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CLIMATE CRISIS

THE TIMES

CLIMATE GROUP

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Talk is cheap: can big business deliver on its net-zero rhetoric?

As warnings about the catastrophic impacts of global warming abound, the pressure is mounting on companies to prove they're following through on their bold pledges to cut carbon emissions

Sarah Vizard

ith the world needing to reach net-zero greenhouse gas emissions by 2050 to keep the global temperature rise below 1.5°C and so avert the worst effects of climate change, the onus on politicians, businesses and consumers to act is increasing.

UK plc is heeding this call. Before the United Nations' COP26 climate summit in November 2021, the gov ernment reported that more than half of the nation's largest companies had aligned themselves with its ambitions and committed to "eliminating their contribution to climate change" by 2050. The combined market capitalisation of these businesses exceeds £1.2tn

Announcing the news, the minis ter for industry, Lee Rowley, said that firms of all sizes, "across all sectors of the global economy, have a crucial role to play in both reducing their environmental impact and developing the green technologies that will set us on the path to net zero. With over 2.500 UK companies joining [the UN's Race to Zero initiative], including the majority of our largest firms, the UK is leading the way in showing how going green doesn't just make sense for the planet: it makes business sense too."

Globally, more than 5,200 companies in sectors including finance. manufacturing, retail and transport have signed up to Race to Zero. They join more than 67 regions 1.000 cities, 441 investors and 1.000 higher education institutions, collectively accounting for nearly quarter of the world's CO₂ emissions and half of its GDP.

If the world is to make it net zero by 2050, businesses simply have to step up. And many of the biggest companies in the UK are. The likes of BT, Ocado and Legal and General are aiming to achieve net zero in their own operations (scope-one emissions) by 2030, for instance, while Reckitt Benckiser and Barratt Developments are aiming for 2040.

"The science is clear that nature loss and climate change are already harming human health," observes Emma Walmsley, CEO of pharma giant GlaxoSmithKline. "We must act now to protect and restore the planet's health if we are to protect and improve people's health. That's why GSK has committed to have a net-zero impact on climate and netpositive impact on nature by 2030." Achieving net zero throughout

a company's entire supply chain



(including scope-three emissions) is a more difficult task. BT is there- the NewClimate Institute, was the fore aiming for 2040 for emissions | lead author of the research report, across its supply chain and custo- | Corporate Climate Responsibility | mer base, as is Ocado. Sainsbury's *Monitor 2022*. He says: "We were Despite such promises, a study by

the NewClimate Institute and Car- | their ambitious-sounding headline bon Market Watch suggests that | pledges all too often lack real subfirms are already "behind" on their | stance, which can mislead consumplans. After analysing the pledges | ers and the regulators that are core of 25 big companies, the research | to guiding their strategic direction. ers estimate that they are on course | Even companies that are doing relto cut their emissions by only 40%. | atively well have exaggerated."

CLARITY ON A 1.5°C TRAJECTORY

in line with a 1.5°C warming trajectory, by region

CEOs' opinions on whether government has provided clarity on business actions

Thomas Day, a policy analyst at believes that it will be 2050 before | surprised and disappointed at the | that the greenhouse gas emissions its supply chain achieves net zero. | overall integrity of the claims. As | of an average company's supply pressure on companies to act rises,

Reducing emissions in the supply chain remains a particular chalenge. Research by the CDP, a notfor-profit organisation that helps firms to report their environmental impact, has revealed that 56% of uppliers had no climate targets in 2021, while only 28% had put in place a low-carbon transition plan t also found that companies were finding it hard to track their scope three emissions, with only 38% confirming that they were engaging with suppliers on such matters.

RACONTEUR.NET - 3-03

"Our data shows that corporate nvironmental ambition is still far from enough," reports Sonya Bhonsle, a regional director at the CDP and its global head of value hains. "Alongside that, companies have blinkers on when it comes to ooth assessing their indirect impacts and engaging with suppliers

The CDP has also discovered that, while 71% of suppliers are reporting their scope-one emissions, only 20% are reporting their scope-three emissions. This is despite the fact chain are 11.4 times greater than the firm's operational emissions.

Companies say they need more clarity from policy-makers, according to research by Accenture and the UN Global Compact, Globally, almost half (49%) of CEOs say they aren't clear about how they should operate to hit the UN's 1.5°C warming target. The proportion rises to 70% in Oceania. Only 18% say that they're clear about this overall.

It's becoming ever more obvious that climate change induced by humankind's activities is, in the words of a recent report from the UN's Intergovernmental Panel on Climate Change (IPCC), causing "dangerous and widespread disruption in nature and affecting the ives of billions of people".

The world can hope to stave off the vorst effects of global warming and limate change, but we are at a ivotal moment, with greenhouse gas emissions needing to peak and all by nearly half this decade. So says Jim Skea, professor of sustainable energy at Imperial College ondon, who is co-chair of the working group responsible for the IPCC eport, Climate Change 2022: im pacts, adaptation and vulnerability.

"It's now or never if we want to limit global warming to 1.5°C," Skea warns, "Without immediate and deep reductions to emissions across all sectors, it will be impossible."



