# SUSTAINABLEINNOVATION

CIRCULAR ECONOMY consumer tech so reluctant to use recycled materials?

INFOGRAPHIC

TRAVEL

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## To have and to hold

In the run-up to the UN climate summit in Glasgow, carbon capture and storage is emerging as a crucial technology in the effort to arrest global warming

### **Peter Archer**

fter a slow start, the UK is set to accelerate its carbon-capture initiatives, with the government aiming to position itself as a world leader in this field by as soon as November, when the UN is due to hold its COP26 climate conference in Glasgow.

The plan includes growing more trees; restoring peatlands, which are big absorbers of CO2; and developing technologies such as carbon capture and storage (CCS).

Expert groups such as the Climate Change Committee, an independent public body that advises the government, concur that the world will not hit its net-zero targets for carbon emissions without the help

"The committee has consistently stressed the importance of CCS in achieving net zero," says Tom Dooks, communications officer at the Climate Change Committee. "For industries such as cement production, it's the only viable technology for reducing emissions to the extent that's required. All credible pathways through which the UK could reach net zero domestically involve a significant role for CCS, especially for green $house\,gas\,removal, to\,help\,offset\,some\,of\,the$ emissions from those sectors where abatement will be most difficult."

The technology can be used to extract CO<sub>2</sub> from industrial processes or directly from the air and transport it to be stored deep underground, where it cannot contribute to global warming.

"CCS potentially has a big role to play in several applications by 2050," Dooks says.

"These could include the removal of greenhouse gases, the production of hydrogen and the generation of power. While global progress has been slow, there are now 43 large-scale projects in operation or under development around the world."

The UK has CCS projects at the planning stage. These will be based on the Humber estuary and along Scotland's North Sea coast. Shell has started working in the

The use of renewable energy sources on its own won't get us to net zero, which is why we need carbon capture

latter location with the Storegga Group and Harbour Energy on the Acorn Project. This will initially capture CO<sub>2</sub> from industrial sites in Scotland and store it deep under the seabed. Any gas that isn't stored could be used in the manufacture of plastics, fertilisers, fuels and even fizzy drinks.

the UK, believes that CCS will be "vital" in | Institute, believes that the use of CCS in

tackling climate change, stressing that the technology enables a producer of fossil fuels to be part of the solution by reducing or offsetting carbon emissions when these cannot be avoided.

"CCS is not an option but a necessity to address climate change," she says. "We do need to ramp up investments in this technology. There is no doubt that the scale required ranges from large to huge. The use of renewable energy sources on its own won't get us to net zero, which is why we need carbon capture."

Dooks notes that achieving carbon neutrality will "require new infrastructure to be built. This must be a partnership between government and business. CCS can benefit the national economy, especially by levelling up areas across the country. The government will need to lead on infrastructure development and offer longterm contracts to encourage investment in carbon-capture plants."

For instance, the government has provided £250,000 in funding for Sizewell C, the planned nuclear power station on the Suffolk coast, to develop technology that will remove CO2 directly from the atmosphere once the plant is up and running as expected in 10 years' time. The project is being developed by a consortium including CCS experts from the University of Nottingham, Atkins, Strata Technology and Doosan Babcock.

Professor Colin Snape, director of the Sinead Lynch, Shell's country chair in university's Energy Technologies Research

the UK will focus on heavy industries and the production of gas - if gas remains a significant part of the country's energy mix.

"CCS has to feature on the agenda at mix, it will need to be decarbonised. But industrial processes emit huge amounts of CO2 as well, so CCS could be playing a

Snape adds that the main problem with CCS projects is that they are "huge, requiring a lot of money up front to build the plant and pipeline". But he suggests that it should be possible for industrial clusters to pool

their resources and share infrastructure.

Dooks agrees. "Developing regional CCS

clusters will be the first step," he says. "To

enable that, there will need to be appro-

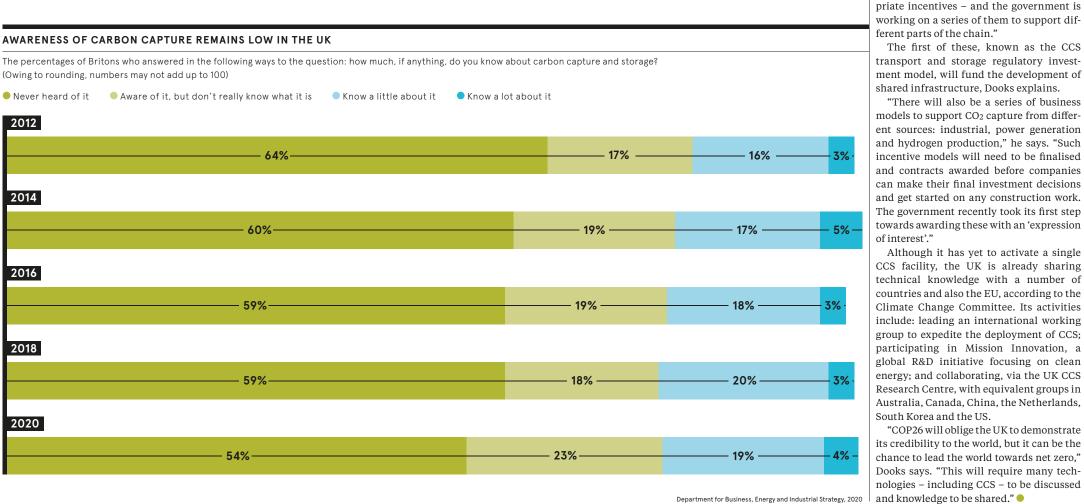
The first of these, known as the CCS

"There will also be a series of business

Although it has yet to activate a single

 $\hbox{``COP26 will oblige the UK to demonstrate'}\\$ 

COP26," he says. "If gas does stay in the significant role in those by 2040.



Department for Business, Energy and Industrial Strategy, 2020

# There is more to your discarded fridge than leftovers

Curious how your fridge gets a secret second life? Check www.renewi.com/secondlife





- RACONTEUR.NET —(3)—(3)

## How to build trust in sustainable innovation

Innovations aimed at reducing carbon emissions are increasing rapidly - from lab-grown meat and edible packaging to smog vacuums. However, there's an increasing deficit of consumer trust globally and that's where new innovations, standards and marks of trust, such as the BSI Kitemark™ certification, are essential for building public confidence in products, services and organisations

ing global warming to 1.5 degrees. | tions that adopt the UN's Sustainable | manufacturer reduce single-use plas-As November's UN Climate Change | Development Goals understand this | tics or a delivery service optimise its Conference (COP 26) gets closer, most | well. They are adopting new ways to | cardboard packaging." are looking at ways to accelerate sus- demonstrate their commitment to The wealth of data also allows the

to meet that goal. which consumer sentiment can change | pinning sustainability efforts in the | security or quality issues, for example. on sustainability impacts, from environ- lead up to COP26."

not demonstrate sustainable practices. | Disclosures (TCFD). race to innovate in order to remain both sustainable and resilient for the long-term while helping to meet envi-

ronmental regeneration targets. Likewise, they need to build trust by proving that their innovations genuinely promote sustainability - rather than adding to the challenge.

## Transparency is trust

Sustainability standards and certification schemes, such as those provided in order to remain by BSI (British Standards Institution), use rigorous assessments and testing to help build trust in sustainability initiatives. Dan Purtell, group innovation director at BSI, says, "Organisations need to inspire trust by demonstrating that their products, services and processes are built sustainably — and | Riding the crest of innovation back those claims. They need to tell | BSI has been innovating in the field | sustainable development, Purtell says. their sustainability story in a way that of standardisation since its launch we're committed to making a dif-

our purpose of trust, sustainabil- as digital assurance, which focuses on "This matters because our employity and resilience. Our solutions are | the next generation of auditing and | ees want to work for an organisation designed to automate trust mecha- consulting solutions. nisms and make it easy for a consumer

BSI offers a range of best practice | immersive technologies that allow us to | they want to know that they're working measures in this area, such as the pubaudit online, and via smart wearables, with a responsible organisation" says licly available specification (PAS) 2060 | for example," says Purtell. "We also use | Purtell. "We're committed to ensuring standard for demonstrating carbon other technologies to provide assess- our knowledge and work make a differneutrality. This is relevant to organisa- | ments, training and certification, such | ence and provide meaning to all who tions of any size who wishes to demon- | as light detection and ranging (LiDAR), | work for and partner with us." strate its sustainability credentials - drones and interactive drone maps."

from aerospace to construction. Recognising the importance of **Beyond certification** pioneering developments to sus- BSI is also moving beyond traditional tainability goals, BSI also provides an certification to help clients meet For more information please visit Innovation Management Kitemark that | their sustainability objectives through | bsigroup.com/innovation certifies a company's credentials in innovative measurement, assessment.

ability, security and social issues. uable to our clients. This enables BS

this field and helps them realise return | analytics and solutions "Markets are experiencing a con- | work creates a wealth of data availavergence of concern around sustain- | ble in real-time that is extremely val-

tainable innovation and find new ways the environment," said Purtell, "You organisation to provide predictive manage what you can measure, so analytics, identifying where a com-The last year has shown the speed with | standards will play a key role in under- | pany is likely to experience waste,

Wide-ranging factors - from Covid- | ity aims, BSI's standards also align | modelling of weather and air 19 to the effect of campaigners Greta | with two of the most broadly used | quality over the next 15 years. This Thunberg and David Attenborough - | frameworks - the UN's Sustainable | helps it forecast where environmental have accelerated people's readiness Development Goals, and the Task changes could disrupt supply chains, to protest against organisations that do | Force on Climate-related Financial | create foreseeable sourcing challenges

supply chain exposures," says Purtell.

