# SUSTAINABLE BUSINESS



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Distributed in THE TIMES

Published in association with ICRS

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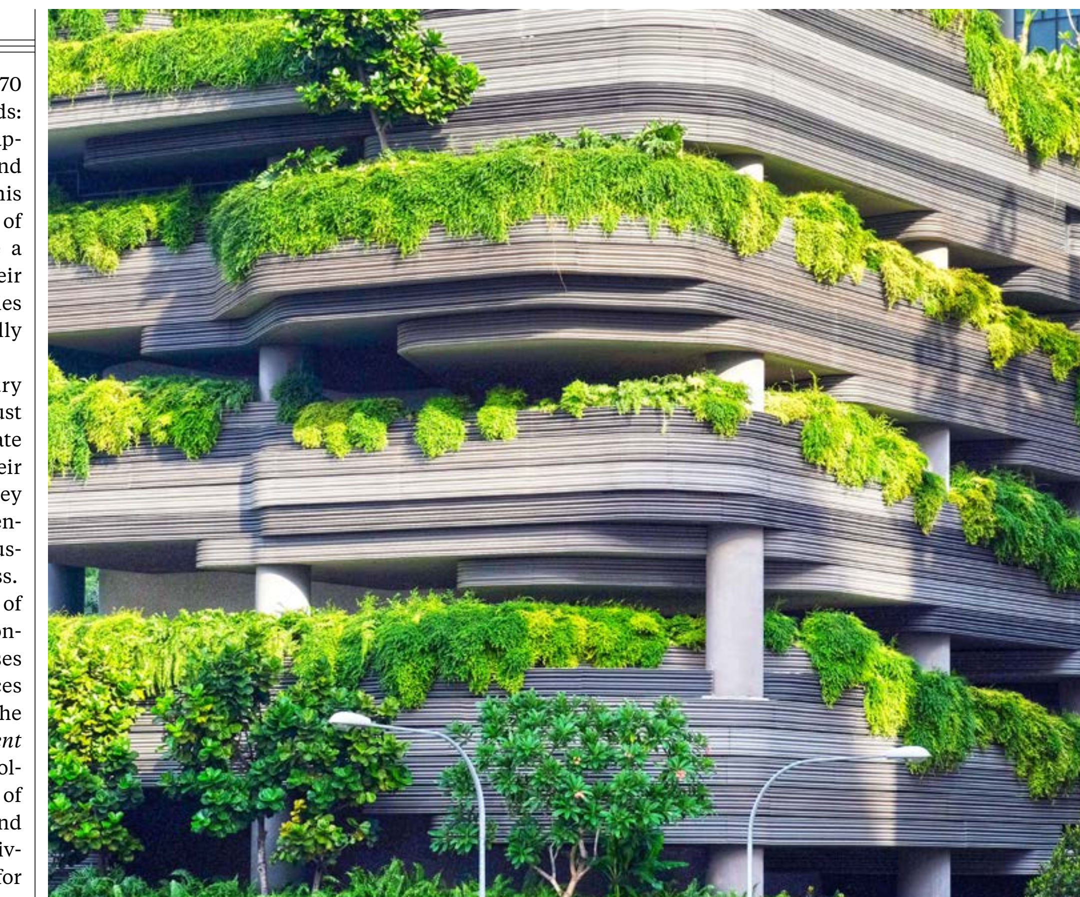
BUSINESS PRACTICES

# No half measures

## When it comes to implementing sustainable business practices, companies need to go all in if they want to reap the rewards

Richard Pallardy



Joni Mitchell's iconic 1970 song *Big Yellow Taxi* pleads: "Give me spots on my apples but leave me the birds and bees." At the time of its release, this protest at the widespread use of chemical pesticides seemed like a Hail Mary. Would farmers and their counterparts in other industries heed this call for an ecologically friendly version of capitalism?

Now, more than half a century later, corporations are doing just that, having started to integrate more sustainable practices into their business models. What's more, they have found that, in an environmentally conscious marketplace, sustainability can be good for business.

Shel Horowitz is the founder of Going Beyond Sustainability, a consultancy which guides businesses toward greener practices. He traces the origins of this movement to the publication of Rachel Carson's *Silent Spring* in 1962. This prescient volume detailed the alarming effects of pesticides on the environment and precipitated a groundswell of activism to hold industry accountable for its effects on the environment.

The voices of consumer activists remain an essential motivator today. Legislative efforts such as the UN's Sustainable Development Goals, the 2021 Environment Act in the UK and the EU's Environment Action Programme have provided extra impetus. But many companies now undertake sustainable initiatives of their own volition. Taking responsibility, it seems, is just good business nowadays.

Across industries, sustainability is increasingly a vital aspect of most consumer-facing businesses. Half measures no longer cut it.

"If it's treated as a nice-to-have, it fails. Ultimately, it is not successful for the business, its reputation or its objective – financially, socially or environmentally," says Noa Gafni, executive director of the Rutgers Institute for Corporate Social Innovation. And there is growing demand for accountability. Auditing bodies now play a crucial role in certifying sustainability initiatives, providing the public with an objective measure of their success.

"Greenwashing is real," Gafni continues. "But companies are taking bigger steps to ensure they aren't doing that. They're partnering with external auditors to look at where they're doing well and where they can improve."

Consumers are becoming aware of greenwashing, observes Tara Milburn, founder of sustainable branding company Ethical Swag. "They will break off relationships with brands that don't take their stated commitments seriously," she says.

Robert Bird is Eversource energy chair in business ethics at the University of Connecticut. He says that some companies will try to greenwash, avoiding the certifying body. "But the certifying body will find out what's going on and makes the problems public. Then the company improves. There is some cat and mouse involved, but there's a long arc towards improvement," he says.

Sustainability initiatives work best when they are distributed evenly across the value chain. "They should be implemented across all primary activities, as well as secondary ones like infrastructure, technological development and procurement," says Juan Carlos Lascurain of Lascurain-Grosvenor Sports Brokerage, which helps stadiums globally in greening their operations.

> "If sustainability is treated as a nice-to-have, it fails. Ultimately, it isn't successful for the business, its reputation or its objective

"They cannot be siloed," explains Gafni. "That's the tricky part. It requires levels of collaboration that organisations aren't necessarily used to. It's important that they partner internally – but also externally."

The effect of these initiatives is not solely internal. Supply chain pressure has created a competitive market. "Consumers aren't just concerned with sustainability practices in stores," Bird says. "They're also interested in the green credentials of the supply chains."

"Every business has an upstream and downstream in their supply chain, where their business is the crux," says Stacy Savage, founder and CEO at Zero Waste Strategies in Austin, Texas. "All the operational decisions taken by the crux affect the chain. The buyer holds all the cards. If the current vendor can't do what they ask, they can look for a new vendor."

She cites the example of a business that wants to avoid using cardboard in its shipping operations. It could demand that its shippers use reusable, collapsible crates, reuse them, and ask clients on the receiving end to also reuse them.

Unless suppliers get onboard with this, they "won't get access to the best partners or the best contracts. They may be excluded from procurement opportunities". So says Simon Glynn, co-lead of the climate and sustainability platform at consulting firm Oliver Wyman.

Still, value chain implementation varies by industry. "For a business without physical products, like a SaaS business, I'd imagine that sustainability initiatives sit lower on

**55%**

of C-suite leaders list customer satisfaction as the main benefit of sustainable business practices

Deloitte, 2022

"the value chain," comments Calloway Cook, president of Illuminate Labs, a certified B Corp.

Location can also play a key role. As Lascurain explains, companies in northern Europe may have tax incentives and cultural motivation to encourage them to move towards sustainable practices. Conversely, those in emerging markets might be more resistant and Lascurain reports that clients in South America have been far less willing to adopt these measures.

But while newer companies tend to bake sustainable principles directly into their operations, it can be more difficult for legacy corporations with worldwide operations to incorporate them easily.

"Companies that are deeply attached to a product or service that is inherently unsustainable require a fundamental change in how they operate," cautions Bird. "They're going to have the most difficulty making changes. Companies that are more B2B are also less likely to feel the pressure from consumers, and industries that have a very slim profit margin may not be able to invest in sustainable practices."

But that does not mean that larger corporations are incapable of integrating sustainable practices into their value chains. Gafni cites the example of British consumer conglomerate Unilever.

> "When you're trying to get something like this off the ground, it requires levels of collaboration that organisations aren't necessarily used to

"Their former CEO, Paul Polman, was a driving force," she says. "But their sustainability plan was also supported by people in middle management. It's important that you not only have the vision from the top but also champions in different functional areas to understand how to get things done from a practical standpoint."

This point – that leadership is important on all levels – is echoed by most people who work on facilitating sustainability in the corporate world. Directives from the top can certainly have a major impact. But so too can pressure from lower-level employees.

"It can come from all angles," says Savage. "The biggest pressure generator is when you have a scenario where your employees say, 'Hey, we have 3,000 employees and a cafeteria. Why aren't we composting?'"

When these messages reach upper management and combine with external pressure from environmental advocates, it pressures middle management to implement real change. That, she claims, is where consultancies such as hers can help the often bewildered functionaries to make meaningful alterations to a company's practices.

Responsiveness to these demands translates into employee retention. Millennial and Gen-Z employees are insistent on seeing their values reflected in their employers' practices. If they consider that their values are in conflict they will simply leave the organisation, taking their institutional knowledge with them and necessitating their former employers to plough money into training new employees. If, though, they see that their employers are aligned with their principles, they will stay and reinforce those beliefs and practices, contributing to the organisational knowledge pool.

But where should proactive leaders start? While the goal is sustainability across the entire value chain, waste management is perhaps the lowest-hanging fruit.

"There's a whole circular economy now. What we are seeing is a clear move away from a linear, destructive economy," says Savage. "Instead, you transform your waste into a product."

She suggests that the goal of these types of projects should be to "at least" break even. But sustainability can of course conserve money – and even be profitable.

"Focus first on things that will earn money, quickly. As those become successful, use them to fund some of the deeper, more complicated initiatives. Keeping profitability in focus means these efforts are less likely to be the victim of budget cuts when times are tough," advises Horowitz.

He cites the $31m (£26m) energy-efficiency retrofit of the Empire State Building in New York City. "It was a three-year payback. That's a 33% return on investment. A fast-food restaurant might have a margin of 3% to 5%," he enthuses. "The adjustments have created millions in annual savings, and the building has attracted a suite of new tenants with deep pockets.

Environmental, social and governance (ESG) issues are also significant factors in attracting new investments. "ESG standards are now one of the top-five indicators to investment firms and shareholders as to whether your company will still be viable and relevant in the next 10 years," notes Savage. "Many of these firms are shunning companies that aren't trying to get ESG policies in place. That's huge if you want to expand your business."

"Once companies and their employees become used to a certain value or a certain norm, they will use sustainable practices almost reflexively. And they won't have to make the conscious decision as to whether it's profitable," says Bird.

Many of the benefits of sustainable practices are intangible. "It changes your relationship with your customers," says Glynn. "Imagine you were selling a commodity like steel. Well, now you're providing something differentiated because it's zero-carbon steel. The conversations you're having with your customers are different and you have a more strategic relationship with them. Your customers are now bonded into buying from you. Decommoditisation doesn't necessarily directly turn into a premium but it does turn into more stable relationships, customer loyalty and deeper customer collaboration."

This ultimately translates into good corporate citizenship. Whether or not these projects make or save money, they are likely to have positive impacts on the world at large. And that is definitely something worth encouraging.

**27%**

of business leaders cite high costs as the main obstacle to sustainable business practices

Deloitte, 2022

**83%**

of UK consumers are willing to spend more on brands that they consider truly sustainable

First Insight, 2022

### The business case for sustainability

Sustainability is a long game. Superficial sustainability measures no longer cut it in a heavily scrutinised market. Slapping a green label on a product or service simply doesn't pass muster anymore – not with consumers, not with activists, not with business partners.

By contrast, carefully considered initiatives that adjust practices across the value chain can have profound effects on business success. While decarbonisation may entail an initial investment, it often means savings down the line – if not an actual profit.

Waste and energy-use reduction are among the most easily implemented sustainability practices. The savings accrued by these easy initial steps can be used to subsidise more difficult, industry-specific actions. What's more, pressure on suppliers can help to facilitate a competitive market where relationships between individual organisations are increasingly contingent on sustainable standards.

Perhaps most importantly, sustainability can be crucial in securing investments for business expansion. Environmental, social and governance criteria are major factors for many investors today when deciding whether to divert funds to a particular organisation. Demonstrably sustainable practices are considered key indicators of future business success. They indicate a likelihood that an organisation will comply with increasingly stringent environmental regulations, avoiding liability.

These commitments are also appealing to a vigilant consumer base, which reacts poorly to unsustainable practices and rewards companies that can demonstrate their sustainable practices over the course of time.

Millennial and Gen-Z members of the workforce often look for employers that share their purported values. A visible and verifiable commitment to sustainable practices can help companies attract and retain talent. Lower turnover means that human capital – the resources invested in training employees and the resulting repository of institutional knowledge – stays within the organisation. This can amount to significant cost savings in the long term.

As beneficial as sustainable practices may be to a given organisation, their benefits to the world are even more important. Corporate citizenship is now considered to be an unavoidable responsibility. Just as individuals ought not to hope to accrue direct benefits from behaving with decency and consideration towards their fellow citizens, there is now an expectation that companies will do the same.

Will these behaviours affect the bottom line in the near term? Perhaps. Perhaps not. But pursuing practices that benefit the planet and its inhabitants will help to maintain a healthy ecosystem – for people, for other living things and for business as well.

**SUSTAINABILITY COMMITMENTS THAT WIN CUSTOMER LOYALTY**

Business factors that positively influence consumer trust in the UK

Deloitte, 2022

| | |
|---|---|
| Having a transparent, accountable and socially and environmentally responsible supply chain | 35% |
| A strong public perception, record and reputation around climate change and sustainability | 29% |
| A public commitment and positioning around sustainability and climate change, including net-zero commitments and greenhouse gas reductions | 29% |
| Being a certified B Corporation | 20% |
| Receiving net-zero commitment verification | 19% |
| Having a partnership with sustainability NGOs and charities | 18% |
| Other | 1% |
| Do not know | 25% |
| Nothing can influence how much I trust brands' and businesses' commitment to climate change and sustainability | 21% |

Commercial feature

# Tough climate: can businesses be green and fight inflation?

Consumers are finding it harder to shop ethically as inflation surges – companies must adapt to stay relevant

Sustainability is a growing priority for millions of consumers around the world, but as inflation surges and the cost of living crisis intensifies, shoppers are finding it increasingly hard to be as ethical as they'd like.

According to research by GfK, some 80% of consumers globally say that sustainability remains important to them. Yet more than 30% of Europeans say they will put their own economic security and wellbeing before environmental problems this year, with that rising to over 40% in the US and 50% in developing Asia.

This is forcing fast-moving consumer goods companies (FMCG) and tech and durables businesses to rethink their operating models – from the design of their products to the way they engage with customers and stakeholders. Both sectors are major carbon emitters and the lifecycle environmental impact of their products is significant. Consumers expect them to take action no matter what the economic climate is like.

FMCG companies have been responsive when it comes to embracing sustainable business practices, from cutting back on single-use plastics to using more sustainable materials in their products. It's paid off, with the global eco-consumer market now worth $800bn each year – a huge rise from a decade ago and a figure projected to increase to $1tn in 2030. The tech and durables sector has been slower off the mark but 'eco-active' revenue is still expected to exceed $700bn in 2030.

**Rethinking green business models**

These firms must continue to develop their sustainability agendas as shopping habits change, says Jutta Langer, vice president consulting at GfK. "During the pandemic, many consumers had more time to think about their consumption habits and the spare cash to spend on ethical goods. Now, we are seeing a higher cost consciousness when it comes to these products," she says.

Customers are still buying green, Lenneke Schils, global insights director at GfK, adds, but many premium lifestyle brands in FMCG are losing market share as shoppers move to more affordable store own-label ranges.

