



Achieving net zero: cutting costs and carbon with sustainable devices

The vital role of end-user devices – and employee behavior – in reducing enterprise emissions



The drive toward net zero – and the impact of *employee devices*



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With 92% of organizations aiming to achieve their [net zero targets](#) by 2040, and growing pressure from governments, regulators, and customers, many business leaders will need to accelerate their emission reduction plans. This often means prioritizing projects that will significantly reduce the

organization's footprint, offering high value to offset the required investment.

When leaders set out to create these high-impact sustainability strategies, there are several common initial targets, including data centers, vehicle fleets, and

office spaces. For many businesses, one or more of these will represent a large proportion of their carbon footprint, and each has the potential to dramatically reduce emissions.

However, there's one major contributor that is often overlooked and that relies less on large upfront investments and more on small changes and decisions that combine to create a huge impact: end-user devices and how employees use them.

This guide explores how organizations can better understand and mitigate the impact of employee devices and behavior on their overall emissions – and why addressing their digital carbon footprint is so valuable.



The importance of *devices*

Employee devices are a key consideration for any sustainability strategy

Most employees will be equipped with at least one company device, whether they're a desk-based worker with a laptop or out in the field with a ruggedized tablet. In a large organization, this means thousands of devices in regular use every day.

And while the carbon footprint of each of these devices may be small, they have a substantial collective impact



on emissions.

As a device moves through the cycle from manufacturing to usage to decommissioning, it contributes to Scope 1, 2, and 3 emissions in various ways. As it shifts from OEMs to IT teams to employees, its role in the company's footprint changes, and so do the best practices for managing its emissions.

Minimizing the carbon impact of devices requires a holistic view and a collective effort from the business – beginning at initial procurement.



The role of *OEMs*

Organizations need to understand their *OEM's impact*

OEMs are a crucial starting point for an organization's device sustainability strategy, largely because most of a device's emissions are released before it's

even used.

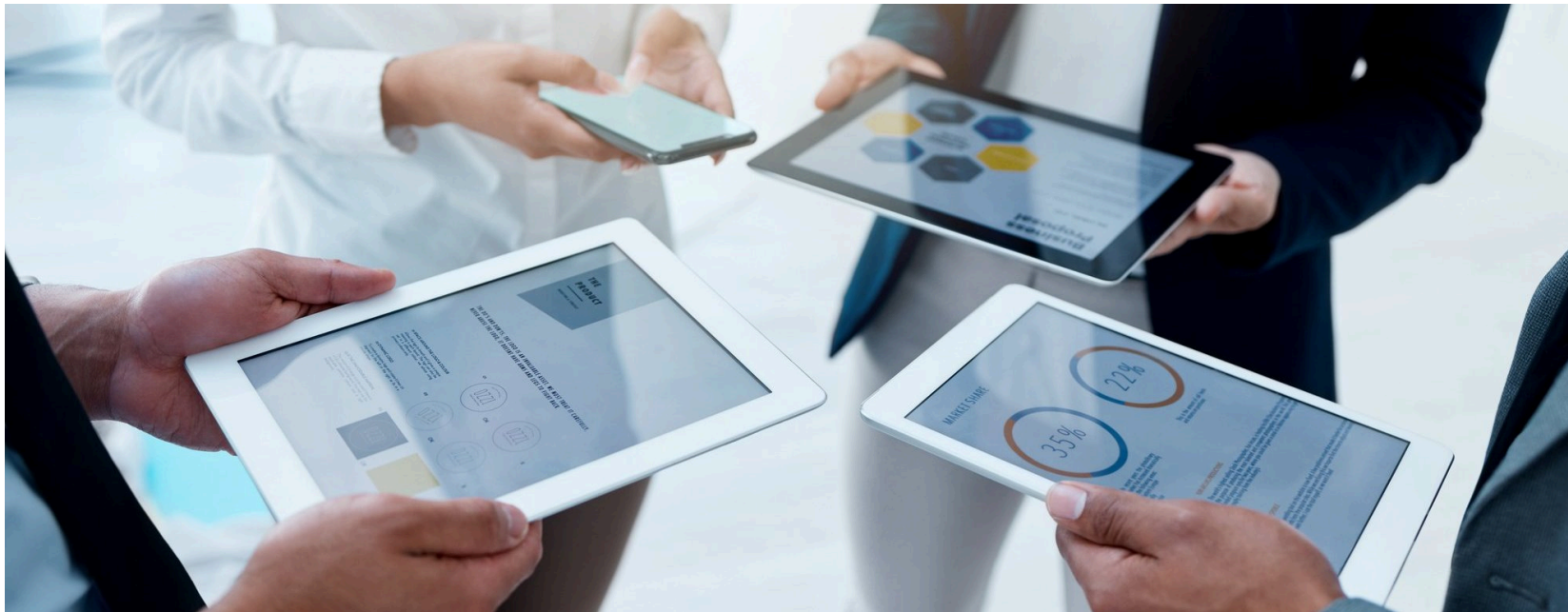
[One study](#) of desktop computers and monitors showed that around 85% of the device's emissions were

