TRANSFORM

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FOR ENVIRONMENT AND SUSTAINABILITY PROFESSIONALS

Aug/Sep 2024
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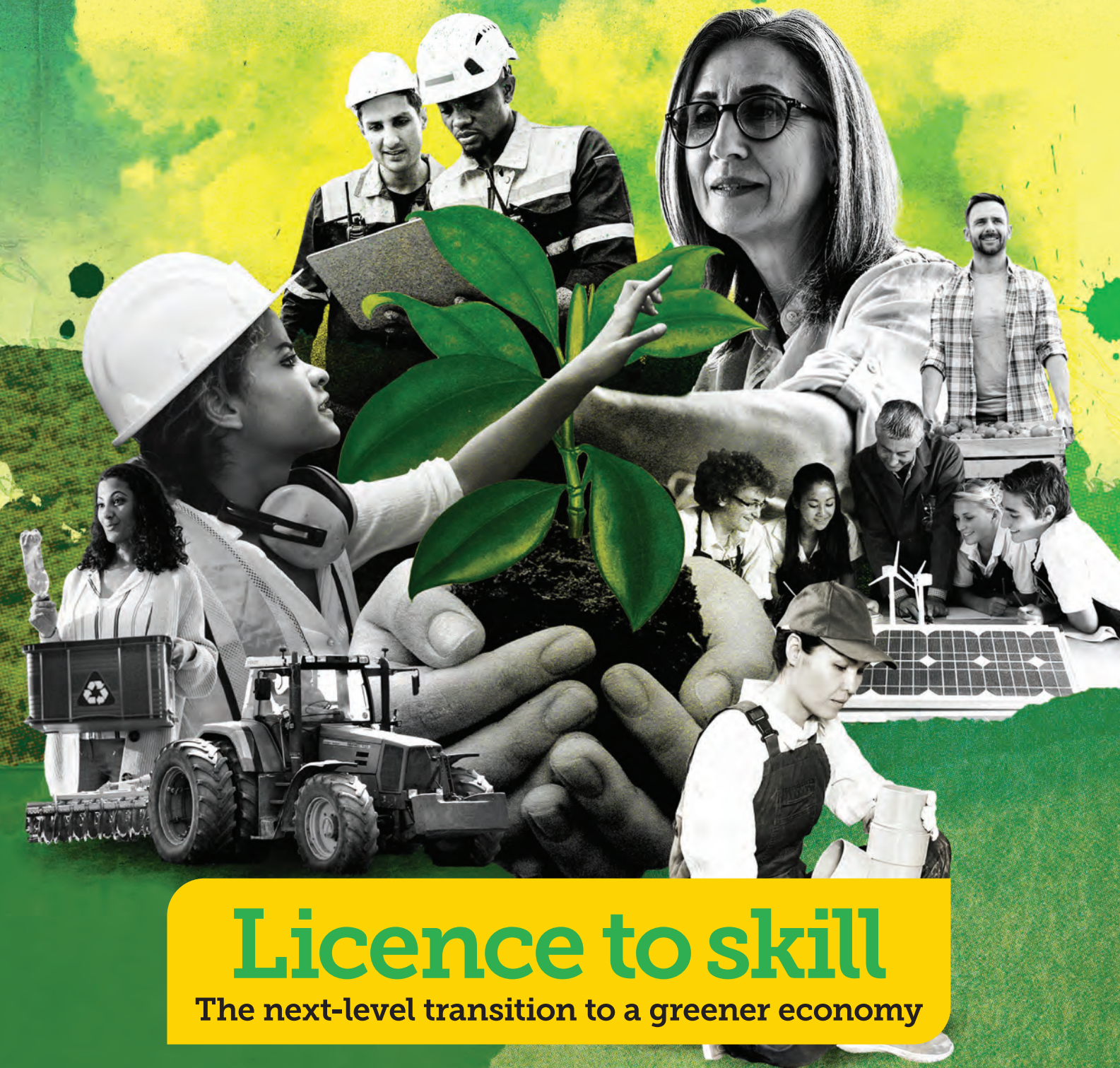

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Giant strides John Amaechi on nurturing leadership potential
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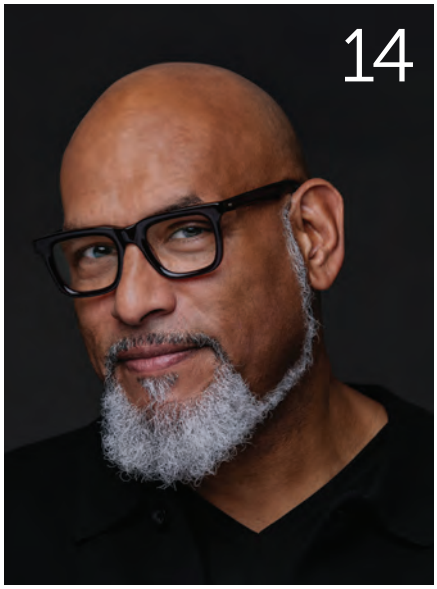

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Green Careers HUB

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www.bit.ly/intermittency

COVER IMAGE: ELEANOR SHAKESPEARE. SHUTTERSTOCK

A plan of action

MARTIN BAXTER, DEPUTY CEO, IEMA

Hello and welcome to another edition of *Transform*.

The election of a new Labour government in the UK last month comes with a renewed urgency in the transition to net zero. Labour's mission-led approach seeks to boost economic growth and deliver a zero-carbon electricity system by 2030, as well as to tackle poor health outcomes and crime.

It's an ambitious agenda, one made more challenging given the state of public finances. Success will be contingent on putting in place the policies and incentives to translate ambition into action on the ground. The initial steps looks promising – changing planning guidance to make it easier to deploy onshore wind, as called for by IEMA, and the establishment of Mission Control led by the former CEO of the Climate Change Committee, Chris Stark, to break down barriers and accelerate progress on energy projects to rapidly transition away from fossil fuels.

A critical element of success will be ensuring we have a workforce with the skills, capacity and capability to deliver change at the pace and scale that is required. IEMA is working with a range of stakeholders to support the green jobs and green skills that are needed for success.

We've a special focus on green careers in this issue to highlight the opportunities from embedding green skills through technical qualifications, as well as insights into careers advice. Rachel Cooper and Beth Chaudhary explore how colleges such as Lancaster & Morecambe are growing the next generation of innovators and change agents.

We also look into IEMA research that shows that 35% of careers professionals are less confident about offering guidance on green jobs compared with other career pathways, while only 4% of careers professionals rated young people's understanding of green careers as "good".

Lastly, it's important to recognise that while the net-zero transition is positive for levels of employment overall, there is a need for a just transition for the communities and sectors that will be negatively affected.

"A critical element of success will be ensuring we have a workforce with the skills, capacity and capability to deliver change at the pace and scale that is required"

IEMA Transforming the world to sustainability

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.

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ROUNDUP

IEMA NEWS AND COMMENT

LEGAL

Landmark climate judgment cites IEMA guidance

The Supreme Court has ruled that a local council should have followed IEMA guidance when issuing a new oil extraction licence, in what could be a gamechanger for fossil fuels in the UK.

The court ruled in June that Surrey County Council only considered local environmental impacts and direct emissions when granting development consent for oil extraction at Horse Hill, when it should have accounted for downstream emissions, such as combustion. Judges agreed in a three-to-two majority that it was "inevitable" oil from the site would be burned, and the resulting greenhouse emissions were "straightforwardly results of the project", which should be considered.

While this precedent does not stop new oil drilling, it is something companies will have to consider for new projects and in environmental impact assessments.

Campaigners against the Horse Hill oil field

"This has potentially big implications," said IEMA deputy CEO Martin Baxter. "In effect, the Supreme Court has reinterpreted which legal considerations must be taken into account when deciding whether to grant development consent for fossil fuel extraction licences."

The Surrey County Council planning authority had initially said the developer "should consider the global warming potential of the oil and gas that would be produced by the proposed well site."

However, the council changed its mind, and accepted an environmental statement that assessed only direct releases of greenhouse gases at the project site over its lifetime and not the impact of the combustion of the oil.

"General estimates of combustion emissions can be made using methodology such as that described in guidance issued by IEMA," the Supreme Court judgment said. "It could easily have been performed by the developer, and has in fact been performed by Dr Jessica Salder, the council officer who reviewed the environmental statement, when she made a witness statement in these proceedings."

Dr Salder is a member of IEMA's Impact Assessment Steering Group, and it's estimated that around 3.3 million tonnes of crude oil are expected from Horse Hill over the next 20 years, producing more than 10 million tonnes of CO_2.

POLITICS

Snapshot of Labour's plans to transform Britain's environmental landscape

The Labour government could usher in a new era of climate action, with Sir Keir Starmer having promised to make Britain a "clean energy superpower".

After being criticised for watering down its Green Prosperity Plan investment pledge from £28bn a year to under £15bn, Labour will come under intense pressure to deliver on its manifesto commitments. One of which is the formation of the publicly-owned Great British Energy, which will be headquartered in Scotland and capitalised with £8.3bn to deliver clean power by co-investing in leading technologies, support capital-intensive projects, and deploy local energy production.

The company won't supply electricity to homes, but Labour said it will cut average households bills by £300 a year, and that its investment plans will create 650,000 jobs by 2030, doubling onshore wind, tripling solar power and quadrupling offshore wind.

For every £1 of public investment, a National Wealth Fund will be required to crowd-in a further £3 of private sector investment for low-carbon projects. Unlike a Norway-style sovereign wealth fund, it will only have £7.3bn to invest over the next parliament, with £1.8bn directed at ports, £1.5bn for gigafactories, £2.5bn to clean steel, £1bn for carbon capture and £500m to green hydrogen.

A new Energy Independence Act will set out the framework for Labour's energy and climate policies, which include no new oil and gas licences in the North Sea, an end to new coal licences, a ban on fracking, and closing loopholes in the windfall tax on fossil fuel firms.

The party has said it will also deploy more distributed energy production capacity through a Local Power Plan, while a Warm Homes Plan will offer grants and loans to support investment in insulation, solar panels, batteries and low-carbon heating.

On nature, Labour has committed to creating nine new national river walks and three new national forests.

However, IEMA CEO Sarah Mukherjee MBE said: "We would urge Labour to develop a specific plan to accelerate the uptake of green skills."

ALAMY

GOVERNMENT

IEMA sets out priorities for government

BY BEN GOODWIN

IEMA has developed 18 key policy asks that we are urging the newly elected UK government to prioritise immediately.

These asks cross a range of areas from the circular economy and impact assessment through to environmental governance. If delivered, these asks would collectively ensure that the right policy frameworks and enablers are in place so that the UK is able to meet its long-term climate and wider environmental targets.

Among the 18 policy asks, IEMA urges the new government, in partnership with industry, to:

- Design and implement a robust plan to protect 30% of the land and the sea for nature's recovery by 2030 (30by30).
- Develop a national circular strategy to ensure materials and products needed for our transition to a net-zero economy are reused, remanufactured and recycled.
- Develop a clear investment and deployment roadmap for onshore wind, as recommended by the Skidmore Review, and establish a speedier regime for good projects to connect to the grid.
- Create a national environmental assessment unit to enhance environmental impact assessment delivery, and to support the shift to environmental outcomes reports that began under the previous government.

Meeting our climate and environmental targets is an economy-wide challenge, and not one for sustainability professionals and organisations alone. It is a necessity that all job roles help contribute to delivering greener outcomes.

IEMA is, therefore, also urging the new government to prioritise investment and concentrate policy development on the green skills and jobs agenda.

Specifically, to:

- Ensure the delivery of a green jobs plan that sets out how investment in green jobs and skills will be channelled across different economic sectors so that we have a workforce that can deliver the green economy of the future.
- Build on the work of the Green Jobs Delivery Group and establish a permanent cross-government body that takes a strategic approach to delivering green skills and jobs growth in the economy that is tied to our long-term environmental goals.
- Support the development and utilisation of IEMA's Green Careers Hub to help all workers understand where they fit into the green economy of the future.

New environment secretary Steve Reed

IEMA will be working closely with the new government over the coming weeks and months to highlight our key policy asks and to ensure that the sustainability agenda is at the heart of the national policy agenda.

Visit www.bit.ly/IEMA-asks

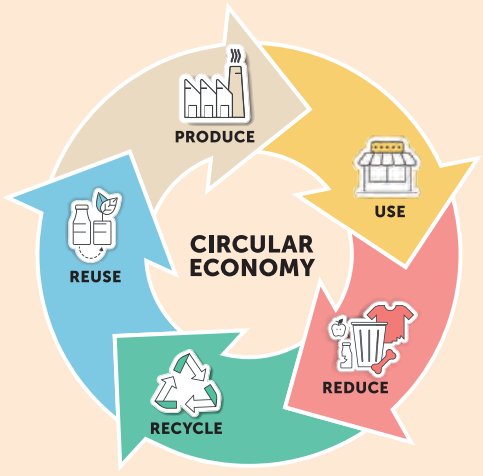
PUBLICATIONS

How to put circularity at the heart of business strategy

BY BEN GOODWIN

A guide published by IEMA earlier this year explores how to integrate circular strategies into business models.

How to Integrate Circular Strategies into your Business Model aims to identify and answer key questions that will help businesses devise effective circular models and create more value for businesses and customers while ensuring that circular practice is beneficial in the long term for all involved, upstream and downstream of a business's core activities.



This guide aims to help kickstart a redesign of overall organisational strategy, or to design a strategy for a new business. It includes thinking on the importance of circular strategies alongside how they can create more value for customers.

Other sections focus on operational changes needed to support circular strategies and how specific goals around narrowing and regeneration can boost efficiency and effectiveness.

Visit bit.ly/Circular_Strategies to download the guide

SHUTTERSTOCK; CHRIS MCANDREW / UK PARLIAMENT

CONSULTATION

Recommendations on UK carbon border adjustment mechanism

By Chloë Fiddy

The previous UK government consulted on the mechanics of a proposed carbon border adjustment mechanism (CBAM), to which IEMA sent a full response. The consultation was launched before the general election was called and closed just weeks after the announcement.

The consulting departments, HM Treasury and HMRC, confirmed that the consultation remained open, but that decisions would be the responsibility of the new government.

IEMA would welcome the introduction of the CBAM, which it views as critical in encouraging the transition to a global low-carbon economy, while supporting the early adopters of low-carbon technologies within and outside the UK.

Our first key recommendation is for CBAM to be implemented without delay. Our members agreed with the consultation proposals that the commodity codes, default values and proposed mechanisms are a good place to start.

