Raconteur

CLIMATE ACTION

GREEN SKILLS The UK's workforce faces an uphill struggle to get ready for net zero

ACTIVISM Meet the CEO who's not afraid to get political over climate change

PSYCHEDELICS Could a trip help politicians and business leaders connect with natures

STRATEGY

UK plc's risky wait for ministerial leadership

The private sector has come to expect Westminster to take the initiative on preparing for climate-related threats. What needs to change to jolt British business out of its state of dependence?

Josh Sims

harmed nearly half (48%) of UK Т firms in some way, according to a survey of 1,500-plus business leaders in April by insurance broker Gallagher. Of these, 52% have felt the direct impacts of extreme weather events such as heatwaves and floods, 47% have incurred higher operating costs and 39% have had their supply chains disrupted.

Perhaps the most surprising - and worrying - finding is that more than half (53%) of respondents said they'd taken no action to mitigate such risks, despite routine claims that the climate crisis is a high-priority C-suite concern. A similar proportion (51%) considered it to be the government's job to ensure that businesses are sufficiently adapted to meet the climate challenge. Only 16% agreed that firms should take full responsibility for preparing themselves.

As Gallagher's MD of risk assessment, Neil Hodgson, puts it: "Businesses do not believe themselves to be responsible for protecting themselves against climate change, instead believing that government should prepare them. Despite widespread concern, many are failing to act."

Research by the University of Cambridge Institute for Sustainability Leadership found much the same attitude last year. Its international survey revealed a belief | perhaps, a knowledge gap, with business | during the Covid crisis and its bail-outs for

he climate crisis has already | among 82% of UK respondents that government policy should be pushing through the necessary climate adaptations. Fewer than half agreed that businesses could drive the required changes themselves, compared with 69% of their counterparts in the US, 76% in Japan and 93% in India.

> Many factors may be at play here. These could include: a corporate culture that

There can't be any serious climate action without the involvement of business and capital

prioritises lavish boardroom rewards over the use of surpluses to improve operational resilience; the fact that senior executives are inevitably less invested in addressing threats to their business that might transpire long after they've departed: and.

leaders failing to grasp the science and/or know how to apply that knowledge. The general assumption may well be that the government understands all the relevant facts and can therefore come up with the appropriate solutions.

Hodgson observes that business leaders may be more likely to understand and manage risks such as cybercrime than they are to deal with "less tangible, more general ised risks associated with issues such as climate change".

Indeed, there is a strong psychological element to this, as Art Markman, professor of psychology and marketing at the University of Texas at Austin, explains.

"Just as individuals are, organisations are bad with probability, so they ignore all sorts of risks," he says. "Their excuse is typically the same too: 'There are more immediate threats, so we should focus on mitigating those first.' That's rather than the longer-term issues that might drive them out of business altogether. Businesses assume that the government will deal with those. A government won't cover a business for a key employee leaving, for instance, but it typically will for having a factory on a floodplain. We've baked this psychology into our system."

The UK government's furlough scheme



right balance between warning businesses that they must act to protect themselves and trying to bolster their confidence as the UK economy continues to falter.

So, how is the government going about this? It has, for example, opened a consultation on making net-zero transition plans mandatory for businesses, having seen the EU vote in favour of doing just that. And since last year. UK-listed firms have been required to cover climate risks in their annual reports.

There has also been a major push by he International Sustainability Standards | economic opportunity of all time."

endlessly about risk assessments and how climate change can only ever have negative

That's the view of Tony Rooke, head of transition planning at the Glasgow Financial Alliance for Net Zero, a forum established in the run-up to COP26 to enable financial institutions to discuss their sector's climate challenges.

He has observed "a mixed bag" in firms' levels of responsiveness, depending on how they have "applied scenarios to assess the physical risk of their assets. Part of this is that some of their models haven't been up to date, but the situation is improving all the time. History suggests that those that recognise an opportunity first can maximise it – and this transition is the greatest

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Percentage of business leaders who believe government or business needs to take the lead on climate adaptation

Government Business - - - Global average

100%



YouGov, Cambridge Institute for Sustainability Leadership, 2022

Board - formed at COP26, the United Nations' 2021 climate summit in Glasgow to create globally consistent sustainability reporting standards. Meanwhile, the UN's G77 group is calling for businesses to invest to adapt to the effects of climate change. In other words, broad pressure is mounting on the private sector to act.

And while the proportion of UK firms that have conducted a climate-focused scenario analysis has increased since 2021, it's still under half, reports Rob Doepel, managing partner for sustainability in the UK and Ireland at EY. Those that have yet to carry out this task "aren't getting a deep enough understanding of what's happening", he stresses, suggesting that they would be wise to rethink their priorities.

"When I speak to brands, I find that taking action to mitigate both physical and transition risk is top of their agendas, yet still not urgent enough relative to other issues - the energy crisis, high interest rates and the like," Doepel says.

"This is also a matter of time horizons. Some sectors simply aren't very attuned to planning for the next 30 years. I wonder if businesses have become complacent in waiting for government to take the lead."

It is, of course, to be expected that business needs clear directions from the government or other authoritative sources on how to respond to climate risks. Such guidance might prove more effective if it were to highlight the potential benefits of prompt and effective action, rather than talking

Conveying a more positive message matters because, while many businesses are looking to the government for solutions, consumers and other stakeholders are looking to businesses. This mindset seems pervasive: 66% of British consumers surveyed last year by the charity Waste & Resources Action Programme said that companies

should be doing more to help them reduce their own carbon footprints.

Moreover, international research published in the 2023 Edelman Trust Barometer reveals that 68% of consumers expect CEOs to shape policy on climate change. And despite the many cases of greenwashing, business has become a more trusted institution than government and even the NGO sector, according to the report.

"Trust in public institutions everywhere is very low, so the level of trust in business looks better to many," says David Victor, professor of innovation and public policy at the University of California, San Diego. "That's important, because there can't be any serious climate action without the in-

volvement of business and capital." He believes that businesses will be more motivated to act by the "concern that they will be regulated" than by the direct risks of climate change to their operations.

"Ultimately, the direction of travel will be shaped by government policy, because the kinds of consumer-facing exposures linked to the climate aren't enough to change most companies' behaviour," Victor says. "But change has to come."

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raconteur.net climate-action-2023

Rethinking Energy

Retrofit your building to reduce energy consumption and achieve net-zero operations

Optimise your buildings sustainability performance with EcoStruxure[™] solutions.



Commercial feature



Strategise, digitise and decarbonise: how to slash building emissions

Buildings currently contribute 25% of the UK's annual CO₂ emissions but can become more sustainable through digital retrofits



UK's carbon footprint.

The UK has some of the world's oldest building stock, and waiting for them to reach the end of their lifecycle to replace them with more energy-efficient buildings is not a sustainable option. It's predicted that 80% of the buildings that will be in use in 2050 already exist continuing to emit CO₂ as they age. Without an | highlighted a strong immediate and rapid push to retrofit and decarbonise existing buildings, net-zero targets will be missed. This would be a huge missed opportunity for the UK to play its part in helping to mitigate the growing and visible impacts of climate change.