generated during manufacture and shipping, even after six years of daily use.

At the moment, this stage simply

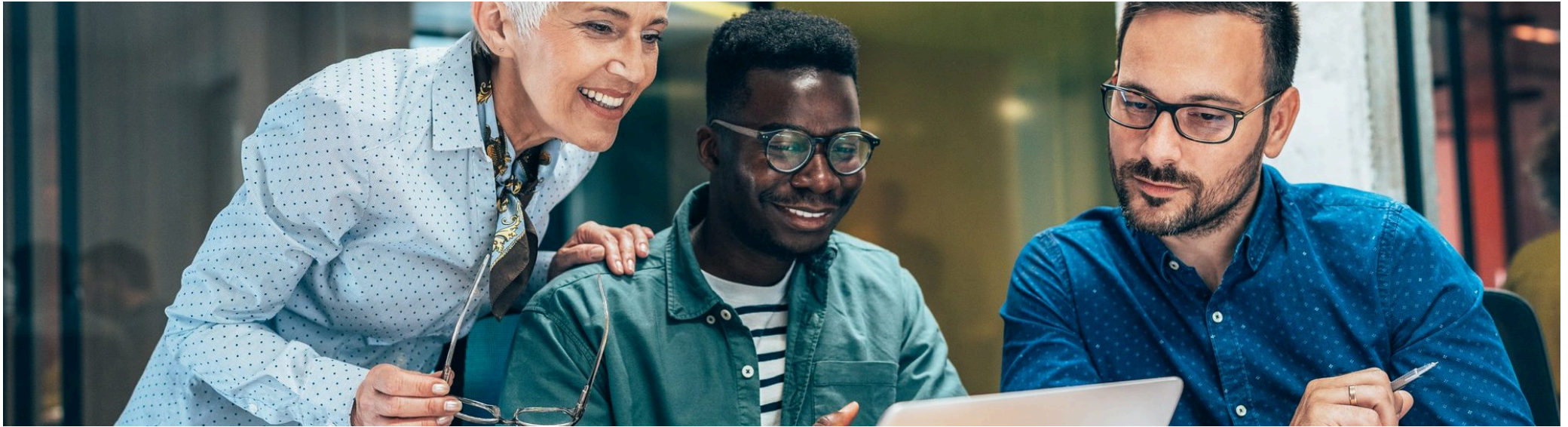
doesn't factor into most organizations' decision-making. Just [25% of organizations](#) consider the impact of upstream Scope 3 emissions on their net zero

commitments, even though they represent the overwhelming majority of [disclosed emissions](#).



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Organizations' supplier choices influence their footprint

Now is the time to change, and awareness is the first step. [Less than a quarter](#) of organizations currently report moderate or high levels of

awareness of which suppliers account for most of their Scope 3 emissions, which makes it near-impossible for leaders to make fully informed decisions.

Fortunately, this journey toward a more sustainable device ecosystem can start with a simple conversation with their suppliers. OEMs should be able to clearly lay out their devices' carbon impact, how they're

monitoring emissions, and which measures they're taking to reduce their footprint. By having these discussions regularly, leaders can be confident in their procurement choices while holding suppliers accountable for their own commitments.

For organizations that are looking for new OEMs, many are now exploring more sustainable designs

and production practices specifically to reduce emissions and support a [circular economy](#). Procuring new devices will almost always require capital expenditure but, by selecting those that are sustainable by design, decision-makers can minimize their costs in the long term.