Our second recommendation is for the accuracy of emissions data to be improved. Default values are acceptable only in the absence of accurate data, and they must be set high to be effective. IEMA recommends that the government set a goal of improving on emissions data.

The third recommendation is for the scheme to be harmonised with the EU CBAM and others being developed.

For the incoming government, implementing the CBAM as designed could be an early action. We urge the new administration to immediately review methods for capturing better data, to review default values and to make it a priority to align the UK CBAM with that of the EU.

PUBLICATIONS

Volume 2 covers disclosure, transparency and reporting in sustainable finance

BY RUFUS HOWARD

IEMA's Sustainable Finance Network has published the second volume in a new series of its *Sustainable Finance Insight Journal*, entitled 'Disclosure, Transparency and Reporting in Sustainable Finance'.

In this edition, guest editor and network chair David Luck selected 11 articles written by IEMA professionals and sustainable finance experts, with an introduction by Will Goodhart, chief executive of the CFA. The result is a valuable read across some of the different aspects of UK and international practice, exploring disclosure and reporting in this field.

Perhaps unsurprisingly, the content reveals that the core themes of disclosure, transparency and reporting were all rooted in the challenge of anthropogenic climate change. However, all also point towards a similar unifying theme – of positive change rather than of hopelessness.

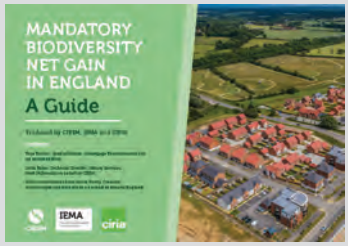
The journal concludes with the relatively straightforward message that, although the regulatory framework relies on complex facts and figures, at its heart is "a simple, clear, qualitative statement, which doesn't rely on any specific expertise. Do no harm."

To access the journal visit bit.ly/Sustainable_Finance_Journal

Guide explains new rules on mandatory BNG for developments in England

BY LESLEY WILSON

In June, IEMA, in partnership with CIEEM (Chartered Institute of Ecology and Environmental Management) and CIRIA (Construction Industry Research and Information Association) published *Mandatory Biodiversity Net Gain in England: A Guide*.



Mandatory biodiversity net gain (BNG) came into force in February 2024 for large developments and in April 2024 for smaller developments. This means that new developments in England must achieve a minimum of 10% BNG. (Other nations have their own BNG-type strategies.)

The net gain requirement will be managed through the planning system, with applications requiring details on how BNG will be achieved. This is a big change for developers and planners, as well as for other stakeholders such as designers and ecologists, who will now have to consider BNG in their activities.

This guide provides an overview of the new requirements and who might be affected. It includes the key aspects of BNG and covers the various stages of development: pre-purchase, design, planning application submission, post-planning permission and pre-commencement and construction.

At each stage, the guide states what will be involved, who the key leads might be, and what will be required, with examples.

Authors Faye Durkin and Julia Baker are recognised experts in this area and have created an excellent, informative and well-laid-out tool for all those who might come across BNG in their role.

The guide is free to download at bit.ly/Mandatory_BNG

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IEMA CONNECT 2024

SHUTTERSTOCK

THE CORPORATE CONUNDRUM

Alan Darby outlines the challenges for businesses in making every job a green job

Most sustainability leaders are asking the same questions when it comes to building sustainability knowledge and confidence across their organisation:

- Who do I need to train?
- What do they need to know?
- How do I use this to drive positive change across the organisation?
- Should/could I make this learning mandatory?
- How do I deliver this at scale?

Sustainability has moved up the corporate agenda rapidly in recent years. Many companies have invested in dedicated teams of professionals who are responsible for environment and sustainability issues, from net zero and decarbonisation, to scope 3 supply chain management and biodiversity.

With this responsibility, however, also comes the expectation that the rest of the business can rest on its laurels, knowing that "it's the sustainability team's job".

However, the IEMA and Deloitte report *A Blueprint for a Green Workforce Transformation* paints a different picture – one that identifies that by 2050 every job will be a green job. Two years on from its publication, how are organisations responding to these challenges?

One of the first considerations for sustainability leaders is whether to build professional capacity or whether to engage key stakeholders in a variety of job families across other parts of the business. Many would like to support both but, invariably, growing the professional capacity is the natural first step to engaging more broadly.

For organisations that have already built the capacity, the focus now is on growing the capability of their professional teams – ensuring that professional recognition from institutes such as IEMA is embedded as part of personal development for their people.

IKON

The biggest barrier here is not appetite, budgets or acceptance – it's time, as professionals strive to balance delivering the day job and engaging multiple stakeholders, while investing time in their own personal development.

This leaves a significant gap when it comes to the questions at the very start of this article. If sustainability leaders are still investing in building and developing their professional capacity, how can they engage the rest of the business?

> "Those leading the way are those taking action to empower their employees"

For the rest of the business, much of the knowledge needed leads to behaviour and culture change for the organisation – something that should start at the very top. Many IEMA corporate partners are investing in training their executive and operational leadership teams – equipping them with the context and light-touch training that will support organisation-wide change. Once the leadership team are engaged – understanding the importance, scale and opportunity that sustainability presents – this often unlocks the door to delivering training on a wider scale.

For some, that wider training will be formal, classroom-based learning. For others, a bite-size, little-and-often approach is best. And some are still working with their internal learning and development teams to find the best fit.

In my experience, organisations will benefit from doing the following:

1. Identify the key stakeholders in the business who you need to engage
2. Develop a sustainability training plan for these teams
3. Test, trial, iterate and test again. The first delivery is rarely the final approach – don't wait for perfection before you start.

As with many things in the sustainability world, there is no definitive 'right answer', but the organisations leading the way are those taking decisive action to empower their employees – both professional and non-professional – to make sustainability something that everyone understands and actively supports.

ALAN DARBY is senior corporate partnerships manager, IEMA

You've got the power

Companies can be used for the greater good, if you only harness their potential. **Antonia Tony-Fadipe** weighs up your options

Have you ever thought of companies as powerful entities capable of shaping destinies, fostering growth or stalling progress? I see companies as the powerful entities they are, yet I am disheartened when their potential is not harnessed for the greater good.

I am a coach and diversity, equity and inclusion consultant with more than nine years of experience facilitating connections among leaders, their diverse teams and the wider community. My mission? Empowering employee resource groups and forging pathways for diverse talents into corporate boardrooms. I believe that everyone, regardless of their background, should have equal access to opportunities, so I create impactful initiatives that connect companies to diverse people.

Working within the criminal justice sector allowed me to see firsthand the power of companies. I consulted with organisations, reviewed their human resources processes and helped them open their vacancies to people with criminal convictions. These companies took a bold step and, as a result, they changed lives and gained a competitive advantage. By stepping away from the norm, they made a lasting impact. Many companies are afraid to deviate from the standard approach and consequently miss opportunities to make a significant impact while staying ahead of the curve. How pointless is it to run a business without making an impact?

Open hiring

One of the most fulfilling experiences in my career has been collaborating closely with The Body Shop to initiate positive change and dismantle barriers. In partnership with HR leadership, I led the implementation of open hiring in the UK market. With open hiring, the first to apply is the first to get offered the opportunity, ensuring a fair and unbiased recruitment process. This approach removed obstacles, mitigated bias and has already had a positive effect on more than 4,500 people globally, with the count still growing.

For those of you wanting to make an impact personally or through your organisation, you simply need to 'DO IT', using 'data, objectives, initiatives and tracking'. This model, which I have successfully used with companies, ensures alignment with corporate goals. Start with data – conduct an internal audit to establish your baseline. Where is the company now? Who are the key stakeholders? Do you have their buy-in? What are the current lived experiences of your colleagues? What societal trends are influencing your industry? Collecting this information provides a clear starting point.

"[Open hiring] has already had a positive effect on more than 4,500 people globally"

Next, set your objectives. What are the company's goals? How does this project align with them? Where do you ideally want to be as a business? Ensure that these objectives are specific, measurable, achievable, relevant and time-bound (SMART).

Reaching your goals

With data and objectives in place, implement initiatives to bridge the gap between your current state and your goals. These could include creating training modules, introducing development programmes, holding events, establishing steering committees, partnering with charities or specialist organisations, and so on. These initiatives will drive progress towards your objectives.

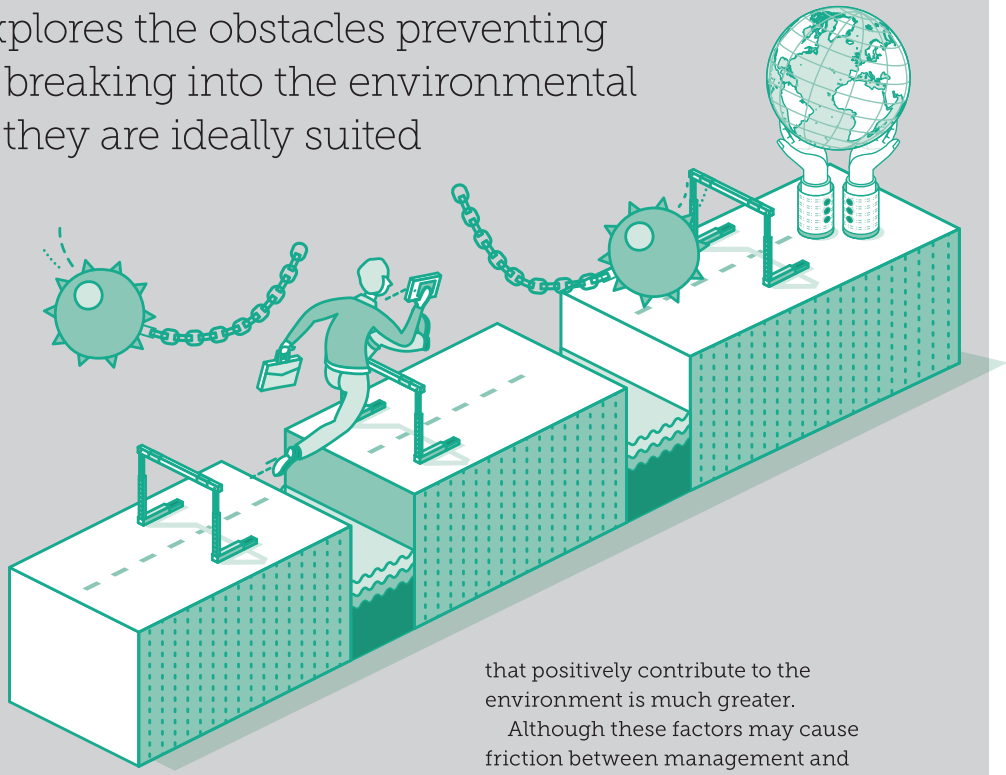
Lastly, track your progress. Regularly review the work being done, ensure stakeholders are fulfilling their roles, and use data analysts to provide metrics to measure success. Part of tracking involves evaluating what is working and what is not. By continuously monitoring and adjusting your approach, you can ensure sustained impact.

In conclusion, the power of companies to effect change is immense, yet often underutilised. Embracing a proactive approach to diversity, equity and inclusion gives organisations a competitive edge as well as fulfilling their social responsibility. The journey towards a more inclusive workplace requires commitment and action – starting with data, setting clear objectives, implementing strategic initiatives and tracking progress. It is not just about ticking boxes – it is about creating an environment where every individual has the opportunity to thrive. Let us not waste the potential to make a significant impact. Together we can transform our workplaces and, ultimately, our world.

ANTONIA TONY-FADIPE is an award-winning diversity, equity and inclusion consultant and coach

CLEARING THE HURDLES

Teodora Stoyanova explores the obstacles preventing young applicants from breaking into the environmental profession – for which they are ideally suited



Young people play a critical role in the climate transition, but they are underrepresented in this area of the workforce. While interest is rising, there are challenges that prevent more early career professionals or graduates from either transitioning into or launching their green careers. Yet these groups of people will be significantly affected by the consequences of climate change, and their contribution is crucial, despite their sometimes-limited experience.

The path to a green career

The first hurdle is the ambiguity of career paths. As many roles in the sustainability space are only just emerging and most others are rapidly evolving, there is a lack of clarity when it comes to career trajectories. For jobseekers, this can lead to confusion and an unfocused search, which is especially true for those newer to the job market. In turn, careers guidance is sometimes conflicting – although this can mean a variety of advice with something for everyone, it can also be confusing. Much of the advice is not tailored towards those with little experience, leaving a disoriented group of aspiring people behind.

Education has been proven to increase knowledge of the environment and a willingness to act in favour of it. However, young people are not receiving sufficient environmental education, either in schools or higher education institutions. Links to sustainability should be included in the curriculum of every subject.

While education is fundamental, gaining necessary green skills is the next step. The imbalance between academic education and practical green skills is a further reason why young professionals struggle in their job search. There is a tendency for recruiters to look favourably on practical experience, disregarding the potential of younger, more inexperienced, but highly educated, graduates, even though it has been found that younger generations acquire green skills faster.

> "Pivoting the focus towards skills building can give young people a better starting position for their green careers"

Increasingly, young people feel the need for a sense of purpose in their work and this, combined with increasing climate- or eco-anxiety, can lead to behaviours that might range from higher motivation to dissatisfaction wherever values do not align. Climate-anxiety is more prevalent in younger generations and, therefore, the need to work in roles that positively contribute to the environment is much greater.

Although these factors may cause friction between management and jobseekers, finding common ground should be considered.

Possible solutions

Addressing the issues above should be approached from multiple angles simultaneously. Creating better and more comprehensive sustainability education and pivoting the focus towards skills building can give young people a better starting position for their green careers.

At the same time, understanding that climate-anxiety will affect the behaviours of younger people and considering their inherently different values will help bridge the gap between young people and recruiters. Moreover, career advice should be tailored to be more appropriate and useful for early career professionals.

Creating awareness about these challenges and instilling confidence will help young applicants break into the climate space.

TEODORA STOYANOVA is a student at the University of Warwick and an IEMA Futures member

SHUTTERSTOCK

Major changes to industrial and commercial waste requirements are on the way, writes **Neil Howe** in the latest environmental legislation update

We now have a Labour government in place, who immediately began acting on their manifesto policies. However, in the weeks prior to new hope and expectation, the previous administration implemented some crucial developments worthy of note.

FCA's anti-greenwashing rules now in force

Environmental, social and governance (ESG) is an area that is rapidly growing in prominence, and recent surveys have shown a huge interest in sustainable finance. Tied in with this, the Financial Conduct Authority's (FCA) new anti-greenwashing rules are now in force. They are designed to protect consumers by ensuring that sustainable products and services for sale are accurately described.

