

TRANSFORM

Environment ●
Economy ●
Society ●

FOR ENVIRONMENT AND SUSTAINABILITY PROFESSIONALS

May 2019
www.iema-transform.net

Toxic textiles

Calling time on the
chemical cocktail behind
our clothes

Alkylphenol ethoxylates
Chlorophenols
Brominated flame retardants
Sensitising disperse dyes
Phthalates
Res dyes
Halogenated solvents
Chlorinated paraffins
Heavy metals
Perfluorocarbons
Glycols

PLUS

Care amid conflict Dame Claire Bertschinger on the value of soft power
The promise of plastic From the depths of pollution comes innovation
Changing gears Is corporate sponsorship the new greenwash?

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bit.ly/workplace_MH

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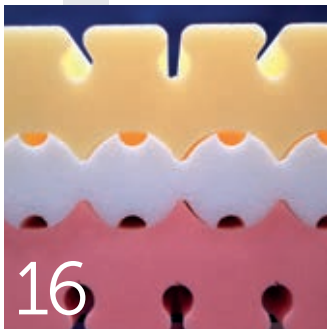
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Correction: April 2019 'Turning the Energy Tide' p23 column 2 line 12 "less than 20..." should have read "less than unity". Apologies to author Rick Gould for this error.

IEMA is the professional body for everyone working in environment and sustainability. We provide resources and tools, research and knowledge sharing along with high quality formal training and qualifications to meet the real-world needs of our members. We believe that together we're positively changing attitudes to sustainability as a progressive force for good. Together we're transforming the world to sustainability.

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TIM BALCON, CEO OF IEMA

Uniting for a common purpose

If we're to successfully tackle the significant threats to our environment, we're also going to have to address unfairness and inequality in our society. With social divisions and factions on the increase, it's incumbent on all of us to focus on building trust and action on the issues that unite us.

Whether you look at economic status, politics or culture, divisions are growing – and with them, the risks exacerbating climate change, pollution and biodiversity loss. Focusing on inequality and inclusivity will play a major part in addressing environmental restoration.

Globally, divisions are getting in the way of tackling climate change and the environment – and these need to be challenged. As professionals, we have a role to play in highlighting and seeking to overcome areas of division, be they local or international.

We recently ran a faith-based webinar, and afterwards I went to see the Bahu Trust in Birmingham. They told me why they place so much importance on breaking down barriers of division, relating a story about a brook that ran through their community. The brook was once a source of clean water; now it is not. For this brook to be restored, communities upstream and downstream must work together.

Our common purpose is the environment – something we all share, enjoy and have responsibility for. Our beliefs, principles and values align here. And yet, ironically, some of the most developed countries are creating the antecedents for greater division rather than greater unity.

A harmonious society will play a huge role in protecting the environment. This is one of the reasons for IEMA's change in recent years to embrace social sustainability as well as environment management. IEMA is where we can celebrate and build on successful initiatives to address inequality.

As an example, in this issue we investigate how the NHS' Healthy New Towns standard (p26) is targeting lower-income groups with environmentally friendly housing and green spaces. We also ask how 'rewilding' conservation (p18) can help improve social cohesion, health and wellbeing, and how best to tackle air pollution (p20) in cities across the world.

"Focusing on inequality will play a major part in addressing environmental restoration"



ROUNDUP

ENVIRONMENT &
SUSTAINABILITY
NEWS AND VIEWS

RENEWABLES

Global energy transformation to save the world \$160trn by 2050

Transforming the global energy system through intense electrification and rapid adoption of renewables would save the world \$160trn in health, subsidy and environmental costs by 2050.

That is the headline finding of a study by the International Renewable Energy Agency (IRENA), which estimates that the transition could provide a payoff of up to \$7 for every \$1 spent. Moreover, the researchers calculate that the shift would boost global GDP by 2.5% and employment by 0.2% in 2050, with renewables creating more jobs than those lost in the fossil fuel industries.

The findings are based on immediately deployable, cost-effective options that are available now to countries looking to fulfil their climate commitments under the Paris Agreement.

"An unprecedented decline in renewable energy costs, new opportunities in energy efficiency, digitalisation, smart technologies and electrification solutions are some of the key enablers," said IRENA director-general Francesco La Camera.

However, the researchers warned that deployment of renewables must increase by at least six-fold compared to current government plans if global climate objectives are to be met.

Nationally Determined Contributions (NDCs) fall "far short", with energy-related emissions having risen by around 1% every year since 2015, and the world's 'carbon budget' set to run out within a decade.

IRENA analysis suggests that energy-related CO₂ emissions need to decline 70% by 2050, but that a large-scale shift to renewables could provide 90% of this

if ramped-up energy efficiency is factored in.

Under this scenario, with electricity becoming the dominant energy carriers, global power supply could more than double, with renewable sources meeting 85% of demand.

The study highlights how a global energy transition could soon be a reality, with renewables already making up more than half of newly installed power-generation capacity.

"The world's choices today will be crucial to reaching a sustainable energy and climate safe future," La Camera continued.

"I hope this high ambition is matched with decisive action on the ground to advance an inclusive, fair and economically, socially and environmentally beneficial, energy transformation."

➤ Read the study at bit.ly/2Ip0sGA



BUSINESSWATCH



Apple exceeds sustainable supply chain goal

Apple has nearly doubled its number of suppliers committed to running their production on 100% clean energy, bringing the total to 44. The tech giant will thus exceed its goal of bringing 4GW of renewable energy into its supply chain by 2020, with an extra 1GW projected within that timeframe.

The achievement comes one year after Apple announced that all its global facilities are now powered by 100% renewable energy.

🔗 bit.ly/2V17HKL



Bank of America mobilises for low-carbon business

Bank of America will mobilise an additional \$300bn for low-carbon business activities through lending, investing, capital raising and advisory services. This means \$445bn has been designated for its Environmental Business Initiative since 2007, with \$125bn set to be spent by the end of this year globally.

"The need to deploy capital to address climate change has never been more urgent," Bank of America vice chairman, Anne Finucane, said.

🔗 bit.ly/2V1743T



Walmart to sell reusable bags at checkouts for first time

Retail giant Walmart has announced that it will sell reusable bags made from recycled material at checkout carousels across its US stores for the first time.

The initiative will begin this month after the world's largest retailer also unveiled a 2025 target to ensure its private brand packaging is 100% recyclable, reusable or industrially compostable.

"Companies can contribute to climate action through practical actions – we are excited to be part of the solution," said Walmart chief sustainability officer Kathleen McLaughlin.

🔗 bit.ly/2Gs30BJ

BUSINESS

Sustainability credentials key to retaining young workers

The majority of young people would stay at a company longer if it demonstrates strong sustainability credentials, a survey of 1,000 millennial and Generation Z workers has found. A massive 86% of the respondents born between the early 80s and mid-00s said they would remain with an employer if it reports on how it is lowering its environmental impact.

Having an eco-friendly building was the most valued corporate social responsibility (CSR) goal, cited by 46%, followed by health and wellbeing programmes, mentioned by 45%. And more than a third of the respondents said that partnering with charities should be a key CSR objective for companies looking to retain the younger generation.

"Our research shows that Generation Z and millennials are a force for change," said Sarah Taylor,

managing director of BRITA UK, which carried out the research. "They believe in living a more sustainable life and their day-to-day decisions will likely reflect this."

"It's now up to businesses to reflect these expectations in the workplace. Get this right, and you will be rewarded with a loyal, talented and productive workforce."



ENERGY

World Bank's fossil fuel spending outstrips renewable energy support

The World Bank Group has spent three times more on fossil fuel projects than it has on support for renewable energy during the past five years, a study has revealed. The findings from German NGO Urgewald show that the World Bank Group spent \$21bn (£16bn) on coal, oil and gas between 2014 and 2018, compared with just \$7bn on renewables.

The researchers did not include \$7bn spent on large-scale hydropower because it is "often associated with significant social and environmental impacts".

This comes after the bank in 2013 promised to stop providing financial aid

for coal-fired plant projects. The study highlights how this is still done indirectly.

For example, the Multilateral Investment Guarantee Agency, a member of the World Bank Group, approved a \$783m for loans in 2016 to finance the transport of electricity from coal plants in South Africa. It was also found that the bank currently holds equity shares in at least 12 oil and gas exploration and production projects worth approximately \$512m, and has supported operations in 10 countries that subsidise fossil fuels since 2014.

"The bank is getting around its no coal power plants pledge, undermining its own efforts for renewable energy sources as well as the Paris climate goals," said report author Heike Mainhardt.

"It is a big disappointment to find that the World Bank Group continues to provide such vast amounts of public finance for fossil fuels."

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EVENT

2019 World Environment Day to focus on air pollution

Around seven million people die prematurely from air pollution each year. The UN's World Environment Day 2019 (WED19) will urge governments, industry, communities and individuals to tackle the issue.

There are two types of air pollution: indoor (household), caused by cooking stoves, heating and lighting, and outdoor (ambient), caused by power generation, transport, industrial furnaces, wildfires, agriculture, etc. The

financial costs of environment-related health risks are around 5%-10% of GDP, with air pollution taking the highest toll.

"Air pollution affects over 91% of the world's population and requires concerted action to raise awareness and reduce harmful emissions," said IEMA director of policy Martin Baxter. "Working together, environment and sustainability professionals can help to make a positive difference."

IEMA is working with leading organisations to raise awareness for WED19 and help empower others to act. In the lead-up to WED19, we'll be sharing information on how to address air pollution. We are looking for members to share experiences through blogs, case studies, webinars and event speaking opportunities. Send an outline of your ideas, experience or knowledge to sj.oates@iema.net



UKELA

Environmental law conference

The UKELA Annual Conference is the UK's leading environmental law conference, attracting a broad range of professionals and students and eminent speakers from across the globe. This year's event will be taking place at Sheffield University from 28 to 30 June, with speakers and plenary sessions covering critical topics such as improving the urban environment, regeneration of industrial heartlands, and the environmental implications of Brexit. There will also be ample time for networking, wellbeing sessions, and a Gala Dinner at the Grade II-listed Cutlers' Hall on the Saturday evening. **➤ To book your place, visit bit.ly/2UUQp27**

POLICY

Resources and Waste Strategy workshops

On 4 and 5 April 2019, IEMA members with expertise and a keen interest in sustainable resource management and the circular economy came together for two afternoon workshops in London and Birmingham. Here, they debated and provided their insight on the Resources and Waste Strategy for England, published in December last year.

The workshops were chaired by IEMA policy and engagement lead Marc Jourdan, and focused on four key areas of the strategy that are subject to consultation: the introduction of a deposit return scheme for disposable beverage containers, extended producer

responsibility for packaging, reforming the regulations for duty of care for waste carriers, and transposition of the Circular Economy Package.

The workshops followed an introductory webinar on the strategy on 2 April. This included an overview presentation by Defra, as well as a summary by Nigel Marsh FIEMA of the eight key IEMA recommendations that the IEMA Fellows Working Group on the Circular

Economy submitted to Defra in May 2018 for inclusion in the strategy.