"What sustainable looks like is also changing," Langer adds. "It is becoming less about 'cleaning up' and more about 'saving', be that using less energy or water, reducing wasteful consumption or recycling more. The trend is not new but is being turbocharged by the cost of living crisis."

Companies are already changing their practices. Appliance manufacturers are making products easier to repair or refurbish to prolong their lifespans. The trend of leasing as opposed to selling goods is also gathering pace, reflecting consumer desires to save money while cutting waste.

Brands like Bosch, BlueMovement, Decathlon and Ikea are just a few big names starting to adopt the rental model. Meanwhile in the FMCG sector, the success of the Too Good To Go app – which lets shops sell goods nearing their expiry dates at a discount – proves there is true consumer value in curbing food waste.

As household budgets are squeezed, companies might be tempted to hold back on product innovation, but that would be a mistake. FMCG and tech and durables companies should continue to take the lead, not wait for consumers or legal measures to force them.

That may make shopping slightly less convenient initially – as happened when New York State banned single-use plastic bags in shops, or the EU banned plastic straws – but consumers will ultimately adapt and respect the brand more for sticking to its principles. This is especially true when embedded in the right communications campaign.

**Get your messaging right**

The messaging around sustainability is, of course, key and companies will have to rethink their marketing as consumer trends change. Greenwashing – when a brand exaggerates its green credentials – is a growing problem as more companies adopt environmental policies under pressure from campaigners and shareholders.

According to GfK's research, more than 60% of European shoppers distrust what companies tell them about their sustainability practices. When you consider that one in four has doubts about the proper functionality of green products, it seems this trust issue could become a real dealbreaker for brands.

"If companies are making a huge effort to change their business model and products and consumers don't 'buy it', it's a key challenge," says Schils. "Trust is vital and transformational marketing will play a big role here."

FMCG companies must use clear and compelling communication to help products stand out, empowering green consumers who want to find sustainable products. There's also a need for better guidance and classification of products at the point of sale. Shopping involves thousands of small decisions and people don't always have time to process what is printed on packaging or written in online product descriptions.

"One in four people globally have never even seen zero carbon labels on products, which is a huge shortfall," says Schils. "Closing this implementation gap is key to keeping customers on board."

**A massive opportunity**

It may seem like a tricky balance to strike, but companies have the market behind them. Last year, some 52% of shoppers globally said that sustainability had become more or much more important to them because of the pandemic. Meanwhile, consumers who prioritise environmental concerns when they shop accounted for 28% of the European population in 2021, up from 18% in 2019.

This year, the cost of living crisis will cause a – temporary – dent in this growth path, as shoppers are forced to deal with short-term worries. Putting ethical goods within the reach of many should be a key priority for companies and retailers alike. But in the longer term, the large-scale shift in consumer attitudes presents a huge opportunity for businesses bold enough to take it.

GfK provides key insights on global sustainability trends and factual behaviour change, enables effective consumer targeting and supports clients in their sustainable growth strategy. The organisation has found an observable disconnect between how consumers want to buy and how they actually buy.

Overcoming this gap will be key to capitalising on all that untapped potential, Langer says. "More than half of consumers globally could fall into the eco-active category by 2029. But only brands that understand how to remove the barriers to sustainable retail behaviour will capitalise on this huge growth," she says.

"To do so they must increase the perceived value of sustainable products, ensure their effectiveness and use and compelling communication to create trust and to drive their message home."

**80%**

of consumers globally say that sustainability remains important to them

**30%**

of Europeans are prioritising economic security and wellbeing over environmental problems this year

**60%**

of European shoppers distrust what companies tell them about their sustainability practices

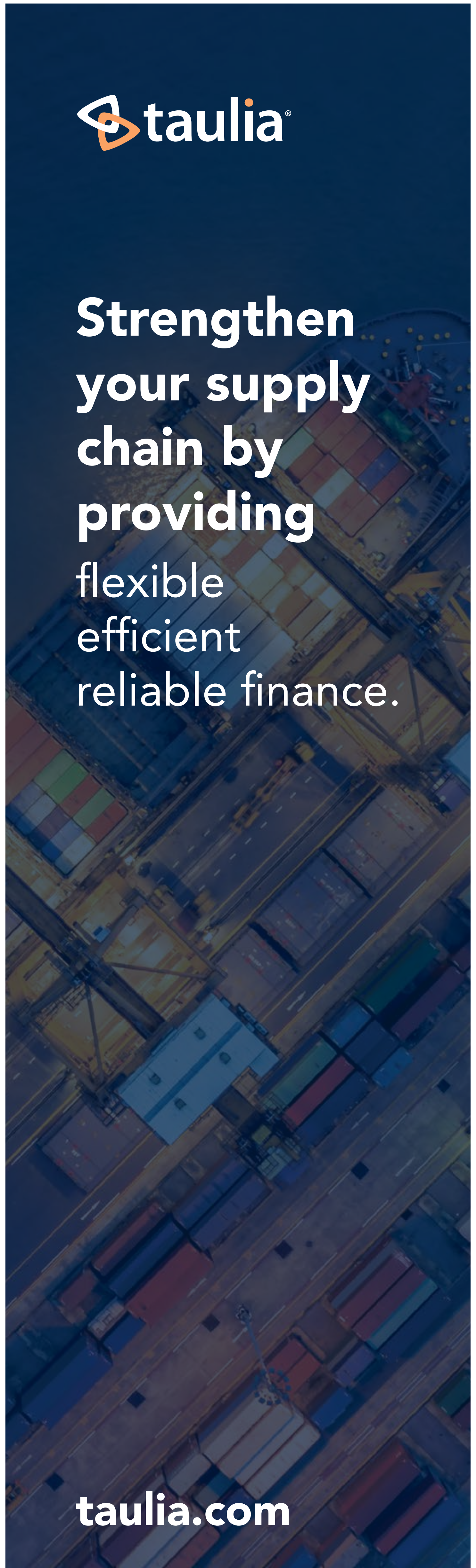
**25%**

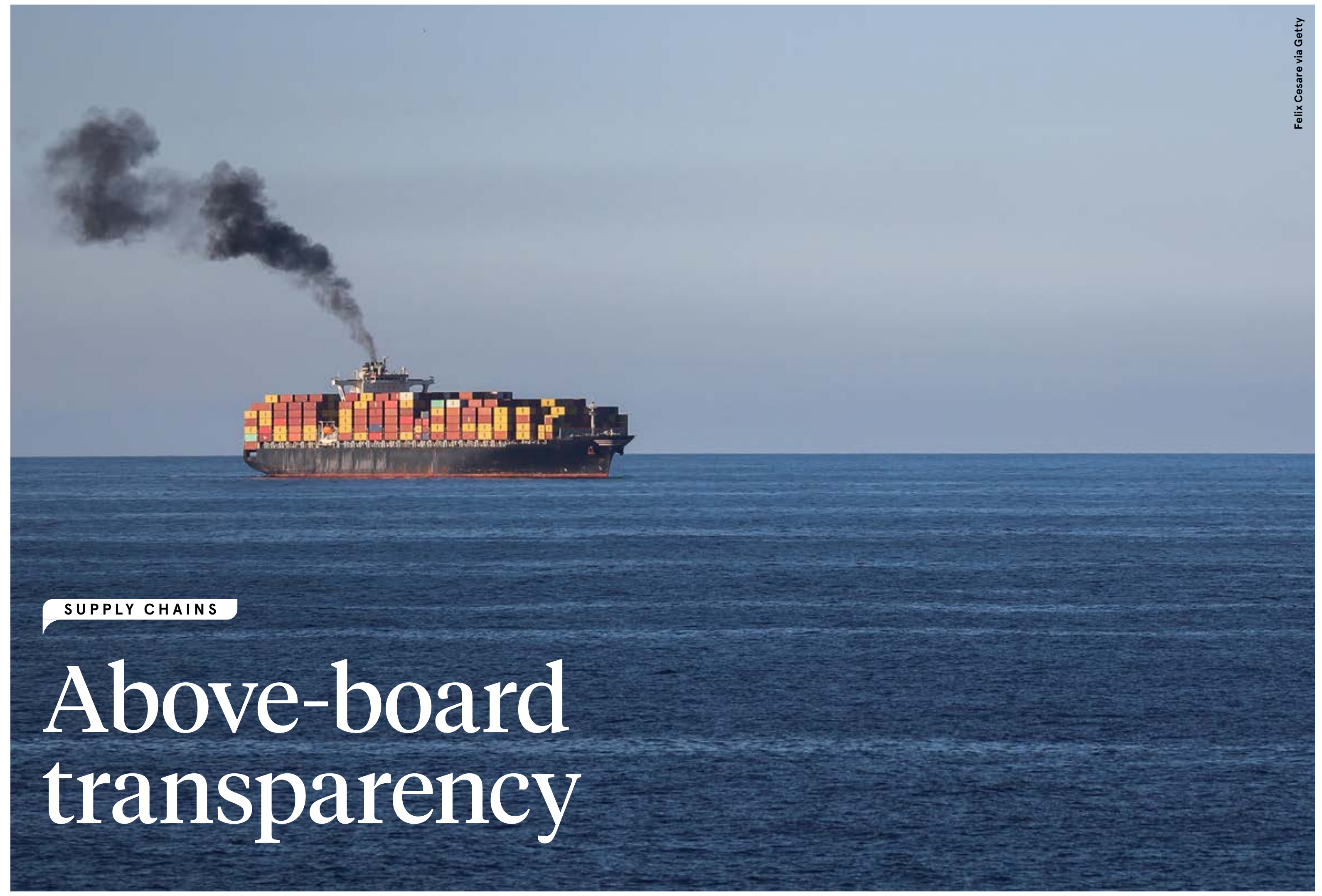
of European shoppers have doubts about the proper functionality of green products

GfK, 2021

**Want to learn more? Join GfK's free webinar 'Green ambitions, golden opportunities: Sustainability in times of instability' on September 27th. Sign up today at gfk.com/fmcgsustainability**

GfK Growth from Knowledge





Felix Cesare via Getty

SUPPLY CHAINS

# Above-board transparency

Supply chain transparency is vital to meet sustainability goals and ensure companies work with partners who share their values. But how practical is it to check everyone's credentials?

**Georgia Lewis**

Managing a supply chain is no easy business. And the task is expanding, as more businesses check up on the sustainability credentials of their partners.

If a supply chain has many stakeholders or crosses borders, gaining the necessary transparency can be a daunting prospect. Understandably, many companies have prioritised getting their supply chains moving again after global lockdowns.

Broad definitions of sustainability can further complicate the process. Does it cover pay, working conditions and human rights, for example, or does it mean a tight focus on carbon footprint reduction and environmental stewardship? If it's going to work, then examining the sustainability practices of supply chain partners needs to be an embedded practice from the outset, rather than an afterthought.

Ralph Kirkwood is head of procurement at electric bike manufacturer FreeFlow Technologies. He thinks sustainability needs to be considered at the point of contracting. "This is where you have the most leverage to demand output from suppliers to align to your requirements. That might be in relation to the product, service specification or wider sustainability goals."

Kirkwood admits that it can be "tricky" to assess commitment to sustainability during the tender evaluation. But, he says, these questions need to be asked at the outset to help companies assess if first-tier suppliers will "roll your commitment down the supply chain".

That requires leadership. "Suppliers want to see that the ultimate customer is serious about sustainability issues," says Malcolm Harrison, CEO of the Chartered Institute of Procurement and Supply. "The ultimate customer is often a larger organisation with more resources than other companies in the supply chain. A commitment to support and educate smaller suppliers is a positive action."

> **"Sustainability is a long-term goal. That means continuous improvement is key in the short term. Then it's about hitting targets in the long term**

Increased public awareness of sustainability issues can also spur companies to examine their supply chains more closely. The textiles industry is one example of this, particularly after many clothing manufacturers were exposed in the media for poor working conditions, low pay and dangerous factories.

Rob Webbon, CEO of sportswear manufacturer Presca Sports, says that when the business launched, few companies were creating sustainably made fabrics.

"We would go to trade fairs and ask exhibitors if we could see their recycled or renewable fabric lines. We'd be taken to the back of the stand and shown a small sample of hangers – as if it was an afterthought," he says. "Fast-forward a few years and now every textile company is desperate to show how sustainable they are. In many ways that's great for the industry. But it does mean the market is much more open to greenwashing – and we need to be aware of that."

What, then, is the best way to get to the truth? Is it better to build confidence in that relationship by getting to know suppliers and seeking assurances on the basis of trust, or to set firm metrics that suppliers are expected to hit?

Max Winograd, VP for connected products at manufacturing specialist Avery Dennison, says both approaches are important. "Trust is a foundational element in every business relationship. But firm metrics are needed to ensure that these standards are adhered to."

He adds that genuine traceability means that companies can prove where their components originated, demonstrate regulatory compliance in all markets where products are made and sold, and show that environmental and ethical considerations have been followed.

For Harrison, metrics are essential, even if they're not used as hard targets. Instead, they can be useful for showing progress, especially early in the relationship: "Sustainability is a long-term goal and, as such, continuous improvement is key in the short term. Then it's about hitting targets in the long term."

At flooring manufacturer Interface, a supplier code of conduct requires everyone in the supply chain to comply with relevant environmental regulations and conduct operations in ways to minimise the impact on the environment. The company is helping 26 priority suppliers to identify projects in their operations to reduce greenhouse gases and providing technical support to reduce the manufacturing carbon footprint.

"We share lessons we've learned and collaborate on potential solutions or new approaches, including sourcing alternative raw materials," says Erin Meezan, Interface's chief sustainability officer. "We're capturing more detailed life-cycle assessment data on the materials to better understand their carbon impacts. These assessments will form a baseline that allows our supply chain team to develop a strategy to reduce carbon across that ecosystem."

But what about the often complicated, cross-border supply chains – where monitoring, oversight and communication are all more of a challenge? Thankfully, this is where technology can play a greater role.

**63%**

of CEOs say difficulty in measuring ESG data across the value chain is an obstacle to sustainability

**60%**

of global emissions are generated by supply chains

Accenture, 2022

Automating processes, such as questionnaires for stakeholders to complete during the movement of goods, and even live location analytics, can flag up risks. If compliance can be checked in real time, concerns can be managed before they become bigger issues.

"With mobility analytics, companies can evaluate their supply chain networks, improve site selection for warehouses or distribution centres, and better understand supplier performance, which can all reduce the carbon footprint," says Jeff White, co-founder and CEO of location intelligence provider Gravy Analytics.

"For example, location analytics can help companies understand truck traffic patterns within their supply chain and determine where bottlenecks might be occurring. With these insights, organisations could address logistics issues to reduce overall carbon emissions."

Interface's Meezan agrees with this, noting that leveraging real data "is the most effective way to move the needle on achieving sustainability in our supply chain".

"We encourage our suppliers to measure their impacts by establishing tools like greenhouse gas inventories, as well as developing strong assessments of their current impacts through life-cycle assessments," explains Meezan. "Given that the raw materials in our products contribute the bulk of our impact, life-cycle assessment data helps us – and our suppliers – understand the impacts."

Introducing the right technology, along with fostering a culture of trust and open communication, can not only help companies choose the right partners but also retain relationships with existing partners.

As Bob Glotfelty, chief growth officer at supply chain fintech company Taulia, puts it: "Since changing suppliers can be disruptive to the business or, in some cases, isn't even possible, many businesses focus on encouraging improvements by their existing suppliers to match their commitment to sustainability."

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Commercial feature

# The win-win shift powering business performance

Embedding purpose can drive everyone and everything in your business – and help boost profits – argues **Becky Willan**, CEO of Given Agency

Profit at all costs has never served society – and thankfully it is no longer the primary aim driving all companies. Instead, purpose offers a platform for growth and a mandate to create value for the world, not just extract value from it.

The past three decades have seen a shift from the 'responsible business' agenda being built on compliance and corporate social responsibility. After the 2008 recession, a more integrated approach emerged focusing on impact, materiality and earning a positive reputation and relevance with customers, colleagues, and suppliers.

But the limitations of these approaches are now inspiring a more comprehensive, purposeful paradigm. The purpose-driven business has arrived, and its mandate is clear - profitably solving the world's problems.