The rule accompanies the FCA's Sustainability Disclosure Requirements – the UK's flagship ESG regime. The regime is primarily about product labelling and includes guidance and rules on investment labels and disclosures, naming and marketing rules for UK asset managers, and rules for distributors of investment products to retail investors in the UK. It applies to all FCA-authorised firms, not just investment products or asset managers. The regime seeks to ensure consumers are protected from misleading sustainability-related claims, by enabling them to make informed decisions aligned with their sustainability preferences.

tinyurl.com/52hpcsb2

New waste requirements implemented in England

Initially set out in the Environment Act 2021, the provisions that will result in household recyclable waste streams being collected separately from all other household waste are now in force in England. Crucially, this applies to household waste generated at both domestic and non-domestic premises where industrial and commercial waste is of a household nature.

The provisions apply to glass, metal, plastic, paper, card and food waste for all sites, with the addition of garden waste for domestic premises.

Although the separate collections law is now in force, there are complex transitional provisions in place which apply to different waste collections at different premises. These provisions will effectively phase in the new requirements, starting from 31 March 2025.

tinyurl.com/34zcaf73

IN COURT

A director and his Manchester-based company have been fined over £870,000, including £811,181 in proceeds of crime, for illegal waste exports. The prosecution was brought by the Environment Agency following an investigation which found that the company exported waste described as "clean plastic" that it intended to be incinerated as fuel, with no intention of it being recycled.

tinyurl.com/bdhtsfvh

Lastly, in case law, in *R (on the application of Finch on behalf of the Weald Action Group) v Surrey County Council*, the Supreme Court has issued a landmark judgment on the scope of environmental impact assessments.

tinyurl.com/39tns6sa

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ON THE WATCHLIST

Plans to extend the UK ETS, and two consultations on the chemicals regime.

Waste incineration rules are under review

UK ETS expansion

The UK Emissions Trading Scheme (ETS) Authority is consulting on the expansion of the UK ETS, to include energy from waste and waste incineration. It considers how waste incineration and energy from waste could be included in the scheme from 2026 for the monitoring, reporting and verification only period, with full surrender obligations from 2028.

tinyurl.com/2sv5p5ft

Chemicals reform

The Health and Safety Executive (HSE) has reiterated that it will be looking into reforming the chemicals legislative framework in Great Britain (inherited from EU law after Brexit), using its powers issued under the Retained EU Law (Revocation and Reform) Act 2023, which expire in June 2026.

tinyurl.com/5a2782e6

UK REACH

The government is also reviewing ways to reduce the costs to businesses as we transition from the EU REACH chemicals regime to UK REACH. Along with plans to bring in further protections against animal testing, a key proposal is to amend the current transitional provisions for submitting registration information to the HSE. An in-depth analysis by Defra, the HSE and the Environment Agency has set out an alternative transitional registration model for UK REACH.

tinyurl.com/ykaausrx

NEIL HOWE PIEMA is head of writing at Barbour EHS

HOLDING COURT

From basketball player to leadership guru, **John Amaechi**'s career has reached many peaks. He tells Huw Morris why sustainability professionals are heroic

John Amaechi OBE strikes down any assumption that he is "a warm and fuzzy psychologist", as he puts it, without any grounding in business. "I want to win and I want to help people to win," he says.

A veteran of America's National Basketball Association (NBA), he is now a psychology professor, diversity expert, business consultant and, with publication of his book *The Promises of Giants*, leadership guru. This is unashamedly about empowering people to maximise their potential and lead. Everyone can be a giant, not just 6ft 10in former basketball players like him.

Winning for sustainability professionals is to encourage action today to avert disaster tomorrow. "What people in the sustainability space are trying to do is effort now, new thinking now, new approaches now," he says.

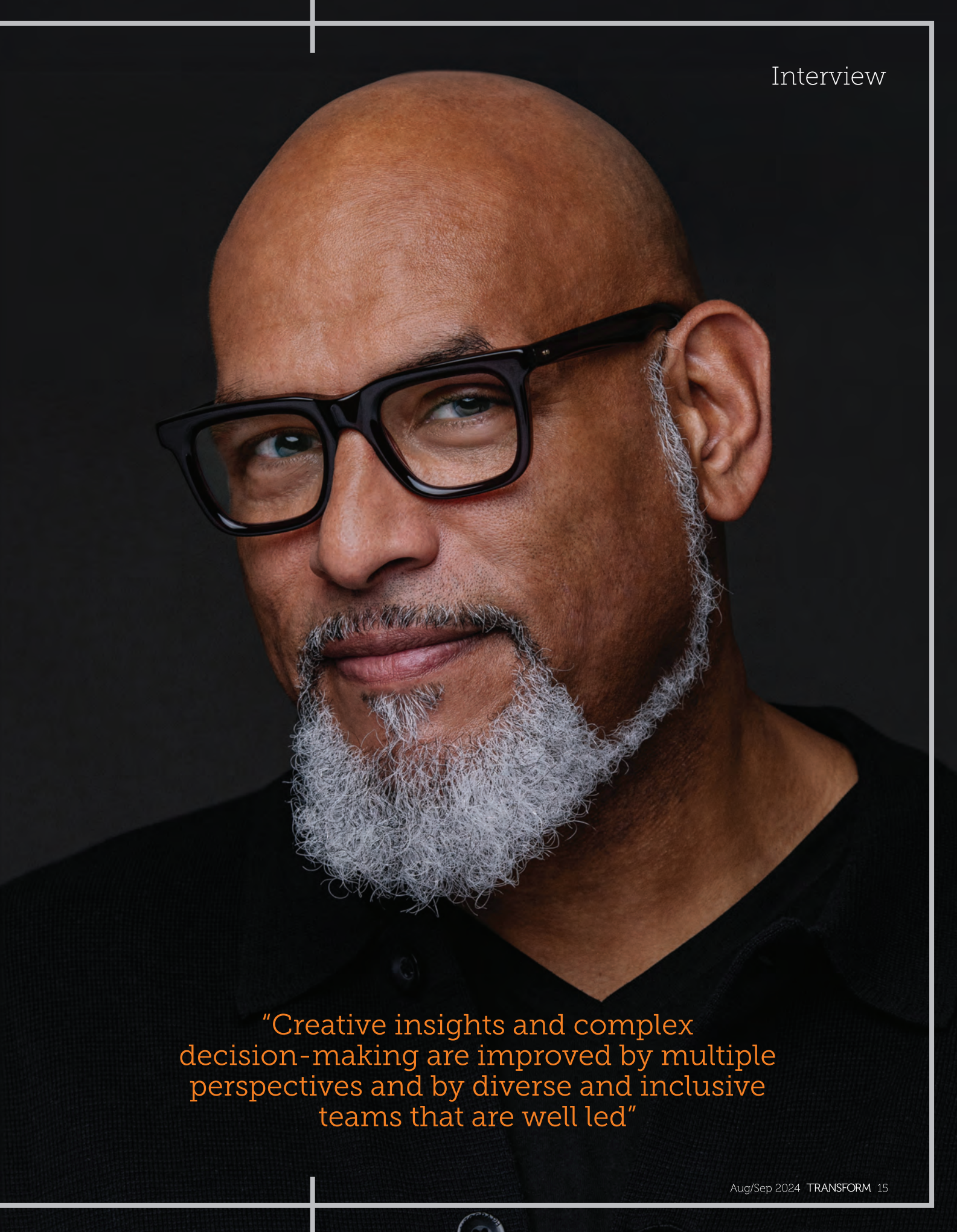
"I want to encourage people to acknowledge that there are skills and knowledge they need to gain if they want to be the type of leader they aspire to be. As human beings, every time we face another person, we tell them who we think they are."

The Pygmalion effect

Giants, Amaechi argues, can assert power and make an impression from anywhere within an organisation. But managers and staff must remember that how they interact with people can damage other people's self-regard and performance.

Instead, he points to the Pygmalion effect, a long-established psychological phenomenon in which leaders with high expectations of their followers improve their followers' performance.

"It's not just about being nice to colleagues or direct reports," he explains. "It's the idea you can impact their performance. If you



"Creative insights and complex decision-making are improved by multiple perspectives and by diverse and inclusive teams that are well led"

think they can do it, they are more likely to do it."

Amaechi argues that so many leaders "ignore the talent under their noses". This is particularly pressing with the onset of artificial intelligence (AI) and the creation of "generic, almost cookie-cutter-like workforces". AI, robotics and automation, among other trends, threaten jobs, particularly those at the lower end of organisations.

In time, it becomes harder to promote people who have mastered skills and developed intellectual and emotional intelligence around their workplace and industry into the middle layer of organisations. More people are rising to the middle layer without the skills and training to deal with people, never mind lead them.

"We've always elevated people not because of their skills in interpersonal communication, leadership, management, their ability to enable people to thrive or to recognise what talent looks like. We elevate them because we don't want to lose them. They are technically good and if we don't give them a pay rise and some responsibility they will leave.

"Our systems for recognising talent are really poor, especially in the assessment of people entering organisations. Most of the things we use are not measures of talent, they are proxies for measuring talent."

Tomorrow's workforce

Amaechi points to a McKinsey study in 2016, which predicted that by 2030 between 75 million and 375 million workers globally will need to move out of their occupations to find work. People must expand their perception of what talent looks like in an environment where everything changes so rapidly.

> "[Sustainability professionals] may not have crowds cheering in front of them, but some of us are cheering"

"In that environment, thinking about what skills someone has today is not relevant to whether they will be relevant in 10 years' time.

"Talent comes in unusual packages. Are they agile thinkers? Are they learning adapters? In this sustainability space, so much is changing, not least how we are going to communicate effectively with people we need to convince and change.

"But some of the ways it's being communicated is literally as if white middle-class people are talking to other white middle-class people who do not have all the concerns that many people have. That's where inclusion can help."

The environmental and sustainability movement is one of the UK's least diverse sectors. Research by Racial Action for the Climate Emergency published in February revealed that just 6% of employees identify as People of Colour and other racially or ethnically minoritised groups. However, it compares with an average across the UK workforce of 15% of employees who identify as People of Colour and other racially or ethnically minoritised groups.

"If you are interested in sustainability, it is curious to have an environment that is interested in something that is disproportionately affecting certain parts of the world and disproportionately caused by other parts of the world yet has representatives from only one side of that picture.

"The amount of evidence we have gained over the past 35 years – complex, well-written, peer-reviewed analysis and meta-analysis – tells us on a granular level that creative insights and complex decision-making are improved by multiple perspectives and by diverse and inclusive teams that are well led. That goes for any sector."

Hiding behind words

Amaechi describes unconscious bias as 'bunkum' and says people tend to add additional words not to clarify but to obscure. "Bias tells us enough of the picture, but when you add 'unconscious' to it, that allows people to hide and say it's not my fault.

"It's not unconscious, it's just ugly. We call it unconscious because we don't like it and try to hide it. I grew up in a society that gave me some ugly views of Black people despite the fact I'm a Black person; that gave me ugly views about Queer people despite being a Queer person.

"But instead of pretending [these views] are hidden in my brain in such a

Amaechi: awarded an OBE in 2011

JOHN AMAECHI'S CAREER AT A GLANCE

Despite taking up basketball at 17 in his native Stockport, moving to the US alone at 18 to pursue a career as a professional, rising to the heights of the NBA, and being part of the England team that won a bronze medal at the 2006 Commonwealth Games, Amaechi never loved the sport. But he relished the opportunity his NBA status gave him to visit schools and talk to students about their aspirations.

"I put a ball in a hole. What's there to love?"

Amaechi became the first former NBA player to publicly come out as gay.

After studying for a PhD in psychology while playing, in 2006 he founded APS Intelligence, which specialises in executive coaching, leadership and diversity.

He is also honorary professor of leadership at the University of Exeter's Business School and was appointed an OBE in 2011.

● ***The Promises of Giants – How You Can Fill the Leadership Void*** **is available from all good bookshops**

way that I'm more likely to manifest them, I acknowledge them and declare that they are not who I will behave like, even if they are part of some bad code that exists in my brain. I want people to embrace that we've all had bad teachers in life. For some it's been television, radio and politics, and to pretend otherwise is to create harm, not avoid it."

A dearth of great leaders

So why are there so few great leaders? Being an excellent leader is "energy expensive", Amaechi argues.

"Part of the reason we don't have as many great leaders as we expect is not because of the epic skill levels or the toolset or knowledge but because of the sustained and consistent effort that is required.

"It's chastening to think that one of the reasons we don't have good leaders is because it's hard."

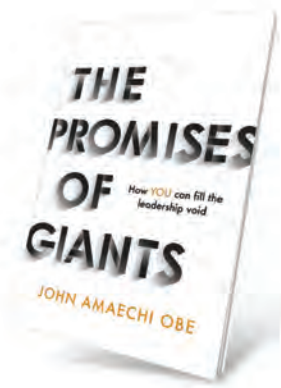
Amaechi describes himself as a humanistic psychologist. Humanism is particularly sensitive to incongruence, one of the causes of pain in life and society. This comes in many shapes and sizes – the gap between the rich and the poor, between the haves and the have-nots, the gap between what politicians of whatever party promise and what they deliver.

"The Conservatives are experiencing that right now [in the UK] – it's not that nobody is Conservative any more but because the difference between what they promised and what they delivered is poop in the rivers. The gap is so big that people no longer see the integrity of it. You wear a mask and I will party."

Organisations also fail to consider incongruence. Amaechi has a particular bugbear about aspirational mission statements.

"They speak in the future tense for some of it, they speak in the present tense for some of it, but all of it is so big a promise that there's a big gulf between what they say and what they do. That creates pain and a stress point people can't tolerate, a dissonance that makes people feel betrayed if they are associated with an organisation and oppressed if they are outside.

"If an organisation says that operating in harmony with our communities and environment is important, that one statement means a cascade of implications for how you approach business, where you do business and who you do business with."



Morale is a problem in the wider environment sector. A *Guardian* survey of the world's leading climate scientists in May found that many feel hopeless, angry and scared by the failure of governments and corporates to act on global heating.

Improving morale

What is Amaechi's message to sustainability professionals?

"We are human beings who get locked in a very tiny timeframe. We think we're only on this Earth for such a period of time, we only have influence in our working life for a length of time.

"Yet many people feel despair that they are at the top of their game, they have reached the pinnacle of where they feel they should be able to influence yet feel ignored and undervalued by people without their expertise.

"Two things can be done. Are they controlling every controllable, every lever of power and influence that they have?

"That involves restraint as well as boldness. That doesn't mean always doing the most vociferous things. Sometimes it means doing the most sophisticated thing, even if it takes longer.

"The second is to just remember the impact of what they are doing now. It may not be any solace as the Earth warms, but they are on the right side of history. The heads that butt against walls every day will be venerated. The only thing that could damage that legacy is to stop now.