CASE STUDY

RACONTEUR.NET — (7)—05

Gothenburg's 'pretty scary' finance deal

Sweden's second city has entered an innovative funding arrangement that awards discounts to the municipality for achieving its sustainability goals – and imposes financial penalties for any failure

MaryLou Costa

ould avoiding a fine for failing to hit a sustainability arget be the motivational key to solving the climate crisis? Gothenburg thinks so, having become the first city in Sweden to tie sustainability goals to its financing. Göteborgs Stad, the municipa authority, has recently renegotiated its SEK8bn (£645m) revolving credit facility with six banks - a flexible arrangement that allows it to withdraw, repay and withdraw again based on four targets, one social and three climate-related. If these are met, Göteborgs Stad will receive a discount. If it misses them by more than a set margin in each case, it will be obliged to pay extra interest on its borrowings.

With the city aiming for carbon neutrality by 2030, some of the incremental targets it has set on its way towards that goal are looking highly 94% renewable heating. Contrast ambitious. It seems unlikely that Göteborgs Stad will avoid being low temperatures that winter forced penalised next year, for example, Since half a dozen banks are keeping | Energi, to lean heavily on its fossila close eve on proceedings, there is unlikely to be much lenience.

The toughest of the three climate goals is to remove all fossil-fuelled vehicles from the Göteborgs Stad fleet by next year, according to the authority's portfolio manager, Fredrik Block. He is confident that this will happen by 2025 and hopes that the benefits of achieving that, late or not, will negate any penalties incurred on the way.

The second climate target – to provide fossil-fuel-free district heating by 2025 – is also challenging. This is because the climatic vagaries of | ing many of them to solar power.



Signing a deal of this nature means that you will have the spotlight on you

Sweden's western coast will have a strong influence. In 2020, for instance, an unusually warm winter helped Göteborgs Stad to achieve this with 63% in 2019, as extremely the city's energy company, Göteborg fuel generators for backup, Today, it's 79% of the way there, giving Block grounds for optimism.

The climate target that looks most achievable concerns reducing the energy consumption of buildings managed by Göteborgs Stad. About half of these are municipal property, including administrative buildings schools and care homes. The plan is just over 175kWh per year in 2022 to 142kWh per year in 2029 (approxmore energy efficient and convert-

Reaching carbon neutrality by | sustainability-linked loans (SLLs) | private sectors, Robin Millington 2030 is, of course, the ultimate tarabout establishing the credentials to secure further sustainability-based funding in the longer term, while inspiring other local authorities to

He is due to make a presentation about Gothenburg's credit deal to (£850m) loan in December 2021 officials from municipalities across western Sweden and has even received an inquiry from a city council in another European country. But, despite his city's progress, Block expects to see a significant difference between the current level of interest and eventual uptake, not | lating their sustainability strategy least because local authorities tend to be risk averse when it comes to handling public funds.

"Signing a deal of this nature means that you will have the spotlight on you, which is pretty scary," Block admits. "Everyone wants to to be accountable. Everyone hopes that everyone else is going to save the planet. So it is a little stressful for the companies and administrations that would attract attention with respect to whether they are going to make it or not."

Swedish bank SEB has taken the ead for Göteborgs Stad as sustaina-

in 2019 in the private sector, which led to what the bank's senior adviser on sustainability products, Mats Olausson, calls "an explosion" in

Prominent enterprises that have taken out SLLs with SEB include Electrolux, which agreed a €1bn against its goal of becoming carbon neutral by 2030; and Husqvarna, which in March 2022 tied a SEK5bn loan to a target of cutting its carbon emissions by 35% before 2025. "The extent to which our clients

seek advice when it comes to articuin their funding has skyrocketed over the past five years. We think this trend will continue." Olausson says. "A few years ago, many of them had a business strategy here and a sustainability strategy on the side. These two things are merging now. be sustainable, but no one wants So, when we get the chance to advise our clients on their sustainability strategies, we can better understand their business strategies."

He adds that finance departments n business have a stronger mandate than their civil service counterparts to demand that their finances be

Despite the apparent differences bility coordinator. It agreed its first of approach between the public and and scale them up in time?"

finance than larger governments. notes Angela Hultberg, global director in the sustainability team at US onsultancy Kearney, who was born and bred in Gothenburg. They are leading the way in cooperating with other city councils, finance providers, energy suppliers, construction

that the Gothenburg initiative sig

nals the start of a new era in which

restructuring the global financial

system". She points to another

Swedish city, Helsingborg, which in

March became the first municipal

ity to issue a sustainability-linked

bond tied to cutting its carbon emis-

sions (similar to an SLL but sourcing

funds from the wider investment

market). In the same month, Chile

became the first nation to use sov-

ereign debt to finance its long-term

climate policies in the form of a \$2bn

Municipal authorities are making

pigger advances in sustainability

(£1.6m) bond.

With the clock ticking on the clinate crisis, the crucial question, according to Hultberg, is: "Will we

eral other key stakeholders.



'We see much better cooperation when there is political alignment'

A Q&A with Tim Ash Vie, executive director of the Under2 Coalition secretariat at Climate Group, on how governments are working together to tackle climate change

subnational governments share the responsibility for climate action?

The issue is treated differently in different nations, of course, but there are some things that only national governments can do. Only they can negotiate international treaties and be parties to the UN's change, for instance. And only they can bring forward internationally legally binding targets under nationally determined contributions.

