

Energy strategy 22

Fuel of the future

Is more gas-fired generation a stepping stone to a low-carbon UK? Two MPs give their views

Built environment 24

Support structure

How building companies are developing suppliers' skills to construct a sustainable future

Compliance 32

Knowing the law

Understanding the differences between civil and criminal law is a must for environmentalists

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View sample



November

News

- 4** Paterson favours biodiversity offsetting
New draft of revised ISO 14001
- 5** Environment Agency cut to see 1,700 jobs disappear
- 6** Resources going to waste
Air quality failing EU tests
In parliament Chris Davies asks where 500,000 end-of-life vehicles go each year
- 8** Lords reject decarbonisation target as government agrees finance for new nuclear
IEMA policy Spotlight on plans for biodiversity offsetting
- 9** Efficiency at risk from review of levies
CO2 budget blown by 2034, says PwC
- 10** IEMA calls for action to boost green skills
Online news A selection of news stories from environmentalistonline.com

Legal brief

- 11** **Recent prosecutions** 10-year litigation “saga” ends in higher compensation; historic site guilty of fish kill
Case law Court of Appeal rejects challenge to energy-from-waste plant, ruling that inspector’s decision must be “read as a whole”
- 12** **New regulations** Environment protection; climate change; taxation; waste; hazardous substances; planning; chemicals; built environment; emissions
- 13** **Latest consultations** Radioactive disposal; green action plans; marine environment; regulatory changes; water catchments
Guidance Ecosystems and impact assessment; RoHS2
- 14** **Laying down the law** Plans to tighten EU rules governing products’ environmental assertions mean it is time to scrutinise your supply chain, says Ross Fairley

Regulars

- 39** **My career** Sue Smith, sustainable development coordinator at BAE Systems Munitions

IEMA news

- 34** 2013 graduate award finalists selected: Lee Collier; Hanna Hayward; and Coco Smits
- 36** Successful IEMA members
IEMA events and external professional events

Features



16 At the rockface

Four sustainability professionals on how they lead environmental efforts



22 Gas: a stepping stone to decarbonisation?

Conservative MP Dan Byles and Green MP Caroline Lucas give their views



24 Building the future

Construction companies focus on the supply chain to boost sustainability



28 Managing property

Environment professionals on the best ways to influence property teams



29 It's good to talk

Engaging staff in a discussion about carbon can help reduce your footprint



31 Recycling remit

How Sepa will enforce Scotland's groundbreaking new waste legislation



32 Ignorance is no defence

Knowing the differences and similarities between civil and criminal law

ISO 14001 REVISIONS: WHAT DOES THE FUTURE HOLD?

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Mud in the waters

The prize most coveted by politicians, so we are told, is a stable and sustainable economy. It's what businesses want to enable growth, the public sector wants to deliver services without the threat of budget cuts and, most importantly, what the electorate desires. Voters want secure jobs, affordable homes and a bright future for their children.

As every environment professional knows, to reach a place somewhere in the vicinity of the mythical, idyllic land of Sustainable Economy, individuals, organisations and policymakers have to start thinking sustainably and begin living within our means. Natural resources have to be respected and ecosystems protected if we are to rein in the costs of energy, food and shelter. But there are significant barriers to this disarmingly simple concept.

First, there is a lack of awareness. There is ample information about the threats human activities pose to nature, but for many people it remains an issue that is remote from their day-to-day lives – something that is someone else's problem, further down the line. As IEMA's call for action to boost green skills (see p.10) highlights, mainstream education and training are failing to join the dots between the environment and everyday life, and organisations' sustainability ambitions are the casualty. IEMA says many businesses cannot find the right environmental skills in their organisations to drive the sustainability agenda forward. This is in part because issues, such as climate change and water scarcity, are not embedded properly in education. Without a clear understanding of how the big "green" issues affect day-to-day life, firms find the innovative solutions to become more sustainable harder to come by.

Second, simply supplying information is not enough. Practitioners may have heard of the "information deficit", the idea that providing data on environmental harm is not enough to inspire a change in behaviour. While many environmentalists in the 1970s and 1980s thought that apathy could be combated through more information, it made little difference. To really change behaviour, individuals have to be engaged and fully understand the issues. Psychologist Rosemary Randall has come up with the idea of Carbon Conversations (see p.29), a series of workshops where people from local communities or workplaces discuss environmental concerns. The initiative enables people to debate and learn about issues, such as waste management, greenhouse gases and energy efficiency, and has demonstrated remarkable results, with many participants pledging to halve their carbon footprints.

The final barrier, and perhaps the most depressing, is the issue of politicians muddying the waters. David Cameron's sudden announcement to parliament that green levies should be "rolled back" to lower energy bills was ill-conceived, poorly timed and damaging to realising the dream of a sustainable economy. The PM's promise to cut energy costs by removing what he claims are "unnecessary" levies is undoubtedly designed to appeal to voters, but has simply spread confusion within the energy department – with contradictory statements released as to what measures will be reviewed (p.9) – and stoked uncertainty among investors and the general public. Cameron's statement has not only undermined investor confidence in renewable technologies, but also the public's understanding of the value of energy efficiency and the need to cut carbon emissions.

To make the shift to a truly sustainable economy, everyone needs to be both knowledgeable and engaged on environmental issues, and politicians must stop undermining this with short-sighted, election-motivated policy flip-flops.

The prime minister's statement that green levies need to be rolled back was ill-conceived and unhelpful to the idea of a sustainable economy



Sarah-Jayne Russell
deputy editor

Short cuts

Welsh resource

The Welsh economy will not thrive without a greater commitment to green growth, according to the minister for natural resources and food, Alun Davies. His comments accompanied the issue of a new policy statement on resources, *Shaping a more prosperous and resilient future* (lexisurl.com/iema16807). It details how his department will be working to deliver the Welsh government's sustainability policies. The department aims to publish a green growth delivery plan early next year and work with Natural Resources Wales to develop a website to enable organisations to share environmental data by the end of 2014. "The sustainable management of our natural resources is critical to the future success of our economy and critical in creating a future for all of our communities," said Davis. "It is also critical to this government's ambition to drive up local environment quality and promote sustainable growth."

ISO 14001 on the up

ISO's latest survey of global certification rates to its management standards reveals that more than 285,000 ISO 14001 certificates were issued worldwide in 2012. ISO announced in November 2011 that the environment management standard was to be significantly changed for the first time since 2004, and that may be one explanation for the 9% leap in certifications compared with the previous year. In 2011, the number of 14001 certificates issued rose by just 6% – the slowest rate since the standard was launched in 1999. ISO's latest research also shows that adoption of 14001 is highest in China, Japan and Italy, with the UK maintaining its top five ranking. Other results from the survey reveal that uptake of ISO's energy management standard, ISO 50001, more than trebled in its second year, with close to 2,000 certificates issued across 60 countries. The highest number of 50001 certificates were issued in Germany, Spain and Denmark.

Paterson favours offsetting

Environment secretary Owen Paterson says the introduction of biodiversity offsetting could provide a big stimulus to enhance local environments in England.

He told the parliamentary environmental audit committee inquiry into offsetting that, with the right metric, such a mechanism could speed up developments and providing long-term funding for improving nearby areas.

"If the metric is right, everyone involved in a project will see there is value in the environment that might be affected," he explained. "Instead of money being wasted on delays and legal fees, it could be given for the long-term benefit of the environment."

Paterson also said that offset sites should be reasonably close to affected habitat, arguing that the local community would want an overall improvement in their environment.

Pressed by committee members on whether biodiversity offsetting should be mandatory or voluntary, the environment secretary said the mandatory approach adopted in the Australian state of Victoria had impressed him. "There are clear advantages if the system was mandatory," he told MPs. "I think you would get more people coming forward with potential



[offsetting] sites." He did, however, note that the current offsetting pilots, which are being conducted in six areas and will end in April 2014, have shown that a voluntary approach can also work.

Paterson said he would decide whether to pursue a mandatory approach when Defra had evaluated feedback from a consultation on its potential biodiversity offsetting system that recently ended (see p.8), as well as an assessment of the pilots.

Meanwhile, IEMA's latest "leading the way" event attracted about 90 delegates to a discussion on valuing nature. Hosted in association with the Institute of Chartered Accountants in England and Wales, presentations were made by Network Rail, the Woodland Carbon Code, Trucost, the Crown Estate and URS before delegates debated the pros and cons of placing a value on nature.

New draft of ISO 14001

IEMA is calling for members' feedback on the latest proposed changes to ISO 14001. The group working to update the environment management standard agreed a second committee draft (CD) at a meeting last month, responding to feedback on the first CD which was published at the beginning of 2013.

Changes include significant revision and restructure of the requirements relating to planning (6.1), in particular in relation to environmental aspects and impacts, and their relationship to organisational risks and opportunities.

"The new text makes it clear that significant environmental aspects are not necessarily organisational risks and opportunities," explained Martin Baxter, executive director of policy at IEMA. "Clause 6.1.4 brings into much clearer focus the relationship between impacts on the environment and the impact of the environment on an organisation."

Other changes include a tightening of the definition of top management, clarifying that they cannot delegate authority for certain elements of environment management; more streamlined requirements related to controlling value chains; and a new definition of "environmental condition".

IEMA is keen to see whether members think the changes have improved the overall clarity of the standard and ask their opinions on its auditability. "We want to understand where the areas of difficulty lie in terms of implementation issues," confirmed Baxter. "Is there clarity on what's being required, for example, and if not, how can we provide that clarity? We also want to know people's opinion on the flow of 6.1 and the extent to which the definition of risk in 3.15 is relevant and works."

Consultation on the second CD closes in January. IEMA will be asking for members' feedback at events in December (see p.36).

Environment Agency cuts to see 1,700 jobs disappear

The Environment Agency is to make nearly 15% of its staff redundant in 12 months, after having its annual funding from Defra slashed by £33.5 million.

Agency staff were told in an email on 10 October that the regulator would be restructuring and cutting its headcount as a result of significant reductions to its revenue streams. "Our core environment and business grant in aid (GiA) revenue funding is likely to reduce by around £21 million and flood control risk management GiA by around £12.5 million from 2013/14 to 2015/16," confirmed the agency's chief executive, Paul Leinster. "The changes mean that we will have to reduce staff numbers."

Initially, employees were told that 1,400 jobs would go over three years. However, on 21 October the agency revealed a further 300 positions were to be cut and that all 1,700 posts would disappear within a year. Although staff had expected to be affected by the government's decision to cut Defra's administrative budget by 9.6% in 2015/16, the speed and the scale of the job cuts have come as a shock.

"We knew that Defra's budget cuts would hit the agency," one employee told *the environmentalist*. "But no one's said anything until now and it feels like the changes are a *fait accompli*, rather than a negotiating point."

In a question and answer session with staff on the changes, Leinster and senior executives at the regulator confirmed that the regional structure of the agency would be changing. Toby Willison, director of the agency's strategic reviews response programme, said: "There won't be regional services, and we expect that delivery will be locally or nationally."

The announcement has left staff in the regions particularly worried, although the agency's director of operations, David Jordan, offered some reassurance that the job losses would not be primarily aimed at regions. "We will look first at roles, rather than geographies and how different roles are funded as some parts of our business are growing, while funding for others is reducing," he said. "The forthcoming changes will be felt at all levels."

With capital funding for flood control increasing as environment and business revenue is cut, finance director Mark McLaughlin told staff that the agency had



to respond to a "dramatic change" in the government's priorities. "The rebalancing [of services] is implicit in the numbers. The government sets its spending priorities," he said.

However, one employee told *the environmentalist* that the changes were driven by the desire to cut costs rather than protect the environment. "These cuts reveal an utter lack of vision and an attitude that's 180 degrees different from the statement of the direction in the natural environment white paper. It's not being driven by a strategic approach to getting organisations to take responsibility for the environment; it's about letting everyone regulate themselves to save a load of money."

The agency wants to increase the work it delivers through partnerships with private and third-sector organisations to cut costs, alongside restructuring top management and potentially outsourcing its HR and finance functions. "We are looking to find greater efficiencies," said Leinster. "We know it will take changes to our structures, ways of working and careful business planning to maximise the delivery of environmental outcomes with available funding."

Despite Leinster's reassurances, many staff and external bodies, such as IEMA, are worried the regulator will not be able to offer the same level of service in future. "IEMA has significant concerns over the dismantling of environmental protection capability as a result of these cuts," said Martin Baxter, IEMA's executive director of policy. "As a regulator, the agency must focus on poor performing organisations. With fewer resources in future it will inevitably be relying more heavily on firms that have the competence and systems in place to assure their ongoing compliance."

Short cuts

Wildlife protection

Businesses in England and Wales face a new system of civil sanctions under proposed changes to wildlife protection laws. The Law Commission has outlined a number of measures to simplify existing legislation in an interim statement following a consultation last year and ahead of draft legislation to be published next summer. It proposes "flexible and proportionate" punitive measures, including fixed monetary penalties, stop notices and enforcement undertakings for businesses of all sizes. There is also a recommendation that it should be an offence for an employer to knowingly permit an act by an employee or agent that amounts to a wildlife crime.

Water strategies

The world's largest companies are pursuing a misguided approach to water risk management, according to a new report from the CDP. It says too many firms are focusing on reducing water use, which the CDP claims is an inadequate response to increasing water risks. The report, based on data from 180 companies listed on the FTSE Global 500 Equity Index, reveals that 70% believe water presents a substantive risk, and half had experienced detrimental impacts in the past five years, including increased costs and delays to operations. Nonetheless, just 3% had set water management targets. Meanwhile, Sainsbury's has announced its new flagship "green" store in Weymouth will be water-neutral, with 70% of the store's needs met through rainwater harvesting and other water efficient infrastructure; the remainder will be offset by sponsoring water-saving initiatives in the local community.