"What they are doing is heroic. They may not have crowds cheering in front of them, but some of us are cheering."

Amaechi built a successful career in professional basketball as the first British male to play for the NBA

EDUCATE, EMPOWER, PROTECT

Blending professional advancement with environmental action

ACT sustainably!

At the heart of the Act Sustainably mission is a commitment to not just educate, but to enact positive change in the world. This is why we've chosen to partner with **ROLDA, an international charity working in Romania and Ukraine to solve the appalling problem of these countries' homeless animals** – estimated to be in the millions – in a humane and responsible manner. ROLDA's dedication to rescue, rehabilitation, sheltering, sterilisation, social programmes and education mirrors our own values of compassion, sustainability and action. They maintain a strict no-kill policy and work tirelessly to rehome rescued stray dogs.

By enrolling in our IEMA training courses, you're doing more than advancing your career. You're directly contributing to a vital cause. Act Sustainably pledges to donate at least 1% of the revenue from all our IEMA courses to environmental charities, ensuring that with every enrolment, we're supporting efforts to make the world a safer, kinder place for animals.

Our unique course delivery is designed to empower and educate, equipping you with the knowledge and skills necessary to drive real environmental change. Beyond the professional accreditation, it's an opportunity to be part of a larger movement.

A movement that values education, action and partnership in pursuit of a sustainable future for our planet and all its inhabitants.

Join us in this impactful journey. By choosing Act Sustainably for your IEMA environmental management training, you're not just investing in your future; you're contributing to the global effort to protect and respect our natural world and the animals that share it with us.

Let's make a difference together. Enhance your skills, advance your career and support a cause that truly matters. Your journey towards making a significant impact starts here.

At Act Sustainably, we're more than just a company. We're a community of passionate individuals committed to creating a sustainable future.

If you're ready to join us on this journey, reach out to us via our website at www.actsustainably.com or email us at connect@actsustainably.com
We look forward to working with you to create a better world.

"ACT Sustainably deliver a thorough, real-world-based, engaging course, adding value through webinars and extensive extra resources"

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Change agents

Growing a green workforce

Green Careers HUB

ELEANOR SHAKESPEARE

IEMA

Transforming the world to sustainability

What a difference a year makes

Well, this past year has certainly flown by! We launched the Green Careers Hub in June 2023, and it has generated huge interest as awareness and traffic continues to grow.

This special issue of *Transform,* in partnership with the Green Careers Hub, has an education and careers focus, with features from the University of Bath and the Institute for Apprenticeships and Technical Education.

Chris Seekings' article, 'Shaping young minds', shows that there is a real gap in supporting educational institutions on green careers. In the future, we plan to explore how the Green Careers Hub can support schools, colleges and careers leaders.

I particularly enjoyed reading the article by Feyi Osifuwa on the importance of diversity of thought for a green economy, drawing on her own experiences of education and work. The Diverse Sustainability Initiative is doing fantastic work in this space – please take a look at the website to find out more: www.diversesustainability.net

Rebecca Turner

Careers pathway manager at IEMA

MENTORING SCHEME TO BOOST REPRESENTATION OF PEOPLE OF COLOUR IN SUSTAINABILITY

We are delighted to announce that IEMA, in collaboration with the Diverse Sustainability Initiative (DSI), will partner with the University of Strathclyde, which has been awarded funding by the Economic and Social Research Council's Impact Acceleration Account. The partnership will develop mentoring that supports People of Colour (PoC) working as sustainability and environmental professionals in order to enhance the UK's green transformation.

One of the key findings from the 2022 *Racial Diversity in Environment Professions* report, co-funded by Students Organising for Sustainability UK, IEMA and the Natural Environment Research Council, highlighted that environmental professionals are among the least racially diverse in the UK. Only 4.81% of individuals in this field identify as Black, Asian, or from other minority ethnic groups, compared with 12.64% across all UK professions. The PoC Network, established in response to other statistics indicating a lack of racial diversity in the profession, has identified significant barriers, including limited career progression opportunities and a lack of PoC in leadership roles.

The mentoring scheme aims to find out what is most valued and needed in a mentee/mentor relationship in order to break down these barriers.

The scheme will work with small numbers and will run for six months. It will prioritise supporting early-career IEMA members of Colour, with a view to expanding the initiative after a further review. It may eventually support a broader range of underrepresented individuals. Mentees and mentors will be supported throughout the process, with an opportunity for training and networking.

Watch this space for more information. We have set up a dedicated email for this project: careermentoring@iema.net. If you are a Person of Colour interested in joining the DSI's PoC Network, please register at www.diversesustainability.net

GREEN CAREERS HUB – 12 MONTHS ON

With more than 34,000 active users, the data on audience demographics indicates that 62% of our users are in the earlier stages of their career. We regularly add new content to our site. To get all the latest updates, visit: www.greencareershub.com

BLOGS

Offering a diverse range of topics from book recommendations to tips for applying for a job in sustainability, and everything in between.

MORE VIDEOS

Speedy Hire and the Local London Green Jobs and Skills Partnership provide a fascinating insight into how training is a key driver in ensuring we have the green skills needed in future.

MONTHLY CAREERS WEBINARS AND WORKSHOPS

Previous sessions are available on-demand from our archive. The topics and format of the events vary, so get in contact with suggestions for themes. Our next event is due in September. Keep your eye on the website at www.greencareershub.com for topic and registration details.

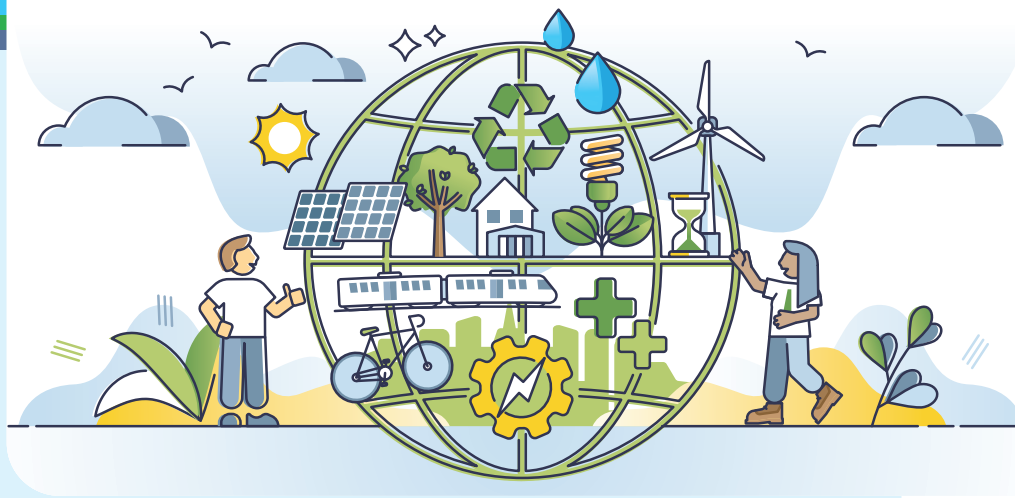
MORE JOB PROFILES, CASE STUDIES AND SECTOR ANALYSIS

Get in touch if you or your organisation would like to support the Hub.

Green Careers HUB

Class acts

Rachel Cooper and Beth Chaudhary explore how colleges can cultivate the next generation of innovators



At Lancaster & Morecambe College, all the students and staff have access to a sustainability curriculum. They learn about why climate change matters and how to address environmental challenges. We visited its hair and beauty department, where students were learning about safe disposal of chemicals and the circular economy. We also went to the construction department, where students were learning about renewables.

At the Institute for Apprenticeships and Technical Education (IfATE), we're keen to learn from such innovators so that we can ensure that our standards – created by employers to underpin all apprenticeships and technical qualifications in England – provide the skills our economy needs.

We share IEMA's belief that we can all learn from one another and consider decarbonisation, energy efficiency, sustainable operating and new green technologies in our work – as exemplified so powerfully at Lancaster & Morecambe College. We also share the belief that all occupations benefit from considering green skills and their greener future.

Sustainable to the core

It is essential that sustainability is baked into the way our organisation thinks and operates. Our sustainability toolkit supports employers to embed sustainability and carbon literacy across all the apprenticeships and technical qualifications we approve.

With employers, IfATE has created around 690 high-quality apprenticeships, 18 T Levels, 175 higher technical qualifications and 1,200 Level 2 and 3 technical qualifications. We have noted an increasing trend in starts for those apprenticeships with the most sustainability content – between 2017–18 and 2022–23, these increased by around 60% to almost 2,400 starts. Early signs indicate that sustainability content is signposted across almost all subject areas for new qualifications, often with extra sustainability content on emerging technologies. This is a promising picture of the widespread priority of sustainability in technical education.

Recent estimates suggest there will be around two million green jobs in the UK by 2030. During the past three years, we have been laying the groundwork to support this transition. Of our approved standards, 30% now have significant green content, which can be filtered by our Occupational Maps, such as Level 7 sustainability business specialist and Level 4 corporate responsibility and sustainability practitioner, both in the business and administration route.

> "Early signs indicate that sustainability content is signposted across almost all subject areas for new qualifications"

We have been working with industry to identify the skills needed for these green jobs. Many of the roles identified are in industries experiencing skills shortages, such as construction and engineering. We have also committed to working with IEMA, the Chartered Institute of Ecology and Environmental Management and others to develop the new technical education products needed to train people into ecology and environmental planning regulation roles.

Training options

Technical education can also support people to reskill or upskill as their industries evolve to deliver net zero. Apprenticeships allow you to earn as you learn, so they are particularly powerful for encouraging people to train or retrain. Other options include boot camps and shorter courses and qualifications, which can provide the more flexible, bite-sized technical training needed to catalyse a greener career. Visit bit.ly/Skills-for-life for further details.

As well as 'greening' long-standing standards such as domestic electrician, IfATE has introduced new standards such as the low-carbon heating technician. Vaillant UK, in partnership with Derby College Group, has been one of the first to recruit a cohort of these new apprentices, all aged 16–19, in an industry that faces the challenges of an ageing workforce.

At IfATE, our equity, diversity and inclusion toolkit ensures that our training products play their part in closing the representation gap in certain industries to ensure they can draw from the widest talent pool in future.

Delivering on our net-zero and nature recovery ambitions will come back to having the right people and skills. At IfATE, we believe that apprenticeships and technical education should be at the heart of meeting this challenge.

DR RACHEL COOPER and BETH CHAUDHARY are strategy directors at the Institute for Apprenticeships and Technical Education

Shaping young minds

IEMA-commissioned research suggests that career advisers should target young people at an earlier age than they often do. There are risks but also significant opportunities for the green economy, writes Chris Seekings

It's well known that the UK faces a huge challenge upskilling and training enough people to achieve the country's climate and environmental goals, with the energy sector alone facing a green skills gap of 200,000 workers.

Young people will play a key part in closing this gap, but new LinkedIn data shows that Gen Z workers are struggling to secure green jobs, and suggests that just one in eight will have the skills needed to tackle the climate crisis by 2030, despite making up a third of the workforce.

A permanent cross-government body that takes a strategic approach to delivering green jobs would help, while educators, recruiters, training providers, businesses and professional bodies have an important role too.

However, is it possible that these groups are missing a trick by failing to target an even younger age cohort?

Cause for concern

An IEMA-commissioned survey of UK career leaders last year found that 50% believe the appropriate time to start familiarising young people with green jobs is between ages seven and 11, yet the National Careers Service helpline is only open to people aged 13 and over.

Talking to children about careers at such a young age is an emotive subject, with some parents fearful they will 'grow up too quickly', missing out on the fundamental joys of being a child and being burdened with unnecessary pressure to succeed.

"Way too early. Let them be children, for crying out loud," was one response to a Mumsnet thread on the subject last year, while another said: "If you want happy kids, don't push them in any direction." However, of the 49 replies, the consensus among parents was that introducing children to the world of work would be harmless, with many more welcoming career learning in primary school than opposing it.

Whether we like it or not, there is much evidence to suggest that we begin to limit and expand our career options at a very early age.

Breaking stereotypes

American psychologist Linda Gottfredson's theory of self-creation, circumscription and compromise suggests that children have already begun to identify roles and occupations that adults have by the age of three.

The environment is important to children, so providing sustainability role models could attract them to green careers

They start classifying job roles that apply to themselves based on gender by ages six to eight, according to the theory, and begin discarding potential occupations based on their social status between ages nine to 13 – beliefs that remain permanent if unchallenged.

"All the evidence shows how important it is to start the careers conversation with young people early," says Mark Hastings, senior communications manager at The Careers & Enterprise Company, the body for careers education in England.

"Kids start forming ideas about their future at a young age, so it's important to inspire them, help them explore the world of work, and also to break down gender and other stereotypes about certain jobs being for certain types of people."

Construction workers, engineers and agriculture workers are just a few of the occupations traditionally seen as male roles, which are critical to the net-zero transition, while figures from Energy & Utility Skills' 2023 Inclusion Measurement Framework reveal that women make up just 27.5% of the UK's energy sector.

The sustainability profession is among the least diverse sectors in the UK – 3.1% of environment professionals identify as minorities, compared with 19.9% in all occupations – and providing role models for children could be key to addressing this imbalance.

Inspiring the future

So how do we do this? The answer may partially lie in sustainability professionals in all sectors visiting children – whether in person or virtually – to demonstrate the exciting career opportunities on offer.

The charity Education and Employers has been organising such visits for years, largely with the NHS – which is also in desperate need of new talent – but has thus far not been approached by many businesses in the sustainability sector. "Your sector has such an amazing range of careers and diversity of jobs, most of

SHUTTERSTOCK

which children have not heard of," says founder and CEO Nick Chambers. "It's an area where your members could make a really big difference.

"If you ask children what's important to them, the environment is very high up. Intrinsically, children are interested in this, but they just don't see the role models, and you can't be what you can't see."

Over 80% of secondary schools and 35% of primary schools are signed up to the charity's Inspiring the Future initiative, which provides a matchmaking service with volunteers to talk to young people about their careers.

"You have an awful lot of members, and they do some really interesting jobs, and I know kids around the country would love to have a chance to find out more."

Career-related learning

Chambers is keen to distinguish between career advice and what he calls "career-related learning", adding: "Children should get to see the breadth of opportunities at an early age, so they don't rule out options for themselves at a later stage."

> "Kids around the country would love to have a chance to interact and talk with [members] to find out more"

It's increasingly clear that employers, particularly within sustainability, must be at the heart of careers education; working with schools and colleges to showcase opportunity, develop skills and highlight pathways into rewarding jobs.