The workshops sought to discuss the findings of this strategy, assess what was missing, tease out common positions and structure an IEMA response to the public consultations tied to the strategy.

The public consultations on the strategy are open for responses by individual organisations. Visit bit.ly/2LpLSxl for more information on the strategy.

➤ To find out more about IEMA's webinar series on the Resources and Waste Strategy for England, visit www.iema.net/events



MEMBER FEEDBACK

IEMA takes a fresh approach to impact assessment

By Spencer Clubb, IEMA head of policy and practice, and Peter George, IEMA Impact Assessment Network Steering Group Chair

Impact assessment (IA) is a core part of IEMA's role as a professional body. However, as IEMA has expanded to cover a broader sustainability agenda, there was a risk that IA would lose some of its profile. To address this, IEMA and the IA Steering Group have been developing a strategy to ensure we meet the needs of IA practitioners and respond effectively to challenges within the sector.

We wanted to find out what you think are the most important issues for IA professionals. We embarked on roadshow events around the country, held an interactive webinar and sought feedback via an online survey. IEMA members have a huge breadth and depth of knowledge about IA; the feedback's major points were as follows:

- IEMA needs to set out a bold and ambitious vision for IA
- IEMA should deliver this through collaboration with others outside the organisation and be more explicit about what we are seeking to achieve and how we will achieve it
- IEMA should do more IA-related activities and prioritise communication with, and between, members
- IEMA should raise the profile of, and look for improvements to, the EIA QMark scheme.
- IEMA should review whether membership grades and specialist registers could work better for IA professionals.

IEMA and the IA Steering Group have met to discuss feedback and refine the strategy; we will be able to provide a more fulsome report in the next *Transform*. Finally, we would like to draw your attention to the article on cumulative effects assessment in EIA that appears in the online edition of *Transform* – read it at bit.ly/EIA_CallToArms

MEMBER NETWORKS

Climate Change and Energy Network update

Jonathan Foot FIEMA has agreed to be chair of the Climate Change and Energy Network Steering Group for 2019.

A number of activities are planned, including a new briefing paper on climate change adaptation, webinars, events and newsletters. IEMA's Climate Change Position Statement is also being updated. This is IEMA's largest member network, with more than 750 members. To make sure you are registered, contact climate@iema.net



NICK BLYTH

IEMA policy and engagement lead

Feeling frazzled?

The American Psychological Association defines the term 'eco-anxiety' as 'a chronic fear of environmental doom'. In March, a short BBC video titled 'Are you suffering from climate change anxiety?' captured this fear, with individuals describing personal frustration, absence of power and a deep sense of helplessness. What do we really know about the impact of climate on our mental health and wellbeing?

Some IEMA members have been raising similar concerns. Perhaps our professional context may compound the situation. As one member strikingly stated: "For many years now I have suffered from anxiety as a result of working in this sector. I believe environmental and sustainability professionals will need support for their mental health and wellbeing, as the climate crisis and environmental degradation continues to unfold."

Those with climate change anxiety ask questions such as: what if incremental improvements are simply not good enough? What if a tightening economic outlook undermines our business case for low-carbon transformation? How do these dilemmas impact upon a professional; do they leave us over-critical of our own performance? Do some unhealthy governance situations exacerbate our frustrations, and are some professionals feeling isolated? These and related feelings are expressed.

This anxiety for professionals is something that IEMA and our member-led networks will need to understand more fully. Ideas and opportunities for support have been suggested by members, including the concept of the Frazzled Cafe. This registered charity seeks to provide a safe, anonymous and non-judgmental environment, where people who are feeling 'frazzled' can meet on a regular basis to talk and share their personal stories. It is already operating in many UK communities. Training and wider support has also been suggested.

IEMA is collaborating with the British Psychological Society, and in June we are holding a joint conference on the theme of communicating climate change. Collaboration with members and between professions feels like a good start, and we need to better understand and help professionals who are suffering from climate change anxiety. If you have been affected by climate change anxiety, or have implemented a strategy to try and combat it in the workplace, we would love to hear from you – email us at t.farmer@iema.net

NEW REGULATIONS

THE LATEST

■ LEGISLATION ■ GUIDANCE

**21 FEBRUARY 2019**

Waste

The Household Waste Duty of Care (Fixed Penalties) (Wales) Regulations 2019 provide waste authorities in Wales with the power to issue a fixed penalty notice instead of a conviction for an offence of failing to comply with the new household waste duty of care.

➤ cedr.ec/5xb

**22 MARCH 2019**

Air emissions

The Alternative Fuel Labelling and Greenhouse Gas Emissions (Miscellaneous Amendments) Regulations 2019 standardise the labelling and information of types of motor vehicle fuel. They set requirements for fuel retailers, vehicle manufacturers and vehicle dealers.

➤ cedr.ec/5xc

**12 JUNE 2019**

RoHS

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (Amendment) Regulations 2019 correct some unintended consequences of widening the definition of electrical and electronic equipment products. They also stop the restriction on selling second-hand products and repairing with spare parts.

➤ cedr.ec/5xd

**PENDING**

Waste and water pollution

The EU has voted on a Proposal to ban single-use plastics by 2021. The ban will see the end of plastics such as straws, knives, forks, earbuds and plates, as well as drinks containers made of expanded polystyrene and all products made of oxo-degradable plastic.

➤ cedr.ec/5x0

**1 MARCH 2019**

Pollution prevention

New Guidance for Pollution Prevention aims to provide an overview of the environmental legislation that may apply to small microbreweries and microdistilleries, particularly where they may not have dedicated staff specialising in environmental legislation.

➤ cedr.ec/5x9

**26 MARCH 2019**

Biodiversity

The Environment Agency has produced a Regulatory Position Statement, which, if you follow its conditions, allows you to dispose of, treat or bury invasive non-native plant material (such as Japanese knotweed) without an environmental permit.

➤ cedr.ec/5xa

**1 APRIL 2019**

Regulatory charges

The Environment Agency has issued revised guidance on charges to cover the costs of regulating your activity. This covers things like waste, abstraction licences, environmental permitting and emissions trading.

➤ cedr.ec/5xe

**1 APRIL 2019**

Environmental permitting

In order to help businesses cope with the disruption of an EU Exit, the Environment Agency has set up a page which will host Regulatory Position Statements relating to environmental permitting and licensing, where they will not take action if you can't comply because of EU Exit.

➤ cedr.ec/5x1



▶ Thousands of gallons of raw sewage were discharged into the Longmoor Valley

INCOURT

POLLUTION

£500,000 penalty for sewage discharge at Sutton Park

Severn Trent Water Limited has been sentenced for discharging thousands of gallons of raw sewage from its sewer network onto land at Sutton Park, West Midlands. It has been fined £500,000 and ordered to pay prosecution costs of £50,693 and a victim surcharge of £120 over a blockage in its system.

In November 2013 the Sutton Park Visitor Centre received a report of a sewage smell and that a sewer was discharging into the Longmoor Valley. Natural England officers mapped the damage, finding that the sewage had spread across an area of 1.15 hectares. It had also entered a ditch and travelled 700 metres into the Longmoor Brook.

Severn Trent Water Ltd liaised with Natural England, the Environment Agency, Birmingham City Council and Historic England to produce a plan to remediate the site. Around 0.65 hectares of rare and sensitive plants were destroyed. Representatives from Natural England expressed concern with the progress and efficiency of the clean-up operation, which concluded in May 2014.

The judge recognised that Sutton Park is an environmentally sensitive area and a Site of Special Scientific Interest. It was noted that the clean-up operation had been slow and poorly managed, but that the company had ultimately taken all necessary steps to remediate the site and made a commitment to restoring the affected area.

In mitigation, the court noted the company's overall environmental record, that it had accepted responsibility, and that it was not a commercially motivated offence. The Environment Agency recognised Severn Trent Water's improved environmental compliance since the incident, and that it was an industry-leading company in the Environment Performance Assessment in 2017.

Emma Johnson, Natural England's area manager for the West Midlands, noted that the incident "is among the worst damage to a SSSI that Natural England has witnessed". She noted that Natural England has worked closely with the Environment Agency and Severn Trent to rectify the issues and hopes to do so in the future.



OTHER NEWS

Essex beavers to aid flood prevention

The Eurasian beaver has been reintroduced into Essex after an absence of 400 years. A mixed pair has been released into an enclosure on a historic country estate, consisting of four hectares of woodland on the Spains Hall estate in Finchingfield, near Braintree. The aim is to help reduce the risk of flooding in the village by building dams along the brook flowing through the enclosure.

Sourced from an established fenced colony in Devon, the beavers are expected to get to work quickly, but the results of their labour may take a few months to be felt downstream.

Alongside the beavers will be a man-made natural flood management scheme on a second strand of Finchingfield Brook, which features a 'leaky dam' approach. This involves securing tree branches or trunks across a watercourse, which helps slow the flow after heavy rain. The scheme should also create wetland that will release water in drier periods.

Eventually, using data collected by Environment Agency equipment and sensors stationed along the watercourses, leaky dams and the beaver enclosure, scientists will be able to establish if this approach is more successful than more conventional flood prevention methods.

Enabled by funding from the Anglian Eastern Regional Flood and Coastal Committee, the project is being led by Archie Ruggles-Brise, whose family has lived on the estate for 250 years. It has also been supported by the Environment Agency, Essex Wildlife Trust and Essex and Suffolk Rivers Trust and local councillors.



CASE LAW

Government fracking advice found 'unlawful'

The revision of the National Planning Policy Framework (NPPF) to add a paragraph relating to shale fracking has been confirmed as unlawful. The claimant, a supporter of Talk Fracking, challenged the adoption in July 2018 by the defendant Secretary of State for Housing and Communities.

The Department for Energy and Climate Change's 2013 shale gas report supported the view that its use would be consistent with government targets for climate change and greenhouse gas emissions under the Climate Change Act 2008. In 2017, Talk Fracking published a report criticising the science underpinning this conclusion. In 2018, the defendant

published consultation proposals in relation to NPPF changes. Talk Fracking responded with a consultation providing evidence that fracking's climate impact had been underestimated. The final version of NPPF, in favour of fracking, was published in July 2018.

The claimant argued the defendant had failed to carry out a lawful consultation exercise because the policy had already been formulated in the written ministerial statement. Also, that the defendant had failed to take into account scientific evidence, or to give effect to the government's obligation to reduce emissions. The defendant stated that all that was

done was the copying across from the written ministerial statement into the NPPF, and there was never an intention to revisit the policy's validity.

The judge was "unable to accept that a reasonable reader... would have been clear" that the consultation was not asking for submissions regarding the paragraph. It was confirmed that the exercise breached common law requirements, and that the defendant had left out relevant material considerations. However, it was held that the challenge regarding the defendant's failure to give effect to the Climate Change Act was unarguable, as nothing in the revisions had altered the government's duty to satisfy it.