Understand the organization's needs to find the *right device catalog*

Working with the IT team to establish more in-depth persona mapping can also reduce the business' footprint at the OEM stage. Understanding the typical workload for departments within the business – salespeople, developers, and marketers, for example – can help match the right devices to the right roles.

This may lead to a broader device catalog, with different combinations of

graphics cards, processors, and storage, but it will ultimately reduce the number of employees who are given a device with outsized specifications that lead to unnecessarily high costs and energy consumption. Within Capgemini, for example, a two-year project to replace nearly 30,000 ready-to-retire desktops with laptops has resulted in an estimated saving of 2,400 tons of carbon emissions each year.

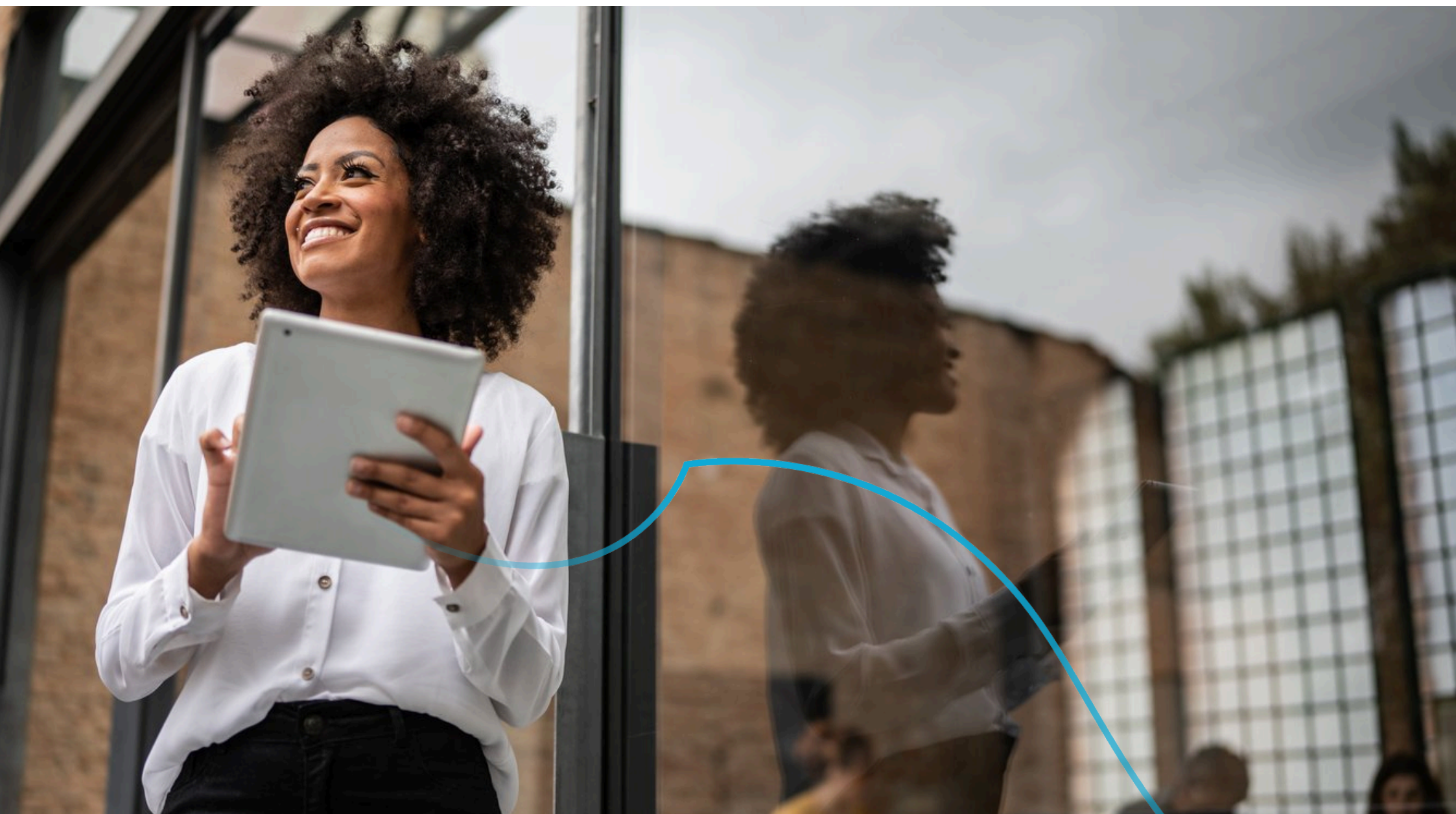
Once these devices are deployed to employees, maintaining an overview of how employees in different roles actually *use* their equipment can help IT teams configure devices appropriately to continuously balance performance and emissions.