Organisations need to be part of the race to innovate both sustainable and resilient

is transparent and allows independent | in 1901. Recently, its focus has been | ference to people, society, and the on bringing certification to clients | planet, and sustainable innovation is He adds, "At BSI we innovate around | through disruptive technologies, such | helping us do just that."

to validate product or organisational | auditors around the globe for every | ful and positively impacts the world. assessment, we now have a range of And this matters to our clients too, as

"Our assessment and certification These standards and certifications analytics to support organisations

countries are a long | are instrumental in helping organisa- | with other sustainability goals, such as way off meeting their Paris | tions with their sustainability journey. | reducing waste in their product cycle. Agreement target of limit- | Transparency is trust and corpora- | Typical examples are helping a syringe

BSI has taken this fur-To match companies' sustainabil- ther by introducing predictive called Circle Economy

> and suggest mitigation strategies. "By using multiple climate and environmental data variables, we can forecast and provide actionable information on TCFD targets, asset risk and

Blockchain and supply chain

Another innovation at BSI has been to adopt blockchain technology to help organisations see the full custody chain of a product – origins, traceability and even product authenticity and thereby build trust in their supply chains.

Purtell says: "We're committed to providing a full suite of solutions that inspire consumer trust. Using blockchain technology allows companies to verify any false certification claims and fake products in supply chains."

Reflecting on its own approach to

where they feel connected to the pur-"Instead of flying consultants or pose, know what they do is meaning-

# Phoning it in

As mountains of electronic waste pile up, will consumer tech manufacturers ever embrace the circular economy and use more recycled material if they aren't legally obliged to do so?



he giants of consumer tech have | in their own plants is quite transparent, but pered during the pandemic, it's far less so when you're talking about a rith Apple and Samsung in par-supplier of a supplier. An average mobile ticular announcing yet more gargantuan phone comprises 250 materials, so it's simthe sector generated a record 53.6 million | Rudolph adds that their supply chains tonnes of electronic waste in 2019 - up | rarely feature the logistical systems that 21% on 2014's total – according to research | would aid the reuse of materials. "When published last year by the Global E-Waste | you aren't planning these into your des-

E-waste has become the world's fastest- that your product will be recycled," he says. growing domestic waste stream – a problem According to Rudolph, consumer tech that has been compounded by increasing | manufacturers need to think more about and limited repair options, as anyone who's requirements into account at the design tried to get an old laptop fixed will know stage and embracing key concepts of the collected and recycled, leaving the rest, | number of materials in their products to

components. "In 2020, more than 100 bil- worried about the PR risks posed by their One mobile phone producer that's way

converted into secondary raw material for new products. He points to recent research published by a Dutch social enterprise

"According to its Circularity Gap Report 2021, if the circular economy were to be enacted globally, it would be possible to close the emissions gap and slow global warming. Today the world is 8.6% 'circular'. But, if governments, industry and other key players were to embrace the circular economy and recycling, as opposed to allowing the incineration or disposal of used material into landfill, they could

push the figure up to 17% by 2032." But getting the consumer tech industry to cooperate in such an effort will be no of greenhouse gas emissions are directly mean feat. So says Christian Rudolph, a | linked to material handling and use partner at co:dify Group, a Berlin-based innovation consultancy whose clients include Philips and Fairphone.

"The circular economy needs a high level of transparency in the supply chain, but tech companies aren't always fully aware of | tonnes of materials are consumed every year what's happening throughout their supply chains," he explains. "Anything that occurs

The time has come for producers to move towards recycling as the starting point of the development process for their new products

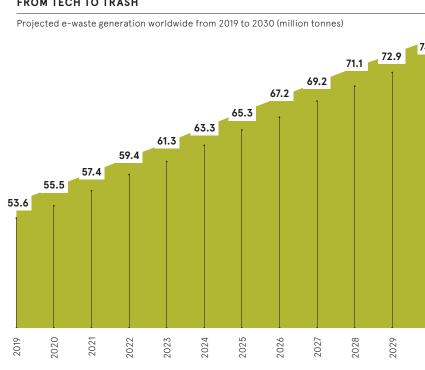
only too well. Less than 20% of e-waste is | circular economy, such as reducing the | essence, they are building their phones as Rudolph acknowledges that some firms return your old handset for scrap. Yet are starting to take circularity more seristretches far beyond the toxicity of its ously, although that's not because they're duce new phones.

"The impact of customer scrutiny is lim- is Fairphone, a social enterprise estabsays Otto De Bont, CEO of Renewi, a waste | ited," he says. "If we look at recent scandals | lished in Amsterdam in 2013 to make management company operating mainly in the tech industry, they have a very short handsets with a lower environmental shelf life – everything tends to return to | impact. The company has created a modunormal after a couple of weeks." lar, repairable phone that has parts, such tainability strategy is to "enable the circu- They are more concerned about the as the battery, that can easily be replaced. lar economy". To this end, De Bont explains | price volatility of raw materials and want | A certified B Corporation, the firm is also that there needs to be a dramatic improve- to mitigate that risk, according to Rudolph, on a mission to ensure fair conditions for

igns, you really decrease the probability

/U 'circularity gap'

FROM TECH TO TRASH



they always did, but now they have buyback systems in place, so that you can

ment in the recovery of previously used | but so far they are only touching on "the | those working throughout its supply chain, material, such that far more of this can be outer rings of the circular economy. In as unethical employment practices are particularly common in the mineral

> It has not all been plain sailing for the company. It struggled when negotiating deals with mobile operators, while its first two models were significantly more costly than their mainstream equivalents. But in August 2019 Wired deemed the Fairphone 3+, which is made from 40% recycled plastic and available on Vodafone's network in the UK, a potential "breakthrough product".

Rudolph thinks that it would help the company to think first and foremost about making a great product. "It can be circular on the back end, but on the front end it needs to look very compelling to the consumer," he argues. "Its quality should be at least comparable, but maybe even superior, to that of linear products."

Even if Fairphone can't yet compete on quite the same level as the smartphone giants, it is playing an important role by showing what level of sustainability can be achieved in its industry, thereby prompting conversations about circularity among businesses and consumers.

For De Bont, whose company provides recycled plastics through its Coolrec subsidiary, the only way to prompt consumer tech firms to adopt a circular approach is legal compulsion "Although consumers are open to send-

ing their electronic waste for recycling,

manufacturers are less inclined to draw on that material when making new products," he says. "To ensure that electronic goods are created using a mix of primary raw materials and secondary materials, it is important for governments to introduce legislation requiring manufacturers to do so. Governments also need to help align the prices of high-specification secondary raw materials with those of primary raw materials. The time has come for producers to move towards recycling as the starting point of the development process for their new products. Currently, it's the final stage, making the e-technology more difficult to process.

De Bont continues: "The European Parliament has introduced legislation across the EU, but member states' governments can interpret this individually, making the 'end of waste criteria' different from country to country. Consistency in regulation is required if we're to move towards the

Greenwash gets the black flag

To win over an increasingly sceptical investment community, companies must state clear environmental goals, measure their progress using widely agreed benchmarks and report candidly on their performance

Nick Easen

businesses have found it easy to independent verification. peddle the line that they're working tirelessly to deliver a greener, cleaner, more | ing our own, to achieving net-zero carbon eco-friendly future. Indeed, a whole indus- emissions by 2050, but it remains very He says: "It's becoming ever more comtry has grown up based on sustainability- uncertain as to how we'll all get to that plex, yet ever more critical, to build a speak. But today's vague commitments to point," Zandbergen-Albers admits. "We shared understanding of what the global do something tomorrow are no longer are developing research into the extent to low-carbon transition looks like. We need cutting it with investors and other stake- which different sectors need to decarbon- to enable companies to innovate and holders. They want to see more, in the shape | ise, what technologies will be needed and | advance while being held accountable for of credible targets and meaningful data how well companies are prepared. But this delivery through their disclosure." measuring progress towards these goals.

For this reason, calibration and transparency in climate accounting are becomage their environmental impacts.

essential foundation of accountability and Nature's UK head of sustainable finance, same way as they communicate their finanverifiability," he declares. "In this way, | believes that progress is being made in | cial performance," she says. "They must disclosure is the antidote to greenwash. | this respect. "While it can be difficult to | give the market detailed information in Only with clear, consistent and compar- | get the right information, this is changing | publicly available annual reports." able disclosures can a company show its rapidly with the advent of spatial data Until that day happens, there is a lot to stakeholders that it's acting in line with its | and other novel approaches, which better | play for in the ESG reporting space, but the public commitments.' Created by the UN, CDP, the World ground," he says.

Resources Institute (WRI) and the World Wide Fund for Nature six years ago, the stringent technical benchmarks to validate corporate environmental targets in Percentage of impact investors worldwide who used the following impact measurement on global warming. "Science Based Targets has introduced

much-needed standardisation and rigour to the climate targets space," Galvin says. "But self-disclosure is the best the market currently has, because most companies still aren't required by law to disclose environmental information." To date, nearly 1,500 of the world's big-

gest and best-known businesses have the start. Much more innovation is needed, according to Lihuan Zhou, an associate

signed up to the initiative. But this is just "The financial markets don't yet have | Sustainability Accounting consistent and comparable information | Standards Board from all participants. Without this, inves-

economy in line with climate goals," he

For instance, businesses are working says. "Mandatory climate-related disclosure can potentially address this challenge with satellite imagery providers to verify and level the playing field." that farmers in their supply chain are act-

ually using the sustainable agricultural

The appetite for sustainable investment

Claire Dorrian, is one of them, "Companies

greenwash are, with any luck, numbered.

