



**SUSTAINABLE  
I.T. SPECIAL  
ISSUE INSIDE**



NOVEMBER 2021

# **COP26: THE TIME IS NOW**

## **FIND YOUR HUMAN KIND**

Lewis Pugh, endurance swimmer and UN Patron of the Oceans, calls for basic kindness

## **RADICAL CHANGE IS POSSIBLE**

Says Christiana Figueres, co-founder of Global Optimism

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The company on a mission to accelerate and democratise green building

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# Welcome to My Green Pod Magazine!



Katie Hill, EDITOR-IN-CHIEF  
katie@mygreenpod.com

This week, the eyes of the world are on Glasgow as global leaders unite for COP26 - the 26th UN Climate Change Conference of the Parties.

The official goal is to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change. The unofficial goal is to save the planet.

Many scientists and thinkers agree that it's not too late to change course, but they would all say that the window of opportunity is closing. If we don't act now to slash emissions and halt global warming, we will almost certainly never get a second chance.

The people and businesses profiled in this issue have, we feel, something important to add to the climate debate. We hope you enjoy reading their views and learning about their solutions.

The science is clear. The impacts are on our doorstep. COP26 is where the work must begin.



## ABOUT US

My Green Pod Ltd is an independent, family-run UK business, founded by Katie Hill and Jarvis Smith. We want to share the real stories behind the brands and people working tirelessly to offer ethical alternatives to mainstream products and services. You might not see these options on the high street and they may not be the first to appear in online searches. But they are on mygreenpod.com.

Use the search bar to find conscious lifestyle inspiration - and you could save some cash along the way!

## CONTACT US

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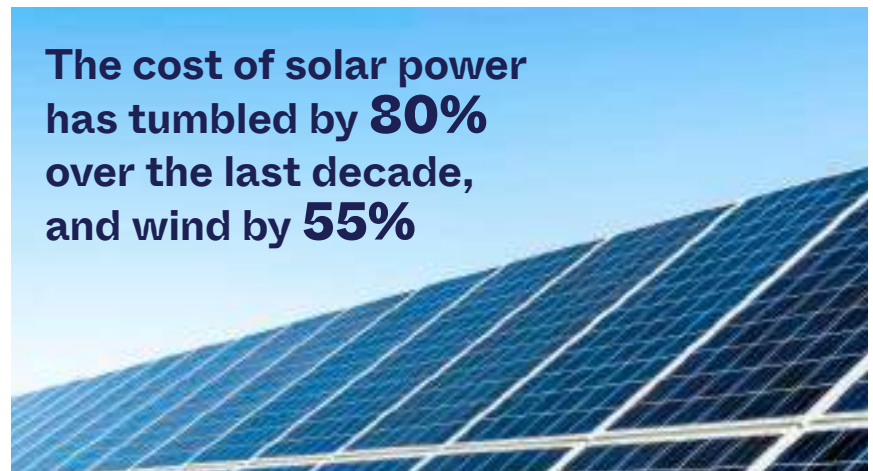
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**80%** of building owners want to make their buildings greener – but only **30%** are attempting it

**Sending or receiving an email emits 4g of CO<sub>2</sub>e**

**The cost of solar power has tumbled by 80% over the last decade, and wind by 55%**



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# COP26 - at last!

By Jonathon Porritt, founder-director of Forum for the Future



PHOTOGRAPHY ISTOCK

**F**ranksly, it's ridiculous that so much should depend on the brief coming together of an uncertain number of world leaders to 'sort out', once and for all, a climate emergency that another bunch of world leaders first agreed to sort out, once and for all, nearly 30 years ago at the Earth Summit in Rio de Janeiro.

I was there. In my naivety, I genuinely thought that this was the turning point – rather than the preamble to 30 years of 'blah, blah, blah', in Greta Thunberg's memorable and wholly appropriate words.

It's not that nothing has happened during that time. It's wonderful to be sharing this space with Christiana Figueres, the stubbornest optimist of all and architect of the 2015 Paris Agreement that so inspirationally got us back on track after 23 of those blah-blah-blah-filled years. Her take on COP26 on the following pages says it all.

**As Christiana says on the pages that follow, it's not too late. But we also know that it won't be 'not too late' for very much longer. Which really does make COP26 a very big deal indeed.**

## FROM RHETORIC TO ACTION

If rhetorical foreplay were anything to go by, the COP26 climax should be formidable. What would once have been dismissed as the fevered ranting of green extremists now trips effortlessly off the tongues of Boris Johnson and a host of world leaders heading to Glasgow. We have to take heart from that: whatever the still massive gap between rhetoric and action, getting to grips with the full gut-wrenching reality of the climate emergency does not come easily for any of us.

A word of praise, therefore, for the Intergovernmental Panel on Climate Change (IPCC), set up by governments back in 1988. Without a doubt, it represents the single-most important collective scientific endeavour the world's ever seen.

It was the work of the IPCC that shaped the Earth Summit's most important output: the UN's

Framework Convention on Climate Change. And it will be the work of the IPCC, through its latest Assessment Report published just a few weeks ago (described by António Guterres, secretary-general of the United Nations, as 'code red for humanity'), that will have the biggest influence on those world leaders as they gather together in Glasgow.

## IRREVERSIBLE IMPACTS

If there's one single word in that report that I would like to see emblazoned over the podium of every pontificating politician, it is this: 'irreversible'. With specific reference both to ocean acidification (of which we hear far too little) and to rising sea levels (of which – challengingly – we're hearing more and more), the Assessment Report talks of irreversible impacts 'over hundreds or even thousands of years', with a minimum of a metre average sea level rise now projected by 2100, and possibly as much as two metres.

These impacts flow from a 1.1°C average temperature increase since the start of the Industrial Revolution, alongside all the other accelerating and intensifying climate disasters. We must therefore be very nervous indeed when we contemplate the potentially irreversible impacts of a 2°C average temperature increase – let alone of what may lie beyond.

## IT'S NOT TOO LATE

In case the mind-numbing science of the IPCC isn't sufficient (God help us!), we should be thankful that the 'politics' of COP26 will be shaped as much by the voice of progressive companies (louder, more authentic and more impactful than ever before), by the more and more powerful presence of young people, demanding substantive outcomes that free us of the pernicious, life-crushing poison of blah, blah, blah and by the timely reminder that the number of people prepared to take direct action (to force the ditherers, the hypocrites and the 'predatory delayers' – intent only on slowing everything down – to step up) is growing all the time.

Such tactics may not command universal approval or respect, but widespread civil disobedience is very much a sign of things to come.

As Christiana says on the pages that follow, it's not too late. But we also know that it won't be 'not too late' for very much longer. Which really does make COP26 a very big deal indeed.



## Find out more

■ Jonathon Porritt is an author, campaigner, founder-director of Forum for the Future and former chair of the UK Sustainable Development Commission (2000-2009). Read more at [jonathonporritt.com](http://jonathonporritt.com)



**'getting to grips with the full gut-wrenching reality of the climate emergency does not come easily for any of us.'**

**JONATHON PORRITT**

FOUNDER-DIRECTOR OF FORUM FOR THE FUTURE

## CLOCKWISE

The IPCC Assessment Report has been described as 'code red for humanity'; a minimum 1m average sea level rise is now predicted by 2100; irreversible impacts flow from a 1.1°C average temperature increase; young people are increasingly demanding outcomes from COP26



# RADICAL CHANGE IS POSSIBLE

By Christiana Figueres, co-founder of Global Optimism

Last month I travelled to Greenland, one of the places on Earth most exposed to the climate crisis. It was warmer than London. Millions of pieces of the glacier were floating on open water. Ice was melting into rivers, which I stood beside. The sound may have been identical to that of a calming, babbling brook, but I have never felt so unsettled by the precariousness of our situation.

The word 'irreversible', imprinted in my mind after reading the recent Intergovernmental Panel on Climate Change (IPCC) report, hit home in a profound way.

That melting in Greenland, as a consequence of just 1.1°C of warming, is now unstoppable. It will impact sea level rise and weather patterns globally for generations to come. The resulting human suffering is already and will continue to be traumatic. No wonder more and more of us are deeply worried about the future.

## A SIMPLE FORMULA

COP26 must provide a moment of international recognition and solidarity for the very painful context within which we all are working. At the same time, the summit must make clear that governments, investors, companies, cities and communities are even more determined to bring every solution to bear in order to keep alive the goal of 1.5°C as our maximum temperature rise.

We know the mantra: our best chance at achieving this is cutting global emissions in half by 2030, again by 2040

and again by 2050, while actively restoring nature. It's a simple formula, but a fiendish challenge because we're all coming at this from a deeply rooted high-carbon economy and society.

We have never done anything like this before. There is no guarantee that we will succeed, and at the same time we have no other option but to succeed.

## CHANGE IS POSSIBLE

We can still stave off the worst. We can still invest in nature, adaptation and resilience. We can still transform all our economic sectors. It won't be easy, but Covid has taught us that radical change is possible.

However, the frustration many of us feel at the pace of change, which right now is just not fast enough, means many people feel that we will not be able to solve this monumental challenge.

It's easy to say that it's too late, that we are in fact not enough, that COP26 will be a failure. How many of us have had these thoughts? In all honesty, none of us is immune; but this crisis of doubt is something we must move through.

## MOVING BEYOND BLAME

Despite our imperfections, human beings are hard-wired both as individuals and collectively to improve our living conditions and to care for each other.

We do have what we need. And we do have the hard-won Paris Agreement.

**'COP26 must provide a moment of international recognition and solidarity for the very painful context within which we all are working.'**



PHOTOGRAPHY ISTOCK

Icebergs at the end of Greenland's Ilulissat Icefjord

**'We must press for accountability, of course, but blame will not serve us when all our energy is needed now to deliver on the solutions we have at hand.'**

Right now – this pivotal moment, in which everyone reading this has the privilege to be alive – is when we simply have to get to work and deliver.

What does that mean? First: giving adequate space to the pain, respecting and comforting each other through the grief and loss. Second: moving beyond blame, because time is not on our side, and none of us is perfect. We must press for accountability, of course, but blame will not serve us when all our energy is needed to deliver with the solutions we have at hand. Third: we can no longer wait to double down on the solutions.

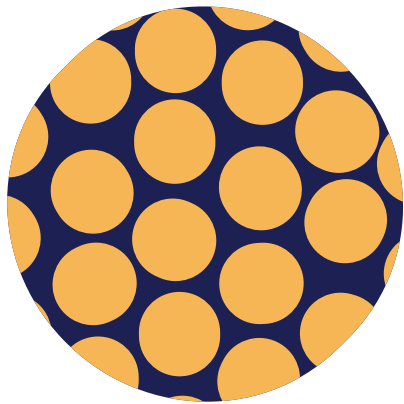
## WE ALL HAVE AGENCY

We must all assume whatever agency we have, whether we're a mother worrying about traffic fumes at the school gate or a head

of state representing the national interests: we all have agency to contribute to delivery now. COP26 can deliver progress towards a liveable future. It can and must be a moment for delivering the end of coal. It can and must be a moment for delivering big wins for nature. It can and must capture the spirit of solidarity and courage that we need as we build momentum towards the critical African COP, to be held in Egypt in November 2022.

## Find out more

■ Christiana Figueres was formerly executive-secretary of the UN Framework Convention on Climate Change, where she oversaw the landmark Paris Agreement. She co-presents popular climate podcast *Outrage + Optimism*, and co-authored the best-seller *The Future We Choose: The Stubborn Optimist's Guide to the Climate Crisis*. Read more at [christianafigueres.com](http://christianafigueres.com)



# 2021 P.E.A. AWARD WINNERS

**CLIMATE HEROES AND CHANGEMAKERS HONOURED AT GREEN-CARPET EVENT IN LONDON**

**O**n 22 October, 300 leading lights in sustainability gathered at London's One Marylebone for the 11th P.E.A. (People. Environment. Achievement.) Awards, in association with Citrix.

In her keynote speech, Atossa Soltani, founder and board president of Amazon Watch, said: 'It is an honour to be joining this impressive community of eco-visionaries who are creating a new normal for how to live in harmony with the web of life. We are living on the precipice of biosphere collapse and climate chaos and every day the window of opportunity to reverse our fate is shrinking. Future generations are depending on our bold and courageous actions today to shift our life-blind economic system to one that is life seeing and life affirming. It will take leadership from the likes of all of you gathered here to create such shifts as circular

economies, deforestation-free commodities and truly regenerative investment portfolios.'

Guests enjoyed a vegan and organic three-course meal from 'the original green chef' Arthur Potts Dawson, plus Fungtn alcohol-free mushroom beer, Sea Arch Sea & T, Avallen Calvados, Cooper King Gin, Vintage Roots organic wine and Equinox Kombucha.

TV presenter Zilpah Hartley presented the year's nature-infused awards, handmade by Katie Weiner. Winners were honoured across a variety of sectors ranging from Digital Technology to Art (see right).

Celebrations rounded off with an after party of music and dancing, ignited by the night's liberating 'fantasy and futurism' theme.

Huge congratulations to all this year's winners - look out for more details in upcoming issues of My Green Pod Magazine!



#### ARTS

**Winner:** Jasmine Pradisitto  
**Shortlisted:** Claire Victoria Bishop; Greg Cochrane

#### CLIMATE PIONEER

**Winner:** Jessi Baker, MBE  
**Shortlisted:** Chris Ramsey; Greg Cochrane; Laura Young; Russ Wakeham

#### DIGITAL TECHNOLOGY

**Winner:** Ewen Anderson  
**Shortlisted:** Mankaran Ahluwalia; Phil Law

#### ENERGY

**Winner:** Mark Millar  
**Shortlisted:** Cathy Yitong Li; Linda Achan; Priyanka Khurana

#### EV

**Winners:** Fiona Howarth & Toddington Harper  
**Shortlisted:** Joel Teague

#### FOOD & DRINK

**Winner:** Paul Gabie  
**Shortlisted:** Caroline Compton-McPherson; Chris Jaume; Linda Achan; Sofia Parente

#### GREENEST FAMILY

**Winner:** Satish Kumar and family  
**Shortlisted:** The Cahill family; The Dale Family

#### GREEN PIONEER

**Winner:** Safia Minney  
**Shortlisted:** Alice Bardwell; Emma Goulding; Jessi Baker, MBE; Jo-Anne Chidley

#### HEALTH & WELLBEING

**Winner:** Roger Leese  
**Shortlisted:** Ethical; Helen Bee; Katherine Swift

#### INFLUENCER

**Winner:** Greg Cochrane  
**Shortlisted:** Eilidh Gallagher; Joanna Adjety; Laura Young; Ruth MacGilp

#### MONEY

**Winner:** Green Angel Syndicate (GAS)  
**Shortlisted:** Tred

#### NATURE

**Winner:** Lilly Platt  
**Shortlisted:** Mankaran Ahluwalia; Prevented Ocean Plastic

#### PRODUCT

**Winner:** Andy Orchard and Mankaran Ahluwalia  
**Shortlisted:** Gary Styles; Joey Pringle; Primrose Matheson; Rohan Dinn

#### TRAVEL

**Winner:** Rebecca Heaps  
**Shortlisted:** Brad Frankel; Howard Carter

#### VEGAN

**Winner:** Tracey West  
**Shortlisted:** Joey Pringle; Lou Palmer-Masterton

#### Find out more

Information about the P.E.A. Awards is at [peaawards.com](http://peaawards.com)



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# FIND YOUR HUMAN KIND



PHOTOGRAPHY © LEWIS PUGH FOUNDATION, OILLE NORDELL

By Lewis Pugh, endurance swimmer and UN Patron of the Oceans

**A**s an endurance swimmer, I've spent almost as much time in the ocean as I have on land. As UN Patron of the Oceans, it is my task to 'speak' for the oceans and the wonderful creatures that live within it. This position is an honour, but also a humbling task.

How can I possibly speak up for the mighty whale, which knows the pressure and the mysteries that happen two kilometres under the ocean surface? How can I speak for a dolphin, which communicates in a complex system of clicks and squeaks that I cannot understand? How can I possibly comprehend the profound intelligence of a predatory shark, a sedentary mollusc, or the microscopic phytoplankton on which the entire marine ecosystem depends?

I can only speak of what I have witnessed, through my imperfect human eyes – and they see far less vividly than a mantis shrimp, which perceives 12 channels of colour compared with our paltry red, yellow and blue.

In my 35-year swimming career, I've watched changes that are frightening in their implications. I have personally witnessed coral reefs bleached bone-white in the Indian Ocean. I've seen plastic on Arctic beaches that are thousands of kilometres from the nearest human habitation.

I've swum down a river of melt-water under the Antarctic ice sheet; the polar regions are feeling the effects of the climate crisis more dramatically than anywhere on Earth. I've swum over a seemingly endless carpet of whale bones on the ocean floor in the Southern Ocean, scene of an ecocide when whales were seen as nothing more than a source of oil for lamps and corset stays.

The triple threats of global warming, pollution and overfishing

affect every single ocean and sea on our planet. Together, they are endangering the basis of marine life, which is also the very foundation of life on Earth.

## WITNESSING RECOVERY

I've swum for miles and miles in ancient seas and not come across a single fish. But I've also witnessed the miracle of recovery. I've seen the difference when a sea is declared a Marine Protected Area (MPA) – how healthy, colourful and abundant it becomes when we just leave it alone and give it a chance to reset and rebalance.

I'll admit to some favourites when it comes to ocean creatures. I am particularly fond of penguins. It is devastating to learn that African penguins are expected to go functionally extinct on the west coast of Africa within the next 15 years. The African penguin is just one casualty among too many. More than two-thirds of the world's wildlife has been lost in the last 50 years due to human activities.

If you are shocked by that statistic, it is because you are kind. Kindness is another human quality (we call ourselves humankind, after all). We have the ability to plan ahead, to reminisce, to feel empathy and compassion. We can choose to be kind to our fellow humans, and to the animals we have relationships with.

We also have the power to turn that kindness into action. We can use that kindness to protect our Earth, our oceans and all the creatures in them.

Successful Marine Protected Areas show that we can help restore balance where we have destroyed it, if only we apply our collective will and intelligence. It starts with being kind.

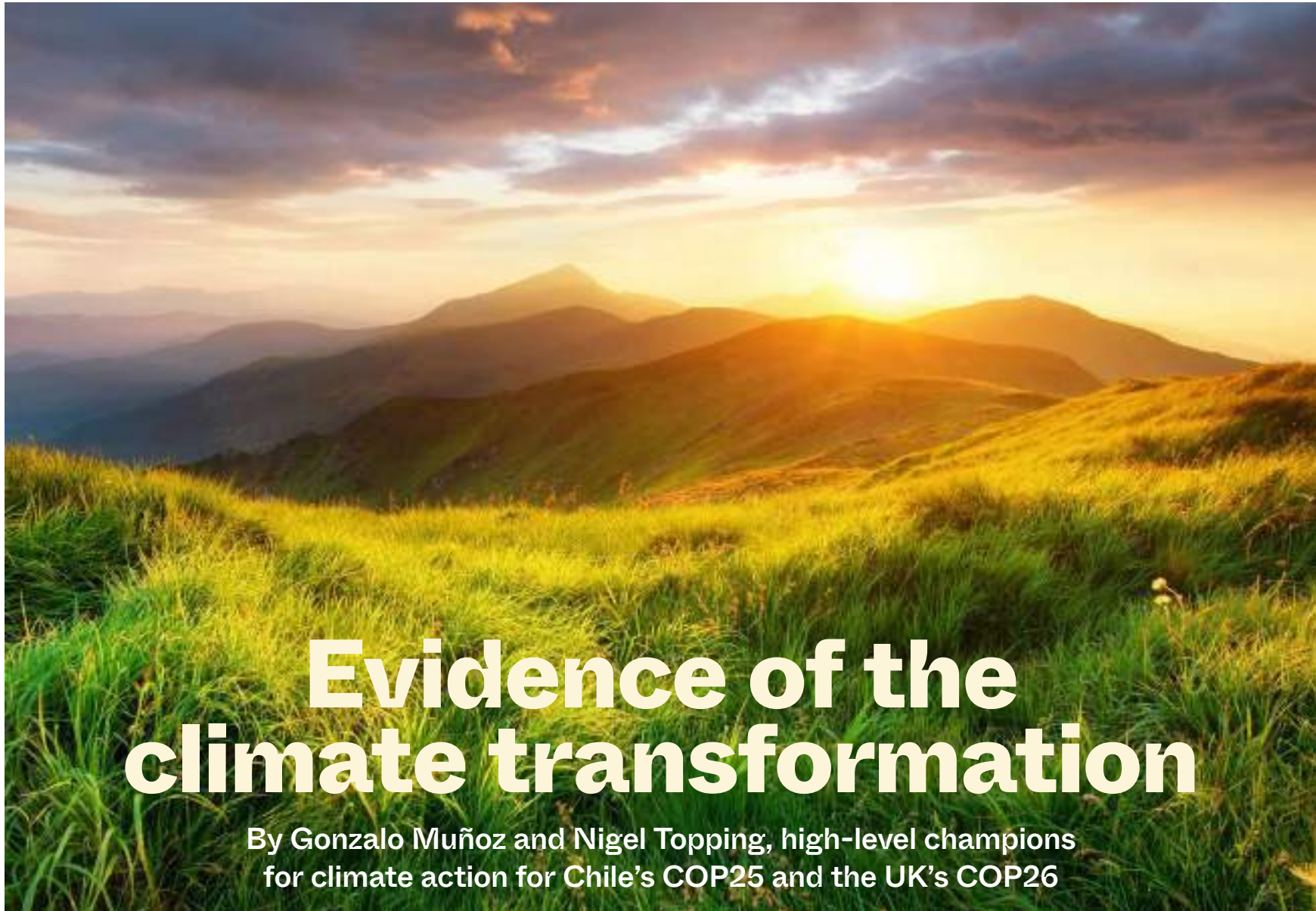
This month, as world leaders gather for COP26, it is even more important than ever that nature has a voice. Our very survival depends upon it. I may not be able to speak to all the creatures in the oceans. But I believe they would support me asking for basic kindness on their behalf.

## Find out more

■ Discover how Lewis is helping to protect the oceans at [lewispuhfoundation.org](http://lewispuhfoundation.org)

Lewis Pugh's Antarctic swim (2017) was the most southern swim in the world – and one of the most dangerous of his life





PHOTOGRAPHY ISTOCK; HIGH LEVEL CLIMATE CHAMPIONS

# Evidence of the climate transformation

By Gonzalo Muñoz and Nigel Topping, high-level champions for climate action for Chile's COP25 and the UK's COP26

If you focus on the geopolitics of climate action, you might be worried. In a year that has brought many of us closer than ever to the impacts of the climate crisis – from flooded subways and burning homes to power outages and landslides – national commitments often feel welcome but inadequate compared with what the science demands.