A combination of OEM's monitoring software, device management platforms, and employee experience tools can help IT managers discover where broad changes, such as power-saver plans, could make a difference. Often, changes organizations make can have multiple positive impacts; **when Capgemini implemented Microsoft 365 services for one leading financial**



institution, this helped establish full regulatory compliance and global collaboration while saving over 14,500kg in carbon emissions.

Oversight based on analytics from device management and employee experience tools can only take this so far; after deployment, much of the responsibility rests with the workforce.



The role of the *employee*

Employee engagement will drive long-term carbon reduction

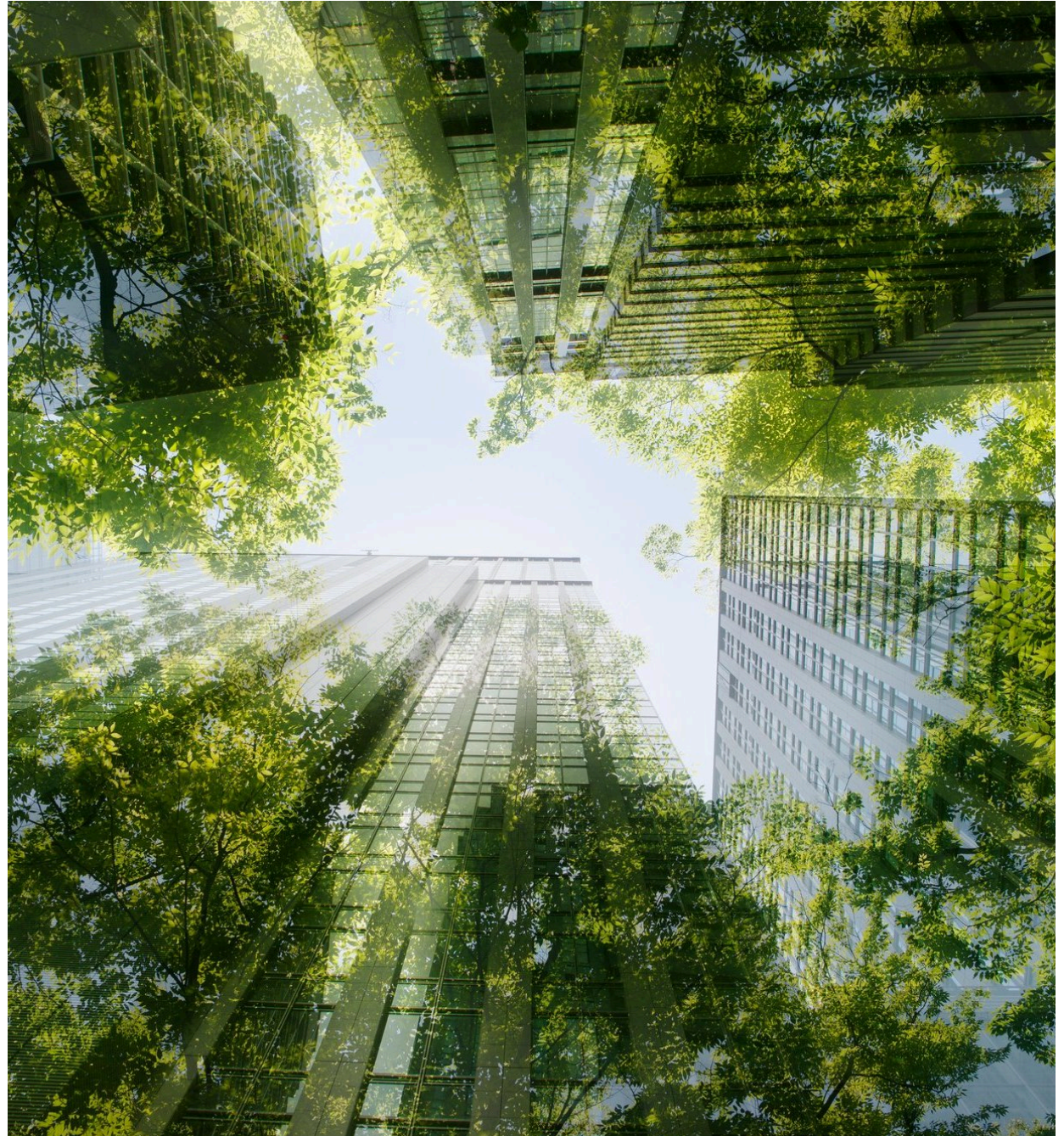
The footprint of end-user devices will depend on how employees use them. This means it's crucial for leaders and the IT team to communicate employees' vital role in the company's sustainability initiatives