Schneider Electric provides endto-end solutions for businesses looking to retrofit their buildings and tion technology to meet its net-zero with a step improvement in EPC. tainable future."



of the UK's annual CO₂ emissions are related to the built environment

What is sustainable retrofitting?

Sustainable retrofitting means reducing operational carbon emissions in existing buildings, using digital technology to reduce the energy used to power, heat and cool buildings. It does not include the carbon embodied in building materials or the processes involved in their manufacture, transport and installation, or during construction, maintenance and replacement/disposal.

lay in the race to net zero. UK, key drivers of change are coming itself over shorter periods. he built environment – which | together to accelerate the transition. includes the design, construction and Firstly, the tightening of Energy change are clear - particularly in light operation of structures, features and Performance Certification (EPC) regfacilities - is responsible for a quar- | ulations by the UK government means | by Schneider Electric highlights some



start their green buildings transition. to be let. By 2027, these buildings impact on emissions reductions, opera-Kas Mohammed, the company's vice | will need to achieve an EPC of C and | tional disruption in buildings and time to president of Digital Energy for the UK | by 2030, a B rating. Landlords miss- | reach ROI. and Ireland, urges businesses to take | ing these targets may find it harder to | The next step focuses on digitisaimmediate action. He says: "The evi- | attract tenants and could face financial | tion and involves measuring and mondence is clear: the UK must renovate | penalties, as well as missing out on the | itoring building energy and carbon buildings and invest in decarbonisa- average 4% increased rents associated with connected data to establish an

expected to still be in use in 2050, a tracking using building information Energy efficiency improvements swathe of the UK's building stock must modelling is also enabled. acute disadvantage.

operational costs. Energy is a signifi- ing and limiting embodied carbon. tion in existing buildings.

Mohammed savs businesses should | bottom line. invest in the future of their buildings now to reap significant long-term benefits. "The energy crisis has highlighted a strong business case for managing | For more information, visit energy use and implementing sustain- se.com/uk/en/work/campaign/ able practices," he says. "A long-term | buildings-of-the-future view when investing in decarbonisation technology is needed: the benefits of pursuing sustainability may not be immediate but increasing energy costs \mid Life Is \oplus n \mid mean that the return on investment is

lings have a pivotal role to | net-zero commitments. Across the | greater and the technology will pay for

While the need for and benefits of of the recent energy crisis – research ter of the UK's CO₂ emissions. Most of that commercial building landlords are obstacles stopping businesses from these emissions come from the energy on a countdown to improve energy effi- taking action. A poll of UK and Irish needed to heat, cool and power build- | ciency. Since 1 April this year, non-do- | business leaders revealed that 82% ings, which is responsible for 19% of the mestic buildings without an EPC rating believe the energy crisis will impact of E or above have not been allowed their ability to reach emissions reduction targets. Of this figure, 39% said they couldn't obtain suitable products and solutions to decarbonise their buildings, 38% couldn't find useful advice and 19% lacked the skills to implement change.

However, significant decarbonisation of existing buildings is achievable. "There is no need for a silver bullet; there are existing technologies available today that help promote sustainable operations and save energy costs," says Mohammed.

Schneider Electric adopts a threestep approach to retrofitting and reducing the carbon emissions of buildings: strategise, digitise and decarbonise. That first step is important to define different levels of technological implementation,

emissions baseline and record reductargets and pave the way for a sus- With most existing buildings tions. For major retrofits, carbon

within homes and buildings are not | now undergo a programme of sustain- | The final step focuses on decarhappening fast enough and must be able refurbishment and retrofitting. bonisation. Here, various Schneider accelerated to meet the UK's 2050 | Current EPC data shows that there's | technologies and solutions are implestill a long way to go; around 70-80% | mented to reduce emissions. These of the UK's building stock will need to include measuring and monitoring be upgraded in order to meet 2030 | energy and carbon, introducing autoregulations. However, those that focus | mation to reduce energy usage and these efforts solely on achieving EPC | emissions, purchasing off-site renewcompliance will find themselves at an | ables, upgrading building systems and infrastructure, e.g. lighting system Secondly, energy efficiency meas- daylight optimisation, installing onsite ures help reduce energy bills and renewables and microgrids, and track-

> cant operating expense at a time when | The energy used in the operation of energy prices are soaring. An office's existing buildings represents the most heating, ventilation and air condition- significant carbon impact from the ing (HVAC) system can account for 40% | built environment and, if the governor more of the total energy consumed. | ment is to meet its zero carbon target Hence, a more significant financial by 2050, the retrofit of existing buildincentive exists to take action and find | ing stock must be a key priority. Then, ways to drive down costs. Technologies | businesses can reap sustainability bensuch as LED lighting, insulation, electri- efits that will help them future-proof fication and HVAC improvements can themselves against long-term energy all lead to cost-effective decarbonisa- | market volatility. In this case, what is good for the planet is also good for the

Schneider

Electric



The UK will need hundreds of thousands more people working in sustainable jobs by 2030, but the gap between supply and demand is widening, according to LinkedIn data



Clara Murray

he race to decarbonise the British economy by 2050 will need un- All countries precedented levels of investment. But although government and business have started to put more financial weight behind the transition, there are still many hurdles ahead.

One of the most significant is a shortage of skilled workers in key sectors and trades, from renewable energy to sustainable waste management. The promise of new 'green We need to make it as easy jobs' has become a common refrain for British political parties, with Labour recently pledging that its clean energy plans move into green jobs will create a million "well-paid" jobs.

But the scale of the challenge has now been revealed in LinkedIn's annual Global Green Skills report, which found that the UK is trailing several major economies when it comes to green skills. Just one in | forestry, followed by construction and utili- | will require combined action from policyeight British workers possess skills such as | ties. Even oil and gas has a high concentra- | makers, businesses and educational organclimate action planning or sustainable de- tion of green talent (thanks to LinkedIn's isations," says Sue Duke, head of global sign. That's less than Germany and France broad definition of green skills). and only slightly above the EU average.

supply. Almost one-third of all jobs adver- financial services each saw a 14.5% increase workforce with the skills to tackle the clitised in the UK last year required at least | in green jobs between 2022 and 2023 – per- | mate threat." one green skill. That pattern is repeated haps down to an increased focus on sustainacross all 48 countries in the report, which | able finance and climate change reporting. | taken is to announce 9,000 free or subsifound a median increase of 12.3% in green Companies in these sectors are particulated dised courses for people who want to be-

in certain fast-growing, low-carbon roles, | nesses, and how to bring people along on | ing to LinkedIn. such as heat pump technicians. Today, the journey," she says. there are fewer than 3,000, but as many as Indeed, the UK's Green Jobs Taskforce A London School of Economics study found skills in the British workforce.