Dame Claire Bertschinger speaks to Chris Seekings about the reality of aid work in war zones, the role of charity, and how individuals can change the world

"Having to choose who to feed broke my heart. It was a harrowing experience, and the post-traumatic stress is something I have to live with every day."

As a nurse working with limited resources in famine-ravaged Ethiopia, Dame Claire Bertschinger was left with an incomprehensible decision that could ultimately determine the survival of numerous starving children. But through the pain and suffering, her work has helped change the face of charitable giving, saving millions of lives by inspiring a new global response to poverty across the world.

While she may not be a household name, few can justly claim to have had such a wide-reaching impact.

Playing God

When a BBC film crew descended on Mekele, Ethiopia, in the 1980s, Bertschinger was running a feeding centre in a country besieged by conflict and drought. Working for the International Committee of the

Nursing on the FRONTLINE

✓ Bertschinger with
Bob Geldof in 2005

Red Cross, she could only accept up to 70 impoverished children at a time when there were thousands in need of food. "I had babies vomiting and screaming next to me, and a journalist kept asking stupid questions about how I felt having to choose who could come in for food," she says. "I just wanted to get rid of them as fast as possible."



The journalist in question was Michaela Buerk, who had managed to enter the country at a time when it was notoriously difficult for anyone to gain access without special papers and permission. "But I felt like he was telling me to stand here and there, positioning me with all the worst children, saying things like 'take this one, it's really on death's door'. I thought he was a prat." Little did she know that Buerk's news report would change her life and those of countless others forever.

When beamed into UK homes, there was one viewer for whom the image of Bertschinger surrounded by starving children would have a profound impact. Singer Bob Geldof was so moved by the report that he helped assemble a supergroup of musicians that would go on to pull off the biggest relief programme ever mounted. "In her was vested the power of life and death," Geldof said at the time. "She had become godlike, and that is unbearable for anyone."

Band Aid

A few weeks had passed since Bertschinger's BBC encounter when she was listening to a shortwave radio. Then, through the crackling and popping, came a song that would go on to become an anthem for humanitarian aid. "I heard the lyrics 'feed the world' and 'don't they know it's Christmas' from this thing called Band Aid set up by Bob Geldof, who was supposedly raising money for Ethiopia. I thought we are going to need more than a bloody band aid for a start! And, no, they don't know it's Christmas because they

"The role of charities can make a huge difference, but it about capacity building and helping people to help themselves"

have a completely different calendar, so it is not Christmas here."

Various spin-offs were forthcoming, such as USA for Africa and Live Aid, with the latter raising more than £150m and saving an estimated two million lives. "And then the Hercules planes started arriving with all this food – it was wonderful," Bertschinger says gleefully.

This was the point that she learned the value the media can play in highlighting the plight of others. "It was the start of people really thinking globally. Journalism, photography and films change the world now – and of course it all started off with that journalist asking me that stupid question. I have been back with him since."

Happy returns

Ethiopia has changed drastically in the 35 years following her fateful meeting with Buerk, Bertschinger says. "There are new roads, hospitals, schools, universities, it is absolutely amazing," she says. "The role of charities can make a huge difference, but it about capacity building and helping people to help themselves."

She explains how, in the 1980s, nurses were always worried about the under-fives, because even a short period of malnourishment at this point in life can



Working in Ethiopia in 1984

lead to permanent brain damage. "But I have gone back and met some of 'my babies' as I call them, and they have gone to university and got degrees, setting up their own businesses – it is fantastic."

For Bertschinger, education is key for Africa and lower-income countries. "There is such a lack of doctors, nurses and teachers, but these individuals are raring to go – they love education and want to help themselves."

This is where some charities have fallen down, failing to solve the underlying structural issues that allow many countries to deteriorate. "With foreign aid, using architects and building materials from Europe and the US does not empower local economies," she says. "You need to empower local indigenous professionals and support people – everything I try to do is about empowerment."

White saviours

The 'white saviour' concept is something that has been hotly debated in the UK recently, after MP David Lammy criticised television journalist Stacey Dooley for perpetuating "tired and unhelpful stereotypes" about Africa in a documentary for Comic Relief. Lammy argued that celebrities



Interview

✓ Bertschinger reunited with Ethiopian famine survivor Birhan Woldu



should not be portrayed as heroes going out to rescue helpless Africans, saying “the world does not need any more white saviours.”

Bertschinger agreed with Lammy, tweeting: “Mekele in Ethiopia now, is a thriving, bustling city, capable of running itself! A difference between supporting others to help themselves & the colonial saviour syndrome.” Bertschinger also notes that the images of her working with children in the 1980s were not staged – they were taken as she attempted to feed and care for up to 600 children. And as a patron for the African Children's Educational Trust (A-CET), she explains that all the images the organisation promotes intend to empower.

“We will not put pictures of skinny, impoverished kids on our website; instead we will put happy kids with a book in their hands having fun, and the A-CET asks for money to build schools,” she says. “It is difficult to look at adverts that are playing on the poor, even with cancer appeals, and all you see is people with no hair – it doesn't have to be that way.”

Global challenges

It is not just Ethiopia where Bertschinger has witnessed the stark realities of poverty; her aid work has taken her to Afghanistan, Kenya, Lebanon, Sudan, Sierra Leone, Ivory Coast and Liberia. “There are no winners in war, and a lot more attention should be put on soft power, focusing on how we have to transcend our differences by making humanity our highest priority in life,” she explains. “When you hurt somebody, it is not just that one person – it can affect a whole family or village, and you are only



“I am a global citizen, and I know that small changes are helping people thousands of miles away”

creating more hatred and pain.”

She tells me that transient populations caused by war are among the biggest structural problems facing the countries she has been to. Other immediate threats include antibiotic resistant infections, lack of medical personnel, and nuclear war – she has just come back from Hiroshima, where up to 80,000 civilians were killed when the US dropped an atomic bomb on the city in 1945.

“Our greatest threat is conflict, and more civilians being hurt. For me nuclear disarmament is a big thing, because the bombs today are at least 200 times more powerful than the Hiroshima ones, and I think soft power is key.”

Making a difference

With numerous awards to her name, Bertschinger's achievements are even more impressive when you consider the fact that she is dyslexic and could barely read or write until the age of 14 – she actually believed she must have read the letter wrong when she received her damehood in 2010. However, she is a perfect example of how one person can have a huge impact, even by making small changes. “I recycle paper, tinfoil and bottles, I buy lead-free petrol, I recycle

clothes and buy secondhand clothes because it is about being ecological, and that is about helping the planet,” she says. “I am a global citizen, and I know that small changes are helping people thousands of miles away – you don't have to give money, there are other ways of doing it.”

She is also a patron for the Chocolate Run charity in the UK, which gives food that's past its sell-by date, but has not gone bad, to homeless people. “Don't ever invite me to your house and try to throw away an out-of-date yoghurt because I will take it home with me! These things can make a big difference.”

Today she is director for the Professional Diploma in Tropical Nursing at the London School of Hygiene & Tropical Medicine, giving first-hand experience of and preparation for the traumas that aspiring nurses may encounter abroad. “I always tell them the importance of understanding the cultures behind the countries they visit – find out why people do what they do before telling them how to change.” As a Buddhist, though, there are deeper philosophical considerations that dictate her outlook on life. Her favourite quote? “Be the change you want to see in the world.” 🌱



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The news coverage of marine wildlife living among plastic bags and bottles has pulled at the world's heartstrings. With media campaigns against plastic pollution gaining impetus, and the general public inundated with a regular flow of distressing headlines, it is hardly surprising that plastic is being perceived as wholly to blame for the planet's environmental crisis.

It is easy to understand why plastic is seen as the villain: of the 6.3bn metric tonnes of the material that has been created since 1950, 80% has found its way into our landfills or oceans. It is little wonder that calls to ban it have gained traction.

A nuanced approach

Despite the numerous advantages of single-use plastic, including its energy and resource efficiency, there is no disputing its negative effects. However, we need to maintain caution. While much pollution is caused by single-use plastic, combined with our 'use and throw' mentality, not all plastic is single-use in the short term. This is an important nuance that is often lost in the debate. Plastic is more than just shopping bags and straws; it has a range of uses that are integral to our everyday lives. From thermal undergarments to reusable plastic containers, trainers and mattresses to cars and industrial components, these wide-ranging applications offer significant positives. A blanket ban on plastic would be unfeasible.

Not only does plastic have a wide range of applications, but its properties also make it ideal for a number of uses. As plastic is often cheaper and better suited to certain purposes than other materials, we must not classify it as unequivocally 'bad'. The issue is bad use.

Helping to curb the improper use of plastics is a responsibility all must take, and a change in mindset is already well under way. Consumers are becoming more waste-conscious, turning to reusable coffee cups and water bottles in an effort to reduce throwaway culture. Multinational companies from Lucozade to Lakeland are committing to ensure their plastics are recyclable or compostable, and to incorporate increasing proportions of recycled plastic. The European Commission has proposed a tax on non-recyclable plastic packaging in an effort to curb irresponsible usage.

The plastics industry itself is also endeavouring to produce plastics using more environmentally friendly methods – whether this in the sustainability of raw materials used, the efficiency of manufacture, or in their ability to be more easily recycled.

Modern staple

One plastic that features more in our everyday lives than we may expect is polyurethane (PU). The third most widely used plastic in the world, PU accounts for almost 10% of all plastics produced. It is found in the rigid foams that insulate our homes (reducing heat loss by almost 60% when compared to other insulative materials) and the flexible foams in memory mattresses. PU is also in the coatings that protect our clothing, the adhesives that prevent our shoes from falling apart, and the elastomers that make up the wheels of rollercoasters. Simply put, PU's stability, durability and variety of applications have made it a staple of the modern world. It can't easily be replaced.

Producing PU is an energy and petrochemical-intensive process, and many would be minded to replace it with biodegradable

Plastic has a bad rep, but it is virtually irreplaceable for some applications, says **Dr Anthea Blackburn** – we just need to produce it in a more sustainable way



A world without plastic?

➤ Polyurethane has a number of important uses, such as in home insulation and foam mattresses



or natural alternatives. While cork and mineral wools may be less carbon-intensive alternatives to PU insulations, more than twice the amount of material is required to prevent the same amount of heat loss as PU foams, so the performance value of these long-life materials should be considered. We also mustn't forget to consider the environmental and societal effects of these materials, including import costs, agricultural demand, and waste profile of such materials.

The production of PU has historically relied upon petrochemical-based feedstocks that make up the polyols inherent in the chemical structure of PU. These polymers are often prepared from epoxides, which are industrially produced using the processes of oxidation or hydrochlorination of an alkene collected as a by-product of oil refinement. This has an enormous carbon footprint; replacing the epoxide feedstock could be an effective approach to greener polyol production.