The independent verification of corporate emissions data and other key environmental metrics is crucial, therefore, but not everyone around the world is on the | global scheme, created by investors for same page when it comes to such issues. Masia Zandbergen-Albers is head of sustainability integration at Robeco, a global is chaired by Adam Matthews, who is also asset management company based in chief responsible investment officer on the Rotterdam. She says: "We don't need more | Church of England's pensions board. standards; we need more transparency. European companies are fairly transparent on relevant issues, but we still lack a

lot of information from those in other regions. In the biggest part of the market, even the more objective output measures, such as carbon data and water use, are still estimated. We would make great progress | Transparency is if more companies were to start reporting trust. It provides the

Although numerous global sustain- essential foundation ability benchmarks exist, definitions of sustainability still differ in various parts of accountability illing their websites with sugar- of the world. Measuring environmental and verifiability coated words and pretty photos, performance also costs money, as does

"We do see many commitments, includis all still quite unclear."

The vast bulk of most companies' envil has increased as a result of the Covid-19 ronmental impacts reside in the supply pandemic, yet it is still early days. Some ing increasingly important. So says Dexter | chain. Recent CDP research has found that | people can imagine a future where envi-Galvin, global director of corporations and supply-chain carbon emissions are, on ronmental, social and governance (ESG) supply chains at CDP, a charity (better | average, 11 times higher than operational | reporting is as common, credible and clear known by its former name, the Carbon emissions. More information and inno- as any other type of corporate disclosure. Disclosure Project) that runs a reporting | vative ways to generate data on suppliers | The London Stock Exchange's head of system designed to help enterprises man- from around the globe will therefore be sustainable finance for capital markets, crucial in the coming years.

"Transparency is trust. It provides the Ray Dhirani, the World Wide Fund for need to treat sustainability reporting in the identify the risks related to assets on the days of the glossy brochure filled with

Science Based Targets initiative applies | HOW WE MEASURE SUSTAINABLE PERFORMANCE



Powering the circular economy



Recycling waste and using more secondary raw materials holds the key to transitioning from a linear to a circular economy and driving the progress necessary to halting climate change

lving the planet's climate technologies mean the difference is getnergency requires a trans- ting smaller and smaller. We can deliver ormational approach from products today that can easily replace governments to reinvent the very funda- virgin materials, but in some cases you mentals of their economies. Traditionally, | might have to design slightly differently." economies have been linear. Products | Crucially, there is no place in a truly cirare made from primary raw materials, | cular economy for burning waste, yet the used once and then discarded as waste. UK government has invested and is invest-This deeply ingrained model, however, is | ing heavily in transitioning from landfill to preventing climate progress.

Greater volumes of raw materials are decades ago when those investments being used to feed consumer demand | started - incineration has a better carbon every year, with 2020 hitting a peak of | impact than landfill and also produces 100 billion tonnes, emitting 59.1 billion energy - more recently new technologies the item itself can be tonnes of greenhouse gases along the have made recycling more competitive way. The objectives of the Paris Climate | In 2019, 11.6 million tonnes of household | recycled again, and Agreement, though ambitious in them- waste was incinerated, compared to only selves, will only accomplish 15% of what's | 10.9 million sent for recycling. needed to slow global warming. The Across the UK there are 48 ener- Secondary sources other 85% can only be accomplished by gy-from-waste incinerators operating. transitioning from a linear economy to a | Another 17 are under construction and circular economy.

The circular economy has the power | applications for new permits. Meanwhile,

tonnes of raw materials used in 2020, generating 59.1bn tonnes of greenhouse gases

of the UK's waste goes to landfill still, compared with 2% in Benelux nations

reduction of greenhouse gases

emitted if countries opted for

circularity (the circular economy)

nents to rethink the concept of waste. | also signed up to this commitment when product does not include the negative mpact the product has on the environ- | through innovative processes and partment," says Otto de Bont, CEO of Renewi, nerships, recycling them, as well as leading waste-to-product company. Products that are impossible to recy- | materials, Renewi is helping to create a cle are not necessarily priced higher | circular economy. The company cur-

non-recyclable products to market.

incineration. While this made sense two

and invest in innovation.

start recycling more today."

cling plastics alone.

accounting for 100,000 of the 13 million

tonnes of waste that Renewi collects

Recognising this, and as part of its

target to achieve a 50% circular economy

by 2030 and 100% by 2050, governments

committed to deliver on the circular

economy have said anybody producing

a product and using raw materials must

use 50% fewer primary materials by the

2030 milestone. Governments across

| Europe, including those in Netherlands |

climate battle, but it requires govern- | and Belgium, are aligned behind this. UK

ble because the price doesn't include of materials recycled, which amounts the cost of disposal. That's where the | to 7.9 million tonnes of waste being sent issue is. There's no penalty for bringing | into reuse and 3.1 million tonnes of CO2 "A more circular economy requires | to increasing this recycling target to 75% new thinking. We need to design with a by 2025, which will result in 10 million view that the item itself can be recycled | tonnes of materials being recycled and again, and using materials from secondary the production of over 1 million addisources. Recycled materials have histori- | tional tonnes of secondary raw materials.

A more circular economy requires new thinking. We need to design with a view that using materials from

councils continue to approve planning to shrink global greenhouse gas emis- countries such as the Netherlands, with partners to give new life to used sions by 39% and to cut virgin resources | Belgium and Germany, are racing ahead | materials, including teaming up with by 28%, according to the Circularity on the recycling front, with a progressive | IKEA to invest in Retourmatras, a mat-Gap Report published earlier this year. | approach to carbon tax and reducing | tress recycler. Currently up to 1 million Following the philosophy of 'reduce, incineration. To keep up, the UK govern- mattresses can be recycled per year in reuse, recycle', it's a vital weapon in the | ment must take a similar policy approach | the Netherlands, with the next factory openings based in the Netherlands and "When you look at Northern European | Belgium set to increase this to 1.5 million. countries, the transition from landfill to By introducing this mattress recycling incineration took place about 15 years | solution, IKEA and Renewi are cutting

ago, but in the last couple of years they levels of incineration. have shifted away from incineration and Circularity is an inherent factor of towards recycling," says de Bont. "The | making economies sustainable, but we andfill rate in the Benelux nations is can't achieve it on our own - we need pelow 2% now. In the UK, it's still around | partnerships such as IKEA, as well as the 20%. The UK is doing now what was done | right government policy," says de Bont. "In in the Netherlands 10 to 15 years ago. The all cases, recycling makes environmental question is, why build all that incinera- sense. The challenge is the cases when it tion capacity today when you know the doesn't make economic sense. We can next step is not incinerating waste but | overcome that with new and more efficient recycling it as much as possible? There's | ways to recycle, making it cheaper and in a real chance to skip incineration and some ways competing with virgin materials.

In parallel to this shift, it's important | collecting, sorting, cleaning and treating that the UK government sets clear targets | the waste is too expensive, we need taxfor the use of secondary materials, as ation or other methods to make those well as introducing policy, taxes or initial streams economically viable to recycle tives to create demand for them. Though | too. If on a worldwide basis we can uplift these kinds of discussions are already | recycling to 17% by 2032, we are putting taking place across the continent, much | the world on a path to achieve 2 degree of the focus is on plastics, despite it only centigrade, slowing global warming."

"But when that's not possible, because

Circularity cannot be achieved by recy- | For more information, visit renewi.com



## Slicker cities

Far-sighted innovators working in sectors such as property and logistics are aiming to make urban areas in the UK both more sustainable and human-friendly spaces

### **Christine Horton**

and power, and the latter's continuing dents to thrive in their homes. dependence on the internal combustion "We know that healthy homes contri-

for cutting their carbon emissions. "To keep the certification, an organisa- | Verdean, our scheme in Ealing." tion must reduce its carbon footprint every Elsewhere, Heatherwick Studio – the muters is becoming ever more important." if you connect all the remaining vehicles year," explains Planet Mark's founder and firm of designers and architects famed for Consumer demand and legislation are in a network, they can move faster. Vehi-CEO. Steve Malkin, "On average, certified | creating the new Routemaster bus and | also driving the development of greener | cles linked this way can travel at a more businesses make a 16% carbon saving per the cauldron for the 2012 Olympic Games transport and logistics systems. For constant speed, as they know what those employee through efficiencies in energy, in London - is prioritising large urban instance, the sale of new petrol and diesel in front of them are doing. If people are waste, water, travel and procurement." Malkin says companies that make year- | benefit society. It states that some of these | 2030. But, when it comes to the movement | for car parking space as well. The land

and retain the most talented people.