Hastings explains how 86% of employers already doing this work across all sectors believe it is encouraging young people to take up careers in their industry, and urges employers in the green economy to do the same.

"Young people are already aware of and asking questions about climate change and biodiversity loss from an early age," he says.

"They are our future scientists, engineers, doctors and builders. They will be living with and developing the solutions to these challenges." Indeed, IEMA believes that all jobs must be greener if we are to build a sustainable economy.

The way forward

Linking the curriculum to careers is still not sufficiently common, with a recent Ofsted report stating that this "needed more development" in a quarter of UK schools.

Although it involved a small sample, IEMA's survey last year also found that 35% of careers information, advice and guidance professionals are less confident about offering guidance on green careers than on other career pathways, while only 4% rated young people's understanding of green careers as 'good'. "I feel really inadequate now, with the way that things are changing in the world, with giving advice about jobs," an anonymous career adviser revealed in a focus group commissioned by IEMA last year.

It's also important to consider the crucial role of parents and carers in shaping young minds. "It takes a village to raise a child, and that involves parents, schools and teachers and all the other networks that surround young people," Hastings adds. However, it is still often the case that children are encouraged to take traditional career routes. "Parents are often some of the biggest barriers, because they're sadly very ignorant about the future opportunities," another anonymous career adviser said in a focus group last year. "They often tend to say 'play safe, go with something you know'."

There is a real opportunity for sustainability professionals to emerge as role models for young people – rather than footballers or Youtubers – and inspire them to choose a career path that plugs the skills gap threatening our climate and environmental goals.

"Children from a young age can be very insightful and thoughtful, and often have a much better understanding of the world than we give them credit for," Chambers says. "We met a young girl who wanted to be a nurse because her aunt died from cancer.

"The career aspirations of seven-year-olds often have a lot in common with those of 17-year-olds, and we need to spark their imagination."

A multitude of voices

Feyi Osifuwa shines a light on the need for a range of perspectives

Feyi Osifuwa: "My career has been shaped by a mix of formal education, practical experience and a diverse upbringing"

In the ever-evolving field of sustainability, the importance of diverse voices and perspectives cannot be overstated. My journey has been shaped by a rich tapestry of experiences – from a diverse upbringing in multiple countries to my formal education and varied career paths. These experiences have influenced my understanding of environmental issues, social justice and the need for inclusivity and intersectionality in driving positive change within the sustainability sector.

Discovering sustainability

My passion was sparked by an environmental science class I took in high school and my journey began at university, where I took steps towards becoming an environmental engineer. My mother's resourcefulness, a trait shaped by her own experiences in Nigeria, influenced me from a young age. As a pre-teen, I moved from the UK to Nigeria and saw firsthand how resources were valued and reused there. This contrasted sharply with the consumption patterns I observed after moving to the US during my teens. These experiences pushed me to want to make a difference.

Upon graduating, I struggled to see how I could directly affect the environment through my work. By networking, I learned about corporate social responsibility (CSR) and environmental, social and governance (ESG) frameworks. These ideas seemed closer to my vision and goals and led me to pursue a formal education in sustainability.

Educational choices

Many of the CSR and sustainability professionals I met during that time had transitioned into sustainability from other areas without formal training. I was interested in obtaining a formal sustainability qualification to further my global perspective and for the opportunity to apply my knowledge practically through internships.

The landscape of education has since evolved and there is an increasing demand for sustainability courses at universities. Continued learning and development programmes offer opportunities to diversify, facilitating the blending of sustainability principles into various sectors.

Career diversity and inclusivity

Throughout my career, I've observed that the sustainability sector often amplifies the same voices. While these voices are valuable, there is a critical need to highlight a broader range of perspectives. Working in Nigeria taught me the importance of localising global strategies and using available resources creatively to overcome unique challenges. This adaptability and cultural competency are crucial in addressing varied and complex issues in the sector.

> "Recognising intersectionality is key to understanding how various identities interact and shape individual experiences"

Sustainability looks very different in the Western world than in emerging markets. This disparity is evident in global discussions, such as those at COP events, where approaches and priorities can differ widely. Recognising these differences is essential for creating effective and inclusive strategies.

In October 2023, I founded *Your Sustainable Friend*, a blog and podcast. My inaugural series, 'Black Voices in Green', featured individuals with diverse paths into sustainability. Some had formal training, others did not, and their passions stemmed from various sources. For some it was a love of animals and for others it was a desire to make a difference and effect change based on their upbringing and unique experiences. My goal was to amplify voices that are often unheard. In the series finale, I emphasised the importance of including all voices in our conversations, because many of the groups most affected by environmental and social issues often have the least say. Recognising intersectionality is key to understanding how various identities interact and shape individual experiences.

Thoughts on intersectionality

My sustainability career has been shaped by a mix of formal education, practical experience and a diverse upbringing. I've seen the importance of adaptability, cultural competency and the need to amplify a wide range of voices. It is imperative that we continue to foster an inclusive and intersectional approach to sustainability, ensuring that our efforts are effective and equitable for all communities.

FEYI OSIFUWA is the founder of yoursustainablefriend.com, a blog and podcast where she divides sustainability concepts into bite-sized chunks

Theory meets practice

How the University of Bath has integrated experiential learning into MSc curricula

At a time when sustainability challenges are at the forefront of global concerns, it is crucial for the education sector and businesses to collaborate effectively. Our university recognises this and recently transformed our curriculum to align our educational offerings with the evolving needs of the business sector.

This transformation was driven by a commitment to equip students with the skills and knowledge necessary to address contemporary sustainability issues. The outcome has been the integration of experiential learning into our established MSc in sustainability and management programme at the School of Management, and the introduction of a new MSc course on decarbonisation at the Department of Mechanical Engineering. Both programmes provide students with opportunities to engage directly with real-world challenges.

We believe that experiential learning is a cornerstone of MSc curricula, and is designed to bridge the gap between theoretical knowledge and practical application. Through a combination of practice tracks, internships, fieldwork and industry projects, our students gain invaluable insights into the application of sustainability principles in various contexts. This hands-on approach ensures that our graduates are not only well versed in theoretical concepts but also skilled at implementing solutions in real-world scenarios.

Working with industry

A key feature of our revamped programme is industry collaboration. We have established partnerships with leading corporations and smaller enterprises, enabling our students to see sustainability practices in action. These collaborations expose students to current industry trends and challenges, enhancing their learning experience and broadening their perspectives. Simultaneously, our industry partners benefit from access to the latest evidence-based research conducted by our faculty, offering fresh insights into their sustainability issues.

With a balanced approach between theoretical learning and practical application, our programme gives graduates a blend of theoretical knowledge, practical skills and industry experience, which makes them highly sought after by employers who are looking for innovative solutions to complex challenges. By fostering a dynamic learning environment that emphasises both theory and practice, we are preparing the next generation of sustainability leaders in the best possible way.

As sustainability continues to evolve as a critical global priority, the need for educational programmes that effectively combine academic rigour with practical experience will only grow. We hope that other business schools will embrace this approach too, enabling them to prepare future managers who are skilled in addressing sustainability-related challenges.

Sustainability is embedded in learning at Bath

DR KOSTAS IATRIDIS is associate professor in business and society and director of studies, MSc sustainability and management. SARAH PEEL is MSc careers and external engagement adviser. Both are at the School of Management, University of Bath.

CASE STUDY

Software firm collaborates with students

Students took part in a consulting project with Mistral Data, a small software company that provides data-driven software solutions and insights to the UK transport industry.

The students reviewed the company's sustainability strategy with the aim of identifying industry best practices and making recommendations.

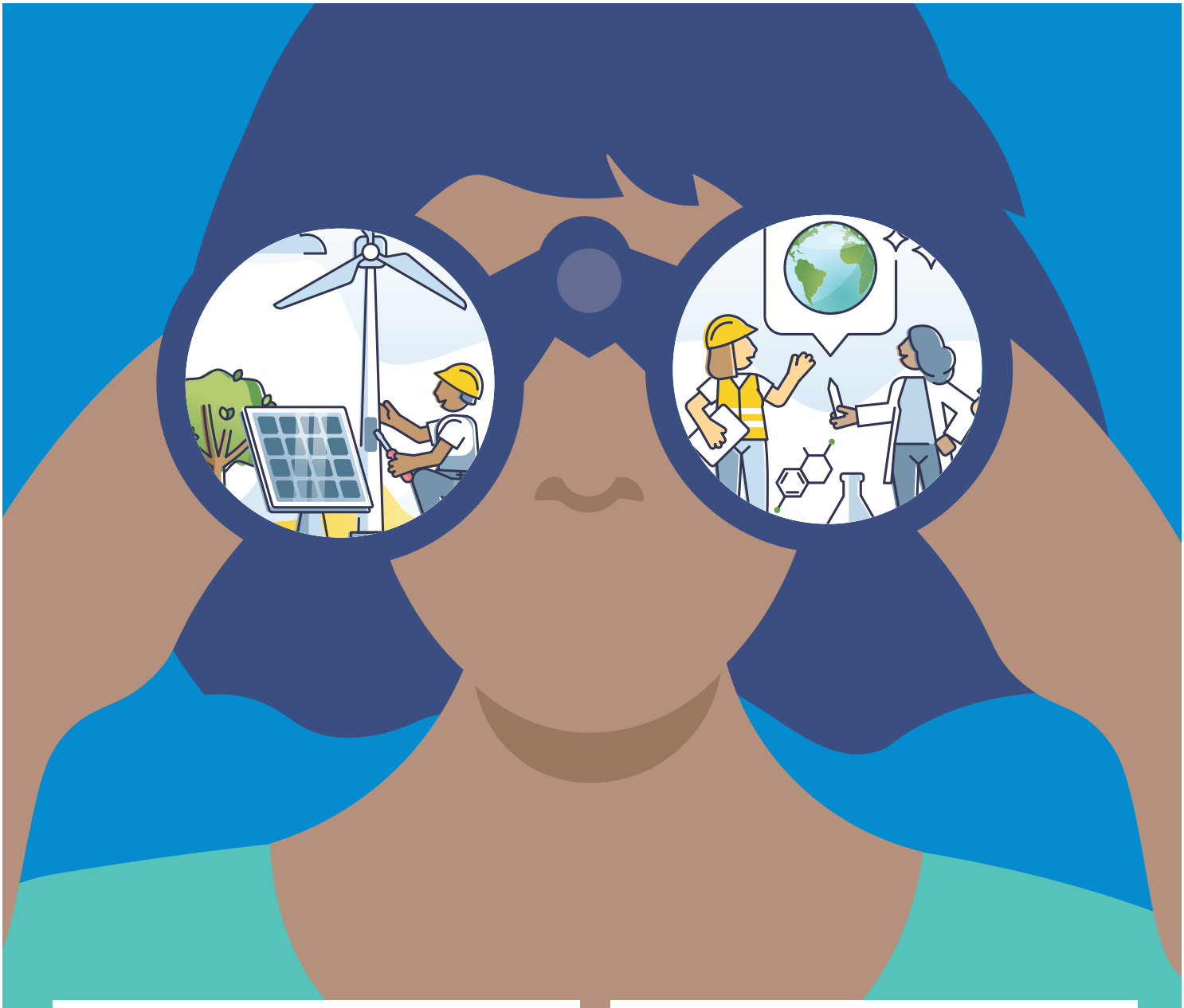
Although Mistral Data's leadership team recognised the importance of sustainability in their company values, they were keen to work with student consultants to see how they could embed a meaningful strategy within the culture of their organisation.

Initial analysis revealed that, despite the lack of a formal strategy, there was already significant progress in areas of social sustainability and governance.

However, following a gap analysis, the students were able to make actionable recommendations on diversity and inclusion, sustainable product development and reducing carbon emissions.

Mistral Data's managing director, Duncan Waugh, says: "Participating in this project has been hugely beneficial. We have been able to recognise what we already do well and where we can make improvements.

"We have offered internships to two students this summer, so that we can act on the recommendations made and move our business forwards in its sustainability journey."



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IEMAJOBS

Companies such as ofi and JDE Peet's are working with farmers worldwide to decarbonise coffee growing and processing techniques

WAKE UP AND SMELL THE COFFEE

Catherine Early looks at what is being done to support coffee farmers facing the challenges of a changing climate

Once a delicacy used mainly in religious rituals, coffee has rocketed in popularity around the world, notably in traditionally tea-loving China, where consumption is growing at 20% a year.

But coffee is heading for a supply–demand imbalance. A 2023 report by non-profit agricultural research organisation World Coffee Research (WCR) warns of an unsustainable future caused by a combination of consumer demand growth of 2.5% a year, a fall in yield of 0.25% a year, and losses of 0.46% a year of the land used to grow coffee as a result of climate change.

To avoid such a future, WCR has calculated that the sector needs $452m a year over the next decade. "If current trends continue, we will be unable to meet the world's growing demand for coffee, let alone to ensure that coffee production is economically and environmentally sustainable," the organisation states.

Longer dry spells, water scarcity, increased risk of pests and diseases, and extreme temperature fluctuations are already making life difficult for coffee growers globally, especially smallholder farmers. These growers are often working on land of just one hectare and operate on tiny margins, but are responsible for 80% of the world's harvest.

On the flip side, cultivation of coffee beans contributes to climate change. Emissions are caused by forest being cleared to make way for coffee plantations, use of fertiliser to grow the crops, the energy used in processing and distribution, and methane emissions from waste pulp.

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On-farm emissions are the biggest component of ofi's carbon footprint

Deforestation rules

There are various regulatory drivers behind the commodity push to reduce greenhouse gas emissions. Along with cattle, soya, palm oil, rubber, cocoa and timber, coffee is covered by the EU Deforestation Regulation (EUDR), which means it will not be allowed into the EU market unless it can be proved that production has not been linked to deforestation since 2020, and that all deforestation risks have been assessed and mitigated.

Ingredients supplier Olam Food Ingredients (ofi) has set a target to halve its emissions under scope 1 and 2 from its processing plants, compared with 2020. The company also plans to reduce the carbon emissions of its coffee supply chain by 30% by 2030, using the same baseline year. On-farm emissions are the biggest component of its carbon footprint.

To monitor exactly how much carbon is being produced by coffee farms in its supply chain, ofi is using a carbon sequestration monitoring tool developed specially for the task in collaboration with Google geospatial partner NGIS. This measures and accounts for gains and losses in carbon stocks on farms.

But with growers spanning 18 countries, and different coffee growing and processing techniques, there is no one-size-fits-all method of reducing the carbon footprint of its coffee, says Piet van Asten, head of sustainable production systems at ofi.