Finding an alternative

Increasing numbers of polyols are industrially developed from plant oils or compounds, such as castor, cashew, peanut or soy oils, with castor oil being one of the few natural products that does not require chemical modification. While bio-based polyols offer advantages over their wholly petrochemical-based counterparts in terms of the renewable nature of the feedstock, these polyols also put a strain on agricultural resources. Furthermore, natural oil-based polyols require additional processing to remove odour, and often have to be blended with traditional petrochemical-based polyols to achieve comparable properties.

The solution then, lies in finding an alternative feedstock. What if the solution is literally all around us? Carbon dioxide, the molecule seen as most responsible for global warming, offers PU manufacturers an opportunity. The abundance of atmospheric CO₂ means that adopting it as a raw material could only be a win-win: with a number of industries and nations taking steps to reduce their carbon footprint, the plastics industry can now follow suit.

“Not only does plastic have a wide range of applications, but its properties also make it ideal for a number of uses”

When producing polyols this way, for every tonne of epoxide replaced by CO₂, a further two tonnes of CO₂ could now be avoided. A 50% adoption in the PU market alone could mean close to 10m tonnes of CO₂ reduction annually, equivalent to taking more than four million cars off the road. Polyols utilising CO₂, known as polyethercarbonates, are increasingly becoming the focus of a number of companies that are endeavouring to reduce their impact upon the planet.

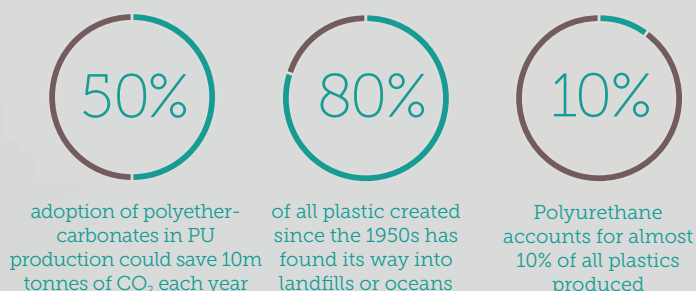
Step in the right direction

There is now catalyst technology that takes this approach one step further, allowing for the bespoke incorporation of CO₂ into polyols at industrially relevant temperatures and pressures. This lets polyol producers tailor their products for the needs of their downstream PU users. Incorporating CO₂ also offers significant product advantages: the subsequent PU rigid foams have improved flame retardance properties, while coatings, adhesives, sealants and elastomers show increases in their chemical, oil and hydrolytic resistances. Economically, waste CO₂ is currently, and is expected to remain, considerably cheaper than its petrochemical-based alternatives. These irrefutable advantages are achievable in all aspects of the production of these sustainable polyols – benefits that are in turn passed through to businesses in the PU industry, as well as their consumers.

The increasing momentum behind the environmental movement is a step in the right direction, and there is no doubt that the plastics crisis must be addressed. But our concerns over plastic pollution should not cloud our judgment and cause us to label all plastics as 'bad'. With so many materials used widely in a variety of applications, a total ban is unworkable. Instead, we ought to keep in mind the environmental and economic benefits that plastics offer and seek more innovative ways to make plastics more sustainably – and use them more responsibly. One solution could lie within the molecular chains that make up plastics themselves. 🌱

CLEANER PRODUCTION

An alternative to petrochemical-based plastic feedstocks



DR ANTHEA BLACKBURN is senior scientist – catalyst development at Eonic Technologies

With their vast concrete structures rising through a haze of toxic smoke, artificial noise and beaming fluorescent lights, many of the world's cities have become totally disconnected from nature. Some inhabitants will know nothing else, entirely oblivious to the fact that their homes were once teeming with an abundance of plant and animal life. However, this could be about to change, with a transformative approach to biodiversity conservation promising to restore concrete jungles back to their former glory.

Although controversial, the practice of 'rewilding' is beginning to gain momentum, and could bring with it numerous environmental, health and social benefits.

Nurturing nature

The idea involves restoring an area of land back to its natural state by reintroducing wildlife that has been driven out by humans. This might include providing a habitat for native animal, plant or insect species to return to, or removing unwanted constructs that are preventing life from flourishing. "Momentum is building to encourage and protect species in cities, and to think of urban environments as valued forms of habitat," Dr Cecily Maller tells me. "The London National Park movement is one current example."

This initiative was announced last year by mayor Sadiq Khan, and aims to make more than half of London green by incorporating green roofs and walls, plants, grass, trees and rain gardens into new developments. "In the past, cities have been considered impoverished forms of nature compared to places such as national parks, but this is changing," Maller says. This shift is expected to impact a large number of people, with the UN predicting that close to two-thirds of the world's population will live in cities by 2050.

'Wildlife gardening' is another example of rewilding; it involves removing cosmopolitan weeds that choke native plants, installing water features, retaining trees, adding nest hollows for animal life and planting native species. This can create 'safe spots' for wildlife to thrive across landscapes. In Brisbane, Australia, brush turkeys have returned to the city since the early 1970s thanks to local households planting subtropical rainforest plants in their gardens.

"Research has shown that cities provide important habitats for a wide range of species, including those that might be endangered or under threat," Maller explains. "We undervalue the richness of nature in urban areas by positioning nature and humanity as inherently separate."

Surprising benefits

When most people consider the health benefits associated with plant life, it is likely they think about reduced pollution and

Into the wild

Rewilding efforts could transform biodiversity conservation across the world. Chris Seekings talks to **Cecily Maller, Laura Mumaw** and **Benjamin Cooke**, scientists at Australia's RMIT University, to find out more

"Cities provide important habitats for a wide range of species"

cleaner air. But Maller explains that there are a numerous other mental and physical advantages. "Cognitive and psychological benefits include stress reduction and increased capacity for attention to detailed tasks," she says. "Physical health benefits include improved immune function and increased physical activity." There are also the obvious advantages associated with improved air quality, such as reduced cardiovascular disease, along with others that are less obvious. A recent study found that young people living in high levels of air pollution are 70% more likely to have psychotic experiences. Further research has uncovered a link between improved pregnancy outcomes and increased contact with nature.

As for social benefits, it is thought that rewilding could address the 'nature deficit disorder' and 'ecological boredom' that author Richard Louv believes characterises much of modern life. A person's emotional health and life satisfaction could also be improved, according to Dr Benjamin Cooke. "We know that our sense of belonging to a place and a general sense of wellbeing can be enhanced, with different benefits depending on how active or passive our rewilding activities might be," he says. "Efforts that are collaborative can provide opportunities for engaging with neighbours, and can increase a sense of local community."

Cooke also explains how rewilding could help settler-colonial nations such as Canada and Australia bring about closer ties between indigenous people and the newer population. "A carefully considered engagement might offer cultural benefits, creating opportunities for First Nations to care for and control their traditional lands, contributing to social inclusion and community capacity building. Rewilding that promotes conservation without people in the landscape has been rightly criticised for ignoring the role of indigenous peoples in shaping and caring for those landscapes for thousands of years."

Courting controversy

Some criticise rewilding for ignoring the negative impacts that could arise from bringing people into contact with non-human species – from minor inconveniences, such as leaves clogging drains, bird droppings on washing, or bites and stings, to more serious dangers posed by snakes or pollen allergies.

"It is important to be aware of any increased risk and consider that in how we plan and design rewilding activities," Cooke says. "These potential impacts are part of adjusting how we see cities, as places for animals and plants, and not just for humans." He says that

many of these challenges may be overcome through acceptance, or small behavioural changes, such as hanging washing out in different locations.

There are also fears that conservationists may damage the plant and animal life that already exists in an area. "Cities are already full of unstructured spaces that may be home

to 'wildness', so we must also be attentive to existing wildness, and not just the idea of creating or recreating it," Cooke says. "Rewilding cannot be about the return to a past ecological benchmark that ignores the many and variable environmental change factors like climate change that make such aspirations problematic."

Partners in planning

While government agencies can help identify potential priorities for rewilding efforts through mapping tree canopy or finding areas vulnerable to heat, Dr Laura Mumaw says that local people must play a central role in deciding what form this takes.

Asking residents for their opinions and providing them with hands-on opportunities to help ensure their landscapes are not diminished are examples of including local communities in the process. "Harnessing the active or latent relationships people have with nature can expand the breadth of support for, and active contributions to, rewilding initiatives," Mumaw says.

She argues that these efforts must target areas that have traditionally been neglected or under-represented, in full knowledge that rewilding could instigate gentrification in the neighbourhoods they seek to improve. "Rewilding needs to consider the relationships that individuals and communities have with the nature of their place – be they emotional, physical, spiritual or cultural – and how these help create the fabric of a community and contribute to its wellbeing," she explains. "Even trees have important meanings for people, from viewing them from a hospital bed to playing under them, or seeking their shade – people may not even know how much they value the nature around them until it is taken away." 🌿

CECILY MALLER, LAURA MUMAW and BENJAMIN COOKE are contributors to a new book, *Rewilding* (Cambridge University Press), which brings together experts from around the world to discuss how rewilding can foster human coexistence with wildlife

A breath of fresh air

Tim Smedley talks to Kathryn Manning about the harmful impact air pollution has on our health and environment, and the action we can take

When did you become interested in air pollution as a health issue? It was 2015, I had just become a dad, and a headline in the *Evening Standard* grabbed my attention: "Oxford Street has worst diesel pollution on Earth". I was suddenly confronted with a jarring reality: London is a wealthy capital city known for its tree-lined streets and plentiful parks, and yet it has some of the worst diesel pollution in the world. I discovered that air pollution killed tens of thousands of people in the UK, and millions across the world, every year. Despite being a sustainability journalist, I felt blindsided by this issue. What is air pollution? Why is it bad for our health? And – most importantly – what can we do about it? My journey for the answers took me further afield than London, incorporating Delhi, Beijing, Paris, Helsinki...and Milton Keynes. While shocked by the impact extreme air pollution has on health and societies, I also found an optimistic vision for how cities can start clearing the air.

What are the most common delusions about air pollution? The two big ones are: "I can't see it, so it can't be that bad", and "this is just a big city problem". Modern pollution gases and particles are often invisible. Whereas London in the 1950s was swathed in thick black coal smoke, today's road vehicles churn out smogs of much smaller particles. When we breathe in PM2.5 (pollution particles 2.5 micrometres or less) and nitrogen dioxide (NO₂), the health effects are felt at every stage of life – from reduced birth weights and reduced lung growth in children, to cancers in adults and dementia in the elderly. The smallest particles (nanoparticles) can pass through the lungs and into our bloodstream, where they can raise blood pressure and cause blockages, leading to strokes and heart attacks.

"We should think about air pollution more in terms of exposure, and less in terms of percentages"

This isn't exclusive to large cities. Small port cities such as Southampton often find themselves with pollution levels exceeding those of central London due to the fuel burned by the shipping industry. The French Alpine resort of Chamonix – once famed for its fresh mountain air – is now often enveloped in smog from the line of lorries at the Mont Blanc Tunnel.