But if you focus solely on the geopolitics, you are missing out on the bigger and more promising picture of a transformation that's already underway.

We are more confident than ever about our chances of creating a healthier, resilient and more liveable zero-emissions future – starting with an acceleration during COP26. Why? Because that's where the global economy is already headed, significantly faster than indicated by national plans.

## RACING TO NET ZERO

Since the last COP summit in 2019, the very idea of a corporate, investor or local government commitment to net-zero emissions before 2050, in line with the Paris Agreement's goal to limit



CLOCKWISE Construction of wind turbines at Butterwick Moor, County Durham; a community garden in Bristol; climate champions Gonzalo Muñoz and Nigel Topping

warming to 1.5°C, has gone from extreme to mainstream. General Motors, Aviva, the state of California, Cemex, Natura Cosmetics, Ørsted, the University of Sao Paulo and Glasgow city are aiming to reach net zero 10 or 20 years sooner.

The UN-backed Race to Zero campaign – which mobilises businesses, investors, cities and regions behind robust targets to halve emissions between 2020 and 2030 and reach net zero before 2050 – has grown exponentially since it launched in June 2020, even in the midst of Covid-19. Its cities and

regions now cover 11% of the population, and its businesses have at least \$7.9 trillion in revenue – that's three times the size of the UK's GDP.

The need to build resilience to the impacts of climate change is setting in, too – because the zero-emission economy must be able to thrive in spite of impacts such as droughts, floods and unbearable temperatures.

The UN-backed Race to Resilience is similarly mobilising the private sector, local governments and civil society to build resilience for the 4 billion people most at risk by 2030, and defining what makes an accountable and transformative target.

## FINANCING CHANGE

For evidence of this exponential shift, look at finance. In 2019, a pioneering alliance of asset owners, responsible for \$2.4 trillion in assets under management, committed to fully decarbonise their portfolios by 2050. Now, that asset owner alliance has roughly doubled in assets under management and become part of the wider Glasgow Financial Alliance for Net Zero, which unites asset owners, asset managers, banks, insurers and others – responsible for around \$90 trillion – under one target for net zero by 2050.

Recognising the need for finance to help reverse biodiversity loss by 2030, we are now working to drive finance-sector commitments to eliminate

**...if you focus solely on the geopolitics, you are missing out on the bigger and more promising picture of a transformation that is already underway**

deforestation from portfolios by 2025 and support businesses that preserve and restore nature.

### **DECARBONISING SOCIETY**

This is exponential – not linear – growth. We've seen it time and again, from horses to cars, valves to transistors and landlines to mobile phones. The cost of solar power has tumbled by 80% over the last decade, and wind by 55%.

The number of electric vehicles on the road jumped from 17,000 in 2010 to more than 10 million today, according to the International Energy Agency. In Europe, electric cars and vans are expected to cost less to manufacture than fossil fuel versions by 2027 and could account for all new sales by 2035, according to BloombergNEF.

This kind of growth was unimaginable when the Paris Agreement was clinched in 2015. Then, projections told us the internal combustion engine would still be around in 2100 and that solar photovoltaic would never be cost-competitive. Now that growth is spreading to harder-to-decarbonise sectors such as aviation and shipping.

So Glasgow is set to be the first COP focused on implementing climate action rather than negotiating it – where countries, businesses, investors, cities and regions can share the accelerating progress towards net zero in sector after sector of the economy. Of course, this progress is far from sufficient; but the dynamics of exponential systems transformation are now in place.

The Intergovernmental Panel on Climate Change says that in order to stay within 1.5°C, we need to halve emissions this decade while regenerating nature and building resilience. That equates to cutting emissions by 7.6% per year, according to the UN Environment Programme.

Driving this immediate change will take diversity, cooperation and what UN secretary-general António Guterres calls an 'inclusive' and 'networked' form of multilateralism. National governments, cities, regions, multinational corporations, small businesses, investors and civil society must work together to innovate, invest and legislate for a halving of emissions by 2030. In so doing, they will create an ambition loop: the private sector and local governments jump out ahead of national governments, giving political leaders the confidence to set higher targets and more enabling policies. Businesses, investors, cities and regions can then raise their targets again, which allows governments to aim higher, and so on.

Unlike in 2019, we know what it will take to reach net zero. The Race to Zero has worked with hundreds of partners from industry, civil society, academia and government to create detailed climate action pathways to 2050 for 30 sectors and the breakthroughs needed by 2030 to drive exponential change. 15 hit their first breakthrough ahead of COP26, with 20% of each sector's major companies joining the Race to Zero.

### **DIVERSITY MATTERS**

Climate change touches every country, every business and every person, just in very different

ways. Some feel impacts on their health, some on their revenue and some on their jobs and livelihoods.

A selfish, inward-looking economic response risks fuelling the conditions for catastrophe – the way the Treaty of Versailles did after the first world war, as described by John Maynard Keynes in *The Economic Consequences of the Peace*. Instead, we must follow the long-term, outward-looking approach of the Marshall Plan which, after the second world war, recognised the power of global economic recovery to both prevent the conditions of conflict and lift economic performance at home and abroad. But the plans must include the whole world. To do that, we need to embrace diversity.

Now that the Paris Agreement has given us the global end-goal for climate action, we need a diversity of partners – in terms of sector, gender, region, expertise and more – to push and pull the economy from all sides.

The Chilean and UK COP presidencies took an important step in that direction when they appointed us, as the first two high-level champions to come from the private sector rather than government. Our backgrounds enabled us to approach the job with the kind of innovative and entrepreneurial spirit that we are urging CEOs, mayors and governors to take on.

### **A RACE WE WANT TO WIN**

We hope the incoming COP27 presidency will make diversity a priority when appointing the high-level champion, and consider candidates who are women and whose experience provides an understanding of how resilience and nature regeneration must go hand in hand with emissions cuts. This is particularly true in small island and least-developed countries, where fossil fuels often make countries reliant on volatile energy imports, cause health problems



**Barbados, for example, is aiming for 100% renewable energy by 2030 because it makes economic sense to do so. At a total cost of \$4 billion, it's expected to generate \$3.9 billion per year in revenue in the 2020s and build energy independence.**

related to pollution and make it hard to provide energy access to rural communities.

On the other hand, renewable sources can connect rural communities and advance sustainable development by, for instance, powering refrigerators for medical clinics and fresh food farmers and lighting for students after dark. Barbados, for example, is aiming for 100% renewable energy by 2030 because it makes economic sense to do so. At a total cost of \$4 billion, it's expected to generate \$3.9 billion per year in revenue in the 2020s and build energy independence. This is what the race to a healthy, resilient, zero-emissions future is all about. It's a race we want to win.

We know that the climate crisis is already upon us, and that the recent wave of commitments to action has not yet translated into meaningful emission reductions. But we also know that the impossible is very possible – because, as we have seen, it is already happening.

# COMPETITIONS

We've hand-picked this selection of green pearls to brighten up the darker months!  
**Deadline for entries: 15.02.22.** To enter and view any Ts & Cs, visit [mygreenpod.com](http://mygreenpod.com)  
**Good Luck!**



## CLOCKWISE

1. A Winter Collection Box from The Kentish Soap Company
2. An organic hair makeover from Tabitha James-Kraan
3. Two Jo Wood Organics natural soy candles
4. A year's supply of Yora cat food
5. A set of bamboo socks from Bare Kind
6. Weleda London Fashion Week goody bag
7. The Immaculate Collection from Mack
8. @Bambuubrush Bambuu Bundles
9. Six months' cleaning products from Spruce
10. A year's supply of Yora dog food
11. Winter favourites from Temple of Incense
12. A six-month membership to The Rock Rose Gin Refill Rewards club

# HERO PRODUCTS

Introducing our November Heroes!

Whether you're looking for ethical Christmas gift ideas or want to escape to the sun, these Heroes will help you to make the most of the festive season – wherever you decide to spend it!

View all our Heroes at [mygreenpod.com/heroes](https://mygreenpod.com/heroes)

## HOME & GARDEN



### HEYLAND & WHITTLE HIBISCUS & WHITE TEA

A sustainable and luxurious soy wax candle with a 45-hour burn time.

[@HeylandWhittle](https://www.instagram.com/HeylandWhittle)  
[heylandandwhittle.co.uk](https://www.heylandandwhittle.co.uk)



### PLAYPRESS THE GRUFFALO ECO-FRIENDLY PLAYSET

Bring *The Gruffalo* to life with this 44-piece pop-out playset.

[playpresstoys.com](https://www.playpresstoys.com)



### RE-WRAPPED GIFT WRAP

Made using 100% recycled post-consumer waste unbleached pulp.

[@Rewrappeduk](https://www.instagram.com/Rewrappeduk)  
[re-wrapped.co.uk](https://www.re-wrapped.co.uk)

## FOOD & DRINK

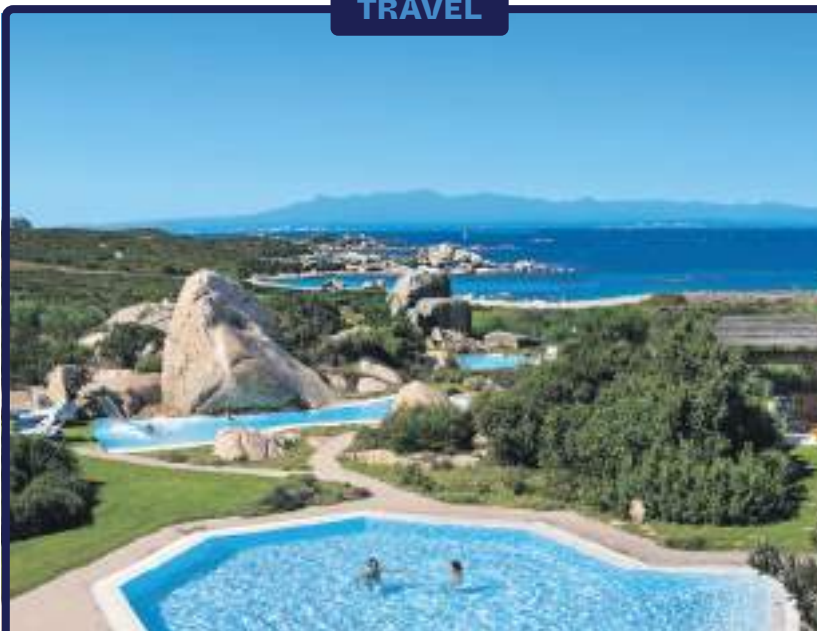


### VINTAGE ROOTS ORGANIC EVERYDAY

Six light, everyday wines – three white and three red – that are perfect for Christmas.

[@VintageRootsLtd](https://www.instagram.com/VintageRootsLtd)  
[vintageroots.co.uk](https://www.vintageroots.co.uk)

## TRAVEL



### DELPHINA HOTELS & RESORTS, SARDINIA

A collection of 4\* & 5\* luxury seaside destinations in northern Sardinia, powered by renewable energy.

[@DelphinaHotels](https://www.instagram.com/DelphinaHotels)  
[delphinahotels.co.uk](https://www.delphinahotels.co.uk)

## TOP 5 NOVEMBER SWITCHES

1

Shop local – wherever you are – using the BigBarn Local Food Map. The virtual farmers' market has been dubbed 'the Amazon of local food', and is helping to connect shoppers with their local suppliers.

[@findlocalfood](https://www.instagram.com/findlocalfood)  
[bigbarn.co.uk](https://www.bigbarn.co.uk)

2

If your skin's suffering from the mix of central heating and cold weather, keep a tube of Weleda Skin Food with you at all times. This natural wonder balm will soothe and nourish dry, chapped skin – from fingers to toes.

[@WeledaUK](https://www.instagram.com/WeledaUK)  
[weleda.co.uk](https://www.weleda.co.uk)

3

Switch to eco cleaning products that do the hard work for you and help to reduce our reliance on single-use plastics.

Try Clean Living's Eco Friendly Complete Cleaning Kit.

[@CleanLivingInt](https://www.instagram.com/CleanLivingInt)  
[cleanlivingint.com](https://www.cleanlivingint.com)

4

Think about switching to a renewable energy supply from Octopus Energy. As well as sleeping better at night, you'll almost certainly save money on your energy bills.

[@octopus\\_energy](https://www.instagram.com/octopus_energy)  
[mygreenpod.octopus.energy](https://www.mygreenpod.octopus.energy)

5

If you're about to buy a product you don't really need, you can satisfy your craving (and save some money) by putting it back and planting a tree instead!

[@treesisters](https://www.instagram.com/treesisters)  
[treesisters.org](https://www.treesisters.org)

# MAKING GREEN ENERGY GREENER

## Octopus Energy's Becky Boulton and Jackson Howarth look to a future where wind and solar farms are buzzing with biodiversity

In summer 2021, Octopus Energy acquired its sister company Octopus Renewables, which manages over 300 renewable energy projects and pumps out 2 terawatt-hours of solar and wind energy every year – enough to power around 1.5 million homes.

Its massive £3.4 billion renewables portfolio is now operated by Octopus Energy Generation, making Octopus Energy Europe's largest investor in solar energy. It can prevent nearly 1 million tonnes of CO2 from entering the atmosphere annually, and brings green supply, energy tech and renewable generation under one roof.

With all these wind and solar farms (and more to follow), Octopus has been thinking about other ways its renewables sites could be used to help the planet. After all, solar plants and wind farms aren't just good for the clean, green electrons they generate – they're also chock full of valuable green spaces, with the potential to harbour an abundance of wonderful wildlife.

People often don't consider the grassy areas that so often surround soaring wind turbines or glistening seas of solar panels, but there are best practices in place to ensure that these spaces are put to good use.

Each site is managed in a way that promotes biodiversity and reduces environmental damage; in fact, specific habitat management strategies must be drawn up as part of the planning permission process for each site.

There are loads of strategies, from planting wildflowers in field margins and managing land with grazing animals to hosting bird boxes and bug hotels. Many renewable operators have been going the extra mile to create habitat for UK wildlife, and Octopus Energy Generation is actively looking for ways to promote biodiversity on its sites.

### GRAZING AT SOLAR FARMS

Today one-third (and counting) of the sites managed by Octopus Energy Generation are grazed by sheep, who have been introduced to keep the long grass in check throughout the year. This arrangement pleases herders and engineers alike – the sheep get a free meal and operators



**HERO PRODUCT** Find out why Octopus Energy is a My Green Pod Hero at [mygreenpod.com](https://mygreenpod.com)

don't have to worry about grass shading their solar panels. The more biodiverse an area is, the more living things it can sustain – and grazing benefits biodiversity in a whole host of ways. Unlike the neat finish you expect from a lawn mower, sheep disturb the earth as they munch away, leaving a mosaic of bare ground and grassy tufts that vary in height. This topological diversity is critical for biodiversity. If seeds land in bare patches of soil they can more easily establish themselves; in turn, this means more wildflowers can flourish and attract pollinators and other insects. With grass growing at different

levels, these sites can provide a series of different micro-habitats that provide food and shelter for a wide variety of species.

Studies have also shown that managing land with grazing can actually increase carbon sequestration. In other words, more carbon is captured and stored in the soil, preventing it from entering the atmosphere.

Soil is the world's largest land-based carbon storage system. Grasslands make up around 40% of the Earth's surface and soil scientists estimate that, if everybody adopted the right land management practices, we'd be able to offset around one-third of our annual greenhouse gas (GHG) emissions.

### AN ECOLOGICAL EMERGENCY

It couldn't be a more important time to stand up for biodiversity. In 2016, the UK ranked 189th out of

218 countries in the biodiversity intactness index. Over the last 100 years, the UK has lost 97% of its meadows and other species-rich grasslands; the lamb's succory and the downy hemp-nettle have gone extinct and the ghost orchid and wood calamint have become critically endangered.

Populations of the UK's most important wildlife have fallen by 60% since 1970, with numbers of farmland birds declining by over 55% and one-quarter of native mammals facing extinction.

Pollinators such as bees and butterflies are of particular concern; one-third of British bumblebee species are now on the brink of extinction. As an integral part of ecosystems everywhere, a decline in the number of pollinators is having a massive knock-on effect, impacting organisms the world over. This includes us. According to the UN, as much as \$577 billion of our annual food production relies on pollination.

### BUILDING BIODIVERSITY

While the sheep help to keep things under control, grassy areas spring to life when they are left alone. Some of Octopus Energy Generation's sites embrace a more natural approach, with patches of land set aside for rewilding. The diverse wildflower meadows that result support pollinators at every stage of their lifecycle, providing pollen and nectar resources throughout spring and summer.

For some sites, like large wind farms, this can be a fantastic way to encourage native pollinators and

other insects back to sites where they haven't been seen in years. In other cases, especially where long grasses and tall flowers can be a fire hazard or block solar panels, this sort of large-scale rewilding is not suitable.

Octopus Energy Generation, is exploring new ways to rewild both on and off sites in the future. Operators can choose to plant carefully selected wildflower meadows, or to rewild hedgerows and field boundaries. In this way, sowing native plants such as yellow rattle, bird's-foot-trefoil and red clover can help provide habitat for a larger variety of insects and organisms, including several endangered species of bumblebee.

Beehives, like the ones Octopus Energy Generation installed near one solar site it manages in Lincolnshire, are another good way to support pollinators. 70% of ponds have vanished from the British countryside, so creating or revitalising water features plays a vital role for a wealth of species – from toads and newts to herons and grass snakes. There's also the opportunity to install a wide range of natural real estate, ranging from bird and bat boxes to hedgehog homes and bug hotels.

It's important to remember that each renewable site is unique, and there's no one-size-fits-all approach to supporting biodiversity. Smaller, urban

### Find out more

■ Discover whether you could save money by switching to a green energy tariff at [mygreenpod.octopus.energy](https://mygreenpod.octopus.energy)

and community-based energy generators have shown that it's possible to support wildlife even in the middle of our busiest cities.

Repowering London's Energy Garden project, between the capital's rail stations, train depots, local schools, hospitals and housing estates, puts gardens alongside solar panels and battery storage. It promotes biodiversity and a sense of community alongside renewable energy, which Octopus Energy buys to supply customers through Younity, a joint venture designed to help support community energy projects like this one.

### SO WHAT'S NEXT?

As more of the UK's power comes from renewables, ecologically minded green generators are going to become more and more important. Given the UK's declining biodiversity, it's vital that we all go above and beyond to support wildlife populations.

One of Octopus Energy Generation's core missions is to protect and enhance environmental potential. It's keen to explore new, creative ways to lend nature a hand across the renewables sites it manages and beyond – working with local communities and landowners to develop new strategies that benefit wildlife everywhere. Together with Octopus Energy Generation, we're excited to see what the future holds.



# Beyond net zero?

Just add 'Climate Intelligence'



**A**s the world's leaders gather in Glasgow for COP26, they're focusing on the planetary-sized problem humanity faces: the destabilisation of our climate.

But, says Iggy Bassi, founder and CEO of Cervest, that colossal problem is actually made up of billions of individual, interconnected problems: our buildings and bridges, forests and factories. These 'problems' – our most important assets – are contributing to the climate crisis, overburdening ecosystems and emitting climate-wrecking CO2.

Just as critically, they're also vulnerable to the impacts of our increasingly volatile climate. But Cervest, creators of the world's first AI-powered Climate Intelligence platform, believes they're the key to unlocking resilience.

## GETTING BEYOND NET ZERO

Decarbonisation tops the agenda at COP26, but Iggy's focus is on catalysing global adaptation of the assets we depend on. 'Decarbonisation is critical', he says, 'but on its own, it is insufficient.'

Historical greenhouse gas (GHG) emissions have locked us into decades of accelerating climate volatility — even if we were to reach net zero tomorrow. In the coming years, every asset, built or natural, will be affected by increased extreme weather events like flooding, droughts and heatwaves. They cost us billions now – and will cost trillions in the future.

**'Humans have operated on the basis that nature is free and will always serve us – but nature is biting back in big ways'**



Cervest's EarthScan dashboard provides asset-level analysis and insights that enable climate-intelligent decisions

'Humans have operated on the basis that nature is free and will always serve us', Iggy explains; 'but nature is biting back in big ways.'

## UNDERSTANDING CLIMATE INTELLIGENCE

The urgency is clear: a Cervest survey of 800 US and UK companies in September 2021 found that nearly 90% of respondents' physical assets had been impacted by at least one extreme weather event in the last five years.

Despite this, companies are missing the bigger picture by failing to tackle physical risk. 80% of the businesses Cervest surveyed emphasise transitional risk over adapting to physical risks, with 75% aiming to become net zero between 2030 and 2040.

'Businesses cannot expect decarbonisation efforts alone to minimise their exposure to climate risk', Iggy says. 'They need to understand how to adapt with climate change and build resilience into their strategy.' This approach has exponential benefits that reach far beyond the individual factories, farms,

power stations or train stations themselves. 'The most effective levers we can pull to not only decarbonise but also ensure our resilience', Iggy reveals, 'are the ones our assets are already hardwired into: the world's financial and regulatory systems. If we can change the way we see, quantify and make decisions on billions of assets, we will fundamentally rewire those systems to be climate resilient.'

To do this, businesses, governments and financial institutions require clear, science-backed analysis of climate risk across possible future scenarios. It must be standardised, and derived from a single trusted, transparent – and shared – source. That, says the Cervest founder, is Climate Intelligence.

## KNOWLEDGE: THE ROOT OF CHANGE

The need for Climate Intelligence first became clear to Iggy when he was operating a sustainable agribusiness in Ghana. Volatile weather was making harvests increasingly unpredictable, but no one could explain why.

Iggy turned to science for the answers, but couldn't find the data to help explain climate risk for individual enterprises like his.

He started by joining forces with Imperial College London and The Alan Turing Institute, with the idea of combining the world's leading climate and statistical science to create a unified framework for assessing asset-level climate risk across the globe.

His approach was simple: we can't fix what we can't see or understand. Focusing on assets would make the problem concrete, comprehensible and urgent – and empower everyone to take action.

## DE-RISKING DECISIONS

The idea may have been simple, but the task was not. The Earth's climate is a highly complex, interconnected system, and building reliable data models that can predict its behaviour has taken decades of painstaking observation and analysis.

To transform petabytes of data into useful insight, Cervest spent five years fusing cutting-edge statistical science, machine learning, Earth science and remote sensing with scalable computing. The result? The company's first products: EarthScan™, which quantifies, standardises and rates risk, producing decision-ready insights for any asset, anywhere, and EarthCap™, which feeds Climate Intelligence into financial transactions. This enables businesses, governments and NGOs to explore the impact of climate volatility on their assets, now and in the future – and to act to de-risk their decisions and seize opportunities. As Iggy says, 'from design to retirement, we can – for the first time – make climate-intelligent decisions right across an asset's lifecycle.'