Correction

The IPCC news story on p.5 of the October issue erroneously stated that 2,000 gigatonnes of carbon (GtC) had been added to the atmosphere since 1751. In fact, cumulative anthropogenic emissions totalled 460–630 GtC between 1751 and 2011, of which 230–250 GtC have accumulated in the atmosphere.

In Parliament



Mystery of the missing cars

The End-of-Life Vehicles Directive (2000/53/EC) is more than 10 years old. It requires a certificate of destruction to be issued to the last owner of every car being sold for scrap. This is supposed to ensure that the vehicle will be properly decontaminated by an authorised treatment facility (ATF) before being crushed. The neat cube of material is then sent to shredders, which are required to recycle 85% of the material – from 2015 shredders must recycle or recover 95%.

Tens of millions of cars are scrapped in Europe every year. EU laws – reinforced by the UK's landfill tax – are driving the process of ensuring they are dealt with properly. The UK is proving that near 100% recycling or recovery can be achieved, and this should be the aspiration of everyone who wants to cut resource use. I recently visited a shredding operation, Nortons in Trafford Park, Manchester which surpasses EU requirements. Here Axion Recycling has built a state-of-the-art plant to enable materials to be separated for recycling. "It's a bad month when we have to send anything at all to landfill," I was told.

About 1.8 million vehicles are deregistered in the UK every year. Certificates of destruction are issued for some 1.1 million. Perhaps a further 200,000 go to export. So what happens to the remaining 500,000 cars? Either they are not going to an ATF – meaning the oils and fluids could end up in the local river – or they are going to ATFs that are flouting the rules.

At this point law enforcement should kick in and prosecutions follow, but successive governments have been lax. Enforcement procedures are confused. The business department is responsible, but is doing nothing. No government minister has taken the issue on board or taken steps to ensure that the whole of the country can meet the 2015 standards. It is time someone did.

Chris Davies MEP is the Liberal Democrat environment spokesperson in the European parliament

Resources going to waste

Up to 15 million tonnes of waste a year will go to landfill in the UK and Ireland in 2020 instead of being recovered, according to a new report.

The study from the Chartered Institution of Wastes Management (CIWM) blames a potential infrastructure gap, which would preclude the material being used as resource or to generate energy. CIWM says commercial and industrial (C&I) waste remained the "known unknown" of the waste industry, with existing C&I datasets inadequate for the planning of waste management infrastructure. Better quality data is required to encourage investors to fund sufficient infrastructure, says the report.

"It is clear that available C&I waste data are insufficient to support strong business cases for new facilities. Uncertainties in forecasts of waste feedstocks undermine confidence in planning and financing of additional waste treatment infrastructure," it states.

The report notes that, although some waste management firms have invested significantly in collecting data, many businesses and local authorities have not.



CIWM looked at projections for commercial and industrial waste arisings in England, Northern Ireland, Scotland, Wales and the Republic of Ireland. It concluded that, by 2020, they would fall overall by just 0.2%. The institution also found that England is likely to generate more commercial and industrial waste by the end of the decade – rising from 47.9 million tonnes in 2013 to 48.3 million tonnes in 2020.

Air quality failing EU tests

Particulate matter and ground-level ozone continue to damage air quality across much of the EU despite falling emission levels and reductions of some air pollutant concentrations in recent decades.

A new report from the European Environment Agency, found that between 2009 and 2011, up to 96% of city dwellers in Europe were exposed to fine particulate matter (PM2.5) concentrations above thresholds recommended by the World Health Organisation (WHO), which are stricter than EU limits or targets.

The agency also reported that up to 98% of city inhabitants across EU member states were exposed to ozone levels above WHO guidelines.

These pollutants cause breathing problems and cardiovascular disease, and are shortening lives, says the agency. "Air pollution is causing damage to human health and ecosystems. To get on to a sustainable path, Europe will have to be ambitious and go beyond current legislation," said Hans Bruyninckx, executive director at the agency.

The report also found that eutrophication – where nitrogen pollution sparks excessive plant growth, damaging ecosystems and threatening biodiversity – is still a widespread problem, affecting most European ecosystems. This is despite some nitrogen-containing pollutants falling. Emissions of nitrogen oxides and ammonia, for example, have fallen by 27% and 7% respectively since 2002. The agency warns that further measures will be needed to reduce emissions of nitrogen and address eutrophication.

The latest air quality data from the government reveals that, in 2012, 34 of the 43 air quality zones in the UK breached the EU annual emissions limit for nitrogen dioxide (NO₂) of 40 µg/m³. The figures were contained in air quality data recently submitted to the European Commission.

According to campaign group Clean Air in London, Scotland faces an air pollution crisis in the lead-up to the Commonwealth Games in 2014 after the figures revealed that Glasgow has the highest levels of NO₂ outside London, at nearly twice legal limits.



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Lords reject decarbonisation target

A proposal to amend the Energy Bill and force the government to publish a plan in 2014 on how it would decarbonise electricity generation by 2030 has been narrowly defeated in the House of Lords.

The Lords voted 216 to 202 against the amendment proposed by Lord Oxburgh. With the coalition government not planning to consider setting a decarbonisation target until 2016, it will mean that no target will now be set before the next general election.

Decc minister Baroness Verma said: "The right time to consider this is in 2016, not 2014 as proposed by [the] amendment, as 2016 is when, in line with the requirements of the Climate Change Act, we will be undertaking extensive analysis to set the level of the fifth carbon budget in law.

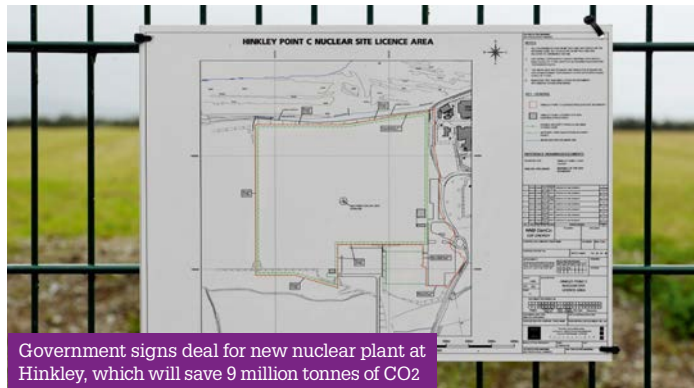
"At that point we can consider a decarbonisation target within the broader context of the trajectory of our whole economy towards our 2050 target."

Rejection of a decarbonisation target follows agreement between the government and French-owned EDF Energy to build the UK's first new nuclear

power station since 1995. Part-funded by two Chinese companies, Hinkley Point C should be operational in 2023. According to Decc, it will reduce UK carbon emissions by 9 million tonnes a year, helping to meet climate change targets.

Energy secretary Ed Davey told parliament that the power station will supply 7% of the UK's electricity by 2025 and reduce annual CO₂ emissions from energy supplies by around 5% compared with unabated gas-fired generation (see p.22). "We need to decarbonise our electricity sector to meet emissions targets and ... nuclear power is a key part of the government's energy strategy," he said.

Under the 35-year contract, the government is committed to paying £92.50 for every MWh of electricity



Government signs deal for new nuclear plant at Hinkley, which will save 9 million tonnes of CO₂

Hinkley C generates, though this will fall to £89.50 per MWh if EDF also builds a third nuclear plant at Sizewell in Suffolk.

Scottish energy minister Fergus Ewing warned that the agreed "strike price" was more than twice that being considered for renewable technologies under plans to reform the electricity market.

"The guarantee under this contract until after the middle of this century sits in sharp contrast with the lack of a UK government commitment to support our offshore renewables sector and its potential beyond 2020," said Ewing.

POLICY Spotlight on biodiversity offsetting

iema

Environment professionals want the government to adopt a transparent and robust approach to biodiversity offsetting which is firmly within the context of the mitigation hierarchy and contains suitable safeguards.

These are some of the key outcomes from two workshops held in London and Sheffield for IEMA members to review the green paper on biodiversity offsetting in England, which Defra put out to consultation on 5 September. The workshops were followed by a joint webinar with Defra and the Chartered Institute of Ecology and Environmental Management, which examined the proposals from the environment department in more detail, as well as emerging concerns among practitioners.

A poll of the participants indicated that most believed biodiversity offsetting should be a mandatory requirement. It also revealed that few environment professionals believe that Defra's current proposals for an offsetting scheme provided sufficient safeguards.

It is increasingly acknowledged among practitioners and project developers that biodiversity offsetting could make a contribution to addressing the long-standing decline and fragmentation of ecological networks. The environment department said its proposals aimed to maintain ecosystems, air, water and soils, as well as ensure that "expensive and inefficient" planning processes did not unnecessarily delay projects required for economic growth.

Biodiversity offsetting is not straightforward, however, and presents a challenge in terms of developing a credible scheme that gives confidence to all parties. Demonstrating the value or "equivalence" of traded units, for example, is far more challenging than carbon offsetting, a practice that also suffered a significant lack of confidence in its formative period. IEMA members believe that a transparent and robust approach will be required in offsetting biodiversity impacts and that lessons should be learned from professionals who

were directly engaged in the early period of commissioning carbon offsets for carbon neutrality. Many practitioners are also keen for the government to explore the scope of using biodiversity offsetting and offset metrics in companies' wider sustainability initiatives

The participating practitioners work across a range of development and impact assessment roles, including for developers, construction firms, consultants and advisers, as well as regulatory, planning and consent-related jobs.

Their concerns build on earlier IEMA advice on biodiversity offsetting, and have contributed to the Institute's formal response to Defra's consultation – which can be downloaded from the policy hub at iema.net.

The workshops and webinar also helped to inform IEMA's submission to the inquiry into biodiversity offsetting by the House of Commons environmental audit committee (see p.4). This written evidence is available online at: lexisurl.com/iema16823.

Efficiency at risk from review

The prime minister has announced plans to review environment “levies” as a way rein in rising energy bills. However, it is unclear which charges will come under scrutiny after energy minister Michael Fallon disputed Decc’s initial confirmation that support for renewables would not be part of the appraisal.

In a statement, the energy department had confirmed: “No one is talking about changing investment incentives for renewables, such as the renewables obligation and feed-in tariffs, which are essential for investor confidence in the renewables sector.” However, Fallon, appearing before the environmental audit committee, said that all levies would be under the microscope.

The confusion follows David Cameron’s statement to parliament that government needed to “roll back” some of the green regulations and charges that are putting up bills”. Businesses operating in the built environment have warned the government not to scale back levies on energy bills that support energy efficiency. A letter to the prime minister from chief executives at a number of firms, including E.ON, Carillion and Willmott Dixon, argues that energy efficiency is the “only sure way” to protect against rising bills in the long term.



The warning follows evidence that it is difficult for companies to access finance to invest in energy efficiency. In a poll of more than 300 energy specialists across the UK, conducted by Siemens Industry and the Energy Institute, 88% said that banks were either not interested in supporting investment in energy-saving technologies or provided “little feedback”. Just one respondent reported having actually received finance for an energy-efficiency initiative.

Higher capital allowances for firms wanting to invest in energy-efficient equipment and the creation of the Green Investment Bank were positive moves, commented Stephen Barker, head of energy efficiency at Siemens. “But the effectiveness of these measures is limited as there is a critical gap in the actual delivery of finance,” he argued.

CO2 budget blown by 2034

Analysis by PwC reveals that the IPCC’s “carbon budget” to limit global temperature rise to 2°C by 2100 will be blown by 2034, with a rise of 4°C more likely by the end of the century.

The consultancy warns that the 2034 timeframe is within the planning cycle for major infrastructure and business investment decisions, and that firms which do not take the budget into consideration when deciding where to invest risk wasting money on assets that will become obsolete.

The annual low-carbon economy index (LCEI) from PwC examines the amount of energy-related carbon emitted per unit of gross domestic product (GDP) needed to limit global warming to 2°C. The latest findings show that policies and low-carbon technologies have failed to break the link between growth and carbon emissions in the global economy. The world’s energy mix remains dominated by fossil fuels, says PwC, noting that reductions in carbon

intensity globally have averaged just 0.7% a year over the past five years – a fraction of the 3.5% annual cut that it said in 2008 was necessary every year to 2100 to prevent temperatures breaking the 2°C threshold.

If the world continues at the current 0.7% rate of decarbonisation, the carbon budget outlined recently by the IPCC for the period 2012 to 2100 would be spent in less than a quarter of that time, and be used up by 2034, reports PwC. It calculates that annual reductions in carbon intensity now need to reach 6% to make up for lost ground, and provide a reasonable probability of limiting warming to 2°C.

“Something’s got to give, and potentially soon,” warned Jonathan Grant, PwC director for sustainability and climate change, who said the latest LCEI findings had implications for a raft of investments in carbon-intensive technologies that are currently being planned and executed.

Short cuts

Aviation to offset CO₂

The civil aviation industry has agreed to develop a global market-based measure (MBM) to help it achieve carbon-neutral growth from 2020. The agreement, reached at the annual assembly of the International Civil Aviation Organisation (ICAO) in Montreal, will trigger the detailed design of the MBM, including standards for the monitoring, reporting and verification of emissions and the type of scheme to be implemented. In June, the 240 member airlines of the International Air Transport Association (IATA), representing 84% of global aviation traffic, agreed to ask governments to develop a global mandatory carbon-offsetting scheme. The ICAO forum confirmed that this would be the most effective and efficient MBM. The ICAO expects it to be presented for ratification at its 2016 assembly. IATA’s director general and chief executive, Tony Tyler, praised the role of the European Commission and parliament, which he said had put reducing emissions from aircraft on the agenda of airlines by including EU flights in its emissions trading scheme.