The organization needs to create an environment where employees understand their individual impact and are empowered to make positive change. As an example, **Capgemini employees can request a personalized carbon footprint**

report from the company's internal "Ask Adam" chatbot.

More than 320,000 laptops across the business have energy management software installed to enable this.

However, in some cases, it may be a challenge to engage employees in the right way.



Employees view devices in *different ways*



Many employees won't give their assigned device a second thought unless it's not working as expected. However, some may view them as an important part of their compensation package or have strong feelings about sustainability.

For example, in competitive industries it's very common for recruiters to list smaller perks such as "access to the latest devices" alongside other benefits to appeal to applicants. And some existing employees might simply enjoy receiving a new device every three or four years – regardless of how well their current laptop or tablet is functioning.

On the other hand, employees are increasingly motivated to work for organizations that align more closely with their own values, including environmental concerns. For high-demand roles, a firm

position on device sustainability may be a deciding factor for applicants choosing between employers.

In all cases, education and continuous engagement are key. By clearly communicating the organization's perspective and goals – and the role individual employees can play in supporting sustainability – leaders can ensure every employee is fully informed. To ensure everyone feels incentivized to contribute to the organization's sustainability goals, it's also important to demonstrate that making sustainable device choices won't impact employee performance.

Creating an environment where *employee actions matter*

Achieving complete buy-in means also providing motivation to help employees make conscious sustainable choices in their everyday working lives.

Organizations can create this environment in various ways, ranging from small nudges – such as automated desktop reminders to fully shut down a device at night –

to a more involved system of gamification.

Gamification techniques are commonly used in organizations to

promote productivity, but they also have a proven track record with sustainability behaviors such as [“eco-driving”](#) and water conservation. In a business context, this could translate into a personal sustainability score that’s influenced by daily behaviors and bigger commitments.

By adding a leaderboard on a team,

department, or even company-wide scale, leaders can also help encourage positive competition. Some organizations may offer rewards, such as gifts, small bonuses, or recognition, to motivate employees. Naming “sustainability champions” both recognizes individuals’ contributions and encourages them to take a leadership role among their peers.





The *circular economy*

Building a circular economy for enterprise devices

One key sustainable habit to encourage in employees is retaining a device past its typical lifespan. The longer a device is in service, the longer the organization can delay the costs and carbon associated with procuring a new device.

If the industry continues to operate on a standard three-year refresh cycle, it can undermine much of the positive progress organizations are making with their device management. Not only does it create a major IT workload in collecting, formatting, and disposing of these devices, but it

also leads to significant expense, waste, and even more emissions.

Currently, [89% of organizations](#) recycle less than 10% of their IT hardware, which means long-lasting materials and rare resources are overwhelmingly ending up in landfill. A staggering [62 million tons of e-waste](#) was produced in 2022, which is up 82% from 2010, and predicted to rise another 32% to 82 million tons by 2030. And often, a device being sent for disposal means the business needs to buy new as a replacement.