How localised is this pollution, and how far can it travel? A good question. We should think about air pollution more in terms of exposure, and less in terms of percentages. In London, the background percentage of PM2.5 can be up to 75% 'transboundary' – meaning it has blown in from the surrounding area, or from the Continent. However, peaks of pollution are always local to the source – and the source is transport fumes on the roads where we live, work and breathe. If you look at a 'heatmap' of pollution of any city, the roads glow red like veins (see *Figure 1*). Nanoparticles and NO₂ only exist within metres of their source. Nanoparticles are too small to register on mass-based PM2.5 averages. And it is the number that we breathe in, not the mass, that we should be most concerned about.

Where is the world's worst air pollution? In the WHO air quality database, all of the top 15 most polluted cities, and 25 of the top 27, are in India or China. Varanasi, India, currently tops the chart at 217 micrograms of PM2.5 per cubic metre (µg/m³), compared to London's 15µg/m³.

The worst I experienced was Delhi (currently number 11 in the WHO chart, and the world's most polluted capital city, with an average 143µg/m³). In the cab from the airport, my portable pollution monitor registered PM2.5 above 300µg/m³: levels I had never experienced before. When I arrived at my B&B, my host

exclaimed: "What a great day to have arrived – the smog has gone!". She told me the levels the week before were up at $1,000\mu\text{g}/\text{m}^3$, and street dogs were dying in the roads. November 2017 is now known as the 'Great Smog of Delhi', and PM levels peaked at $1,486\mu\text{g}/\text{m}^3$ – among the highest ever recorded anywhere, let alone a city of more than 20 million people.

Is there a 'safe' level of pollution that our bodies are equipped to deal with? The short answer is: no. The longer answer is that the WHO has health-based 'guideline values' or safe limits. For PM_{2.5}, it recommends an annual mean limit of $10\mu\text{g}/\text{m}^3$, and a 24-hour mean of $25\mu\text{g}/\text{m}^3$. For NO₂ it's $40\mu\text{g}/\text{m}^3$ (annual mean), sulphur dioxide $20\mu\text{g}/\text{m}^3$ (24-hour mean), and ozone $100\mu\text{g}/\text{m}^3$ (eight-hour mean). Countries also set their own 'safe' levels. The EU has legal limit values for NO₂ of $40\mu\text{g}/\text{m}^3$ (annual mean) and an hourly mean of $200\mu\text{g}/\text{m}^3$ that cannot be exceeded more than 18 times in a year (London breached its annual air pollution limits just five days into 2017).

However, in terms of health, there is currently no known 'safe level' for most of these pollutants. The WHO's $10\mu\text{g}/\text{m}^3$ for PM_{2.5} still wouldn't be good for us – just as one cigarette a week is better than a packet, but we still need to quit. That said, an annual mean of zero would be impossible – there will always be dust and dirt in the air, and this registers as PM_{2.5}. The current toxicological evidence suggests that our bodies can deal with such natural particles – it's the ones from combustion, especially from carbon-rich petroleum and solid fuels, that damage our health the most.

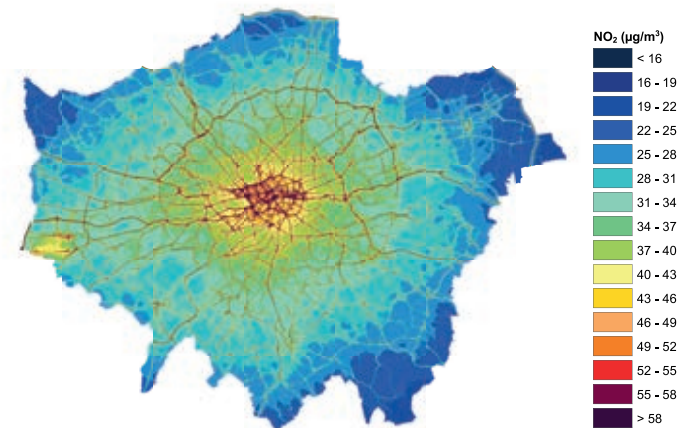
Are we measuring pollution correctly? Another important question. I believe the focus is currently too much on average PM_{2.5} levels by mass, and too little on exposure and nanoparticles. Average PM_{2.5} figures offer a useful litmus test for a city, but a focus shift towards exposure to nanoparticles would concentrate policy on hyper-local actions, such as closing the roads outside schools to cars during drop-off and pick-up times. It would also shift local authorities away from measuring pollution with a handful of fixed, blunt-instrument air pollution sensors such as diffusion tubes, which can only measure average NO₂ levels and give us no data for peak pollution times or episodes.

What are the links between climate change and air pollution? This is the best bit. While the focus on air pollution is more on PM_{2.5} and NO₂ than CO₂ and methane, action taken to reduce one almost always reduces the other. We need to rapidly replace urban transport modes that burn fossil fuels with electric vehicles, walking and cycling. In so doing, we can halt the release of CO₂ trapped within petrol and diesel. Particles from coal and gas are also bad news, so we need to shift our heating and electricity generation to renewable sources.

A shocking statistic I came across is that a third of all shipping is simply transporting barrels of oil around the world. If we stopped using oil, a third of shipping (and shipping emissions, which are among the worst) would disappear. Tackling air

London nitrogen dioxide concentrations

Figure 1: Annual mean NO₂ concentrations 2013



pollution and climate change, therefore, run hand-in-hand. However, unlike climate change, urban air pollution is local and short-lived, and can be stopped at the source.

What are some of the best ideas to counter pollution in cities around the world? The great thing about reducing air pollution is that we know how to do it: electrification of transport and heating, and making walking and cycling the easy option. When I visited Helsinki, a new transport bridge connecting the centre to an island suburb had been designated for public transport, bicycles and pedestrians only, making the right choice the easy choice. London is trying to achieve the same with cycle superhighways and the Ultra Low Emissions Zone (ULEZ), and Madrid has plans to go one further with a Zero Emissions Zone by 2020. China is electrifying public transport: every one of Shenzhen's 16,000 buses is now electric. Other cities, such as Singapore, are adding to their urban greenery: planting vegetation in cities can reduce street-level concentrations of NO₂ by 40% and PM by 60%. California's cap-and-trade scheme earns \$900m a year by charging the worst industrial emitters, and spends this money on clean air schemes, including trees, electric car grants and high-speed rail, ring-fenced for the areas that are most exposed to air pollution. There are numerous policies that I spell out in more detail in my book, but it all comes down to removing combustion from our streets. 🌱



TIM SMEDLEY is a sustainability journalist and author of *Clearing The Air: the Beginning and the End of Air Pollution*, published by Bloomsbury



With multinational chemical company Ineos taking over the sponsorship of Team Sky, **David Burrows** asks if there could be a conflict of values here – and whether the company is taking its environmental responsibilities more seriously

PHOTOGRAPHY: GETTY/IFDRA

Ineos has taken over sponsorship of the Team Sky cycling team, and it hasn't gone down well in some quarters. On Twitter, the "extreme mismatch" was quickly exposed: "A low-carbon, energy-efficient method of transport in #cycling & proponent of #fracking, #plasticpollution and #climateinaction in @Ineos," noted ex-Green Party leader Natalie Bennett.

Under Sky's ownership, the team and its famous faces, including Chris Froome and Geraint Thomas, fronted the media company's 2018 Ocean Rescue campaign, an ocean health and pollution initiative that the Marine Conservation Society called "genuinely ground-breaking".

The likes of Thomas wore cycling shirts with a whale logo and the hashtag #passonplastic during last year's Tour de France, while celebrities encouraged the public to cut down on disposable packaging. Some 33.5 million people have so far interacted with the campaign.

Ineos, on the other hand, is a global manufacturer of petrochemicals, speciality chemicals and oil products, with sales of \$60bn: the largest private UK firm you've never heard of. Its products include solvents, chlorine, insulation and "modern plastics to package, protect and preserve food and drink". It wants to undertake fracking in the UK so it can produce more plastic, more cheaply.

Friends of the Earth (FoE) chief executive Craig Bennett called the whole thing "deeply depressing", while others predicted a backlash from cycling fans. This month, Team Ineos lines up for its first official outing at the Tour of Yorkshire – where Ineos is hoping to run fracking wells. As one campaigner put it, the timing is "a spectacular misjudgment". Or is it?

BACK pedalling





🗑 Microplastics washed up on a beach in Queensferry, near Edinburgh

"Ineos is the largest private firm you've never heard of"

With fracking and plastic pollution in the media spotlight, is this the perfect moment for Ineos to step out of the shadows and into the saddle?

Charm offensive

So far, very little detail has emerged about Ineos' plans. The company's owner, Sir Jim Ratcliffe, is Britain's richest man, an outspoken Brexiteer and a critic of Europe's "foolish" green taxes and "expensive" energy and labour laws, but coverage is often limited to the business pages. "You may not have heard of Jim Ratcliffe, but he's in your life from the moment you wake up until you go to sleep," wrote the *Sunday Times* in 2017. "He is responsible for the plastic cap on your toothpaste tube and the chlorine that cleans the water you use to brush your teeth."

It's a fair bet that, today, a few more people know who he is: the man who bought Team Sky. Indeed, this kind of deal

CLEANING UP

Is there a conflict of values?



Number of tanker-loads of microplastic particles ('nurdles') that could leak into the environment



352

'Nurdle Hunts' ran worldwide in 2019

40

In the past 24 months, Ineos has been one of the 40 most criticised corporates on plastics



£110m

Ineos' funding towards Ben Ainslie's America's Cup team

represents an opportunity to talk to the public about the company, what it stands for and what it does. "If you don't, people make their own assumptions," suggests one sponsorship expert who has worked with Team Sky in the past.

Read some of the articles in the Ineos staff magazine and you'll find a charm offensive under way. "The public often think we don't care about plastic pollution, but we care massively," Ineos' director of corporate affairs Tom Crotty said in a recent issue. "Plastic waste in the ocean is totally unacceptable. But plastic is not evil. Plastic waste is evil. And that needs to be said. Maybe it is now time to fight fire with fire. We have got to get out there and tell people what we are doing."

A search of the Ineos website offers plenty of narrative on sustainability, but very little detail or data. Having been sent a series of straightforward questions, a spokesman declined to comment.

Ineos has, however, signed up to Operation Clean Sweep, a voluntary initiative within the plastics sector that aims to reduce the loss of pellets, flakes and powders from industrial plants. The tiny pellets – each the size of a lentil, and also known as 'nurdles' – are a huge microplastic pollution problem. The consultancy Eunomia estimates



that 53bn of them could leak into the environment every year in the UK, while in the 352 "Nurdle Hunts" run worldwide by the Scottish environmental charity Fidra in February, pellets were found on beaches from Galloway to the Galapagos. Grangemouth, where Ineos has a major site, remains a hotspot. Ineos says it has been trying to tackle the problem "for years". On its website, Jason Leadbitter, sustainability and corporate social responsibility manager at Ineos' PVC arm Inovyn, shares a tale from a decade ago when, sitting on a beach in Sardinia, his daughter fished plastic pellets from the sand and asked what they were. "I was rather embarrassed to tell her that her daddy worked in an industry that made such pellets."