## BRIDGING THE CLIMATE GAP

At the heart of Climate Intelligence is the principle that it must be available, actionable and understandable to anyone.

Climate data – previously complex, fragmented or siloed – has historically been the preserve of those academics trained to understand it, or the few companies interested in (and able to afford) bespoke reports. Cervest transforms that data into dynamic insights that are openly accessible to every person on the planet – from consumers to investors and corporate executives – creating a powerful network effect.

'Climate Intelligence makes climate risk personalised and actionable – and completely visible – for everyone', says Iggy. 'When all stakeholders can see the projected impact of climate change on the same physical assets, there will be more pressure for change', he points out. 'And once we can all know what must be done, we can drive change at a transformative pace and on a massive scale.'

## SETTING THE STANDARD

Opening Climate Intelligence to everyone, Iggy believes, is essential not only to catalysing lasting change but, in the immediate term, to complying with imminent regulation. 'This is the granular level of detail that all companies will need in order to meet the requirements of upcoming mandatory climate risk disclosure rules', he says.

**Businesses are on board; only 6% of businesses surveyed by Cervest were concerned that publicly sharing climate-risk data could have a negative financial impact.**

In May, US President Biden ordered any business working with the federal government to disclose the risks they face from climate change. The UK government, meanwhile, intends the UK to become the first G20 country to make disclosures in line with the Task Force on Climate-related Financial Disclosures (TCFD) mandatory for large private and public companies. New climate disclosure rules are also coming into force in Switzerland.

Iggy believes meaningful climate disclosure must be standardised. He wants to see an agreed set of metrics, data and reporting frameworks that enable comparisons between different companies, and to build a network of shared climate intelligence. As he succinctly puts it, 'we must be able to compare apples with apples'.

Businesses are on board; only 6% of businesses surveyed by Cervest were concerned that publicly sharing climate-risk data could have a negative financial impact.

Early movers will reap rewards as assets with lower climate risk are likely to enjoy insurance and financing benefits, while businesses will be able to scrutinise their partners' exposure – and strengthen their supply chains.

Unsustainable, risky operations can be wound down, vulnerable assets adapted and new opportunities for investment revealed. And consumers will increasingly flock to more resilient providers in an increasingly volatile market.

## A STRATEGIC WINDOW IN GLASGOW

It's clear that climate change is not a zero-sum game.

According to Iggy, 'I can't win if you lose. Our interests in this global economy are too intertwined.' That shared dynamic can open up interesting opportunities – from investment and financing to new development.

Cervest is advocating at COP26 for open intelligence and standardisation, along with the very real need for a change in how companies think about climate change.

'The interventions we take today will build resilience tomorrow', Iggy tells us. 'The best place to start is at an individual asset level.' EarthScan helps businesses de-risk decisions for each asset, across multiple scenarios and timeframes – something that hasn't been achievable until now.

That's just the start, according to Iggy. 'Ultimately, our vision is to build a resilient future for everyone on the planet', he says. 'Putting climate at the core of every business decision – from financial disclosure to supply chain management – can set us on that path today.'

## Find out more

■ Discover how you can adapt with climate change at [cervest.earth](https://cervest.earth)

# ‘WHAT GETS MEASURED GETS DONE’

The unlikely tech duo that’s helping to drive the transition to the impact economy

Progress is impossible without change. Two years since the first signs of the pandemic, the world has changed significantly. Without underestimating the destruction it has left behind, there was a silver lining to putting humanity on lockdown and the global economy on pause for a moment.

Headlines flooded in about the environmental benefits of giving the planet a break: the Himalayas were visible for the first time in 30 years; the water in Venice canals turned crystal clear and there was a 40-50% air quality improvement after just four days of lockdown.

The positive effects of stopping our economic activities were so obvious that the damage caused by business as usual was undeniable, and the grand shift in the global mindset began.

## A SERENDIPITOUS MEETING

Rewind to 12 February 2020, Amsterdam: Mike van Wijhe and Hatim Baheranwala, two total strangers at the time, were introduced by a mutual acquaintance who had the fortunate hunch that the two could be of value to each other.

After several meetings the pair quickly realised that they worked incredibly well together; they also recognised that smart, driven, entrepreneurial people were needed to tackle the serious environmental and social problems that had never been so exposed or obvious.

Despite very different personalities and cultural backgrounds, Hatim and Mike saw that their skills and experience were extremely complementary, and that their view of the world, its issues and what had to be done was very similar. After a quick creative brainstorm, Treety was born.

## REDEFINING SUCCESS

Mike and Hatim identified that it’s not businesses that are necessarily to blame, but the system in which they are functioning and how success is defined within that system. ‘The way that we are reporting and rewarding business performance is all wrong’, Hatim explains, ‘because the KPIs and metrics that we are using are purely financial.’

Treety addresses this problem; it’s a platform and a solution that helps businesses and organisations to measure success by integrating measurability through metrics and KPIs based on environmental and social indicators, and providing the reporting and communication tools to share that performance with stakeholders.

‘After an intense initial period of building, validating, tweaking and exploring the market and different sectors, we soon had a first version live and found many allies in the process’, Mike tells us. ‘One of the first of those friends in the space was My Green Pod.’



## MAKING AN IMPACT

Just over a year down the road, Treety is now helping clients and partners – ranging from Google to impact investment funds – to help measure and report positive impacts, using standards such as the UN Sustainable Development Goals, and measure and minimise negative impacts through regulatory standards.

‘Our current focus is on tackling the investment sector, as it’s one of the first areas to which EU regulation will be applied’, says Hatim. ‘There is a real need there and an opportunity to make a huge difference by helping these organisations and their portfolio companies to measure and report their impact.’

The ultimate goal at Treety is to provide these tools to all businesses, and realise a vision where the entire economic system is measuring success primarily through the lens of sustainability - with profit simply a byproduct.

Treety and other warriors in this space, such as Wherefrom, are on a mission to bring together the brightest minds to drive the change that is needed, and share learnings and ideas during COP26 and beyond.

‘To end with a famous quote’, says Mike: ‘what gets measured gets done. If every business in the world is measuring their performance by its impact on the planet and the people on it, and their success is defined by positivity, Treety’s job will be done.’



PHOTOGRAPHY @ELLENBRANDWIJKPHOTOGRAPHY

Treety co-founders Hatim Baheranwala and Mike van Wijhe are changing the definition of success





Science-based targets  
for sustainable IT

Can cloud computing  
drive sustainability?

Saving the world  
one device at a time

Displace is the new  
replace in the fight  
against e-waste

Reducing commuting  
with IT-enabled  
remote working



# SUSTAINABLE IT



# What if all businesses and world leaders would act on the climate crisis?

It's hard to make a difference on your own. It's easy if we are many. This is why we have created the world's largest climate review platform.

Download the app and start sending climate love and climate warnings. Because it works.



Don't miss our daily broadcasts from COP26 — live in the app.



Search App Store for **We Don't Have Time** or visit [wedonthavetime.org](https://wedonthavetime.org)



★★★★★  
4.6 out of 5



★★★★★  
4.4 out of 5



## Welcome to this Sustainable IT special issue of My Green Pod Magazine!

In this edition we profile an ecosystem of information technology organisations that we feel is working to reduce the impact of computing on our planet.

One year on from the Time I.T. Changed special issue, we review annual progress and outline plans for the future to promote low-carbon computer manufacturing and use and abatement strategies such as device longevity, remote working and offset programmes.

Read on to find out more!

**Justin Sutton-Parker, GUEST EDITOR**  
 Doctorate researcher at the University of Warwick  
 (Computer and Urban Science) and MBA, Sustainability & Leadership

**T**his year COP26 will be held in the UK. While many topics will be discussed, manufacturing, energy consumption and transportation will be high on the agenda.

In context, computing generates 2.3% of global greenhouse gas (GHG) emissions due to raw material mining, manufacturing, distribution, use (electricity consumption) and recycling.

If somebody said, 'we only have 50 things to address to save the world', computing would need to be given a place on that list.

Add to this the impact of what I call 'commuting to access IT' (CAIT) and the problem is exacerbated; IT is then responsible for 5% of all emissions, meaning that the IT-related footprint is actually one-twentieth of our problem. Certainly food for thought.

From a brand perspective, many companies are working not just to offset the issue but to actually prevent it. As you will read in this special edition, strategies include data centres powered by renewable energy, recycled plastic laptops, second-use cardboard packaging, low-energy devices and remote working. All of this is hugely positive, but we – as users – must take advantage of these sustainable approaches.

Aspects of my research determine 1% of annual global GHG emissions can be attributed to 4.2bn users powering personal computing devices and creating an annual demand for the manufacturing of 460 million more units.

Yet the same research tests and validates that device options exist that consume 57% less energy

and offer the same experience. So why don't we add sustainability to our buying criteria?

According to my research, it's down to a lack of meaningful information at the point of purchase.

This is why I'm spending a great deal of time researching and developing applications to rectify the issue. Similarly, concerned by the statistic that in normal circumstance 68% of all UK commuters travel to work by car, I recently monitored and compiled the CAIT habits of 815 employees for one year.

I presented the findings at the 11th International Conference for Sustainable Energy IT (SEIT), and concluded that in the UK, without exercising remote working the average scope 3 commuting footprint per user is 1.5t CO<sub>2</sub>e per year.

Considering the UK's largest employment sector has 10.95m car commuters, by simply moving forward into the 'new normal' and maintaining two days per week remote working, we could collectively avoid 6.4m tCO<sub>2</sub>e GHG

emissions every year. In less technical terms, we would need 7.7m acres of forest to sequester that level of pollution. Considering that's equivalent to the entire UK woodland cover, perhaps the suggestion is reasonable.

All I ask is that you take the time to read the following pages, absorb the sustainability efforts being made and think about four simple strategies that you may adopt. Do I really need to replace my IT? If so, how can I do this in the most sustainable way? Can I organise my working week to either be remote for 40% of my time, or at least defer to a more sustainable mode of transport? When I'm finished with my laptop or desktop, does it have an afterlife to support displacement and circular economy strategies?

For now, I hope you enjoy this second My Green Pod Sustainable IT special edition. Perhaps it may even influence your human behaviour and help us all to act in concert to safeguard the future.

**'IT is then responsible for 5% of all emissions, meaning that the IT-related footprint is actually one-twentieth of our problem. Certainly food for thought.'**

**JUSTIN SUTTON-PARKER**



AMAZON  
SACRED  
HEADWATERS

[www.sacredheadwaters.org](http://www.sacredheadwaters.org)



# JOIN US PROTECT THE EARTH'S BEATING HEART

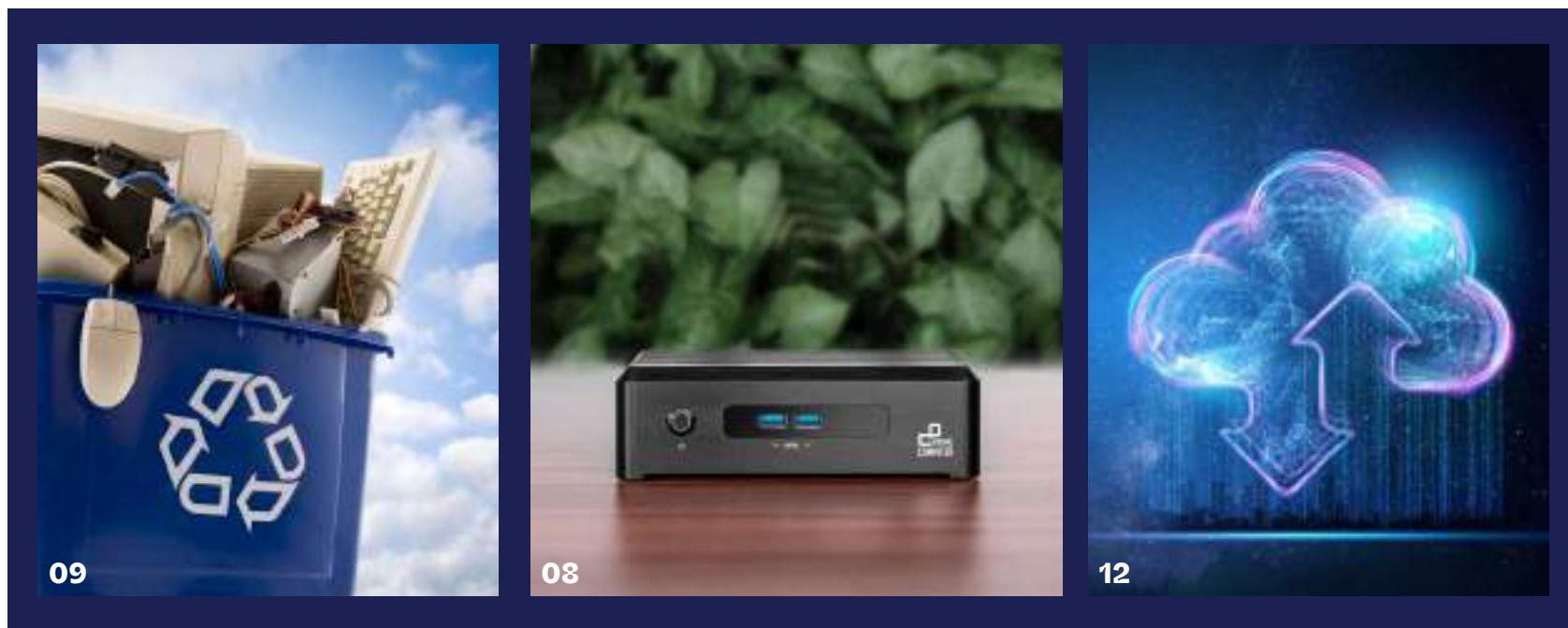
We are an alliance of 30 Indigenous Nations from the Sacred Headwaters of the Amazon.  
We have lived in harmony with these rainforests and rivers for more than 10,000 years.

Scientists have described the Amazon rainforest as a "vital organ" of our planet, responsible for generating and circulating 20 percent of the world's freshwater, and regulating the global climate. But this "heart" of our planet is under industrial attack, and nearing an irreversible tipping point of ecological collapse. Based on our ancestral knowledge, we have created a Bioregional Plan, mapping innovative solution pathways to permanently protect these Sacred Headwaters encompassing 35 million hectares of rainforests in one of the most biodiverse regions of the Amazon Basin.

This plan will save our home and help avoid climate catastrophe and could serve as a model for ecological transition everywhere. But we cannot do it alone. **Join us in protecting the Earth's Beating Heart.**



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**5 WAYS**

# Citrix is helping to advance sustainability

By Keith Littlejohns, senior sustainability and ESG manager at Citrix

Citrix is one of the most recognised brands when it comes to digital workspace technology.

With 100 million users in more than 100 countries, the leader in hybrid work platforms realised the pandemic was the greatest opportunity to redefine the future of work – a future

that is not only hybrid, but also less carbon intensive.

With sustainability at the core of our business strategy and philosophy, we are on a mission to make the world a better place to live and work. Here are the top five green initiatives Citrix has implemented to drive its sustainability objectives.



Citrix has a target to reduce total absolute GHG emissions by 30% by 2030 from a 2019 base level

## 1

### SETTING A CARBON REDUCTION TARGET

In line with the 2015 Paris Agreement that advised global warming be limited to 2°C or below, Citrix announced a target of reducing total absolute greenhouse gas (GHG) emissions by 30% by 2030 from a 2019 base level. We are currently aligning this target with the Science Based Targets initiative (SBTi) to ensure our efforts are rigorous and are helping to limit global warming.

This means that the business will invest its resources to discover new ways of using less energy in terms of both direct and indirect sources of emissions. In 2020, Citrix reviewed outdated key infrastructure assets that consumed significant amounts of energy and replaced them with more efficient ones, such as energy-efficient chillers for cooling office spaces. Citrix started an optimisation project at our Miami data centre that used sustainable design to reduce the physical footprint of servers by 70% (from 86 to 23 racks).

Speaking of data centres, 100% of electricity consumption (indirect sources) at data centre locations in Santa Clara and Doral are sourced from renewables, while 74% of energy consumption at India operations is managed through renewables. This helped reduce our CO2e emissions by 5,889 metric tonnes in 2020.

Our leadership team is fully committed to achieving these goals; executive compensation is linked to ESG metrics to ensure the company retains its focus.

## 2

### IMPROVING MEASUREMENT OF EMISSIONS DATA

For a business such as ours, sizeable sustainability goals cannot be attained by turning off the lights or improving data centre efficiency alone: we must dive into different emissions sources and find innovative opportunities to reduce them.

Indirect sources of emissions are some of the highest contributors to our overall carbon footprint. Indirect sources include procurement of goods and services, business travel, employee commuting and the energy usage of the products we sell.

To further advance the accuracy of our GHG inventory, Citrix is improving data collection methodologies with a special focus on indirect emissions sources. In 2020, we added five additional indirect categories to fine-tune our measurement and reduction strategy. For example, new analysis is underway that takes our top sources of emissions into consideration, and explores the avenues available to addressing them.



## 3

### MAKING SUPPLY CHAIN AND PROCUREMENT MORE SUSTAINABLE

Nearly every purchase is an opportunity to reduce carbon impact – either through reduced demand for unnecessary, carbon-intensive materials or by working more closely with suppliers that have dramatically reduced their own emissions.

To effectively manage carbon exposure within our supply chain, Citrix is analysing environmental data from its top-tier goods and services providers. The process provides primary climate-related information and gives insight into lower carbon supply chain opportunities.

Citrix's Real Estate and Facilities (REFS) and Travel teams also play a large role in ensuring our procurement practices align with our sustainability goals. For everyday purchases like office supplies and corporate travel, we have the opportunity to source lower-carbon alternatives.

PHOTOGRAPHY GETTY IMAGES



100% of electricity consumption at Citrix data centres in Santa Clara and Doral are sourced from renewables

## 4

### HELPING CUSTOMERS ON A SUSTAINABILITY JOURNEY

Citrix products and solutions help enable business efficiency and allow customers to transition to a flexible work model, accelerating their own sustainability goals in tandem. There are a number of ways in which Citrix Workspace technology can help organisations to advance their sustainability programmes.

Citrix solutions are device agnostic and therefore customers can easily choose computing devices with low energy consumption and reduce their carbon footprint by up to 90%.

50 million metric tonnes of electronic waste is produced annually, yet only 20% is recycled sustainably. Citrix Workspace requires very low computing power and needs fewer asset refresh cycles. This lengthens the useful life and environmental impact of these devices from three to seven years.

Transportation accounts for 14% of global GHG emissions. By encouraging work-from-home practices, organisations can attract top talent and significantly reduce local commuting. This results in lower transportation sector pollution, better air quality, reduced dependency on fossil fuels, reduction in chronic health issues and healthier cities.

Power and cooling cost more than the IT equipment itself. Customers switching to a Citrix Cloud solution can rest assured they are buying into an effective, carbon-zero method to boost efficiency.

## 5

### RESPONDING TO THE CLIMATE CRISIS

Climate change is an existential threat and challenge that transcends national borders and industry sectors. Record-breaking heat waves, droughts, wildfires, floods, hurricanes and the threats of rising sea levels, food shortages, pestilence, war, depletion of natural resources and species extinctions all require organisations to work with world leaders in the move to a low-carbon, clean energy economy with advocacy for those most impacted.

Citrix discloses its climate information and aligns reporting strategy to global frameworks such as CDP (Carbon Disclosure Project) and the Task Force on Climate-related Financial Disclosures (TCFD) framework.

Environmental stewardship can be compared with the digital revolution; it promises to change the game, can be a great source of competitive advantage and opens new opportunities while meeting current and near-future compliance mandates. Investors, employees, business partners, regulators and other stakeholders are demanding to know more about companies' ESG performance and their metrics. We know that taking baby steps is not enough to tackle a global issue that sincerely requires an overhaul of conventional thinking. It's exciting to be part of Citrix's sustainability journey, knowing we are passionate about tackling this problem head-on.



Adopting a flexible work model can help customers on their own sustainability journey

### Find out more

■ Citrix solutions are used by more than 400,000 organisations, including 99% of the Fortune 100 and 98% of the Fortune 500. Discover the people-centric solutions at [citrix.com](https://www.citrix.com)

# HOW TO MAKE HARDWARE GREEN

Green IT hardware can save money and emissions in everyday scenarios

**T**he information and communications technology (ICT) sector is responsible for higher CO2 emissions than global air travel. This was true even before the Covid-19 pandemic, which has exaggerated the difference.

ICT has experienced exponential growth due to demand for remote working and learning, while air travel has obviously declined due to travel restrictions.

In addition to increased personal adoption, technological aspects such as the Internet of Things (IoT), accelerated digitalisation and changing consumer behaviour are driving future growth.

More and more online content is consumed in video form, which consumes significantly more server power and storage space.

There is great potential in ICT to reduce these CO2 emissions – and we can leverage this potential to achieve the global climate goals.

## DEFINING GREEN IT

Prime Computer is a Swiss-based manufacturer of fanless mini PCs and servers; it develops green IT hardware to help reduce the greenhouse gas (GHG) footprint of ICT.

Green IT can be divided into two main approaches. The first is 'green by IT', or how ICT tech can make existing processes more environmentally friendly. For example, a video conference instead of a classic in-person meeting, to which participants would need to travel by car or even by plane.

The second approach is 'green in IT', which strives to make IT itself greener. Lower power consumption, longer lifecycles, optimised production and disposal and second use of IT hardware are all good examples.

## HOW TO PRODUCE GREEN IT HARDWARE

When it comes to the 'green in IT' approach, the key words for a climate-neutral strategy in production are reduce, avoid and compensate.

Products and processes are designed from the outset in such a way that GHG emissions are reduced as much as possible, or even avoided all together.

In practical terms, this means the creation of energy-efficient, robust, durable, repairable IT hardware made from reusable or recyclable components and materials.

For example, all PCs and servers from Prime Computer are passively cooled, so they don't require energy-intensive mechanical components such as fans. This slashes energy demand and also increases reliability and a product's useful lifespan. In the long term, this reduces the need for new hardware, which saves resources, slashes GHG emissions and reduces e-waste. With a passively cooled PC or server, the most energy-efficient components must be installed to ensure the required computing power is still achieved.

In a world where no national grid can claim 100% renewable energy, less energy consumption still means lower GHG emissions – not to mention reduced utility bills.

## CARBON-NEUTRAL HARDWARE

Before making claims of climate neutrality, Prime Computer had to offset remaining emissions that occur during the production of its hardware.

The GHG potential of a finished product must be measured precisely – which can be a big challenge for products with a global supply chain.

Prime Computer has done just that and can accurately quantify the GHG potential for production, transport, use in the first five years and disposal for all its products. The total is then calculated in CO2 equivalents (CO2e) and offset with certified projects.