There are plenty of voices arguing that subnational governments need greater autonomy on climate action - we saw this in California with the issue of tailpipe emissions. Functions with a big climate impact transport, for instance - will often be devolved to subnational governments, but there are matters, such as energy security, that start to impinge on national security. In such cases, national governments will assume primary responsibility. One thing that can be frustrating about this dynamic is the process by which climate policies are made. Take the deforestation that is hap-

pening in Brazil, for instance. The affected regions have their own governors, but the national government has determined policies that are enabling the destruction of Amazonia by bypassing those regional authorities. Yes, it is important for subnational governments to have autonomy, but it is even more important for them to be involved in

How should the sharing of responsibility work effectively in practice?

rmany is an example of where this has been coordinated reasonably well. Its federal structure is conducive to the kind of power sharing that can be effective for climate action. The UK is also pretty good. Despite the differences that have arisen between Holyrood and Westminster over the years, the two governments have been fairly well aligned on this issue.

Consider the infrastructure initiatives for charging electric vehicles in the UK. Both national and regio nal governments have played their part, but the private sector has also assumed an important role. We can | Coalition secretariat. take great confidence in the signals | Climate Group

How should national and | it is giving. At the Climate Group, for instance, we have the EV100 global initiative, which is aggregate ng demand.

Then it's a matter of identifying the instruments that are available to subnational actors such as the mayor of London. This is how the city has ended up with congestion charges and the ultra-low-emission zone. Businesses have also started investing in recharging equipment.

For Westminster, it's not only about addressing 'range anxiety' on national highways. It's also about ensuring that plans are in place to encourage action from subnational and even private-sector actors. But it's been vital for all these stakeholders to be in on the conversation.

What is hindering cooperation between national and subnational governments?

Quite often it's politics. We see uch better cooperation when there is political alignment. There are signals that national governments can give and ways that they can support cooperation at regional and local levels, but they must be minded to take those steps in the first place, of course

There are some big elections coming up where climate should play a key role. We've just seen the general election in Australia, where there was a strong narrative from the Labour Party about the damaging effects of climate change. It proved especially compelling to the many Australians who'd recently experi enced its disastrous consequences. Perhaps the most crucial election will be held in Brazil in October. What's happening in the Amazon is probably the biggest problem in



Tim Ash Vie Executive director of the Under2



Investing in nature to solve the climate crisis

Nature-based solutions can contribute a third of the mitigation needed by 2030 to stabilise warming to below 2°C, but a lack of awareness means their potential is not being tapped

and ability to adapt, which in turn

ncreases its ability to mitigate cli

There is also significant economic

tities of carbon stored in forests and

wetlands," says Professor J. Boone

Kauffman, ecosystems ecology in the

department of fisheries, wildlife and

State University and lead scientist with

Illahee Sciences International, "If they

are destroyed, the carbon that has

been stored for centuries will be lost as

The complexities of the biodive

onservation sciences at the Oregor

mate change

fish and fisheries.

owing public attention on | the impact of climate change on that | he sustainability agenda has forced many businesses to commit to achieve net-zero emissions by 2050. Yet while these commitments are widely shared, the plans to achieve them are not. On closer inspection, it's clear many of them are inadequate.

This is because many companies focus only on carbon offsetting, or only on reduction, instead of tackling both. For net zero to be reached, emissions must be reduced and actively removed from the atmosphere. Despite this. businesses suffer from 'carbon tunnel vision'. Climate change is inextricably linked with biodiversity loss, yet most of the climate conversation is focused on carbon.

"The climate crisis agenda is so intertwined with carbon that the link between climate and nature is overlooked," says Oliver Bolton, CEO at Earthly, a platform for high-quality, nature-based solutions that remove carbon, restore biodiversity and support local communities. "If you reduce biodiversity loss, or even

agenda is so

between climate and

nature is overlooked

sity crisis are partly to blame for the receives. The relative simplicity of carbon and ability to track it via a single metric means it has become synonymous with the climate crisis. Naturebased solutions can ultimately contrib ute a third of the mitigation required The climate crisis to keep us to 1.5°C of warming, yet they receive only 4% of funding, according to the Climate Policy Initiative. intertwined with carbon that the link

Gradual progress is evident. Two of the themes at COP26 were related to nature and many of the organisation Earthly works with focus on biodiver sity as well as carbon. But there is sti a degree of education needed on ho

climate and biodiversity are interlinked system by increasing its resilience and the value of combining nature pro ection and regeneration

Finding the right projects to invest n is another challenge. Earthly helps ousinesses find such projects and has value in natural assets versus the cost developed a scoring system to de-risk to protect or to regenerate. Mangrove nvestments into nature. Through its protection projects, for example, narketplace, Earthly provides easy are not just about storing carbon ccess to underrepresented ecosys-If mangroves are healthy, they can ems from a protection and regenerareduce the impact of storms, create ion perspective. As well as scoring the robust flood defences, and support quality and integrity of the projects. the company also helps businesses "Nature-based solutions are the understand the return on their investnost efficient and cost-effective nent in terms of the carbon, biodiver approach to protecting the large quansity and social impacts.

Achieving net zero by 2050 requires strong action today, and nature-based olutions have a critical role to play As well as supporting nature projects t's also likely that companies will seek evolve their business models to come nature positive.