Imagine a city where products are delivered through pipes, enabling

most HGVs to be

taken off the road

aildings and motor vehicles are Mount Anvil is the first residential propundamental parts of the modern | erty developer to have achieved Planet netropolis – and both are among | Mark's certification for new developments. the largest contributors to global carbon | The company's marketing director, Tom emissions, given the former's need for heat | Beardmore, says that its goal is for resi-

engine. The good news is that sustainabil- | bute to residents' wellbeing," he says. "We ity concerns are at the forefront of several | have put that principle at the heart of the initiatives to shape the cities of the future. homes and communities we're building. Planet Mark is an organisation that's | Examples of this include the 5,000m<sup>2</sup> of committed to transforming society through | landscaped green space we have introthe measurement of carbon and social | duced at Royal Eden Docks in the London data. It certifies businesses and properties | Borough of Newham and the biodiversity net gain we're incorporating into The

projects with the greatest potential to vehicles will be banned in the UK from also sharing vehicles, you reduce the need on-year reductions can achieve benefits | developments "use technology such as the | of goods, there is an alternative to electric | freed up can then be put to better use ranging from efficiency gains and cost | solar panels and geothermal piles, but we | vehicles. London firm Magway is develop- | converted into green areas for people to savings to an enhanced ability to attract | also use nature. Trees not only sequester | ing a zero-emissions underground deliv- | enjoy, for instance." carbon; they also create a more human | ery network that claims to reduce the need | Although tackling climate change is environment than the relentless mono- | for heavy goods vehicles.

tony of hard surfaces." It's not only the urban construction sec- | when connected to a renewable energy | beyond the pressing need to reduce carbon tor that's developing innovative solutions | source, deliver goods without releasing any | emissions. Innovators see their work as a to tackle climate change. For instance, emissions," says Huw Thomas, the com- chance for cities to be reshaped into places Oxfordshire County Council has just col- pany's development director. "At the same of togetherness, according to Thomas. laborated with Alchera Technologies, a time, by removing the need for vehicles, "Sustainable cities should not just be provider of artificial intelligence software, | Magway also reduces city congestion."

autonomous vehicles.



get used for the benefit of citizens and com- | far less traffic to deal with," he says. "Then,

"It doesn't rely on battery power and can, development occurring in cities goes thought about as being better for the planet

on a system to support connected and Thomas says that there has often been - although they undoubtedly will be - but a focus, in planning new urban develop- better for people living and working in The firm's co-founder and head of opera- ments, on how cities work for drivers, rather them too," he says. "With all these excittions, Anna Jordan, says: "As cities adopt | than for other road users and pedestrians. | ing developments, we have so much to look electric buses, trams, micro-mobility ser- | "Imagine a city where products are deliv- | forward to. It's an exciting time of innovavices or any other shared transport modes, ered through pipes, enabling most HGVs tion and action, with the goal of a cleaner, having control of how these mechanisms | to be taken off the road; you instantly have | healthier planet within our reach."

### BNG for your buck: what is a 'biodiversity net gain'?

In 2018, Theresa May's government published A Green Future, its 25-year plan for improving the environment. Acknowledging that the uncontrolled expansion of towns and cities erodes natural habitats irreversibly, the document introduced the principle of biodiversity net gain (BNG) for all new developments. Simply put, this is an approach to construction that leaves a wider range of living organisms at a site than there was before building

work started. Developers cannot simply pay to compensate for any natural habitat destroyed as a result of their activities. They must guarantee a 10% uplift in biodiversity, which must be maintained for at least 30 years. Gatwick Airport acted to improve the

biodiversity of its non-operational land

long before the government adopted the BNG principle, embarking on a five-year plan to do so back in 2012. Working with the Sussex Wildlife Trust, the company started surveying and managing the various meadows, woods, streams and ponds around the 75ha site, with a view to increasing the number of species living in these habitats.

A review of the scheme published in

March 2018 showed the difference such work can make. The airport, which has recruited an ecologist and a ranger while engaging more than 280 volunteers a year has met its objectives so successfully that the Royal Society of Wildlife Trusts has given the company a Biodiversity Benchmark Award, its nationally recognised accreditation, every year since 2014. Protected species such as great crested newts have returned to breed on the airport's property, while the endangered long-horned bee has also been observed living here.

## Commercial feature

clearly a priority, much of the sustainable

## **Building diversity into** the supply chain

Businesses increasingly look to reflect the diversity in their customers and employees throughout their supply chains. Experts, taking part in a virtual roundtable, consider practical ways to make it happen

## **Gren Manuel**

-do lists. Improve sustainabil- | chain more competitive. social enterprises?

ble hosted for this supplement was a loans at twice the usual rate, even when of asking different types of questions." resounding 'yes.' Helen Cooper, vice president for procurement excellence & corporate services for IHG Hotels & Resorts, which manages almost 884,000 hotel rooms worldwide, says: "We have brands that appeal to everyone, so it's important that our supply chain reflects that diversity as well."

Lufthansa Group, adds: "We have diverse customer base. We have global operations. It follows that our supply follows that our supply base should be diverse by default. This makes our supply chains more resilient and agile."

Social reasons, though, are just part of the picture. Participants attested to the | our supply chains more business benefits of working with suppliers | resilient and agile whose founders are women, ethnic minorities, LGBTQ, have disabilities or are from other groups under-represented in business. A survey published by banking trade ethnic groups are "very ambitious, report | have the data to explain this.)

non-ethnic minority SMEs." says: "Diversity brings different ideas, | large organisations."

We have a diverse Angela Qu, chief procurement officer, | **customer base. We have** global operations. It base should be diverse by default. This makes

curement teams have bulging | driving innovation and making the supply | Raphael Fadiora-Johnson, regional ty. Ensure continuity of supply | However, few companies could say that | noted that tender documents are often | in the face of new waves of Covid-19. Is it | their spending with diverse businesses | written with large suppliers in mind. |

reasonable to add yet another demand - matches these groups' representation smaller, diverse suppliers don't have to spend more with diverse businesses or | in society. They face barriers. The UK | the ability to meet, say, £10m indemnity | Finance study found that companies with clauses," he says. "Your organisation's The answer from a virtual roundta- non-white founders were refused bank procurement directors have to find a way

> organisation is addressing this head-on. we need to be open-minded?"

within our organisation to build an inclu- has to be continuous."

body UK Finance in March reported that | adjusting for factors such as their shorter | becoming a supplier. Yet it has a long his- | ment in the first weeks of the pandemic. | sign that every organisation has to tailor companies with founders from minority | trading history. (The report said it did not | tory with some suppliers that are run for | She says: "It is a great example of where | its approach. Some compile detailed high growth rates and innovate more than | Shah says new and diverse businesses | vices from Scottish Braille Press, part of | smaller suppliers to solve critical prob- | aggregating spend across diverse firms, | www.avetta.com also lack network and connections. | charity Sight Scotland, for two decades. | lems for us as a business." Mayank Shah, founder and CEO of That's where we as an organisation work However Nationwide is determined As for the difficulty of finding diverse pliers - and aim to make that aggregated MSDUK, a non-profit organisation that to remove those barriers, giving them a to give diverse suppliers a chance to or social suppliers, Qu recalls the sus- number increase.

manager at procurement platform Avetta. Claire Costello, chief procurement officer of Co-op, which operates insurance and funeral businesses as well as its distinctive blue-logo food shops, says her

over the last 18 months, looking at where | smaller players. It has signed the Fintech | to find diverse suppliers. new suppliers by providing clear commu- shouldn't forget it when it comes to categories. For Co-op and others, there Imran Rasul, chief procurement officer | nication lines, guidance and feedback. | supplier diversity," Qu says, adding that | is a substantial overlap between encourat Nationwide Building Society, notes his | Participants agreed that top-level | diverse firms that lack scale but are oth- | aging diverse suppliers, encouraging SME organisation, like Co-op, is a mutual that | backing is vital. Fadiora-Johnson says: | erwise excellent could be introduced to | suppliers and encouraging innovative answers to members, not shareholders, "It's not enough to do a forum on sup- | tier one suppliers and thus integrate into | suppliers. "I think of it as being incluand that sourcing from diverse or social plier diversity with half the members of the supply chain.

sive culture, and we want to replicate that | It is helpful to be able to highlight the | MSDUK, Shah says, debate among them- | a fairer world." within the supply chain, in the communi- benefits. Cooper reports, for instance, selves whether they should mention it in that diverse suppliers showed ingenu- tender documents. As a highly regulated organisation, he ity and flexibility when the company was Each CPO round the virtual table has says there can be additional barriers to | urgently searching for protective equip- | a different approach to measurement, a social good. It has been buying braille ser- we have used diverse suppliers and numbers. Others opt for the big picture, For more information please visit

helps large companies procure from platform where they can meet procure- compete for its information technology tained efforts made by some procure- Cooper says data is essential but needs businesses founded by ethnic minorities, ment people and decision-makers in spend, one of its largest categories but ment teams in the 90s to find qualified to be seen in context: "It is so much more

She says: "We've spent quite a lot of time | can | be | particularly | challenging | for | couldn't use those creative sourcing skills | the change that is right for the business." can we flex? How do we coach? Where do | Pledge, an industry framework that helps | "We have all this experience; we tant not to get too focused on narrow

businesses is seen as organisationally the procurement team and then ask six Diverse businesses are not asking lens," says Costello. "It all comes back