Campaigners say Ineos has plenty to be ashamed of. However, given the fame of the cycling team and the popularity of cycling as a sport and pastime, this could be a golden opportunity to bash Ineos on the global stage. "They will become more high profile as a company and people will ask: who are these guys and what are they doing?" says FoE regional campaign coordinator Simon Bowens.

Could Ineos become the hero of British cycling or the bad boy pin-up of plastic pollution? Or both? Given Sky's long-term investment – both at grassroots level and in developing the best cycling team in the world from scratch – there is a legacy of success; that means the residual value in continued success under Ineos' ownership is always going to be lower. Ineos will have to go some way to oust the likes of Nestlé, Coca-Cola, McDonald's and Starbucks as the focus of anti-plastic ire: it sits in the bottom half of the 40 most criticised corporates on plastics in the past 24 months. However, there's

"These days, consumers are a lot more discerning when it comes to sponsorship"

every chance it will move up the table, with tracking firm Sigwatch having already noticed a "sharp upward trend in activity". Data shared with *Transform* also showed that Ineos has received a lot of criticism for its sponsorship deals during the past 12 months; here it is second only to Coca-Cola, above some big tobacco companies.

Reflected glory

These days, consumers are a lot more discerning when it comes to sponsorship – think Lego and Shell, or McDonald's and the Olympics. A 2017 study by Aston University showed that big deals between businesses and football teams can cause harm to brands if the deal arouses suspicion. 'Badging', where brands associate with a sports team so they can bathe in reflected glory, still goes on. However, collaborations are scrutinised closely these days, as the National Portrait Gallery's recent rejection of a £1m donation from The Sackler Trust proves.

In Ineos' case, it isn't just the cycling that has ruffled campaigners' feathers: last year the company also agreed to fully fund sailor Ben Ainslie's America's Cup team, to the tune of £110m. An open letter signed by a number of NGOs and scientists in October claimed that allowing Ineos to take part as a sponsor undermines World Sailing's Code of Ethics, which promises "to protect the environment on the occasion of any events; and to uphold generally

accepted standards for environmental protection". FoE has called for a fossil fuel sports sponsorship ban.

Sponsorship experts wonder whether Ineos has a master plan, or if the investments are simply down to Ratcliffe's love of cycling. Rory Stewart-Richardson from sponsorship marketplace Connexi believes it could be an emotional purchase. "From a value proposition it is hard to see the alignment, bar the fact that Ratcliffe is a passionate cyclist."

Successful sponsorships tend to work when the two parties' purpose and interests are aligned, which makes the Ineos deal puzzling. "It's not clear why they are doing it," says Simon Chadwick, professor of sports enterprise at University of Salford, Manchester. "Ineos clearly has some reputational issues, so are they trying to address these by acquiring high-profile packages with a mainstream team everyone knows and is associated with success?"

Ineos' cycling deal could also have a political subtext: it "could be a statement about Britain and what we stand for and how we compete", according to Chadwick. Ratcliffe, a staunch EU critic, stepping in to save a British asset as Brexit looms is certainly an intriguing backstory. The past reputational issues of Team Sky – from therapeutic use exemptions to 'jiffybags' – could also be spun as conspiracy, with nothing proven. Ineos could bill this as a fresh start for both parties.

Data compiled by YouGov Sport and Connexi shows that it may have been the right time for Sky to step down: the brand impression of Sky has grown within the UK's general population, but fallen among the cycling community. Given that few cycling fans will have heard of Ineos, does this represent a clean start for a company associated with dirty industries? Time will tell, but the company's detractors will warn that a leopard rarely changes its spots. What's more, if Ineos and its owner are the face of 'Brand Britain', there could be consequences for the whole country's reputation should an environmental scandal be exposed. The world will be watching. 🇬🇧

DAVID BURROWS is a freelance journalist





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Painting the town



green

Elisabeth Jeffries explains how the environmental aspects of the Healthy New Towns standard aim to help improve public health

An environmentally friendly housing label pioneered by the NHS marks a new stage in the evolution of UK sustainable buildings brands. Known as the Healthy Homes Quality Mark, and accompanied by a Healthy New Town standard for the wider built environment, the label is the first homes brand specifically prioritising both health and environmental criteria. Guidelines for developing the standard and the label, following trials in 10 pilot Healthy New Towns, are to be published by NHS England in spring 2019.

Devised from a platform of health policy priorities, the Healthy New Towns and the labels they promote contain a significant environmental element. These include access to green space and improving urban environments through air quality. "The Healthy New Towns and brands are rethinking how to encourage people to become healthier by embedding the social and environmental determinants of public health into urban developments from the outset," explains Kevin McGeough, director of the Ebbsfleet Garden City Healthy New Town programme in Kent – one of the pilots.

Ebbsfleet Garden City

That means planning for greater use of parks and green spaces – especially, for example, by people in lower income brackets with health problems such as obesity and diabetes. As a tactic to achieve that particular objective, the key performance indicators (KPIs) for developments in Ebbsfleet Garden City include net gain in accessible open space, public realm and recreation areas.

The development corporation intends to make the most of the green and blue (water) features in the area. These include cliffs, lakes, waterways, industrial heritage and archaeological assets.

The aim is to create a stimulating environment with improved ecological and biodiversity value that supports mental health.

Several other KPIs aim to improve health and wellbeing through environmental features. They include: number of homes completed meeting enhanced standards for environmental performance, space and accessibility above the statutory minimum; net improvements to air quality and sustainable urban drainage from a 2016 base; and identification of innovative approaches and new and emerging technology to reduce carbon emissions.

"The concept is that overall improvements to quality of life are as important to improving health as specific health interventions," explains McGeough. Access to open and green spaces is one of the assumptions underlying evaluation of quality of life.

Other health-based objectives included by Ebbsfleet Development Corporation concern the use of the Healthy New Town designation to promote healthier lifestyles and to facilitate the delivery of innovative, effective and efficient health services across the Garden City. This could mean reformulating some of the relationships and roles of healthcare organisations involved.

Behaviour change

The inclusion of environmental or green space criteria in town planning consultations is not new. However, the motivation for doing so, as well as the approach to achieving these objectives, adds a new dimension to the planning model. For one thing, the criteria for integrating features such as green space and woodland originated by considering environmental characteristics primarily through the lens of health and wellbeing.

The guidelines for appropriate environmentally friendly characteristics in the forthcoming Healthy New Town standard



and Healthy Homes Quality Mark differ in style from previous brands such as the Code for Sustainable Homes. They depend less on carbon emissions, benchmarks and buildings regulations.

"Healthy New Towns are not affected by targets such as including a particular percentage of green space. They are about a 'placemaking' approach, aimed at shaping and changing people's behaviours to create better health outcomes," says McGeough.

Bicester Healthy New Town

Ebbsfleet Healthy New Town is overlaying environmental criteria onto planning for healthy urban environments, but arguably the reverse is true for another pilot, Bicester Healthy New Town. The Bicester project overlaps with Bicester North West – one of the few new ecotowns to have outlived a government ecotown programme from the 2000s.

Elmsbrook is one of the areas in both the Bicester North West ecotown and the Healthy New Town. According to one property developer involved, Fabrica, it includes 232 ecohomes that contain eco-efficient characteristics. Its focus on heat and power equipment in building design will be familiar to ecohome developers. Homes benefit from rainwater harvesting, electric car charging and an electric car club, and are heated by a district heating network that connects to a combined heat and power centre.

But Elmsbrook also designs in health to create a place where healthy living becomes the norm. One aim is to provide greater opportunities to assess and share the health and wellbeing benefits of living in an exemplary development and to test new ways of

delivering healthcare and disease prevention. The aim is to apply these designs to Bicester's wider 13,000 home strategic growth.

NHS governance

The Healthy New Town concept adds another perspective to ecotown developments, arising from unique administrative arrangements for promoting health. "Town planning schemes in the past have consulted health experts while considering how to nudge green spaces into new settlements. What's unusual with the Healthy New Towns is the incorporation of NHS Services into that mix of consultation and engagement," says GP Dr Rosie Rowe, Bicester Healthy New Town programme director.

For example, a clinical commissioning group – a statutory NHS organisation responsible for planning and commissioning healthcare – is represented on the governance and delivery board of the Healthy New Towns. This may lead to decisions on new behavioural change schemes or playgrounds, for instance.

"We say: are there opportunities in the built environment to promote healthy

surroundings and way of life? In new developments, opportunities are easier to incorporate than in established towns," Dr Rowe says.

Prioritising lower-income groups

In Bicester Healthy New Town, the establishment of a Wayfinding scheme for greener spaces is already in place. This is required because the new town is part of the existing town of Bicester. "The scheme promotes modal shift – good for sustainability but a by-product of the existing urban environment", says Dr Rowe.

The Healthy New Town standards may be an unexpected mutation of the defunct Code for Sustainable Homes, abandoned by the government in 2015 due to housing developer lobbying and a policy on 'red tape'. It faces a similar challenge: many of the people who benefit most will belong to the higher-income, healthier social groups that can afford new homes.

To counter that possibility, Ebbsfleet Garden City, for example, integrates policies on green spaces and healthy food in the adjacent communities at Swanscombe and Northfleet, which have significant health inequalities. It also contains plans for seven major city parks to attract residents from those areas. Prioritising these lower-income groups is presumably key to its success. 🌱

"The Healthy New Towns contain a significant environmental element"

Principles for Healthy New Towns

- Plan ahead collectively
- Plan integrated health services that meet local needs
- Connect, involve and empower people and communities
- Create compact neighbourhoods
- Provide health services that help people stay
- Inspire and enable healthy eating
- Foster health in homes and buildings
- Enable healthy play and leisure
- Maximise active travel
- Create integrated health services

Source: Putting health into place, NHS England

ELISABETH JEFFRIES is a freelance journalist



Less than a decade ago, when Greenpeace launched its Detox campaign to phase chemicals out of the textiles supply chain, many in the sector complained that this was impossible. However, faced with public anger over revelations that the multicoloured dye and processing effluent spilling into rivers contain chemicals that can damage the health of animals and humans in developing countries, the industry was forced to act.

Eighty brands and suppliers from fashion, sportswear, luxury and outdoor brands are signed up to the campaign's pledge committing them to achieve zero discharges of hazardous chemicals by 2020. Several of these companies, including Adidas, Puma and H&M, have collaborated to establish the Zero Discharge of Hazardous Chemicals (ZDHC) programme.

A 2020 target for the elimination of toxic chemicals from the fashion supply chain is fast approaching – how are businesses performing?