"In a nature-positive world, all com nies will be fully aware of their npact and dependency on nature," ays Bolton. "Companies are coming to s wanting to have a net positive impact the planet that builds nature invest ompeting on their net-positive impact the planet, turning consumption nto a force for good. To lead the way, ney need to start today.

For more information, visit earthly.org

Gothenburg's headline sustainability targets



Fossil-fuel-free district heating

reduction in the energy

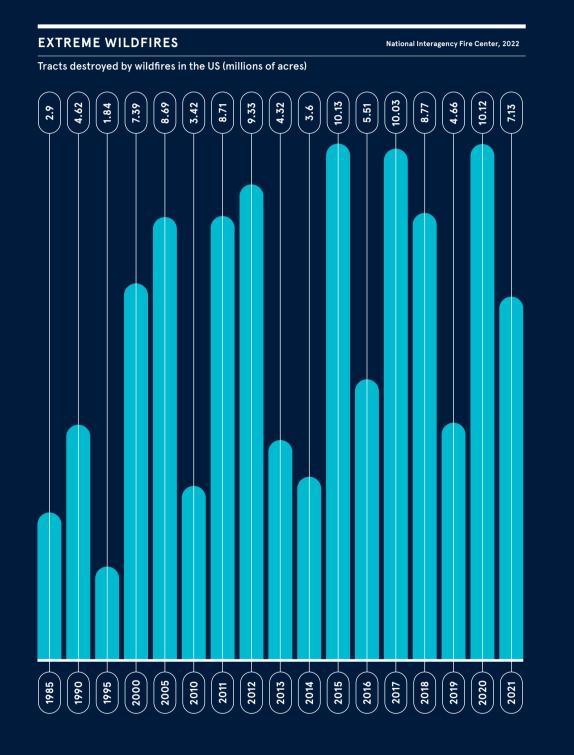


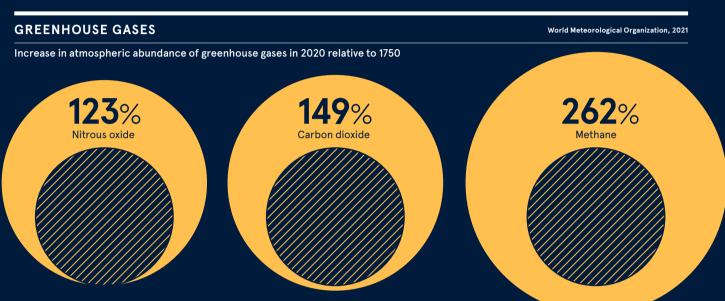


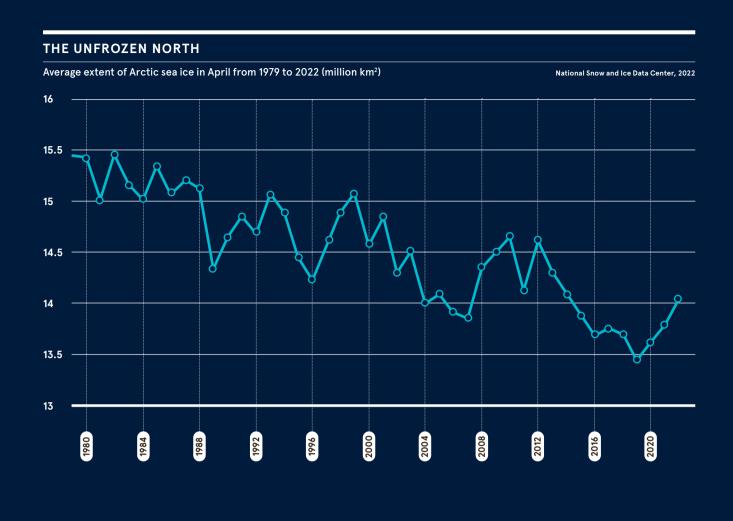


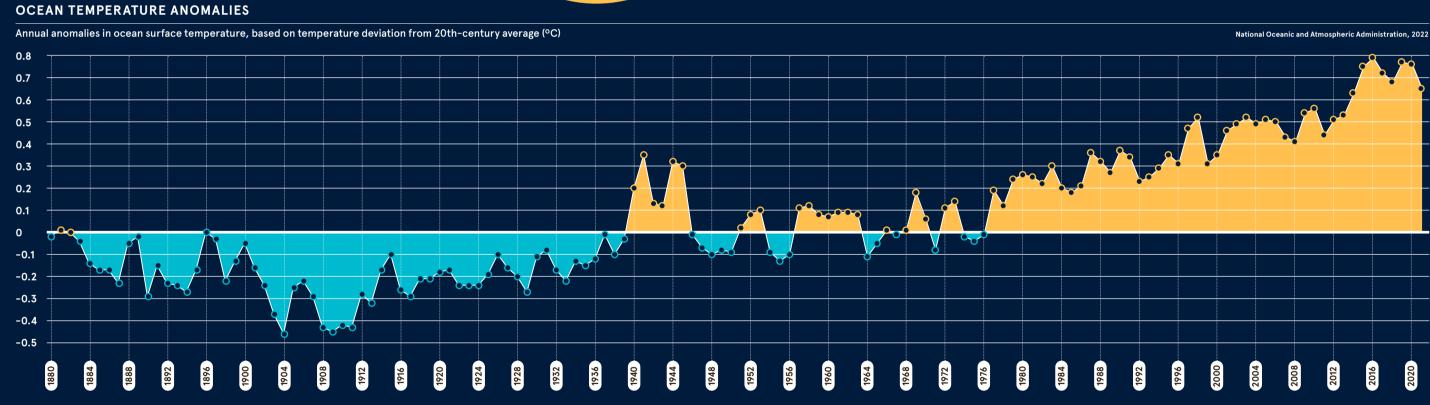
IMPACT OF THE CLIMATE CRISIS

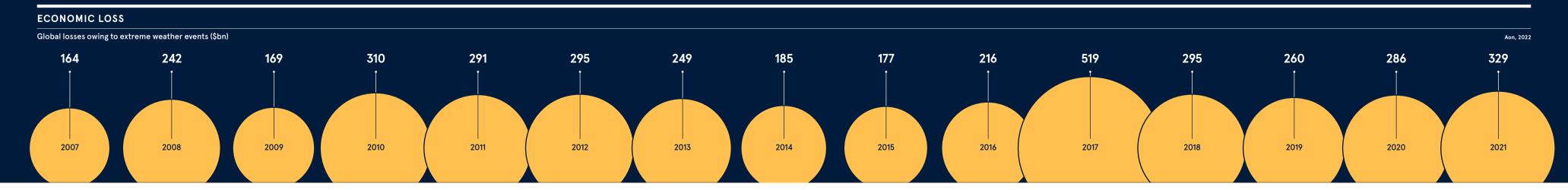
In 2018, the United Nations' Intergovernmental Panel on Climate Change published its oft-cited *Special Report on Global Warming of 1.5°C*. Since then, myriad research papers, statements and summaries have reiterated the magnitude of the crisis that's unfolding and the need for organisations, public and private, to deal with it. Here are just a few indicators of the scale of the damage that's already been done











What SMEs can teach the corporate world about climate action

Many smaller enterprises have embraced environmental goals, making innovative, authentic efforts to make the world greener. Big business would do well to take note

Sam Haddad

positive impact on the environment. | closer connection to the communi-Yet a business can often cause ties in which they operate, helping the ocean. Last June, Finisterre controversy when trying to clean up them to run more effective environals also set up Sea 7, an online training its act, opening itself to accusations of greenwashing.

This is the practice of making an SMEs have for larger operations? organisation or product seem more environmentally responsible than is the most environmentally res- with leave-no-trace packaging. ponsible consumer product in the world". In 2019, BP ran an advert focusing on its low-energy products annual expenditure into oil and gas. The ad was withdrawn.

Greenwashing is a particular conwashing, the practice of making an

Starting communities is really important, as we are only going to solve these things together