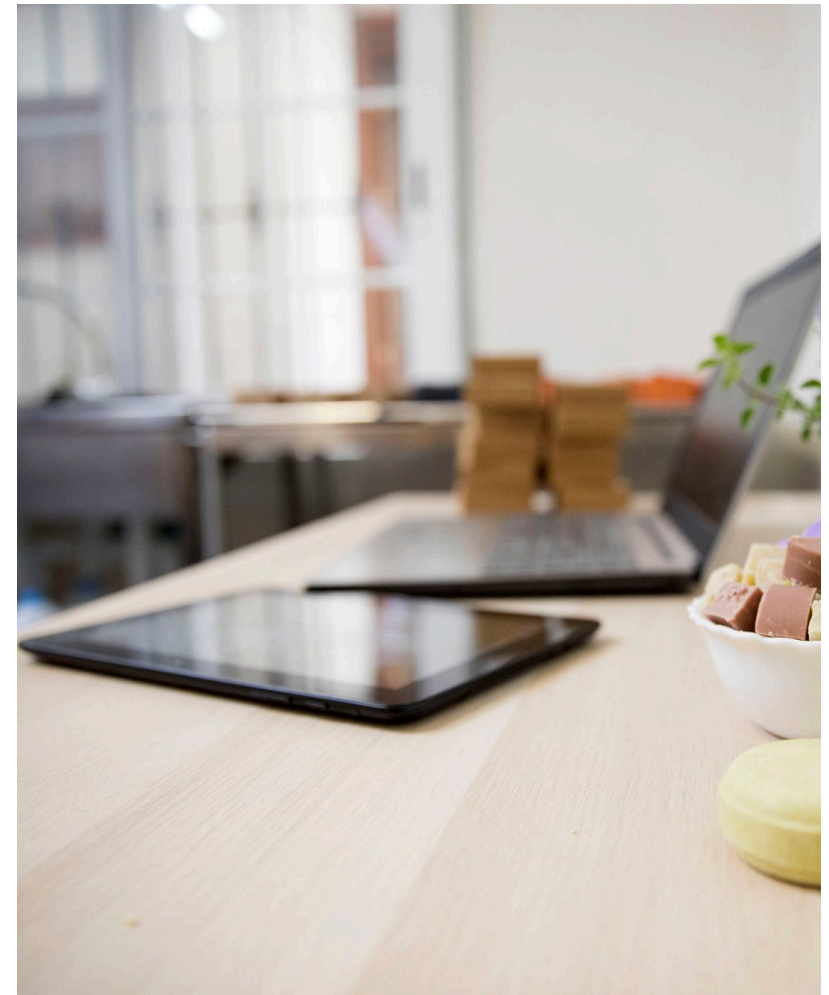
Circularity can help divert e-waste from landfill. It extends product lifespans, reduces overall material use, and keeps scarce materials – such as cobalt and lithium – in the loop.