## GREEN IT IN REAL-LIFE TERMS

Prime Computer sent a mini PC from its current portfolio for independent testing by Px3. The goal was to find out what an energy-efficient PC looks like in real-life situations, in terms of both GHG emissions and cost savings.

Px3 is a research-focused IT consulting organisation that specialises in sustainability – specifically the reduction of GHG emissions created by the way we work today.

Unlike most third-party energy certification labels, Px3 measures power consumption in the real-world scenarios of a typical working day, rather than in 'non user present' benchmarks.

Px3's measurements show that the Prime Computer mini PC's scope 2 emissions are 70% lower than a conventional office PC's, and its scope 3 emissions are 43% lower.

For a company with 250 PC workstations, the lower power consumption alone means a CO2e reduction of almost 10 tonnes over five years.

This is equivalent to the sequestering capacity of 11.5 acres of mature forest. The same company can save almost £10,000 over five years through reduced electricity consumption.

Even though Prime Computer takes responsibility for environmental stewardship and offsets the combined scope 2 and scope 3 emissions of its equipment for the first five years of use, the results from Px3 clearly show one outcome. Whatever your priorities are, it makes perfect sense, from both an environmental and a financial perspective, to adopt energy-efficient IT hardware.

**'the ICT sector is responsible for higher CO2 emissions than global air travel'**

**'S**ustainability' is now an everyday word, and rightly so. Behaving 'more sustainably' is a priority within our personal and professional lives and its importance for businesses of all sizes cannot be underestimated.

Irrespective of potential material gain, businesses must do what is right rather than what is commercially expedient. However, businesses don't make decisions, people do. The time for indecision and procrastination has passed.

Recognising this is one thing; appreciating how to approach it successfully is often seen as an entirely different challenge. In fact, 'challenge' misses the point. Why should doing the right thing be considered a challenge? It's an expectation.

### **SUSTAINABILITY IN IT**

IT and computing are responsible for 5% of all global carbon emissions. By comparison, the airline industry contributes 3.7%. IT's contribution is perpetuated by the throwaway mentality associated with devices and accessories, which leads to unforgivable mountains of e-waste.

It shouldn't be this way. It doesn't have to be this way. Consenna, as a leading digital enablement business in the IT Channel, believes resellers have a pivotal role to play and a strong desire to play it.

### **ETHICAL IT PRODUCTION**

The journey starts with device manufacturers increasing commitments to reducing the environmental impact of their production processes, materials and supply chains.

Increasingly, well-informed customers are holding vendors to account in the best way they can, by offering their custom to those upholding the highest environmental credentials.

We recently worked with Acer and sustainability consultancy Px3 to launch 'Green Rewards' across Europe. Centred around an intuitive online portal and project calculator, it allows IT resellers to access, for the first time, immediate insights into the environmental impact of their customers' purchasing and recycling decisions – all in a personalised sustainability impact report.

Next is the distribution network – from vendors to resellers – that makes devices available. Ingram Micro, which already has a long-standing relationship with Fairphone, recently announced a partnership with sustainable IT specialist Circular Computing. The partnership gives resellers and customers easy access to carbon-neutral, remanufactured laptops.

Beyond this, up to 10,000 resellers engage daily with millions of end customers, where the greatest change can be realised. The potential for change is enormous if 'doing the right thing' becomes the policy we all choose to adopt.

### **FREE SUSTAINABILITY TRAINING**

At Consenna, we know change doesn't need to be hard, expensive or time-consuming. However, we recognise resellers represent a very diverse community, engaging all manner of markets, products and customers. One size will not fit all.



# Carbon ready?

Trevor Evans, MD of Consenna Ltd, explains how supporting the IT Channel will enable sustainability leadership

Market focus defines the products resellers recommend to their customers. If you're unaware of a more sustainable choice, you're not going to be able to promote it.

While some resellers understand and promote sustainability, there are many more who would like to. Where is the objective support that many crave, but lack the time and budget to source?

With this in mind we created Consenna Carbon™. Simply, this is an entirely free-to-use platform designed to equip IT resellers with an extensive menu of self-serve sustainability-focused marketing campaigns, training and meaningful education modules on what it all means. It's free because it's the right thing to do.

The team at Consenna is helping customers understand their real options when it comes to sustainable IT



### **INFORMED PURCHASING DECISIONS**

All resellers, regardless of size, need to be equipped with the knowledge, content and real-world data that will enable them to have bold, challenging conversations with their customers.

The fact a customer has always bought a certain brand, device or service shouldn't mean they continue to do so if more sustainable choices are available.

Is a printer necessary when a document management system makes more sense? Is a top-of-the-range smartphone required for every member of a workforce when a sustainable, robust, modular, designed-to-last Fairphone meets their needs?

Should a conversation around purchasing new devices end with a purchase order or include an action plan for the safe and responsible disposal, or remanufacture, of the existing devices? Customers will remember who posed those questions.

Beginning their sustainability journey just became a question of 'why not?' rather than 'why now?'

With access to knowledge, content and real-world examples to communicate sustainability effectively to their customers, Consenna Carbon provides a map for the journey that's free for everyone.

Our vision is to create IT Channel sustainability ambassadors, equipped to out-manoeuvre their competitors while providing those well-informed customers with a great choice. After all, sustainable IT is now. It is non-negotiable. It is right.



# DISPLACE is the new REPLACE



PHOTOGRAPHY ISTOCK

## Justin Sutton-Parker explores the sustainability capabilities of the displacement strategy

**D**uring the pandemic employees, consumers and students bought new desktop computers, thin clients, notebooks and tablets to enable home working, studying and entertainment.

In fact, in 2020 demand was so high that the number of shipped end-user computing units exceeded 450 million for the first time, representing the highest growth in 10 years.

Coupled with resource and manufacturing restraints caused by illness, travel and work restrictions, the excess demand also caused a shortage in the chipsets required to make devices compute.

Faced with the prospect that supply might be cut off, many businesses turned to alternative methods to extend the useful life of existing IT equipment and produce immediately available 'office in a box' secure home-working solutions.

### THE DISPLACEMENT STRATEGY

Instead of seeking out new mobile or desktop devices to duplicate an office environment elsewhere, 'thin client'

computers are created from existing devices and connected to IT services via the internet. Such a resourceful strategy could not only ride the supply constraint wave but also offer instant productivity and reduce internal costs.

In addition to the obvious impacts on people and profit, this kind of move also brings a third (and often masked) planet-focused benefit: avoiding the carbon footprint of creating a new replacement device. In sustainability terms this strategy is known as displacement.

### BOOSTING IT PERFORMANCE

A good example of displacement occurred recently at a global financial services organisation, where a large workforce is now working remotely.

Instead of making a knee-jerk hardware procurement, the in-house IT team – together with international software and thin client manufacturer IGEL – made a considered and resourceful decision.

3,150 desktop computers, destined to be decommissioned and replaced due to an out-of-support operating system (OS) that was causing sub-optimal performance, were given a new life. In the spirit of 'displace and not replace', the team and IGEL agreed to remove the existing Windows OS and replace it with the IGEL OS, which is based on a Linux code that requires lowered compute power to operate. The rationale was that the performance of the device would improve, ensuring the new remote access points were fit for purpose during the ongoing pandemic.

### SLASHING EMISSIONS WITH IT

In this instance, by not buying like-for-like new desktop devices, the finance-focused company avoided embodied greenhouse gas (GHG) emissions of 685,773kg CO<sub>2</sub>e. In a real-world context, this is equivalent to the pollution caused by driving an average car for just over 2,485,000 miles. Perhaps more astonishingly, it would take 823 acres of mature forest to sequester the amount of carbon that was avoided.

This second point is perhaps of key interest considering COP26, which will this year be hosted in the UK where the company is based.

### RETHINKING NET ZERO

'Net zero' is a term often used to position a solution to the issue of global warming. The idea is that if equal actions, such as tree planting, are taken to offset our carbon emissions, then we will have built a more sustainable world that creates anthropogenic interference with one hand and clears it away with the other.

Naturally, there is a counter-argument that a tree's potential to capture carbon will be realised when it reaches maturity, not when it is planted.

Perhaps, as with this example of reuse, avoiding the impact of new carbon footprints in the here and now will help to accelerate the concept of net zero by limiting emissions growth.

### EFFICIENT DEVICES

The re-imaged devices fulfilled expectations and delivered the remote working experience with an increase in performance. However, improvement wasn't restricted to productivity – it also began to emerge in the form of reduced electricity consumption.

In fact, extensive power-draw analysis conducted by sustainable IT consulting specialists Px3 highlighted that by working with the new IGEL OS, the average device energy demand was reduced by 22%.

During the 20 months to date that the converted computers have been in operation, almost 20,000kg CO<sub>2</sub>e GHG emissions have been abated through reduced electricity consumption.

Reverting back to tangible analogies, such reductions mean that the equivalent pollution of driving over 72,000 car miles were never emitted into our atmosphere.



IGEL's UD Pocket connects remote staff to a central cloud network, and boots the Linux OS through a USB on any device

### PREVENTION OVER OFFSET

Perhaps equally interesting is that these revitalised IGEL OS devices not only reduced energy consumption and supported displacement, they also ensured that secure and productive work could be conducted from home.

During the same 20 months, commuting to access IT did not occur for over 3,000 workers. Considering that the average commuter creates 1,031kg CO<sub>2</sub>e per year in transport emissions, their carbon footprint was cut by an estimated 5,412,750kg CO<sub>2</sub>e – the equivalent of 19.6 million car miles.

Remote working will most likely harmonise at two days per week, but the abatement already achieved releases an impressive 6,495 acres of forest from sequestering duty, suggesting that prevention is clearly more effective than offset.

### BETTER BUYING DECISIONS

All technology inevitably requires replacement; as innovation accelerates, our computers finally become obsolete or simply fail beyond repair. At this point, informed choice is essential for prudent economic procurement decisions that include sustainability as a criterion.

Research highlights that manufacturing and transport emissions generate approximately one half of end-user computing emissions; the electricity used to power computing devices emits the other half, with recycling squeezed in between at approximately 1%.

Considering that devices such as notebooks and desktops create 1% of our global annual GHG emissions, if we all acted in concert and made better buying choices then one-hundredth of our global warming source could be mitigated.

### CHOOSING SUSTAINABLE IT

One sustainable option is to pair the IGEL OS with a desktop device that offers a small carbon footprint from both an embodied and use perspective, such as an HP T640 thin client. 115kg CO<sub>2</sub>e of GHG emissions are required to create and ship a single device, meaning the environmental impact is approximately one-third less than the industry average.

In the context of the previous financial organisation, should the company eventually replace the repurposed devices to continue remote working capabilities, then selecting the HP T640 with an IGEL OS would deliver an abatement of over 850,000kg CO<sub>2</sub>e of embodied emissions compared with a standard device.

Add to this the incredibly low electricity required to power the thin client during a standard working day, use-phase emissions could also be reduced by as much as 75% when compared with similar desktop computers.

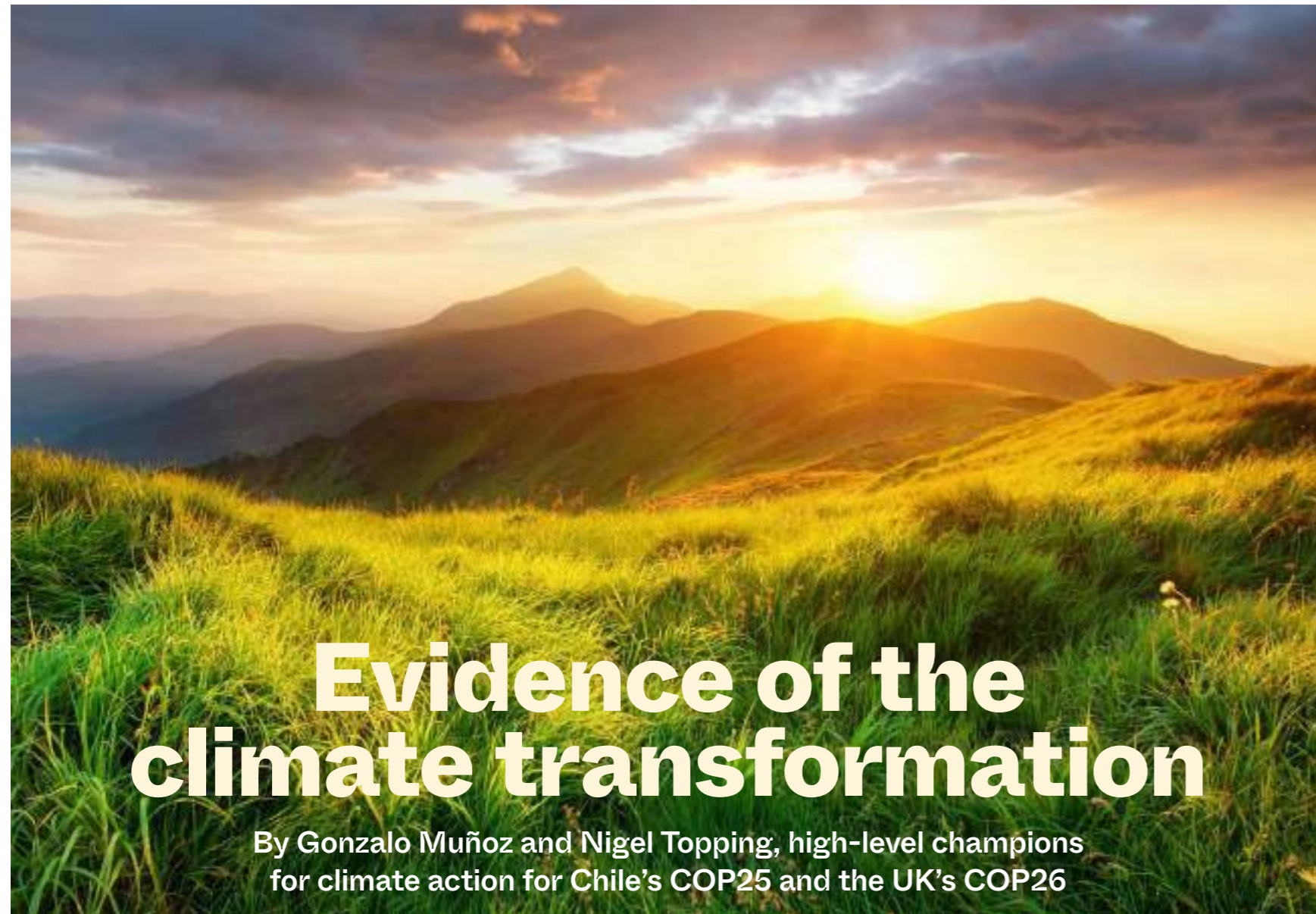
From a retention perspective of five years, when combined with the embodied abatement, the equivalent pollution created by driving over 370,000 car miles could be avoided through simple considered choice.

The next time you think about replacing an end-user computing device, remember to consider two things before you commit to a purchase. Always examine the carbon footprint of any IT product before you buy it but first – and even more importantly – decide whether displacement would be a feasible alternative. It could become the new 'replace' in the fight for net zero.

### Find out more

■ Discover how IGEL helps businesses cut their carbon footprint at [igel.com/sustainability](https://www.igel.com/sustainability)

**'the average commuter creates 1,031kg CO<sub>2</sub>e per year in transport emissions'**



# Evidence of the climate transformation

By Gonzalo Muñoz and Nigel Topping, high-level champions for climate action for Chile's COP25 and the UK's COP26

PHOTOGRAPHY: ISTOCK; HIGH LEVEL CLIMATE CHAMPIONS

If you focus on the geopolitics of climate action, you might be worried. In a year that has brought many of us closer than ever to the impacts of the climate crisis – from flooded subways and burning homes to power outages and landslides – national commitments often feel welcome but inadequate compared with what the science demands.

But if you focus solely on the geopolitics, you are missing out on the bigger and more promising picture of a transformation that's already underway.

We are more confident than ever about our chances of creating a healthier, resilient and more liveable zero-emissions future – starting with an acceleration during COP26. Why? Because that's where the global economy is already headed, significantly faster than indicated by national plans.

## RACING TO NET ZERO

Since the last COP summit in 2019, the very idea of a corporate, investor or local government commitment to net-zero emissions before 2050, in line with the Paris Agreement's goal to limit

**...if you focus solely on the geopolitics, you are missing out on the bigger and more promising picture of a transformation that is already underway**



CLOCKWISE Construction of wind turbines at Butterwick Moor, County Durham; a community garden in Bristol; climate champions Gonzalo Muñoz and Nigel Topping

warming to 1.5°C, has gone from extreme to mainstream. General Motors, Aviva, the state of California, Cemex, Natura Cosmetics, Ørsted, the University of Sao Paulo and Glasgow city are aiming to reach net zero 10 or 20 years sooner.

The UN-backed Race to Zero campaign – which mobilises businesses, investors, cities and regions behind robust targets to halve emissions between 2020 and 2030 and reach net zero before 2050 – has grown exponentially since it launched in June 2020, even in the midst of Covid-19. Its cities and

regions now cover 11% of the population, and its businesses have at least \$7.9 trillion in revenue – that's three times the size of the UK's GDP.

The need to build resilience to the impacts of climate change is setting in, too – because the zero-emission economy must be able to thrive in spite of impacts such as droughts, floods and unbearable temperatures.

The UN-backed Race to Resilience is similarly mobilising the private sector, local governments and civil society to build resilience for the 4 billion people most at risk by 2030, and defining what makes an accountable and transformative target.

## FINANCING CHANGE

For evidence of this exponential shift, look at finance. In 2019, a pioneering alliance of asset owners, responsible for \$2.4 trillion in assets under management, committed to fully decarbonise their portfolios by 2050. Now, that asset owner alliance has roughly doubled in assets under management and become part of the wider Glasgow Financial Alliance for Net Zero, which unites asset owners, asset managers, banks, insurers and others – responsible for around \$90 trillion – under one target for net zero by 2050.

Recognising the need for finance to help reverse biodiversity loss by 2030, we are now working to drive finance-sector commitments to eliminate

deforestation from portfolios by 2025 and support businesses that preserve and restore nature.

## DECARBONISING SOCIETY

This is exponential – not linear – growth. We've seen it time and again, from horses to cars, valves to transistors and landlines to mobile phones. The cost of solar power has tumbled by 80% over the last decade, and wind by 55%.

The number of electric vehicles on the road jumped from 17,000 in 2010 to more than 10 million today, according to the International Energy Agency. In Europe, electric cars and vans are expected to cost less to manufacture than fossil fuel versions by 2027 and could account for all new sales by 2035, according to BloombergNEF.

This kind of growth was unimaginable when the Paris Agreement was clinched in 2015. Then, projections told us the internal combustion engine would still be around in 2100 and that solar photovoltaic would never be cost-competitive. Now that growth is spreading to harder-to-decarbonise sectors such as aviation and shipping.

So Glasgow is set to be the first COP focused on implementing climate action rather than negotiating it – where countries, businesses, investors, cities and regions can share the accelerating progress towards net zero in sector after sector of the economy. Of course, this progress is far from sufficient; but the dynamics of exponential systems transformation are now in place.

The Intergovernmental Panel on Climate Change says that in order to stay within 1.5°C, we need to halve emissions this decade while regenerating nature and building resilience. That equates to cutting emissions by 7.6% per year, according to the UN Environment Programme.

Driving this immediate change will take diversity, cooperation and what UN secretary-general António Guterres calls an 'inclusive' and 'networked' form of multilateralism. National governments, cities, regions, multinational corporations, small businesses, investors and civil society must work together to innovate, invest and legislate for a halving of emissions by 2030. In so doing, they will create an ambition loop: the private sector and local governments jump out ahead of national governments, giving political leaders the confidence to set higher targets and more enabling policies. Businesses, investors, cities and regions can then raise their targets again, which allows governments to aim higher, and so on.

Unlike in 2019, we know what it will take to reach net zero. The Race to Zero has worked with hundreds of partners from industry, civil society, academia and government to create detailed climate action pathways to 2050 for 30 sectors and the breakthroughs needed by 2030 to drive exponential change. 15 hit their first breakthrough ahead of COP26, with 20% of each sector's major companies joining the Race to Zero.

## DIVERSITY MATTERS

Climate change touches every country, every business and every person, just in very different

ways. Some feel impacts on their health, some on their revenue and some on their jobs and livelihoods.

A selfish, inward-looking economic response risks fuelling the conditions for catastrophe – the way the Treaty of Versailles did after the first world war, as described by John Maynard Keynes in *The Economic Consequences of the Peace*. Instead, we must follow the long-term, outward-looking approach of the Marshall Plan which, after the second world war, recognised the power of global economic recovery to both prevent the conditions of conflict and lift economic performance at home and abroad. But the plans must include the whole world. To do that, we need to embrace diversity.

Now that the Paris Agreement has given us the global end-goal for climate action, we need a diversity of partners – in terms of sector, gender, region, expertise and more – to push and pull the economy from all sides.



**Barbados, for example, is aiming for 100% renewable energy by 2030 because it makes economic sense to do so. At a total cost of \$4 billion, it's expected to generate \$3.9 billion per year in revenue in the 2020s and build energy independence.**

The Chilean and UK COP presidencies took an important step in that direction when they appointed us, as the first two high-level champions to come from the private sector rather than government. Our backgrounds enabled us to approach the job with the kind of innovative and entrepreneurial spirit that we are urging CEOs, mayors and governors to take on.

## A RACE WE WANT TO WIN

We hope the incoming COP27 presidency will make diversity a priority when appointing the high-level champion, and consider candidates who are women and whose experience provides an understanding of how resilience and nature regeneration must go hand in hand with emissions cuts. This is particularly true in small island and least-developed countries, where fossil fuels often make countries reliant on volatile energy imports, cause health problems

related to pollution and make it hard to provide energy access to rural communities.

On the other hand, renewable sources can connect rural communities and advance sustainable development by, for instance, powering refrigerators for medical clinics and fresh food farmers and lighting for students after dark. Barbados, for example, is aiming for 100% renewable energy by 2030 because it makes economic sense to do so. At a total cost of \$4 billion, it's expected to generate \$3.9 billion per year in revenue in the 2020s and build energy independence. This is what the race to a healthy, resilient, zero-emissions future is all about. It's a race we want to win.

We know that the climate crisis is already upon us, and that the recent wave of commitments to action has not yet translated into meaningful emission reductions. But we also know that the impossible is very possible – because, as we have seen, it is already happening.

# SAVING THE WORLD, ONE LAPTOP AT A TIME

Sustainability strategy drives investment and innovation in design, packaging and software

**E**arlier this year Acer announced that it had joined the RE100 initiative, pledging to use 100% renewable energy by 2035.

The Acer Group, including its global operations and subsidiaries, has already achieved its 2020 target of reducing its global carbon emissions by 60%.