The company has developed a carbon scenario planner to model the outcome of different decarbonisation interventions, tailored to local contexts. The planner is based on nine different 'archetypes' of the coffee it buys, which differentiate between the type of beans grown (arabica or robusta); high-, mid- or low-yielding farms; and the processing technique used (natural or washed).

In natural processing, the coffee cherry is dried in the sun, and then hulled to remove the dry exterior. Therefore, decarbonisation is best targeted at growing techniques, such as reducing the use of fertilisers. With washed processing, the organic matter is stripped from the coffee bean within days of harvesting, then washed with water before being dried. Washed coffee results in high greenhouse gas emissions from wet pulp heaps and wastewater, so decarbonisation efforts should be focused on managing the waste better.

> "WCR warns of an unsustainable future caused by consumer demand growth, a fall in yield, and losses of land"

A tailored approach

Yields can vary significantly between regions. In Brazil, where farmers tend to have more resources and less hilly terrain to navigate, mechanisation and use of fertilisers is high. At the other end of the scale in Indonesia, farmers have less money to buy fertilisers and a higher number of trees on farms, resulting in yields that are three to four times lower than in Brazil, he explains.

Once all these variables have been taken into account, the team can identify which interventions are the most appropriate for farmers. Opportunities tend to fall into four categories – more efficient use of fertiliser and organic inputs; treatment of pulp and wastewater; reducing deforestation and increasing agroforestry; and boosting productivity.

For example, in Indonesia, ofi is training farmers to increase yields by pruning and using compost made from locally available waste products, such as banana skins, goat manure and biochar. It is also supporting farmers to use regenerative practices, such as cover crops and sustainable management of pests, to improve soil health, water resources, biodiversity and carbon stocks.

Van Asten says: "When you look at coffee and carbon footprints or at coffee and regenerative agriculture, they're all arabica coffees, but they emerge from very different farming systems and from very different farmers. The context of these people is very different, and therefore what you have to prioritise – and how you support them – is also different."

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Ofi is also using its own coffee estate in Zambia to test different fertiliser types and quantities to find the 'sweet spot' where it can achieve good production with the lowest possible footprint.

Decarbonisation training

At Dutch beverage company JDE Peet's, decarbonisation involves a two-pronged approach, according to Laurent Sagarra, the firm's vice-president of sustainability. It estimates that two-thirds of the carbon footprint of its coffee comes from agricultural practices, such as use of fertiliser, while the other third comes from deforestation.

To drive down these emissions, it is training all the farmers in its global supply chain, covering practices such as proper pruning of trees to increase yields. This increases farmers' income, reducing the temptation for them to encroach into the forest to grow more coffee.

JDE Peet's is also training farmers in regenerative agriculture practices, and collaborating with WCR to develop and propagate coffee varieties that give better yield and are more resistant to disease and climate change.

The scale of the work is challenging, Sagarra admits, with 700,000 farmers undergoing training so far. Farmers can be resistant to change. "If farmers lose a plant, they lose their income. This is why we're investing in programmes of four to 10 years," he says. "You have to reassure them that they're not putting their livelihoods at risk. It takes time."

As part of efforts to comply with the EUDR, JDE Peet's works with verification and certification non-profit organisation Enveritas, which processes high-definition satellite imagery using artificial intelligence to differentiate between a forest and a coffee plot, many of which are under 10%-30% tree cover and could be mistakenly identified as deforested land, Sagarra says. The AI has been extensively trained, including for verification on the ground.

In Vietnam, it found 161 plots out of 1.8 million that had been deforested since 2020. Because it was such a small number, the company decided it would be easier to remediate the deforestation than to exclude those farmers from its supply chain. It is now rolling out this approach across the world and, so far, has supply chains in five countries that have no risk of deforestation, according to the EUDR's definition.

Proper pruning can increase coffee yields

"The sector needs extra investment of $452m a year to support farmers to adapt to climate change"

"This is how you address the problem in an inclusive way. We are solving the root cause of the problem and making sure all farmers can access the EU market by being deforestation-free," he says.

Of course, all these interventions require investment. According to WCR, the sector needs extra investment of $452m a year to support farmers to adapt to climate change. Investment in coffee typically comprises around 1.8% of agricultural spend in producer countries, despite an output of around 4.8%. Currently, some 90% of investment is made by the public sector.

However, this trend could be changing. At ofi, van Asten says that two or three years ago, its customers were asking to buy coffee with a lower carbon footprint but at the same price. Following a lot of discussion, it has set up pilot schemes with some of them to test different decarbonisation methods, some of which are already being scaled up, he reports.

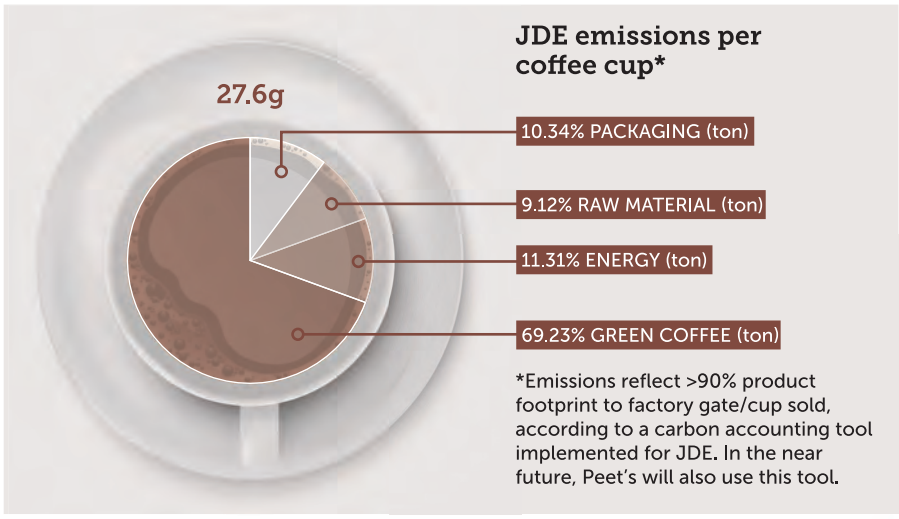
Commercial talk

Sustainability is becoming increasingly important commercially, with even buyers and sellers of beans discussing it, he says. "It's moving into the commercial discussions, which is extremely healthy and really quite exciting.

"Of course, there are costs, and this is part of the conversation we have with our customers." But, ultimately, reducing carbon is a matter of business continuity, he adds. If the world fails to reach net-zero emissions by 2050, ofi predicts that as much as half of the global area where coffee is currently grown may no longer be suitable.

"We have to protect the coffee farmers, and we have to ensure that there is a planet on which to grow it," he says.

CATHERINE EARLY is a freelance writer and editor



SOURCE: JDE PEET'S ANNUAL REPORT 2023

Appetite for change

With the agri-food sector a major driver of biodiversity decline on land, **Katherine Lister** examines how to protect natural capital

In a perfect world, all nature would be balanced, and natural ecosystems and webs of species would be healthy and functioning.

However, in the real world, humanity and the natural world face significant threats and challenges in the form of – but not limited to – climate change, political turmoil, war, biodiversity decline and species extinction.

Global biodiversity is shrinking at an alarming rate, and an estimated one million species of flora and fauna are at risk of extinction. The environmental and financial consequences of biodiversity loss were identified in the World Economic Forum's *The Global Risk Report 2020*, which ranked biodiversity loss as the third most impactful risk facing the global economy.

The impact of species extinction on humanity, businesses, industry and the financial system has been well researched and documented. However, links between human systems of finance, accounting, business and nature are now becoming more apparent, as key ecosystem services, such as pollination, are damaged and, in some cases, destroyed.

Putting a price on nature

In linking nature with finance, the concept of natural capital emerges. Just as financial, intellectual and human capital are viewed as integral 'building blocks' of business, natural capital is also required for businesses and economic production to operate.

It can be defined as follows: *"Natural capital – that part of nature which directly or indirectly underpins value to people, including ecosystems, species, freshwater, soils, minerals, the air and oceans, as well as natural processes and functions... In combination with other types of capital, natural capital forms part of our wealth; that is, our ability to produce actual or potential goods and services into the future to support our wellbeing."*

The interrelationship between biodiversity and natural capital is often discussed, particularly as biodiversity is seen to constitute only a part of what is widely understood as 'natural capital'. Biodiversity encompasses a host of ecosystems and species of flora and fauna, but fails to acknowledge freshwater, soils or any of the other elements encapsulated by natural capital. However, to have rich biodiversity and functioning ecosystems, healthy air, water and soils (examples of natural capital) are all required. In essence, to reduce biodiversity loss, natural capital needs to be protected; and for it to be protected, biodiversity needs to be better managed and conserved.

Agriculture's impacts

With the agricultural sector now recognised as one of the major drivers of biodiversity decline on land, the notion of protecting natural capital and biodiversity is an integral piece of the puzzle required to reduce global biodiversity loss.

SHUTTERSTOCK

It is widely acknowledged by key players in the international financial and business communities that challenges linked with biodiversity loss and species extinction are as substantial as those associated with climate change.

This is evident through many businesses now shifting their focus from addressing climate change and its impacts to a two-pronged approach that seeks to also address biodiversity loss across the agri-food supply chain.

The true impact on biodiversity of mono-agriculture and intensive farming practices, such as the use of fertiliser and pesticides, is now clear.

However, the impact of agriculture on biodiversity and natural capital is not a new phenomenon, with agricultural land use acknowledged as the most significant factor affecting biodiversity loss and species extinction.

Reducing biodiversity loss

With an ever-growing focus on quantity, food production has been intensified to the point where less and less natural habitat is available to wild species of animals, birds, insects, flowers and plants. Latest estimates also suggest that food production will need to be increased by 30%-60% to meet the demands of a population set to reach 10 billion by 2060.

"More and more food is required to feed the ever-growing human population, but biodiversity and ecosystems need to be protected," says Dr Jill Atkins, professor of accounting at Cardiff University, and editor of *Protecting Natural Capital and Biodiversity in the Agri-Food Sector*.

With an estimated one million species already at risk of extinction, substantial efforts are therefore needed to not only halt global biodiversity loss but reverse it.

Focusing on the agricultural industry, there are high-level international efforts to address biodiversity loss, with the Food and Agriculture Organization (FAO) of the UN leading the way with its 2019 report *The State of the World's Biodiversity for Food and Agriculture*. The publication of this report led to the development of the voluntary Framework for Action on Biodiversity for Food and Agriculture in 2021. This framework was updated in 2022 to detail that land and water use/management – in relation to the agricultural industry – were the main drivers of biodiversity loss. The updated framework also highlighted an increase in awareness of the need to manage biodiversity and protect ecosystem services through implementing biodiversity-friendly practices in most countries.

The agricultural industry cannot shy away from its contribution to global biodiversity loss and species extinction. What it can do, however, is provide solutions and mechanisms that can assist in mitigating agriculture's negative impact. The development of initiatives and agri-environment schemes, such as the UK's environmental land management schemes and Australia's environmental stewardship programme, are examples of how this can be done.

"The attitudes of those in the agri-sector must change to ensure the continuity of human and non-human life," says Dr Warren Maroun, professor of accounting and auditing, University of Witwatersrand in South Africa. "If current levels of biodiversity loss continue, key ecosystem services will cease to operate, with the very real possibility of 'biological annihilation'."

KATHERINE LISTER is marketing and communications manager at Burleigh Dodds Science Publishing

This article has been adapted from chapter 1 of Protecting Natural Capital and Biodiversity in the Agri-Food Sector (Burleigh Dodds Science Publishing, 2024), by Jill Atkins and John Peirce.

"The agricultural industry cannot shy away from its contribution to global biodiversity loss and species extinction"

CASE STUDY

THE RIVER WYE: WONDER AND WASTE

Pollution has devastated fishing stocks in the Wye

Flowing from Plynlimon in the Cambrian Mountains in Wales all the way down to the Severn Estuary, the River Wye is a thing of natural beauty. It's also a major habitat for Atlantic salmon. As of 2019, a peak population of around 50,000 Atlantic salmon were fished each year, says the Wye Salmon Association. But now the numbers sit at a measly 2,000-3,000 per year – a decline of 94%-96%.

According to a report published by the House of Commons in 2022, an estimated 60%-70% of the pollution in the river can be attributed to agriculture, with 42% from poultry farms and their soils, which have been treated with artificial fertiliser, resulting in significant run-off into the river.

It is also worth noting that 28% of the pollution is caused by waste generated by water companies in England and Wales.

"Once the birthplace of British tourism, it now exists as a case study into what happens when pollution and its consequences are not curtailed enough," says John Peirce, research student at Cardiff University and contributing author to *Protecting Natural Capital and Biodiversity in the Agri-Food Sector.*

The devil is in the DISCOUNT DETAIL

Robert Bain explains the risks of discounting future climate and material resilience

Discounting is standard practice for policy and investment appraisal. It represents the time preference of money as, generally, people prefer to receive monetary benefits now rather than in the future. Influencing factors include:

- Inflation eroding future value
- The opportunity cost of lost investment decisions
- Pure cognitive bias towards the present over the future.

When applied to macro decisions, the social discount rate (SDR) is used. Here, personal and business finance evolve into societal welfare and intergenerational equity. The SDR reflects the expected state of the world when benefits accrue, the netting of future income growth, and the opportunity cost of investments displaced by public funds. The standard SDR in the UK is set by HM Treasury's Green Book at 3.5%. There is wide variance between SDRs globally, as shown in Figure 1, p34.

SDRs are often politically motivated. For example, Donald Trump's US presidential administration claimed that a rollback in car fuel efficiency standards would generate $6.4bn in net economic benefits, justified by a discount rate of 7%, representing the average before-tax return on private capital. Under the previous Obama administration, the same standards were judged to provide a net economic benefit using a 3% rate, representing how much the average saver can earn. The 3% rate is more consistent with models used to generate the social cost of carbon. Although, given declining long-term interest rates, 3% may even have been too high.

Over the long run, seemingly small changes to SDRs can yield significantly different outcomes. Suppose damages from climate change are estimated to be £1trn in 2100. Using a discount rate of 3%, those damages are worth £100bn today, and just £6bn using a discount rate of 7%. We must at least question approaches to SDRs, as we also have a host of cognitive biases that serve to devalue future climate resilience. The most relevant are:

- Present bias, which prefers immediate rewards, even if they are of less overall value

> "The social discount rate reflects the expected state of the world when benefits accrue"

- Optimism bias that a 'silver bullet' technological solution will be found, as with past problems
- Planning fallacy bias to underestimate the times, costs and risks of projects, which undermine pro-environmental investments with greater risk margins
- Status-quo bias that prefers to fully exploit what has already been invested in, rather than deal in new unknowns that may carry a higher chance of failure.