Bright lights of NYC

New York City is to replace all of its 250,000 standard streetlight fixtures with energy-efficient, light-emitting diodes (LEDs) by 2017. The move is part of the New York City’s long-term sustainability programme, PlaNYC, which aims to reduce greenhouse-gas emissions from the city’s government operations by 30% by 2017. The refit will reduce energy consumption and maintenance costs. Compared with the standard high-pressure sodium lights, which a life of six years, LEDs can last up to 20 years, potentially producing an 80% saving on maintenance costs, says the city authority. Meanwhile, a new report from the US energy department reveals that LED deployment in the US since 2009 has grown from 400,000 to nearly 20 million lights. It says the growth has coincided with a 70% decrease in LED lighting costs.

IEMA calls for action to boost green skills

UK companies' efforts to become more sustainable are being hampered by a lack of awareness and understanding of environmental issues in their workforce, IEMA has warned. Urgent action is needed to address the burgeoning green skills gap, says the Institute, and it is calling on the government and businesses to work together to embed sustainability in mainstream education and professional training courses.

"I hear from businesses time and again that they have the ambition and the foresight to place environment and sustainability at their core but, because of a mismatch between supply and demand for environmental skills, they cannot access the right skills at the right scale," said Tim Balcon, IEMA's CEO, as he launched the Institute's call for action on green skills. "Without collaboration, business, government and the environment profession will not be equipped to achieve a robust, sustainable economy."

Joan Walley MP, the chair of the environment select committee (pictured),

hosted the launch of IEMA's call for action and said: "We need to be professional in how we mark out the green skills needed to shift to a sustainable economy, whether it's for the chief finance officer looking at the investment portfolio or the mechanic that puts the final bolt on to a new car. Unless we have embedded sustainability at each stage of the design and production process we're not going to succeed."

Employees' lack of environmental awareness stems from gaps in the national curriculum and in vocational training, according to the Institute, and is preventing organisations reaping the financial benefits of energy and resource efficiency. It is also a significant barrier to the government's ambitions of transforming the UK into a truly sustainable economy.

The results of IEMA's latest resources and waste management survey, due to be published in early 2014, reveal that having qualified environment professionals in place saves firms thousands of pounds each year. Close to 60% of the 940 environment practitioners polled



confirmed their company had cut costs as a result of their activities. Some of those working for the UK's biggest firms revealed that they had generated savings of more than £1 million each year.

Of the IEMA members working for firms employing 250–1,000 staff, 20% said their firm was saving at least £100,000 a year and a further 18% confirmed savings of more than £200,000. Small and medium-sized enterprises are also benefiting from employing skilled environment professionals, with 63% cutting costs by more than £5,000 each year.

From environmentalisonline.com...

ETS reforms

Ed Davey is one of 13 EU ministers that have called for the urgent reform of the emissions trading scheme (ETS), and for Europe to commit to more ambitious climate policies to 2030. The current surplus of EU ETS allowances has resulted in a slump in the price of carbon, which is hampering investment in low-carbon technologies and risks locking Europe into a high-carbon future, according to a report signed by energy and environment ministers from states including the UK, Germany, France and the Netherlands. To ensure the EU makes a cost-effective transition to a low-carbon economy, the European Commission must reform the EU ETS to raise the cost of carbon, set target-based energy and climate change policies to 2030, and commit the bloc to "an ambitious emissions reduction" at the United Nations climate summit in New York next autumn, say the politicians.

environmentalisonline.com/ETS

Invalid data?

Less than 25% of FTSE350 companies have the sustainability information they publish independently assured, according to consultancy Carbon Smart. Its analysis of sustainability reports reveals that just 70 of the FTSE350 publish assurance statements alongside their sustainability data. Of those, 20% cannot claim to be independent and 50% fail to list the qualifications of the assurance provider. Only 3% of statements offered a "reasonable or high level of assurance" of the data verified. Carbon Smart concludes that variations in the quality of audits is a "significant barrier" to uptake. Its study also examined how firms report carbon emissions data and found a diverse range of intensity ratios, making comparison of firms' performance very difficult. Of those examined: 12% reported emissions per £ of revenue; 12% per unit of output; 7% per full-time employee; and 5% per floor area.

environmentalisonline.com/assurance

Energy saving

More energy is being saved in some of the world's leading economies through efficiency measures than is generated by any single fuel source, the International Energy Agency (IEA) has revealed. Figures from 11 countries, including Germany, Japan, the UK and the US, confirm that energy efficiencies in 2010 prevented the equivalent of 1.5 billion tonnes of oil being burned, more than was generated by any single fossil fuel or renewable technology. "Energy efficiency has been called a 'hidden fuel', yet it is hiding in plain sight," said the IEA's executive director Maria van der Hoeven. "The degree of investment in energy efficiency and the resulting energy savings are so massive that they beg the question: is energy efficiency the world's first fuel?" According to the IEA, global investment in energy-efficiency reached \$300 billion in 2011, comparable to that spent on renewables technologies and fossil fuels.

environmentalisonline.com/IEA

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Recent Prosecutions

10 year litigation 'saga' ends in higher compensation

Southwark crown court has increased the compensation that Thames Water must pay homeowners and allotment holders for letting raw sewage flood parts of Beckenham, South London, in 2003. The court rejected the appeal by Thames Water to pay a smaller fine and less compensation to victims of the incident, upholding the penalties imposed by Bromley magistrates' court in 2011 and increasing the damages it must pay to those affected by the pollution.

At the earlier hearing, magistrates were told that between February and April 2003, Thames Water had allowed raw sewage to repeatedly escape from a local sewer system into properties, a street, allotments and St James' Stream. They also heard that there had been previous sewage flooding in the area. The court found that the company had failed to take steps to bring the situation under control, fining it £204,000 for 15 environmental offences.

Thames Water pleaded guilty to four offences under section 85 of the Water Resources Act 1991 in relation to polluting the stream at the magistrates' court hearing, but denied 11 charges relating to depositing waste in the gardens, garages, a street and allotments contrary to section 33 of the Environment Protection Act 1990. The firm's challenge led to an eight-year legal battle, with the case being heard twice by the High Court and once by the Court of Justice of the European Union, before being heard by magistrates in 2011.

At the time, Angus Innes, from the Environment Agency's prosecution team, said: "Pollution of rivers and streams is relatively easy to prosecute as the offences are subject to strict liability, without proving negligence or intent. But to prosecute the 11 waste deposit offences we had to first overcome Thames Water's argument in superior courts that the waste laws did not apply to it. Once the European Court had agreed that these laws did apply, we were able to prove in the magistrates' court that Thames Water did not act with due diligence in addressing the problems flowing from the collapsed sewer."

Rejecting the appeal, the crown court judges upheld the fines and increased the amount that the company must pay its victims – from £2,000 to £3,000 for a homeowner affected by the sewage and from £250 to £1,000 to an allotment holder. The court also ordered Thames Water to pay the agency's appeal costs, which amounted to more than £10,000.

As well as fines and compensation totalling £208,015, Thames Water has to pay £206,000 to cover the agency's legal costs for its various unsuccessful legal proceedings. It is estimated that the 10-year case has cost Thames Water more than £750,000 when its own legal costs are included. A spokesperson for the company said: "In this case we appealed against the original fines imposed by Bromley magistrates as we felt they failed to take into account our mitigating actions during the period concerned. We lost this appeal and we accept the court's decision."

The agency says it is investigating another incidence of sewer flooding affecting the same residents, which occurred in January this year.

Historic site guilty of fish kill

Tree-felling during very wet conditions allowed highly polluting soil sediment to enter a watercourse at the Cowdray Estate in West Sussex, killing about 4,000 fish at a nearby fish farm.

Worthing magistrates' court heard that Environment Agency officers found significant pollution by sedimentation when they visited the fish farm in July last year. They traced the source to Verdley Wood, where estate staff were engaged

in forestry activities. The officers stopped all activity and instructed the estate to install siltation traps in the watercourse to minimise further pollution.

The owners of the estate, the Cowdray family, apologised for the incident. Magistrates acknowledged that the estate had worked with the agency throughout, but said it was careless in carrying out tree-felling in such extreme rainfall. The estate was fined £5,000 and ordered to pay £10,596 costs.

CaseLaw

Planning hierarchy

The Waste Framework Directive (WFD, 2008/98) – transposed through the Waste (England and Wales) Regulations 2011 – sets out the following "waste hierarchy": prevention; preparing for reuse; recycling; recovery (for example, energy recovery); and disposal.

In *Skrytek v Secretary of state for communities and local government* [2013] All ER (D) 159, the Court of Appeal upheld an earlier decision to grant planning permission to build a waste treatment facility involving incineration. It did not initially qualify as a recovery process under the WFD because its energy efficiency would not have achieved the threshold required. However, once operating and producing residual heat, the facility converted from an electricity-only energy recovery facility to a combined heat and power energy recovery plant, therefore falling within the recovery category of the WFD.

At appeal, the inspector dismissed a challenge which argued that, because incineration lay near the bottom of the waste hierarchy, the proposed facility had been no better than the disposal of waste to landfill. This decision has been upheld by the High Court and now the Court of Appeal. Although the inspector wrongly interpreted Defra guidance that all energy recovery technologies are higher in the waste hierarchy than disposal, the court said the inspector's decision had to be read as a whole. When done so, it was clear that the inspector had not been categorising the proposal as a recovery operation, said the court, adding that there could be no genuine or substantial doubt about what the inspector had decided and why.

Jen Hawkins

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New Regulations

In force	Subject	Details
4 Jul 2013 	Waste	The Landfill (Amendment) Regulations (Northern Ireland) 2013 implement EU Directive 2011/97/EU, which amends Directive 1999/31/EC on the landfill of waste with regard the storage of metallic mercury. lexisurl.com/iema15667
9 Jul 2013 	Chemicals	European Commission Regulation 564/2013 alters the fees payable to the European Chemicals Agency under Regulation 528/2012, which relates to biocidal products. lexisurl.com/iema15984
24 Jul 2013 	Waste	The Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulations 2013 amend further the 2007 Regulations by substituting a formula for the calculation of the amount of glass packaging waste that a producer must recycle by re-melt – with the target applied to a producer's glass recycling obligation. lexisurl.com/iema16240
31 Jul 2013 	Environment protection	The Non-Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) (Amendment) Regulations 2013 amend the 1999 Regulations to implement changes made to EU Directive 97/68/EC on pollutants from internal combustion engines for non-road mobile machinery by Directive 2011/88/EU. lexisurl.com/iema15982
1 Aug 2013 	Climate change	The Climate Change Levy (General) (Amendment No.2) Regulations 2013 amend the 2001 Regulations by replacing the formula in Schedule 3, so that fuels used in a combined heat and power station to produce mechanical outputs are not treated as being referable to the production of electricity and are therefore not subject to the carbon price support rates of the climate change levy. lexisurl.com/iema16238
1 Aug 2013 	Waste	The Landfill (Scotland) Amendment Regulations 2013 further transposes EU Directive 1999/31/EC on the landfill of waste, as amended by Directive 2011/97/EU on criteria for the storage of metallic mercury. Specifically, the Regulations make provision for use of the derogation contained in European Commission Regulation 1102/2008 on the safe storage of metallic mercury. lexisurl.com/iema15980
7 Aug 2013 	Taxation	The Capital Allowances (Environmentally Beneficial Plant and Machinery) (Amendment) Order 2013 amends the 2003 Order to reflect the publication on 1 July 2013 of the water technology criteria list and the water technology product list. lexisurl.com/iema16239
8 Aug 2013 	Built environment	The Building Regulations &c. (Amendment) (No.2) Regulations 2013 amend the 2010 Regulations to insert provisions relating to fabric energy-efficiency rates for new dwellings. lexisurl.com/iema16242
16 Aug 2013 	Hazard substances	European Commission Regulation 781/2013 amends 540/2011, setting the approval conditions for using the insecticide fipronil, as well as prohibiting the use and sale of seeds treated with plant protection products containing the substance. lexisurl.com/iema16237
21 Aug 2013 	Planning	The Town and Country Planning (General Permitted Development) (Amendment) (No.2) (England) Order 2013 amends the 1995 Order for planning permission with regard to national parks, areas of outstanding natural beauty, conservation areas, countryside areas of natural beauty and amenity, and world heritage sites, for example. lexisurl.com/iema16241
7 Sep 2013 	Emissions	European Commission Regulation 815/2013 amends Regulation 748/2009 on the list of aircraft operators that performed an aviation activity listed in annex I to the EU Directive on emissions trading (2003/87/EC) and takes into account the accession of Croatia to the EU. lexisurl.com/iema16520

To find new regulations by jurisdiction visit environmentalstonline.com/search and enter your search criteria

Latest Consultations



5 Dec 2013

Radioactive disposal



Government policy in the UK

is that higher activity radioactive waste should be managed in the long term through geological disposal, and Decc is seeking views on potential amendments to the site selection process for a disposal facility. The consultation focuses on how aspects of the site selection process for a geological disposal facility (GDF) could be improved to help deliver a GDF.

lexisurl.com/iema16532

12 Dec 2013

Green action plans



The European Commission is collecting stakeholders' views on the most effective support measures for small and medium-sized enterprises (SMEs) to help them become more resource efficient and sell green products and services globally. The commission defines resource efficiency as encompassing: the efficient use of energy (including renewable energy); water and other natural resources; materials; waste minimisation; selling scrap materials to other companies; and recycling. Feedback from the consultation will be used to shape EU action aimed at promoting resource efficiency for and by SMEs, and

will be included in its forthcoming green action plan for SMEs.