Acer decided to take its environmental commitments further by establishing Earthion (blending 'Earth' with 'mission'), a platform to tackle environmental challenges that combines the strengths of the company, its supply chain partners, consumers and employees. The platform covers the use of renewable energy, recycling, product and packaging design and production and logistics.

## RECYCLED AND REIMAGINED

In 2020 all Acer notebooks switched to recycled paper for packaging, saving 8,750kg of paper pulp and 20 million plastic bags. In addition, over 50 metric tonnes of batteries were recycled and remanufactured.

To mark what Acer calls the beginning of 'a reimagination of computer manufacturing', the Aspire Vero uses post-consumer recycled (PCR) plastic throughout the device's chassis and keyboard caps. It ships in a box made from 80-85% recycled paper pulp, replaces the plastic bags for adapter protection with paper sleeves and uses 100% industrial recycled plastic for the laptop bag and the sheet between the keyboard and screen. To further reduce environmental impact, all graphics on the shipping boxes are printed with soy ink, with no paint on the notebook chassis itself.

The Aspire Vero is constructed with easily accessible, standardised screws for a simpler disassembly process, and the text on the R and E keys is inverted, highlighting 'the three Rs': reduce, reuse and recycle.

The Acer ConceptD, launched in 2019 and designed for visual creatives, has won two

international Red Dot design awards, including one for its eco-friendly packaging in the Sustainable Packaging category. Most components now use shared packaging, and all LDPE foam packaging was removed without compromising protection.

Plastic bags and film covers were eliminated wherever possible and soy ink printing has been used to remove pollution during future reclamation. Overall, the packaging is nearly free from virgin plastic, 100% recyclable and made from 90% recycled pulp.

The Acer Chromebook Spin 513 LTE is designed around performance and mobility; it has an excellent battery life, meaning it can easily support new hybrid work styles and match the highest priority selection criteria.

## DEVICE EMISSIONS

End-user computing is a significant contributor to environmental pollution and climate change, causing 1% of global emissions. Up to 50% of this is down to use rather than manufacture and disposal.

Acer worked with Px3 to provide an independent benchmark of the Acer Spin 513 LTE. According to the study, the device would reduce emissions from a typical estate (mixed desktops and laptops) by around 70%, with savings of 84% possible compared with legacy Windows desktop PCs. For a typical 500-user organisation, the annual saving was calculated to be equivalent to reducing travel by 9,460 UK car miles, or having an additional 3.2 acres of mature forest. Even benchmarking the SPIN 513 LTE against comparable market-leading notebooks, energy (and therefore emissions) savings of up to 50% were recorded.

## SUSTAINABILITY IN THE UK

Acer is running a survey to calculate the carbon emissions of every UK employee, and will create a carbon-reduction plan that includes installing electric

vehicle charging points in all UK offices. Acer UK will work with a certified UK body to offset the remaining emissions to make employee travel carbon neutral.

A tree is planted for each device sent out as a PR or marketing sample for review, and all postage bags have been switched to more sustainable materials that are easier to recycle.

## PERSONALISED IMPACT REPORTS

This September, Acer launched Acer Green Rewards, an online portal that allows Acer's channel partners to easily demonstrate to customers not only the financial aspects of digital transformation, but also the likely impact on the environment – a factor that more and more businesses rightly demand.

Uniquely, the portal enables resellers to deliver new product quotes, provide recycle trade-in values and present added-value offers available on Acer product lines. It also gives customers a customised sustainability impact overview report delivered by the Px3 sustainability application, all delivered within a few minutes on a single platform.

## EMBRACING NEW WORK PATTERNS

Recognising the fundamental workplace shift to mobile-led hybrid working patterns, Acer is enabling customers to embrace this transition and also evaluate the environmental impact of their purchasing decisions.

By combining instant quotes, trade-in values and sustainability data, Acer is demonstrating the value the company can offer to partners and customers, positioning itself as an innovator in both products and programmes.

## Find out more

Information about Acer Green Rewards is at [emea-greenrewards.acer.com](https://emea-greenrewards.acer.com)

**R**esearch determines that IT-enabled remote working will help save the planet – but in my experience, there is a cost to people in the form of mental health.

At Thoughtify, we specialise in providing training and education for businesses in relation to supporting and maintaining employee mental health.

For many, the global pandemic has transformed the way we work. For some, seeing our immediate family more offers liberation from the nine-to-five, but for others dramatic change represents isolation and challenges mental wellbeing.

### ENFORCED ISOLATION

Having the option to work from home is one thing, but in 2020 we were made to work from home due to a government-enforced lockdown, and this – coupled with the extended home working that ensued – is something else entirely.

Many people familiar with working from modern, well-designed office spaces, away from the home and with regular in-person contact with friends, colleagues and clients, suddenly found themselves having to work from kitchen tables, bedrooms, balconies and sheds.

Consequently, many have been coping with isolation, ill health and domestic issues. Prevailing studies highlight a rise in work-family conflict where the demands of work impinge on domestic and family commitments. Such friction creates an ongoing strain that is taking its toll on the mental wellbeing of many workers.

### WORK AND MENTAL HEALTH

According to a survey from the Royal Society for Public Health (RSPH), home working is having an impact on employee mental health. 67% of respondents to the poll said they felt less connected to their colleagues and 56% said they found it harder to switch off.

Those who live with multiple occupancy were more likely to think that working from home was worse for their health and wellbeing (41%), compared with people who live on their own (29%) or with just their partner (24%). Despite the findings, only a third of respondents had been offered employer support for their mental health.

Another major consideration for employers is the impact of the subsequent increased workload. Many clients feel their workload has increased over the last 18 months, noting they have actually been busier than usual due to perceived

Tom Fox interviewed by Sarah Hewson, Sky News, about PTSD and anxiety



# Liberation and isolation

## Tom Fox, MD of Thoughtify, discusses the mental dichotomy of remote working

endless availability. As an example, an individual's day is often filled with consecutive Zoom calls, listening to more company updates and attending more management meetings, yet they still need to keep on top of the flow of daily emails, telephone calls and other normal day-to-day tasks.

From personal experience, I know that it's easy to start feeling exhausted and overwhelmed. This can lead to burnout and mental exhaustion that happens swiftly and unexpectedly. Sadly, by the time you know something's wrong it may be too late. To exacerbate the issue, it's not only mental strain we have to consider. Research links work overload and high blood pressure, heart disease and possibly certain cancers. Mental and physical illness are not mutually exclusive.

### FINDING BALANCE

Conversely, if managed properly home working can be beneficial and bring many positives that couldn't perhaps previously be enjoyed by permanent office workers.

Taking a balanced view, an RSPH survey also indicated the vast majority don't want to return to working in an office full time. In fact, three-quarters of respondents (74%) suggested they wanted to split their time between home working and working in an office.

So how do employers find a balance that works for all? In my opinion, they must educate

employees about mental health and wellbeing, and look to provide more in-depth training for leadership teams and managers.

Mental health education needs to become part of organisational strategy, not just an afterthought satisfied by ad hoc wellbeing 'Lunch & Learns' that arguably achieve very little in the longer term.

### SPOTTING THE SIGNS

Awareness and engagement is key. Signs that an employee may be experiencing a period of low mental health can be recognised early if we know what to look for. Education around how to notice those signs in ourselves causes a ripple effect.

Understanding how to position simple and effective – but often difficult – questions such as 'I've noticed some changes in you and I'm concerned thing's might not all be OK, how are you managing?' are vital for supporting and helping to maintain employee mental wellbeing.

Thoughtify exists because we know it is important for organisations and employees alike to understand the key causes that lead to mental ill health. It is possible for organisations to plan ahead and incorporate measures to help avoid some of the negative outcomes of working from home. Isolation can be nurtured to become liberation.

### Find out more

Employee wellbeing support is at [thoughtify.co.uk](https://www.thoughtify.co.uk)

Justin Sutton-Parker and Sara Grundström of Hydro66 provide a fresh perspective on digital currencies

# Green Gold

Until 700-600 BC, when China invented paper money and the Lydian society minted coins, humans were comfortable with bartering.

Following unforeseen situations such as global pandemics and planned innovations – such as our smartphone becoming our new wallet – we have become much more accepting of a cashless society.

Computing facilitates this digital exchange; countless streams of data requests travel across internet technologies, adding and subtracting to and from balances all over the globe.

If it is all just binary code, then why do we even need a physical currency that is determined in value by various governments' economic and political objectives? One answer is that if the balance of what's available versus who holds it becomes infinitely flexible, then we return to the problem of limited perceived value.

## A DECENTRALISED CURRENCY

The arguably smarter answer is that we have evolved, by way of the fourth and digital industrial revolution, to a point where we simply don't need physical currency. If that's the case, why not use a digital cryptocurrency, such as bitcoin?

One of the most compelling benefits of cryptocurrency is that it is truly decentralised. Bitcoin is not issued by a central authority; it is immune to government interference and manipulation – and therefore control.

Obviously, this concept is viewed by some as a threat to the status quo. Shifting from an economic strategy based on closed systems and

centralised power to one without censorship creates opportunity for apparently overwhelming change.

## THE DIGITAL CURRENCY FOOTPRINT

Considering anthropogenic interferences such as excessive consumerism are driving the current 1°C global warming, are concerns around losing centralised control valid – or simply a reaction to protect institutions from necessary evolution? Focusing on climate change, the loudest voices



Sara Grundström, business development manager for Hydro66, a Northern Data company that uses 100% renewable energy from the local hydropower system (see opposite page)

of opposition suggest digital currencies are bad for the environment. Using this perspective to discredit emerging monetary technology feels counterintuitive.

Following the death of the gold standard in 1971, the world has relied on the US dollar standard. Almost 90% of international currency transactions are conducted in dollars, 60% of foreign exchange reserves are held in dollars and almost 40% of the world's debt is issued in dollars – even though the US only accounts for around 20% of global GDP.

The dominance of the dollar is in part facilitated by foreign policy that ensures most traded oil is bought and sold in US dollars. This is why it is known as the 'petrodollar'.

As the current global reserve currency of choice is only viable due to the promotion of the most polluting industry on the globe, it's reasonable to ask why the environmental card is being played so hard against a digital currency that offers a credible global reserve alternative.

The environmental charge levelled against digital currency is around excessive electricity consumption. Digital currency is mined, not in a conventional sense, but using sophisticated computers to effectively solve highly complex computational maths problems.

Each solved problem acts as proof of a completed transaction block, meaning the digital currency network is fully audited, verified and openly published for inspection every 10 minutes. At today's value, a successful

**'Ultra-efficient data centres such as Hydro66 are surely the answer to enabling digital currency whilst safeguarding the planet. With a power usage effectiveness (PUE) of 1.07, we use 50% less energy than the average EU data centre. Combined with 100% renewable local electricity, this means 7,500 times less CO2 is emitted from energy-intensive operations such as High Performance Computing – simply by siting data centres in the optimal location.'**

**SARA GRUNDSTRÖM**

BUSINESS DEVELOPMENT MANAGER FOR HYDRO66, A NORTHERN DATA COMPANY



Creating just 0.05g CO2/kWh, the hydropower created at this Hydro66 site is over 5,000 times less CO2-intensive than the EU average electricity generation of 253g CO2/kWh

bitcoin miner can earn £331,000 in newly issued bitcoin for completing a 1MB block.

This computationally intensive process is designed to act as a peaceful barrier to entry for those who would otherwise seek to steal value or rewrite the chain of transactions. You could say bitcoin's energy consumption is a required feature.

## LOCATION-BASED CARBON

At an estimated 110TWh per year, digital currency's total mining impact represents 0.1% of all global primary energy consumption. However, electricity consumption doesn't directly equate to greenhouse gas (GHG) emissions. In addition to the electricity consumed, 'location-based carbon intensity' calculations crucially add an emissions value to every kilowatt hour according to where it was consumed.

To explain, electricity is accounted for in GHG terms using a value called carbon dioxide equivalents (kgCO2e), and categorised as scope 2 emissions because the electricity is purchased for consumption. Every 1 kWh of energy consumed is multiplied by a factor that reflects the carbon intensity of the national grid of the country that produced the electricity. As a country adopts more low-impact energy sources such as wind, solar and hydro, the factor decreases.

As an example, if conducted solely in the USA, the global bitcoin mining impact of 110TWh would be 47.5m tCO2e. Conducting the same mining in Sweden, where the factor is 0.01189, would decrease the pollution 97% to 1.3m tCO2e.

Unlike oil prospecting or gold extraction, digital currency mining is not restricted by geography; it can be conducted in data centres where high levels of renewable energy supply already exist.

Recent research suggests that miners have been availing themselves of low-cost renewable energy for some time. Reports indicate that overall, bitcoin mining has globally adopted the use of 56% renewable energy sources. For context, the global average adoption for renewable energy per TWh is just 21%. This means that bitcoin mining is creating 125% less pollution per unit of electricity used than comparative human activities.

## SUPPORTING RENEWABLES

As always, context is important. Despite being highlighted as an energy-intensive industry by concerned activists, accurately positioning bitcoin alongside other global electricity consumption sources reduces the crypto mining industry to insignificance.

Digital currency mining is equivalent to less than 0.25% of building-related consumption, or 0.3% of transportation. If the footprint does grow, research also hypothesises renewable energy for mining will support new solar developments underwritten by base-load guarantees offered by bitcoin miners.

Despite environmental concerns, the popularity of digital currency is swelling. This year, the aggregate

value of cryptocurrencies peaked at \$1.8 trillion, with bitcoin 47% of the total.

In a world where global powers seek to challenge the petrodollar system by suggesting oil be bought in alternative currencies such as the euro, ruble or yuan, the irony may be that they eventually drive wholesale bitcoin adoption.

Digital currency is decentralised, secured by cryptography and constantly verified; it answers the Byzantine Generals' Problem of how a society should establish a money that all members can trust and agree upon without having to trust each other.

If a cashless consumer society and the need for a new global reserve currency becomes a reality – and cryptocurrency is feasible from both a security and longevity perspective – perhaps it's worth exploring and debunking the myths around its environmental cost. An alternative approach may be to help stakeholders identify where best 'green mining' can drive further renewable adoption. Considering bitcoin as a new global currency, or a mechanism for achieving financial inclusion for some of the world's most underserved populations, helps to explain the energy consumption of the new green gold.

As the mining network grows more transparent about its energy use, and as educational efforts about the value propositions take hold, we might achieve a broad consensus that bitcoin energy use is a justified and reasonable cost to society.

## Find out more

■ Get support with green cloud infrastructure at [hydro66.com](https://hydro66.com)

# PLANET, PEOPLE AND PRODUCTIVITY

Justin Sutton-Parker reveals how thinking 'Px3' can help slash IT emissions

**A**nthropogenic interference has caused 1°C of global warming. A further increase to 1.5°C will be reached between 2030 and 2052 if emissions increases continue at the current rate.

Scientists have calculated that achieving net-zero global emissions by mid-century may halt global warming on a multi-decadal scale, causing temperature gains to begin to peak.

To realise this goal, we can't rely solely on key greenhouse gas (GHG) abatement strategies, such as vehicle electrification and renewable energy transition, as we wouldn't be able to adopt them fast enough to bridge the projected 32Gt CO2e annual emissions gap forecast for 2030.

The United Nations Environment Programme (UNEP) suggests that to bridge the gap, the world must combine existing technology with innovation to drive behavioural changes that could reduce societal emissions.

## ACTING ON SUSTAINABLE IT

For many years, my research has focused on the role IT can play in the behavioural changes that would slash emissions. My MBA defines cloud computing as a driver for corporate and social responsibility and my PhD research develops new approaches to quantifying IT-related GHG emissions.

As most sustainability researchers would agree, the joy of proving theories begins when people use the findings to make an impact that supports a wider cause. That's why 10 years ago I adopted a life goal to remove the GHG emissions equivalent of 100,000 cars from the atmosphere by 2050, through the diffusion of sustainable IT.

This goal was accelerated when I co-founded Px3, a research-based consulting organisation that specialises in sustainable IT. Where most companies set financial goals, ours strives to create a sustainable future by safeguarding the environment. My personal goal is now our company goal.

The timing is good, as change is now urgent. In context, my research paper for SEIT 2020 determines that IT-related activities create 5% of global GHG emissions. That means a forest the size of Canada and Greenland is required to sequester the pollution created by the way we work today.

## THE FOUR STEPS TO SUSTAINABLE IT

To reduce this footprint, Px3 consults throughout the 'IT Channel'. This ecosystem includes hardware manufacturers, software vendors, distributors,

marketers, IT resellers and end users. The idea is that if Px3 can positively influence human behaviour at multiple points, then people will be enabled to act in concert and bridge the gap.

What we do behind the scenes is complex, but the message is straightforward and can be reduced to four simple steps. They involve identifying and adopting low-emission devices such as tablets and notebooks; encouraging IT-enabled home working to reduce commuting emissions; transitioning companies from on-premise data centres to zero-carbon cloud data centres powered by renewables and extending the useful lifespan of devices to reduce manufacturing emissions.

## HOW TO MEASURE SUCCESS

Px3 uses several approaches to encourage these four steps. We publish research that identifies key IT-related GHG abatement opportunities; for example, we identified that Google Chrome OS laptops reduce energy consumption by 57-84% when replacing similar devices or desktop computers. We also determined the average GHG

commuting to access IT (CAIT) impact of IT users in four continents – a useful statistic when planning international remote working.

Secondly, researching on behalf of end-user computing (EUC) device manufacturers, software vendors, the public sector and businesses, Px3 scientifically analyses computers for environmental performance in the workplace. This means we generate science-based findings that substantiate sustainable IT procurement and abatement strategies, and create valid and compliant data perfect for mandatory emissions reporting.

## IDENTIFYING SUSTAINABLE DEVICES

Our unique Device Use Phase Analysis methodology recently identified an Acer notebook capable of reducing energy consumption by 62% when benchmarked against comparable devices. When deployed to 500 users, we found that the Acer device delivered a 9t CO2e reduction in scope 2 emissions during a five-year period.

We also identified a Prime Computer desktop that reduced GHG emissions by 70% and an LG all-in-one computer that consumed less energy than a stand-alone monitor. We help organisations quantify and visualise their current IT-related carbon footprint by accurately determining scope 2 hardware electricity consumption and scope 3 supply chain and CAIT emissions. We do this using the Px3 Planet People and Productivity cloud and mobile analytics app, which produces a range of environmental metrics that are both informative and tangible.

We deliver the GHG accounting values in compliant kgCO2e units, calculate energy saving in monetary terms and convert the emissions data into real-life equivalents. These include car miles, forest acres to sequester pollution and a unique per capita ratio called the Employee Vehicle Equivalent (EVE). These little nuggets of real-life impact gain support from stakeholders across the entire organisation, and they are popular – this year Px3 has measured more than 600,000 devices across the globe.

## A CLIMATE EMERGENCY STRATEGY

Understanding real-life impact is paramount if we are to achieve our goal. With Acer, Citrix and Google Chrome OS, Px3 determined an effective strategy to support the Kingston and Sutton councils' approach to the climate emergency. IT-related scope 2 and 3

emissions were reduced by 32% and 40% respectively and the outcome saw Px3 nominated for this year's CRN sustainable IT impact award. Afterwards, Jason Sam-Fat, digital and IT commercial manager at the Royal Borough of Kingston & London Borough of Sutton Shared Service, said, 'We presented Px3's findings at our last climate emergency meeting. It was the first time we'd had such detailed information about our carbon footprint and it was really good that IT had significantly more information about emissions than any other department and a clear roadmap for the future.'

This type of feedback makes everything worthwhile, but in some cases cost can be a very real barrier to creating the roadmaps we need. In fact, my research revealed that in the UK service sector, cost is the biggest barrier to the diffusion of sustainable IT.

Fortunately, the Px3 application accounts for this by highlighting the money that can be saved by adopting low-energy devices.

David Grasty, corporate head of Digital Strategy & Portfolio at Kingston and Sutton, said, 'We estimate about a £40k reduction in our annual electricity bill just going from the old devices to 'state-of-the-art' new ones.'



The dashboard on the Px3 app acts as an IT GHG emissions smart meter

## DISPLACING DEVICES

Saving money through sustainability is a theme that surfaces frequently in our work, especially during 'displacement' projects that extend a device's lifespan to prevent the manufacture of a replacement. This approach avoids embodied emissions as well as the upfront cost of having to buy new equipment.

Often, the device is re-purposed as a thin client for home working strategies. When this happens, a new, lighter operating system is loaded, ensuring the old device remains performant.

During research on behalf of an international software vendor, we identified two sustainability gains: the new IGEL OS reduced device energy consumption by over 20% and displacement prevented 685,773kg CO2e scope 3 emissions for the customer.

That's equivalent to preventing over 2,485,000 car miles, or the amount of carbon sequestered by 823 acres of mature forest.

Data centres are integral to thin client solutions, but this doesn't necessarily lead to environmental burden. Last year's *Time IT changed* IT special edition of My Green Pod Magazine revealed that, if a data centre is highly efficient and uses

renewable energy, GHG emissions per kWh consumed are greatly reduced.

IT reseller Getech realises this; leveraging my findings, it is combining the net-zero Google Cloud platform with low-energy Google Chrome OS devices and Citrix remote working solutions to offer an all-in-one 'sustainable end-user compute' solution.

## GREEN REWARDS

All devices do eventually meet an end. To ensure disposal and replacement are approached in the most sustainable way, Px3 has recently worked with Acer and leading digital enablement business Consenna to create and launch Acer's Green Rewards programme.

Through the rewards scheme, which is powered by the Px3 application, IT resellers can for the first time access a portal and receive a bespoke report defining sustainability gains related to procurement and recycling. We will soon take the stage with DEFRA at the chartered institute of IT to diffuse our message further.

In the meantime, next time you think IT, think four simple steps and perhaps even think Px3. After all, planet, people and productivity is a balance we all desire – and it doesn't cost the Earth.

# GOLD

It's in our phones.  
It's in our banks.  
It's in the jewellery we wear.  
**It's also in the Amazon Rainforest.**



Mining for gold is one of the fastest growing and most dangerous threats to the Amazon.

With the Amazon at the tipping point, the time for transformation is now.

**Amazon Aid** invites everyone to be part of the change. Watch **"River of Gold"** and join our **Cleaner Gold Network**.

Go to **Amazonaid.org** to learn more today.



# See your spending footprint

This tech analyses every pound you spend to help you live a more sustainable lifestyle

**S**hould you be flying less? Going vegan? Giving up fast fashion – or simply recycling more? As the topic of sustainability goes mainstream, it's getting more and more difficult to work out what we should (and shouldn't) be doing to live a sustainable lifestyle.

A new startup, Tred, is helping to solve that problem by boiling it all down to one simple question: how do you spend your money?