This isn't altruism, it's good business and it brings benefits. Purpose-driven companies attract and retain the best talent, innovate more and enjoy greater loyalty from customers.

Alex Edmans, professor of finance at London Business School notes in his book Grow the Pie how such organisations financially outperform their peers over the long term.

The benefits are so evident that most senior leaders in large and listed companies want in. However, recent research we commissioned from YouGov reveals employees don't always think their leaders are doing a great job of practising what they now preach.

This is what we call the purpose gap, highlighting a clear gulf between the ambition of senior leaders and the reality of workers' experiences.

Everyone in the boardroom may be talking about purpose but few are embedding it effectively into their business strategy and culture. It's not a question of intent, but of execution. And it means businesses are largely failing to reap the rewards that being purpose-driven generates.

### Closing the purpose-gap

Our survey spoke to 2,000 UK employees and found 69% of those at large businesses felt their company's purpose conflicted – or only partially aligned – with how it operates day-to-day. Worryingly, two thirds (64%) at large businesses also said their business had changed only a little, or not at all, since it set out its purpose.

These findings expose the challenge of translating inspiring ideas about a company's purpose into meaningful action. Purpose must mean comprehensive transformation, not just a memorable tagline.

To succeed, a different organisational muscle has to be exerted. This is tough work, it takes time, measured in years, not quarters. It demands serious questions about decision making, innovation, investments, and rewards.

So while CEOs want to lead purpose-driven organisations, most aren't sure how to go about it. In response, we created the Given Insiders' Guide to Purpose, a free, open-source handbook to help CEOs and their senior leaders embed purpose into their businesses.

### Five essential transformations

We have drawn on over a decade of experience working with complex organisations serious about making their purpose real to identify five critical components of purpose transformation.

**1 Governance**
Change decision-making processes to always consider purpose. Start with your board. After all, they are the people holding your executive team to account.

**2 Leadership**
CEOs and senior leaders must be visible champions of your purpose. If they're not, no one else will be. Involve them in the transformation, invite them to find their own purpose and train them to talk about their journey.

**3 Colleague engagement**
Purpose should change every conversation in your business, but people need time to figure out what it means for them and their team. Rally natural influencers. If around 15% of people are on board from the outset it creates a tipping point to stimulate lasting change.

**4 Brand and innovation**
Brand innovation – involving pricing, product and performance – makes purpose tangible for customers and employees. Businesses need not worry about accusations of 'purpose wash', unless purpose only shows up in marketing campaigns and PR stunts.

**5 Metrics and measurement**
It's tough to measure purpose, but like performance, it's multidimensional. Do you really believe business success is only defined by profit? Similarly, by reducing purpose to a single measure, you risk pitting it against profit when the two should be mutually reinforcing.

**Download your free copy of the Insiders' Guide to Purpose**

GIVEN

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# The building blocks of sustainable cities

How can we build the sustainable environments needed to adapt to the modern world?

Nearly 38% of UK adults now split their working week between their offices and homes. But many of us live and work in buildings that lack sufficient ventilation and light, aren't designed to stay cool in our increasingly hot climate, and use environmentally unfriendly materials. So, how can we build spaces that are healthy for people and the planet?

**1 Transition to sustainable materials**

Buildings and the construction industry have a carbon dioxide problem. Figures from the World Green Building Council show that together, they're responsible for 39% of annual global CO2 emissions. Energy used to heat, cool and light buildings accounts for 28% of emissions, while the remaining 11% is the result of carbon emissions from materials and construction processes throughout the whole building lifecycle. To reach ambitious global climate goals, existing and future buildings must be redesigned to become more energy efficient, and we must transition to sustainable alternatives to concrete, steel, and aluminium – or find ways to lower the carbon footprint of these materials.

**2 Improve ventilation to stop viruses from spreading**

Despite our enhanced understanding of how airborne viruses spread, there is still currently no set of standards for mitigating the levels of bacteria or viruses indoors. Lone Feifer, director of sustainable buildings at roof windows company VELUX, says that mandatory ventilation standards must be enforced to stop the spread of respiratory illnesses indoors and the loss of workers through ill health. She adds: "Joseph Allen, the director of healthy buildings at Harvard University, firmly believes your building operator is more important to your health than your GP; at VELUX we are striving to challenge traditional thinking and to bring awareness to how our buildings can be healthy for both people and the planet, encouraging better daylight and fresh air in indoor climates."

**3 Use technology to create a healthy indoor climate**

Buildings of the future must be thought of as a system of interconnected parts that work together to optimise energy efficiency and the indoor climate. "You need to be able to have flexibility to contain heat in winter, but in summer, you need shades or shutters that prevent the heat from coming in," says Feifer. Since 2017, VELUX has used an integrated digital system to ensure its roof windows, blinds and shutters work in perfect harmony to do exactly that. Sensor-based ventilation tracks temperature, humidity and CO2 levels, and ventilates to keep the indoor climate healthy. Automatic heat protection protects homes from excessive heat by automatically closing blinds, awnings and shutters on hot days.

**4 Use light and cooling for better night conditions**

Humans have a circadian rhythm, or a natural sleep-wake cycle, that is regulated by exposure to natural light throughout the day. But many people live and work in buildings that don't give enough access to daylight, which can disrupt our sleep patterns and affect our health. Designers should be mindful of this and ensure that buildings are designed to optimise exposure to natural light. Meanwhile, most European buildings don't provide sufficient ventilation to cool them down at night. The heat generated during the day builds up and is absorbed into the building's surfaces and structure. Night cooling uses natural ventilation to allow warm air to be exhausted and the building mass to be cooled. This process reduces energy costs and improves the energy efficiency of buildings.

**5 Build partnerships to create sustainable cities**

Change needs to happen at scale, but the building industry is a fragmented system of many different parts, including investors, contractors, engineers, architects and other specialist experts. As part of its Build for Life initiative, VELUX wants to build partnerships with each of these sectors to show them how to build sustainably using insights gathered through the company's 80 years of experience. The end goal is to create liveable spaces that are healthy for people and the planet.

To bring this to life, VELUX will unveil its Living Places project in Copenhagen in 2023 – in partnership with Effekt architects, Moe engineers and Enemærke & Petersen contractors. Living Places will showcase healthy homes with a significantly lowered carbon footprint. This new way of thinking proposes healthy and sustainable housing that is affordable for many, due to the optimised choice of materials and easy assembly process. It encourages a more responsible, regenerative and collaborative approach.

**Think about buildings in a new way, visit livingplaces.velux.com**

VELUX®

INSIGHT

# ESG investing strategies are no longer just for ethical investors

**Jennie Galbraith** explains why the business case for ESG is increasingly compelling for investors

It is the impactful acronym that can no longer be ignored. Arguably, all investors, and therefore all companies, are now aware of their environmental, social and governance (ESG) profile, whether or not they choose to discuss it. In the 18 months since Larry Fink, CEO of BlackRock, wrote his famous letter to CEOs, the idea that companies that prioritise ESG are purposeful has become mainstream.

As a product of this trend, global investors are beginning to focus on portfolio-wide data rather than company-level data. They are also considering ESG in terms of the value it can create, rather than as a measure of risk mitigation.

These shifts can be linked to the fact that the business case for ESG is now proven. Even hard-nosed and experienced investors can see that good ESG makes a stronger business. In other words, ESG investing strategies are no longer just for ethical investors.

This, of course, has been helped by a summer in which drought, fires and floods have hit wealthy nations as well as poorer ones. Climate change – and with it greater emphasis on ESG – has become unavoidable for governments and businesses alike.

Consequently, investors are looking to finance companies that will actively contribute to sustainable solutions and that will accelerate progress towards 'the just transition' – the move to a low-carbon economy that doesn't disadvantage less-developed countries and particular demographics.

Climate change is now being accepted as an environmental issue that will generate more regulation. For example, the recently proposed EU directive on corporate sustainability due diligence emphasises the importance of human rights within supply chains.

But the very presence of regulation is also helping to raise the standard for action. What was previously considered leading practice for investees is now seen as the minimum level of compliance. But it can be debated whether regulation is being influenced by investors or vice versa.

Companies are now faced with a choice: they can lead by example, taking proactive steps to drive ESG performance; or they can be complacent, and face the risk of being forced to adopt and implement policies by regulators or segments of their value chain, like customers or business partners, who might demand certain standards because of their own regulatory requirements.

The question, then, for corporate leaders is not so much about whether or not to address ESG issues, but more about when they do so. Doing it now means doing it at a lower cost and at a pace determined by the business, utilising voluntary frameworks. The alternative is being forced down a path by hard legislation, such as the UN Guiding Principles on Business and Human Rights and the Task Force on Climate-Related Financial Disclosures.

The last word, which seems fitting, is on employees. ESG is of increasing importance to current and prospective talent in the financial services sector, but also more generally. If a person is going to commit part of their career and working life to a company, it is likely that they want to see evidence of alignment with their personal values. In this way, ESG can also act as a powerful tool for the attraction, retention and motivation of employees. ●

**Jennie Galbraith**
Chair, Institute of Corporate Responsibility and Sustainability and ESG director, Inflexion
**icrs.info**



Matthias Tunger via Getty

PERFORMANCE

# Contained success

Short of universal KPIs, organisations are charting different paths to sustainability. But all agree that to be impactful, sustainability must be ingrained in the company ethos

Morag Cuddeford-Jones

Environmental, social and governance (ESG) accountability is increasingly a feature of many companies' annual reports, with the trend for linking sustainability performance to executive pay growing by the year. In a survey by Corporate Secretary, 60% of European respondents stated their board tied ESG goals to executive pay, compared to only 37% of North American boards.

Reporting and remunerating according to ESG performance remain a voluntary decision, based largely on recognised impacts on company effectiveness and brand perception; but mandatory reporting is on the way. Already more than 1,300 of the UK's largest registered companies will need to report using Task Force on Climate-Related Financial Disclosures in financial years starting after 6 April 2022.

Despite this, there is still a surprisingly large amount of greenwashing going on. Some companies are still not afraid to make sustainability claims that are based on creative fudging of the numbers. And the regulators are taking note.

The Competition & Markets Authority (CMA) has sent a shot across the bows of the industry to encourage corporates to get their houses in order. In July 2022, it placed Asos, Boohoo and George at Asda under investigation to verify their green credentials.

The carrot-and-stick approach of bonus versus litigation is a start. But to bring about meaningful change, sustainable behaviours need to be embedded across the business. As what gets measured gets done, this means setting key performance indicators (KPIs) at as granular a level as possible, across every team and department.

Nestlé UK & Ireland's Dr Emma Keller, head of sustainability, explains: "Breaking down the big long-term goals into tangible, actionable and meaningful goals at department-, team- or individual- level is essential if all the actions are to ladder up to the overall aim. After all, reaching net zero and becoming a genuinely regenerative organisation that puts more back in than it takes out is new territory – no one has been there yet, and no one has all the answers."

What is clear is that, overall, there is an acceleration in the number of companies taking steps to make a measurable (and therefore, accountable) impact on sustainability. But first, it's important to get the 'what' you're measuring pinned down, as well as the 'why'.

"I prefer the word 'impact' to 'sustainability', which is so overused and is conceptual. But the word 'impact' is much easier to measure." comments Hannah Keartland, who was formerly financial director and then head of innovation at Cancer Research UK before launching her consultancy as an outsourced chief impact officer.

"Look at procurement. If we buy this item, what is its impact? You can then look through the whole supply chain and say, 'What's the packaging? How was this produced? How was it transported? What were the impacts on people and the planet, water and waste in every single stage of that journey?' You can map that back."

There are myriad examples of how organisations are trying to codify their efforts to create a measurable and reproducible set of behaviours that lead to tangible change. But they are often as different as they are many.

> “B Corp is measuring the triple bottom line. It's a change from a shareholder model to a stakeholder model

The big picture: a focus on the detail for overall success

## Good provenance

Conventional raw materials are generally accepted to be more harmful to the environment and human health than organic raw materials. Weleda is committed to including 80% minimum certifiable organic raw plant materials and the team reports directly to the company's managing directors. The company is also certified by the union for ethical biotrade, meaning it must follow strict processes to meet requirements and submit to audits.

One of the most difficult elements of delivering a product or service that is sustainable through and through is ensuring that the supply chain meets exacting requirements. Fashion ecommerce site Farfetch insists on a stringent ethical sourcing policy, demanding that partners and other suppliers meet requirements such as providing an environment that considers employee health and safety and complies with national laws. But the company readily acknowledges that "it is not always possible to monitor and control the conditions of each individual involved in the production of the products".

Tom Berry, global director of sustainable business at Farfetch, would not be drawn on specific KPIs per department, only saying that: "Sustainability is a very broad subject and touches all departments. Each department needs to take ownership and leadership of the elements it can most influence."

Ethical cosmetics company Lush relies more on forging relationships than actuarial targets in order to inspire its staff towards sustainable behaviours. Ruth Andrade is lead for giving, regenerative impact and organisational development at Lush.

"Our strategy is about building engagement," she explains. "If we have direct connections with the indigenous communities who are being affected by palm oil in Indonesia, then the people who are formulating the products have a vested interest – because they have a relationship with these people. It's not a number, it's not a target. Instead, it's about real people, real lives and real relationships."

## Wise buys

In its advisory report *Empowering Sustainability Heroes*, Nestlé highlights the approach taken by Greene King pubs. With differently sized sites, one of supply chain director Vance Fairman-Smith's tasks is to work with pub teams to identify dishes that create waste in some locations but not others. "We had bread in our supply chain in boxes of 48 loaves, when for a lot of pubs this was too many. This creates space and waste issues." In the UK, food waste makes up 6% to 7% of greenhouse gas (GHG) emissions.

McLaren Racing is the first Formula One team to release a sustainability report. It is currently in the middle of discussing how introducing sustainability KPIs might work across its business. Kim Wilson is McLaren's director of sustainability and says that KPIs for procurement are under discussion. KPIs under consideration include incentives to work with key suppliers – those with the greatest impact on the organisation's GHG footprint and/or where there is the greatest opportunity to implement change. The aim here is to "decarbonise the goods and services provided and address the social impacts of their supply chain".

> **Becoming a genuinely regenerative organisation that puts more back in than it takes out is new territory – and no one yet has all the answers**

## All in the mix

Naturally, many companies are looking to include recycled products in their outputs or reduce carbon in their production processes.

Weleda's product development board is responsible for achieving 65% recycled material or bioplastics in its natural cosmetics primary packaging (based on the weight of all packaging produced).

"We are going to do this product carbon footprint that includes all the raw materials, all the supply chain, all the transportation and we have this goal anchored in the corporate strategy," says Kärlis Kalns, sustainability manager at Weleda.

Impacts are also considered in non-tangible goods. Emma Swain, group head of legal at Unlimited Group, explains that advertising production is an area that can have relatively high carbon emissions. Linking to Ad Net Zero, the advertising industry's emissions pledge, the company is working with AdGreen to introduce its levy on all client productions and will impose it on at least three client productions in 2022. "We've also looked at every element of a shoot to see how we can meet our 2030 carbon neutral pledge," she says.

The account teams join in these efforts, and their specific KPI is to be able to share the carbon footprint of briefs to encourage clients to take sustainable options in all Unlimited's creative work. A third-party specialist has been engaged to help measure and monitor those emissions and reporting will begin once the company has been able to establish a baseline.

## Human resources

Building advocacy for sustainable behaviour across the business is almost as important as setting defined KPIs. Making sure staff understand the impact of their behaviour is a critical part. Greene King has created champions at each of its sites – people who are passionate about sustainability. The business has also added energy and waste to its training, while incentives are under consideration for these champions in the future.

Weleda uses the Theory U model, which shifts from individual-centred behaviours to collective ones that should support a more sustainable, healthy life. It is used in order to prioritise internal goals, with 145 workshops held over two years for collegial leadership training alone. "People who want to work on innovative and sustainable solutions need creativity, vulnerability and trust," Kalns says. "They have to feel safe. We can never make a KPI based on individuals' ability to be vulnerable, but at least we can quantify workshops and training hours. That's where we're at currently."