lexisurl.com/iema16691

18 Dec 2013

Marine environment



Establishing a headline target for reducing marine litter is the subject of a consultation by the European Commission. The aim is to understand stakeholders' views on actions and policies that could be introduced to tackle the problem of marine litter. The commission says the results of the consultation will be used to help formulate an EU-wide reduction target. According to the commission, around 10 million tonnes of litter end up in the world's oceans and seas each year.

lexisurl.com/iema16692

20 Dec 2013

Regulatory charges



The Environment Agency is consulting on its charging plans for environmental permitting (EPR), water abstraction and the EU emissions trading (ETS) scheme in 2014. The agency is proposing to increase its base charges for EPR installations and waste facilities in line with inflation. The consultation sets out two options for a water abstraction charge: the introduction of a new

abstraction application charge of £1,500 for those permits where there is no requirement to pay ongoing subsistence charges; or a subsistence charge for such licences in addition to the current application charge of £135. The regulator is also proposing a minor alteration to its charges for the ETS, aligning them with charges in the rest of Europe. There will be no increase in charges for most other schemes during 2014/15.

lexisurl.com/iema16693

22 Dec 2013

Water catchments



The Environment Agency has launched the second of its three planned consultations on updating river basin management plans to protect and improve the water environment. The agency would like to hear views on what stakeholders think are the most significant challenges for each river basin district in England, and how these issues should be tackled. It is also seeking views on an accompanying strategic environmental assessment scoping document. At the same time, Natural Resources Wales has launched a similar consultation covering river basin districts in Wales.

lexisurl.com/iema16534;

lexisurl.com/iema16535

New Guidance

Ecosystems and impact assessment

Ecosystems and environmental impact assessment (EIA) are the subject of a new guide from the World Resources Institute (WRI). *Weaving ecosystem services into impact assessment: a step-by-step method* (lexisurl.com/iema16696) is an abbreviated version of a longer WRI report published in 2011 and provides detailed, technical instructions to guide EIA practitioners through a six-step process that aims to ensure assessments better reflect the interdependence between a project, ecosystems, ecosystem services and people. The six steps are: identify relevant ecosystem services; prioritise those services; define the scope and information needs of the ecosystems services assessment; establish the baseline for priority ecosystem services; assess project impacts and dependencies on those services; and mitigate impacts and manage dependencies on priority ecosystem services.

RoHS2

The business department has published updated guidance (lexisurl.com/iema16698) on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (lexisurl.com/iema14142), which came into force on 2 January 2013 and implement the recast EU Directive 2011/65/EU – the so-called RoHS2 Directive. The Directive imposes harmonised restrictions on the use of listed hazardous materials in 11 categories of electrical and electronic equipment (EEE) and the revamped guidance is aimed at all businesses placing EEE on the UK market. The key restriction is that economic operators may not sell, or make available, EEE containing lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers, in amounts exceeding the established maximum concentration values.



Laying down the law

Backing up green claims

With the European Commission set on tightening the rules governing products' environmental assertions, **Ross Fairley** advises companies to scrutinise their supply chains



With a number of sustainability scandals hitting the headlines in 2013 – from the collapse of the Rana Plaza garment factory in Bangladesh to problems enforcing good labour standards in electronics factories throughout South Asia – the whole area of the supply chain and product responsibility has gained further impetus.

It is no surprise that supply chain issues have increased in importance to companies in parallel with globalisation. Supply chains can account for between 15% and 70% of a manufacturing firm's total costs, so companies have always had a keen eye on reducing wastage; recognising that any price adjustment can have a considerable effect on profits. However, the past 10 years have also seen the concept of green procurement rise up the corporate agenda.

There are a number of drivers for this, including increased legal regulation, but arguably it is now brand management that transcends all other things and gains the most attention from senior management. It is becoming essential for businesses to preserve the "green" status of their brand and often the most serious threats to this arise from the supply chain.

Mixture of regulation

Supply-chain regulation and compliance has become a legal specialism in its own right. International, European and national standards all have to be assimilated when you have a global supply chain. In the EU alone, there is a vast amount of legislation that can apply to products, including directives on: waste electrical and electronic equipment (WEEE, recast 2012/19/EU); the restriction of hazardous substances

in electrical and electronic equipment (RoHS, recast 2011/65/EU); ecodesign (2009/125/EC); and energy labelling (2010/30/EU). EU regulations, which apply directly in member states, such as REACH (1907/2006), ecolabelling (66/2010) and biocidal products (528/2012), also impact supply chains.

Many large corporations have realised that to manage these risks and properly regulate and report on their supply chain, they have to adapt. This area is no longer the preserve of just the environment and health and safety compliance officer in the business. Understanding your product chain and what product regulation means requires a multidisciplinary approach, encompassing technical, legal, product design and procurement teams.

Unfortunately for many, the diverse range of legislation and standards found in different countries shows no sign of converging. A classic example is the difference between the chemicals regulations applying, for example in the US (Toxic Substances Control Act), the EU (REACH), China (environmental administration of new chemical substances), Turkey (inventory and control of chemicals) and Japan (chemical substances control law). This challenge needs to be addressed, and a legal understanding of the differences in enforcement in jurisdictions and in the way that regulations apply is vital.

Businesses hoping for breathing space in terms of new legislation are likely to be disappointed, since the EU's seventh action programme makes it very clear that a key priority to 2020 is to improve the environmental performance of goods in the European market over their whole lifecycle. "Existing product legislation, such as the ecodesign and ecolabel directives and ecolabel regulation will be reviewed with a view to improving the environmental performance and resource efficiency of products throughout their lifecycle," states the European Commission.

Misleading claims

There has also been a move by the EU and national bodies to clamp down on misleading and unsupported environmental claims made about products. Regulation on "green claims" in the UK and the EU is piecemeal and driven largely by historic consumer protection laws, but the commission is planning to tighten legislation dealing with environmental claims.

A March 2013 report by the multi-stakeholder dialogue on environmental claims (MDEC), which was set up by the commission to analyse the use of environmental claims in different markets, provided a series of recommendations for action on green claims and called for a more coherent and coordinated enforcement approach. The report was closely followed by a communication from the commission in April 2013 entitled *Building a single market for green products*, which re-emphasised the MDEC's findings.

It is inevitable that alongside greater transparency and control, major corporations will need to adopt an increasingly legalistic approach to supply chain management. Although these companies will invariably work with their suppliers to improve performance, they will also demand strong reassurances and contractual commitments. They will expect audit rights over facilities, information sharing, confidentiality provisions, rules with governing public statements and green claims, and, inevitably, indemnities and compensation when it goes wrong.

Government guidance

According to Defra, environmental claims and labels must be credible to consumers, clearly understood, and genuinely reflect a benefit to the environment. Its 2011 publication, *Green claims guidance* (lexisurl.com/iema16747), provides firms with advice on producing clear, accurate, relevant and substantiated environmental claims on products, services or in marketing and advertising.

Ross Fairley is a partner at Burges Salmon. Contact him at ross.fairley@burges-salmon.com.

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At the rockface

Four senior sustainability professionals tell **Lucie Ponting** about leading their organisation's environmental efforts

Ten years ago, if you looked for a global organisation employing either a head of sustainability or a chief sustainability officer you would have been hard pressed to find one. The environment profession itself was in its infancy. Thankfully, things have moved on. Now you would probably find it difficult to identify a large or influential multinational organisation without a senior sustainability professional overseeing its operations.

This month, *the environmentalist* profiles four sustainability leaders working for companies in Australia, Denmark, the UK and the US. The interviewees, who work in sectors ranging from healthcare and property to retailing, discuss their roles, their backgrounds and the challenges they face, and make some predictions for the future.

Perhaps unsurprisingly, each practitioner took a different route into the profession. Susanne Stormer at Danish healthcare firm Novo Nordisk calls herself an accidental environmentalist, while Mark Newton at US shoe company Timberland says: "What we have most in common is that we came at it from different directions; there was really no formal training for any of us."

Other recurring themes in each of the interviews include the sheer volume and breadth of the issues sustainability professionals have to deal with, the rapidly evolving nature of these issues, and the crucial need to communicate with, and work in partnership with, stakeholders, both internally and externally. The interviewees also all agree that their job, while stimulating and fulfilling, is not for the faint-hearted.

Lucie Ponting is a journalist specialising in health, safety and environment.



Mike Barry
director of Plan A at
Marks & Spencer

Barry is responsible for Marks & Spencer's high profile sustainability programme, Plan A, which aims to help M&S become the world's most sustainable major retailer. He reports directly to the retail company's chief executive Marc Bolland.

Barry has three overarching roles. First, he drives overall direction and strategy by ensuring sustainability is integrated with the commercial side of the business. "As we expand internationally and online, it's essential that Plan A is part of that," he says. "At M&S, we've got a very clear brand position around quality, and it can't be a quality suit if it's made by a child or a quality ready meal if it's full of dodgy chemicals."

The second element of his job is to embed sustainability across the retailer's global operations, so that leadership teams have the skills and knowledge to implement Plan A. And the third strand requires Barry to engage with stakeholders, so that M&S is "talking to the right scientists, pressure groups and policymakers" about the future.

"To do this job well, first and foremost, you need to be a good people person; you've got to be able to sell what is still a relatively new concept to colleagues who run the business," Barry believes. "You also need to understand how the business ticks commercially."

Baseline knowledge of sustainability is also crucial, which is where Barry's background in chemistry is useful. "But you've got to know about a multiplicity of issues," he stresses. "At M&S, we're dealing with everything from deforestation and climate change to fish sourcing, salt in food and labour standards in Bangladesh. My job, if not to know all the answers, is at least to know someone who does."

Other core skills for the job are the ability to build networks and partnerships with others and to be innovative. "Finally," says Barry, "you've got to be quite tough. Lots of doors will get slammed in your face, but you've got to keep coming back."

Model future

Barry sees creating a self-motivating business case as a key challenge for any sustainability professional. "The signals telling us to become sustainable are quite weak. If you look at government, there is not much policy or legislation; investors are not particularly asking for it; and, while consumers do care that they shop with an ethical business, they don't want to know the detail of it," he suggests.

The sheer number of issues confronting an organisation like M&S is another challenge. "M&S has 180 points in Plan A, because there are 180 issues to deal with," Barry says. With 2.9 billion individual items, from thousands of factories, farms and raw materials sources, sold each year through multiple shops and websites, sustainability is "a big logistical task," he says.

On the issue of whether sustainability is now higher up the board agenda than 10 years ago, Barry says:

"Back then, businesses would have denied there was a need to change. Now, many recognise that a change is required. The big conundrum in 2013 is how you actually do that; no one is yet clear what the sustainable business model of the future looks like. We are all feeling our way a bit." This is one of the reasons why Plan A is a series of evolving five-year plans.

To do this job well, you need to be a people person; you've got to be able to sell what is still a relatively new concept to colleagues

Across its global operations, M&S has taken steps to improve the sustainability of products in the supply chain and these are automatically delivered in the same way, whether it's in the UK, China or Russia. "M&S sells the same coat from a good, ethical UK factory making good, ethical wool anywhere in world," explains Barry.

What varies is how people are employed, how stores are run and how the company interacts with organisations. In China, for example, people are more concerned about environmental issues, as they suffer the effects of smogs and water pollution. By contrast, the focus in the Middle East is more on social issues, families and community wellbeing.

YOUR M&S



Mark Newton
vice president, corporate social
responsibility at Timberland

"Timberland has a very broad definition of sustainability and corporate social responsibility," explains Newton, who joined the US-based footwear company in 2011. "The way we look at it is probably broader in context than many companies do – we include environment and social responsibility, as well as community engagement."

In terms of environmental performance, Timberland is looking at product attributes from a lifecycle and impact standpoint, including the energy efficiency of the manufacturing process, the embedded energy associated with materials used, and the impacts from the extended supply chain, distribution and logistics.

Reputation and compliance provide a firm foundation, but don't stop there: think about how you will be profitable in 50 or 100 years

Newton's team covers Timberland-owned and operated operations, as well as the energy, fuel consumption and utility impacts associated with its logistics providers and supply chain. On the social side, his team primarily focuses on ethical sourcing and creating sustainable livelihoods in the regions in which it is manufacturing. "Community engagement is really what Timberland all about," he stresses. The company recently celebrated 20 years of its "path of service programme", a global initiative whereby each employee can work for 40 hours a year for an organisation they choose to support. "It's about blurring the line between who we are as people and what we do at work," he says.



Newton comes from an engineering background. "My story is quite similar to others," he says. "Those of us leading CSR and sustainability in big organisations all come at it from different directions."

With a doctorate in physical chemistry, he joined Motorola 20 years ago to develop new materials. "We had a customer grinding up our products and sending back nasty notes saying: 'Did you know your walkie-talkies contain these restricted substances?' I was assigned to figure out why we were using these substances. Once we did, we found that the buyers had options; they just hadn't been asked the question before."

After Motorola, Newton worked at Apple and then at Dell, before joining Timberland. Probably the thing that inspires him most is his work in the supply chain, interacting with workers in the factories, understanding their needs and challenging how Timberland can impact their lives through the choices it makes.

Timberland's sustainable living environments programme, called "beyond the factory walls", looks at the individual needs of different communities. In India, for example, the need could be clean drinking water. By partnering with other organisations, Timberland provides basic community services, which help employees to be more productive.

Beyond reputation

Newton agrees with M&S's Mike Barry that sustainability now has a higher profile at board level. More significant, however, is how much more integrated sustainability has become in companies. Businesses are starting to think beyond just reputation management and compliance, which is where it started, Newton says. "The reason for this," he argues, "is that the business case is proving itself."