Tred is launching a new debit card that makes your money work as hard for the planet as it does for you. The flashy green card plants trees as you spend, meaning that as you tap it to buy your daily coffee or weekly shop, you're helping to reforest the planet.

An accompanying app also tracks your carbon footprint, using your spending data to give you a highly accurate insight into your personal impact on the planet and showing you where you can cut down. It also gives you an option to offset your carbon footprint each month, helping you to shift towards a carbon-neutral lifestyle.

## HOW TO MAKE AN IMPACT

Tred co-founders Will Smith and Peter Kirby were inspired by their personal experiences of trying to live sustainably in the face of a looming climate crisis.

'We spend so much time worrying about using plastic straws or wondering whether or not to buy certain foods', Peter tells us. 'It can get really stressful trying to work out what's better or worse for the planet. I've definitely had that feeling of being overwhelmed by it all.'

Peter points out that this stress can cause people to feel paralysed and do nothing at all, which is the worst possible outcome.

Tred was created to solve this problem. 'Tred came out of a conversation Will and I had; we agreed that it really shouldn't be this hard to do the right thing when it comes to our planet', Peter continues. 'How can we make it as easy as possible for people to make the biggest impact possible?'

## SEE YOUR SPENDING FOOTPRINT

Will and Peter identified money as the common thread that links a range of sustainable behaviours, from a planet-friendly diet to low-emission travel.

Tred's revolutionary technology calculates the CO2 emitted from every pound you spend, making it easy for individuals to spot the areas of their lifestyle that are making the biggest impact on the planet, and ultimately reduce that impact by changing what they buy.

Customers can choose to offset their footprint each month, and decide how their carbon emissions are counterbalanced. Linked projects range from tree planting and renewable energy to sustainable building.

Subscribers can cap their monthly offsetting spend to prevent any expensive surprises, but Will and Peter say the average person's bill will be around £11 a month – roughly the price of a coffee a week.

## PLANT TREES IN THE UK

While Tred hasn't yet applied for an official banking licence – its early debit card will work like a prepaid

card – it's clear this is no gimmick and that Will and Peter have long-term ambitions.

Will emphasises the importance of the company's 'you spend, we plant' model, which redirects some of Tred's revenue from debit card fees towards tree-planting projects in the UK.

'It shouldn't just be down to individuals to change their spending habits – financial corporations have to do their bit, too', Will explains. 'We wanted to make sure that when people entrust their money to us, we're using it for good.'

## BUILDING A POSITIVE FUTURE

It's an admirable goal, and one that is clearly resonating with the thousands of people already on Tred's waiting list.

The impact of individual climate change actions is of course set against a backdrop of ongoing government and corporate hesitation when it comes to engaging in large-scale change, but Peter is bullish about Tred's odds.

'We're not pretending that Tred has all the answers', Peter says. 'But we know there are lots of people out there who care about this planet that we live on, and want to do their bit to make a difference. We hope that Tred can help those people use their money to build a positive future – and if there are enough of us, the impact we have will be huge.'



**HERO PRODUCT** Find out why Tred is a My Green Pod Hero at [mygreenpod.com](https://mygreenpod.com)





# SUSTAINABLE BUILDING MADE SIMPLE

Introducing the company on a mission to accelerate and democratise green building

**T**oday's buildings deplete natural resources, pollute our air and water and are responsible for 40% of all carbon dioxide emissions.

There is a danger that, as sectors like transportation transition in the race to reaching net-zero emissions, almost 50% of all environmental problems will be caused by the construction and running of buildings.

Part of the challenge of greening our buildings is that the construction sector is fragmented, confusing and largely unregulated; this has fostered a 'business as usual' approach that often overlooks the environmental, social, financial and health impacts of building decisions.

'I want to change this, and change it fast', says Ankita Dwivedi, an architect and sustainability researcher. She has worked on incredible projects for clients ranging from Apple and Ferrari to Selfridges; if her 18 years in the sector have taught her one thing, it's that 'regulation alone won't fix the problem'.

## TRANSFORMING CONSTRUCTION

Finding a fix would be a gamechanger, because construction is big business. It makes up 10% of global GDP and employs 273 million people around the world.

In the UK alone, £110bn is spent on the 12 million construction projects that are undertaken each year. If every building project were seen as an opportunity to benefit people and planet, our emissions reduction targets might just be within reach. The challenge will be to transform an unwieldy sector at speed.

'I founded Firstplanit as a disruptive digital technology startup because that is the only way to achieve rapid change from the bottom up and the top down', Ankita explains.

Firstplanit unites three disparate groups that have until now operated in isolation: building owners and users who are concerned about the health of their buildings; design and construction professionals who need support meeting client

**HERO PRODUCT** Find out why Firstplanit is a My Green Pod Hero at [mygreenpod.com](https://mygreenpod.com)

demand for eco-friendly buildings and the manufacturers of eco materials who have struggled with visibility in a crowded market.

The experts who can help to navigate the green construction process are often expensive, hard to find and, increasingly, booked up well in advance, so Firstplanit democratises the process by digitising the consultants' key functions. The goal is to provide easy access to bespoke advice, and help anyone looking to 'green' a building to celebrate small wins.

'Building owners are encouraged to make quick, affordable and incremental changes and celebrate better decisions', Ankita explains. 'Construction professionals and designers are supported as they can access sustainability guidance early in the design process to engage their clients. Manufacturers of eco materials are recognised and demand for their healthy and sustainable products is accelerated.'

## SUPPORT FOR SUSTAINABLE REPORTING

Firstplanit's multidisciplinary team contains a broad spectrum of experience, from construction, manufacturing, behaviour and impact expertise to cutting-edge machine learning and AI knowledge. It has spent the last three years picking apart the 'processes, fibs, excuses and roadblocks' that maintain the status quo in the building sector.

'We have found short- and long-term ways to drive change for people who commission, design and use buildings', Ankita says.

The team has identified many key gaps in existing tools and methods, with outputs validated by experts from world-renowned institutions including The Bartlett, UCL and World

**'80% of building owners want to make their buildings greener, but only 30% are attempting it. Why? Because right now, it's too hard. Firstplanit is changing that.'**

**ANKITA DWIVEDI** FOUNDER OF FIRSTPLANIT

**FIRSTPLANIT FEATURE**

- Product List**  
Immediately see where sustainable products shine
- Firstplanit Score Index**  
Consider ratings across environment, health, social and monetary
- Quantity**  
Compare shortlisted products with the most popular in the industry
- Cost**  
Compare shortlisted products with the most popular in the industry
- Contact Supplier**  
Compare shortlisted products with the most popular in the industry

Firstplanit provides easy access to bespoke eco advice for anyone who commissions, designs or uses buildings

Resources Institute. Influential architects and engineers have signed up and have tested Firstplanit in beta mode ahead of the official launch.

The Firstplanit tool itself is a rigorously simple piece of kit that combines deep domain expertise with cutting-edge digital tech. It boils down four major streams of expertise into an immediate scoring across environmental, social, health and monetary impacts. The goal is to enable quick, valuable decision-making, and showcase holistic green credentials in real time to meet the growing demands of sustainable reporting.

## GREEN DESIGN FOR ALL

The latest IPCC report underlined the critical role all humans have to play in the unfolding of the climate crisis. Report co-chair Valérie Masson-Delmotte said 'the role of human influence on the climate system is undisputed', and the report demonstrates that human actions can still determine the future course of our climate.

Legislation is tightening and impact reporting is becoming essential to meet the demands of both consumers and businesses. As a result, around two-thirds of building owners and investors now want to go green.

'Covid has shown that we have to live, work and breathe in healthy buildings', Ankita says. 'Customers and employees demand that businesses demonstrate social responsibility, and we are legally obliged to meet net zero by 2050. Climate risks make sensible, long-term financial decisions vital.'

For Ankita, the timing is right and the market is ready. Firstplanit is going to fill a critical gap in the market because it will make environmental, social, health and monetary impact improvements easy to measure and report even for the smallest sustainable choice. This will help organisations and individuals report improvements beyond just CO2 emissions.

'Put simply, we will bring sustainable building design to the fingertips of millions of people', Ankita explains. 'Whether you are using, designing, creating or commissioning a building, Firstplanit will empower you to make decisions that benefit lives, save money and protect the environment.'

**'Covid has shown that we have to live, work and breathe in healthy buildings'**



## Find out more

Discover ways to green your building or project at [firstplanit.com](https://firstplanit.com)

# We are one earth.



Together, we can solve the climate crisis, limiting global temperature rise to 1.5°C through three pillars of collective action.



## Shift to 100% Renewable Energy

Leading climate and energy scientists have shown it's entirely feasible to transition our global energy supply to renewable sources across all sectors, achieving net zero carbon emissions by 2040. A just transition to 100% renewable energy can be done today with widely available technologies, and it will be far less expensive than business as usual -- creating millions of good long-term jobs, avoiding billions in annual fossil fuel costs, and preventing trillions in climate damages. The energy transition is already underway, but we need to triple investments in energy efficiency and renewable energy deployment and phase out fossil fuel subsidies by 2025.



## Protect & Restore 50% of the Earth

A groundbreaking study entitled "A Global Safety Net to reverse biodiversity loss and stabilize Earth's climate" finds that 50% of the world's land should be protected and conserved to give our ecosystems the best chance of survival as global temperatures rise. These areas store nearly 2 trillion tonnes of carbon and absorb one-quarter of annual CO2 emissions. Deforestation must end by 2030 alongside a global effort to restore 350 million hectares of forests on degraded land, providing the necessary carbon removal to achieve the 1.5°C goal. Indigenous lands play a vital role in protecting the biosphere, so we must strengthen Indigenous land tenure rights.



## Achieve Net Zero Food Systems

We grow enough food to feed ten billion people, but currently 45% of our crop yields are used for livestock and biofuels. At the same time 1/3 of all food is lost or wasted. By cutting meat consumption and food loss in half by 2040, reducing the overapplication of chemical fertilizers, diversifying crops and investing in smallholder farms, we can greatly reduce the greenhouse gas emissions associated with agriculture, while improving human nutrition. And new research shows that by transitioning to regenerative agricultural practices, which increase both the fertility and carbon storage of soils, we can achieve net zero food systems globally.



# Join Us! Let's create a just, vibrant future where nature and people thrive as one.

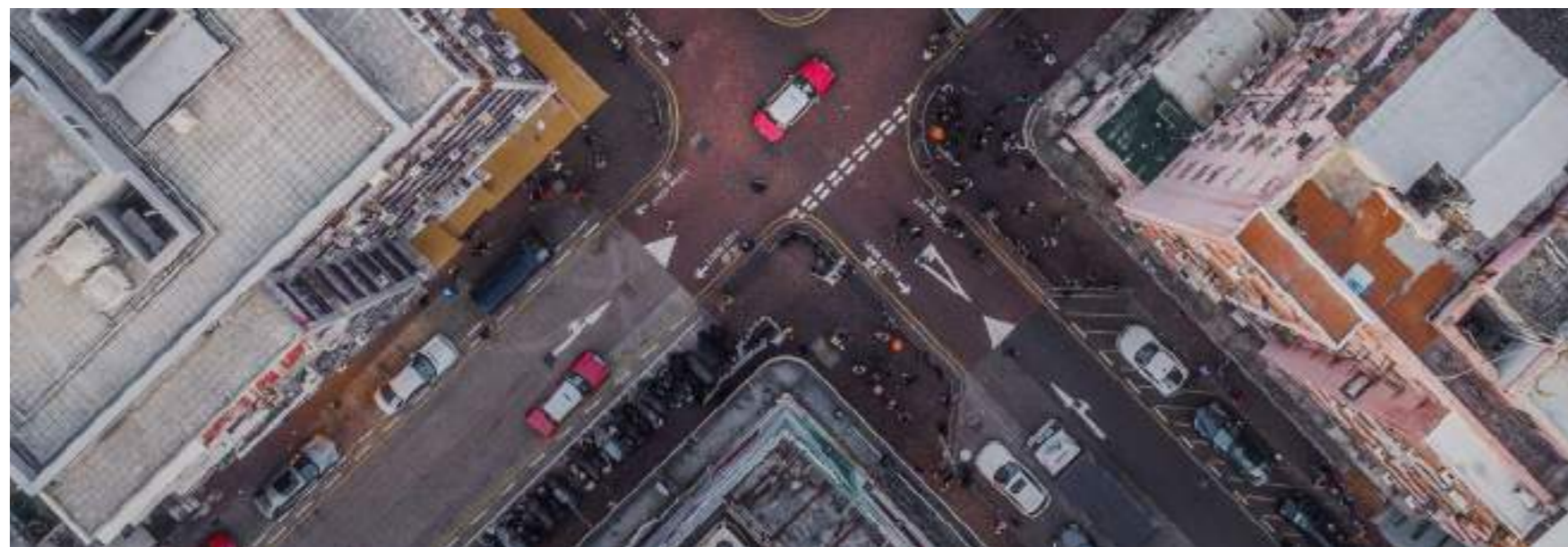
[oneearth.org](https://oneearth.org)





# DIGITAL POLLUTION

Gerard Lavin, field CTO, EMEA at Citrix,  
explains the impact of a hybrid world of work



PHOTOGRAPHY GETTY IMAGES

**P**ollution is something we have always had to deal with. From human waste to fossil fuels, pesticides to landfill, progress has ultimately always come at a cost to the planet.

Digital transformation has accelerated over the last 18 months, adding digital pollution to the environmental damage we are causing.

Today, as we stand on the brink of a climate emergency, we must also accept the environmental impact that going digital has had on our planet, and understand the action we must take to minimise our footprint in the future.

## MEASURING THE DIGITAL REVOLUTION

On the face of it, the transition to digital – along with the shift to remote or hybrid working – can improve an organisation's environmental impact, primarily through reduced commuting and lower

energy use inside the office. A recent study found that by reducing commuting hours and consolidating real estate through sustainable IT practices, remote work could help reduce annual CO2 emissions by 214 million tonnes.

However, it is only by applying sustainability principles to the entire business – across every department, territory and job role – that we can gain a full understanding of how technology choices contribute, often unintentionally, to digital pollution. As we move forward into a hybrid work scenario, organisations increasingly need to assess the impact of staff working at home, and balance the environmental cost of maintaining scarcely used office space.

As a technology business, Citrix recognises the leading role we must play in helping to tackle the global digital pollution situation. It is our mission to create technology that drives

productivity and engagement, while also helping to reduce an organisation's carbon footprint.

We therefore felt it was time to measure the damage the digital revolution is having on our planet and society, and set a benchmark for future progress.

## DIGITAL POLLUTION IN A HYBRID WORLD

Digital pollution refers to the environmental impact caused by building, delivering and using IT and digital infrastructure, which has mushroomed over the last 18 months due to remote working on a grand scale.

According to some estimates, digital pollution is currently responsible for approximately 3.7% of global greenhouse gas (GHG) emissions – similar to the amount produced by the airline industry – and every year energy consumption from digital

technology increases by 9%. Digital progress has allowed us to consider a hybrid future, but remote work on such a grand scale is bringing with it unanticipated side-effects for the planet. A single internet request represents 7g of carbon dioxide equivalent (CO2e) and sending or receiving an email emits 4g of CO2e.

The good news is that our research reveals 42% of IT leaders are currently tracking the environmental impact of their employees working remotely, with a further 39% of respondents planning to do so.

## BUSINESSES ARE ON THE RIGHT PATH

Positively, our survey of 500 IT leaders in UK businesses with 250 or more employees reveals that almost two-thirds (62%) believe their organisations are advanced on their environmental, social and governance (ESG) journeys. Of these, 27% are also helping their clients to become more sustainable as part of their business models. Only 11% of IT leaders say their businesses are in the early stages of their ESG journey, and a mere 1% are yet to begin evaluating and changing their ESG processes.

Ultimately, having a good score for their ESG policies and practices will help businesses to minimise their digital pollution. ESG is rapidly evolving, and although initially a focus for investors, today it is on the radar of employees, regulators and everyone involved in the business ecosystem.

There is also growing evidence that companies performing on ESG practices have higher financial growth, lower volatility, higher employee productivity, reduced regulatory and legal interventions, top-line growth and cost reductions.

Of the organisations that have started their ESG journeys, 88% say the IT team supports the business with their ESG reporting and provides input, which is a crucially important factor in exposing digital pollution. When compiling ESG reporting, 45% have in-built mechanisms that track the carbon emissions of the full lifecycle of products or devices they manufacture or services they deliver based on typical average usage over an average product or device lifespan, while a further 51% estimate the emissions.

## ENVIRONMENTAL IMPACTS OF DIGITAL SOLUTIONS

IT leaders are responsible for the selection and management of the technology devices and applications their company and workforce use, which puts them in a strong position to make sustainable choices.

According to our study, over one-third (37%) of IT leaders consider the environmental impact of the digital solutions they provide to their customers 'to a large extent'. However, 54% only do so to 'some extent', and it's only considered in some departments across their business.

Furthermore, our survey finds that when considering a purchase, just 19% of IT leaders think about whether it will support their existing environmental goals, with price (56%) and 'functionality and performance' (52%) emerging as the top two priorities. End-of-life practices for

products and services, and the associated data, are just as important when it comes to minimising a company's digital pollution. It is therefore pleasing that 78% of enterprises report always or often disposing of their IT solutions in a sustainable way.

## THE ROLE OF CLOUD TECHNOLOGIES

Not all cloud technologies are equal, and a sustainable cloud journey begins with the selection of a carbon-thoughtful provider.

Our study finds that over two-fifths of respondents (44%) say their organisation accesses and manages data and applications using a hybrid cloud model; just 15% use public cloud exclusively and 27% are still reliant on a private cloud. Of those who use the cloud in some capacity, 61% of their data and applications are hosted or managed in the cloud.

Of those who use hybrid cloud or public cloud, on average, roughly half (49%) of the data and applications are running within public clouds provided by the hyperscale players such as Microsoft Azure, AWS and Google. This is the most energy-efficient and environmentally friendly way

creasing preference for working for organisations that support their own green credentials.

In recent years there has been a notable increase in demand for purpose-led jobs and roles at sustainable businesses, and increasingly, taking steps to reduce carbon footprint will become an important element of attracting and retaining talent.

Educating all employees in digital pollution will become an important component of hybrid work. Our survey finds that 92% of responding organisations already provide training around sustainability practices and processes.

Additionally, 40% say their organisation provides regular formal training, while 38% say their organisation provides infrequent training, and 14% have had one-off training provided.

## CLEANING UP OUR DIGITAL FOOTPRINT

As hybrid and remote working practices continue to evolve, it is critical that businesses take stock of their environmental impact. While our research

**According to some estimates, digital pollution is currently responsible for approximately 3.7% of global greenhouse emissions – similar to the amount produced by the airline industry – and every year energy consumption from digital technology increases by 9%.**

of hosting and managing IT infrastructure, since large technology companies have led the charge to powering their data centres with renewable energy.

Google, for example, is the largest non-utility investor in renewable energy in the world, and Microsoft has a goal to be carbon neutral by 2030.

According to Accenture, migrations to the public cloud can reduce CO2 emissions by 59 million tonnes per year, which equates to taking 22 million cars off the road. Clearly a green, public cloud strategy is an important step in minimising digital pollution.

## GREEN IT AND EMPLOYEE ENGAGEMENT

Sustainable IT practices involve striking a careful balance between selecting technology that drives productivity and growth while helping to minimise an organisation's carbon footprint. Employees are very aware of the climate crisis and are showing in-

findings are promising, there is much work still to do to improve sustainability within business, and to ensure green practices are rolled out across whole organisations, rather than just in pockets.

We need to establish these practices as the norm rather than the outlier. Technology has a key role to play in reducing our impact on the planet, which means it is critical that IT leaders are careful to make sustainable choices and investments.

These choices will not only affect how sustainable the IT leaders' own IT infrastructure is; as all businesses become increasingly digital, making greener IT choices will result in overall greener businesses.

## Find out more

■ Discover a workspace designed for today's hybrid workforce at [citrix.com](https://www.citrix.com)



**Climate change is vital, changing the emotional climate is essential and learning to dance this tango is primordial, with converging worldwide crises where we're stepping on toes.**

We can't fix a broken planet with broken spirits – or minds. So how, then, to rally and align a global community of multiple nation states and complicated emotional states?

Like love, music is a universal language whose voyage can take us to extraordinary destinations. It can illuminate worlds around us, beyond us and within us – stirring the very soul of our imaginations.

Waiting in the wings and backstage of Being is a glorious fresco longing to be revealed. Below epochs and overlays of defiance, wars, false triumphs and mistaken identities awaits another storyline about the majesty of who we truly are:

**INDIVIDUAL. UNIQUE. UNIFIED BEYOND BELIEF.**

There is nowhere left to run or hide. The playing field has shifted before our startled eyes. What if we could make history in synchronicity, based on astonishing creativity that rewrites a potentially bleak Act 3 with a renewed Act We?

What if we could showcase the face of our global selfie from its good side, in real time, for the very first time?

The stage is set for Planet We in a breathtaking, worldwide event-experience on behalf of Self, Other, and something Greater: Mother (Earth).

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# Fashion at COP26

**Model twins Brett and Scott Staniland explain why fast fashion must change if we want to reach net zero**

**L**ots of industries have been represented at COP over the years, and at this month's COP26 fashion will, for the first time, be given a significant seat at the table.

We already know that Stella McCartney and other fashion-climate activists will attend the climate change conference, where they will use their voice to call for positive change.

For the most part, the focus will be on making sure we reach net-zero emissions by 2050 and limit warming to 1.5°C.

So where does our fashion industry sit in all of this? Why has it taken until now for us to be in the conversation and, most importantly, what can we aim to get out of it?

## A POLLUTING INDUSTRY

In previous articles, we have discussed how the fashion industry is an extremely large contributor to global emissions and produces excessive waste with, in the case of fast fashion, little to no concern for the planet.

From production to consumption, this all has an impact on the environment; our ability to meet essential climate change targets will be limited without drastic change in the sector.

Even the UN Environment Programme (UNEP) website has the fashion industry down as the world's second-most polluting industry (we don't quite believe that, but still – it's bad!).

## WHERE ARE THE FASHION POLICE?

In other industries there's a strong focus on legislation around permitted advertising, the resources used and goals for the future – like we see in the automotive sector, for example.

The fashion industry isn't so tightly moderated; there are various ways brands can advertise and essentially greenwash us about their products. There's no real cap on how many products are imported and there are loopholes that allow

brands to use false terminology when describing the composition of their garments. They can also make fairly free use of statements like 'made in Britain', 'made from recycled materials' or even simply 'ethically made'.

## FASHION NEEDS LEADERSHIP

Earlier this year, COP26 President Alok Sharma wrote that immediate action is required in the fashion and beauty industries. Unfortunately, shortly afterwards a sponsor slot was filled by a company whose track record doesn't inspire us with much hope.

