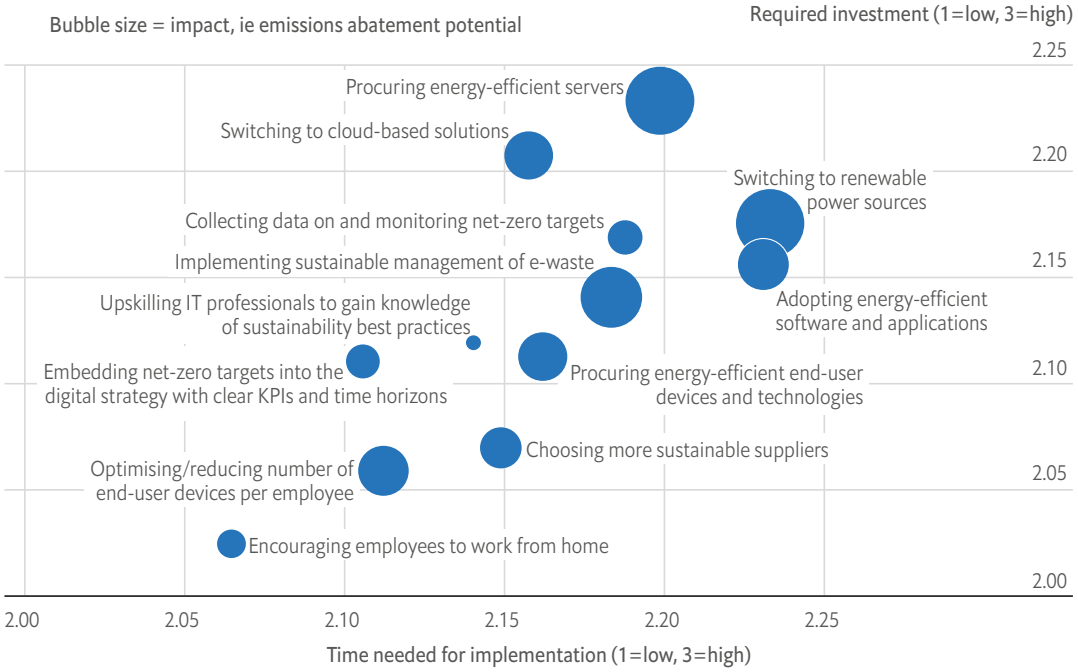
Chapter 3: Challenges in implementing solutions and strategies

Implementing the solutions discussed in the previous chapter is not without challenges. When asked about the time and effort for implementation, level of investment, potential impact and the expected time to impact of various net-zero measures, IT leaders have so far focused on the less costly, low-hanging fruit. As a result, the impact of the IT function's net-zero strategies is not as high as it could, and should, be.

Figure 6: From quick wins to the long game

Normalised scores representing the percentage of responses to "What is the expected level of investment and time needed for the following net-zero initiatives, and what is their impact?"



Source: Economist Impact survey (2023)