portant for organisations to happen less at small and medium ine habitats around Scotland; and show that they're having a sized enterprises. They often have a City Kids Surfing, a charity that mental and socially sustainable camp for ocean activists, to coin initiatives. What lessons might cide with the G7 summit taking Finisterre has sold ethical outdoor

clothing since it started trading in roots were always there, but what it is. For example, Nestlé Waters 2003. The firm has a reputable supwas criticised for a 2008 advert in ply chain and uses natural fibres something that has a real tangible Canada that claimed "bottled water | and innovative sustainable fabrics Lawrence Stafford is Finisterre's

community brand manager. He nity interest company focused on observes that "every brand has a improving public access to the sea when it was directing 96% of its conscious range these days. And, "In the UK, vou're never more while legislation is getting better than 70 miles from the coast, yet at dealing with greenwashing and | to so many people it's such an un bluewashing, we've never needed known. Even in Cornwall, you have cern at big corporations, as is blue- to change our business model to a kids who live three miles from the sustainable one, because we have been like that since the beginning."

Stafford explains The company, based in St Agnes, Cornwall, has evolved in some ways | enrich people's lives through surfin recent years. It's moved beyond | ing. sea swimming or simply being simply guaranteeing the ethical on the beach, but also to foster provenance of its product lines and | deep connection to coastal enviinstead focuses on what Stafford ronments, with the goal of nurturrefers to as "action, inspiration and | ing future marine stewards. access". This entails delivering "If you don't have a relationship concrete environmental change with the ocean, why would you care

and encouraging others to do the about protecting it?" Stafford asks. When Bristol brewery Wiper and same, building on its existing links to grass-roots initiatives. True was established in 2012, the These efforts include funding business didn't have climate objecand promoting the work of Project | tives at its core. But it did have

has never been more im- responsible than it is. This seems to Seagrass, a scheme to restore marplace just down the coast in St Ives. "Our relationships with the grass

impact." Stafford says.