in a far wider range of sectors too. of school-leavers, almost three-quarters conclude that green skills might be more re-Biodiversity, waste and pollution affect | were interested in a green career path, and | silient in times of economic uncertainty. businesses of all kinds. For instance, the other studies have found that the majority Communicating that to workers struggling sectors with the highest concentration of of workers are more willing to apply for roles in the cost-of-living crisis could go a long green jobs are farming, ranching and with environmentally sustainable firms. | way towards plugging some of the gaps.

as possible for people to

Demand is also growing far faster than are growing more quickly. Professional and job training are critical to building a global

talent, versus 22.4% growth in green jobs. | larly struggling to find good candidates, | come heat pump technicians. The growing gulf between employer re- says Nicola Stopps, CEO of consultancy Businesses could also cast their nets quirements and available talent raises the | Simply Sustainable. "You don't just need to | wider. Many US companies are already hirprospect of an urgent skills shortage that | be a technical expert on sustainability and | ing workers without previous green expericould cripple the UK's green ambitions. ESG but a whole host of other skills as well – ence into green jobs, such as 'solar The shortages are already well-known data literacy, how to navigate large busi- consultant' or 'sanitation engineer', accord-

150,000 will be required to meet the gov- suggests that one in five jobs will ultimately that low-carbon jobs often demanded more ernment's ambitious installation targets, be affected by the green energy transition. technical skills but were not necessarily according to an industry report in January. Meanwhile, 75% of respondents to a 2021 better paid than average. Alarm has also been raised over the lack of Deloitte survey expected that "all" jobs But one potential solution might be lurksolar power and wind turbine engineering | would require sustainability skills by 2050. | ing in LinkedIn's data. It found that hiring Thankfully, a new generation of workers for green jobs had shown no sign of slowing But green skills are increasingly needed | may be able to help here. In a 2023 survey | during the recent downturn – leading it to

THE UK'S GREEN SKILLS GAP IS WIDENING





GREEN TALENT IS GROWING - BUT NOT FAST ENOUGH

14.21%

But more still needs to be done to make it easier and cheaper for people to upskill and retrain, experts say. Think-tank Green Alliance has called for the government to set up a UK-wide body to promote green jobs, and for businesses investing in employees' green skills to get 130% tax relief, among other measures. Others back closer links between education and industry to create clearer pathways into green careers. "We need to make it as easy as possible for people to move into green jobs, and that public policy at LinkedIn. "Targeted and Other industries have lower numbers but tailored reskilling programmes and on-the-

Part of the hesitation might be financial.

LinkedIn, 2023

THE RISE OF CLIMATE LITIGATION

Legal cases relating to climate change have become fairly commonplace over the past two decades, with individuals, activists and local government bodies routinely clashing over emissions. However, more and more businesses are now finding themselves on the receiving end of lawsuits relating to their role in man-made climate change. What does this mean for corporate responsibility?

2000, by jurisdiction

cases have attempted to establish executives' personal responsibility for contributions to climate change

ustralia • 20

Brazil • 12

'climate-washing' cases were brought against companies worldwide between 2016 and 2022 rantham Research Institute on Climate Change and the Environment, 2022

CLIMATE LITIGATION HAS GATHERED PACE IN RECENT YEARS Number of climate-related cases involving corporate defendants worldwide, by year of filing

2002

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 MOST CASES TARGET ENERGY COMPANIES, BUT OTHER INDUSTRIES ARE NOT IMMUNE

Number of climate-related cases involving corporate defendants, by sector, 2021-22



Outcomes of all non-US climate-related cases over time



2023

Commercial feature



How BlackBerry – yes, THAT BlackBerry - is at the centre of creating a sustainable planet

Extreme events pose increasing danger, and only a few technology companies have earned citizens' trust to deliver innovative and secure solutions that save lives



ing lives in other regions

that companies such as Blackberry are | it to be dependable, and resilient." helping in more ways than one.

tions. Reducing carbon emissions is er-related disasters. critical, but that's only a starting point says Neelam Sandhu, BlackBerry' chief elite customer officer, chief mar keting officer, and head of sustainability. "Industry and technology helped create and accelerate many of the adverse impacts we face today. It's now up to us to apply science and technology to help solve the issues."

But what can a former phone-maker do about it? More than most people realise, contends Sandhu, who has been with the company for more than 14 years. "Changing people's perceptions - about | system for threatened BlackBerry, and about the real keys to achieving sustainability - that's one of the biggest challenges we face."

BlackBerry's seeds of change

Most consumers still equate BlackBerr with its best-selling smartphones which pioneered the ability to communicate securely from anywhere. However, as phone margins dwindled, AtHoc, a critical-event management and "BlackBerry has established itself over BlackBerry made the tough decision to | alerting solution used around the world | four decades as one of the most trusted shed its popular hardware businesses, by government agencies, first respond- technology brands in the world, primarinstead focusing on its core software | ers, armed forces and corporations. | ily because we bring innovative solutions capabilities in the fields of security, Using data gathered from remote sen- that just work," explains Sandhu. connectivity and device management. sors via secure IoT connectivity, the Several strategic acquisitions along system can provide year-round monitor- The road ahead the years further propelled the almost | ing of water supplies and environmen- | Reaching the company's goals for 40-year-old company to its current | tal conditions across large regions. The | supporting sustainability will require leadership positions in high-growth BlackBerry technology ensures secure, teamwork. "By its very nature, deliverareas including cybersecurity, connec- | targeted, and timely connectivity that | ing security and connectivity demands tivity, embedded device control sys- provides authorities with continuous collaboration between trusted parttems, and artificial intelligence.

communications company and a pio- and keep communities safe. neer of the Internet of Things (IoT). | "In addition to helping with flood | academic institutions, and government Security is integral to thriving in alerts, we realised the same technol- bodies," she says. the digital world, and it is here that | ogy could monitor water quality," says | Looking at the coming years, the BlackBerry excels.

Some people might be surprised globally lacking access to clean water, ahead is daunting, yet filled with opportuto learn they still rely on BlackBerry | an early-warning system for threatened | nities to make a meaningful difference. As technology daily. From governments | water supplies can prove crucial." to financial institutions, from cars to trains, the safety and security of these | Closing the trust gap diverse sectors is down to BlackBerry's As the IoT extends beyond sensors, Underlining her message, she adds: products. "For instance, our reach smartwatches and doorbell cameras, "Together, we can shape a future where we extends to 235 million vehicles on the | increased data security and connec- | all survive and thrive." road today, including 24 of the top 25 | tivity risks come to the fore. The conelectric car manufacturers worldwide," vergence of information technology points out Sandhu.

to embrace cleaner, greener fuel advancements in artificial intelligence sustainability please visit sources is, again, only one of the ways | (AI), presents a future that many find | www.BlackBerry.com/Sustainability BlackBerry is working to forge a more | both exciting and scary. sustainable world. Achieving car- | The impact of convergence and bon-neutral status in 2021 is another. digitalisation on critical infrastruc-But the Canada-based tech company ture seems to be of particular conhas set its sights on other, even more cern in developed nations like the critical objectives.