Catherine Early investigates

*How
clean
are your
clothes?*

This has led to the Manufacturing Restricted Substances List (MRSL), a blacklist of substances that are banned by member companies from intentional use in their products, with limits on their concentration as impurities or by-products. Wastewater guidelines have been set to ensure wastewater does not damage the environment and communities, and standards covering chemicals, wastewater, auditing and research have been developed.

Paradigm shift

In a progress update released last year, Greenpeace reported that its campaign had triggered a “paradigm shift” within the clothing industry. Rated as a “meaningful programme” by Greenpeace, the ZDHC has 125 member companies, including brands and retailers, manufacturers, chemical companies, mills and testing labs.

Eighteen companies are both signed up to the Detox pledge and members of the ZDHC. Eight members have added substances to the MRSL, while H&M, Benetton, Inditex and Fast Retailing, which owns Uniqlo, operate their own blacklists. A further 13 companies that have committed to the 2020 Detox target are not ZDHC members, but have established their own list of restricted substances – which are mostly more ambitious than that of the ZDHC, according to Greenpeace.

However, challenges remain. Although there are some very large companies involved in the ZDHC, they comprise only a segment of the industry. Chemical management is some way from becoming mainstream across the global fashion supply chain.

The parliamentary Environmental Audit Committee recently scrutinised the environmental and social impact of the fashion industry. Its interim report, published in January, lists some very large retailers that have not yet engaged with various sustainability initiatives, such as the ZDHC. They include Amazon UK, online retailer Boohoo Group, JD Sports and Sports Direct.

Eliminating hazardous chemicals is proving difficult for some ZDHC members where other customers are not asking the same from supply chain companies, and there is a risk of cross-contamination if this does not happen, the Greenpeace report states. Sara Bermúdez Couto, head of product safety management and environmental sustainability at Esprit, echoes concerns about the extent of the initiative’s reach. “Not the whole industry is working towards the 2020 target, so it is difficult to ensure all our suppliers fully comply. Implementation is challenging,” she says.

“Chemical management is some way from becoming mainstream across the global fashion supply chain”

Pushing on

Kirsten Brodde, Detox campaign project lead at Greenpeace, says that it expects the ZDHC to push its approach towards the whole sector and policymakers. “Its blacklist approach should be spread through Best Environmental Practices (BEPs) and could be embedded in a future producer responsibility regime, as called for recently by the European Parliament,” she says. “Producing countries like China should adopt bans on hazardous chemicals such as PFCs or alkylphenols.”

Scaling the initiative is one of the ZDHC’s goals, says its implementation director Christina Raab. According to her, the number of members grew by 60% in 2018. “We have an engagement model – friends of the ZDHC,” she says. “These companies have access to the network and the tools.” The model is being rolled out this year, and some companies are planning to become members over time; companies that are not formally affiliated can use the ZDHC’s guidance documents and services.

Another challenge is finding safe alternatives with which to substitute hazardous chemicals. Raab explains that, although there are many safe alternatives whose use can be scaled, there are others where technical properties and quality



Water pollution

➡ The chemicals released by the textiles industry harm both human and animal life

♥ A pipe from a textile factory discharges effluent directly into a river



needs improvement. The MRSL is updated annually to reflect new alternative chemicals as they come to market – but they have to be economically viable and technologically feasible before they are added to the list.

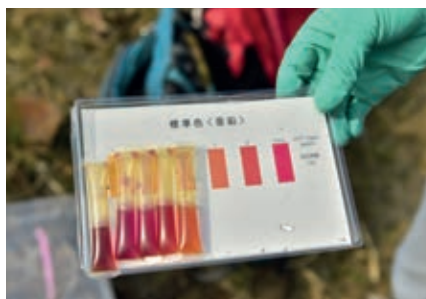
“The 2020 target is now becoming a shifting target because the MRSL has been expanded every year with additional substances,” she says. “We are tracking progress and of course there are different speeds of implementation, but all the substance groups are making good progress.” However, she declines to give any specific examples of chemicals that have been removed from use.

Targets in sight

The Detox campaign targets 11 specific chemical groups. Perfluorocarbons (PFCs) have been flagged due to their potential damage to livers and endocrine systems, meaning they can disrupt growth and hormones. They are most widely used by outdoor brands for their water-repellency in waterproof coatings and membranes, as well as for some sportswear products. Greenpeace reports that 72% of companies signed up to the Detox commitment have achieved complete elimination of PFCs, with the remaining companies all making good progress.

However, it found that most brands still detect low levels of PFC contamination in wastewater discharges, since they are continuing to use suppliers that supply brands which are not managing their chemicals. Some brands are trying to solve this problem by sharing suppliers with others that are signed up to the Detox target, Greenpeace says.

Another chemical group highlighted by Greenpeace is alkylphenols/alkylphenol ethoxylates, which are endocrine disruptors and toxic to aquatic life. Despite being the original target of the Detox campaign, eliminating this substance is



♥ Chemicals released by the textiles industry include endocrine disruptors, which can disturb human growth and hormones

➡ Water samples from a river near a textiles factory show lead content exceeding the limit

“New business models should be adopted, favouring longevity, quality and reparability of clothes”

“still a real challenge”, the organisation says. Cross-contamination from other brands not signed up to Detox could be one cause, but there is also the fact that the little transparent and reliable information from chemical suppliers means the burden on compliance falls onto their clients.

Stefan Seidel, head of corporate sustainability at Puma, reports particular problems involving the lack of information from chemical companies. “This needs not only transparency in the inventories of our supply chain, but also proof of conformity with the MRSL standard. The ZDHC is addressing this through its gateway, but is not fully functional yet.”

The gateway is a reporting function on the organisation's website that aims to help companies in sourcing safe chemicals. Chemicals that are being used in the sector are listed, along with their safer alternatives. Chemical companies upload their formulations onto the platform, and these are assessed in terms of their conformity with the MRSL, Raab explains. Supply chain companies can then analyse how their chemical inventory

compares, and tell customers. There are around 15,000 chemical products listed so far.

A second database allows production facilities to upload the results of wastewater tests, which all brands and retailers can use to assess suppliers' compliance. A public disclosure portal shows which facilities conform with the ZDHC's wastewater guidelines, and which are undergoing corrective action.

Companies can also undertake their own compliance audits. A spokeswoman for H&M says that the company has had a list of restricted chemicals since 1995. All suppliers and business partners of the group are contractually bound to comply with this list, and the company performs regular tests, mainly in third-party labs. In 2017, more than 58,000 such tests were conducted, according to the spokeswoman.

The wider problem

However, even if all these problems are ironed out and elimination of problem chemicals becomes mainstream, the root cause of the fashion industry's problems – that of encouraging overconsumption – will remain. "New business models should be adopted, favouring longevity, quality and reparability of clothes, and service-based business," says Brodde.

With consumption of clothing projected to rise by 63% to 102m tonnes by 2030, the transformation needed will need to be nothing less than radical. A 2017 report by the Boston Consulting Group warned that if the industry fails to act on its environmental and social sustainability impact, rising costs, from labour to materials and energy, will intensify "to the point of threatening industry growth itself" by 2030. ¹

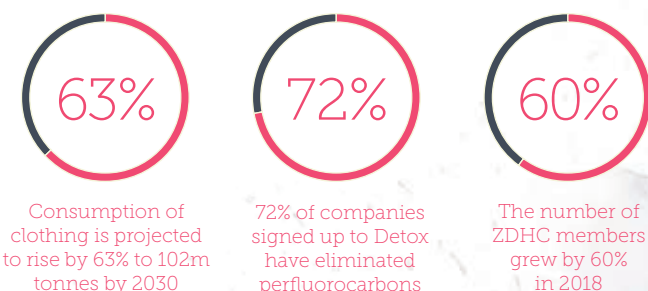
CATHERINE EARLY is a freelance journalist

Further reading

- Read Greenpeace's report 'Destination Zero – Seven Years of Detoxing the Clothing Industry' at bit.ly/2LhvvFk
- Find the Environmental Audit Committee's report 'Fixing Fashion: clothing consumption and sustainability' at bit.ly/2T2a8vI
- The Boston Consulting Group's report 'Pulse of the Fashion Industry 2017' is at bit.ly/2DcXMji

TOXIC TEXTILES

Moving towards a cleaner clothing industry



VISCOSE: COULD IT BE THE SUSTAINABLE SOLUTION?

Viscose is the world's third most commonly-used fibre and, being derived from wood pulp, has the potential to be a sustainable alternative to oil-derived synthetics and water-hungry cotton, according to campaign group Changing Markets.

However, many viscose manufacturers have yet to adopt responsible production methods. An investigation by the group in 2017 found firms dumping toxic wastewater in lakes and waterways, destroying subsistence agriculture and fisheries across India, Indonesia and China, and affecting the health of nearby communities, which lacked access to clean water and suffered sickening smells and higher incidence of diseases such as cancer.

In response, eight major brands and retailers – Inditex, ASOS, H&M, Tesco, Marks & Spencer, Esprit, C&A and Next – have signed up to Changing Market's Roadmap towards responsible viscose and modal fibre manufacturing.

"These brands are sending a message to manufacturers that they expect them to move to sustainable production or they will take their business elsewhere," says Urska Trunk, Changing Markets campaign advisor. Two of the biggest viscose manufacturers – Austria's Lenzing and India's Aditya Birla – have each committed to invest over €100m to transform their production to a closed-loop system that meets EU Best Available Techniques standard, and will not emit dangerous chemicals.

"Around 10 manufacturers represent 70% of the global

viscose supply, so there is great potential if these manufacturers move to sustainable processes," says Trunk. However, she believes that brands and retailers will have to keep the pressure on these companies to ensure they carry out their commitments.

Meanwhile, Chinese suppliers – which operate 63% of the market – have developed the Collaboration for Sustainable Development of Viscose. However, in a report in November, Changing Markets outlined flaws in this initiative. It does not oblige members to achieve the highest level of production standard, despite it being recommended by the Chinese government.

It also allows members to pick and choose from a selection of certification standards and industry self-assessment, all deemed by campaigners to lack ambition. In addition, there is no publicly-available information about how the roadmap will be enforced, monitored and verified, Changing Markets says.

"In its current format, brands and retailers should not consider membership of the CV initiative and commitment to the CV Roadmap as proof of good environmental performance," Trunk concludes.

- Read Changing Markets' report 'Dirty Fashion: Spotlight on China' at bit.ly/2Tl0Spq



CONNECT

SOCIAL AND COMMUNITY NEWS FROM IEMA

EVENT

Net Impact Approach 2019 Conference

Bringing together those who work in net impact approaches in order to promote and develop best practice

The Net Impact Approach Conference convenes leading experts on measuring and valuing impacts to demonstrate a net zero or positive impact. With around 25 speakers, eight breakout sessions and four plenaries, this year's event will take place on 23 May at 15 Hatfields, London, and runs from 8.15 to 17.30. Offering unparalleled insights and networking, it will cater for everyone – from beginners wanting to find out more to experienced practitioners.