Finisterre Foundation, a commu

we're doing now is putting in place In 2021, the brand established the

POPULAR CORPORATE SUSTAINABILITY MEASURES

pistancing from partners that will not meet sustainability goals

abling customers to recycle products easily

nproving manufacturing efficiency

Offsetting emissions

Sustainability initiatives that consumer brands are investing in worldwide

people, culture and finance". Seeking clarity, Watts took a course at the Cambridge Institute

"It was inspirational," he recalls. "They throw so many stats at you that make you concerned about an uncompromising passion in me

Watts began seeking ways to link the financial and environmental

employees who wanted to minimise | of his role and work out whether he their environmental impact, inclu- was "determined to get to net zero ding two directors who'd previously or more holistic in thinking about worked at renewable energy supplier Good Energy. It wasn't until 2019, when they created the company's first sustainability manager for Sustainability Leadership. role, that environmental initiatives became embedded in the business. The successful candidate. Joseph Watts, had worked in packaging where the world is heading. It drove and operations at the brewery. Initially, he found his new career to do this well and find a path challenge daunting and wasn't sure | through the complexity." where to focus first. He soon realised that he had to define the extent

was generated in situ. He also worked with a startup called Wase to turn waste from the brewery into biomethane as an into these things anymore." he arextra energy source. "This will help | gues, "There's an urgency from the to make us financially sustainable and resilient to the gas price spikes we're seeing," he says.

Brewing generates a lot of carbon have been campaigning on these dioxide, which usually gets released into the atmosphere. Watts | tune into an NGO or organisation has acquired a small-scale carbon- | like Greenpeace if you're that way capture unit from Denmark – one of | inclined already, but brands have a very few in the world – so that Wiper and True can capture the gas and ences with these issues. That's why reuse it to carbonate beer or even sell it to other companies. This is something that large breweries do through direct financial benefits.

Watts says that it isn't hard to on sustainability-creating opportuconvince his colleagues to invest in | nities that can help to drive climate such schemes, especially the newer | action in new directions. They can members of staff, many of whom be more innovative and agile." were attracted to the company for its bold sustainability ambition.

paign with everyone behind it."

objectives of the brewery, which is your industry or wider business in an incredibly energy-intensive networks to learn and collaborate to industry. When the firm moved to a achieve greater change." new site, he encouraged it to install solar panels on the roof, meaning | can play an important role, helping that as much electricity as possible to translate complex issues in en-

"They help to drive things and for climate initiatives and greater ensure that we're not greenwash- leverage in the supply chain, thanks ing," he says. "They will pull us up to their scale, she says. But the key if a proposal doesn't stand up to thing to remember is that "all busiscrutiny. It's a company-wide cam- nesses", whatever their size, "have a

You only really tune into an NGO or organisation like Greenpeace if you're that way inclined already, but brands have a responsibility to engage their audiences with these issues

Watts believes that proving a direct financial benefit is the best way to embed sustainable practices. "Even the CEOs who don't care that much about [their environmental impact] are going to listen," he says.

During COP26, Watts set up the Bristol Brewers' Climate Forum to share environmental insights. All of the breweries in the area got involved, including big players such as Bath Ales.

"Starting communities is really important, as we're only going to solve these things together," he says. "People had varying levels of resource, of course, but there was a real appetite for change and enthusiasm for collaboration."

Karina O'Gorman is European head of "force for good" at Innocent Drinks, which has grown from an SME to a business that employs 900 people. Cooperation has always been key in climate initiatives, she says. "You have to look to work with NGOs, environmental specialists.

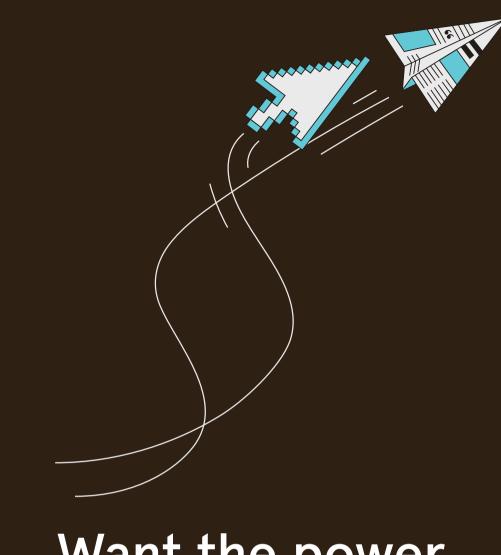
O'Gorman believes that brands gaging ways for consumers.

Stafford thinks it's a moral duty. "We don't have time to softly lean business to put ourselves out there.'

For instance, they can amplify the voices of the scientific experts who issues for decades. "You only really responsibility to engage their audi-

So are SMEs more effective than brands often have new perspectives

On the other hand, large companies have more significant budgets role to play in climate action".



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Tactical withdrawal: the ins and outs of the managed retreat

Encouraging homeowners to relocate from areas facing significant climate-related threats is becoming an increasingly viable solution. This drastic move may negate future risks, but it can be a hard sell

Sam Haddad

a North Carolina beach Atlantic went viral. The owner had bought the property only two years previously for \$275,000 (£218,000). Its spectacular demise was a stark illustration of how the climate crisis can affect coastal communities

The clip could be perceived as an growing threat owing to rising sea levels, accelerating coastal erosion and the increasing frequency of storms. It would clearly have been better to have engaged in a planned, 'managed retreat' from such a threatened location. But what exactly does this practice entail and what are the challenges involved?

Managed retreat is the practice of abandoning or relocating occupied property built on areas with high climate-related risks, such as floodprone land. A 2018 report by the UK Climate Change Committee warned that 4% of homes nationwide would be at a 0.5% or higher risk of annual flooding by 2080. The sheer extent of the economic damage that erosion and flooding are projected to cause this century means that there will be about 40 miles of British coastline that simply won't be worth defending

Selling the idea of a managed retreat to homeowners whose properties are in the firing line is no easy task. So says Bob Ward, policy director at the Grantham Research Institute on Climate Change and

"At the heart of it, there's a choice to be made as to whether somelonger economically viable - and no one wants to be told their home isn't worth saving," he notes.