"Obviously, you have to focus on reputation and compliance as a firm foundation, but don't stop there. There is so much equity and value that can be built on top of that, when you start thinking about the business sense of sustainability, which is: 'How are we going to be profitable 50 or 100 years from now?'"

As a global company, Newton is clear that Timberland cannot "show up one way in one region and not in another region". Consistency is vitally important. "You can't say: 'Well, the bar is set lower in this region, so we'll calibrate our efforts accordingly,'" he stresses.

Newton recognises, however, that different things are important to different people, so he does not support a "one-size-fits-all" communication method. In some regions, environmental responsibility might resonate more; in others, worker responsibility.

According to Newton, one of the biggest challenges in sustainability today is consumer behaviour. "Most firms will only go beyond the minimum if consumers vote with their wallets. Consumers need to reward companies that are doing the right thing and act against those that are not." He also sees connecting with the investment community as a key challenge. "It's about the whole concept of materiality – how do you know what to focus on and what matters? Which of the things that we can do are the most important and which, if we don't do them, can diminish shareholder value?"



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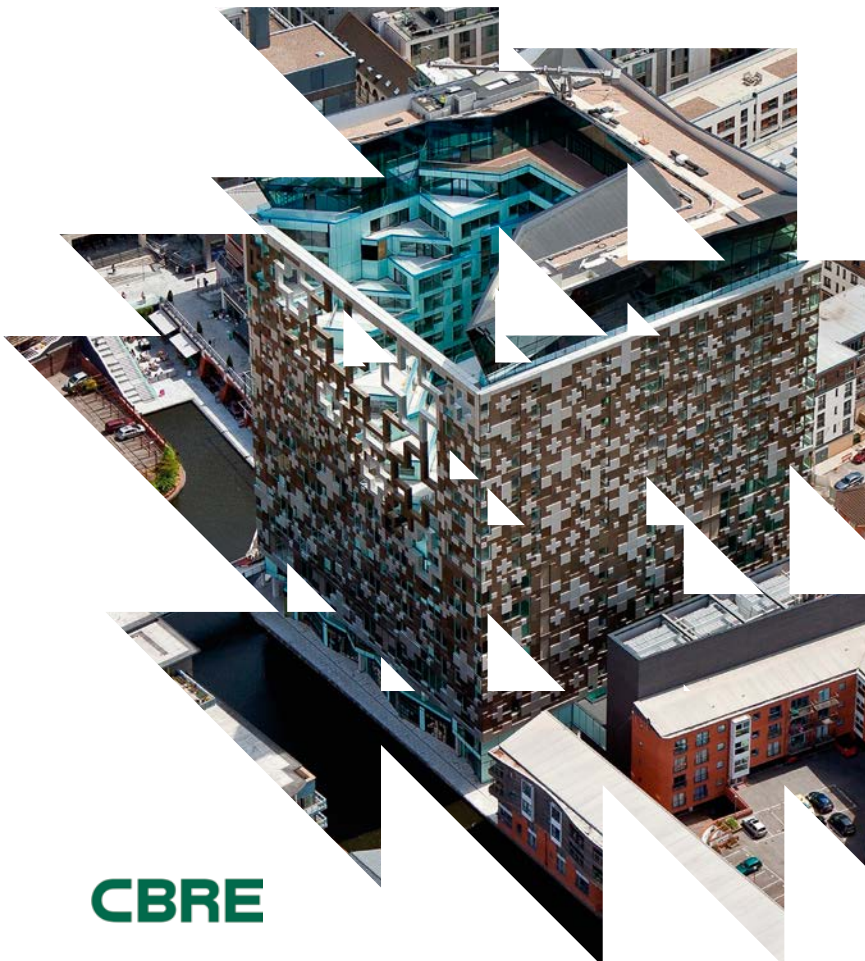
Amanda Steele
head of sustainability,
the Pacific region at CBRE

A key attraction of her role at real estate services provider CBRE in Australia is the multifaceted nature of the issues Steele deals with. "What I've always loved about sustainability is that it changes all the time. It's about complex problems and systemic issues – challenges that you can really get your teeth into."

As head of sustainability for the Pacific region, there are two main aspects to her job: the internal side, which involves helping the firm's offices and staff understand sustainability in its premises and activities; and the external side, where CBRE offers strategic direction to clients to help them deliver sustainable outcomes – for example, by improving energy efficiency.

Her degree in international politics might seem like an unusual starting point, but it was a good fit with her future career. "Most of my degree was around emerging economies that had environmental and community development challenges," she says. "I was looking at those large systemic and multifaceted problems, which are what sustainability is all about."

Sustainability professionals are getting savvier, looking at financial drivers, such as return-on-investment yields as well as social impacts



CBRE

She also worked at The Body Shop while studying. "I was lucky enough to work with [Body Shop founder] Anita Roddick in Australia," she explains. "Roddick was a great leader in sustainability – way ahead of her time with her passion for good supply-chain management, recycling and giving back to the community. What Roddick was doing back then, we're still looking for leaders in other industries to take up."

After university, Steele worked in the not-for-profit sector for Clean Up Australia and Clean Up the World. "In Australia, a lot of the work was around things like removing litter from parks; in Sierra Leone, it was removing dead bodies from the marketplace, so that kids had somewhere to play." This helped bring the important aspects of sustainability into stark relief. "I could see what a fundamental difference they made to people's lives," she says.

All consuming

People often assume the work Steele does is the "nice" side of business or the easy side, but this is a fallacy she says. "While it is always fascinating and stimulating, it can also be all consuming and sometimes quite depressing in terms of the scope and scale of the problems," she explains. "It's not an easy career; you'll take lots of flak from lots of different areas."

Although sustainability is generally higher on the business agenda than when Steele started out, she thinks its position still depends on the industry. "I'd like to say all businesses see it as absolutely essential to the way they run their operations, but that's not the case."

She argues that many of those industries at the forefront of sustainability – such as the mining, financial services, pharmaceuticals and property sectors – are in that position because they did a bad job previously, and then had to act, whether through enlightened self-interest or because stakeholders were digging them in the ribs. "In Australia, we haven't seen the push in manufacturing that's happened in Europe and possibly America. And that's the next big area here where change is looming, particularly around good supply-chain management."

A perennial challenge for the profession, according to Steele, is what happens when economic times get tough. "But we are getting savvier – looking at financial drivers, such as return-on-investment yields, and the role we play, as well as things like social return-on-investment and shared-value metrics."

In Australia, environmental challenges, particularly those from climate change, are acute. "We're now in an era where we're looking to adapt to the changes we haven't stopped," Steele says. Socially, while Australia is known as the "lucky country", there are still pockets of real disadvantage, she adds. "And the marginalisation of indigenous Australians is another issue that lots of organisations still struggle with."

She would like to see the country raise its game in certain areas. "When colleagues say how easy solar is to get up and running on a commercial scale in Germany, I see how backward we are here in Australia," she explains. "We haven't had the government incentives, yet we are one of the sunniest countries in the world."



Susanne Stormer
vice president, corporate
sustainability at Novo Nordisk

Stormer heads up the corporate sustainability team at Danish-based healthcare firm Novo Nordisk. “We’ve built our remit around the triple bottom line; it’s about balancing considerations for the environment, people and communities, and what’s good for the business as well,” she explains.

Alongside ensuring Novo Nordisk lives up to its commitments in the UN Global Compact, for example, as well as other voluntary agreements, she and her team “drive, align, support and challenge” the way the company works through the various dimensions of the sustainability agenda. “For some of these agendas – environment and climate action – we have the ultimate responsibility,” she explains. In other areas, responsibility lies in other functions. Examples include responsible sourcing, which is now fully embedded with the purchasing organisation, and business ethics, which sits with assurance and internal audits. Both began as programmes that Stormer and her team developed in response to emerging trends, and which were handed over to other functions in the business as they matured. In such circumstances, the ongoing task for Stormer is to challenge the functions to ensure they have the right targets and processes in place, and to make sure they are aware of new developments.

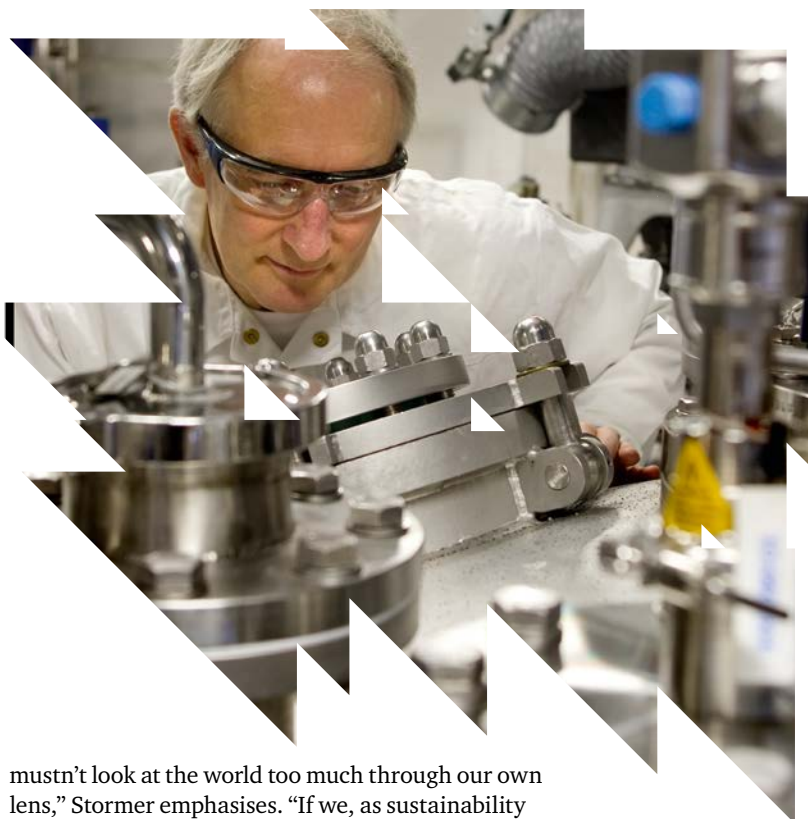
Her team puts together Novo Nordisk’s integrated annual report and looks after the company’s “blueprint for change” programme, which measures the link between the triple bottom line and the value the firm helps to create for both society and the company.

Stormer describes herself as “an environmentalist by accident”. After studying English language and literature, and then a course on East Asia, she started work as a communications adviser. From first explaining how to deal with environmental problems, she moved on to the social and economic dimensions of sustainability. She describes that role as a “go-between or convenor” for different types of experts and interests, which stood her in good stead for her role at Novo Nordisk.

Be a chameleon

Like the other sustainability leaders we spoke to, Stormer believes that sustainability is now higher on the board agenda than ever before, identifying an event 10 years ago when Novo Nordisk’s chief financial officer (CFO) gave a speech at a conference for economists in London as a breakthrough moment. “The title of the speech was: ‘Why sustainability has moved up the board agenda,’” she says. “There was a ‘wow’ moment in the room. People said: ‘This is their CFO who is talking about this, so they must mean business!’”

She sees both opportunities and risks for sustainability professionals in the future. “We have succeeded in building a very strong profession, which is increasing in numbers and rising up organisations,” Stormer says. But she is slightly concerned that the profession “could become a barrier to own success”, perhaps by becoming a bit too self-sufficient. “We



mustn’t look at the world too much through our own lens,” Stormer emphasises. “If we, as sustainability professionals, really want to gain influence, we have to stand strong on our own professionalism, but at same time be a bit chameleon-like and speak many languages with many different people.”

Turning to the challenges facing the profession, Stormer says: “We always hear that we need to make the business case, and part of what we do is to develop some new methods to describe that. But we haven’t really done that yet – come up with a way of bringing in other currencies or ways of valuing what we do.”

She would like to see the profession help to qualify conversations about what is valuable to us as human beings and as inhabitants of the planet. “We need to accept that money matters and we have to make the financial argument, but we also need to feed the conversation about what else matters.”

Sustainability professionals need alternative methods for making the business case. We must come up with new ways of valuing what we do

One of the interesting current discussions in Denmark, she notes, is the notion of green growth and competitiveness. “In Denmark, we have come a long way, perhaps even overestimating what we could do; certainly we had high hopes of the COP15 [the 2009 United Nations climate change conference] in Copenhagen, yet that failed,” Stormer says.

She believes, however, that the failures in Copenhagen were less to do with businesses, and more to do with governments. Overall, she feels that the Danish government has set a good example with its ambitious carbon reduction strategy, and in creating and enabling a greener, healthier lifestyle.





Gas: a stepping stone

Two MPs debate whether gas-fired electricity generation

The UK needs to decarbonise. On that point there is little genuine, credible debate. The question for policymakers is not whether to decarbonise, but how. The UK needs to reduce its carbon emissions in a sensible way and at a pace that does not put at risk the security or affordability of its power supply. And this is where the consensus starts to fray.

The call to decarbonise is too often followed by entirely unrealistic proposals around the expansion of renewable energy in an impossible timeframe. Too many people also dramatically underestimate the level of the UK's current reliance on fossil fuels: 83% of our homes are heated by gas and 70% of UK primary energy in 2012 came from coal and oil – just 1%–2% from wind. The UK is also forecast to double its electricity use by 2050, as transport and domestic heating are increasingly electrified.