Businesses, investors, government and consumers increasingly recognise that the existing economic model is no longer acting in society's interests. Significant shifts in the way

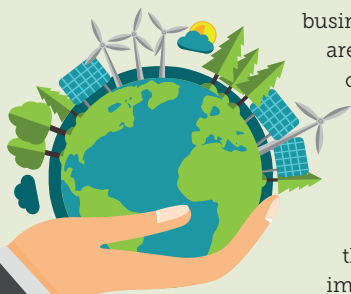
businesses operate are required in order to avert catastrophic outcomes. One shift is the transition from practices that minimise impacts to

practices that have a positive impact. Companies and financial institutions are aiming to achieve this by measuring and valuing their impacts, and setting net zero and net positive targets.

The conference will bring together different communities involved in net impact approaches, to: highlight the latest approaches; share and debate best practice; provide case studies on quantifying, valuing and comparing environmental and social business impacts; help drive the movement forward by dealing with key issues; and facilitate collaboration and networking.

The content will cover all approaches that identify, measure, value and compare environmental, social and economic impacts in a business context. Key themes include: getting started; making and building the business case; and links with sustainable finance, sustainable development goals, science-based targets and the circular economy.

🔗 To book your ticket, go to bit.ly/2Pcu3DZ. IEMA members – enter code **IEMA2019_20** for a 20% discount against Advance or Standard rate tickets



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@IEMA_Transform great job on the April edition, the best one yet! #Educational, #inclusive and #inspiring! Keep up the amazing work. @TOMCOULTER8



Great challenging conversations on diversity at #SISS2019 Worth revisiting series of articles in @IEMA_Transform 97% of people working in the environment sector are White British. This is not sustainable. @SARAHJONESENV



An excellent professional standards organisation to be part of - and as Chair of the NE @iemanet group I can definitely vouch for that! So many membership benefits including #CPD #mentoring #webinars #events #networking #conferences #training @IEMA_Transform and much more! @SHARONENV1



Loved reading in @IEMA_Transform about Ceasay and The Gambian Women's Institute tackling waste and #pointlessplastic in #TheGambia with @WasteAidUK Great entrepreneurship and tenacity to help achieve the #GlobalGoals @ABIBRADY



Great to hear more about the life cycle approach and natural capital thinking in the @DefraGovUK Resource and Waste Strategy. Thank you @iemanet for organising #waste #resourceefficiency #lifecycle #LCA #naturalcapital @IAMSARAHJONES

That feeling when you discover you're featured in @IEMA_Transform this month (I didn't know when it was due to go in, lovely surprise for a Friday!) @SANDRAKNORVAL





WHAT'S ON THIS MONTH

iema.net/events

WEBINAR

The psychology of environmentalism: How to be an environmentalist during environmental breakdown

16 May 2019

This webinar looks into how people respond to environmental collapse and turn this into positive action. It covers:

- How to handle the emotions in a time of environmental and ecosystem breakdown
- What it means to have environmental protection as a purpose
- Exploring ideas around death and rebirth, cycles of change
- How we're psychologically and physically connected with nature
 - How best to appeal to other people's inner motivations to inspire them to change
- What is meant by 'wealth' and 'happiness' and how do the terms apply to environmentalists?

➔ To book, visit bit.ly/EnvPsychology

EVENING MEET

IEMA Futures – The role sustainable housing can play in mental wellbeing

16 May 2019

Communities are at the heart of sustainability and wellbeing, so with the population ever-growing and living for longer, there is a great need for action in order to face the physical and mental health needs of the individual in a more sustainable future. Our key speaker is professor Rose Gilroy of Newcastle University, a founding member of the Future Homes Alliance – a housing development project guided by sustainability, accessibility and community.

If you're a student, graduate or young professional and have an interest in environment and sustainability issues, this is a great opportunity to engage, learn, and meet with IEMA Futures.

➔ To book, visit bit.ly/HouseWellbeing

CONFERENCE

Scotland's EIA Conference 2019

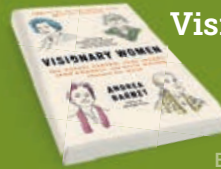
23 May 2019

Scotland's environmental impact assessment conference returns, providing an opportunity for the EIA community to assemble and learn from each other's experience. The conference is being delivered as a partnership between Fothergill Training & Consulting, the Scottish government and EIA consultation bodies. It includes up to 120 delegates, with speakers drawn from government, consultancy, local authorities and consultation bodies. There will be an opportunity to explore EIA case law with law firm Brodies, as well as plenary sessions and breakout workshops, enabling opportunities for broad discussion and more focused debate and learning.

➔ To book, visit bit.ly/2GqLaIq



NEW BOOK RELEASES



Visionary Women: How Rachel Carson, Jane Jacobs, Jane Goodall, and Alice Waters Changed Our World

By Andrea Barnett (Ecco Press) March 2019

The story of four visionaries who shaped the world. Jane Jacobs fought for liveable cities and strong communities, Rachel Carson warned us about poisoning the environment, Jane Goodall demonstrated the kinship between humans and animals, and Alice Waters urged us to reconsider what and how we eat.

The Politics of the Anthropocene

By John S Dryzek and Jonathan Pickering (OUP) Feb 2019

An accessible treatment of how human institutions, practices and principles need to be rethought in response to the challenges of the emerging epoch of human-induced instability in the Earth system. This book envisages a world in which humans are no longer estranged from the Earth system but engage with it in a more productive relationship. The arguments are developed in the context of issues such as climate change, biodiversity, and global efforts to address sustainability.



The Case for Carbon Dividends

By James Boyce (Polity Press) May 2019

We urgently need to curtail our use of fossil fuels – but how can we do so in a just and feasible way? Economist James Boyce shows that the key to solving this conundrum is to put a price on carbon emissions, thereby generating powerful incentives for clean energy. But there is a formidable hurdle: how do we secure broad public support for a policy that increases fuel costs for consumers? Boyce powerfully argues that carbon pricing can only be made just and politically durable if linked to returning the revenue to the public as carbon dividends.

Sustainability Is the New Advantage: Leadership, Change, and the Future of Business

By Peter McAteer (Anthem Press) April 2019

During the last 150 years, we have stressed the oceans, warmed the planet and overextended almost every natural resource. To create real change will require a generation of leaders and businesses that think and act differently. This book identifies the skillsets, best practices and new ideas needed to teach a new generation to start, grow, and manage sustainable organisations.





Why did you become an environment/sustainability professional? Interest in the natural world from a young age.

What was your first job in this field?

Halliburton (environmental, health and safety role).

How did you get your first role?

Advertised in [New Scientist Magazine](#).

What does your current role involve?

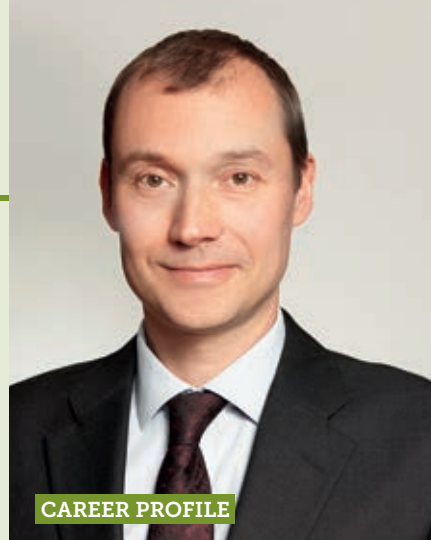
The belief that: the environmental, social and governance (ESG) challenges we face cannot be resolved without private finance; the private equity model lends itself to building more sustainable and resilient businesses; 'active' owners can ask more questions and make change happen more quickly and broadly.

I no longer visit so many company locations, but the private equity firms we invest in do, and our in-house ESG capabilities mean we are better placed to influence them. We can ask more and better questions, challenge the response, then engage post-investment. ESG is part of our investment management process but the role touches on everything we do.

I also work on annual reporting, speak at conferences, contribute to research and support colleagues on everything from ESOS compliance, single-use plastics and sourcing our food responsibly.

How has your role changed/progressed over the past few years?

I moved to a firm exposed to more than



CAREER PROFILE

Adam Black

Head of ESG and sustainability,
Coller Capital

200 underlying private equity firms with around 2,500 underlying portfolio companies in their funds, so am now less portfolio company facing.

What's the best part of your work?

Changing culture and seeing the results.

What's the hardest part of your job?

The best part.

What was the last development event you attended? I have less time than I would like to attend, so I admit I have not yet been to one in person.

What did you bring back to your job?

Two things define a successful ESG programme – adopting the right culture and getting the right outcomes. The 'sustainability change maker' worksheets are helpful in that context.

What is/are the most important skill(s) for your job?

Acting with integrity; being able to draw upon practical examples to support what I say at investment committee; patience; staying calm in a crisis.

Where do you see the profession going?

I see it being a part of everyone's role, wherever you work. Then the formal function itself can lead, support, coach and advise.

Where would you like to be in five years' time?

Working on ESG in our next and future funds.

What advice would you give to someone entering the profession?

Great ESG is getting people who can share what they love with authenticity and enthusiasm – so use practical examples and case studies wherever possible. Take the time to become an expert, because being able to back up what you say in any meeting is powerful and brings the subject to life for people. Be patient but persistent, and pragmatic without avoiding the difficult issues. Share and collaborate – you don't have to share commercially sensitive materials, but you can be transparent about a lot of your work.

How do you use the IEMA Skills Map?

The IEMA Skills Map is a great tool to help benchmark the qualities required in an ESG leadership role.

If you had to describe yourself in three words, what would they be?

Ask my wife.

What motivates you?

Looking back on certain investments, the change that we made happen is heartwarming. That motivates me – as does having a two-year-old and four-year-old.

What would be your personal motto?

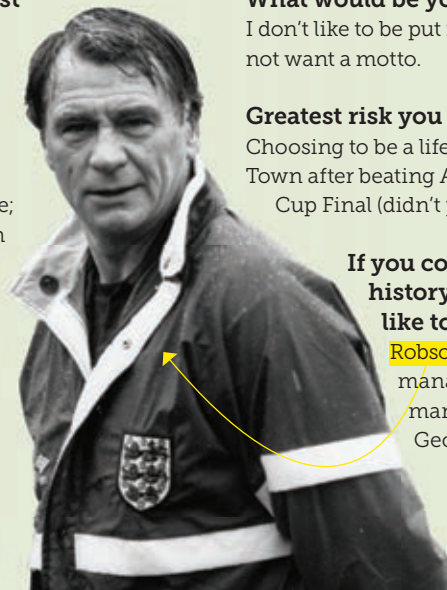
I don't like to be put into a box, so would not want a motto.

Greatest risk you have ever taken?

Choosing to be a lifelong fan of Ipswich Town after beating Arsenal in the 1978 FA Cup Final (didn't pay off long term).

If you could go back in history, who would you like to meet? [Sir Bobby Robson](#)

(former Ipswich manager, former England manager and a great Geordie, like my mum).



"Being able to back up what you say in any meeting and brings the subject to life"

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