If government wants to drive real change, subsidies should be made available to small businesses that want to switch to more sustainable and ethical practices, and business grants should come without so many conditions attached.

We also need more educational resources that consumers can easily digest, as currently we're responsible for a lot of self-education. In our eyes, brands should take a 'build it and they will come' approach – they shouldn't wait for consumers to tell them what they want.

## ACCOUNTABILITY IN FASHION

Ahead of COP26, the government provided sustainability guidance as part of its Together for our Planet campaign. Frankly, the six pieces of advice are hardly groundbreaking. Instead, we'd like to see more being done to hold brands and execs to account. How about making people take responsibility for exploiting garment workers on our doorstep, rather than telling us to stop printing receipts?

Something that actually is getting us excited is Fashion Revolution's Fashion Open Studio, the designer showcasing and mentoring initiative. It will present a series of digital events in response to the themes of COP26.

## REGULATING FAST FASHION

To be realistic and authentic about the fashion industry achieving net zero, stricter guidelines must come into place for the biggest (and worst) players in the industry – and that means the fast fashion conglomerates.

The women in particular who lead this conversation must be given access to the biggest platforms and have seats at these tables. We need conversations to become mainstream and to take place more regularly inside people's households; this is the greatest opportunity for people to pay attention to the real risks the industry brings.

## Find out more

Stay up to date with Brett and Scott on Instagram [@twinnbrett](#) and [@twinscott](#)



**R**ight now, humanity is being invited to a global collective initiation: an invitation offered to all of us, which each and every one of us is required to accept.

Put simply, the invitation is to transcend the current dominant paradigm in our relationship with the planet and each other, and enter an astonishing new era in the journey of our species.

The consequences of the growth paradigm on a finite planetary ecosystem are increasingly apparent. It's simple logic that a species of our number and collective impact cannot continue to engage in resource use at the current scale.

The conversation we are consequently having often centres around climate change: the degree to which the climate is observably changing, how much of this change is due to anthropogenic inputs and how we can reach agreement on how to mitigate the impacts.

The issue with using climate change as a frame is that we end up discussing the symptoms and their mitigation, not their cause and how to address that.

What is it that ails our current relationship with the Earth, each other and all the other species that share this beautiful miracle of a planet, and what is its cause?

### MANAGING OUR HOUSEHOLD

The origin of the word 'economy' can be traced back to the Greek word *oikonomia* – *oikos*, which is usually translated as 'household', and *nemein*, which is best translated as 'management and dispensation'. The literal translation is therefore 'household management'.

Are we managing our household, the Earth, well? Are the management practices we employ sustainable? In short, is our economic system fit for purpose? Is it a fixture of the natural world, like the seasons or the tides, or is it a construct of human design – created by us and therefore changeable?

It soon becomes clear that our current operating system, global market capitalism, needs to be reimagined with a more appropriate design for sustainably managing our global household.

We need a system that takes care of the place for future generations and that enshrines the golden rule, 'treat others as you would be treated yourself'. Under this moral imperative, people – and indeed other species – live comfortably, with dignity and happiness, as civilised, conscious beings.

### WE'VE DONE IT BEFORE

Happily many examples of such systems lie in our past. As a species we have already repeatedly demonstrated some of the behaviours that enable the long-term, stable, abundant, peaceful qualities to which any flourishing global civilisation would aspire.

Various pre-contact cultures of the Americas, for example – in the Andes, the Amazon and the Great Plains – suggest a world view that understood how to look after the environment for the long term. Multi-generational ecosystems combined with economic management on a truly regional – or even continental – scale. In the modern context this suggests at the very least that we can achieve



# The invitation

## Wisdom Keeper liaison Benjamin Christie on why we must change our economic system – 'the root cause of climate change'

a system of trusts – at local, national and global levels – that meets the needs of people and planet through principles of sustainability and fairness. It can be done because we've done it before.

### A COLLECTIVE JOURNEY

How we arrive at this new system, which is fit for purpose for the long term and serves the interests of all our relations, is of course a vast, complex and challenging problem. However, we have no choice: we are all here to address it as a first-order priority.

Humanity has all the creativity and inspiration necessary to set out on and complete this epic

journey to an economy that is both truly fair and truly sustainable. It is beholden upon us as both an existential and moral imperative. Moreover it is a challenge and an invitation of which we are worthy: we are amazing creatures fit for the task at hand, and it is exciting to set about crafting solutions as a global civilisational endeavour.

The invitation is therefore that we collectively make this journey: an epic undertaking that will be shared by future generations in myth and story. It's a magnificent invitation that we can all accept on behalf of our ancestors and future generations. Are we ready to place life at the centre of all we do?



PHOTOGRAPHY ISTOCK

### Find out more

■ Benjamin is part of a collective hosting honoured guests from indigenous traditions, the global south and the British Isles at Kelburn Castle during COP26, helping Earth-honouring voices to be heard. For details visit [wisdomkeepers.earth](http://wisdomkeepers.earth)

# THE SOLUTION TO CLIMATE CHANGE IS UNDER OUR FEET

Now more than ever, we need to take action to secure a safer future for the planet. With the UK hosting the global UN climate change conference, known as COP26 (Conference of the Parties), in Glasgow from 31 October to 12 November, now is the time to make our voices heard and bring the importance of healthy soil to the table.

## WHY SOIL?

- Did you know 10 billion tonnes of carbon are stored in UK soils? Healthy well-managed soil captures carbon dioxide and stores it as organic carbon. This makes it an essential resource for reducing our greenhouse gas emissions and tackling climate change.
- 95% of the food that we eat comes from soil. Without lots of healthy soil it would be impossible for farmers to produce food for us. However, around the world we are losing soil between 10 and 40 times faster than it's formed. It's vital that we protect this natural resource.
- Healthy soils store and absorb more water, making them essential for protection against flooding and droughts.

## WHAT IS THE SOIL ASSOCIATION DOING TO MAKE A DIFFERENCE?

- We're putting farmers in the driving seat through our Innovative Farmers programme. We work with farmers on the ground to develop lasting solutions for a more resilient farming future.
- We're showing what's possible with our Food for Life programme. We work with schools, hospitals, universities and caterers to serve over 2 million healthy, nutritious meals a day, reconnecting people with where their food comes from.
- We've helped develop the National Food Strategy, which supports nature-friendly farming as well as a drive towards healthier more sustainable food in schools and hospitals.
- We're part of The Climate Coalition and support The Time Is Now declaration, calling for nature-based solutions to help combat climate change.
- We're campaigning for an end to deforestation in UK supply chains. We need to move from industrial farming that feeds animals imported soya crops to a nature-friendly farming future.
- We're a partner of the Glasgow Food and Climate declaration. The declaration will be presented at COP26 and places sustainable, local food systems at the heart of the response to the climate crisis.



## WHAT CAN I DO TO MAKE A DIFFERENCE?

Our actions add up to make a world of difference. You can be part of the movement towards a world with good health, in balance with nature and a safe climate.

### Pledge for our Planet

Whether you're already doing some great things or aren't sure where to start, our pledges are here to guide you towards making small changes that make a big difference. From supporting local organic farmers and independent shops to growing our own nature-friendly veg and opting for certified-organic fashion and beauty, visit the Soil Association's website to get started: [www.soilassociation.org/pledge](http://www.soilassociation.org/pledge)

### Climate Action Pack

Show your support with the Soil Association's Climate Action pack. Download yours on the website or request your free printed copy here [www.soilassociation.org/cop26](http://www.soilassociation.org/cop26)



## LOOK OUT FOR US IF YOU'RE IN GLASGOW DURING COP26

We'll be taking to the streets on 6th November alongside thousands of others to demand climate justice for all. We're also involved in many talks and events throughout the fortnight. Follow us [@soilassociation](https://www.facebook.com/soilassociation) on Facebook, Instagram and Twitter for all the latest from COP26



# COOL SPIRITS

This officially cool brand is the first to offer gin and vodka in recyclable refill pouches

The UK's most northerly mainland distillery is situated beyond the Highlands in Caithness, just three miles from Dunnet Head, on one of the most beautiful coastlines in the world.

Claire and Martin Murray, co-founders of Dunnet Bay Distillers, host events to encourage visits to talks, tours and tastings of their Rock Rose Gin and Holy Grass Vodka at the distillery's five-star visitor centre.

'We want visitors to experience for a brief visit what we experience every day', Claire explains: 'pure air, beautiful beaches, the bounty of nature, rich history and, of course, delicious gin.'

## A TASTE OF COASTAL SCOTLAND

The remote and rugged landscape is captured in the spirits thanks to a strong focus on provenance; the gin is named after its key botanical, *Rhodiola rosea* – 'a rose in the rocks' – which adds a delicate floral note. The vodka is named Holy Grass in honour of the main botanical note used for flavour.

Many of the spirits' botanicals are sustainably foraged, while several others are grown in the

**HERO PRODUCT** Find out why **Rock Rose Gin** is a **My Green Pod Hero** at [mygreenpod.com](http://mygreenpod.com)

distillery's own garden under the watchful eye of the head gardener, Hanna. Other ingredients are sourced from local Scottish firms. 'All our drinks are made and bottled on the premises', Claire tells us, 'so we offer a real taste of coastal Scotland.'

## SUSTAINABLE SPIRITS

Sensitivity to the local environment runs through the heart of the distillery. The business makes extensive use of solar panels and uses paper tape, composting, paper bags, recyclable tasting cups and an electric vehicle. Water to cool the spirits is taken from a nearby burn, and returned clean and cooled so it won't adversely affect the environment.

Following its latest sustainability move, Claire and Martin are now the proud distillers of the first gin and vodka to come in fully recyclable pouches.

## A BOTTLE FOR LIFE

Rock Rose Gin and Holy Grass Vodka come in ceramic bottles that scream out for reuse – encouraged by the sale of pump heads on the Dunnet Bay Distillers website.

The tops of the bottles can also be removed using a diamond blade tile cutter, which gives them a more versatile use as plant pot or storage vessel. 'We have even seen a slot cut into one to make it a piggy bank', Claire tells us.



Claire and Martin Murray, co-founders of Dunnet Bay Distillery, with miniature schnauzer Mr Mackintosh, the distillery's apprentice

'It is brilliant to see the bottles reused and I love it, but to be honest there are only so many Rock Rose candle holders, soap dispensers and vases you can have in your house!', Claire continues. 'As refill shops aren't yet mainstream, we settled on creating a pouch to allow people to refill at home.'

## FREE RECYCLING

Claire and Martin worked with a consultancy for two years to make sure the pouches could be recycled and were as environmentally friendly as possible. When they have been used, the pouches are simply returned to Dunnet Bay Distillers, where they are collected and returned to TerraCycle to be upcycled.

'All the pouches are pre-printed with 'FREEPOST Rock Rose' to ensure they come back to us at no cost to the customer', Claire explains. 'They don't even need to be placed in an envelope. It really couldn't be easier for people to return the empty packaging, and we have found the return rate is very high.'

## THE COOL CLUB

Refills are encouraged through a new Refill Rewards Club that launched in September 2020. The club provides a regular delivery of your favourite spirits at a frequency of your choosing. The pouch choice can be changed at any time, giving members the flexibility to try the full core range – Rock Rose Original, Pink Grapefruit Old Tom, Navy Strength, Citrus Coastal Edition, Spring, Summer, Autumn, and Winter Editions as well as Holy Grass Vodka – along with mixers and 'one or two surprises'.

Members also get priority access to any new special releases, which are often hotly anticipated and have been known to sell out within days.

This year, CoolBrands® gave Rock Rose Gin a listing alongside the likes of Apple and Harley Davidson. 'We were blown away to have been recognised as a CoolBrand and are absolutely delighted', Claire tells us. 'I think a combination of factors brought us to the attention of the panel: our sustainability ethos being one, our iconic bottle design and, of course, the delicious gin itself.'



# The 'Sea & T'

## Introducing the alcohol-free drink that captures the spirit of the Devon coast

In 2020, the closure of bars and pubs caused a 6.2% decline in global consumption of alcohol. While the sector is expected to recover, IWSR has predicted the global low- and no-alcohol market will grow by 34% by 2024 as interest in wellness and health continues.

Sarah and Geoff Yates were on the front foot of this change; the husband-and-wife team had been running a wine bar for four years in their home town of Torquay. Like many of their customers, they wanted to live a healthier lifestyle that didn't prevent them from socialising with friends.

'We noticed that an increasing number of the customers in our bar were also looking for better quality alcohol-free options', Sarah tells us. 'They no longer wanted claggy, high-sugar soft drinks; they wanted sippable, sessionable drinks, made and presented with the same skill and sense of occasion as alcoholic drinks, using elegant glasses and quality ingredients. Thus the idea for Sea Arch was born.'

Geoff is a pastry chef and has a good understanding of flavour combinations, so he bought a still and started to experiment with a variety of botanicals. 'We wanted to create something fresh, complex and delicious that still felt like a 'grown-up' drink', Sarah explains.

The first very small batch of Sea Arch spirit was distilled in Sarah and Geoff's kitchen, and to this day the recipe remains the basis of their Sea Arch Coastal Juniper blend – now an award-winning non-alcoholic spirit.

### SEASIDE BOTANICALS

Bursting with seaside botanicals, Sea Arch Coastal Juniper is made using hand-harvested sugar kelp and samphire, both of which are native to the South Devon coastline where Sarah and Geoff live. The kelp and samphire are distilled with nine other botanicals, then skilfully blended to create a deliciously crisp and complex non-alcoholic spirit.

The sea kelp and samphire deliver distinctive coastal herbal notes, conveying a truly Devon-based character through their slight saltiness and green freshness. Aromatic juniper berry and notes of sage add real depth of flavour. Coriander and grapefruit peel result in a clean, crisp feel on the palate with some peppery notes. Sweet blood orange adds complexity that blends beautifully with the lemon undertones. Cardamom spice gives a balanced, warm finish.

### A DRINK FOR ALL OCCASIONS

Sea Arch can be enjoyed as a refreshing Sea & T, served over ice with a squeeze of citrus and a premium tonic, or in a range of non-alcoholic cocktails. As well as being alcohol free it is also free from sugar, sweeteners, allergens and calories, yet still full of flavour.

The new pre-mixed range offers an easy way to enjoy the Sea Arch experience, wherever you are. The Sea & T is a double measure of the Coastal Juniper spirit mixed with a light Indian tonic, and the Rose Sea & T is a double measure of the Coastal Juniper spirit blended with a light raspberry and rose tonic. Sold in 250ml recyclable aluminium cans, they are ideal for parties and picnics.

'Although a Sea & T is a great alcohol-free alternative to a G & T, I wouldn't describe it as a non-alcoholic gin', Sarah tells us. 'Of course there are similarities because it's a juniper-led spirit, and it can be a useful reference to help people recognise how to enjoy it if they're not familiar with the category. But we're not trying to mimic gin. This is a different product, providing a healthy

alternative that still has all the sense of occasion you'd expect from an alcoholic drink.'

### PRESERVING THE COAST

The South Devon coast is central to every element of Sea Arch – from the seaside botanicals used in the spirit and the sand patterns and coastal themes in the branding to the beautiful marine-blue bottle, which cries out to be upcycled.

'The name Sea Arch was inspired by a striking natural sea arch just around the headland from where we live', Sarah explains. 'The cliff has been carved away by the sea over many years to create that stunning arch – making something natural and beautiful by taking something else away. This ties in with the Sea Arch strapline: more beautiful without.'

Preserving the coasts and protecting the environment are important themes at Sea Arch. The business will never use single-use plastic – all its eco-friendly packaging is recyclable or compostable – and the paint on the bottles is solvent free.

'We've recently teamed up with The Seahorse Trust, also based in Devon, to raise awareness and funds to support the amazing work it does to protect seahorses and their habitats', Sarah tells us. 'We are fortunate to have such a vast range of species living in and around our shores, and we feel strongly that we have a responsibility to provide a safe and sustainable ecosystem for them.'



**HERO PRODUCT** Find out why Sea Arch is a My Green Pod Hero at [mygreenpod.com](https://mygreenpod.com)



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# FOR THE LOVE OF GOATS

Meet the couple living the dream and balancing self-sufficient living with wildlife conservation – and a growing family of goats



CLOCKWISE Ian, William and Lauren Horton at Ganders Farm; Lauren uses leftover goat's milk to create Ganders Goat Ice Cream and Goat Milk Soaps



**W**hen Ian and Lauren Horton got married, the usual exchange of vows was accompanied by a less tangible commitment to live a more sustainable life together.

At the time it was unclear how this dream would unfold, but as a low-income household – and avid fans of *The Good Life* – they gifted each other four hens and bought Ganders Farm at auction.

Eight years later Ian and Lauren have achieved self-sufficiency through a thriving carbon-neutral business built around wildlife conservation – and goats.

## WHY GOATS?

'When we first bought the farm we had a house cow and a calf', Lauren tells us. 'She gave us plenty of milk to use in the house, but after a year or two we found that having cattle at Ganders Farm just was not right for the land.'

In the search for alternative reliable sources of milk, the conversation soon turned to goats; they are light on the ground and a single nanny could provide more than enough milk for all the dairy needs of Ian, Lauren and their son, William. 'We started out with two and soon fell in love with their personalities and cheek,

so many more followed', Lauren tells us. The family also noticed health improvements after the switch from cow's milk to goat's milk, which contains less lactose and is easier for the body to digest. 'I found that many of my tummy troubles were so much better after the switch', Lauren reveals.

Ganders Farm is a micro-dairy; there is a small number of milking goats, and the methods used are very different from the year-round lighting, feed and production you'd find on an intensive dairy farm.

'We feed our girls very differently from the larger commercial enterprises', Lauren tells us, 'so our milk is also very different. The taste is much less earthy and tangy than milk we have bought from elsewhere.'

## GOAT MILK SOAP AND ICE CREAM

Operating as a micro-dairy also means yields are much lower; each millilitre is precious and the milk is used in a wide variety of ways.

At the height of milk production in the spring and summer, Ian and Lauren produce Ganders Goat Ice

Cream, an all-natural alternative to traditional ice cream that has half the calories and half the fat.

The ice cream is sold directly to customers and at independent retailers, with food miles kept to a minimum; the distance between the milking parlour and the production room is just five metres.

The flavours are sourced locally where possible, with many ingredients picked straight from the hedgerows at Ganders Farm. Options range from Nettle, Apple with a Blackberry Ripple and Gooseberry & Elderflower to the more traditional Vanilla, Strawberry and Chocolate – all wrapped in compostable packaging.

Any milk left over is used to make Ganders Goat Milk Soap, which has great moisturising properties and is extremely gentle on the skin, making it a good option for anyone with sensitivities or skin conditions. Like the ice cream, the soap is made using local ingredients, such as rapeseed oil from less than 12 miles away.

'We are a seasonal micro-dairy', Lauren explains. 'The girls get time off in late autumn and winter; we don't milk them at all and they have a very well-deserved rest. Through careful production our whole product range is always available.'

## PROTECTING WILDLIFE

For Lauren and Ian, self-sufficiency and wildlife conservation are not a balancing act, they are a partnership. At Ganders Farm, 'wildlife friendly' means working the land with a conscious effort to protect, nurture and improve – the visible wildlife and also the invisible network of life in the soil. 'Those grass roots and the soil are key to the health of everything', Lauren explains. 'Looking after the farm's biodiversity reduces inputs and, given time and patience, also increases output.'

Lauren and Ian have been following this approach for years and see the benefits all round the farm. One of many examples is their decision not to intervene with a profusion of docks; they chose patience over chemicals and watched as dock beetle numbers increased and took care of the problem. In turn, birds came and feasted on the beetles.

'Small adaptations provide long-lasting effects', Lauren tells us. 'Increased numbers of biodiversity Action Plan (BAP) species have been recorded as increasing on our farm, which we can only put down to the practices we have implemented.'

## A CARBON-NEUTRAL FARM

Ganders Farm is now carbon neutral through on-farm practices; Ian and Lauren haven't bought carbon credits, they have calculated all the carbon they have ever produced at the farm and locked the equivalent amount away on their own land.

As first-time farmers with no previous knowledge of farming techniques, Lauren and Ian admit this has been an uphill journey. 'Ganders Goat would not be possible without the goats and all the care, love, learning and attention we have put into our business', Lauren says, 'and all our loyal customers who return year on year.'

## Find out more

■ You can meet the goats and take them for a walk round Ganders Farm – book your spot at [gandersgoat.com](http://gandersgoat.com)

How insect-based pet food is helping cat and dog owners reduce their environmental impact

# CUT YOUR CARBON PAWPRINT



Since launching its trailblazing range of dog food and treats, Yora has gained a dedicated following of environmentally conscious pet owners. The insect-based alternatives to meat are just as nutritious as chicken, fish or beef, but kinder on their pet's stomach – and kinder to the planet.

Now the maker of 'the world's most sustainable pet food' has launched its first cat food, containing the highest insect content of any available cat food.

Yora Complete for Adult Cats is created from a blend of insect flour derived from the larvae of the black soldier fly. Insect protein is approved by the British Veterinary Association and is known to carry a wealth of nutritional benefits. It is highly digestible – much more so than conventional meats – and, compared with chicken or salmon, it exhibits strong antioxidant activity which can help reduce inflammation-related diseases.

Insect-based cat food also helps to slash your pet's carbon footprint, which can be bigger than you might think. An average-sized cat produces 310kg of CO2e per year; scaled up, that means the

UK's cat population of 10.9 million has a footprint of over 3,379,000 tonnes of CO2e over a year.

'Insects and bugs are a natural food source for wild and feral cats and most of us have seen our own cats chasing and munching on an insect or two in our homes or gardens', said Claire Arrowsmith, an animal behaviour expert from The Pet Behaviour Centre, 'which is why creating a cat food from insects is such a progressive and positive concept.'

## CHOOSING ECO CAT FOOD

Yora has been providing insect-based dog food for over two years, and wanted to make sure cat owners don't miss out on the opportunity to reduce their pet's environmental impact. In a recent survey, almost one-third (29%) of respondents claimed they think about the impact on the planet when choosing

which food to buy for their cat. 'Often the biggest hurdle for pet owners when switching to Yora is grappling with the idea of their pet eating insects', says Yora MD Glenn Rankin. 'However, we can see from the diets of wild and feral cats – as well as the behaviour of our own cats, who frequently chase and eat bugs – that insects form a regular part of the feline diet. In reality, insects are no less nutritious than traditional meat sources, giving cats the protein, vitamins and minerals they need to flourish – all while having a significantly smaller environmental impact.'

## SHOULD CATS BE VEGAN?

The Yora survey also found that almost one-fifth (18%) of cat owners feed their cat a vegan or vegetarian diet. Cats are obligate carnivores; meat is a necessary component of their diet, so feeding cats a vegan or vegetarian diet doesn't provide the level of protein they need to stay healthy.