Governments around the world have focused on constructing defences against floods or rebuilding straight after a disaster. Ward adds.

agrees that the biggest challenge is securing agreement from affected rather than leave. communities. In California, this task is especially hard, as coastal properties are among some of the most expensive in the state.

"The idea is very foreign to wealthy homeowners. They have no interest example of 'unmanaged retreat' – a in it at all," he says. "But we cannot

may be at significant risk of flooding

hold back the ocean. So it will be either a managed retreat or an unmanaged retreat."

Until now, insurance policies in the UK have not incentivised homeowners to favour managed retreats after flooding. For example, Ward points to Flood Re home insurance, an initiative from the government and insurers to make flood cover more affordable. In essence, this has been "an unspoken subsidy" for homes in high-flood-risk areas, he fairly distributes the costs," says says. "It was effective, so there was | Ward, who adds that these include where is worth protecting or it's no | no pricing signal to the property | the costs of losing the property and owner that they were in a place that | also those of relocating in the most was at a high risk of flooding."

It's a similar story in the US, where Griggs points to problems with the be part of that conversation." National Flood Insurance Program signal to ask people to move away?" rates for properties considered too generally involves those affected it's no longer economically viable the risk is a better situation."

May, video footage of | Gary Griggs, distinguished prof- | risky for commercial insurers. But essor of earth sciences at the Uni- these rates have not been updated nouse toppling into the versity of California, Santa Cruz, since the 1970s – again encouraging residents to stay put and rebuild

> point of redoing their insurance rates to reflect the real losses That's because the programme has gone billions of dollars in debt year

When Hurricane Sandy hit New York and New Jersey in 2012, the government bought out some of the coastal homeowners whose properties had been flooded and paid for their relocation. The owners could then rent out their homes until they were no longer usable

The scheme was well received, but Griggs notes that these properties were worth only about \$250,000 whereas houses in California can cost up to \$40m. Neither the state nor the central government has the finance or inclination to provide cover for such properties.

Homeowners can redesign their properties to mitigate flood risk For example, they could build on stilts or make the lower floor totally waterproof with no electrical sockets. This is sometimes done in the Netherlands, according to Ward where there isn't a tradition o insuring properties at serious risk of flooding. But he says that no new properties should be built in areas that are at a high risk or likely to become so in the next 80 years.

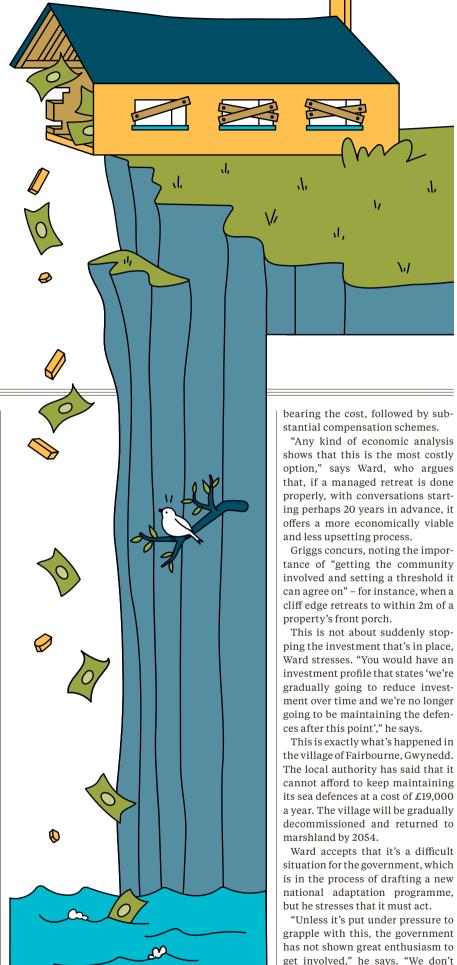
scheme that recognises and then effective way. "We need a societal response – and insurance ought to

(NFIP) from the Federal Emergency | protocol, rather than waiting until Management Agency. The NFIP disaster strikes. The latter scenario "But should we rebuild or use it as a offers subsidised home insurance involves an ad hoc process that

"They have finally gotten to the

after year," he says.

He insists on the need for a proper



have a coherent strategy that em phasises good decision-making and risk management. Central government doesn't have to bear all the costs itself, but it does have to be the convening power that brings all the various stakeholders together." And if a homeowner still wants to

take on the risk? "Your premiums At the heart of it, there's a choice would rise, the price of your home would fall and then at some point to be made as to whether you wouldn't be able to insure it, he says. "But you can't continue to somewhere is worth protecting or have a system where not knowing

The science of supply-chain emissions

If business is serious about taking responsibility for its climate impacts, then science-based targets will be key to the credibility of action on scope-three missions

Meteorological Organisation (WMO) now estimates there is a 50:50 chance of the annual average global level within the next five years.

To put this temperature breach in perspective, the likelihood of it happening back in 2015 was close to zero this is how fast the climate crisis is unfolding day-by-day.