As wildfires burn out of con- | for a connected planet

:rol on one part of the planet, \mid "Our sustainability strategy is based on \mid rorism as a "critical threat," surpassing floods, famine, or man-made disasters | leveraging our expertise as a company in | all other concerns - including nuclear like war and cyberattacks, are devastat- | two key areas: connectivity and security," | attacks and global warming. Sandhu explains, "because a sustainable With extreme events becoming world must be increasingly connected act as the "nervous system" of critical increasingly commonplace, it's a relief | and that connectivity must be secure for | infrastructure, it's evident that estab-

working to reduce both environmental An example of this approach - com- citizenry is paramount for government and manmade threats, while bolster- bining security and connectivity to entities, and the tech companies they ing global sustainability - and they're achieve sustainability - was unveiled partner with to deploy these "smart by BlackBerry two years ago, when it infrastructure" systems. In fact, the most "Complex problems - like climate announced a first-of-its-kind early warn- recent Edelman Trust Barometer report change - often require complex solu- | ing system for flooding and other weath- | found that businesses are trusted more



people globally lacking access to clean water, an early-warning water supplies can prove crucial

Windsor, the system is built on BlackBerry | protect data privacy real-time updates on conditions, and ners, which is why we so often align our-"At our core, we remain a secure | can even be automated to issue alerts | selves with other pioneers and leaders,

Sandhu. "With over 2 billion people | BlackBerry executive concludes: "The path

(IT) and operational technology (OT).

United States. In a recent Gallup poll

on world affairs, a staggering 85% of U.S. respondents identified cyber ter-

Considering IoT will connect and lishing and maintaining trust among the than governments when it comes to issues such as addressing environmental threats and sustainability.

"Currently, we stand at the precipice of a 'digital trust deficit' that threatens the societal benefits of digitalisation, and impedes innovation, says Sandhu. "Unfortunately, few organisations possess the necessary expertise to build and maintain this trust. BlackBerry is different."

The level of integration needed to create "converged" systems and infrastructure that can inspire trust is vast. It requires a unique combination of core competencies, focused research. and intellectual property spanning multiple diverse fields, including: industrial and embedded device software control systems; secure communications systems: Al and machine learning; and highly effective security In partnership with the University of systems to prevent cyberattacks and

including Amazon Web Services, top

we journey forward, let us remember the power of trust, the promise of technology, and the strength of a shared vision.

Helping the auto industry retool connected via the IoT and fuelled by To explore BlackBerry's commitment to

BlackBerry.

GLOBAL TRADE

Time to pay up for Asia's exported emissions?

The world's biggest manufacturing economies generate vast amounts of greenhouse gas, but there's a strong case for making the emissions they produce the responsibility of those importing their goods

Jonathan Weinberg

businesses could be accused of ignoring to a product, based on its carbon emissions, this precept when it comes to taking re- when it enters the country of consumption. sponsibility for the carbon footprints of the goods they import

ing economy, is the source of 27% of global duce the emissions associated with their CO₂ emissions, according to the World goods," she says. "It would also positively Bank, yet a large proportion of these can be affect our domestic manufacturing sector." attributed to the country's production of Given the practical challenges involved materials, machinery and other consuma- in creating a fair and sustainable CBAM bles for export.

facturing base – India in particular – are in be required. Current carbon accounting Of course, land-based manufacturing is a similar situation. This has led some ob- methods and emission records can vary not responsible for all harmful pollution. servers to argue that the consumers of their widely in their complexity and implemen- About 90% of global trade relies on ocean exports should be held more accountable | tation. Questions also arise about transpar- | shipping, which contributes heavily to imfor the CO₂ emitted in the process of pro- ency in reporting when the onus is put on port-related greenhouse gas emissions. ducing and sending these abroad.

THE EU IS SQUEEZING OUT CARBON-INTENSIVE IMPORTS

the EU's CBAM



Georgia Elliott-Smith is managing direc- | notoriously difficult. Gian Autenrieth is cotor of Element Four, a sustainability and lead at the D-REC Initiative, an induswellbeing consultancy. During her pres- try-led coalition aiming to accelerate the entations, she often asks audiences to in- energy transition in energy-poor nations. spect the labels on their clothing, as she He points out that only those industries wants them to realise where the garments | linked to Fortune 500 multinationals rewere manufactured.

"This tends to result in a few 'aha!' mo- Indonesia and Cambodia. This makes it ments," she says. "These are usually fol- hard to understand the true environmental lowed by a lively discussion in which we see | cost of imports and for these to be passed how the harms of our consumerism appear on someone else's ledger.'

Elliott-Smith argues that "justice must | countries account for their emissions and be at the heart of climate action". This factor the consequential costs into the price should account not only for current imports of their products, the question of whether but also for historic harms caused by ex- the consumer should pay for the externality ploitative practices such as colonialism. All in the meantime is justified. told, she adds, "it's clear that our efforts to decarbonise the UK are being thwarted by the sheer volume of stuff we import often from the most polluting countries".

Elliott-Smith suggests "a key policy that s the warning sign beloved of small would show global leadership": the introretailers says: "You break it, you duction of a carbon border adjustment pay for it." But many countries and mechanism (CBAM). This is a levy applied **It's clear that our efforts**

"That would prevent polluting imports from being sold cheaply and put foreign China, the world's biggest manufactur- | manufacturers under more pressure to re-

system, much negotiation and consen-Other Asian nations with a large manu- sus-building among the stakeholders would

Eleni Diamantopoulou, an associate spe- have been too fragmented so far, reports cialising in energy and sustainability at law Diane Gilpin, founder-CEO of Smart Green firm Womble Bond Dickinson, notes that Shipping, a design firm working to reduce the EU is set to introduce a CBAM mecha- the environmental impact of the maritime nism for sectors including steel, electricity transport sector. Tapering of free allowances for importers under and hydrogen. She believes it's highly likely that Westminster will need to follow suit if sions arising from the trade of goods it's to prevent the UK from "being flooded | are given the degree of urgency they dewith high-carbon imports deflected by serve, the system can only be deemed as the EU's CBAM".

But Diamantopoulou also highlights re- Ian Thompson, vice-president for the ports suggesting that some UK government | northern European operations of procuredepartments have far less appetite than | ment firm Ivalua, explains that the UK imothers for any kind of CBAM. For instance, ported £70.3bn worth of products from some fear that its introduction could lead China last year – almost 11% of its total to higher costs for consumers already goods imports. Given the sheer scale of this struggling to make ends meet as the cost- activity, he suggests that it would be "imof-living crisis grinds on

that it would be beneficial pliers) contributing to the value chain of a to have a unified global finished import. Not all of these would be carbon taxation scheme, of Chinese origin or have a poor sustainarather than a series of national schemes that some-

times conflict," she says.

consumers," he says.