We need to significantly expand low-carbon energy generation, but it is not credible to expect renewable technologies to quickly replace such high levels of fossil fuel use, while increasing our overall electricity generation capacity. Around 40% of our electricity still comes from coal, but a combination of ageing plant and the EU Large Combustion Plant Directive (2001/80/EC) will see that capacity fall away over the coming years. Anyone interested in clean energy should welcome this trend, which will cut not only the amount of carbon produced by burning coal, but sulphur oxide and nitrogen oxide too. However, the impact of the pace of closures on energy security could be significant, with Ofgem issuing a series of capacity warnings over the past year. If the UK is going to ensure that it has the generating capacity it needs, we must ensure that some

coal plants convert to biomass, while replacing much of the remaining capacity with reliable, flexible and affordable lower-carbon gas generation.

It is worth pointing out that the UK's record on decarbonisation is a good one. Of the G20 countries, only Germany has reduced emissions by more than the UK over the past 20 years. Despite this, the UK has lower carbon emissions per capita and per unit of GDP than Germany. The UK also has the toughest legally binding emissions reduction targets in the world. Replacing some of our ageing coal plants with gas generation is entirely consistent with maintaining our trajectory of steady and sustainable reductions in CO₂.

There isn't a major industrialised economy on the planet that is seriously planning to move to an entirely renewable energy mix over the short- or medium-term, because it simply isn't practical. Consider Germany again, often the poster child for renewable energy. While the UK is planning to switch off dirty coal plant and replace it with a lower-carbon mix of gas, nuclear and renewable energy, Germany is planning to switch off 20GW of low-carbon nuclear plant and replace it with 20GW of unabated lignite coal plant.

Our path to a decarbonised future requires a transition period, which, in the short- to medium-term, means replacing coal generation with gas. This will significantly reduce our emissions, while providing us with flexible and reliable electricity generation. In the longer run, as renewables and a new generation of nuclear plants take on more of the heavy lifting, carbon capture and storage technology should further reduce the emissions footprint of our gas plant, with unabated gas used at much lower load factors for backing up intermittent renewables.

The UK needs to decarbonise, and we will. Gas-fired generation is an essential stepping-stone on the journey.

Dan Byles is the Conservative MP for North Warwickshire and Bedworth.





to decarbonisation?

is the key to advancing to a low-carbon energy mix

While only a handful of increasingly marginalised figures still seriously question the threat of climate change, the political consensus that we need to decarbonise is yet to be translated into a plan of action that will deliver the scale of transformation we need. Current policies aren't coming anywhere close and some are flatly contradictory.

In the UK, the government's recent gas strategy outlined plans for as much as 37GW of new electricity capacity to come from gas-powered stations – equivalent to more than 40 new plants. The committee on climate change (CCC) has rightly condemned the strategy as “completely incompatible” with emissions targets, and “plan Z” for our climate.

Of course we won't achieve the zero-carbon energy future we need overnight, and yes, gas will be required as a bridging fuel, but the creation of new gas-fired stations – the average lifespan of which is 25 years – would keep us tied into a high-carbon infrastructure that would make the Energy Bill target of decarbonisation of our entire electricity supply by 2030 far less likely. So, while the UK's existing gas stations will continue to operate, they should only do so for short periods, and as backup, rather than baseload.

The other key question is how we source our gas. While the government has been flagwaver-in-chief for fracking to exploit unconventional sources of gas, it has failed to seriously explore the exciting possibilities of “green gas” (biomethane).

And, while the opponents to change talk over-optimistically about the potential of technologies such as carbon capture and storage, they tend to be unduly sceptical about renewables. The cost of onshore wind and hydroelectricity is already matching coal and gas, with prices expected to fall further. Solar is becoming more cost-effective, to the point where financial analysts are talking about its ability to compete with fossil fuels. Independent energy consultants Ecofys have reported

that a worldwide transition to a 100% renewable energy infrastructure would be feasible by 2050 if combined with strategies to improve energy efficiency.

Germany is on course to meet its carbon reduction target far more effectively than the UK. There is a short-term gap, because Germany decided to cease nuclear generation earlier than originally anticipated following the Fukushima disaster, but the big picture is that it has cut emissions by 27% since 1990. Germany also has put in place a long-term programme to phase out both nuclear and coal power, and move to sourcing 80% of its energy from renewables by 2050. It has numerous “100% renewable villages”, which increasingly meet all their electricity and heating needs from local renewables, and export energy to neighbouring cities.

Climate change is by far the most important reason to decarbonise, but we should not forget that there are also sound economic and social reasons to invest in renewables. The UK's dependence on gas is one of the underlying causes for price increases: the CCC has estimated that electricity bills could be £600 higher in 2050 if we continue to rely on gas.

Investment in renewables will also create jobs. The government's own offshore valuation report found that by using just 29% of the UK's offshore resources, the country could become a net exporter of electricity by the middle of this century, creating 145,000 jobs and £62 billion revenue annually.

There is no safe alternative to radically limiting the rate at which we burn fossil fuel. The continuation of gas-fired electricity generation must not be seen as anything more than a temporary bridge to the zero-carbon future we need.

Caroline Lucas is the Green MP for Brighton Pavilion.



Building the future

the environmentalist discovers how the construction sector is collaborating to deliver sustainability training

Launched in June 2012, the supply chain sustainability school (SCSS) is a virtual learning environment that aims to help construction suppliers and subcontractors develop their sustainability knowledge and competence. Backed by the Construction Industry Training Board's (CITB) growth fund and the UK Contractors Group, in its first year the school has enrolled about 2,600 members from more than 1,460 companies. This figure far exceeds the school's original target of 800 registrants.

Credit for the concept and initial groundwork to set up the school belongs to Skanska, but several other leading UK contractors have since come on board. Balfour Beatty, Carillion and Wates have recently joined Aggregate Industries, Kier, Lend Lease, Morgan Sindall, Sir Robert McAlpine and Willmott Dixon as part of the school's leadership group.

It is this alliance between some of the UK's biggest construction contractors that makes the initiative unique. On a day-to-day basis, these companies are rivals, bidding against each other to win huge contracts – but the need to build a more sustainable supply chain for the industry has seen collaboration replace competition.

Back to school

The SCSS was set up as a partnership by seven construction firms to help their supply chain benefit from the opportunities emerging from sustainable business practices.

Skanska is committed to achieving near-zero environmental impacts from its construction projects (see environmentalistonline.com/Skanska). The Swedish multinational has a long tradition of sustainability but, in recent years, the group's commitment to greener construction methods has intensified. "The school represents a common approach to addressing sustainability within the major contractors' supply chain," says Jennifer Clark, director of environment at Skanska UK. "As contractors, we are only as green as our weakest link and we cannot achieve greater sustainability without our suppliers."

The school's strategy to gain buy-in and commitment from suppliers is a sound one. Around 80% of total spend on a major construction project is with the supply

chain, so the behaviour of suppliers has the biggest potential to minimise the sector's environmental impacts. The big contractors also share many of the same suppliers, so it makes good sense to avoid duplication and work together to improve sustainability performance across the supply chain.

According to Geoff Firth of Boon Edam, a supplier member of the SCSS, the fact that the school represents a joint initiative is crucial. "From a supplier's perspective, the SCSS has more credibility because there are several main contractors involved – this means there are no mixed messages and we can have confidence in the process and outcomes," he comments.

Aside from the leadership group – now comprised of 10 major UK contractors – the SCSS has two delivery partners. Responsible Solutions, the lead training partner, and supply-chain expert Action Sustainability, which has overall responsibility for running the school and works independently of the contractor partners to ensure the confidentiality of suppliers. The school was set up with an investment of £475,000 from CITB's growth fund, matched with time and in-kind contributions from the founding partners.

Gaining momentum

The school is open to any supplier in the construction industry and membership, including access to the school's learning resources, is free. Initially, the membership profile was focused more on small and medium-sized enterprises (SMEs), but is now evenly spread across SMEs and large suppliers. Skanska and its partner members have been overwhelmed by the rate at which membership of the school has increased. "The growth has been organic, and we haven't had to push very hard to gain members – this shows that there is a hunger for sustainability knowledge among our suppliers," says Nick Baker, procurement manager at Skanska.

Although it is still early days for the SCSS, membership has already cascaded to some second- and third-tier suppliers as more members encourage their own supply chains to participate.

One successful initiative developed to promote the school was to host a series of 11 supplier days across the UK. The free events featured talks from industry

experts on sustainability issues. The forums also gave the main construction partners an opportunity to discuss their environment objectives and how they want to engage with suppliers to achieve them. The days were well supported with more than 100 firms attending each event.

Family-owned business Lee Brothers is a tools and equipment supplier that benefited from one of the days. Quality, environment and health and safety manager Chris Bate went to the Nottingham event and admits that he had been slightly sceptical about its value but found the event “extremely enjoyable and worthwhile”. Seeing the senior-level commitment of the main contractors and listening to the different speakers prompted Bate to recognise that Lee Brothers needed to take sustainability seriously, and that action was required if the firm wanted to remain competitive.

Going for gold

To join SCSS, a supplier must register on the school's website (supplychainschool.co.uk) and complete a self-assessment. The self-assessment tool is designed to help the company evaluate its sustainability strengths and identify areas where it can develop competence. It is a self-help tool and the results of the questionnaire are not visible to any other organisation.

The tool examines the company's level of knowledge across these key areas:

- sustainable construction;
- sustainable procurement;
- environment management;
- materials;
- climate change and carbon;
- waste;
- water;
- biodiversity;
- ethical business; and
- economy and community.

The tool has a bank of more than 100 potential questions, but a sophisticated “heat mapping” capability in the software tailors them to the individual supplier. For example, it considers the trade area in which the company operates, whether its laying foundations or installing roofs. From the

answers, the tool generates a priority action plan, directing the company to a tailored list of tools and resources available through the school.

Clark is keen to point out that the assessment process is not about adding another layer of bureaucracy to incorporating sustainability into a company's operations or creating a pre-qualification requirement for projects – although a supplier may choose to share its action plan with potential customers as evidence of continual improvement. “The self-assessment process is to help guide companies at the start of their journey to enhance their sustainability knowledge and performance,” she says. “The action plan provides a route map for companies and gives weight and structure to the process.”

Self-assessment through the school is linked to three levels of membership:

- **Bronze** – a supplier must have completed a self-assessment in the past 12 months and used at least five resources in the past six months.
- **Silver** – a supplier must have completed a reassessment in the past 12 months and used at least five resources in the past six months.
- **Gold** – a supplier must have completed a reassessment in the past six months, used at least 10 resources over the same period, and actively worked to share its knowledge and experience with other members.

Supplier members can reassess themselves at any stage after their initial self-assessment, but for a company to improve its rating in any area it will need to provide evidence of change.

Learning resources

To make the process manageable, each supplier's action plan signposts no more than 10 learning resources at a time from the more than 500 available. These resources include online tools, e-learning modules, one-to-one training, free workshops and case studies. Resources are often categorised into four ascending knowledge levels. Those advising on “sustainable procurement”, for instance, are labelled “beginner”, “intermediate”, “advanced” and “expert”.

At the beginner level, there is a one-hour e-learning module providing an overview of the principles and the potential benefits of sustainable procurement, as well as the sustainability policies of the school's contractor partners. There are also video links and case studies featuring contractors, suppliers and clients talking about their views and practices on sustainable procurement. The resources for the intermediate knowledge level are more advanced and include:

Case study: Boon Edam

Employing 75 people in the UK and 950 worldwide, Boon Edam supplies and maintains revolving entrances and security doors, low-level turnstiles and barriers. The company has a broad client base, but it typically works as a supplier to main contractors rather than directly with the end user.

Boon Edam joined the supply chain sustainability school (SCSS) in summer 2012 and has since gained “gold” membership. Geoff Firth, technical lead in business support at the firm, assumed responsibility for implementing the action plan generated by completing the school’s self-assessment questionnaire. The plan directed Boon Edam to relevant e-learning modules (materials and sustainable construction), and Firth attended two of the school’s workshops – on “understanding the timber chain of custody” and “selling sustainability”.

As a result of engaging with the school, Boon Edam has:

- reviewed and updated its sustainability policy;
- started to ask its key suppliers more questions about sustainability, particularly around environment management systems, and is encouraging its supply chain to register with the school;
- prepared a presentation about sustainability as part of an education programme for employees on ISO 14001. The presentation draws heavily on the slides used in the SCSS’s e-learning modules and the “selling sustainability” workshop;
- developed the knowledge of the sales team with regards sustainable construction;
- developed the knowledge of the procurement team with regards the practical steps it can take to embed sustainability considerations into the procurement process; and
- a better understanding of some of the generic issues relating to sustainable construction, such as chain of custody and building standards like BREEAM and CEEQUAL.

“The school provides a structure to help address a complicated and broad subject – it has given Boon Edam a clear direction for embedding sustainability into the business,” says Firth. “Our involvement in SCSS also allows us to network and meet other suppliers in similar situations, and it can only help the company in future tender processes by demonstrating our commitment to sustainability.”

Source: supplychainschool.co.uk

- the green procurement code from the Mayor of London, and the responsible procurement policy produced by the Greater London Authority;
- an outline of the relevant training courses offered by Action Sustainability;
- an online forum for professionals to discuss the latest initiatives and issues;
- a powerpoint introduction to BS 8903 – principles and framework for procuring sustainably;
- a self-assessment diagnostic tool for supply chain sustainability;
- waste procurement guidance for the construction industry from Wrap;
- a half-day workshop on “getting to grips with sustainable procurement”; and
- interviews and case studies.

So far, close to 600 companies have completed the self-assessment process and are working their way through an action plan. More than 1,700 individuals have accessed training through the school.