Again, Lush prefers to replace classrooms with action. At Brighton Pride 2022, the local store ran a litter pick, part of the company's overarching aim to monitor the waste it collects. "It's about winning hearts and minds, making people feel proud of what they're doing," explains Andrade.

## Reporting success

Unless there is a regulatory framework to follow, many companies will beat their own path towards what 'measurable sustainability impacts' mean to them. But there is a desire for those frameworks and datasets to measure against and motivate where necessary. Even Lush, with its preference for engagement over targets, notes that it's diving deeper into insight to inform activity.

"There's a lot of work in integrated reporting and we've been discussing how we do it much more. We don't have it yet. We have been working quite closely with the business intelligence team to increase their capacity, so they can help us. Just now we are setting up dashboards mixing non-financial and financial data," reveals Andrade.

Ricardo Gomez Angel via Unsplash

Aisling Connaughton, co-founder and sustainability solutionist at women-led sustainability consultancy Cyd Connects, says that, of all the sustainability frameworks she uses to help clients reach their goals, one of her most used is the B Corp accreditation. Not only does being able to put the B Corp logo on brand assets promote trust among customers but it also helps the organisation to make defined progress and continued improvement.

"B Corp is measuring the triple bottom line. It's a change from a shareholder model to a stakeholder model. Underpinning it is the B impact assessment, which is now used all over the world," explains Connaughton, saying that there were 400 B Corps in the UK at the start of 2022 and by the end of the year there are predicted to be 1,200.

"It's a living, breathing dashboard – and it's free," she adds. "You can have different team members looking at the ESG frameworks, bringing in multiple stakeholders across the business. It puts you on a points system and, in the same way you'd want to see your money go up, you also want to see your environmental and societal points go up."

Continuous improvement comes from a process of ongoing auditing and yearly benchmarks. Companies need to acquire 80 points to gain the B Corp mark and then improve that score every year. Between now and 2025, for example, Weleda is seeking to achieve 125 points to prepare for the next certification.

However granular the KPIs that contribute to company-wide progress towards a more sustainable future, it must ultimately be led coherently at a top level. Again, there is contention as to who is responsible for sustainability strategy.

Wilson maps out the organisation chart: "Organisations where the CEO sees sustainability as a strategic business priority and proactively drives it, holding each member of the C-suite accountable for driving performance through their function, will make the most impact. It needs a top-down and bottom-up approach which is why we have established environmental and social impact working groups."

Nestlé UK & Ireland takes a similar view, "starting with the top" and with targets that "cascade down through teams and there is clear responsibility and accountability," says Keller. At Weleda, Kalns reports that the process is always collaborative and that "any employee can share their ideas" but ultimately, after the small team of five dedicated sustainability employees, "the final decision on strategy is made by the head of corporate sustainability with the board of directors."

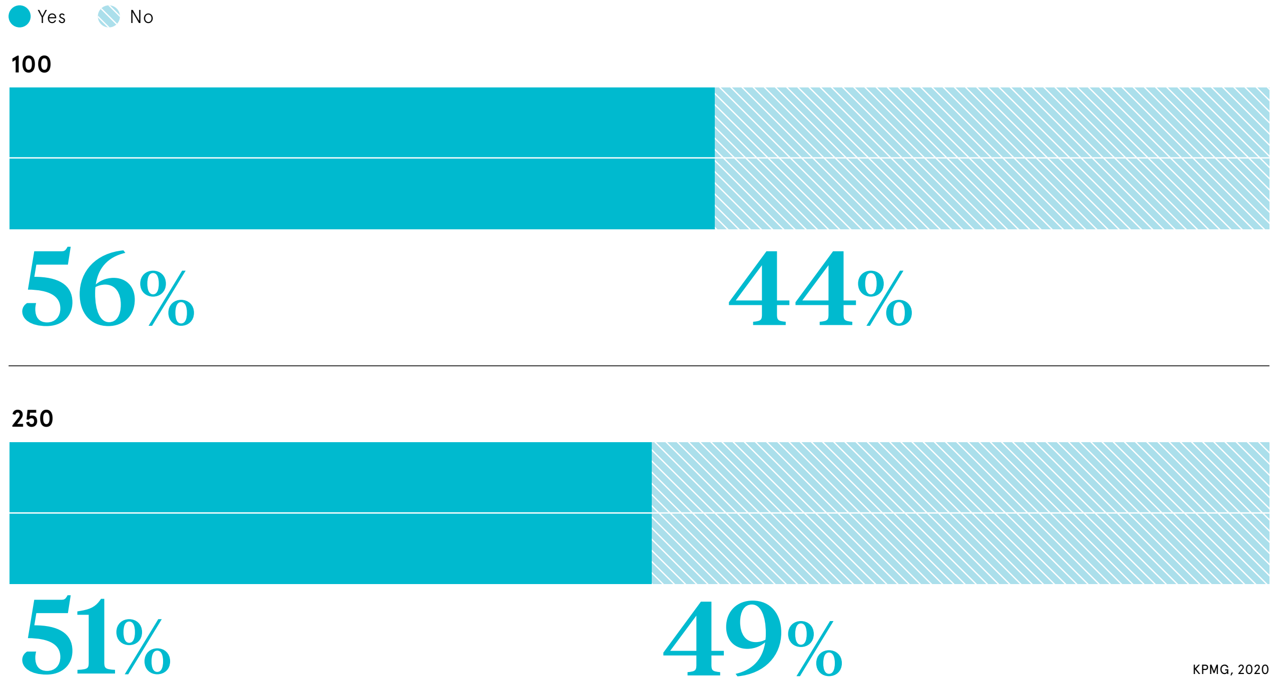
**70%**

of UK consumers said they would be more likely to buy from a company that has B Corp certification

Measure Protocol, 2021

**COMPANIES REPORTING SDG-RELATED SUSTAINABLE DEVELOPMENT GOALS**

Largest 100 (sample of 5,200) and 250 companies (according to Fortune 500 ranking, 2019), by revenue, worldwide




KPMG, 2020

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Commercial feature

# Getting the world's buildings to net-zero carbon

Engineering design is creating positive pathways to solve the biggest of all climate change challenges

The challenge of net-zero carbon is all around us and probably the toughest task lies in addressing the buildings that are fundamental to our everyday lives - homes, workplaces, schools, universities, leisure centres and arenas. From the mundane to the magnificent, they all carry a burden.

The built environment is responsible for almost 40% of global CO2 emissions and, although new construction is decarbonising fast - albeit still not fast enough - a daunting 80% of the buildings that need to be decarbonised are already built. There is $326tn of real estate on the planet and almost none of it is net-zero carbon.

The task is enormous and multifaceted but, as the UN Intergovernmental Panel on Climate Change (IPCC) has observed, it is also one of the quickest wins for reducing our collective carbon emissions. The crux of the problem is that the majority of existing buildings were constructed with techniques that had no concern for their carbon consequences. The use of glass and steel has created a generation of architecture high on kerb appeal but low on energy efficiency.

**$326tn**

**the estimated value of real estate on the planet, none of which is net zero carbon**

Savills Impacts, 2021

**80%**

**of the buildings that need to be decarbonised are already built**

UKGBC, 2021

Government and global regulations are now bearing down hard on the built environment while financial imperatives and ethical incentives are impelling corporations to drastically cut the emissions of their businesses. Major sources of capital including banks and investment funds are considering carbon emissions before deciding where to deploy their dollars, and the insurance industry is asking asset owners about climate risk.

### Substantial gains

Decarbonisation is now a fundamental requirement of an organisation's existence. The good news is that it is also a route to improved returns on investment when buildings function efficiently, attract premium tenants and ensure the value of building stock is retained and enhanced.

"A significant part of the overall global emissions footprint comes from housing and commercial properties, so this is an area where we need to make substantial gains fairly quickly in order to meet our net-zero carbon targets," says Robin Pritchett, Building Performance Services lead at Cundall, a leading multidisciplinary engineering consultancy that specialises in improving the performance of existing buildings and creating innovative design for new generation construction.

"We know every building is capable of a net-zero carbon pathway. For us, it is a question of working with everyone concerned and bringing our expertise to bear. It is very rewarding when you start looking at the data and see tangible results because of changes we have implemented."

Environmental, social and governance (ESG) targets and new government energy efficiency ratings systems are also placing demands on corporations to reduce greenhouse gas emissions, water consumption and waste to landfill volume across their building portfolio. Cundall has been working on projects around the world, assisting asset owners, asset managers and major tenants with multidisciplinary design and building performance services to ensure they can take the high-performance road.

> **We are seeing a desire to go beyond minimum requirements, with clients making a real investment to future-proof buildings**

One of these major tenants Cundall is working with is Legal & General Investment Management (LGIM), which has an ambitious strategy to reach net zero across its 76 million square-foot real estate portfolio by 2050 or sooner. Cundall is helping develop net-zero audits and implementation plans for LGIM's building stock, then designing the interventions.

"We are witnessing a huge growth in the commitment to decarbonisation from owners and investors," adds Pritchett. "With clients like LGIM, we are seeing a desire to go beyond minimum requirements, with clients making a real investment to future-proof buildings, protect assets against climate change and create long-term value and performance across their portfolio."

This groundswell is strengthened by the realisation that to continue with 'business as usual' poses the real threat of asset stranding as the market shifts.

"Large occupiers, particularly multinationals, have their own ESG commitments and they are not going to sign up for buildings that aren't net-zero carbon or on a pathway to net zero. Investors want to maintain their asset values, which are partly driven by what people are willing to occupy," says Pritchett.

### Engineering opportunities

Retrofitting a building that was designed and constructed with limited concerns for its carbon footprint is where Pritchett and the Cundall team see engineering opportunities.

Even the perceived quick wins, such as replacing old boilers with highly-efficient electric heat pumps, pose complex engineering challenges to effectively integrate these into existing systems whilst maintaining the building's function and setting it on a path to net-zero carbon.

"The initial challenge is understanding the building and its systems," says Pritchett. "We are fortunate because we have a breadth of engineering expertise from building physics to the detailed engineering of pipe systems and valve arrangements. You need all those skills and the knowledge of different disciplines to provide a coordinated answer. Once you've got that engineering understanding then you can really get to work.

### Helping Kew's iconic Palm House reach net zero

Royal Botanic Gardens, Kew has appointed Cundall as decarbonisation consultants on the restoration of the heritage-listed Palm House. Protecting and conserving this impressive Victorian glasshouse, while also helping it achieve net-zero carbon is a rewarding challenge that will set the standard for how we restore other heritage-listed buildings in the future. The restoration will be respectful of the building's heritage but will also improve the building's operation, deliver improved internal conditions for the plant life and upgrade the energy systems for the future.

"Often you can identify some straightforward signals of inefficiency – one client we worked with had their building's heating and ventilation coming on every Saturday because its systems had been scheduled for a one-off event and not switched back. We can make 10% to 15% energy savings improvements just by managing assets more efficiently before we move into fundamental changes."

### A blueprint for change

Cundall is at the forefront of net-zero carbon design which is forming a blueprint for industry, clients, developers and peers to learn from and collaborate for a brighter, more sustainable future. It is committed to achieving net-zero carbon design on all its projects by 2030 and confirmed that it will no longer work with clients who don't share its vision.

"This is a very demanding and challenging sector, but the need is crystal clear from a business and ethical standpoint. The positive news is that industry is moving forward and putting more weight and urgency behind the push to net-zero carbon," says Pritchett.

"We need everyone to wake up to the scale of this challenge. It is central to combatting climate change but does not seem to be on everyone's radar at the moment. Flying and driving get a lot of press coverage, but buildings get almost none.

"Engineers are problem solvers and getting to net-zero carbon is a challenge we welcome. We need to work together to achieve this."

**To find out more, visit cundall.com**

CUNDALL

# THE RISE OF NET ZERO

Since the term was first popularised at the landmark Paris Climate Conference in 2015, net-zero commitments have been springing up around the world. Governments have enshrined them into law, and companies have started embedding them into their corporate strategies. But how meaningful are these promises, and where do gaps remain?

## OF THE WORLD'S 2,000 LARGEST PUBLICLY TRADED COMPANIES...

**1 in 3** now have net-zero targets, up from 1 in 5 in December 2020

**40%** plan to use offsetting to achieve net zero. Less than 2% have explicitly ruled this out

**38%** have pledged to address scope 3 emissions

## A SHARED ENDEAVOUR?

Published emissions targets from the world's largest companies (by annual revenue, US$)

**Scope 1**
All emissions under an organisation's direct control, including from fuel used in manufacturing or fleet vehicles

**Scope 2**
Indirect emissions from electricity purchased and used by the organisation

**Scope 3**
All other indirect emissions from sources not owned or controlled by the organisation, including emissions both up and down the supply chain

Yes
Partial
No
Not specified

*Berkshire Hathaway: striving to achieve net zero
**Samsung Electronics: planned to use 100% renewable energy by 2020 and claims to have achieved this
***Teva Pharmaceutical: emissions reduction target – a 33% reduction versus 2017 baseline by 2030

### US

| Company | End target, year | Scope | Carbon offsetting | Annual revenue |
|---|---|---|---|---|
| Walmart | Net zero, 2040 | 1 Yes, 2 Yes, 3 No | No | $559.2bn |
| Amazon | Net zero, 2040 | 1 Yes, 2 Yes, 3 Partial | Partial | $280.5bn |
| CVS Health | Net zero, 2050 | 1 Yes, 2 Yes, 3 Yes | Not specified | $268.7bn |
| Apple | Carbon neutral, 2030 | 1 Yes, 2 Yes, 3 Yes | Partial | $260.2bn |
| Exxon Mobil | Net zero, 2050 | 1 Yes, 2 Yes, 3 Partial | Not specified | $256.0bn |
| Berkshire Hathaway | Other* | 1, 2, 3 Not specified | Not specified | $254.6bn |
| UnitedHealth Group | Net zero, 2035 | 1 Yes, 2 Yes, 3 No | Not specified | $246.3bn |
| Alphabet | Net zero, 2030 | 1 Yes, 2 Yes, 3 Yes | Yes | $166.3bn |

### EU

| Company | End target, year | Scope | Carbon offsetting | Annual revenue |
|---|---|---|---|---|
| Volkswagen | Carbon neutral, 2050 | 1 Yes, 2 Yes, 3 Yes | Yes | $252.0bn |
| Shell | Net zero, 2050 | 1 Yes, 2 Yes, 3 Partial | Yes | $421.1bn |
| Daimler AG | Carbon neutral, 2039 | 1 Yes, 2 Yes, 3 Yes | Not specified | $193.0bn |
| EXOR Group | No target | 1, 2, 3 Not specified | Not specified | $160.9bn |
| Allianz | Net zero, 2050 | 1 Yes, 2 Yes, 3 Yes | Not specified | $122.4bn |
| AXA | Net zero, 2050 | 1 Yes, 2 Yes, 3 Yes | Not specified | $150.0bn |
| TotalEnergies | Carbon neutral, 2050 | 1 Yes, 2 Yes, 3 Partial | Not specified | $176.2bn |
| Deutsche Telekom | Climate neutral, 2040 | 1 Yes, 2 Yes, 3 Yes | Yes | $90.1bn |

### UK

| Company | End target, year | Scope | Carbon offsetting | Annual revenue |
|---|---|---|---|---|
| BP | Net zero, 2050 | 1 Yes, 2 Yes, 3 Partial | Yes | $271.6bn |
| HSBC | Net zero, 2050 | 1 Yes, 2 Yes, 3 Yes | Yes | $67.2bn |
| Prudential | Net zero, 2050 | 1, 2, 3 Not specified | Not specified | $67.2bn |
| Legal & General | Net zero, 2050 | 1 Yes, 2 Yes, 3 Partial | Not specified | $85.2bn |
| Aviva | Net zero, 2040 | 1 Yes, 2 Yes, 3 Yes | Yes | $89.5bn |
| Tesco | Net zero, 2050 | 1 Yes, 2 Yes, 3 Partial | Not specified | $82.7bn |
| Lloyds Banking Group | Net zero, 2030 | 1 Yes, 2 Yes, 3 Yes | Not specified | $64.3bn |
| Unilever | Net zero, 2039 | 1 Yes, 2 Yes, 3 Yes | Yes | $58.2bn |