'Our grubs are fed leftover vegetables that would otherwise go uneaten, and they only need a fraction of the water, land and energy of traditional meat farming', adds Glenn. 'That's why vegan and

vegetarian pet owners are choosing Yora as a healthier, more natural alternative to plant-based pet foods – which cannot fulfil many of the nutritional requirements for a feline diet.'

By using insect protein in its food, Yora ensures that cats are getting the protein they need while reducing their environmental impact. 'As a lover of animals and the planet, I'm really enthused by the work that Yora is doing to reduce the environmental impact of pet food', said TV vet Dr James Greenwood. 'The nutritional value of the new cat food means that cat owners don't have to compromise their cat's health to make more sustainable choices.'

## MOVING FROM MEAT TO INSECTS

The environmental benefits of insect protein have become more widely understood in recent years, with Yora leading the way when it comes to education around insect pet food.

When compared with beef farming, Yora's grubs generate 96% less greenhouse gas emissions and grow naturally at a rapid pace; they reach full size in just 14 days, meaning there's no need for growth hormones or antibiotics. This insect ingredient makes Yora the lowest CO2-producing premium pet food in the world – it has an even lower CO2 pawprint than the leading vegan dog foods.

## PETS IN LOCKDOWN

Spending more time at home over the last 18 months has in many cases also created a more pet-friendly lifestyle; UK pet ownership increased by 20% in 2020 as 3.2 million Brits became pet owners. Today there are an estimated 24 million pet cats and dogs in the UK.

A survey commissioned by Yora revealed that almost one in 10 Brits purchased a dog in the six months following the announcement of the first lockdown. That would mean over 6 million dogs were bought over that period.

Putting the new survey statistics through the Yora 'carbon pawprint' calculator, Yora found that the new wave of over 6 million lockdown dogs has a potential carbon footprint of 5 million tonnes of CO2 per year – and that's just where their diet is concerned. To put that in context, over 2 million acres of forest would be required to absorb this amount of CO2 over a year.

**'Feeding a medium-sized dog traditional meat-based food generates the same amount of carbon in its lifetime as taking 37 return flights from London to Barcelona'**

Yora's survey also found that changes in schedules and circumstances brought about by the nationwide lockdown has led one-third (32.9%) of existing dog owners to consider buying a second dog. If they all followed through, that would mean a further 6.2 million dogs living in our homes and contributing to our carbon footprints.

Feeding a medium-sized dog traditional meat-based food generates the same amount of carbon over its lifetime as taking 37 return flights from London to Barcelona. If every new lockdown dog were fed a diet of Yora for a year, the amount of CO2 saved would be around 4 million tonnes – that's the equivalent amount of CO2 emitted by an average passenger vehicle taking almost 400,000 trips around the equator.

'It's clear from research into ecological pawprints of pet foods that insects offer a more sustainable source of protein for pets than traditional meat-based products', said Dr Pim Martens,



**'This insect ingredient makes Yora the lowest CO2-producing premium pet food in the world'**



CLOCKWISE  
Insect-based Yora Complete for Adult Cats can help cut your pet's carbon pawprint; the All Breeds dog food has been popular with eco-conscious pet owners for over two years

Professor of Sustainable Development at Maastricht University. 'Not only are the carbon emissions associated with an insect-based diet lower, the amount of land (and likely water) required to produce foods using insect protein is lower than for foods made from chicken or beef.'

Yora has expanded its range to include food for cats and dogs of all shapes, sizes and ages – from puppies to seniors, large and small. Yora also has some tasty treats that would make a perfect gift for your pet this Christmas.

## INSECT-BASED DOG TREATS

Yora's bedtime biscuits, training treats and protein bars are packed with nutritious grubs and will satisfy even the fussiest dogs.

The protein bar is 50% insect and packed with nourishing botanicals including beetroot and spinach, which have high vitamin and mineral levels to aid recovery during and after walks. Insects are a highly digestible protein, providing a great energy boost, and the cold-pressed rapeseed oil gives dogs a glossy coat.

Yora's Dreamers bedtime biscuits contain valerian root, chamomile and lemon balm to help get your dog ready for a good night's sleep. The grub meal provides just the right amount of protein and British oats will ensure a full tummy until breakfast time. The Yora Rewards training treats are full of flavour and low allergen, providing a healthy treat to reward any deserving dog.

Yora's sustainable credentials also extend to the company's packaging, which is fully compostable, and all the treats are hand baked in sustainable, reclaimed wood-chip ovens.



LEFT TO RIGHT Temple-quality incense can now be used to cleanse the home; Temple of Incense founders Simi and Sam Aydee; natural, non-toxic and vegan incense sticks with a long burn time

# Bring positivity home

Get the ultimate feel-good factor at home with these tips on smudging your space and cleansing with fragrance

Incense has been used for thousands of years, traditionally alongside worship and prayer. Today it also supports meditation practices and can help to purify the home – a study in the *Journal of Ethnopharmacology* found that burning wood and herbs for an hour slashed airborne bacteria by 94%.

## SCENT AND HERITAGE

Temple of Incense is a natural evolution of two sisters' passion for scent. Simi and Sam Aydee started out with a little market stall on Portobello Road and the enthusiastic support of their parents. They worked side by side at markets, pop-ups and exhibitions.

'Without our parents' knowledge of scent and heritage, we may never have had the temple-quality incense we have today, and which is cherished all round the world', Sam reveals.

Sam and Simi's incense is natural, non toxic, vegan and made consciously by people who truly love what they do. They take the best possible ingredients for the 52 available fragrances and spare no cost for an unparalleled, luxurious burn. 'There is no benefit to be had from cheap, unloved, chemical-filled incense', Simi says.

## BEST INCENSES FOR THE HOME

Incense smoke transforms every space into a sanctuary. It creates an atmosphere that encourages peace and mindfulness, making the space complete for yoga or meditation. It also uplifts the spirit to help tackle the winter blues that loom at this time of year.

Simi and Sam's top recommendation for the home is oudh, an ingredient priced above rubies. Known to be mentally and spiritually stimulating, oudh has a complex, earthy scent that's long lasting and perfect for entertaining. Real Mysore

**HERO PRODUCT** Find out why Temple of Incense is a My Green Pod Hero at [mygreenpod.com/heroes](https://mygreenpod.com/heroes)

sandalwood is the best choice for meditation and yoga. Known in India as 'Chandan', meaning golden, it's ideal for temple-at-home feels.

Honouring the divine feminine, Radha sticks are made to nurture love and relationships, making them perfect for family settings and romantic evenings.

## USING INCENSE

The secret to burning incense is to light it in a spot that allows the smoke to travel through the room.

Light the tip of your incense stick until it flames. Simi advises taking a moment with the process and setting your intention when lighting your incense. 'Notice how lighting your incense feels like the beginning of something?', she says; 'That's because ritualistically, it is.'

Let the incense glow for up to 10 seconds, then fan the flame out. 'We don't blow it out, Sam tells us, 'our grandmother always said it was bad luck!'

There are no strict rules around how often incense should be used in the home; 'We're obsessed', Sam confesses, 'so it's once or twice a day for us. Otherwise, a minimum of once a week to reset the energy would be beneficial – and always when you've got guests over – it's a sure way to impress!'

## WHAT IS SMUDGING?

Getting rid of clutter and dust is the first step to a cleaner, happier space. After that, it has to be a space cleanse using an ancient purification ritual called 'smudging'.

'Smudging is a way of removing stale energy dust', Simi explains. 'Think of this energy dust as an accumulation of negative vibrations. This can be caused by feelings of sadness, fear, anger, illness or even unfriendly spirits. This stale, negative energy is undoubtedly harmful to us and can often be the reason for anxiety, poor sleep, lack of motivation, having unnecessary arguments in the household and just not feeling as comfortable as you should within your own space.'

For Sam and Simi, smudging with sage will do away with old, negative vibrations and replenish with positive, uplifting energies.

## How to smudge your home

### Sam and Simi's ultimate guide to cleansing your space

- Set your intention. Use a mantra of choice or simply feel calm and ready to welcome in positive energy.
- Light your sage of choice then blow out the flame. You want the smoke, not the flame.
- Clear your body and space. Wave the smoke under your feet to the top of your head.
- Fan the smoke clockwise around each room with your hand or a feather, into every corner. Make sure the smoke touches all the walls.
- With each step feel all negative energies attach and disappear with the smoke as it vanishes.
- Thank the Creator and Mother Earth for bringing peace to your home and the people within it.
- After cleansing, open the windows (preferably in the east) to let in new, rejuvenating light and air.
- Don't get hung up on how long you're taking or whether you're doing it right.

**M**any mainstream cleaning products carry a warning that they are harmful to all aquatic life, with long-lasting effects. It's impossible to believe we can use them regularly - all over the world - without adversely affecting our oceans and the life they support.

'In the early part of 2021 we realised the market was missing a great-performing and eco-friendly cleaning product range', says Ant McCourt, co-founder of MACK. 'It was then we decided to co-develop our commercial range for the domestic market', adds co-founder Ian Millar.

Up until this point, Ian and Ant had faced a dilemma that might sound familiar: the choice of cleaning products was restricted to big names and supermarket offerings that aren't good for people or planet, or the expensive brands that can disappoint on the performance side. 'There always seemed to be a trade-off', Ian explains, 'and we knew with our products that was no longer the case.'

#### FILL YOUR OWN BOTTLES

MACK was founded in 2019, and the commercial cleaning products that preceded the domestic range are still used in industrial settings. They are a popular choice in the hospitality sector and are even found on the boats used by Sea Shepherd, the marine conservation society.

Today the carbon-neutral business also sells all the products you might need to clean your home - a multi-surface cleaner, de-scaler, floor cleaner, sanitiser and even a degreaser - but only in



MACK products are designed as refills for empty bottles you already have in the house



## Bottle-free biotech

These concentrated cleaning products clean your home using enzymes

concentrated form, and never with a bottle. You can buy a trigger head from MACK 'if you absolutely have to' and attach it to one of the many empty bottles you almost certainly already have in the house.

'Reduction of our reliance on single-use plastic is a central tenet of the business', Ant tells us, 'and there's a multi-faceted rationale. Obviously there's a cost saving to us - which means ultimately to the customer - when existing assets are reused.'

'We all complain about the ubiquity of single-use plastic, so now we can act in a positive manner and do something about it', Ian adds. 'Manufacturers will keep producing plastic if we keep buying it - directly or indirectly.'

Each MACK product is shipped in a 500ml flask with a one-way valve that ensures the correct dose when you make the product up at home. When the dose has been added to your bottle, top it up with cold water, attach a trigger spray head, apply the pre-supplied label and you're good to go.

The different products come in bright colours that make them easy to identify if labels aren't used; the colourants are natural and allow Ian and Ant to avoid the chemical stabilisers required to keep products clear. 'We don't want to add more chemistry', Ant explains.

#### EMBRACING BIOTECH

There's enough science going on in this range already; the efficacy of the products is down to bacteria, harvested from Canadian forests, which create the enzymes that are essential for the cleaning action.

'The bacteria within the products are dormant until 'woken' by diluting the concentrate with cold

**HERO PRODUCT** Find out why MACK is a My Green Pod Hero at [mygreenpod.com](https://mygreenpod.com)

water', Ian explains. 'Then they act as little Pac-Men that ingest the dirt, grease and grime.'

Biotech cleaning products have been commercially available for nearly 20 years. Due to their highly concentrated nature they aren't the quickest selling products on the market, so most businesses that sell cleaning products prefer to stock pre-diluted formulations that are used at a much quicker rate and generate bigger returns.

'By selling concentrates you are in effect cannibalising your revenue', Ant tells us. 'As a business, we decided we wanted good customers but bad consumers; it's about making a living and not a killing.'

#### DOING THE RIGHT THING

'I do believe that manufactures have a responsibility to produce more eco-friendly products', Ian says, 'but why should they? People keep buying their products, so until that stops and starts hitting their bottom line, they'll carry on regardless.'

Transporting water emits 62g of CO2 per tonne per km, and most cleaning products contain over 90% water. By selling concentrates and encouraging reuse, Ian and Ant have created eco-friendly products that work out to be 60p per bottle when diluted.

'I don't think we're challenging the idea that eco products are much more expensive', Ian says; 'we'd say we actually prove that doing the right thing shouldn't cost you any more.'



# TAKE CONTROL OF YOUR ENERGY

Home battery systems can slash your use of fossil fuels, take pressure off the grid and save you cash

**S**olar panels can cut your carbon footprint by reducing the fossil fuels required to power your home – but with solar panels alone, only around 30% of the energy generated is used in the house. The rest is exported to the grid.

A good home battery system will double the solar energy absorbed into the house to approximately 60-65%.

Some battery systems also deliver additional grid services – supporting the grid when it's under strain – and operate energy suppliers' variable tariffs, helping homeowners to further reduce their energy bills.

## GET YOUR OWN POWER PLANT

Puredrive Energy, the first UK manufacturer of home energy storage systems, is a pioneer when it comes to the technology behind home batteries. 'We consider our battery to be more than a battery', explains CEO Mark Millar; 'it's more like the home's energy operating system'.

With the highest-specified DC battery on the market, Puredrive is helping to maximise efficiency and reduce energy costs for homeowners. The battery has three times the throughput of most competitors – including Tesla; its 10kWh battery system saves two and a half times the energy stored by a 13.5kWh Tesla battery.

'It also looks great and is the slimmest battery on the market', Mark says. 'Installers have said that it's the easiest DC battery to install.'

The AC system, which can be installed inside or outside the house, has a sleek design with minimal wires and cables. It includes a virtual power plant (VPP) that can dramatically cut energy costs for homeowners who want to reduce their dependence on the grid.

## HOW BATTERIES CAN SAVE YOU CASH

One of the most appealing features of the Puredrive battery is that if the homeowner is not happy with their energy supplier, or if a better variable tariff comes on the market, they are free to switch – at no cost.

'One of the ways we're different is that the Puredrive Energy storage solution is agnostic to energy suppliers', Mark explains. 'Energy suppliers don't operate the variable rate tariffs, we do – because we believe homeowners should be free to switch at no cost. Puredrive's control algorithms are automated and optimised to return the homeowner with maximum savings.'

Most recently, larger savings have been delivered by operating new variable rate tariffs such as Octopus Agile or Octopus Go. The variable rate tariff provides an opportunity to charge the battery when energy is cheap and discharge when it is more expensive.

This is a great bonus for electric vehicle drivers, as it means a car can be set to charge at a cheaper rate. 'As an example, from 12:30-16:30 the cost of energy from Octopus Go is 5p, so the variable tariff can power the car with cheap energy', Mark



LEFT TO RIGHT  
Preparing to send systems all over the UK via green energy distributor Edmundsons Electrical Greentech; the Puredrive Energy 10kWh AC system; the manufacturing team standing together after smashing targets



says. 'The competition between energy suppliers will result in further opportunities for bill payers to increase their savings.'

## SUPPORTING THE GRID

The battery can communicate with other energy systems in the home to optimise energy usage, and Puredrive has just completed a project for integration with Alexa. When the homeowner opens the door they can be greeted with real-time information – such as, 'Good afternoon, you have 36% energy left in your energy storage system, which is sufficient for your normal use on a Wednesday' – that will help them manage their own energy use.

Homeowners can also earn savings through the grid services home batteries can provide. Home batteries are connected through their cloud systems to aggregators and can be

operated automatically to support the grid. Batteries can also be virtually connected through their clouds to operate together and become power plants that provide large amounts of energy to the grid.

By supporting and helping to stabilise the grid during peak times, batteries will ultimately enable the speedier adoption of greener home products, such as air-source heat pumps, and support the adoption of electric vehicles.

## A UK LITHIUM ALTERNATIVE

Keeping a business afloat during the pandemic has been a difficult task, but while competitors have struggled with supply chain issues, Puredrive has used this time to strengthen its relationships with partners and customers, from wholesalers to homeowners.

'Manufacturing in the UK has become a competitive advantage', Mark reveals. 'From a supplier perspective we are more in control of our supply chain, and from a customer perspective we can make it a more personal experience. This is one of the things that makes Puredrive unique compared with other battery manufacturers and energy companies.'

One of Puredrive's current projects addresses supply chain constraints with respect to lithium; the goal is to manufacture a battery module with an alternative chemistry sourced in the UK. The launch is planned for June 2022.

This project is part of Puredrive's wider vision to further increase our self-sufficiency and reduce the overall carbon footprint of Puredrive's energy storage solutions.

'One of the most fulfilling aspects of designing, developing and manufacturing products in the UK is providing opportunities for young people to be involved and succeed in the green and technology industries', Mark tells us. 'I hope that it could play even a small part in the revival of a more sustainable future. It's time to break free from energy's centralised umbilical cord.'

**'One of the most fulfilling aspects of designing, developing and manufacturing products in the UK is providing opportunities for young people to be involved and succeed in the green and technology industries'**

**MARK MILLAR**

CEO OF PUREDRIVE ENERGY

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# CHARGING FORWARD

Nick Wood, CCO of Hypervolt smart EV chargers, explains why the future is electric



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The UK and the world are switching to clean energy and transport, and electric charging is going to be the backbone of our clean energy system.

Today we're still at low numbers, but seeing an electric car in the street is no longer the 'wow' moment it was a few years ago – particularly in cities. Looking ahead to the next few years, all projections show the electric vehicle (EV) market is about to accelerate massively.

Did you know that more electric cars were sold in the UK in 2020 than in all previous years combined, and that in 2021 we're well ahead of schedule to more than double that? That's great news for our health, neighbourhoods, wellbeing and future – not to mention the raw pleasure of driving.

It's also a pattern that's repeating around the world; we're at the tipping point of a global transformation in several of the world's largest industries. This fourth industrial revolution, switching our energy and transport systems from fossil fuels to clean electricity, has some big implications for how we live our lives.

## THE GRID NEEDS FIXING

To manage such a wholesale revolution at speed, we need a complete overhaul of the way we think about our electricity infrastructure.

Contrary to common belief, the National Grid – the core of our national electricity system – is probably going to be fine. It's made to last, with sufficient capacity and flexibility built in. At the

other end of the spectrum, homeowners and tenants are increasingly having their smart energy needs accounted for at home, in an increasingly digital, connected and smart world.

The missing piece is what's in between: the distribution network. The poles and cables you can see outside your window are the electricity grid's roads. Many were built 50 years ago for a radically different world, with much less power.

Electrifying heat and transport on a tight deadline means there's a growing market for new bits of hardware with high electrical loads, that can double or triple the power our homes use.

Some have estimated that, even if we wanted to and money were no issue, we wouldn't have enough time to dig up all the streets and

replace the cables if we're serious about getting to 100% zero-emission vehicle sales by 2030. So if we want to keep buying EVs, we need a solution that's smarter than digging up old cables – and that solution is software.

## ON THE SHOULDERS OF GIANTS

The key to the best advances in most modern technology is software. Think about the best mobile phones or laptops, or the best buying experience or customer service from your favourite stores and brands. Part of it is build quality and design, but the majority is software.

While the rockets come in different shapes and sizes, years of progress in data, communications and computing make the difference between Apollo 11 on the one hand and SpaceX, Blue Origin and Virgin Galactic on the other.

So making advanced products that users love is about software. The same applies to electric vehicles – in particular to electric vehicle charging. There's a huge opportunity to use smarter tech in today's energy and transport revolution: we're standing on the shoulders of giants.

Instead of 'energy meters in a box', we should be thinking about 'computers in a box', with a powerful cloud directing electricity to where it's needed most. It's big data, real-time connectivity and intelligent control that's going to help us accelerate the switch to clean energy and transport, making a 100% clean power grid possible while reducing the cost of energy.

We also need to radically rethink how we use our cars; the average car is parked for 23 hours of the day and, where electrified, it is effectively a battery on wheels. At a national scale we'll have one giant storage resource to balance our clean power grid, and the charger is what will connect our energy and transport systems.

One of the exciting things about that is that it is a worldwide transformation, but one that is highly localised and personalised.

## A PEOPLE-POWERED REVOLUTION

When we talk about solving problems on local grids we need local solutions. It's intelligent control of the battery in your car that's going to help keep the lights on in your neighbourhood, charging with a local surplus of renewable power and supporting your local energy system. So while each charger forms part of a giant intelligent network, the result is highly local.

EVs also put control back into people's hands. If I asked you how much you've spent on petrol in the last three years, or how much you used last Wednesday, would you be able to say? In the age of electrification, distribution, information and data, you can. Intelligent software enables us to quantify how much we're saving from going electric, visualise how much carbon we're saving and, with smarter energy tariffs, even who and



Hypervolt home chargers are compatible with over 100 different EV models

where we're buying the power from. Software means consumer empowerment.

To create a service we can really get excited about in the clean energy transition, we need powerful platforms. Accessible and intimate customer service, just-in-time manufacturing and same-day delivery can all be powered by software.

## THE FUTURE IS ELECTRIC

It was just 10 years ago that I had my first ride in an electric car: a G-Wiz, one of just 5,000 sold globally. Purple and yellow and made of plastic, you could fit in the back seat if you sat sideways, and it could drive 50 miles on one charge, at up to 50mph.

Electric cars have come a long way since and are now faster, better to drive and getting

## Find out more

Discover more about Hypervolt's smart solutions for home charging at [hypervolt.co.uk](https://hypervolt.co.uk)

cheaper than their petrol and diesel counterparts. However, they're just one piece of our electric future. 2021 has already been dubbed 'the year of the electric van,' but we're talking about so much more than that.

The market leaders in driverless car technology are proposing 'level 5' autonomy from 2022 – that means driving with hands off the wheel, eyes off the road, reading a book.

Aviation and shipping are responsible for 12% and 3% of transport emissions and rising fast, but fully electric car ferries are already operational in Europe, with 'mega chargers' on either shore charging their batteries between legs. China is piloting fully electric container ships.

150-seater electric aircraft are touted for 2030, and Norway has banned short-haul fossil-fuelled flights from 2040. Even more excitingly, flying pizza delivered by zero-carbon eVTOL drones for last-mile delivery services is being piloted in the United States, while in the UK supermarkets are trialling wheeled delivery robots. Our first driverless aerial taxis for public use are planned for the middle of this decade.

Air travel today is all about long distances, large jets, large airports and a guilty conscience. In future it could be a complex network of many smaller vehicles with rooftop walk-on/off services.

If it moves it can be electrified, and as the world goes electric only truly smart charging can balance a 100% clean power grid.

To keep accelerating the switch to clean power and providing products people love, we need to focus on powerful software, intelligent design and user experience – made in Britain.



LET'S BUILD A CLEANER,  
GREENER BRITAIN



octopus energy