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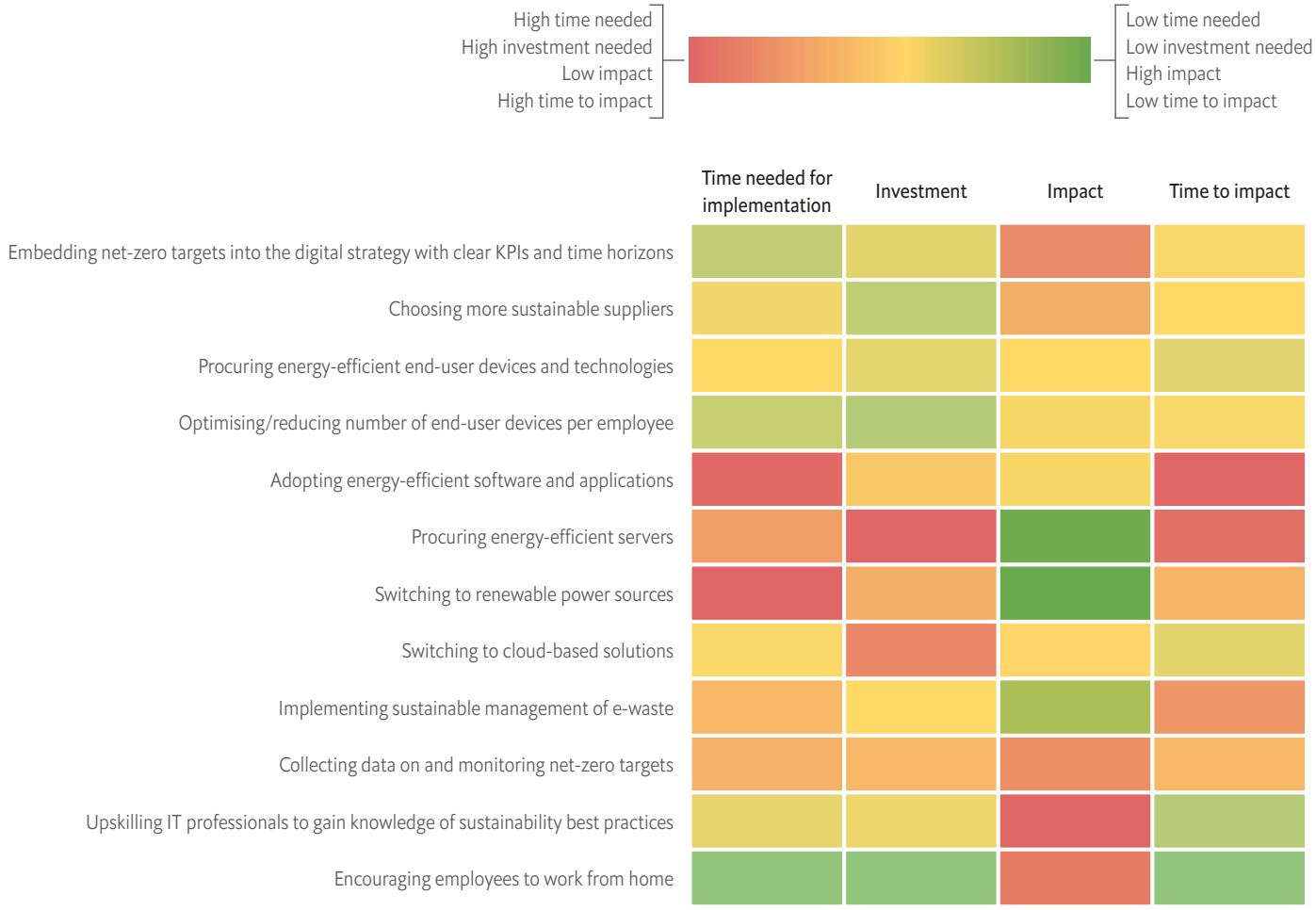
As discussed in the previous chapter, among the most implemented measures are encouraging employees to work from home and upskilling IT professionals on sustainable practices, but these have the lowest emissions abatement potential. It is likely that encouraging employees to work from home is among the most-adopted strategies because it requires the least investment, according to 25% of respondents, the least amount of time and effort to implement (23%) and are most likely to be the quickest to have an impact within two years (32%).

Figure 7: Positive thinking

Normalised scores of responses to survey questions about the level of investment, potential impact required for different net-zero measures and their expected time to impact.



Note: colour scale is based on normalized scores between 1 and 3

Source: Economist Impact survey (2023)

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Meanwhile, the measures with the highest emissions abatement potential include switching to renewable power sources (46%) and procuring energy-efficient servers (45%). Understandably, these are also some of the most costly measures, and require the most time and effort according to respondents. When looking at the leading challenges preventing the IT function from meeting net-zero goals, building the business case for investing in these costly measures and securing the necessary funds is an obstacle. IT leaders seem to be struggling most with securing investment and appropriate budgets for procuring energy-efficient IT hardware and software (according to 33% of respondents). As such, they are increasingly seeking solutions that facilitate circularity of enterprise technology and minimise e-waste while also optimising costs. Ms Ansari points out that once devices are no longer in operation and are swapped, or platforms are changed, it is important to identify what one does with these old devices or platforms. "With proper end-of-lifecycle management, companies should ensure these pieces of equipment go into refurbishment or recycling centres. In addition, it makes sense to check how and when to extend the lifetime of these devices/equipment based on their performance."

The green ROI

Challenges with securing the necessary funding for the purchase of energy-efficient IT hardware and software may be attributed to the difficulty with quantifying the "green" return on investment (ROI). This was cited by 30% of respondents as a leading hurdle to their net-zero progress (see Figure 8). "The problem is actually how we measure returns—invariably we do not include the associated externalities", explains Ms Brophy. "Doing this requires conversations at a very senior level in the organisation to actually put a value on carbon, for example."