2032

After all, the dominant hold importers and exporters accountable form of production-based for making accurate disclosures of their enaccounting, such as the vironmental impacts. "It can lay the founmodels reported to the UN | dation for alternative approaches, such as Framework Convention on an 'economic benefit shared responsibility' Climate Change, can be model, where responsibility for trade-relat-

INTERVIEW

'I'm an activist in business clothing'

Dale Vince, CEO of green energy provider Ecotricity, is not afraid to lobby government on climate change – and believes that other business leaders should follow suit

Oliver Balch

Ecotricity, the UK's first clean energy com-

pany, he makes no secret of his financial

or his backing for controversial climate ac-

tivism? After all, most business leaders tend

Given that logic, should more business

leaders follow his lead? Or is political activ-

ism riddled with risk and best left to private

Vince is unequivocal: "If I look like an ac-

tivist in business clothing, it's because I am.

I'm an activist using business as a tool to

Most companies are less mission-mind

ed. Yet even for the most profit-focused of

firms, keeping out of climate politics is both

Why? Because, like it or not, uncontrolla-

companies, whatever their service area or

bate on climate change, he says, therefore

leaves a ticking time bomb unattended.

ble climate change is fundamentally inimi-

unwise and self-defeating, Vince argues.

change the world. It's as simple as that."

to keep their political views under wraps.

tivist groups such as Just Stop Oil.

change at a macro level

citizens and their placards?



port their CO₂ emissions in China, India, on via carbon credits

As Autenrieth puts it: "Until exporting

to decarbonise the UK are being thwarted by the sheer volume of stuff we import, often from the most polluting countries

companies to disclose their own emissions. Efforts to assign responsibility for these

"Until we reach a point where CO₂ emisfailing," she argues.

possible" for any government to police the "The issues with CBAMs demonstrate millions of suppliers (and suppliers of supbility record, he adds

However, Thompson argues that government policy-making can instead be a tool to ed emissions is shared by producers and

That's a concept which has gained significant backing among environmentalists. Adrian Ramsav, co-leader of the Green Party of England and Wales, notes that estimates of imports' emissions often contain a large degree of uncertainty. He believes the UK's consumption figures should include calculations related to emissions from imports, and he supports the idea that some sort of carbon levy should be applied on goods entering the country.

"This would incentivise imports of low-carbon products," says Ramsay, adding: "In some cases, we should consider prohibiting highcarbon imports altogether."

ncil of the

ale Vince wears his politics on his | political lobbying; the closer companies are | To do just that, Vince has set up a thinksleeve. As a former hippy, and to policy-making, the greater their influ- tank, the Green Britain Foundation, with the

nder and chief executive of ence over its final shape. Of course, the traffic is not all one-way. Fossil fuel companies have been employing | teristically ambitious, ranging from installsupport for the Labour Party, for example - | similar tactics to stymy meaningful action | ing offshore tidal lagoons to generating gas on climate change for decades. Progressive from grass. Yet he insists each idea is groundcompanies should follow suit, Vince main- ed in practical, business-based insights. So, what's the rationale for his overt ac- tains – only with the opposite end in mind. As he explains: "What I'm doing is focus-

Renewables Obligation. Introduced in that are part of the puzzle of greening For Vince, it's about two things: first, the | 2002, the law places a requirement on li- | Britain, to inform public debate and really urgency of the climate crisis, and second, censed electricity suppliers to source a min- lay it all out in detail.

who has the power to address it. For instance, he argues that while individual businesses can and should act to reduce their immediate greenhouse gas emissions, it is ultimately governments that can "pull the levers" to bring about meaningful

This is about what we're going to leave for our children... That's not politics, that's life

imum level of their electricity renewable sources.

When he was consulted at the time, Vince pushed hard for an ambitious target: "I said | activism on climate issues. cal to the long-term profitability of all to set a target of 10%, to be delivered incrementally at 1% per year. And when the re-

industry. Ducking out of the political de- port came out that's exactly what it said." rience of what works in the real world – and stridently as their position allows – even if idence suggests that the public want greater "enormous risks linked to not speaking "Ultimately, it's politicians who hold the Governments' regulatory powers are an- what doesn't. Feeding those insights into that leads to reputational repercussions. other reason why he believes business lead- policy discussions can help avoid public stance. The logic is the same as traditional | a flop when rolled out in practice.

goal of bringing business nous to bear on climate policy. Its areas of focus are charac-

By way of example, he cites the UK's | ing on policies to support the innovations

Politics, though, is about tone as much as substance. Most businesses opt for a softly-softly approach to advocacy, preferring to keep their heads below the parapet and work through industry associations.

Not so Vince. A regular voice on radio and television, he happily wades in with a view on controversial topics. Nor does he mince his words (he recently published a book with the telling title Manifesto).

It's a tactic which has put him in the eve of numerous media storms. While he claims not to relish seeing his name in headlines, he says the attention offers an invaluable "platform to communicate" about the climate.

Equally, he recognises that not all busi-Not only is he the owner of his company but, hammered". Yet climate change presents a Woodburn, director of CLG Europe, a ship can and will be judged alongside their as buyers of green electricity, Ecotricity different level of urgency, he argues. "This cross-business group that lobbies in favour actions on the ground." customers typically welcome his strident | is about what we're going to leave for our | of climate action at an EU level and whose |

That doesn't let other business leaders off | not politics. that's life." the hook, mind you. Such is the "existential Likewise, he doesn't buy the fear comthreat" posed by our heating planet, says monly expressed by businesses concerning climate, adopting a vocal position can pres- Because it's a sure-fire route to silence, as no After all, businesses have valuable expe- Vince, that company bosses should speak as a customer backlash. The overwhelming ev-

Leaders are understandably nervous Employing "neutral language" on climate That said, businesses considering a more concludes. "Everything else is here; we just ers should adopt a more proactive political policies that look great on paper but prove about doing so. Just look at the Brexit de- change arguably runs the opposite risk, of activist stance first need to ensure they don't have a government or politicians who



children and their children to live in. That's members include the likes of Microsoft,

Unilever, Sky and Ikea.

ent risks, she admits, but there are also

JJJJ5C The world's thermometer Wildfire Pollution Urban monitoring heat island monitoring New tools to measure progress against climate goals, and actions against intentions. satellitevu.com/climate-solutions

in linkedin.com/company/satvu

Vince agrees, although he warns corpo

rate leaders not to wait until their own climate performance is without reproach In today's "polarised political debate" on before taking to the political stage. Why? company can ever have a "perfect" record.

bate, says Vince. Companies decried the being seen as disengaged or disingenuous. walk the talk. As Woodburn puts it, "the are giving us the right policies."