These ultimately flawed modes of thinking become entrenched in governing and decision-making structures, rewarded by society for delivering immediate benefits. This widespread irrationality cannot be overcome by the law of large numbers, as there is every reason to believe it is prevalent society-wide and does not self-correct with aggregate market forces.

Climate change can therefore be seen as a tragedy on the horizon, as it operates beyond relatively short-term social cycles (business, financial, political, etc). Costs and benefits must be measured on long timescales. Therefore, the discount rate can be critical in determining whether economic models support immediate action, as they determine the weights placed on points in time. A landmark report, entitled *The Economics of Climate Change, The Stern Review*, stated that

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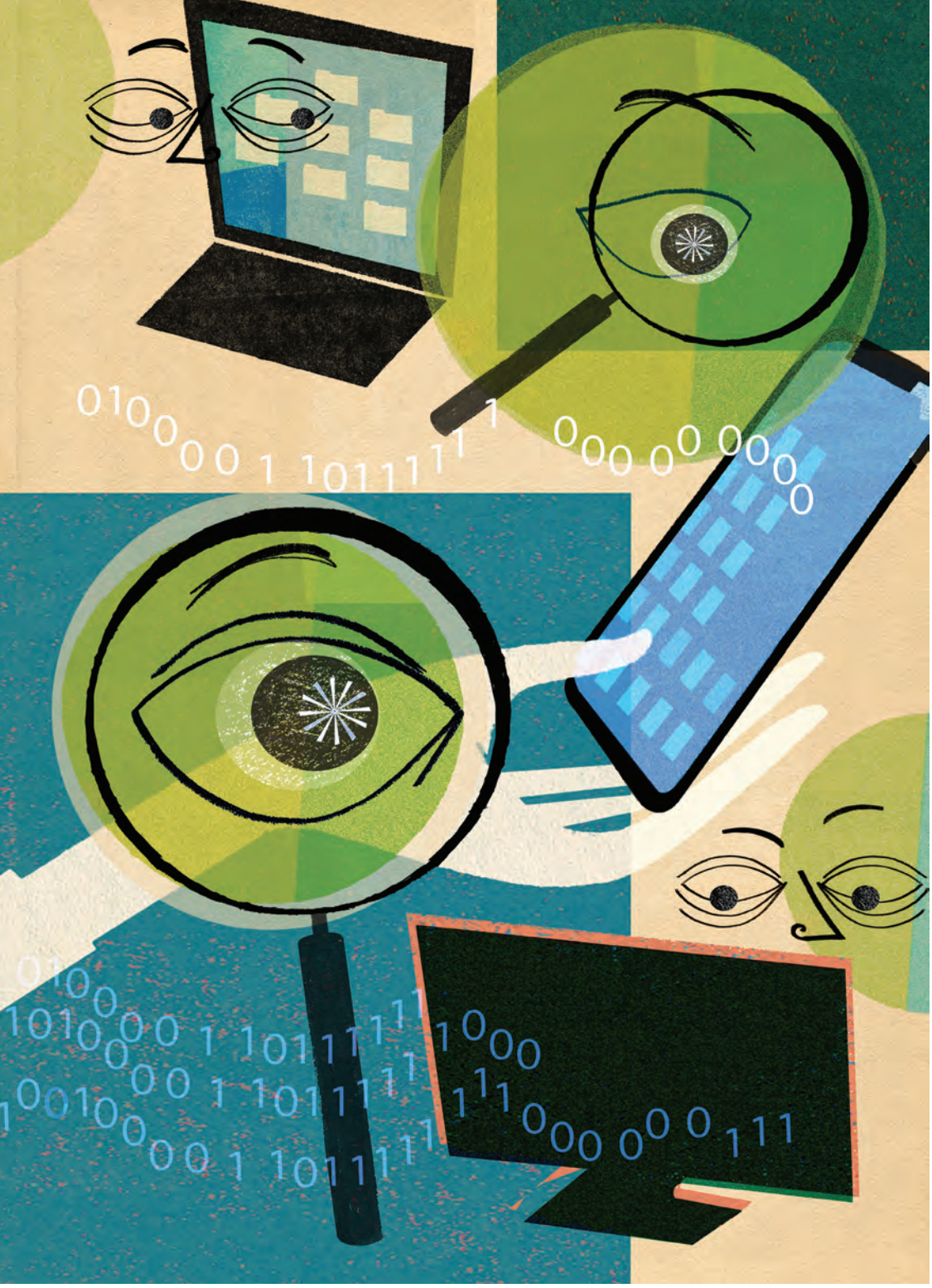

high discount rates unethically undermine the welfare of future generations. As such, Stern argued for a low discount rate of 1.4%, comprised of the following:

- Pure rate of time preference: 0.1%, a normative stance to ensure that future generations are given almost the same weight as the current generation
- Consumption growth rate: 1.3%, a positive stance on the expectation of increasing wealth, making future generations better off than current ones.

There is a general growing consensus that lower discount rates should be used, as found by a 2021 survey of 738 economists by the Institute for Policy Integrity, New York University School of Law. We can also ask, however, if discount rates are appropriate at all. It is almost a certainty that unaddressed climate change will be catastrophic for human society. It therefore may be counterproductive to apply concepts of uncertainty to an issue that would certainly eliminate future income growth. Discounting implies fungibility between current and future costs and benefits.

In the case of natural capital (the world's stock of natural assets), there is great uncertainty over whether natural and produced capital are substitutable, given the complex nature of ecosystems and increased scarcity of natural resources. This flawed thinking rationalises theories such as the Environmental Kuznets Curve, which state that countries can automatically grow and innovate their way out of environmental degradation, even though material consumption and emissions have continued to rise in both developed and developing countries.

Considering that the natural environment forms the complete basis of our existence on planet Earth, future values of sustainability could theoretically have an infinite value, owing to survival needs.

We cannot, however, expect people to entirely disregard the present, given ethical considerations. Historically, developed countries such as the UK have been some of the largest emitters of greenhouse gases since the industrial revolution, especially taking into account colonial rule. Many cumulative emissions therefore form a 'carbon debt' from developed countries to the rest of the world. Developing countries could justifiably use higher discount rates to address their more immediate needs, while developed countries look to the future. There could also be differential rates to account for the changing nature of costs and benefits.

The HM Treasury Green Book allows for lower discount rates to be used for projects extending past 30 years, lowering to 3% for those up to 75 years, and 2.5% for those up to 125 years. This accounts for the diminishing marginal utility of consumption over time. The Green Book also allows for lower rates to be used for specific policy areas, such as health, which is typically 1.5%. This reflects the high value placed on future health benefits compared with other types.

The Green Book does allow for some flexibility on environmental grounds – for example, when policies or projects involve long-term effects, which is usually the case for environmental issues. Or, where there are long-term and substantial or irreversible wealth transfers between generations, in situations such as irreversible changes to the natural environment. There is still no prescribed lower discount rate as with health or risk to life, however, which stunts progress in this area. It is also no secret that climate change itself comes with a host of health and risk-to-life factors.

Still, as climate change is a global issue that requires significant immediate action, the solution to addressing inequities remains far from clear. GDP growth and emissions are still closely correlated in many developing regions (primarily because of the use of coal to meet energy demand) and have instead become relatively decoupled in developed regions. Decoupling, however, may result from the offshoring of energy- and emissions-intensive manufacturing. For example, 44% of Scotland's material footprint occurs abroad, accounting for 40% of all carbon emissions associated with material consumption.

At Zero Waste Scotland, our aim is to drive Scotland toward a circular economy. Strategies such as the Circular Economy Bill and the Circular Economy and Waste Roadmap to 2030, and individual policies such as extended producer responsibility, the single-use plastics directive, and the single-use vapes ban, all contribute towards climate resilience. These initiatives seek to tackle overconsumption and our throwaway culture, and to mitigate the embodied emissions in goods and services. High discount rates further encourage the linear economy, which prioritises immediate consumption over longer-term material sustainability. If the future impacts of the linear economy are not fully accounted for, associated environmental issues such as climate change and biodiversity loss will also suffer.

To conclude, there is strong evidence that current approaches to discounting unjustly devalue both the welfare of future generations and the need for building resilience. While discounting is often a useful tool in options appraisal, there are many underlying cognitive biases that run counter to generating overall societal welfare. It is more economical to reduce emissions now rather than when social cycles deem it necessary, because of the non-linear dynamics of cumulative emissions, and the presence of unknown tipping points and feedback loops, leading to unforeseen cascading effects on natural systems, from which there may be no return.

There are, however, ethical considerations, as developing regions generally have a historically lower carbon debt than developed counterparts, and have more pressing socioeconomic needs to attend to, which lower discount rates may negatively affect.

One thing is for certain – discounting the need for urgent action on emissions will irreversibly damage not just future economic growth but the survival of our species. Such a reality cannot be discounted.

> "It is more economical to reduce emissions now rather than when social cycles deem it necessary"

Figure 1: Key global SDR rates

Source: *The Future, Now: A Review of Social Discounting*, Groom et al, 2022 (bit.ly/SDR-Groom)

ROBERT BAIN is an assistant economist at Zero Waste Scotland. To read the article with full source listings visit www.iema.net/articles/the-devils-in-the-discount-detail

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"These courses have been invaluable in helping our operational and commercial teams speak about sustainability confidently and competently"

Senior Sustainability Manager, Heidelberg Materials

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It's all in the MIND(SET)

In the first of three articles, **Garry Warhurst** assesses the initial approach to sustainability auditing and compliance

ESG (environmental, social, governance) and PDCA (plan, do, check, act) are acronyms that we are all familiar with, but how much do we focus on the 'G' and the 'C' in them? With countries, cities, companies and individuals being held ever-more accountable for their impact on the environment, how can we be sure that there is no greenwashing or greenhushing taking place?

When we consider how we govern and check our sustainability credentials, we tend to think of long, expensive, stressful audits or meetings, which are a necessary evil and may or may not add value. Does the phrase 'What was the point of that?' ring any bells?

There are several key reasons why we can think like this, and these are:

- The auditor's approach
- Mindset going into the audit/meeting
- Personalities clashing
- Previous outcomes and experiences
- Business culture.

What if I told you that there is another way to approach and think of audits and governance, which ensures that value is added and results are achieved?

Opportunities to improve

Governance and verification processes are the bedrock of any good system. Without them, the foundations become rocky over time and eventually collapse. They need to be looked after to support whatever we are trying to do and to ensure that we can justify any claims that are made.

If audits are seen to only find fault, then the experience will be negative. However, if we flip this and say that they are there to provide opportunities for continual improvement (which, after all, is the whole point of the PDCA cycle), we are already approaching them with a more open mindset that welcomes the process.

Audits are not to be feared, and the results of audits should not be linked to performance. Let's think about this for a moment. Passing the audit is what everyone is after, right? Yes, of course it is.

> "Without [governance and verification processes], the foundations become rocky and eventually collapse"

However, is this only about the highest grade or is this about the process, highlighting any gaps in the system, learning different approaches and continual improvement? If we remove the fear of failure, then people are more open around auditors, and this brings in growth to any business.

Are directors, owners, the chief executive, chief operating officer and chief finance officer involved with the process of governance and auditing, or is it left to the sustainability team to manage? The culture of the business drives performance, and culture comes from the top. They do not need to be involved in every step of the process, but they do need to show that the sustainability team are not on their own – for example, by attending the opening and closing meetings of audits, supporting the process by ensuring that enough resources are available for the duration of the audit, and supporting the individuals involved with training.

All in it together

An audit is not just the responsibility of one person or one team, as all departments in any business can affect the results of the audit. Emissions data could come from engineering departments, invoices through accounts, waste transfer notes through environmental managers, etc. Having the business working on this as one whole team and breaking down silos between departments makes the audit process less daunting and more efficient.

Equally, having an audit-ready mindset every day of every year makes the audit process easier. After all, if everything is done correctly and as per procedure, then the audit will look after itself. This ensures that the preparation of the audit has already been completed, leaving just a few finishing touches to check prior to the big day. Remember, if we fail to prepare, we must be prepared to fail.

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Highly skilled auditors

The people who are carrying out governance and verification processes need to be the right type of people for the task. This is not just about training and qualifications but whether they have the right approach and mindset to carry them out. Being audited should not be seen as an additional job or a burden – it is a key part of their job and, as such, time needs to be built in to the day to complete this. If not, resentment can build and the negative approach creeps in.

External auditors are experts in their field with not only the training but the experience to match – be that in ISO 14001, carbon accounting, PAS 2060 or ISO 50001 certification. Wherever possible, embrace their knowledge, because in their roles they will see the same thing being completed in many different ways.

What about your internal auditors? Are they treated in the same way as external auditors, or are they just completing a tick-box exercise for clause 9.2 of the ISO standards? Internal audits need to challenge the system just as much as external audits, if not more so. Why? To ensure that the company can improve and maintain compliance throughout the year and not just when there's an external audit.

Internal auditors need to have the same training as external auditors, with auditing built into their roles, and time and resources allocated to complete the job.

And finally...

By having the right mindset towards auditing and governance, embracing the process rather than fearing it, providing the appropriate resources and doing things correctly throughout the year, we can ensure that businesses learn, comply with all requirements and achieve the strong foundations that every quality management system needs.

Join me next time for part two of the series, where I will be reviewing different types of audits and compliance standards.

GARRY WARHURST AIEMA is the founder of Warhurst Associates, a consultancy supporting businesses on their compliance journeys

The generation game

Community energy projects are vital to the government's net-zero strategy. **Rick Gould** looks at generating growth in the sector

The future for community energy (CE) looked promising 10 years ago when the last government published its Community Energy Strategy. The aim was to encourage local communities to develop their own energy efficiency and renewable energy projects. Indeed, the government stated that with sufficient support CE could power one million homes by 2020. So how has the strategy fared?

There was initial progress in the CE sector and, despite cuts in 2012 to one of the financial incentives to boost growth, the sector prospered from 2014 to 2017. According to Community Energy England (CEE), a body that supports CE groups, the sector doubled in size every year.

Success story

One such CE group is Halton Lune Hydro (HLH) in Lancashire. In 2014, HLH commissioned the first of two 100kW turbines at its newly built hydroelectric plant on the River Lune, with the second turbine added in 2015. However, like many CE groups, HLH's experience is a microcosm of the business and regulatory environment affecting CE groups.

Since its inception in 2008, HLH has had to contend with regulatory obstacles, fluctuating national policies, alterations to funding and support mechanisms, and a changing climate that has resulted in volatile river flows that have periodically prevented the plant from generating electricity.