Lee Brothers is one supplier that has embraced the school’s self-evaluation approach. Bate completed the firm’s first self-assessment in October 2012, and has since worked through five action plans and four reassessments. As well as accessing e-learning packages, Bate has attended four regional workshops, entitled “embedding sustainable procurement”, “selling sustainability”, “understanding the timber chain of custody” and “carbon footprinting”.

Bate finds the self-assessment and action planning process “simple and easy”, and sees it as an important tool in demystifying an otherwise overwhelmingly complicated topic. “It allows Lee Brothers to work at its own pace in a systematic way, with the confidence of knowing that the recommendations and action plans are in line with its clients’ priorities,” he explains.

Moving forward

The SCSS has secured a second wave of funding from CITB, which the school’s partner members have pledged to match. The leadership group has developed a five-year plan that aims to build on the school’s initial success by enhancing its range of learning resources and strengthening its reach across the construction industry’s supply chain.

The school is already developing an international influence with some partner and supplier members encouraging their business units and suppliers abroad to access the learning resources available through: supplychainschool.co.uk.

“The school exists to provide guidance to suppliers as part of a collective journey to a low-carbon future,” explains Clark. “It is fast gaining momentum and enables the construction industry to speak with a more united voice to help shape how we tackle sustainability issues in the UK and beyond.”



The Greenworks Academy

Launched in 2011 by building suppliers Gibbs & Dandy, Graham, Jewson and Minster, the Greenworks Academy is a multipurpose training facility in Birmingham providing education and support to help its businesses and customers reap opportunities in the renewable energy and sustainable building sector. The academy offers courses and accredited training in installing green building solutions, ranging from solar photovoltaics (PV) and rainwater harvesting to external wall insulation and heat pumps.

The UK's carbon reduction ambitions are putting considerable pressure on the construction industry to deliver low-carbon new builds and cut the energy consumption of existing buildings through refurbishment. These demands can only be met by "an army of construction professionals trained in renewable energy and sustainable building", says Marcus Jefford, Greenworks operations and marketing director.

Sustainable investment

The academy is the result of a £500,000 investment by Jewson and its sister brands. Jefford says this demonstrates the group's commitment to training tradespeople and internal staff so that they have the knowledge and skills needed for the sustainable building agenda.

The 15,000 square-foot, purpose-built academy building offers a practical, solution-led approach to training. As well as three training rooms, there is an open-plan space with real-life settings and demonstration areas, where 60 learners can be trained at the same time. These training areas include room sets for wet and dry work, low-level roofing rigs for installing solar thermal and PV systems, external wall insulation models, an elevated drainage pit and live rainwater harvesting systems.

"The demonstration areas enable course attendees to develop hands-on, practical skills in a realistic situation," says Jefford. "We are constantly having to dismantle and rebuild or alter the sets because renewable technologies and building solutions are evolving all the time."

The academy has trained about 3,600 internal staff and more than 4,000 customers, and its influence has already exceeded



expectations. "We envisaged that the majority of courses and consultancy would be delivered locally, or maybe regionally, but our reach extends as far afield as Scotland and Devon," says Jefford. "The uptake of courses demonstrates the need for this type of training."

Training prospectus

The academy runs more than 30 training programmes, and the number is increasing. Since launching, it has delivered more than 50,000 hours of training covering a broad range of introductory, qualification and accreditation courses. These have included renewable energy awareness days, installation training and, more recently, green deal assessor and installer certifications. "Our training provides clear routes for customers to become members of government-approved certification schemes that encourage high standards in sustainable construction and refurbishment," comments Jefford.

The training programmes and consultancy support the academy provides are constantly evolving in response to government and legislative changes, and new products. "We have to be an open window to the wide and varied needs of the marketplace and continually improve our offering," says Jefford.

"There is a huge desire for education and skills in new technologies so that businesses can deliver more sustainable solutions to their customers, and the academy is directly supporting that agenda."

To complement its practical and hands-on training, the academy also offers e-learning options. Greenworks' online learning gateway (greenworks-gateway.co.uk) enables customers to access modules on a range of sustainable products and solutions, renewable technologies and legislation updates.

The free service provides a host of online tutorials featuring bite-sized chunks of information on areas such as insulation, water management, timber, building fabric solutions and renewables. Most courses take 40 minutes to an hour and involve spoken tutorials rather than "endless on-screen reading". There are more than 70 hours of tutorials available on Greenworks' website and the academy is continually adding new courses.

Case study: Futurebright Solutions

Based in Staffordshire, Futurebright Solutions is benefiting from the training its team underwent at the Greenworks Academy. Futurebright is a new company specialising in the installation and maintenance of solar PV systems. Although director Chris Parkes was experienced in the building trade, to operate a business in renewable energy installation he needed new knowledge, skills and qualifications.

The company's roofers and electricians, as well as Parkes himself, spent three days at the academy gaining hands-on experience of how to install PV systems and developing an insight into the relevant legislation, market drivers and available products. After further support and training, the company is now accredited under the microgeneration certification scheme and plans to extend its training with Greenworks to cover other renewable technologies so that it can expand the business.



Managing property

Practitioners at National Express and UNITE discuss how to influence your property team

The property profession may not have been the quickest to embrace the environment management agenda, but this is changing. In some organisations, property teams are beginning to drive the sustainability agenda, with environment and energy management integrated into property and asset management. So how can sustainability practitioners have more influence and get more property specialists to embrace sustainability?

Moving home

James Tiernan and Gareth Chaplin are responsible for environment and energy management at UNITE Group, a property company that provides accommodation for students in 130 buildings across the UK. Utility costs are a significant expense and therefore a key issue for the business. Tiernan and Chaplin show how environment professionals can help drive the sustainability agenda in property management by working within their organisation's estate management team.

Tiernan and Chaplin have successfully trialled efficiency measures to reduce energy costs, and are now seeking approval for a more comprehensive estate-wide rollout of LED lighting. Given the number of properties operated by UNITE, this is a complex project management challenge and one they say is best managed from inside the estate management team.

As more organisations adopt best practice for environment management and energy efficiency across property portfolios, sustainability practitioners are increasingly likely to report into property teams, they say. There will also be a shift in the nature of the work, from data collection, analysis and trials of new technology to project management of estate-wide retrofit programmes.

Guiding lights

Chartered surveyor Stuart Parker is the group property and environment director at National Express. He was recently given responsibility for environment management and believes that to best engage with property professionals, environmentalists have to educate them on available tools and technologies.

While property teams were initially slow to tackle environment and energy management, Parker says this was because their first focus was on ensuring projects were delivered on time and on budget. This made them wary of experimenting with new approaches and technologies. He believes that ensuring property professionals use the best available guidance is crucial in getting them to take sustainability seriously, particularly

on new builds. "There is plenty of great guidance out there and BREEAM is a good example," he says.

Parker first used BREEAM when he was working on the development of Birmingham coach station. He recalls the uproar from the design team when he set them the challenge of achieving an "excellent" BREEAM rating within the constraints of a very tight budget. "They said it wasn't possible, but the truth was they just hadn't done it before," he says. "Once they were trained, however, their attitude changed and we managed to achieve excellence. We all realised that good environment and energy standards are part of good design. More importantly, we delivered the project on time and on budget, despite the main contractor going bankrupt in the middle of the development."

Leasehold

Another major barrier to property teams embracing sustainability relates to the fact that most non-domestic properties are leased from a landlord. Consequently, making changes requires the landlord's consent and any commercial benefits from installing new energy efficient equipment, for example, must be realised in the time left on the lease.

Green leases are one option to bring to property team's attention. They improve the landlord-tenant relationship and encourage them to jointly seek improvements in a building's environmental performance. The Better Building Partnership has developed a toolkit for green leases to enable owners and occupiers of commercial properties to work together to reduce environmental impacts.

There is a huge scope for improving energy performance through retrofitting more efficient technologies. Parker believes it is vital that property managers lead on this, rather than an environment manager, simply because it is the former who are responsible for the maintenance of the facility.

Retrofit can change maintenance programmes and installation must be designed to minimise disruption. Parker has linked his database for utility management to his asset management system, enabling him to track performance and collect the data he needs to make the business case for retrofitting efficiency measures. He acknowledges there is much more to do, but by linking environment and energy management to its asset management system, National Express is well equipped to rollout best practice across all its facilities.

Paul Pritchard, MIEMA CEnv, former vice chair of IEMA, and **Nick Coad** are partners at the consultancy Sandwalk.



Becky Allen reports on a scheme developed to help community groups explore low-carbon living that is now increasingly being used in workplaces

It was at a birthday party that Rosemary Randall was struck by the idea of developing a way to engage people with climate change and cutting their carbon footprint. A former colleague was celebrating his 60th by holding a conference bringing together many of his friends from the environment movement and it got Randall thinking.

"I'd been wondering about what my profession – psychotherapy – had to contribute to tackling environmental issues, particularly climate change," Randall remembers. "I had read a paper about different socially organised forms of climate change denial and what puzzled me was the information deficit fallacy; that giving people information doesn't change their minds.

"The environment movement spent the 1970s and 80s imagining that if you just told people what the problem was, they would act, so I was fascinated by the psychology of that."

Back in East Anglia, Randall and Andy Brown, an engineer, set up Cambridge Carbon Footprint, taking a CO₂ calculator to public places and working out people's carbon footprint. "It was an opportunity for a conversation," she explains, albeit one about individual's homes, holidays and spending. "Although you're asking rather technical questions, you're also actually invading people's privacy and raising doubts in their minds about whether they're a good citizen."

Realising that the public needed easily digestible information, Randall and Brown went on to create Carbon Conversations – a series of six two-hour meetings where small groups could explore cutting their carbon footprint. "On the whole participants had a very poor grasp of what was involved. Most thought they needed to recycle," Randall says. "That it was the meat they ate, their poorly insulated houses, the holiday flights they took and the 20,000 miles a year they drove wasn't really on their radar."

Going to work

Launched nationally in 2009 using specially designed games, case studies and a handbook, the Carbon Conversations groups tackle topics from food and travel to consumption and energy use in the home. Across the UK, some 2,000 people have taken part, with groups set up in London, Norwich, Oxford and Cambridge, as well as many in Scotland, where the initiative has been supported by the Scottish government's climate challenge fund.

Most participants pledge to cut carbon emissions by one tonne immediately and many make long-term plans to halve their emissions. "I do think it works," says Randall. "By the time you get to the sixth meeting, there's a great shift in thinking – a realisation that it's all right to talk about climate change, to have mixed feelings and explore them, and that no one is going to be judged or told off." The shift, she believes, is down to the many traditions that Carbon Conversations draws on, including self-help, experiential learning and, in particular, group work. "In a group, you can begin to establish a different norm and begin to give people strength in numbers."

To make Carbon Conversations self-sustaining, in 2012 Randall and sustainability expert Pam McLean established a community interest company, The Surefoot Effect, to introduce the concept to companies and workplaces. "Businesses have invested in energy-saving infrastructure, but many now realise that without employee engagement, they won't see the full benefits," McLean explains.

Covering the same issues as the community version, workplace Carbon Conversations focus on the changes individuals can make and opportunities to reduce carbon emissions across an organisation, with the final session creating an action plan for the group's sponsor. The initiative has already been used by Buckinghamshire

County Council, the Southern Cooperative, the University of Edinburgh and the Scottish parliament, which ran two groups in 2010 and 2011.

"We have very ambitious 2020 targets to reduce our carbon footprint by 42%, our electricity usage by 40% and to only send 5% of our waste to landfill," says David Fairhurst, environment performance manager at the Scottish parliament: "We recognise that staff behaviour and employee engagement are key to meeting those goals."

A Scottish voice

The sessions at the parliament were classed as formal training and ran during working hours. All the participants were volunteers, which Fairhurst believes is essential. "I sat down and wrote a list of people I thought might be interested, including those in our environment management working group. I also asked office heads who they would recommend. The first group was a pilot. We aimed for a mix of participants to see how different people responded to it."

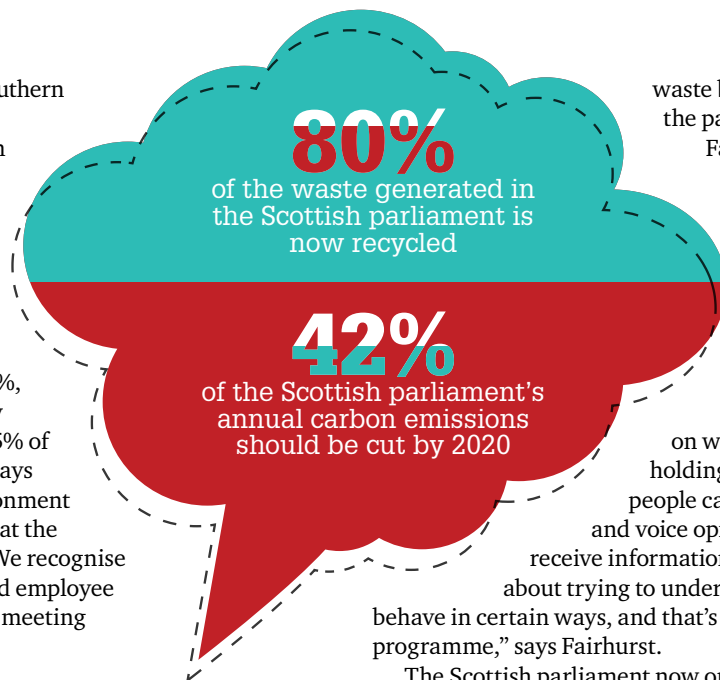
Workplace issues identified by the groups were relayed to Fairhurst, who either addressed them himself or passed them up the management chain. "If it was a minor thing, I'd help people implement it. The more challenging issues were taken to the environment management steering group," he explains.