Furthermore, natural resources are being consumed at nearly twice the rate at which the Earth can provide them. In 2021, Earth Overshoot Day - the day when humanity has spent nature's entire budget for the year - fell on 29 July. In other words, play, not just because of their influ resource use went into the red at that point, less than seven months | footprints and global supply chains. into the year.

As a consequence, ocean plastic, air pollution, soil degradation, crop nies, Alibaba Group is committed to failure, biodiversity and habitat loss | aligning its business objectives and are all making headlines of the wrong kind. Plus, the increasing incidence | mate and circularity agenda to sup and severity of extreme weather events, from drought scorching the | tainable tomorrow Horn of Africa, to floods inundating Australia, is setting alarm bells ringing worldwide.

So, how can business ensure it becomes part of the solution, rather than part of the problem?

Going circular for the climate First and foremost, business-as

must change. The crisis calls for

markets and society to move

planned by 2030 and achieved through collaboration with

Alibaba's upstream and

downstream value-chain partners

 ϵ warning signs are plain $_{\parallel}$ away from the energy-hungry and r all to see. The World resource-intensive 'take-make waste' business model of the tradi

> What is needed now, in a warmin resource-constrained world, is a cir reuse, repurpose and recycle.

By linking together the goals of the global climate agenda and the principles of circularity, business car effectively decarbonise its operations in such a way as to ultimatel decouple economic development from consumption of non-renewa ble resources.

In particular, leading companies and major brands have a critical role t ence and profile, but their carbon

As one of the world's leadin ecommerce and technology compaoperations with the combined cli port this transition to a more sus

The good news here is that tech can really help. For instance, some thing as simple as the use by Alibaba of algorithm models to help optimise the size of boxes has resulted in a 15% reduction in packaging materials. Ir turn, this generates knock-on bene fits around waste minimisation, plu sions savings associated wit

Platform business models facilitate nnovations in circular businesses from Idle Fish's second-hand goods olatform to shipping box recycling n Cainiao posts (millions of partic ipants with more than 100 million boxes reused or recycled).

Overall, though, this mammoth sus tainability undertaking is ultimately a job for the whole supply chain and more, explains Daniel Zhang, chairman and CEO of Alibaba Group: "We know that if we want to bring about real change, we must act in concert

By linking together the goals of the global climate agenda and the principles of circularity, business can effectively decarbonise its operations

> with partners. As a digital technology company, Alibaba believes leveraging digitalisation to reduce our environmental impact will be the collective choice for Alibaba and its ecosystem partners. As a unique operator of a Scope three emissions are typically platform business, we plan to take on more responsibilities and drive more and manage. This is why Alibaba has transformation within the Alibaba digital ecosystem."

Strategy based on science

To address this challenge in a way that is both measurable and credible, sci-

Science-based targets provide companies with a clearly-defined path to reduce emissions in line with which aims to limit global warming to well-below 2°C above pre-industrial levels and supports efforts to restrict it to 1.5°C.

Science-based targets also help strengthening resilience to regulatory of participants in the Alibaba ecosys well as boosting investor confidence. ers, merchants, and customers.

As of 2021, more than 2,000 businesses around the world were working with the Science Based Targets initiative (SBTi) and Alibaba Group has committed to sign up too.

Working to help limit global warmng to 1.5°C, the organisation has set new near-to-mid-term targets for carbon neutrality. By 2030, Alibaba has pledged to achieve carbor neutrality in its own operations defined as scope one and two emis sions. This requires changes to be made to facilities and vehicles, plus a review of electricity and heating purchasing plans.

Alibaba will also collaborate with its upstream and downstream val ue-chain partners to cut emissions intensity by 50% by 2030 – its scopethree emissions. Accounting for externalities in this way is not easy hardest for any business to measure not only pledged to achieve carbon neutrality in its own operations by 2030, but also introduced a scope three-plus target, which aims to cut s much as 1.5 gigatons of carbor

Targets to tackle scope three-plus The launch by Alibaba of its amb tious `1.5 Gigatons for 1.5°C' pro

ject will see the group leverage its diverse platforms to achieve meaningful, measurable reductions i greenhouse gases. Scope three-plus refers to the

future-proof business growth by emissions generated by a wider range pressures and reputational risk, as tem, including impacts from suppli

SCOPE 1&2 Scope 1&2 carbon emissions Carbon reduction Offset & removal

The primary objectives are threefold Stimulate fresh waves of innoboth technological advancements

and business model improvement Unite the many partners across the Alibaba digital ecosystem - from brands to merchants, pro ducers to consumers - to collabo

ratively achieve this transition

Work with the likes of research and academic institutions, plus certification agencies, to optimise systems for carbon monitoring recording, verification and evaluation, so these can form robust and solid scientific and technological foundations for change

the next step for Alibaba along the path wards its science-based targets, con cludes Dr. Chen Long, vice-president of Alibaba Group and chair of Alibaba's Sustainability Steering Committee: "The ncept of scope three-plus is based n the potential of leveraging our digal platforms to influence and advo cate for low-carbon products, services and behaviour among a wider group share our energy-efficient technologies and innovative business tools with cusomers and business partners to reduce he carbon footprint together.

For more information please visit alibabagroup.com





What if 'one day' was today?



When nobody's looking, it still matters.

To build a better tomorrow, we must first look after today. It's great if we can turn a can into a car. Even better if we can turn you into a recycler.