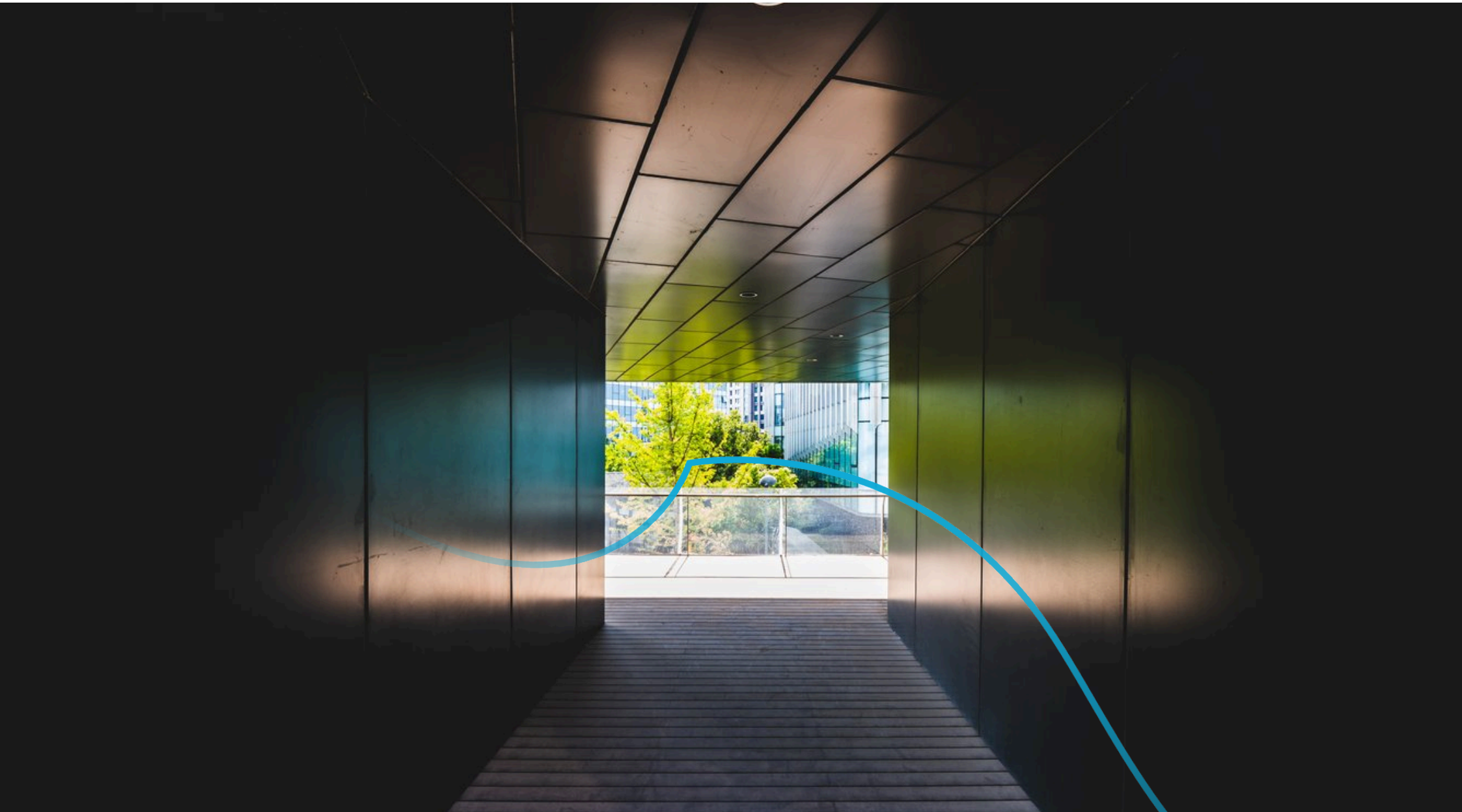
Depending on the device's age, components, and intended use, organizations can either refurbish them to redeploy, or establish third-party partnerships to sustainably recycle components and materials. When replacing a device, many OEMs now offer refurbished, like-

new devices at a lower price point, making renewing the organization's

device portfolio more sustainable and cost-effective.

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The importance of *insights*

Putting insight at the core of continuous progress

The common thread through all these challenges and potential initiatives is a need for deeper

insight. **Understanding OEM relationships, workforce needs, employee motivation, and the**

organization's device portfolio – and how these factors change over time – is crucial for monitoring and demonstrating the impact of sustainability initiatives to the wider business.

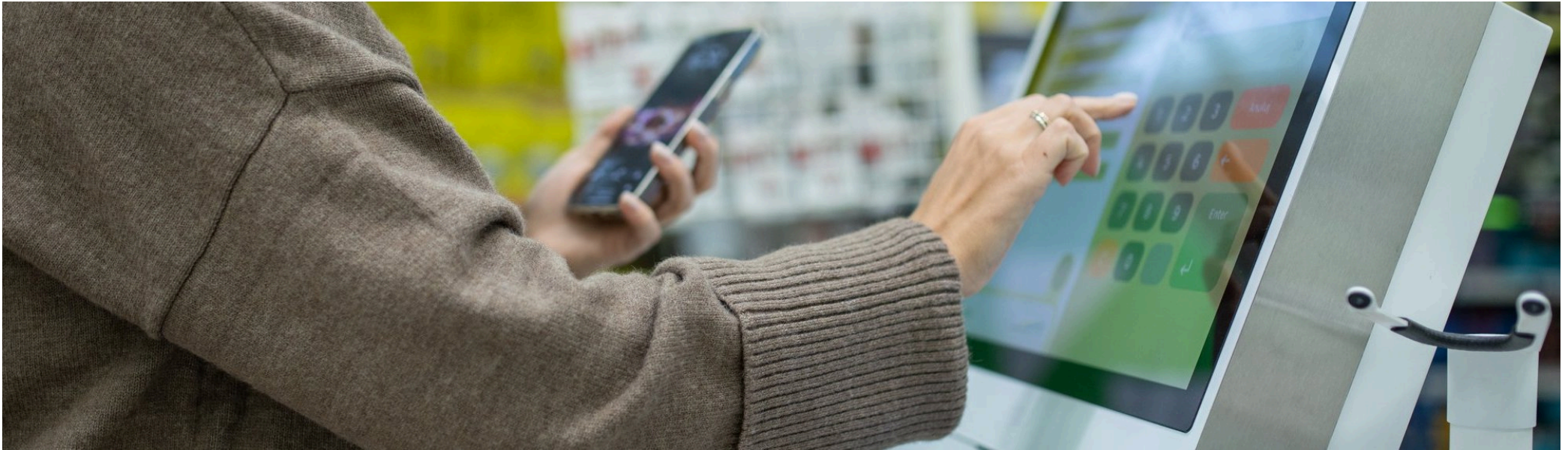
Most leaders aren't yet using data to their full advantage. Currently, 45% of organizations with net zero targets only use emissions data for [mandatory reporting](#), when it's a