social enterprises, and sustainable sup-

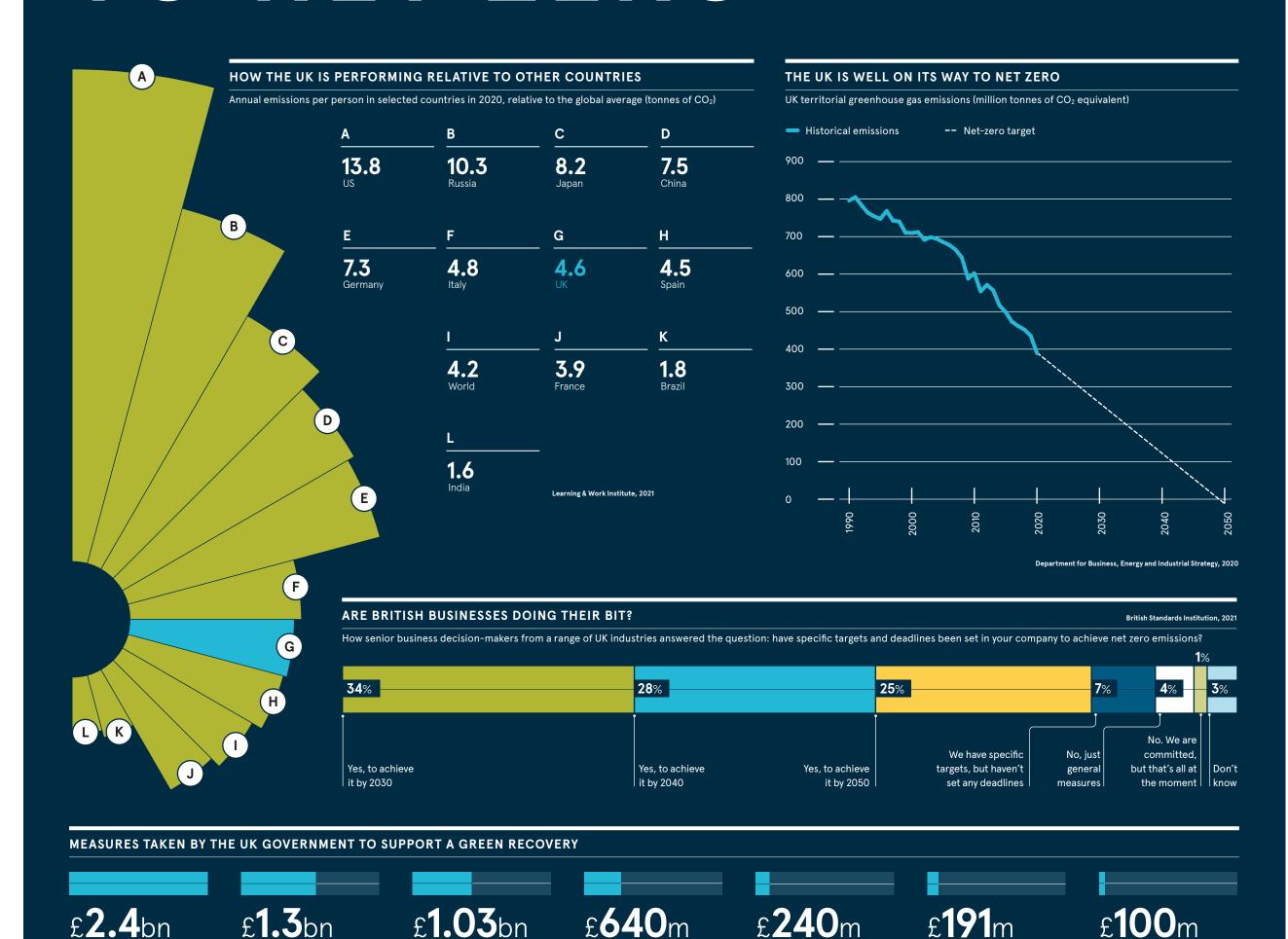
also one where regulatory requirements suppliers in Asia. She asks why companies than just numbers on a page; it is making

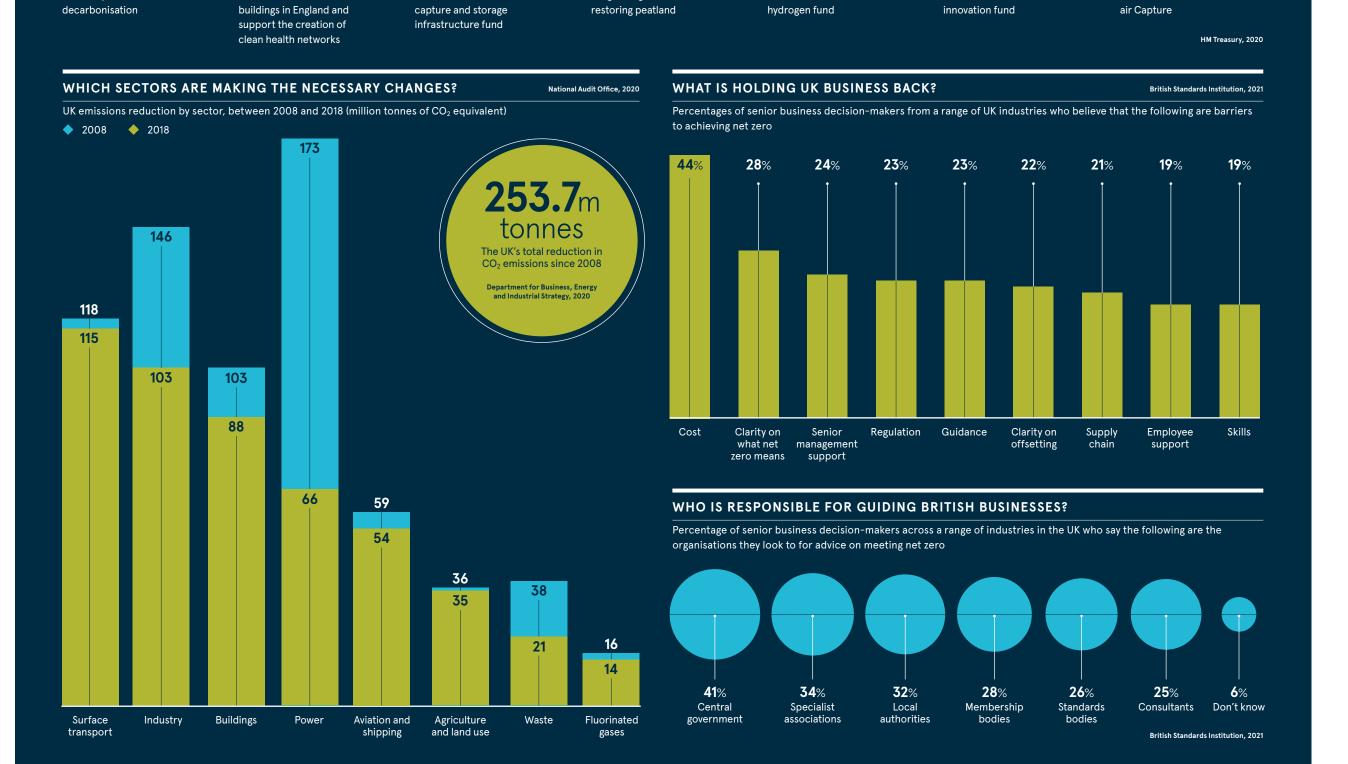
Costello adds though, that it's imporsive with new suppliers. But with a social important: "We've got a wide ambition | months later about how it's getting on. It | for special treatment - just an equal | to having that openness of spirit, about chance. The ethnic-minority members of doing the right thing and cooperating for



# BRITAIN'S PATH TO NET ZERO

In the run-up to the UN's COP26 climate change conference in Glasgow this November, the UK government has been promising to 'build back better' and pursue a green recovery. But how is the nation's race to net zero progressing? And, more crucially, how much is the private sector doing to improve the situation?





Some of the biggest opportunities to reduce a company's carbon footprint are lurking in its supply chain – a fact that's spawned a new generation of innovative greentech startups

involve its suppliers. Fortunately, several to offer effective solutions.

when retrofitting, is inertia, he says. Large | footprints in real time. businesses face inertia of scale, which applies "To decarbonise a business, it's vital to management software, wanted to reduce the associated risks when they try to change well established | fully understand the climate footprint and | its carbon footprint, it first asked Emitwise working methods. Smaller businesses, which | the associated risks of the company's entire | to apply its AI-driven monitoring system

this need, offering hi-tech solutions target—amounts of complex data very quickly and can vary widely among suppliers." and drink industry find partners with nology has the potential to elevate this strain global warming to 1.5°C [above its pay regularly and for what," Hervé says. shared values concerning sustainability. exchange. Whatever you think of the out- pre-industrial level]." He believes that, while global supply chains | come, it's undeniable that social networks | While the latest technology can handle are intricately connected, there are still | have reimagined how we connect with each | large swathes of data, it's only as valuable as

One of the biggest obstacles, especially enables companies to monitor their carbon attereal impact."

often lack the resources that would enable set of activities. This knowledge will guide to obtain a true picture of the company's

where we want with one of them to fully embrace sustainability, face actions to minimise its impacts," he says. become more sustainable, its efforts will have little impact if those day's who so hig data analytics beet the petential. For Yates, advanced tech investment inertia. For Yates, advanced tech investment inertia. For Yates, advanced tech investment inertia. For Yates, advanced tech investment inertial investment in the largest and hardest-to-reach area is life contribute most to our carbon footprint, no way that we could have known that."

When the largest and hardest-to-reach area is life contribute most to our carbon footprint, no way that we could have known that."

When the largest area is life contribute most to our carbon footprint, on way that we could have known that." will have little impact if these don't | such as big-data analytics has the potential | the supply chain. Its emissions are extremely | so we can make targeted plans to fix these," new greentech enterprises are addressing "Its ability to explore and process huge companies, while the accuracy of reporting ager, Juliette Hervé.

huge disconnects when it comes to sustain- other. We need a revolution on that scale the information it can process. This requires in the way that businesses communicate to enterprises to be open about the full extent "Innovation is about building sustain- engage meaningfully with sustainability." of their carbon footprints, he says, adding: ability into the decision-making process Reducing an organisation's CO<sub>2</sub> emis
"The most effective carbon accounting, To decarbonise a from the get-go," Yates says. "It will always sions is a sustainability imperative that supercharged by machine learning, can be harder to retroactively fit sustainability needs to involve every part of the business. absorb the vast complexity of a global value business, it's vital to into established processes than it is to build into established processes that established thoughtful operations from the start." of Emitwise, a provider of software that learn from it and make predictions that cre-

When Spendesk, a provider of expenses

greenhouse gas emissions. This has given | This facility revealed how much was being the business a solid starting point on which spent on small purchases around the organto base its efforts, taking a lot of guesswork | isation. "These add up on the company card, but also on our carbon footprint," she says. "We now know which aspects of company "Without this full spending overview, there's

complex and lie beyond the control of most | says Spendesk's inbound marketing man- | throughout the value chain, a company The firm also benefited from having a clear | tions and its external partners can offer a

ing all aspects of sustainability throughout | translate this into meaningful action will | Cozzi continues: "The clearest, most sin- | view of its suppliers' activities – something | clear view of their controllable emissions. be so relevant," he says. "Many businesses, | cere commitment to decarbonisation is the | that may not be available to all businesses. | So says Ronit Eliav, vice-president of brand Dan Yates is the co-founder and CEO of particularly SMEs, still depend on word of setting of a science-based target. This will "Spendesk is a specialist in tracking cor- and product marketing at Bringg, a green Greener, a startup that's building a net- mouth to find partners - a system that's | guide the extent and speed of emission | porate spending, so we're particularly aware | delivery and fulfilment specialist. working platform to help SMEs in the food | existed since the dawn of commerce. Tech- | reductions along the value chain to con- | of our own activities in this area – whom we | "This data needs to be conveyed to the consumer as well as the organisation, so that

> Here, innovation through technology can support sustainability in many ways. A lastmile delivery and fulfilment solution, for instance, can apply vehicle-load optimisation and fuel-efficient routing to support the delivery of goods on a connected fleet of

everyone is equipped to make the right

choices about green deliveries," she argues.

electric vehicles to reduce carbon emissions. Eliav notes that digitally transforming the supply chain can help a firm to integrate climate footprint and its financial and environmental practices all along it. "From development through production to delivery", she adds, "an organisation can focus on creating efficiencies for of the company's sustainable initiatives such as the reduction of waste and carbon emissions."