### ASIA-PACIFIC

| Company | End target, year | Scope | Carbon offsetting | Annual revenue |
|---|---|---|---|---|
| Sinopec | Carbon neutral, 2050 | 1, 2, 3 Not specified | Yes | $369.2bn |
| PetroChina Co | Zero carbon, 2050 | 1, 2, 3 Not specified | Not specified | $364.1bn |
| Toyota Motor | Zero emissions, 2050 | 1 Yes, 2 Yes, 3 Not specified | Not specified | $280.5bn |
| China State Construction | No target | 1, 2, 3 Not specified | Not specified | $203.0bn |
| Samsung Electronics | Other** | 1 Yes, 2 Yes, 3 Yes | Not specified | $197.6bn |
| ICBC | No target | 1, 2, 3 Not specified | Not specified | $177.2bn |
| Hon Hai Precision | No target | 1 Yes, 2 Yes, 3 Not specified | Not specified | $172.8bn |
| China Construction Bank | No target | 1, 2, 3 Not specified | Not specified | $162.1bn |

### MIDDLE EAST

| Company | End target, year | Scope | Carbon offsetting | Annual revenue |
|---|---|---|---|---|
| Saudi Aramco | Net zero, 2050 | 1 Yes, 2 Yes, 3 No | Not specified | $329.8bn |
| Saudi Basic Industries | No target | 1, 2, 3 Not specified | Not specified | $37.3bn |
| Teva Pharmaceutical | Emissions reduction*** | 1 Yes, 2 Yes, 3 No | Not specified | $17.4bn |
| Saudi Electricity | No target | 1, 2, 3 Not specified | Not specified | $17.3bn |
| Qatar National Bank | No target | 1, 2, 3 Not specified | Not specified | $15.9bn |
| Saudi Telecom | No target | 1, 2, 3 Not specified | Not specified | $14.6bn |
| Etisalat | No target | 1, 2, 3 Not specified | Not specified | $14.2bn |
| Emirates NBD | No target | 1, 2, 3 Not specified | Not specified | $10.7bn |

Net Zero Tracker. Energy and Climate Intelligence Unit, Data-Driven EnviroLab, NewClimate Institute, Oxford Net Zero, 2022

## A BRIEF HISTORY OF NET ZERO

In less than a decade, the term has become the guiding principle for sustainability efforts. The next challenge is turning words into action

**2013** The IPCC's Fifth Assessment Report recognises that tackling climate change means reducing net ongoing emissions to zero

**2014** The World Bank outlines the need for a global climate agreement to "provide a clear pathway to zero net emissions before 2100"

**2015** The Paris Climate Agreement aims to limit global warming to a maximum temperature increase of 2 degrees by reducing emissions to net zero as soon as possible

**2016**

**2017** Sweden is the first nation to enshrine a net-zero target in law

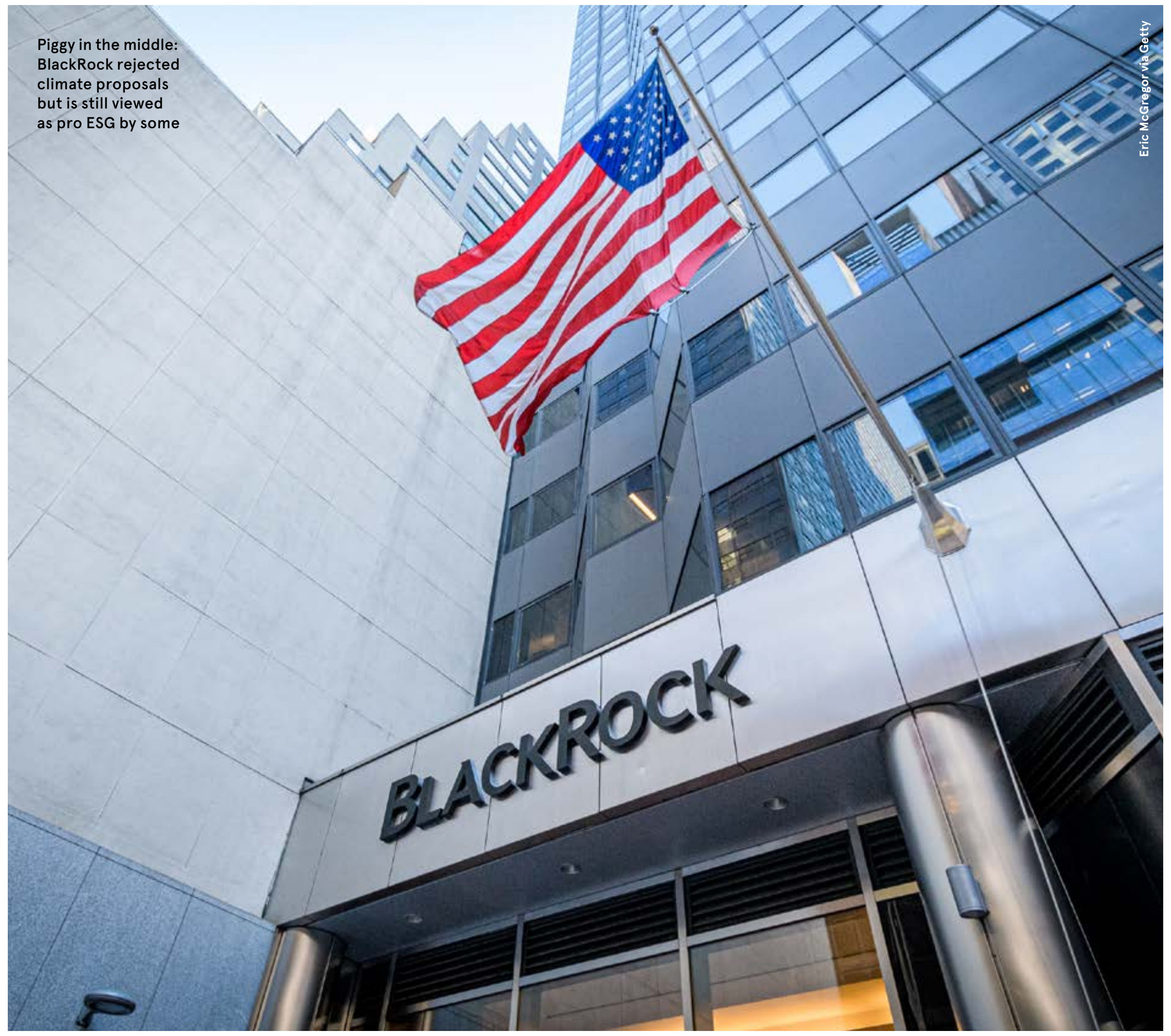
**2018** The IPCC's Special Report recommends limiting global warming to a 1.5 degree increase

**2019** The UK becomes the first G7 nation to legislate for a net-zero target

**2020** China, the world's largest emitter, commits to carbon neutrality "before 2060"

**2021**

**2022** National net-zero pledges now cover more than 90% of the global economy




Piggy in the middle: BlackRock rejected climate proposals but is still viewed as pro ESG by some

Eric McGregor via Getty

SHAREHOLDER ACTIVISM

# Investors turn down the heat on big oil

Support for climate resolutions at energy companies and investment managers alike has slipped, as ESG faces criticism from both political groups and concerned corporates

Mark Walsh

Climate-related initiatives were front and centre during the 2022 proxy season, but shareholder support dwindled from last year amid a booming oil market and a broader backlash against environmental, social and governance (ESG) principles.

The number of environmental (including climate) proposals filed at companies listed in the S&P 500 and Russell 3000 this year surged 69% from 81 to 137 through July, according to the Conference Board, a non-profit business research group (based on data from Esgauge). But overall voting support for environmental proposals slipped to 34% from 38%.

A separate analysis of shareholder voting by US-based multinational law firm Gibson Dunn in July found climate change proposals alone jumped 57% to 130 from 83 last year. But only nine won majority approval versus 11 last year, while the average voting support fell to 33.4% from 49.9%. (The firm's analysis was based on data compiled by proxy adviser Institutional Shareholder Services.)

The upwelling of shareholder support for environmental issues last year was highlighted by activist investor Engine No. 1 succeeding in having three new directors voted onto the board of ExxonMobil Corp for climate-related reasons.

But that remains a high point after the weakening of shareholder support this year. Mark van Baal, founder of Dutch environmental advocacy group Follow This, recently even described 2022 as a "lost year" fighting climate change as the major oil companies can claim greater shareholder support in the proxy wars.

Indeed, it's hard to ignore the impact that record profits this year at oil giants such as BP, Exxon, Shell and Chevron may have had in softening investor sentiment on climate demands. "These proposals are about the long-term horizon but proxy voting is affected by current realities," says Heidi Welsh, executive director of the non-profit Sustainable Investments Institute in Washington DC, which tracks ESG-related proposals and voting.

> Climate proposals are about the long-term horizon but proxy voting is affected by current realities

**THE 2022 PROXY SEASON**

Breakdown of shareholder resolutions filed with the SEC by type in 2022

| | |
|---|---|
| Climate change | 21% |
| Corporate political influence | 19% |
| Human rights | 15% |
| Decent work | 12% |
| Diversity at work | 9% |
| Other environment | 6% |
| Board oversight/diversity | 5% |
| Health | 5% |
| Conservative | 5% |
| Sustainability | 3% |

Proxy Preview, 2022

The oil supply shock following Russia's invasion of Ukraine has put the focus back on fossil-fuel production. "Potential natural gas shortages in Europe and possibly higher oil prices have shifted priorities to securing supply – while weaning the EU off Russian hydrocarbons – from addressing climate change," wrote S&P Global energy analyst Simon Redmond in a mid-year report.

At the same time, asset management giants like BlackRock and Vanguard rejected climate proposals they deemed overly prescriptive. BlackRock reported voting in favour of 27% of environmental and social resolutions in 2022, down from 43% last year, "as many climate-related shareholder proposals sought to dictate the pace of companies' energy transition plans despite continued consumer demand."

That put the firm at odds with activists like Follow This, which introduced several proposals calling for oil companies to reduce emissions in line with the goal of the Paris agreement to limit global warming to 1.5 degrees Celsius above preindustrial levels.

At Shell, for example, that initiative drew support from 20% of shareholders, down from 30% last year, while winning just 15% at BP, down from 21% in 2021. Until this year, support had been increasing for the measure at both companies since Follow This first filed it in 2016.

Proposals that set more stringent targets on greenhouse gas emissions or reaching net zero are naturally going to be a harder sell than those which only ask companies for reporting or disclosure, according to proxy experts. Tougher requests could include that companies adopt policies which align with the International Energy Agency's net xero emissions by 2050 scenario.

"Disclosure resolutions are getting the same level of support," says Andrew Behar, CEO of environ-mental and social advocacy non-profit As You Sow. "But it's the newer resolutions which are a little more granular that are challenging the status quo."

In the former category, As You Sow won majority support this year for a novel proposal asking insurance giant Chubb to report on its plans to measure, disclose and reduce the greenhouse gas emissions associated with its underwriting activities. The aim is to make the insurance industry more accountable for its role in financing fossil fuel projects.

But Behar says he expects shareholder resolutions to focus on direct action after the adoption of a proposed US SEC rule that would require companies to provide detailed reporting on climate-related risks, emissions and net-zero transition plans. Under the new rule, large companies must disclose that information starting in the 2023 fiscal year.

Even more than stricter demands, others attribute softer support for climate proposals in order to push back against ESG investing more broadly. Conservative-leaning investors such as Peter Thiel, business figures like Elon Musk and the Republican party in the US have lately taken aim at ESG as irresponsible "woke capitalism".

"I would not underestimate the impact that the anti-ESG backlash is having on some investors," says Tom Powdrill, head of stewardship at London-based proxy adviser Pensions & Investment Research Consultants. "There is significant political and corporate pressure."

Despite its pullback on climate proposals this year, BlackRock has come under attack by conservative groups and politicians as a leading proponent of ESG investing. According to an Axios report, Republicans plan to haul in the CEOs of investment firms such as BlackRock before Congressional committees if they retake power in January.

For his part, Van Baal has no plans to change strategy in the wake of the ESG backlash or soaring oil industry profits. That means continuing to push for reductions in emissions aligned with the Paris accord and building on the minority of shareholders its proposals have attracted.

"Together with these investors, we must convince a majority of investors that big oil will not change unless they use the power they have, the power of the vote," he says.



Commercial feature

# Q&A

# Recycling for the future

**Gerry Marshall,** CEO, Recycling Lives, explains how the company's pioneering circular-economy approach is giving waste a second life

Since it was founded in 1977, Recycling Lives has evolved into a pioneering circular economy business with social sustainability and the environment at the heart of its operations, winning support from customers, the industry and beyond.

CEO Gerry Marshall says, "The business model has evolved particularly in recent years, to deliver commercially as well as on a social value and environmental innovation basis. What sets Recycling Lives apart is we're able to deliver fundamental progress to help move the recycling sector forwards in terms of environmental innovation and positive social impact when it comes to the people we help.

"For us, the bottom line isn't just financial. It's important that our commitment to the environment and to social value is fully embedded into everything we do – it's something our customers, employees and suppliers are all fully bought into."

**Q What's the Recycling Lives goal?**

**A** Doing good while we do business is the crux. We are leading the charge when it comes to the circular economy and we're working hard to keep improving the level of sustainability across every aspect of our work and operations, making these as energy efficient as possible. Our goal is to drastically reduce landfill as we move towards net zero.

**Q Tell us how Recycling Lives operates.**

**A** We have four business units – vehicle processing, metal processing, producer responsibility compliance and environmental services, which is also known as total waste management.

We are the UK's largest vehicle processor, responsibly recycling more than 150,000 cars and generating around 500,000 tonnes of high-quality recyclable 'green' steel annually. Recycling Lives is working towards generating energy to run site operations, creating green hydrogen to power emission-free vehicles, and retasking batteries from end-of-life electric vehicles (EV) to be reused for energy storage.

**Q How many vehicles are recycled?**

**A** Annually, around 2 million end-of-life vehicles (ELV) are produced in the UK. We recycle the parts we can and the remaining automotive shredder residue (ASR) amounts to about 25% of ELV mass left. Of this, we currently recover 20%, leaving 5% which goes to landfill. This 5% is now being addressed through Recycling Lives' ground-breaking energy-from-waste solution to significantly reduce the amount of landfill.

**Q Do you help individuals and companies to scrap cars responsibly?**

**A** Yes – we have Scrap Car Network, which is part of the Recycling Lives Group, an online nationwide community of recyclers who offer people and businesses competitive prices for scrapping their car responsibly. If we can, we repurpose the parts for reuse, giving them a second life, but if this is not possible, we recycle them.

**The government estimates technologies such as battery storage systems could save the UK energy system up to**

**£40bn**

**by 2050**

National Grid, 2022

> The bottom line isn't just financial. It's important that our commitment to the environment and to social value is fully embedded into everything we do

**Q And what about EVs?**

**A** The sale of electric vehicles and their subsequent end-of-life will increase the opportunities for us to ensure vehicles are disposed of and recycled in the optimal way. For illustrative purposes, if 8% growth was assumed for new sales, and calculating historical attrition rates, there could be 75,000 to 100,000 end-of-life-state EV batteries for recycling, not including manufacturing rejects or other sources.

**Q Is there scope to reuse EV batteries?**

**A** Yes. And with the UK government targeting net zero by 2050, we are poised to ensure that EV batteries have a second life. For instance, they can be used as battery energy storage systems (BESS) in commercial, domestic and vehicle charging scenarios. The Government estimates technologies such as battery storage systems could save the UK energy system up to £40bn by 2050. Currently there are no commercialised UK-based recycling facilities to process spent batteries, but we are investing in this as a priority.