У twitter.com/satellitevu



Pensions that work for the planet

Default funds have traditionally invested heavily in fossil-fuel companies and other big polluters. Now eco-conscious employers have a chance to flip the script and do something meaningful to tackle the climate crisis

Elizabeth Anderson

tancy FleishmanHillard has tried aging employees to recycle and cutting makes a difference." area where it could perhaps make a bigger $\mid \pounds 3$ tn of investments under management, \mid Chevron's total of 43.

schemes without realising that they may | consultancy Rebalance Earth.

more ecologically sound alternatives – as green your pension fund's investments an individual or as a business – could | are. Fund information can run to dozens of | sustainability disclosure requirements are therefore be a great way to help tackle the pages and may be littered with jargon getting closer too, while the US Securities climate crisis

gaged with climate issues. They care about play their eco-credentials, is common. The main aim in each case is to the planet," says Ian Williams, a director Some investors end up feeling misled "make the investment industry more at FleishmanHillard. "We realised that the about what their money is supporting. | transparent – and greenwashing more difdefault pension fund we had wasn't an ESG fund. We approached our pension pro- stands where their money is being The Path, a financial adviser specialising vider and found that it had a more sustain- invested," says Stuart Breyer, CEO of in ESG investments. able option, so we switched to that at the Mallowstreet, an online platform for the Such measures "are to be welcomed", start of this year.

paigns to encourage everyone to switch to this crystal clear for the end consumer." | ready seeing financial advisers and fund the new fund, which has also become the ver the past few years, PR consul- default option for all new recruits.

out all the usual ways of reducing | ployees happy to make a change," Williams | ings agency S&P to give his electric car | doubtedly have the potential to make a its environmental impact, such as encour- reports. "Where we invest this money company, Tesla, a lower ESG ranking than huge positive impact on the planet. Indeed,

back on business travel that uses less sus- Now imagine the difference it would social and governance issues was among ing in genuinely ESG-focused pension tainable forms of transport. But recently, | make if every employer in the UK were to | the reasons why it scored 37 out of a possi- | funds is likely to have more of a beneficial the firm realised that it was overlooking an take similar action. Indeed, with about ble 100 for ESG factors, compared with effect on an individual level than recycling difference: by switching the default work- the nation's pensions industry has a key But new regulations are set to make it So, by taking a close look at where your place pension fund to a greener option. role to play in humanity's progress towards | easier for investors to assess and compare | workplace pension scheme's money is Many workers in the UK have thousands | a sustainable future, says Rob Gardner, | pensions funds. The EU's Sustainable | going, you can decide whether to switch of pounds sitting in company pension co-founder and co-CEO of environmental Finance Disclosures Regulation has made to a provider or fund that's more likely

amount of money invested through pensions still supports the fossil-fuel industry, which is responsible for the majority of all global greenhouse gas emissions. The average UK pension holder has approximate v \pounds 3.100 invested in the oil and gas ndustry, translating to £88bn in total. Гhat's 10 times more than the sum invested in FTSE 350 firms mainly involved ir green energy, according to estimates by of Brits with a workplace pension are aware

campaign group Make My Money Matter. Gardner would advise any business leader to establish where their firm's existing scheme allocates its money. Then, if they feel that its investment mix could be more sustainable, they should focus or funds that prioritise low-carbon projects. Funds typically offer a comprehensive breakdown of their investments by indus try, or even by company, on their websites. It's often possible to check how a greener fund incorporates ESG factors into its in vestment decisions and to see if it's using | do not know what ESG investing is

its clout as a big investor to encourage firms to adopt more sustainable practices. This kind of active engagement is important, according to Gardner. He believes that firms "can flex their influence by encouraging their pension providers to offer more sustainable options, pushing for stricter ESG disclosure requirements and supporting legislation that champions sustainable finance. By taking such proactive steps, businesses can ensure that their workplace pensions contribute not only to of people have made any investments their employees' financial freedom but also to a world that'll be worth living in."

Of course, even with all the disclosures. it can still be hard to know exactly how that's incomprehensible to the average in- and Exchange Commission is also working "Our workers tend to be young and en- vestor. Greenwashing, where funds over- on ESG reporting guidelines.

UK institutional pensions sector. "The in- | he adds. "They will add some hard defini-The company has been running cam- dustry has a lot of work to do to help make tion to an area that's very vague. We're al-

There is also confusion over how ESG managers having to pay more heed to this ratings are decided. In June, for instance, area and to clients' wishes," "We've had really good take-up from em- | Elon Musk criticised the decision by rat- | Employers' pension schemes, then, unoil giant Chevron. Tesla's lack of focus on climate campaigners believe that invest-

it mandatory for financial products and to make a positive difference. In moving to well be funding industries that contribute But even though climate action is be- services offered or promoted within the a genuinely green alternative, any organiheavily to global warming and environ- coming an increasingly important part of bloc to disclose their ESG credentials. In sation could take a significant chunk out mental degradation. Moving that money to | many investment schemes, a substantial | the UK, the Financial Conduct Authority's | of its collective carbon footprint.

or going vegan

Greenwashing fears mustn't inhibit sustainability efforts

Businesses worried about getting called out for a sustainability misstep need to double down on their commitment to transparency, says London Business School's Ioannis Ioannou



OPINION

of erring in this sensitive area.

'We need leaders

with real vision'

Christos Stylianides

vestors and regulators expect them to make public confidence in business generally. It prove immediately successful.

prevent them from pursuing genuine in- heavily in battery recycling programmes service to sustainability. The harmful effects of greenwashing are | itiatives. Not every failure to meet a sus- | and research into more sustainable energy | It's crucial to understand that experiuable resources away from addressing real | ment. A failure will sometimes reflect the | the whole industry.

usinesses worldwide have found | environmental challenges. Where a case | complex, interconnected nature of environ- | Global clothing retailer Patagonia is well

themselves in a tricky situation. is discovered and publicised, it damages mental challenges. Many of these require known for its commitment to sustainabili-On the one hand, consumers, in- | customer loyalty to the affected brand and | innovative solutions that may not always | ty, but even it has faced challenges, including around sourcing sustainable materials serious commitments to environmental undermines the corporate social licence to For instance. Tesla has previously faced and ensuring fair employment practices responsibility. On the other, greenwash- | operate and, more generally, poses legal, | significant criticism for its electric vehicles' | in its supply chain. But, by being transparreliance on lithium-ion batteries, which ent, acknowledging its difficulties and con-Nonetheless, businesses should not have a considerable environmental impact. stantly striving to improve, the brand has rate initiatives and left many firms fearful let the fear of greenwashing accusations But the firm used this as a catalyst to invest differentiated itself from those that pay lip

extensive and undeniable. This deceptive | tainability goal represents an intentional | storage tech. This move not only bolstered | mentation and the failures associated with practice takes management focus and val- | deception or indicates a lack of commit- | Tesla's green credentials, it also benefited | it are part of the process of creating more effective solutions to environmental challenges. Acknowledging each setback fosters a culture of learning and accountability, enabling companies to refine their approaches and gradually align their strategies and operations with sustainability objectives.

After all, firms have to be open about their successes and failures if they're to maintain legitimacy and trust. Indeed, transparency is key to ensuring that stakeholders can differentiate sincere vet failed sustainability efforts from cases of greenwashing. This level of openness enables more nuanced evaluations of a company's progress in integrating sustainability into its core strategy and its capacity to learn, adapt and establish a responsible business model.