WHICH INDUSTRIES' SUPPLY CHAINS ARE THE WORST CLIMATE OFFENDERS? Eight supply chains are responsible for more than half of the world's greenhouse gas emissions

**25**% <**10**% <**5**% <**5**% <**5**% <**2**% <**2**% <**2**% <**5**0%

climate action. But how can business best play its part?' e silver lining of COP26's | its potential to close this gap. Given | a year and reduce shipping carbon

stponement for a year was the right platform, corporate expertise emissions by 20%. to reflect properly on what's at stake. | and bring solutions to fruition. We have | seem contradictory to that of any The meeting had been billed as a already seen 'co-innovation' approaches conventional business strategy. But make-or-break, last-moment opportu- on the environmental front, including it actually aligns perfectly with the nity to limit the world to 1.5°C heating | the Massachusetts Institute of Tech- | 'agile' approach that's currently in - and it's not as though this task has | nology Climate CoLab and the World | vogue, which emphasises flexibility got any less urgent. I hope that the Bank's Climate Business Innovation and responsiveness as key attributes pandemic has given business leaders Network launched at COP22 in 2016. in the face of continual disruption. the room to dwell on their role in the In January 2020 the World Economic climate crisis – and how they can con- Forum created its own collaboration tribute to solving it. If not, there was platform, UpLink, to get its vast net- will need to mobilise every ounce of always the surge in ESG stocks to make | work of investors, experts, corporate | inventiveness to tackle the climate crithem wake up and smell the tofu.

of greenwashing. The good news, high-impact innovators have been especially as the recovery gathers recognised. UpLink's first two compeing in innovative business models and solutions unearthed nearly 350 promnew sustainable technologies will gain | ising solutions for marine and forest

It's down to the COP26 delegates in Glasgow to determine the broad enterprise, no matter how pioneering, brushstrokes of climate action. But can all too easily fade away in isolahow can business best play its part? | tion. But, when nurtured by collabora-Part of the current bind in which the tion, publicity and funding, it can grow private sector finds itself is that big | to its full transformative potential. corporations can often be too immobile and constrained by their struc- This company has identified a huge ture to innovate quickly. Meanwhile, systemic flaw that contributes to global entrepreneurial ventures, with grass- warming: the vast amount of container roots passion and left-field solutions, space on cargo ships that goes unused are often in want of the funding, | Through UpLink, Cubex Global wa resources and access to the kind of | introduced to a large Middle Eastern influential networks that would ena- logistics company that is interested | John Dutton ble them to scale up their ideas. in implementing its blockchain-based Head of UpLink and a member

partners and entrepreneurs all moving sis. Companies showing commitment Investors are aligning themselves | in sync towards resolving the world's | to climate action, by seeking and supwith the consumer shift over the past | most pressing problems. We at UpLink | porting innovative solutions such as decade towards sustainable business. | have been amazed by the energising | those surfacing through UpLink, are There's no faking it on that front now, effect of our digital platform, which sending a message: the time for timideither. Both investors and consumers | seeks to identify and scale up the best | ity is past – something that will be on want to see demonstrable action on innovations. More than 22,000 users the minds of everyone at COP26. sustainability issues, not just a touch | have registered and more than 100

'It's down to the COP26

delegates to determine

the broad brushstrokes of

A spark of an idea or an early-stage

Crowdsourcing has been around for solution to fill this dormant space. of the executive committee

he chance it gave businesses | and startup insight can come together | The crowdsourcing model might



a while now, but it's just starting to show | This initiative could be worth £18bn | for the World Economic Forum

'Here is a long-term vision that we can all rally behind: over 9 billion people living well, within planetary boundaries, by mid-century'

Vision 2050: time to transform, pub-

Each of these nine pathways contains

Vision 2050 is a 2030 action agenda

strategies and sustainability commi

the environment, human health and | boundaries, by mid-century. Achievingly clear. The ill-preparedness for quires a wholesale transformation of ations needed to realise the vision. a global shock has driven a sense of everything we have grown up with. urgency in dealing with some of the | We must decarbonise energy, embrace

For business, this mainstreaming produce healthy food sustainably. one of the key drivers in strategy and lished in March by the World Business business transformation. Companies | Council for Sustainable Development, are increasingly expected to set tar- is a timely guiding framework for gets based on science; to integrate the | business action in the decade ahead. | talking about. Now the talk needs to environmental and social impacts of This report clarifies that, to achieve be backed up by actions. ● their products, business models and the vision it sets out, business needs a operations into their strategies and | fully fledged system transformation. risk management; to put in place operating plans and product roadmaps | mation pathways' for the nine most to deliver the targets; and to report progress transparently to capital mar- ries that business provides to society kets and other stakeholders.

Leading companies have begun this 10 action areas. These address climate journey already. Others see the chan- action, nature action, equity action ges come via shifts in demand for their | and the way that changing economics products, an increase in the number | can incentivise transformations. The of sustainability-related questions and | vision and the transformation pathvotes at their shareholder meetings. ways are all aligned with the UN's and a growing number of legal chal- sustainable development goals and lenges in case they are seen not to the targets of its Paris agreement.

The conversation has moved from for business. It provides a framework 'why to engage' with sustainability to within which to pursue integrated 'how to operationalise the transformations'. In the current decade, every ments and contribute to the transfo company will have to deal with its im- mations needed. pacts on the three global emergencies | To move beyond business as usual | President and CEO, of our time: the climate crisis, the loss | into the accelerated transformations | World Business Council for of nature and mounting inequality. | necessary, Vision 2050 calls for a | Sustainable Development

tainability is going main- | Each of these can endanger the safe | new way of thinking through three ream for governments, busi- operating space for business. And 'mindset shifts': reinventing capitess, consumers and financial the pandemic has further highlighted alism, building long-term resilience markets. The momentum had been how connected these challenges are. and promoting regenerative business building for several years and has incHere is a long-term vision that we models. By making these an integral reased sharply during the pandemic, can all rally behind: over 9 billion part of the way business approaches its with the link between the pressure on people living well, within planetary agenda for climate, nature and equity economic progress becoming increas- ing this relatively simple vision re- value), it will unlock the transform-

a circular economy and find ways to for this decade. And it should inspire you to have greater focus and ambition. The need to transform systems is

prporate net zero targets are | alternative production models, involv- | use and eventual disposal. It can pro-

thing. It's not quite as

with an independently

for many be a massive issue

just the tip of the iceberg.

value chain. Only through collaboration | focus on this issue. The dial is shifting. | carbon impacts at the company or prod-

also potentially save money.

of consumers surveyed said they are

communicate their approach to net zero With so many organisations coming forward with net zero targets, it's

- RACONTEUR.NET —(¬)——7)

CARBON

TRUST

crucial they consider their supply chains and the need for transparency. Carbon footprinting and labelling will help

nnounced weekly and the ing remanufacturing, reuse and recy- vide strong transparency for stakerhetoric around net zero has | cling of materials and parts to create | holders, including customers. reached fever pitch. However, the chal- | new products. This is a move to a more | "We are seeing growing interest in this lenge is now turning these words into | circular economy, reducing the need | from a wide variety of companies, includactions. Many businesses are only just | for raw materials. starting to look at their operations more \ "We've seen a lot of this in the fash- \ as others in packaging and electronics. closely and decarbonise, while others | ion industry with fibres for clothing and | They often want to measure, reduce and

are realising that it's going to require real | in ICT with components and equipment," | communicate the carbon footprint, and tenacity to achieve their targets. There's also a new reality setting in | ing number of industry-wide initiatives | their products directly to the consumer," for most organisations. The majority of | that are driving change in supply chains, | says Jones. their emissions are actually along their | while some big corporate buyers are now | "A footprint label is more tangible value chain - upstream supply chain and  $\mid$  asking their suppliers to decarbonise  $\mid$  for the general public than long-term downstream products in use - tackling

Transparency will

help businesses

these so-called Scope 3 emissions will, In fact, supply chain greenhouse as operational emissions, according to non-profit the CDP Reduction to non-profit the CDP. Reducing emissions therefore doesn't stop at the head office - operational emissions are they are green is one