**Q Do you recycle electric and electronic items?**

**A** Yes, recycling is crucial to helping businesses meet their legal obligations around the disposal of electrical and electronic equipment (WEEE) and avoid the potentially hazardous components going to landfill. Recycling Lives offers clients total compliance so they meet producer responsibility obligations and also have access to the appropriate facilities. Mixed electrical and electronic waste is shredded – the process uses magnetic separation, air blowers and screening for materials such as ferrous and non-ferrous metals, wires, plastics, rubber and glass. This reduces landfill waste and generates recyclable metals, recyclable plastics and rubber.

**Q How does Recycling Lives help the community?**

**A** We support ex-offenders, long-term unemployed and those people in vulnerable groups through training and work placements. Providing the support to help integration back into society and establish self-sufficiency means we're helping to reduce their risk of reoffending. The national average reoffending rate in the UK is about 60%, whilst the reoffending rate at Recycling Lives is under 5%.

**Q What's Recycling Lives like as a workplace?**

**A** It's a really positive and supportive environment. We invest heavily in welfare, training and diversity. This year, we launched The Terry Jackson Academy, named after the company's founder, which provides desk-based tuition, remote learning, hands-on demonstrations and virtual reality experiences. It was created to induct new employees, upskill and develop existing staff and support young people in schools, colleges and disadvantaged groups.

**For more information please visit www.recyclinglives.com**

recyclinglives

### Vehicle recycling process

- On arrival, vehicles are inspected before proceeding to the depollution process. There, the potential pollutants are drained, and hazardous materials, such as fuel, brake fluid, engine oil, washer fluids, wheels and batteries are removed.
- Next, engines are removed and the vehicles are processed through a fragmentiser, which separates ferrous and non-ferrous metals from other materials. The waste is known as automotive shredder residue (ASR).
- Some engines can be reused, but non-functioning engines are recycled. Other car parts that can be reused include gearboxes, mirrors, tyres, lights and side panels. The remaining materials (seats, carpets, plastics, glass) are subjected to separation and extraction technologies to remove recyclable components.
- Ferrous metal is shredded and cleaned to become quality 'green steel', ready to be used in another guise in its next life. Non-ferrous metals ('zorba') are also made ready for their next use.
- Recycling Lives' energy-from-waste solution will reduce the amount of ASR that goes to landfill by diverting clean and graded material through thermal treatment technologies to generate energy. Advanced thermal decomposition converts ASR waste into energy, generating by-products – char being used to create green hydrogen, residual char may be applied as a soil modifier and ash as construction-sector aggregate.

RENEWABLE ENERGY

# The switch-on to renewables

The ongoing energy crisis is pushing more businesses towards using renewables. But is this a long-term trend? Or will the shift towards renewables abate once the energy crisis is over?

Jonathan Evans

The energy crisis squeezing business and consumer finances today is not without precedent. As Russia continues to use its gas supplies as a weapon in its war with Ukraine and, in turn, the West, commentators have compared today's situation with the energy crisis of the 1970s.

Back then, a political conflict deliberately disrupted supply chains and caused surging energy prices. The recession that stemmed from this disruption differed from its predecessors by simultaneously causing high inflation and high unemployment – a phenomenon known as stagflation.

The Bank of England has made it clear it will do everything it can to stop inflation and stagflation from taking hold in the UK economy. But unfortunately for businesses, the solutions to stemming the rise of inflation threaten to tip the UK into a recession.

After the biggest interest rate rise in 27 years, the Bank of England warned in August that the UK will fall into a recession later this year. This downturn is forecast to last until the end of 2023, with economic growth expected to grind to a halt next year.

But if there is a silver lining to the current energy crisis, it's the increasing demand from businesses for clean and renewable energy supplies.

The combination of high costs associated with non-renewables and longstanding concerns about the environmental impact of fossil fuels has reframed renewables as a more economical and reliable source of energy than dirtier alternatives. The first half of 2022 saw a record investment globally in renewable energy, which reached $226bn (£191bn). Solar and wind were the most popular choices, according to BloombergNEF.

> Making your building more energy-efficient is the first step, so insulate it and get your onsite renewables to cover your heat and power needs

Christophe Williams is the co-founder and CEO of Naked Energy. He does not believe the energy crisis will be an immediate catalyst for widespread renewable adoption, pointing to our recent history with fossil fuels as proof that our energy habits are hard to shake.

"Covid showed us that after lockdown and when economies wanted to reboot, the first thing they did was burn fossil fuels. It's low risk. Investors love it because it's a very steady return. It's a safe investment."

Williams notes that the ongoing energy crisis creates an opportunity for companies to protect themselves from future price shocks. He says firms that switch long-term to clean energy now will be far better placed to weather future economic uncertainty and primed for the next big energy challenge currently facing businesses: net zero.

One option that some businesses are pursuing is to generate their own green energy onsite. Research by NatWest Group found that 7% of SMEs have already started to invest in onsite green energy generation, with most of this investment going to battery storage and installing solar panels. This figure is predicted to double next year, meaning that by 2023 around one in six SMEs (17%) will generate and store their own green energy onsite.

The push towards onsite green energy generation from SMEs is timely, given the disruption in the energy market. British Gas is reportedly planning to stop selling energy to its biggest business customers. And in March, Scottish Power announced plans to stop supplying its British industrial and commercial customers.

Williams says the decisions taken by British Gas and Scottish Power are typical of an energy market that lacks both "independence" and "forward thinking".

He says: "Businesses need to become more energy independent. Gaining this independence is a great way to keep energy costs low. Making your building more energy-efficient is the first step, so insulate it and get your onsite renewables to cover your heat and power needs. Energy efficiency is incredibly effective at bringing down demand because the cheapest energy you'll ever use is the energy that you don't use."

Nigel Pocklington is CEO at Good Energy and agrees with this view. He observes that, despite the requirement for a significant initial outlay, switching to onsite green energy generation is a win-win for businesses because it not only reduces energy costs but it also signals a commitment to the climate that customers can easily see.

"Businesses were already shifting towards renewables because that's increasingly what their customers expect. The UK market is such that the cost benefits of renewables are difficult for businesses to access unless they invest in generating their own clean power, because energy prices continue to be set by gas. But what is positive is that this has not diminished interest from businesses in switching to renewables."

> Unless businesses realise the cost of fossil fuels unsubsidised, the switch to renewable green energy is not going to happen quickly enough

But for many businesses, finding the investment to make onsite green energy generation viable is not possible in today's economic climate.

The cost-of-living crisis that is now evident, occurring together with the drop in household disposable income are impacting businesses just at a time when they are also grappling with supply chain issues and high inflation. Corporate insolvencies in England and Wales rose by more than 80% in Q2 compared to a year earlier, while the number of firms opting for liquidation reached the highest level for at least six decades.

High energy costs appear to be driving this trend, with 77% of business leaders reporting that energy prices are the biggest challenge that their company must tackle, according to recent research by Npower Business Solutions.

"There is, rightly, a national conversation happening about the economic and wellbeing hardship on people right now, with less about the pressure on businesses," says Pocklington.

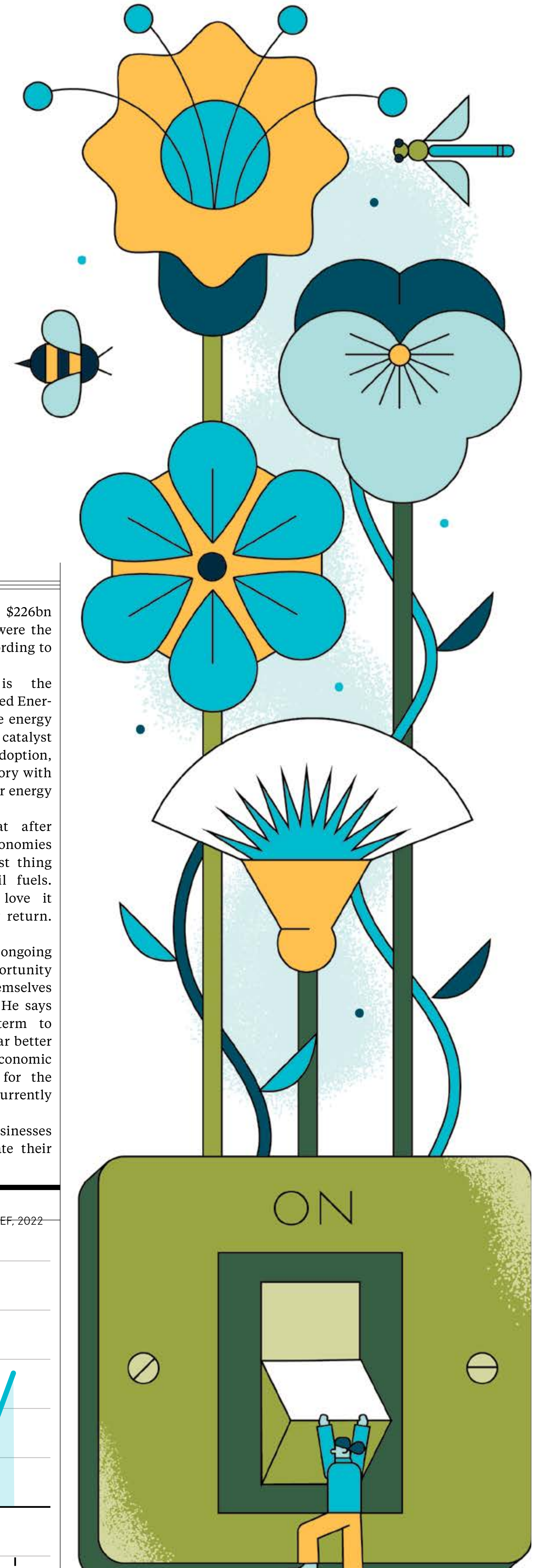
"There will be more insolvency, uncertainty and increased prices across the economy unless there is significant government intervention to tackle rising energy costs for both people and businesses."

The government's role in alleviating the energy crisis and incentivising widespread renewable adoption among businesses has been under the spotlight again, following the passing of the Inflation Reduction Bill in August. This long-awaited legislation is a significant victory for the renewables sector, with $369bn going towards encouraging the production of renewable electricity plants.

Williams believes that action on a similar scale is needed in the UK to ensure that the businesses which have switched to renewables during the energy crisis do not return to fossil fuels, once the prices have normalised. "It's frustrating when you consider that roughly $11m per minute is going towards subsidising fossil fuels. The switch to renewable green energy won't happen quickly enough unless businesses realise the cost of fossil fuels unsubsidised and we divert the money used to subsidise fossil fuels to create cleaner grids, cleaner infrastructure and facilitate the energy transition."

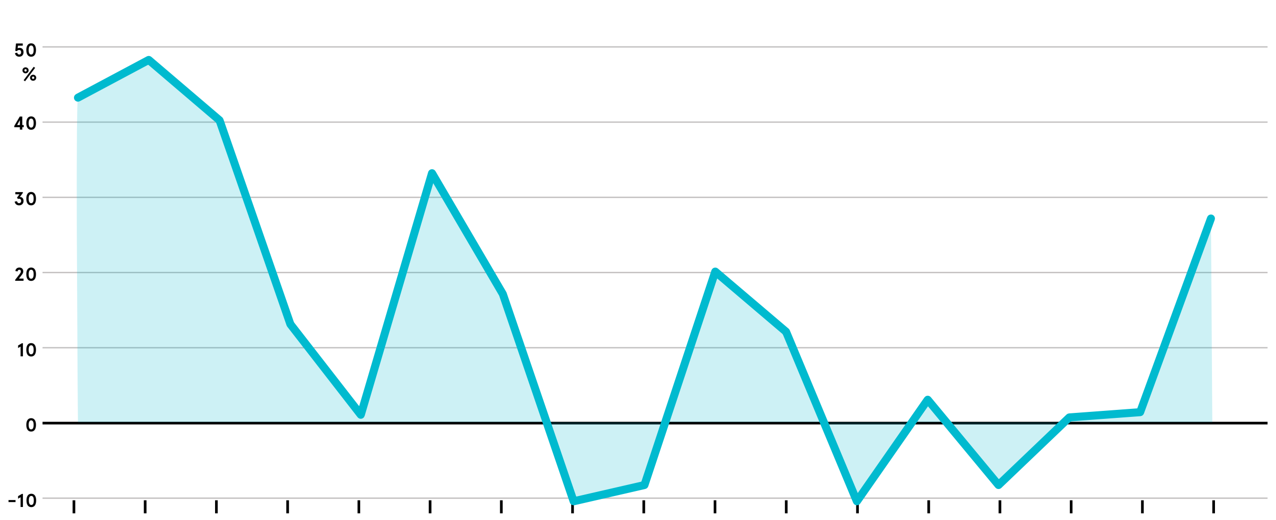
But according to Rhianna Wilsher, director and clean energy lawyer at Freeths, the UK government's focus on tackling the cost-of-living crisis for consumers may limit the support offered to businesses. "The pinch that the government finds itself in is that introducing financial incentives or tax cuts to support development or rollout of renewable technologies has previously been funded by an increase in green levies on consumers' energy bills," she says.

"The need to reduce energy bills to ease the cost of living is considered by many to be a priority over the imposition of green levies. So, it's currently being used as a political football. This may result in holding back the government's investment in renewables, over the need to ease the cost of living."




ANNUAL GROWTH RATE IN CLEAN ENERGY INVESTMENTS WORLDWIDE

BloombergNEF, 2022






Commercial feature

# How to achieve sustainability and profitability

Is your business ready for the new EU Taxonomy corporate mandates?

Corporate transparency regarding sustainability levels and activities is a cornerstone of the European Green Deal, which provides policy measures intended to help make Europe the first climate-neutral continent by 2050.

What's more, the EU's sustainable finance initiative supports the Green Deal by helping to channel private investment towards a transition to a climate-neutral economy. (The UK's Green Finance Strategy operates on a similar model.)

**EU sustainability reporting**

The EU Taxonomy for sustainable activities is supporting this transition by providing transparency regarding the economic (business) activities which contribute most to meeting the EU's environmental objectives. By classifying environmentally sustainable actions, the EU Taxonomy is designed to improve sustainable investment, create security for investors and motivate companies to be more sustainable.

Companies based in Europe, or those operating a European legal entity with more than 500 employees, are now required to disclose sustainability risks and opportunities.

> Companies can use the EU Taxonomy to differentiate themselves as sustainable manufacturers

The Taxonomy also supports the upcoming Corporate Sustainability Reporting Directive (CSRD), which is the first common reporting framework from the European Commission focused on non-financial ESG data. More than 50,000 companies must submit their report aligning with the CSRD on 1 January 2024, for the 2023 financial year.

**Business support for environmental objectives**

More broadly, reporting demonstrates how a company's actions are contributing towards the EU's six environmental objectives. Companies should be aiming to contribute to at least one of these, while not harming any other objectives and also meeting minimum social safeguards. Many manufacturers are well positioned to contribute substantially to advancing the following two objectives: climate change mitigation and the transition to a circular economy.

Product design and manufacturing are the linchpins of successful sustainability efforts, as companies determine more than 80% of a product's environmental impact and cost during the design phase.

**Measuring manufacturing emissions**

On emissions, you can't manage what you can't measure, so many manufacturers are adopting the Greenhouse Gas Protocol's Corporate Value Chain Standard (Scope 3) to measure their carbon emissions throughout the supply chain.

Once there is a baseline for a product's current carbon footprint, one other option is for manufacturers to work to reduce $CO_2$ emissions and meet their other product requirements simultaneously. Teams can make decisions by evaluating trade-offs among cost, sustainability, and manufacturability. Some product brands are already using aPriori's Manufacturing Insights Platform to:

- Identify alternative materials to reduce $CO_2$ emissions and weight, etc.
- Select alternative manufacturing processes to save electricity and reduce scrap, etc.
- Update product designs to cut manufacturing times and incorporate alternative materials, etc.

**The key to sustainable product development**

Companies are increasingly using digital transformation (DX) capabilities to incorporate sustainability insights into their strategic planning and manufacturing operations. With a unified view of the product development and manufacturing process, businesses can understand a product's $CO_2$ impact during the early design phases, and then evaluate opportunities to reduce a product's carbon footprint. Product design and production teams can simulate design alternatives using different materials and manufacturing processes to meet key targets on $CO_2$ emissions, cost and performance.