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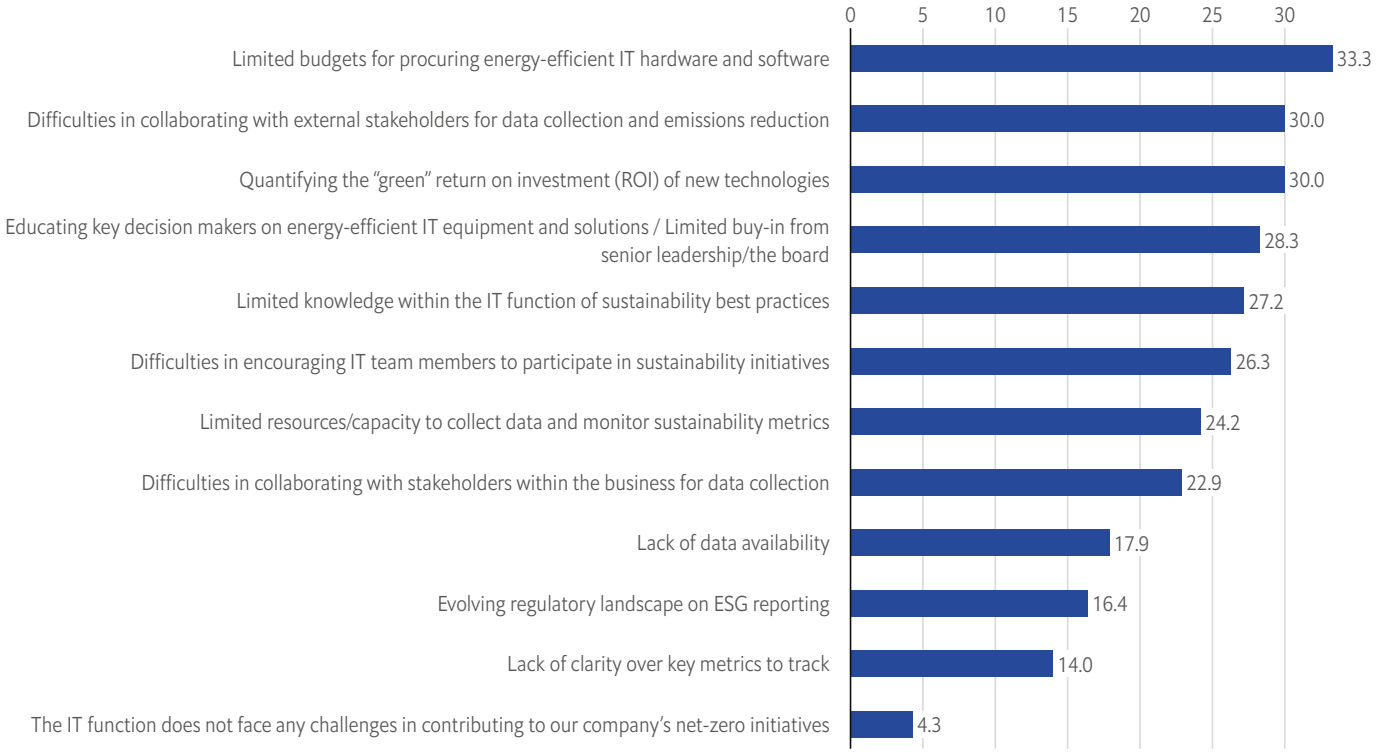
Building the business case to show that a solution can deliver savings or a reduction in costs is critical. "To convince those at the C-suite level, the benefits also have to be explained in business terms and not just that it is the right thing to do", explains Ms Deborah Allen, group director of governance, conduct and sustainability, BAE Systems. She highlights how adopting energy-saving measures can be explained in terms of operational benefits such as reducing energy use, hence saving money. Marzia Minozzi, head of legal and regulation at Italian telecommunications business association Assotelecomunicazioni-Asstel, agrees: "When one moves towards sustainability, the gains may not be obvious and in the short term they may be more reputational. When mere savings are not clear or the amount is not so big, then other things have to be accounted for and can be labelled as positive externalities for the society and environment." Mr Rooke shares this belief, "the reputational aspect can be as important as the financial aspect when making the business case, that is having licence to operate. If an organisation is not making progress on sustainability, people might not want to buy their services, reducing market share and/or driving down prices. As a result, it may not be the cost itself that drives the business case but the risk of losing customers."

Ms Allen further highlights that the behavioural challenge associated with adopting some of these

Figure 8: Net-zero obstacles

% of responses to "What are the main challenges preventing the IT function from meeting net-zero goals?"



Source: Economist Impact survey (2023)

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solutions is also critical. "For energy efficiency and energy saving, some habits such as switching off monitors is a habit that may not be adopted by all employees", she says.

"It's not just about financing but also the problem of changing rules, individual behaviours and company mindset," she adds. In addition to requiring more investment, some of the solutions may require changing existing rules and systems. Companies may need to change procurement processes such that the purchase of new devices or system upgrades must meet sustainability KPIs, factoring in its carbon footprint but also employee behaviours. Ms Allen highlights one example: choosing not to order a stylus for touchscreen laptops by default helps reduce waste as the usage of those devices was low. However, research shows that there is a clear return on repurposing hardware. Businesses that apply simple upgrades to existing equipment can avoid the additional costs of new equipment while extending the lifespan and overall value of the device.[27] They can also gain further value by reselling refurbished equipment. Smaller firms that have tighter budgets can purchase pre-owned but functioning devices, reducing costs for the firm while reducing waste in the overall system.[28]