highly valuable resource for measuring the impact of initiatives and demonstrating that impact to the rest of the business. Data management is also a highly manual process at the moment, with only 7% of organizations automating emissions data collection, and just 13% using a carbon management [solution at scale](#). This puts additional pressure on the business' IT and data teams.

Deeper insights can support more informed decision-making and help leaders adjust their strategy as the landscape changes – but there's a skills gap to contend with, too. More than half of organizations say they don't have the required expertise for [sustainable IT implementation](#).



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Sustainable change is a collaborative effort

To overcome these data visibility and capability barriers, organizations should consider

working with an external partner. An industry expert can help guide leaders through the whole process

of embedding sustainability into the employee device procurement and usage through:

- Discovery phases to understand emissions “hotspots” in device procurement, deployment, operation, and decommissioning
- Best practices to align leaders throughout the business
- Techniques to engage employees

and support behavioral change

- The best sources of insight that already exist within the business, from IT monitoring tools to employee experience platforms
- The right data collection, analysis, and monitoring technologies to automate insight and support ongoing work

Collaboration yields powerful results. **For one Dutch retailer, Capgemini conducted a sustainability impact assessment with a view to reducing power consumption by 50%, which resulted in savings of 959 tCO2e and €1 million per year.** What’s vital is finding the right method of collaboration for your business.



Conclusion

Build *sustainable practices* into your device ecosystem

Addressing the carbon footprint of your employee devices could be the accelerator you need to reach your sustainability goals.

There's a delicate balance for decision-makers to strike between performance, cost, and sustainability as the business evolves. In the short term, establishing more sustainable practices requires investment and a commitment to make meaningful operational changes within the organization. In the long term, however, these changes have a transformational impact. A sustainable device and employee

strategy not only reduces emissions and waste, but also lowers costs, boosts operational efficiency, and improves the employee experience – all valuable returns on those initial investments.

Reducing the carbon footprint is an organization-wide responsibility, which must be supported by organization-wide effort. Leaders and employees alike need to be clear on their role in driving more environmentally conscious practices – and be empowered to make the right choices as responsibility moves between different groups.



That starts with developing a better understanding of where your main sources of emissions truly are and which areas of device procurement and usage require the most attention. For example, you may have highly engaged employees but too much wastage in your device portfolio. Or you may have strong,

detailed oversight of device usage and emissions but no way to turn those insights into initiatives. When you know exactly where your organization's strengths and opportunities are, you will have the foundation and context you need to target your efforts.

Addressing individual components of how a device is procured and used enables you to make small sustainability gains. However, taking a holistic view and implementing an integrated, circular strategy is far more effective.

A partner to guide your *business toward net zero*

Sustainability isn't a finite goal; the parameters for success are shifting all the time and organizations will need to consistently adjust their approach to accommodate emerging technologies, changing workforce needs, and new business strategies.

expertise to find new ways to operate in more environmentally conscious ways without compromising on performance, experience, and profitability.

To explore how you can make more sustainable device choices and

Next steps

A business and technology transformation partner can provide vital support for organizations on this continuous journey, by using an industry-spanning view and proven

engage your workforce in your organization's net zero strategy, get in touch with our experts.





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