Manufacturers with the insights to evaluate cost, sustainability and manufacturability are well positioned to capitalise on the market demand for "green" products at an attractive price point.

Companies can use the EU Taxonomy to differentiate themselves as sustainable manufacturers – and clearly communicate this advantage to customers, investors and other stakeholders.

**For more information please visit apriori.com**

aPriori

INTERVIEW

# Putting the 'S' back into ESG

Environmental pledges abound. But where's the social action? **Jamie Coats,** co-founder and CEO of Wise Responder, outlines a new tool kit that allows businesses to show they are rooting out poverty in their workforce

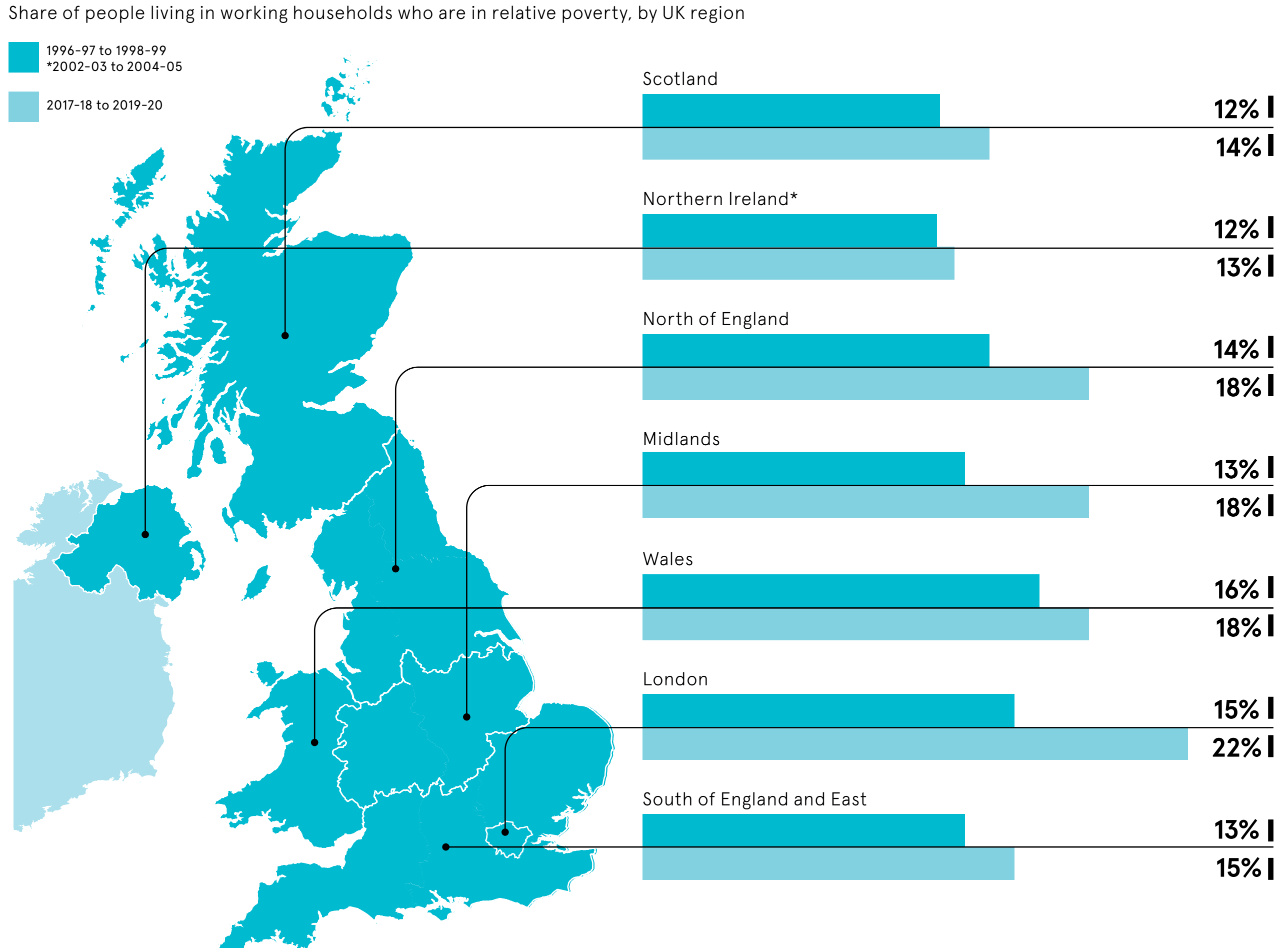
Sean Hargrave

Businesses know they need to be purpose-led to reflect the environmental and social values their customers and investors hold dear. This means they're now starting to move beyond net-zero pledges to providing assurance that their goods and services are provided through a workforce that is treated well.

Nevertheless, the gap between environmental and social action is huge. Even though ending poverty is the first priority for the United Nations' Sustainable Development agenda for 2030, more than half (53%) of FTSE 100 companies failed to mention the word 'poverty' in their annual reports for 2019 to 2020, according to research from think-tank Social Market Foundation. It claimed it was a strange omission, prompting an accusation that big business is ignoring the 'S' in ESG.

## WORKING POVERTY

Share of people living in working households who are in relative poverty, by UK region




IPPR, 2021

Part of the reason for the disconnect between seeing poverty as an issue and then pledging action could be that boards have not had proven, standard research methodologies and metrics to detect the problem and measure improvements.

Even the official definition of poverty can be restrictive. It has traditionally been applied to those living under the World Bank's threshold of $1.90 (£1.61) a day or, from autumn, it rises to $2.15 per day. Based on 2017 data, the bank reveals just under 700 million people qualify as living in poverty.

But looking at a person's life only through a financial lens misses the fuller picture. A worker can be above the poverty line but might have a large family, perhaps with sick parents, unemployed siblings and children to send to school, all on a wage that technically takes them out of the official definition of poverty.

It was to get a more comprehensive picture of poverty and living standards that researchers at the University of Oxford designed the multidimensional poverty index (MPI), which has been adopted by the United Nations Development Programme and is now available to businesses through a spinout called Wise Responder. Rather than rely solely on income, the new questionnaire-based approach relies on many criteria, such as quality of housing, food availability, access to education, healthcare and security. When these more comprehensive factors are included, it becomes clear that poverty is far deeper entrenched than the headline figures would suggest.

> "There aren't standards in social data. We've seen environmental data get a lot better, but social data has fallen behind

When the MPI was applied to three-quarters of the world's population in 109 developing regions in 2021, one in five were found to be living in multidimensional poverty. The World Bank figure of 700 million living in poverty was nearly doubled to 1.3 billion people.

For Jamie Coats, co-founder and CEO of Wise Responder, the figures came as little surprise. In his work with many large companies that want to do the right thing by their employees, he reports multidimensional poverty is far higher than boards may have originally thought.

"We're working with a group of companies across Latin America, including global Fortune 500 companies, that want a well-motivated workforce," he says.

"Our data shows that across Central America and some parts of Latin America, the average rate of multidimensional poverty for companies in the agricultural and beverage industries is around a third of their employees. So, a significant amount of the population is struggling, and that impacts their business."

By addressing the issue and establishing where a business can improve its workers' situation, Coats reveals companies can show they care, and that has a significant impact on brand image, as well as employee morale.

"Everybody's talking about purpose. We've seen that when companies help individuals, that creates an esprit in the business by showing it has an authentic purpose," he says. "Employees show a lot of gratitude when companies take action. That's very good for loyalty."

The data from Wise Responder not only shows areas where multidimensional poverty has been recorded but also highlights areas where the business may be able to help. For example, debt problems can potentially be dealt with through financial advice, and access to healthcare could be improved through company-wide health insurance schemes.

There are, inevitably, areas where a company cannot make an impact on its own. For these larger projects, such as improving schools and sanitation, companies can work in partnership with one another, as well as with local governments and non-governmental organisations (NGOs). Although it is early days, there are already signs that this can work well when all parties share the same data.

"We have a partner in Costa Rica, called Horizonte Positivo, which is a business-led coalition of 70 companies with approximately 300,000 employees," says Coats.

"They discovered that between them they employ just under 10% of the multidimensionally poor people who live in Costa Rica. They have now launched thousands of actions, whether that's looking at providing education, health care, help with refinancing debt, or home improvements. That coalition of companies is now also working with a set of NGOs that can help supply and support those issues."

This not only improves worker conditions but is also proving to be a way of showing investors that a business takes identifying and dealing with poverty in its workforce seriously.

"There are now trillions of dollars that are targeted to ESG but there are just too few quality vehicles to take those funds and then report back on change," says Coats.

**1 in 8**

UK workers are living in relative poverty

CIPD, 2022

"The financial markets are saying, if you can come to us with data, we will have a better conversation about capital allocation. That means investing in social data, alongside environmental data, gives a business something they can literally take to the bank.

"Citigroup, for instance, has made a $500bn commitment to underwrite sustainable loans based on social indicators. One of the challenges around all this is that there are no standards in social data. We've seen environmental data get a lot better but social data has fallen behind."

Ultimately, Coats believes social indicators for poverty will begin to catch up with those for environmental impact, so businesses will be able to show they have taken action to deal with poverty in their business and its supply chain. This could well lead to a kitemark that companies will be able to display, to reassure consumers and investors they are acting on their shared values of treating people decently.

For those who don't currently use social measures, his advice is for an executive to go out and look beyond wage levels and check out themselves how workers are living. Do they live in decent housing; can their children go to school; are they healthy; do they get enough food; are there hospitals they can use – and do they suffer discrimination?

For those who can't get out and see workers' home conditions, here's a tip. Walk around the canteen at one of your company's bases and just ask people if the lunch they are currently enjoying will be their only meal of the day. Feedback from executives from large, global companies has so far been that most are surprised by how many rely on the work canteen for their main, often only, meal of the day.

Simply following a tick-box exercise of ensuring that wages are above the World Bank's lowest limit would never show this social aspect of multidimensional poverty. It is more prevalent than executives realise – until they commit to measure it, and then take action.

> "Financial markets are saying, if you can come to us with data, we will have a better conversation about capital allocation. That means investing in data gives a business something they can literally take to the bank

Firn via Getty

> It's important not to fall for another type of greenwashing too: confusing reporting for real action

MARKETING

# Why greenwashing is here to stay

Regulators and rating agencies are getting tough on companies making misleading sustainability claims. But it'll take more than AI and fresh reporting requirements to put a stop to this pernicious practice

Emma Woollacott

In 2015, Volkswagen spent $77m (£65m) in the US alone touting its diesel cars, presenting them as a low-emission alternative to petrol vehicles.

Of course, it would later turn out to be $77m poorly spent. After an investigation, the environmental protection agency revealed that Volkswagen had been installing a so-called cheat device to detect when a vehicle was being tested – and to improve its environmental performance accordingly. When in use on the road, the engines concerned were emitting as much as up to 40 times the permitted level of nitrogen oxide.

It is one of the most egregious examples of greenwashing and it landed the company with fines and compensation bills running into the billions. But it hasn't stopped plenty of other companies from engaging in the practice.

According to the international consumer protection and enforcement network, as many as 40% of websites globally are still making misleading statements about environmental credentials, whether via omitted information or unsubstantiated claims. This is a problem for consumers, who may want to reduce their carbon footprint, and for investors, who are increasingly taking a company's environmental, social and governance (ESG) performance into account.

Ken Pucker is a lecturer at Tufts University and an author focusing on the efficacy of various sustainability efforts. As he notes, this ongoing greenwashing problem is a generational affair.

"Assets are shifting from boomers and Gen X to millennials, and from men to women. These new stewards of wealth are more concerned with planetary welfare and the impacts of their spending and investing than their elders were," he explains.

"This has created a demand for more sustainable enterprises. Then during the 2010s, a few key research studies pointed to the possibility that high-ESG companies deliver better investment returns. This was a reversal from the prevailing wisdom on Wall Street and it allowed the asset management community to sell ESG funds comprised, supposedly, of high-ESG companies to increasingly interested investors."

> These new stewards of wealth are more concerned with the impacts of their spending and investing than their elders were

This is where ESG rating agencies come in. These firms rate companies based on their ESG policies and activities, gleaning information from a range of sources that include company publications, government data and media reports. Unfortunately, this information often leaves a lot to be desired.

"When I see BMW telling me they've polluted a certain amount in scope 1 emissions, I don't know if that's good or not," says Florian Berg, a research associate focusing on sustainable investing at the MIT Sloan School of Management. "Even if you compare it with other carmakers, I don't know if it's good or not because I don't know how much BMW outsources to other companies. I need the ESG rater to tell me, to make the two things comparable."

To get a better sense of a company's genuine environmental footprint, you'll need to know about its scope 3 emissions, which includes emissions generated by partners in the supply chain. This is often the most significant category of emissions but is routinely omitted by companies attempting to improve their ESG scores. It's just one of several greenwashing tricks in play.

"Coca-Cola set a target to become water-neutral by 2020. They achieved their goal five years early. However, they were the ones that chose how to define water neutrality; they defined it as water used within the four walls of their production facilities," says Pucker.

"That definition excluded more than 90% of the water that is needed to produce their end product, most of which is used in growing the agricultural products – mostly sugar – to sweeten Coke," he explains.

Naturally, ESG rating agencies aim to take everything into account to give a more accurate picture of an organisation's performance. But this doesn't mean that ESG ratings can be relied on as gospel. MIT Sloan's Aggregate Confusion Project, which has set out to improve the quality of ESG measurement and decision-making in the financial sector, has found that the correlation between ratings from different ESG agencies averages just 0.61. By comparison, credit ratings from Moody's and Standard & Poor's are correlated at 0.92.

To deal with this, efforts are now underway to make ESG ratings more objective. Many agencies are using AI or neurolinguistic programming (NLP) to analyse corporate data and reports. According to Berg, however, this must be handled with care. "The problem is that when you run an NLP algorithm on a sustainability report which has been written not only by the company but also by an adviser who knows exactly how to write these reports, I don't see the NLP being good at figuring out how good or bad the company is," he says.

"Where AI can be very good is filtering stuff for analysis. For example, you get hundreds of millions of news articles written every day and you can't go through them all. AI can, though, so you can get down to a very small selection and then go through those by hand."

National and international bodies are also moving to tackle greenwashing, although these efforts are mainly in their early stages. This summer, the EU finalised a deal which would require large companies to disclose their ESG risks and opportunities, as well as the impact of their activities on the environment and people – all of which would be externally audited.

In the UK, meanwhile, the new green technical advisory group is to oversee the government's delivery of a green taxonomy – a common framework setting the bar for investments classed as environmentally sustainable.

For Pucker, though, it's important not to fall for another type of greenwashing here: confusing reporting for real action. "Many of the known environmental challenges have accelerated, and it's time to try a different approach," he says. "I suggest changing the rules and incentives: regulate to help raise the floor and make companies internalise the external risks."



Commercial feature

# Why hi-tech timber could solve construction's $CO_2$ problem

The construction industry is responsible for generating 37% of the world's $CO_2$ emissions – a figure equivalent to the emissions produced by China. But an enhanced, high-performance wood could help the industry on its journey to be more sustainable

Google's £1bn tech campus in King's Cross, London, provides a window into a new world of sustainable construction. The 300-metre wide 'landscraper' will house 7,000 employees by 2024, boast a landscaped roof garden with a rainwater irrigation system, and even a habitat for bats and birds to boost employee wellbeing – but that isn't what makes it special.

Sustainability and next generation materials are at the core of Google's innovative design. The tech giant has chosen Accoya, a hi-tech timber developed by UK high-performance wood specialists, Accsys, as the material for the building's facade. The wood will provide a durable and environmentally friendly alternative to materials such as steel, aluminium and concrete, which emit vast amounts of $CO_2$ during the manufacturing processes required to make them.

While normal wood absorbs moisture and rots over time, and typically expands and shrinks when exposed to different temperatures, Accoya timber has been deliberately engineered so the cells in the wood don't retain moisture. The end result is a futuristic timber that remains durable during all weather conditions and naturally locks in carbon throughout its entire lifecycle.