External stakeholders must also rise to the occasion, by assessing sustainability initiatives carefully, recognising the inherent complexities and potential pitfalls. This discerning approach can help them to distinguish genuinely committed firms from | to maintain trust those merely aiming to deceive.

The road to true sustainability is not a straight highway, but a winding trail filled with obstacles. Reaching the destination requires learning and constant adaptation. firm from venturing down that trail.



Firms have to be open about their successes and failures if they're

Companies must therefore wholeheart- washing? This decision will define not only Greenwashing doesn't just tarnish the cred- | edly embrace sustainability initiatives that | their corporate legacy but also the future of ibility of genuine sustainability efforts; it enhance efficiency, foster innovation and our planet. The choice is theirs. also corrodes trust and poses clear business | strengthen stakeholder relationships while risks. But let's be clear: the fear of being la- creating long-term value. It's equally im- loannis loannou is associate professor of belled a greenwasher should not deter any portant for stakeholders to discern between strategy and entrepreneurship at London intentional greenwashing and genuine | Business School.

Climate change is the most pressing challenge of our time. As we've seen recently, extreme weather events and natural disasters such as wildfires are the new normal around the globe The facts speak for themselves. We're in a crisis, and time is running out.

A failure to proactively address the ramifications of the climate crisis will result in a social, environmental and economic cost running into billions of euros every year

So, if we're to see fewer climaterelated disasters, national governments will need to remain steadfast in their commitment to sustainability pacts such as the European green deal and the Paris accord. But the current macroeconomic it together volatility and factors such as the war in Ukraine are making it harder for some signatories to remain committed. To overcome these challenges and make progress towards their

sustainability commitments, countries will need to be adaptable. This will require not only leaders with real vision, but also practical policies that will drive

investment in green tech, such as that involved in the production, storage and transportation of hydrogen. The recent wildfires around the

change, including policies promoting

world have shown that countries cannot respond effectively to natural disasters alone. They highlight the need for collective action and a 'European umbrella' in the shape of the EU civil protection mechanism. Despite Brexit, we have worked to persuade the UK to stay close to this mechanism, pointing out that a concerted approach is more effective and cost-efficient than working separately. The only way to address the challenges of the climate crisis is to do

We are all in the same boat, so we must act in unison. The cost of inaction is higher than ever. Cooperating with a clear common vision for a greener sustainable future is the only way forward.

Christos Stylianides is Greece's former minister for the climate crisis and civil protection



that it offers access to ESG funds





with ESG factors in mind

"It's essential that the individual under- ficult," says David Macdonald, founder of

setbacks on the path to sustainability. After all, such stumbles can signify a commitment to learning and adapting in pursuit of esponsible business

At a time when a genuine commitment to sustainability is increasingly being recognised as a strategic game-changer, businesses have a clear choice: will they rise to the challenge by embracing transparency. acknowledging their failures and fostering a culture of learning and continuous improvement? Or will they keep hiding behind the smoke and mirrors of green-



TECHNOLOGY

Battle of the existential threats

While the uncontrolled advance of artificial intelligence may be a threat in its own right, the technology is also showing much potential in aiding climate action

Jon Axworthy

rtificial intelligence has often been nentioned in the same breath as climate change in recent months. After all, why settle for one existential threat to humanity when you could have two?

The rapid advance of generative AI in particular has caused widespread consternation since the end of 2022. Several high-profile figures have argued that the technology is a more pressing risk than climate change because it will be far harder to put the AI genie back in the bottle than it will be to decarbonise the world.

But is it necessarily fair or helpful to pit the two against each other in this way? After all, the disturbing forecast that global warming will surpass the optimistic 1.5°C ceiling targeted by the UN in 2018 was actually the product of AI modelling. And if neural networks can serve as an effective early-warning system, surely they also have other useful applications in the effort to solve the climate crisis

For instance, at the World Economic Forum's meeting at Davos in January, Thomas Siebel, chair and CEO of software firm C3.ai, suggested that AI's ability to "ingest huge amounts of data" and "pull signal from noise" would make it an important ed that one use for AI would be to more accurately assess firms' progress towards ESG targets such as emission reductions.

Siebel is no lone voice. Professor Somdip Dey, an embedded AI scientist and the learning to the challenge. This technique tion," says Evan Tachovsky, global direcfounder and CEO of Nosh Technologies, is a type of machine learning in which the tor of the World Resources Institute's Data says: "There is a growing body of evidence suggesting that meeting ESG targets can have a positive impact on climate change." Of course, the sheer volume and complexity of ESG data generated are likely to be daunt ing, even for the best-resourced companies But this is where AI can help to reduce the **Our systems give us** burden and ensure that all the correct me rics are tracked, so firms don't have to work towards their net-zero goals in the dark. AI can be used to "recognise trends in

But isn't AI energy-hungry?

Artificial intelligence's potential as a weapon in the battle against climate change is tempered by a key factor. especially as we enter the GPT-4 era of generative AI: that the technology requires vast amounts of energy to work properly.

GPT-4, for example, has 170 trillion parameters and is trained on 45TB of data. Research published recently in Nature Communications revealed that training the system required an estimated 7.5MWh - comparable to the combined annual energy consumption of about 700 US households. The widespread deployment of GPT-4 models will then likely add the equivalent of another 8MWh a year to Al's carbon footprint.

INTEREST IN AI-BASED CLIMATE SOLUTIONS IS HEATING UP Percentage of business leaders worldwide with a clear plan to use AI to reduce their climate impact, by industry



Dey continues. "And it can automate data acquisition, analysis and reporting. This frees time, gaming out different scenarios and up human resources, allowing more exper- receiving rewards when desired outcomes tise to be channelled into developing and are achieved. The Vestas system ran simexecuting emission reduction strategies."

eration of renewable electricity too. Danish upwind turbines automatically to optimise firm Vestas Wind Systems uses the technology to make its wind farms more efficient tool in tackling climate change. He suggest- by adjusting individual turbines so that the to prevent the conversion of important carair turbulence their rotations cause doesn't disrupt the intake of turbines downwind.

and minds.ai, Vestas applied reinforcement we run as an open-source web applica-



a near-real-time view, with local precision at emissions over time, [which] can help in global scale

gauging the efficacy of reduction tactics," | systems teach themselves a task by learning from environmental changes in real ulations in which it responded to a whole AI has already been applied in the gen- range of wind conditions and repositioned

AI has also been used in the global fight bon sinks into agricultural land.

"We run several machine-learning mod Working with tech partners Microsoft els to produce Global Forest Watch, which Lab. "Some of the models are trained on optical imagery and others use radar imagery can then issue alerts and serve out data to the relevant audiences.3

> If these use cases are anything to go by AI has plenty of further applications in the struggle to hold back climate change. But bias is an ever-present challenge - a factor that must always be monitored if this technology is to prove truly effective. A whole new discipline, known as responsible AI, is emerging as a result.