Despite these challenges, the project has been successful, generating enough electricity for 300 houses, including a direct cable to Lancaster Cohousing, a cooperative eco-housing development of 41 homes built to Passivhaus standards.

"There are huge benefits for the local community in addition to renewable energy," explains HLH director Kevin Frea. "The community in Halton has already received large donations and will receive even more. There is also a whole team of volunteers, which creates a strong team spirit," he adds. Last year, HLH made a record income and donated a third of it, £105,000, to the local community.

Lancaster Cohousing hosts an array of solar photovoltaic (PV) panels, installed by another local CE group, MORE Renewables, which also owns a solar PV and solar thermal water system located at Lancaster Boys and Girls Club.

Both MORE Renewables and HLH are community benefit societies, which are not-for-profit entities that can raise share capital. This enabled local people to invest in the renewable energy projects, and in return receive interest and the satisfaction that they are supporting worthy environmental and social projects.

> "Community energy is about people taking democratic control over their energy future"

ADAM MURPHY/ALAMY STOCK PHOTO

Keeping energy local

According to CEE: "Community energy is about people and communities taking democratic control over their energy future by understanding, generating, using, owning and saving energy in their communities, as well as working together across regions and nationally." CEE also compiles a national database and map of CE projects, and since 2017 has produced annual reports on the state of the sector.

"It is really important to have an organisation such as CEE to get support from experienced people who have worked on community energy," emphasises Frea from HLH.

Many CE groups also provide other services, such as leased LED lighting to replace fluorescent tubes, home insulation programmes, advice and other energy efficiency measures and surveys. Early adopters of renewable energy and cooperative arrangements commonly provide mentoring to new groups.

However, when compared with

The opening of the Halton Lune Hydro plant in Lancaster, which generates enough electricity for 300 houses

Germany or Denmark, where there is a much higher proportion of community ownership of renewable energy assets, the UK has had a variable, disparate policy framework and support mechanism for CE groups. There has certainly been no shortage of grants and periodic funding schemes, such as the £15m Rural Community Energy Fund (RCEF), the Urban Communities Energy Fund and, more recently, the £10m Community Energy Fund to follow on from the RCEF.

The most important financial incentive was the government's Feed-in Tariff (FIT) scheme introduced in 2010, providing payments per kWh of renewable energy generated over a 20-year period.

While the FIT scheme was responsible for the early growth of community projects, the government was surprised by the success and uptake of the scheme. As a result, the government first halved the FIT payments in 2012, and then closed the scheme for new entrants in 2019, although early adopters still benefited from the original rates of payments.

"This had an enormous negative impact on planned projects, especially PV installations, including community projects," says MORE Renewables founder Anne Chapman.

Nevertheless, the effect of halving the tariff from 2012 was buffered by the reduced cost of solar PV panels, so a lower number of new projects were still viable.

The rate of growth in CE projects has significantly slowed in recent years, especially since the FIT scheme closed altogether in 2019.

In 2015, the government also inadvertently curtailed proposals for community and other onshore wind farms by introducing requirements that included the full backing of the local population. "This meant that just one person could object to a proposed wind power project and halt it," explains Chapman. The previous government updated the requirements last year, aiming to revitalise onshore wind power, but this segment of renewable energy has yet to recover from the 2015 changes. The new Labour government is removing the barriers and has pledged up to £1bn for local energy schemes.

Promising potential

Wind power aside, how has the rest of the sector fared since 2014? In its *Community Energy State of the Sector 2022* report, CEE states that 495 community groups had installed energy projects with a total generating capacity of 331MW, helping to save £3.35m from people's energy bills. But the generating capacity is enough for barely a fifth of the one million homes in the aspirational 2014 Community Energy Strategy, while according to *The Future of Community Energy*, a report by WPI Economics, the CE sector has a potential generating capacity of over 5GW by 2030, enough to power 2.2 million homes.

From the ground up

CE groups face challenges other than regulatory burdens and financial uncertainty. "You'd be surprised how hard it is to find an organisation willing to host a solar PV installation," says Chapman.

Technology choices are also important. "We were lucky with our hydro plant, as we had an ideal location, a grid connection, a strong team of people and a lot of support," adds HLH's Frea. Yet he knows of stalled projects where there are years-long waiting lists for grid connections.

Chapman favours solar PV because developments in battery technology have made it much more viable. "A battery enables more of the solar PV to be used on site, and the host organisation can take advantage of time-of-use tariffs." She also advises would-be groups to take advantage of the support and training available in setting up and running cooperative groups.

Yet if CE is to prosper and reach its potential, it needs stability and support. Both the Climate Change Committee and Environmental Audit Committee have stated this, adding that the CE sector is essential for the UK to meet its net-zero commitments.

Additionally, in his 2023 report, *Mission Zero: The Independent Net Zero Review*, Chris Skidmore MP said that the government had neglected the CE sector and should create a new Community Energy Strategy to enable it to prosper, stating that: "For a transition that delivers real growth, we need wholesale community action and involvement – and we need to make the growth benefits of net zero more real for ordinary communities. Community energy projects are one way to do this."

RICK GOULD is an environmental scientist and writer

The Labour Party's promise to ban new oil and gas exploration in the North Sea raises questions about a just transition for workers and energy security. **Chris Seekings** reports

Labour's energy

"An age of national renewal" was declared by PM Sir Keir Starmer after Labour stormed to victory at the UK general election and ended 14 years of Conservative rule. Many environmental campaigners could not contain their excitement, with the new government having promised to make Britain a "clean energy superpower" by doubling onshore wind, tripling solar power and quadrupling offshore wind by 2030.

It will also create the publicly-owned company Great British Energy, "ban fracking for good", and bring an end to new oil and gas exploration licences in the North Sea – although it stopped short of revoking existing licences.

However, while these policies are a major triumph for the environment, some are fearful that they could lead to tens of thousands of job losses and weaken the country's energy security.

History repeating itself

One week before the election, nearly 200 local firms from Scottish towns signed an open letter from the union Unite calling for Labour to drop its policy of banning new North Sea oil and gas exploration until it produces a plan to replace jobs. The letter argues that the party has yet to offer a detailed explanation of how it will save 30,000 jobs from being lost to the transition; with fears mounting that history is set to repeat itself.

"They understand about climate change, but what our members are most worried about is that they don't see a jobs plan in place," Unite's senior organiser, Joe Rollin, tells me. "Being thrown on the scrap heap is what really scares people, because they've got mortgages and food to put on tables."

More than 200,000 miners lost their jobs between 1980 and 1994 as a result of coal pit closures under the watch of Margaret Thatcher, leading to lasting unemployment and poverty.

> "Being thrown on the scrap heap is what really scares people, because they've got food to put on tables"

"We've still not got those well-paid jobs back, which have been replaced by warehouses and call centres that pay minimum wage," says Rollin, who himself comes from a mining background. "The miners and their grandchildren are worse off now than they were 40 years ago."

A sunset industry

Some have warned of an even more damaging impact on jobs, with SNP Westminster leader Stephen Flynn claiming that another Labour proposal for a time-limited windfall tax on fossil fuel companies would result in 100,000 job losses. However, these figures do not consider any possible new jobs replacing those being lost, and have been accused of being derived from unrealistic production forecasts.

The truth is that North Sea oil and gas production has plummeted for a quarter of a century, despite hundreds of new exploration licences being issued. Indeed, production fell by around 67% between 1999 and 2022 – with more than 200,000 jobs lost in the past decade – largely because the UK's reserves are smaller and more difficult and expensive to extract than they were in the 1990s.

Unions are calling for the government to set out a plan to help oil and gas workers transition to renewables

headache

"It's a mature basin, and there's been a massive amount of divestment by the large oil and gas companies," says Mike Bradshaw, professor of global energy at Warwick Business School and co-director of the UK Energy Research Centre.

"Ultimately, we're moving away from fossil fuels – the writing's on the wall."

Even Lord Browne, former CEO of BP, has called for an end to new drilling licences in the North Sea, writing in the *FT* in June that it's "hard to believe that finding and developing the very limited oil and gas resources that remain will be economic".

Energy independence

Unite's letter also stated that a ban on new North Sea oil and gas exploration "could lead to us importing more oil and gas, when we have it on our doorstep".

This claim has been made by several Conservative politicians, with Grant Shapps, a former energy security minister, last year saying that the government would "max out" the UK's remaining reserves of North Sea oil and gas. Failure to do so, he argued, would leave the country dependent on costly imports and put the UK at the mercy of "Putin or anyone else who wants to hold us to ransom".

However, analysis by the Energy & Climate Intelligence Unit (ECIU) has since revealed that North Sea oil and gas is "largely irrelevant" for energy security and would not protect consumers from volatile prices. Around 80% of the oil produced in the UK is exported, and prices are largely set internationally, with producers under no obligation to sell to companies at home.

In fact, the ECIU found that households could cut their dependence on energy imports by 80% by 2030 by ramping up renewables and other efficiency measures. Head of analysis Dr Simon Cran-McGreehin says: "If you're not focused on renewables, you're not focused on energy independence."

Others, however, are less keen on the term 'energy independence', a term Bradshaw thinks should be banned.

"In a largely electrified economy, we have interconnectors with Norway and France, and there's talk of interconnectors to Morocco and Iceland, plus there's a whole set of interdependencies that come with access to low-carbon technologies."

A just transition

In another letter sent to all political parties before the election, more than 60 climate organisations urged the new government to provide a "clear and funded" transition plan for workers in the oil and gas industry.

They also urged the incoming government to expand sectoral collective bargaining across the energy industry, and provide a jobs guarantee so every worker "can find equivalent, alternative employment or funded retraining".

"The longer we wait to implement a worker-led just transition in the North Sea – and other high-carbon industries – the worse off communities that rely on these industries will be," the letter states.

However, it's important to remember that oil and gas will remain an important component of the UK's energy mix.

"If you look at Denmark, they've stopped new licences, but they're continuing to invest in and produce oil and gas offshore, so this is not going to be an abrupt end," Bradshaw says.

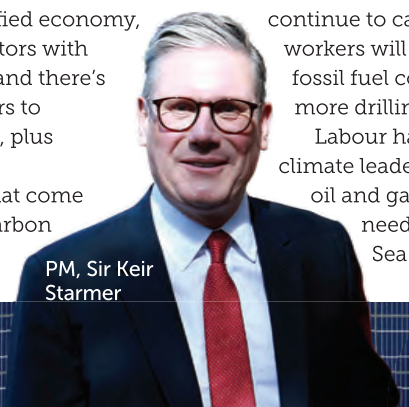
"The other part of the equation is that there's still a lot of work to be done in decommissioning and repurposing existing infrastructure, which is going to provide employment."

Rollin tells me that the skills of oil and gas workers are "very interchangeable" for green jobs, such as scaffolding and pipe fitting, with Unite estimating that a North Sea jobs plan would cost £1.1bn a year in investment that "will pay for itself".

"Our campaigning ringfenced £3bn to save jobs for Tata Steel workers at Port Talbot, so why can't Labour do this for the oil and gas sector?" he asks. "We're not sure, but our campaign will continue until they do that."

The party is already under pressure after slashing its 'Green Prosperity Plan' investment pledge from £28bn a year to under £15bn; climate activists will continue to call for increased ambition, workers will plead for job security, and fossil fuel companies will push for more drilling.

Labour has shown international climate leadership with its ban on new oil and gas licences, but it now needs to set out a viable North Sea transition plan.



PM, Sir Keir Starmer

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Aghogho Egbo AIEMA

Project manager, knowledge transfer associate, University of Hull

Why did you become an environment/ sustainability professional?
I did a master's in environmental geosciences after my undergraduate degree in geology. I wanted to leverage my knowledge of geoscience towards the transition to a more sustainable future.

What was your first job in this field?
I started out as a report-writing intern for a Hull-based charity. I was involved in their carbon management plan and analysis of their carbon footprints. This introduced me to calculating and reporting on scope 1, 2 and 3 greenhouse gas emissions.

How did you get your first role?
I applied for an internship to further develop my research skills in environmental sustainability while studying for a master's in social research at the University of Hull.

What does your current role involve?
As a knowledge transfer associate, I am pivotal in fostering a sustainability ethos within a prominent UK kitchen manufacturing company.

My responsibilities entail conducting comprehensive carbon-mapping exercises across the company's supply chain. I also lead the integration of this data into the company's enterprise resource planning system, empowering stakeholders with actionable insights to make informed decisions.

How has your role changed/ progressed over the past few years?
Initially, my focus was on in-depth analysis and crafting strategies for carbon reduction. I now also analyse and report on carbon emissions, and am actively involved in instilling a culture of sustainability throughout the company.

My job also includes engagement with various stakeholders, strategy implementation and the integration of sustainable practices into everyday operations.

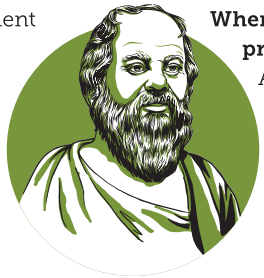
What's the best part of your work?
Witnessing the tangible impact of our efforts to reduce the company's carbon footprint brings a sense of fulfilment, along with aligning our actions with global efforts to combat climate change.

What's the hardest part of your job?
Trying to convince stakeholders to adopt new practices or invest in sustainability initiatives.

What was the last development event you attended?
Level 3 award in education and training.

What did you bring back to your job?
How to use inclusive teaching and learning strategies in promoting environmental sustainability education.

What is/are the most important skill(s) for your job?
A combination of adaptability, communication and analytical skills helps me to navigate the multifaceted challenges of promoting sustainability effectively within the organisation.



Philosopher Socrates still influences thinking today

Where do you see the profession going?
As sustainability becomes more prominent in business strategy and corporate governance, professionals need in-depth knowledge of environmental issues and systems thinking, as well as change management abilities to effectively communicate the business case for sustainability and engage with diverse stakeholders, such as investors, customers and policymakers.

Where would you like to be in five years' time?
I see myself in a position of influence within the sustainability field, driving positive change and inspiring others to join me on that journey.

What advice would you give to someone entering the profession?
Build a strong foundation in sustainability concepts, frameworks and tools by pursuing relevant academic courses and certifications, or gain practical experience through internships and entry-level positions.

If you had to describe yourself in three words, what would they be?
Passionate, reliable and adaptive.

What motivates you?
The prospect of creating meaningful change and the pursuit of personal and professional development.

What would be your personal motto?
Anything is possible if you believe.

Greatest risk you have ever taken?
Moving to the UK to study for a master's in social research.

If you could go back in history, who would you like to meet?
Socrates, the ancient Greek philosopher, who questioned everything, including his own existence.

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