"Many companies want to do the right thing but the control they have on their | tangible as a product overall emissions can be limited. It's a really big and tricky problem but doing nothing is not an option," explains Hugh | verified carbon label Jones, managing director, advisory at the Carbon Trust, a global, mission-led organisation that works with governments, investors, businesses and organisations to accelerate the delivery of a a part of their purchasing criteria. For companies already engaged in carbon

of consumers surveyed agreed

more likely to think positively about

a brand that could demonstrate it

had reduced the carbon footprint

of its products

carbon labelling is a good idea

"Corporations are going to have to their suppliers to comply with a range of consumer demand for better products." to their business model in order carbon emissions. to drive progress. They will have to account for emissions across their full | tres and designating staff specifically to | in, a globally recognised label relating to

can businesses tackle this challenge." | Just look at the new job titles that are | uct level is a universal idea. Many organisations are engaging cropping up, such as 'sustainable supply with their direct and multi-tier suppliers in order to source products with chain innovation'. It's a sign that this is of market sectors and geographies. lower emissions. Others are looking at being taken seriously and is becoming | There's a huge opportunity for busi-

> footprints - and where appropriate the | product with an independently verified footprint of a product's full lifecycle businesses can identify areas for inno-

costs while they reduce emissions by to address the emissions along their taking a more carbon-centric approach. | supply chains, bringing everyone together Knowing where your emission hotspots | both upstream and downstream to deliver are can help focus efforts and often decarbonisation. We need organisations

The Carbon Trust has two decades | reducing emissions over time. Labelling of experience in the climate change | can help make this change happen." sector and a global team of more than 250 staff across five continents. It has | For more information please visit noticed growing interest in product | www.carbontrust.com/labelling carbon footprinting and in its carbon label, which covers all greenhouse gas emissions released throughout a product's full lifecycle. This 'cradleo-grave' approach captures emissions from the extractions of raw materials

through to manufacture, distribution

adds Jones. "There are also an increas- in some cases the carbon neutrality, of

targets and trajectories, vital though bring these issues into people's every-

day lives via their shopping basket." A 2020 YouGov survey commissioned by the Carbon Trust of more than 12,800 consumers across the UK, US, China, France, Germany, Italy, Belgium, Spain, Sweden and Mexico found that 67% agree carbon labelling is a good idea and 65% said they are more likely to think positively about a brand that had reduced the carbon footprint of its products. 2021 YouGov research (yet to be published) found that 54% of international respond-

product that had a carbon label. Danone brands evian and Volvic, plus etra Pak and Quorn, are among the many example, certain supermarkets require | footprint labelling. The aim is to drive environmental criteria including tackling | which can then align with climate goals and emissions targets. It also doesn't "Others are setting up innovation cen- | matter what country the consumer is

ents would be more likely to purchase a

"We need much greater uptake of chain manager' or 'director of supply | carbon footprint labelling in terms The fight against climate change will | in their field to communicate their good be won by those businesses that do work on tackling emissions throughout things differently. Setting targets will | their value chain with labelling. For a not be enough. By measuring their company to say they are green is one organisational and value chain carbon | thing. It's not quite as tangible as a

"If we get this right we will create a virvation that will reduce emissions and | tuous circle of business activity. More "Some organisations are able to cut | carbon products will drive organisations prompt fundamental shifts in business | worldwide to be on board. Raising consumer awareness will be a key driver in



## The path to sustainability is through smarter fleet mobility A great deal of emissions comes from vehicles on our roads, it is time we ran fleets more efficiently, as well as realise the

Commercial feature

transition to electric vehicles

sions, greening a fleet of vehicles represents | real positive effect." the low-hanging fruit, it's not only a low-cost option, but there's also a huge cost saving too. By reducing fuel consumption, corporations can save money and slash emissions. This is why eco-friendly driving matters, and this can now be achieved with the latest telematics," explains David Savage, associate vice president for UK and Ireland at Geotab, a | Telematics, and the data global leader in fleet management solutions In a more sustainably conscious era, fleet it generates, provides

journeys can be monitored using vehicle more certainty and helps tracking devices and GPS data to calculate how environmentally friendly they are. It's not just efficient route planning that reduces emissions but accelerating and braking less. Slashing idling times for stationary vehicles is also crucial. For every hour a car is left idling, four litres of petrol are consumed. cumulatively this costs UK businesses £3.3bn | is electric vehicles or EVs. The next decade | patience. Geotab is at the forefront of this a year in wasted fuel, not to mention the will be one of transition as businesses look innovation in sustainability."

we know what works. Those businesses who | fleets are run in an eco-friendly way. ing behaviour at scale, they are producing to a more sustainable, EV-led fleet without driver score cards that highlight emissions | data. Telematics allow businesses to underand incentivising eco-friendly driving," states | stand their current fleet's eco-performance

inform better decisions

to replace their petrol and diesel fleets with "There are many savings to be made. But | those that generate lower emissions. In the like any innovation in sustainability, if you | years ahead many corporations will create processing 40 billion data points every day | This complicates the picture in terms of how | **Do you want to drive sustainability?** are taking this seriously are changing driv- "It's nearly impossible to do the transition

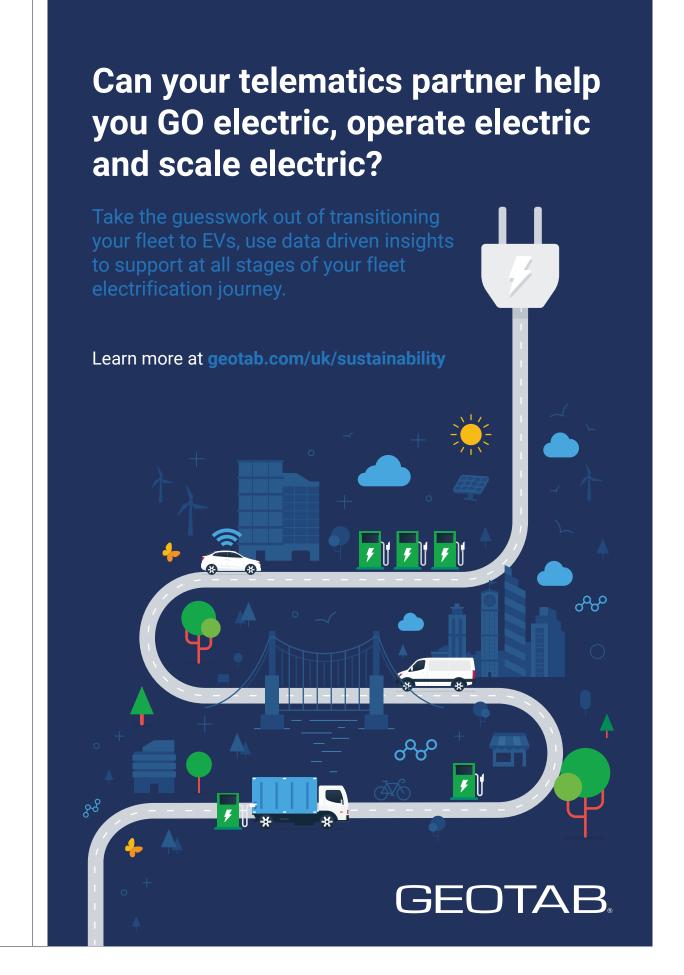
educing carbon emissions to net | Savage, from Geotab, which has more than | It also allows them to work out what impact zero by 2050 is a worthy goal and, | 2.2 million connected vehicles around the | it will have if they transition to an EV fleet,"

coming from transport and particularly from | "The return on investment is very positive | When it comes to this transition new issues road vehicles, mobility is a worthy target. Drill | if you combine telematics and eco-friendly | are arising. Suitable electric vehicles for down further and half of these greenhouse driving. Vehicle users can be prompted by higher payloads and longer ranges are not yet gases come from fleet vehicles. So, by tack- text or email to change their behaviour. Some available. Charging has gotten quicker and ling emissions from vans, trucks and delivery | fleet managers use gamification, offering | more efficient but still takes time. Optimising vehicles countrywide, businesses start to | theatre tickets and other incentives to driv- | hybrid fleet management during the next

"When it comes to tackling transport emis- This innovation raises awareness and has a "In uncertain times, telematics, and the data it generates, provides more certainty and helps inform better decisions. It also helps to reduce business risk, because the data provides insight into real-world behaviour," details Savage whose company works with the food and beverage and last-mile delivery. blueprint for their future EV fleet and telematic data can help businesses understand how their current fleet operates and what to invest in. Not all electric vehicles can cur-

"Fleet managers will need to create a ently meet the requirements of all mobility tasks however; with over 250 types of EVs and rising, knowing when to invest and in what model matters, as well as when to hold back and optimise an existing fossil fuel-based fleet. Mapping out a more cli-The new frontier for fleet management | mate-friendly future for fleets will take

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## Grounded in reality

Taking advantage of the pause in long-haul travel to assess the state of the industry, innovators are exploring ways to make tourism in the Covid era more sustainable

**Rebecca Hallett** 

s the Covid-19 pandemic sent the world into lockdown and put the brakes on travel, the environmental side effects were undeniably beneficial. Air pollution in cities fell dramatically, for instance, while fish could be seen in Venice's canals again. And, with tourism accounting for at least 5% of the world's greenhouse gas emissions in 2019, according to the UN World Tourism Organization, it is clear that certain forms of transport are incompatible with the sustainability agenda. But borders are reopening and international travel is resuming, so what's to be done?

Even before Covid halted long-haul travel, consumer interest in sustainability was increasing. TUI Group reported an 84% increase in the number of its clients choosing "greener and fairer" holiday packages between 2015 and 2020, for instance.

Observing this trend, Cat Jones founded no-fly travel company Byway in March 2020. "Even before the pandemic, there was a surge in consumer consciousness and the number of businesses being built on sustainability," she says. "With the first lockdown coming, I knew that, if there was ever a time to give people a travel experience grounded in the fact they aren't flying, this was it."

Japan is one of many markets where the eco-travel sector has yet to make much headway, but younger consumers are becoming increasingly concerned about sustainability issues, reports Kenji Itakura, deputy sales director at the Tokyu Hotels Group. With an eye on attracting millennial travellers in particular, his firm is implementing sustainability practices throughout its property portfolio and adopting new technologies.