"This is where machine learning is limited," says Dr Kasia Tokarska, a climate data scientist who specialises in applying AI. "But a model of the climate system that obeys the conservation of carbon, energy and water can be trusted more than a purely black-box approach where you feed in data and get some results back."

Tokarska suggests that AI users must also be wary of feeding their systems with data derived only from observed events. This, she warns, can lead to hallucinations, the term applied to wildly inaccurate AI outputs. They should instead ensure that new events - new government policies concerning the environment, for instance - are also included in AI's data diet, to ensure greater accuracy over time.

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But mechanisms are now emerging that should help to offset that energy use. Embedded machine learning is one option, where a system is deployed on local devices rather than in the cloud.

This "significantly reduces the energy consumption of Al training", explains Somdip Dey, who adds that numerous other routes to more energy-efficient AI models also exist. These include model compression, pruning and distillation. "Compression involves reducing the size and complexity of an Al mode without sacrificing accuracy, while model pruning removes redundant connections," says Dey. "And model distillation is the process of training a small and efficient model to mimic the behaviour of a larger model."

the whole farm's efficiency.

which can help us to see through clouds." By identifying new agricultural plantations based on their colour, size, shape and pattern, the models can detect tracts of for est that are being cleared. "Our systems give us a near-real-time view, with local precision at global scale, of where deforestation is happening," Tachovsky explains. "We



PSYCHEDELICS

Could tripping turn decisionmakers on to eco-activism?

A growing body of research suggests that psychedelic experiences can improve our connectedness to nature and inspire faster action against climate change. So, should policymakers and business leaders be experimenting?

Ruby Deevoy

e're approaching the point of no return on climate change far faster than the United Nations expected, according to the latest assessment by its Intergovernmental Panel on Climate Change. It reports that many impacts that were once considered avoidable no longer are – and that the world's most vulnerable communities are likely to bear the brunt.

But all is not lost. Experts believe it's still possible to make a sharp U-turn. The real solution to the crisis lies not so much in developing new tech, but in finding the motivation to prioritise the planet, and in understanding our individual power to make a meaningful difference.

There is hope, then, but only if the minds and behaviour of key people can be changed. And according to some scientists, the use of psychedelic drugs might be one way to achieve this.

This radical idea was demonstrated recently when financier Ben Goldsmith, brother of former environment minister Lord Goldsmith, announced that he had taken ayahuasca. Containing the class-A psychoactive substance dimethyltryptamine, this is a traditional medicinal brew that's widely used in South America. He'd used it to help him process his grief after losing his teenage daughter, Iris, in an off-roading accident in 2019. Goldsmith revealed that one of the effects of his ayahuasca trip was an enduring and overwhelming desire to dedicate the rest of his life to environmental causes. It turns out that this is a common urge that people derive from tripping on certain psychedelic drugs.

Dr Sam Gandy is an independent ecologist who has worked extensively on ecosystem restoration projects around the world. He has also researched the link between psychedelic experiences and "nature connectedness". His latest work in this field, conducted with a team from the University of Greenwich, recently culminated in a paper entitled *Transpersonal Ecodelia: surveying psychedelically induced biophilia.* This concludes that psychedelic experiences have "the capacity to elicit a connection with nature that is passionate and protective, even among those who were not previously nature-oriented".

Gandy believes that "the amount of good that can come from this is massive. There's evidence going back 20 years showing a robust link between nature connectedness and pro-nature attitudes and behaviour."

He explains that "psychedelics are catalysts of connection. They elicit lasting connections with self, other people and nature." An earlier study he worked on concluded that nature connectedness remains signifi-

that nature connectedness remains significantly elevated for as long as two years after



66

Psychedelics have the capacity to elicit a connection with nature that is passionate and protective, even among those who were not previously nature-oriented

the psychedelic experience. By contrast, research exploring other ways of inspiring such feelings has found shifts that last only three months.

Gandy says that psilocybin (from socalled magic mushrooms) is "top of the pile" for creating lasting feelings of unity with nature. This might be particularly beneficial in the UK, which has been found to be Europe's least nature-connected country and one of the world's most nature-depleted nations. He accepts that we couldn't exactly have

every policy-maker taking psilocybin (not least because it's a class-A controlled

substance under the Drugs Act 2005). "It's important to remain grounded about what psychedelics can do," Gandy says. "More research is needed.

"This is just as much about how they are used and what happens afterwards to integrate and make use of the experience," he continues. "But good nature conservation is about changing minds. Psychedelics change the substrate of the mind. From that, I feel that they do make a mindset change [about nature] more accessible. They by no means guarantee it, but they provide more fertile terrain for the possibility."

Dr Jens Holtvoeth, a senior lecturer at Teesside University's School of Health & Life Sciences, adds that becoming aware that the Earth is a connected system, which psychedelics might help with, is one of the most important steps humanity can take in tackling the climate crisis.

"The changes so desperately needed can be made, but this will take all of us working together and with nature-based solutions," he says. "It would be amazing if there were a drug that increased people's awareness and inspired faster action, but I'm sceptical. And who knows about the other effects?"

Gandy says that psychedelics alone won't save the day, but it's clear there's an urgent need for a dramatic shift in priorities and behaviour – and the drugs might work with that.

And crucially, this shift doesn't have to be instigated by everyone. The so-called 3.5% rule, as proposed by Harvard political scientist Professor Erica Chenoweth, postulates that only a tiny minority of the population has to campaign for something in order for critical mass to be achieved.

For a faster and more impactful change, impetus would clearly need to come from the top. That would mean government ministers, institutional investors and business leaders, including those in charge of the 100 firms that have been responsible for 71% of all greenhouse gas emissions since 1988.

Some entrepreneurs are already exploring the potential of psychedelic experiences. Michael Chaffe, CEO of events organiser Wolves Summit, regularly uses psilocybin for his own wellbeing and hopes to persuade other business leaders of its benefits.

"Using psychedelics can trigger a new frame of mind or lifestyle," he says. "It's almost like a secret weapon."

Chaffe believes that psilocybin has helped him to focus on the things that really matter – in his home life, at work and beyond.

"I believe that psychedelics can be a springboard for founders to develop themselves, their businesses and society as a whole," he says. "I'm setting up to be able to take 15 of Europe's most promising entrepreneurs to the Czech Republic [which has decriminalised possession of psilocybin for personal use]. We'll go up to the mountains each quarter to do some deep work with psychedelics, focusing on self-development and mental resilience."

As anthropogenic global warming on a disastrous scale looks inevitable, the potential of psychedelic drugs in solving the climate crisis perhaps offers a glimmer of hope. To this end, another study has just got under way at Imperial College London. But Gandy, who's collaborating with its Centre for Psychedelic Research, stresses that no one needs to go on a trip before they can become a committed environmental activist.

"Taking positive actions for nature will be a more direct hotline to boosting your nature connectedness – with or without psychedelics," he says. "It's just that these substances remind us how important our symbiotic relationship with the Earth is." ●

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