Rob Harris, CEO at Accsys, says the science is simple. "We're just enhancing a natural product," he says. "In this case, we're enhancing a fast-growing radiata pine wood from New Zealand to make a product that is just naturally stronger. So not only are we making it more resistant to rot and decay, we're making it harder and more durable. Accoya has an industry-leading warranty of 50 years above ground and 25 years in ground."

Google's focus on timber at its London HQ has been driven by the planet's race to reach net zero by 2050 and the construction industry's urgent need to transition to sustainable materials. It's a little known fact that construction is responsible for 37% of $CO_2$ emissions globally – that figure is equivalent to the total $CO_2$ emissions produced by China. Approximately 11% of those emissions come from manufacturing building materials and products such as steel, cement and glass.

A report by the World Green Building Council has stated that every building on the planet must be net-zero carbon by 2050 to keep global warming below $2^{\circ}_{C}$. But, there is another even more pressing deadline. According to the Paris Agreement, carbon emissions from cement production need to fall by at least 16% by 2030, but those emissions are still on the rise, partly driven by huge construction projects in China.

There is also a concern that countries with growing populations will build vast new urban developments using polluting, unsustainable materials that will worsen the industry's $CO_2$ problem. Nigeria's capital city, Lagos, which is already home to 22 million people living across 452 square miles, is one of a host of cities that is expected to grow in size and trigger the building of millions of new homes between now and 2030 and beyond.

This combination of factors has sparked a race to develop new sustainable materials and explains why the Accoya timber used in Google's futuristic hub is in such high demand. But how exactly can the wood be used to build the sustainable buildings of the future?

"Accoya can be used in many different ways, but we've made big inroads across four different applications in recent years – windows, doors, decking and cladding," says Harris. "It can also be used for structural purposes, such as glulam beams. It's become very popular with joiners and builders who want a quality sustainable material that lasts and doesn't rot. Homeowners are increasingly seeing it as a good investment that will add long term value to their homes and are even adding its usage as part of front doors and windows on their estate agency listings."

Despite its growing popularity, Accsys estimates its patented enhanced timber is currently only supplying 2% of the potential global market opportunity – but it's working hard to ramp up production. The company has just completed a new acetylation reactor at its plant in Arnhem, Netherlands, which will increase capacity by a third. A new reactor is also being built in Kingsport, Tennessee that is due to start producing Accoya in 2024. It also hopes to attract investment to meet the significant future demand for Accoya globally, as well as play a pivotal role in advancing the sustainability of the construction industry.

Tanveer Badal Photography

Accoya is opening up sustainable design freedom for architects, designers and homeowners across the world. Marisol Malibu by Delta Millworks in California, USA

> Accoya can be used in many different ways, but we've made big inroads across four different applications in recent years – windows, doors, decking and cladding

A number of companies are exploring the use of alternative materials or reformulations of existing solutions in the race to be more sustainable. One option is the reformulation of cement production, using similarly behaving materials that produce significantly less $CO_2$ emissions during the manufacturing process. Montreal company Carbicrete has developed a way to capture carbon during production and then inject it into concrete to lock it away forever. The result is that concrete captures more carbon than it emits during this process.

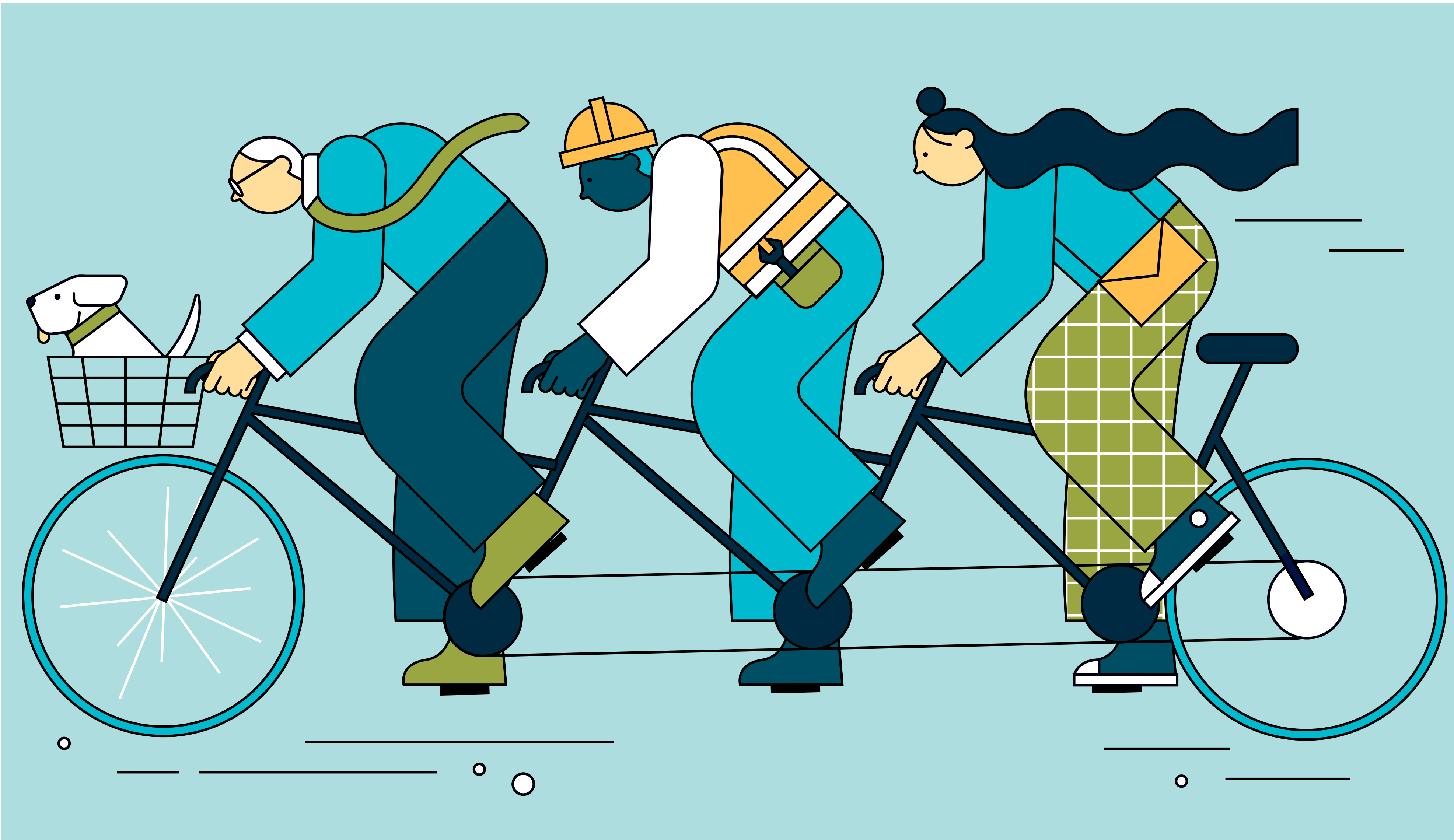
Carbon capture is another long-term benefit of using Accoya as part of sustainable construction projects. Trees remove carbon from the atmosphere at an increasing rate during growth before levelling out once they reach maturity. Accoya is made from high-yield radiata pine in New Zealand which grows much faster than other types of wood because of the country's optimal climate.

The wood is harvested once it reaches maturity and turned into Accoya, which locks away the carbon the wood has captured during growth. With the raw wood being sourced from FSC approved forests, Accsys has reassurance that the forests are being replaced in a responsible, environmentally friendly way. "Being able to select really fast growth, high-yield wood, and then turn it into Accoya is really the sweet spot in terms of carbon capture," says Harris.

Thousands of miles away from Google's London hub, construction projects in a host of other countries are tapping into the power of sustainable materials. Guinness has chosen Accoya cladding for its first brewery in the USA since 1954, while the wood was used to create the interior and exterior cladding on California's first zero-carbon home – a $32m Malibu mansion, Marisol Malibu. The restoration of the Minnesota State Capitol has also incorporated Accoya windows to provide durability and maintain the building's historic look.

As the construction industry continues its battle to reduce carbon emissions, Accoya could play an expanding role in building towards a sustainable and high-performance future in homes, offices and buildings all over the world.

**For more information visit accsysplc.com, accoya.com/uk/where-to-buy**



TRANSPORT

# How employers can go up a gear to boost commuting by pedal power

Culture change is vital to encourage employees to get onto their bikes – and start to enjoy the health, wellbeing and environmental benefits

Clara Murray

Tennis ace Cameron Norrie made headlines at Wimbledon this year for more than reaching the Grand Slam's semi-finals. Papped cycling to the tournament, racket slung on his back, he told the press he doesn't own a car and bikes to practice almost every day.

In many ways, Norrie is bang on trend. During the pandemic, the government hailed a British "active travel Renaissance" as quiet roads and public transport qualms boosted cycling rates by 46%. But he is still in a tiny minority of Britons who commute by bike.

A recent Ipsos survey found that just 5% of the UK population cycle to work or school. While this is almost double the 2.8% recorded in the 2011 census, it's still far behind Germany, Sweden and the world-leading 30% in the Netherlands.

Why does this matter? It's long been known that cycling to work benefits employers and workers alike. According to the European Cycle Federation, a commuter who switches from car to bike for an 8km commute saves 750kg of carbon emissions annually. For larger organisations, this could add up to significant cuts in scope 3 emissions (indirect emissions from third parties). Meanwhile, studies have linked cycling to work with a 41% lower risk of premature death and a 45% reduction in cancer risk, while regular exercise can help to ward off depression.

The past two years have added impetus. Russell Stephens is head of commercial at Cycling UK. He reports that there has been a surge of interest in its workplace cycling schemes since 2020.

"Going back to the start of the pandemic, businesses wanted to make practical changes, based on the fact that it didn't feel safe to travel into cities and towns during the lockdown," he says. "Now we're seeing a shift towards workplaces trying to help staff with the cost-of-living crisis." According to new research from Blackhawk Network, commuters can save an average of £750 a year by switching to cycling, rising to £1,400 in Greater London.

The charity's Cycle Friendly Employer accreditation recognises businesses that support biking to work. Among the changes it suggests are installing lockers, showers and secure cycle storage, along with providing liability insurance and hosting bike maintenance sessions. The government's Cycle to Work scheme is particularly popular. It allows PAYE employees to spread the cost of bicycle equipment through a tax-free salary sacrifice and more than 1.6 million people at 40,000 employers have signed up for it.

But these interventions count for little without culture change. Nick Chamberlain, policy manager at British Cycling, says, for example, that many believe cycling to work means heavy, sweating effort. This often isn't true for typical short commutes – so businesses should reflect this in their messaging and imagery.

"Cycling to work doesn't have to be a sporty thing. You don't have to be a fitness fanatic," he says. "Taken steadily, it's no different to a brisk walk, but the perception is often very different."

One business putting this into practice with great success is HSBC UK, a former partner of British Cycling. "We've tried to cultivate an environment where anyone can be a cyclist, no matter what you wear, or no matter what bike you have, and also no matter how far you want to go," says Thomas Collier, a branch network manager in Inverness. "What's key is keeping it simple and not prescribing to people."

Collier, a lifelong bike enthusiast, is one of the bank's 120 Get Active champions around the country, who organise group rides both in-person and virtually and share colleagues' success stories. To date, 12,000 employees, including CEO Ian Stuart, have registered on HSBC UK's Get Active Hub app, logging more than 2.1 million cycling miles.

"The app creates a community and support area where you can go and see what other people are doing, get ideas and encourage each other," Collier says.

There are different cycling facilities in each of HSBC's hundreds of UK workplaces, but "it's the planning that helps people," he says. This includes information about shower facilities and where they can lock up their bikes.

Planning and communication have also been key for Great Ormond Street Hospital for Children (GOSH), the first UK hospital accredited gold status by Cycling UK. This is despite bigger challenges than most. Its large central London campus hosts a diverse workforce, from doctors to administrators, all with varying shift patterns and backgrounds.

All new employees receive an information pack about active travel, including maps of cycle-safe routes to the hospital, information on the health benefits of cycling and even the locations of recent bike thefts. There is also an email group to share tips, a buddy system for new cyclists and bike hire schemes that give people a chance to try out cycling before investing in their own.

> "We've tried to cultivate an environment where anyone can be a cyclist, no matter what you wear, what bike you have or how far you want to go

A recent staff survey showed that 18% of respondents now use bikes as part of their commute – which is a huge jump from just a few years ago. Part of that was a shift from public transport during Covid but, although "the pandemic focused minds", Martin says the hospital sees this as a long-term change.

"The workforce is under strain, as a lot are. So if you can offer something positive, that's good. It is also about the resilience of the hospital in terms of people being able to get in if push comes to shove," he adds.

Since the start of the pandemic, GOSH has also worked with Camden Borough Council to support the creation of safer cycling routes around the hospital. It followed several cyclist fatalities on nearby roads, including among its staff.

That underlines the very real safety fears which many have about bikes. Busy roads that lack segregated, continuous cycle paths can be intimidating – and cycling is still about 28 times riskier than driving.

That is something which the government is pushing to change. This year, a new public agency, Active Travel England, was established. It is tasked with overseeing a £2bn budget to spend on safe cycling and walking schemes across the whole country.

Chamberlain believes that employers should make sure that local authorities and MPs know they want to see some of that money invested in their area.

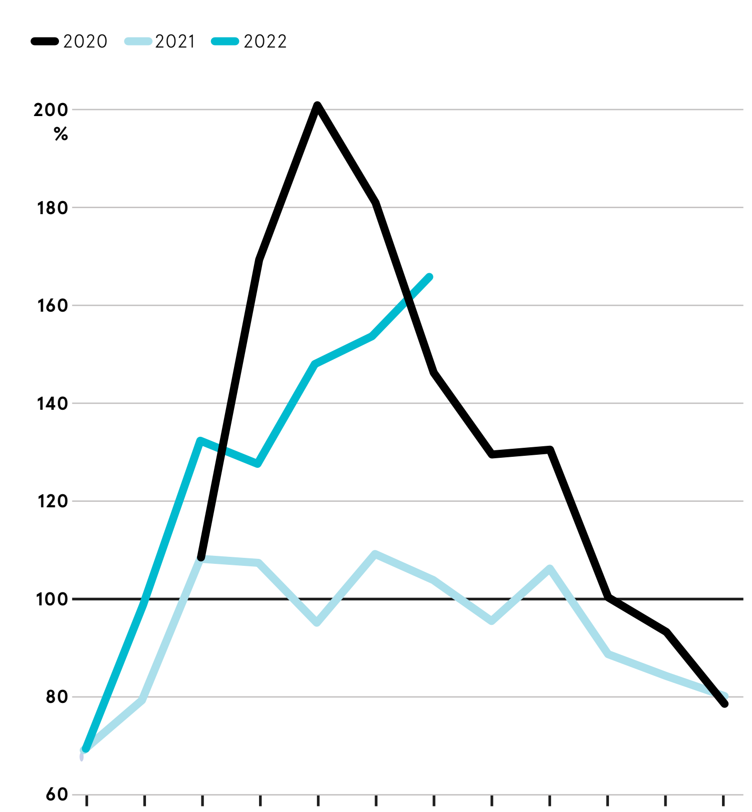
"If you want the UK's workforce to cycle, then businesses should be a critical part of calling for public money to be spent differently. "We need businesses to clearly say, 'We need safe roads, we need good policing, we need safe, high-quality infrastructure."

Almost a decade ago, support from businesses such as Deloitte, Microsoft and Unilever was hugely instrumental in establishing London's landmark cycle superhighways. As a result of this and other infrastructure improvements in the capital, Londoners are now three times more likely to cycle for travel than the rest of the country.

Now, says Chamberlain: "We need the same level of investment of political capital in all the other large urban centres across the country."

**CYCLING IS STILL ABOVE PRE-PANDEMIC LEVELS AS PEOPLE RETURN TO THE OFFICE**

Monthly average percentage change in cycling volumes in England compared to the March 2020 baseline (100)




Department for Transport