With mounting pressure on companies to target both direct and indirect emissions—from investors, regulators, customers, business leaders and supply chain partners—there is also growing demand for greater transparency into climate and sustainability reporting and results. As such, companies are looking for data quality and accuracy to measure carbon footprint, supply chain optimisation, and green revenue in real time.[29]

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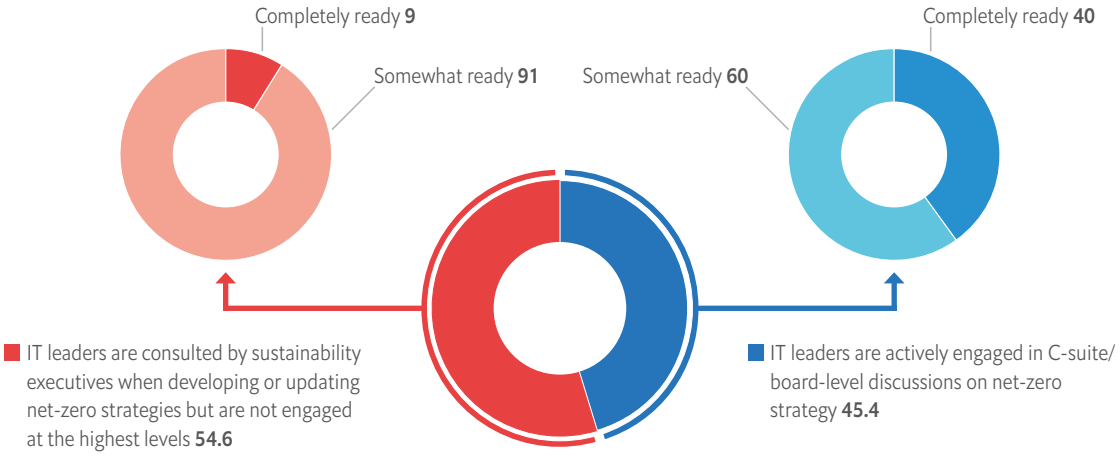
Way forward and conclusion

Our planet is already on the cusp of crossing the 1.5°C global warming threshold, according to new research.[30] In 2023, summer temperatures soared across Europe, with wildfires spreading across countries such as Greece, Italy and Croatia.[31] Around the world, from Pakistan to Portugal, the effects of climate change are being felt by all. As climate change continues to shift from a theoretical concept to real-world disasters, companies will need to do their part and urgently tap into all avenues to meet net-zero goals.

The rise in temperatures has come alongside the rise in digitalisation. Companies are rapidly evolving to adopt digital solutions in all areas, seeking improved productivity, efficiency and profitability. But the C-suite is faced with an opportunity to bridge the gap between the adoption of digital solutions and the need to set and achieve effective net-zero targets.

Figure 9: Ready or not

% of responses to "What is your perception of the IT function's involvement in the development of your company's net-zero strategy?" and "How would you characterise your company's IT function's readiness to set and implement net-zero targets?"



Source: Economist Impact survey (2023)

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IT leaders are rapidly adopting solutions that can facilitate a cultural shift towards sustainable practices, such as embracing cloud computing, encouraging remote working and upskilling employees. But to elevate their role in their organisation's net-zero journey, there is a need to solidify engagement between IT leaders and the highest echelons of a company. The majority of surveyed IT leaders (55%) indicate that while they are consulted by sustainability executives when developing or updating net-zero strategies, they are not engaged at the highest levels.

This disconnect between the C-suite and the IT function could hamper the latter's net-zero readiness, according to data from our survey. In companies where IT leaders are not engaged at the highest levels, just 9% of IT executives feel "completely ready" to implement net-zero initiatives. In contrast, in companies where IT leaders are engaged at the highest levels, 40% feel they are "completely ready", highlighting the value of involving the IT function in strategic discussions on sustainability. "It is essential to ensure the IT function is represented at the top, in the C-suite or at board level," emphasises Ms Brophy. Establishing a codified role and expertise in the senior team with clear reporting mechanisms between the IT function and the C-suite will be crucial to avoid teams working in silos.

But starting from the top is only the beginning. Beyond the C-suite, the IT function will need to strategically leverage its strong links across the organisation to maximise its role in collecting sustainability data, monitoring progress within the business and across supply chains, and delivering efficient technology solutions. Moreover, the IT function, in conjunction with the C-suite, will need to overcome limited investment budgets which are a particular pain point for actioning net-zero strategies. As expectations for net-zero alignment continue to mount from all angles—clients, regulators and the public—the business case for such investment is clear, but more needs to be done to quantify returns. Companies, and IT leaders, will need to substantially increase investment to create meaningful impact towards emissions abatement and to build momentum towards a net-zero future.

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