The Kawasaki King Skyfront Tokyu Rei Hotel is the world's first 'hydrogen hotel', for instance, generating all of its energy from waste plastic and food. Itakura notes that it was developed as part of a project started by the Ministry of the Environment in 2015 "to combat pollution and make effective use of hydrogen energy".

This kind of public-sector backing is vital for continued innovation in travel. As Byway builds the complex dynamic packaging technology that will underpin its product, it has been supported by a £100,000 Innovate UK grant, which Jones describes as "exceptionally useful".

Alexandra Pastollnigg is the founder of Fair Voyage, an online travel agency specialising in socially and environmentally responsible trips to lower-income countries. She believes that Covid has offered the industry "a once-in-a-generation opportunity to do things differently", but governments must first lead the way with sustainable development plans and investments.

Travel was already a low-margin, highcompetition industry before the arrival of Covid-19. The pandemic has created further pressure, with consumers expecting low prices and free cancellations to tempt them back.

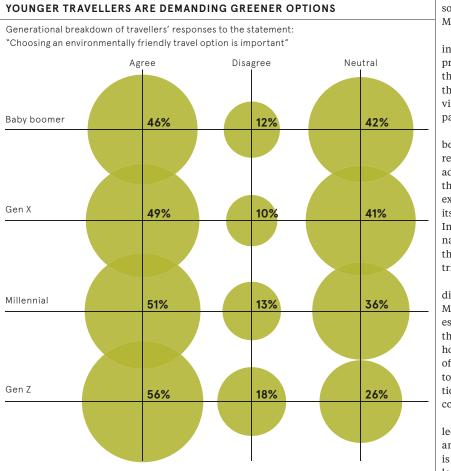
"Local travel agencies, tour operators and travel businesses haven't had customers for a long time and are struggling to survive," Pastollnigg says. "The harsh economic reality is that few consumers can afford to pay a sustainability premium."

Hence the need for government incentives. In the UAE, the Ras Al Khaimah Tourism Development Authority provides a case in point. The authority, established by the government of Ras Al Khaimah in 2011, has used the pause in international travel to strengthen the emirate's sustainability focus.

Marketing itself as 'the nature emirate', Ras Al Khaimah has decided to target socially and environmentally aware travellers and is investing in developments aligned with that goal. The May 2021 announcement of £96m in funding for the sector shows that the emirate is truly "serious about investing in sustainable tourism", according to the authority's CEO, Raki Phillips.

At the luxury end of the market, there is more financial freedom to innovate. For instance, New York business Yuji Yamazaki





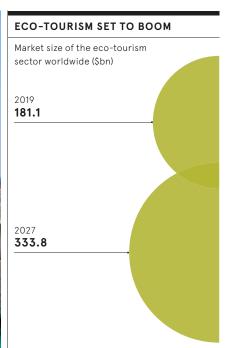
Architecture designed Kudadoo, a fully solar-powered private island resort in the Maldives, in 2018.

"This was a big design statement and a big investment at the time," says the practice's principal architect, Yuji Yamazaki, "But, as the price of solar panels goes down, I hope that going fully solar will become a more viable option for many smaller projects, particularly in equatorial countries.'

Although Kudadoo remains largely "symbolic" for now, according to Yamazaki, its renewable energy generation system may be adopted more widely in the Maldives over the longer term. The low-lying archipelago is extremely vulnerable to rising sea levels and its tourism industry is far from sustainable. In 2019, the sector accounted for 40% of the nation's total CO2 emissions, more than three-quarters of which resulted from electricity generation.

According to the World Bank, tourism directly accounts for about a quarter of the Maldives' GDP, which contracted by an estimated 28% in 2020. In many territories that depend this heavily on income from holidaymakers, the pandemic has not offered a golden opportunity for ecosystems to recover. On the contrary, local populations have suffered, while tourism-reliant conservation schemes have foundered.

Paul Gardiner is CEO of the Mantis Collection, a company that owns 'eco-lodges' and hotels on every continent. Although it is investing in exciting projects at its ecolodge innovation hub in the South African



province of Eastern Cape, he says that the focus has been on damage limitation.

Allied Market Research, 2021

In 2018, Mantis and French hotel giant Accor entered a partnership to establish a not-for-profit enterprise called the Community Conservation Fund Africa (CCFA) in their bid to tackle the continent's social and ecological problems. Throughout the pandemic, the CCFA has distributed thousands of food parcels to communities affected by the sharp drop in tourism income. The aim, Gardiner says, has been "to help them through this awful period and also to prevent them from having to poach wildlife in order to sustain themselves".

Alongside this, Mantis has continued investing in innovative business models and initiatives, including the 'Adopt a Beehive' campaign, in which "the CCFA donates hives to local communities, trains people in beekeeping and then purchases the honey to use at Mantis properties".

Simon Willmore, chairman of the British Guild of Travel Writers and digital manager at Bradt Travel Guides, says he feels that "many people are expecting a company to produce some sort of technological silver bullet that will enable us to take 20 longhaul flights a year with no environmental impact. That won't happen in our lifetimes.

Instead, he says, there will be more "intangible" innovations, including so-called digital nomad visas. Jurisdictions ranging from Croatia to Bermuda have established these to "allow people to visit new places, but with a 'travel less, stay longer' mantra".

The path towards sustainability in the travel industry is not straightforward, but innovators are helping to chart a course. And they're responding to a clear public interest in sustainable tourism. Yet the real question is: will the travel-starved consumer be prepared, once the Covid restrictions are finally lifted, to put their money where their mouth is?

Commercial feature

## **Brands transform** in the decade of action

Businesses are realising they and their supply chains need to embrace sustainability and ESG to survive - and marketing is a crucial ingredient

point in the sustainability agenda. Consumer attention on environmental issues had been rising for some time already, fuelled by high-profile figures such as David Attenborough and Greta Thunberg. When the global pandemic arrived, it was initially feared it could set the agenda back - in reality, the opposite has been true. The global health crisis has caused people to reevaluate their life choices and place in the world, and this time for introspection has driven a large acceleration in consumer expectations around sustainability.

Businesses are facing a perfect storm of pressure; downwards from their shareholders, who want to invest only in sustainable businesses, and upwards from the growing number of consumers who make it known they will only purchase from responsible brands. Meanwhile, the pandemic has also exposed the fragility of global supply chains, causing organisations to seek to tap into more local supply chains as well as investing in more resilient, sustainable practices.

"The reality is the supply chain is where a lot of their emissions are," says Kevin Dunckley, chief sustainability and innovation officer at HH Global, the largest marketing outsourcing business globally. "There are also the social and human rights elements to consider. Are your suppliers paying a decent living wage to their staff? Do they conduct business responsibly? Why is that price so good? Do nothing and organisations could be opening themselves up to risk in several areas.

Companies are realising they are in the decade of action, and transformation is required to succeed - starting at the very core of an organisation: its business model. The traditional profit-at-all-costs model is being challenged by a need to embed, | and accelerate its clients' sustainability

ovid-19 was a major inflexion | and measure, purpose alongside that. The | programmes and drive best practice and triple bottom line of people, planet and profits has never been more relevant, and it's increasingly evident that firms adopting this model are more profitable overall.

While brands may want to be more sustainable, however, it is difficult turning their intentions into measurable action and results. Even when they are embracing more sustainable practices, they still need to communicate that effectively to stakeholders. This makes marketing critical to sustainability because it is the touch point

The savviest brands recognise business for good is good business

with the customer. What's on the pack, shelf edge, TV ad or label is essential to how customers think of a brand, and its products and services. Equally, while companies may change their own practices, their supply chain must evolve too.

With a large, fully managed global supply chain of over 10,000 suppliers, HH Global sits in the sweet spot between the global brands it partners with and a large managed supply chain. Its industry-leading sustainability programme, Innovation with Purpose, which is based around the UN Sustainable Development Goals, is designed to support innovation through the supply chain.

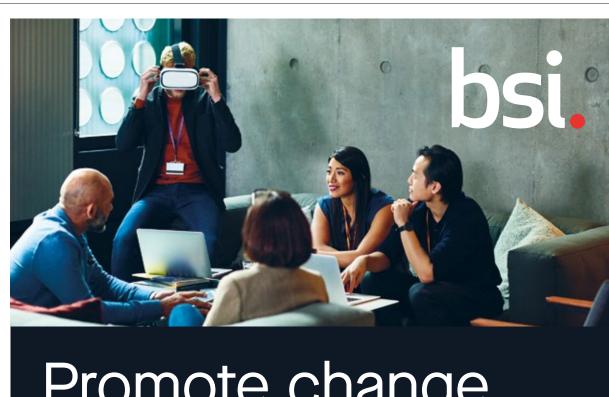
"We take pride in the quality and capability within our network," says Dunckley. "We see upstream and downstream across the whole value chain, giving us unique insight into marketing campaigns, tactics and strategies. We can recommend more sustainable materials, help reduce unnecessary plastic usage, deploy new technologies and drive innovation. We are building out diverse, innovative and sustainable supply chains and helping drive spend volumes through them. A rising tide raises all ships, so we partner with our supply chain for the benefit of all."

The decade of action has already begun, and business has a crucial part to play in moving the needle in the right direction. Though governments can create policy and regulation, ultimately it is businesses and their customers that will drive the necessary change. The savviest brands are seeing that business for good is good business, and they will thrive long into the future. The brands that fail to prioritise sustainability and ESG, however, will simply not be around in the longer term.

"Their investors will divest, their customers will desert them and their businesses will become irrelevant," Dunckley adds. "This isn't a fad. This is business as usual now and the world is watching."

For more information, visit hhglobal.com





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