Jenny Goldsmith, a clerk on the European and external relations committee and a volunteer coordinator for the parliament's Real Action on Climate Emissions (RACE) programme, took part in the second Carbon Conversations group. "I found it really interesting. It's a very different format, much more conversational than simply being sat there and given information," she says.

"The discussion format is interesting, it opens up members of the group and helps people learn from each other. Also the games used are very accessible," she says. "It suited me as a person, and I think everyone in the group got something out of it. Many followed up on the work and did something positive afterward. It really resonated with people – it got into their heads."

Other participants reported feeling more involved, inspired and empowered, as well as more informed. As a result, several became more involved with RACE and ideas the group generated led to changes in recycling at the parliament building.

"We've completely changed our recycling facilities in offices," Fairhurst says. "We've removed individual bins and replaced them with recycling hubs to encourage people to separate their waste. Our recycling rates are now very high – around 80% – and we've cut our landfill



waste by almost 70% over the past four to five years."

Fairhurst and Goldsmith both believe Carbon Conversations has contributed to a wider cultural change in the parliament.

"What we really learned and built on was the benefit of holding meetings where people can discuss things and voice opinions, not just receive information. We learned a lot about trying to understand why people behave in certain ways, and that's informed our RACE programme," says Fairhurst.

The Scottish parliament now organises a range of environment events, from after-work bird watching to wildflower planting. "The original vision for the parliament was to link it into the land and in particular the wild space of Arthur's Seat [the main peak of the group of hills that forms most of Holyrood Park, close to the parliament building]," says Goldsmith. "We have a partnership with the Royal Botanic Garden Edinburgh, which has permission to take seeds from Arthur's Seat. Parliament staff have germinated the seeds and planted them around the parliament building to give biodiversity a helping hand."

Engaging staff

According to Fairhurst, what works best to change behaviour is using a wide variety of events to engage as many staff as possible: "What we're trying to do is find things that appeal to a range of people. We hope they will then do things at work to help us be a more sustainable organisation."

As a result, although it's hard to attribute specific changes to individual initiatives, Fairhurst believes Carbon Conversations – along with RACE and the parliament's eco-network – is creating culture change throughout the parliament. "Without initiatives like Carbon Conversations, it would be harder to get environment policy through and encourage people to accept it," he says. "The culture feels more open now to doing the right thing."

Carbon Conversations has opened up dialogue that has helped the parliament learn, Goldsmith concludes. "It's been part of our environmental evolution," she says. "We've refined how we do things as a result, we've learned and changed our approach."

"Carbon Conversations is not a panacea, but it is another tool to use and it will help you learn how to do things better and how to get the environment message to become part of the corporate norm."

Becky Allen is a health, safety and environment journalist. For more information, visit carbonconversations.org and surefoot-effect.com.



Recycling remit

Adrian Bond on Scotland's groundbreaking new waste legislation and the role of Sepa in ensuring compliance

With less than two months until the new Waste (Scotland) Regulations 2012 take effect, the Scottish Environment Protection Agency (Sepa) is working with organisations to explain the changes – highlighting in particular the requirement to recycle, and to drive home the importance of preparation and compliance.

In 2010, the Scottish government set out a new vision to shape the country's approach to waste. The *Zero waste plan* recognises that every item and material we use, either natural or manufactured, is a resource with value. It is an economic and resource strategy – not simply a waste strategy. A critical step in this journey is the introduction of the 2012 Waste Regulations, which establish a legal duty on every business, regardless of size, to separate metal, plastic, paper, card and glass for recycling from 1 January 2014, as well as a ban on these separated materials being sent to landfill or incinerators.

For the first time, a clear focus has also been placed on the collection and treatment of food waste; organisations producing more than 50kgs of food waste a week in urban areas will be expected to incorporate dedicated waste bins into their recycling schemes.

Business owners across Scotland will be expected to implement recycling programmes in their premises and train staff to segregate recyclable materials. While full segregation into separate bins produces the highest quality material, Sepa recognises this may not be possible in every case. Collections of mixed recyclables will therefore still be permitted provided they are not mixed with non-recyclable or contaminating wastes, and are sorted to a high standard.

The environmental benefits of recycling have long been established, but new data shows that Scotland's waste in 2011 generated 14 million tonnes of CO₂ equivalent. Actions outlined in the *Zero waste plan* are expected to reduce CO₂ from waste by 22% by 2025.

The long-term economic gains of the Regulations are also compelling. Scotland currently spends £95 million on landfill taxes to dispose of recyclable materials worth approximately £97 million. More broadly, there are potentially £2.9 billion of savings to Scottish businesses and organisations from straightforward resource efficiency measures.

Enforcing change

Sepa's initial approach to enforcement focuses on raising awareness and providing guidance on compliance. To ensure that waste producers are aware of their new legal duties, Sepa, in partnership with agencies including Zero Waste Scotland, has been engaging with businesses, the public sector and the waste industry to provide information, signpost support and encourage discussion of the 2012 Regulations.

Hundreds of firms have turned out for briefings and seminars and more than 120,000 flyers have been distributed to raise awareness with small retailers. One-to-one engagement has also been picking up, with Sepa working with supermarkets, shopping centres, cinemas, fast-food restaurants, hotel chains and the British Army.

Sepa's first focus following the 1 January 2014 deadline will be on advice and support; however, high impact and persistent offenders will be tackled more robustly. The regulator has been working with each of Scotland's 32 local authorities to develop a consistent approach to enforcement. Ongoing engagement with environmental health teams, trade waste inspectors and waste managers has been invaluable in creating targeted compliance campaigns. A key target area is food waste. Sepa is assessing responses from questionnaires sent out to 400 large food waste producers and this will be used to direct compliance activity in the coming months.

The regulator will also focus on waste collectors that persist in offering single mixed collection services with no segregation of recyclables. In October, it hosted an event for 35 waste companies to discuss the practicalities of the Regulations and develop a common understanding of what constitutes a compliant service.

The agency is confident that each small action taken by producers and service providers in preparation for 1 January 2014 will add up to a real step change in the way resources are managed in Scotland. Confidence in the sector is growing, as recycling becomes a more mainstream part of life. The new Regulations will help turn Scotland's plan into real action – zero waste is happening right now.

Adrian Bond is national waste manager at Sepa. For more information on the Regulations email: zerowaste@sepa.org.uk.

Ignorance is no defence

Simon Colvin outlines the similarities and differences between criminal and civil law

The terms “criminal” and “civil” are often mentioned when dealing with environmental compliance and liability, but what do they mean and how do they differ?

Environmental responsibilities and obligations are derived from one of two sources. They either come from statutory controls, in the form of acts of parliament or regulations, or through what is known as “common law” – the doctrines and principles developed by the courts adjudicating on individual cases in areas such as nuisance and negligence. Both will often require that an individual not do something or take some form of action.

Generally speaking, a failure to comply with a statutory control will result in a criminal offence being committed and the imposition of a criminal sanction. Regulators also have a range of options, such as statutory notices, to deal with ongoing breaches and bring a business back into compliance, or to stop an activity. In England and Wales, regulators can now impose civil sanctions, such as enforcement undertakings and variable monetary penalties, as an alternative to pursuing a criminal case.

Common laws, meanwhile, are enforced by individuals or businesses against each other either on the basis of agreements, such as a breach of contract – through a failure to meet the terms of an agreement or to exercise reasonable skill and care – or on the basis of torts, such as negligence.

Torts are based on the principle that: (a) one party owes another a duty of care; (b) the conduct of one of the parties has resulted in a breach of that duty; and (c) the breach resulted in harm to the other party or their property. There are a range of sanctions available to the civil courts, including awarding compensation and issuing injunctions to halt the harm.

In an environmental context, there are certain overlaps between the civil and the criminal regimes. Examples include the ability of individuals to enforce breaches of the statutory nuisance regime provided in the Environmental Protection Act 1990.

The use of civil sanctions to make reparation for some criminal offences in England and Wales is another example. The sanctions are “civil” as they do not involve recourse to the criminal courts and often relate to the payment of money, which, if not paid, can be recovered

as a debt. Regulators are still able to use criminal sanctions, such as pursuing a prosecution, in the event of non-compliance with the civil sanction.

Proof and liability

The “standard of proof” in court cases relates to the burden on the party bringing the civil claim or the regulator pursuing the prosecution, and describes the standard to which the facts must be established to succeed. In civil cases, the standard of proof is “on the balance of probabilities” – ie that it is more likely than not that the claimant’s loss was a result of the plaintiff breaching a duty of care. This is a lower threshold than in criminal cases, where the prosecution must prove the defendant’s guilt “beyond all reasonable doubt” – ie that there is no logical explanation other than that the defendant committed the offence.

The majority of criminal environment offences are “strict liability” offences, which means there is no need to prove that the defendant intended to commit the crime. For offences such as causing water pollution under regulations 12 and 38 of the Environmental Permitting Regulations 2010, it is enough that a company or individual was undertaking a positive action, or failed to act to prevent an eventuality. This approach is thought to be the most effective means of protecting the environment, with the general perception being that to require proof of fault, or intent, would impose too high a burden on regulators.



The majority of civil claims, meanwhile, require a claimant to show fault on the part of a defendant, whether that is a failure to “exercise reasonable skill” or to “take reasonable care”.

Different venues

Criminal cases are pursued in magistrates’ courts and crown courts. Magistrates’ sentencing powers are lower than those of crown court judges, both in terms of the level of fines (currently there is a £5,000 limit per offence) and the length of prison sentence. Meanwhile, in the civil regime cases are heard in the first instance in county courts.

Both criminal and civil legal regimes use common terms for the upper courts – High Court, Court of Appeal and Supreme Court (formerly the House of Lords). These higher courts each have specialist divisions to deal with civil and criminal matters. Beyond the Supreme Court, there is the European Court of Human Rights and the Court of Justice of the European Union – which is becoming increasingly involved in the resolution of disputes involving European law, such as environmental impact assessment. There is also the emerging tribunals system, which contains chambers dealing with specific topics, including the environment. This function deals mainly with permit appeals at the moment.

Alternative dispute resolution (ADR) is used widely in the resolution of civil disputes in an attempt to avoid going to court. The use of ADR in a criminal context

is limited, but it may have a significant role in future, particularly where there is a complicated technical aspect at the heart of a prosecution, such as whether an operator was employing best available techniques, for example. Often, a criminal court is not the best forum to determine such issues.

Time limits and penalties

There are time limits on how long after a breach a civil claim can be brought. For contractual claims the limit is six years from the date the contract is breached, but this is extended to 12 years if the document is a deed. Generally, nuisance or negligence claims must be made within six years of the date the damage or the loss was suffered. In criminal law, there is a six-month time limit on the enforcement of “summary” offences – those which can only be heard by magistrates, such as a breach of a notice relating to noise from a construction site under section 60 of the Control of Pollution Act 1974. However, there is no time limit on the enforcement of “either way” offences – those which can be tried in either the magistrates’ court or the crown court, such as water pollution offences under the environmental permitting regime. The only practical limitations that apply in “either way” offences are the availability of witnesses and the quality of evidence.

It is important to remember that specific legislation can take a different approach to time limits. For example, the Environmental Damage (Prevention and Remediation) Regulations 2009 do not impose liability retrospectively, but the UK contaminated land regime does – through Part 2A of the Environmental Protection Act 1990.

There are similarities in the penalties imposed by the criminal and civil regimes, in that there is a financial element. However, the fines issued in criminal courts are often significantly lower than the damages awarded for a successful civil claim, although this is likely to change in 2014 with the introduction of new sentencing guidelines for environmental offences. Under the plans, there will be four categories of harm – with 1 being the most significant and 4 the least damaging. Culpability is also assessed using four categories: deliberate, reckless, negligent and low/no culpability. As an example, fines for a category 1, reckless offence committed by a large company would start at a £335,000 fine, with a penalty range of £125,000 to £1 million.

Civil injunctions can have a similar effect to statutory notices in that they can require an operator to take specific action or to stop an activity. Otherwise, the systems are markedly different. The main difference stems from the power of criminal courts to impose prison sentences, but this only applies when looking at individuals, such as company directors.

While there are significant differences between the civil and criminal regimes, there are also similarities and it is important for environment practitioners to have an understanding of both.

Simon Colvin is a partner at Weightmans LLP and the head of the environment team. Follow him on twitter: @envlawyer.



Graduate award finalists selected

The four judges of this year's IEMA graduate award met on 21 October to select the finalists, identifying one winner and two runners-up from a record number of entries.

Each year the IEMA graduate award contest (sponsored by Land Securities and supported by edie.net and *Sustainable Business*) seeks to find and celebrate the environment profession's most outstanding graduate who is achieving remarkable things in their first role.

This year's call for nominations brought in entries from several well-known consultancies, a number of construction firms, public sector organisations and even the award's first group nomination.

The judges – Land Securities' Neil Pennell; chair of the IEMA board, Diana Montgomery; editor of *the environmentalist*, Paul Suff; and Will Parsons, managing editor of Edie.net and *Sustainable Business* magazine – chose the finalists from the list of nominations (see right) and identified the winner. The 2013 winner will be named on 21 November when the graduate award will be presented as part of the Edie Sustainability Leaders Awards in London.

The winner will be presented with a £1,000 cheque and a Sustainability Leaders Awards trophy by Neil Pennell and IEMA's chief executive, Tim Balcon. All three finalists will also win one year's Graduate membership to IEMA.

The winner will be announced on iema.net and Twitter, via @iemanet, on 21 November, with further details in the December and January issues of *the environmentalist*.

IEMA would like to thank Land Securities, and Edie.net/*Sustainable Business* for their much-valued and continuing support of the Institute's graduate award.

Lee Collier

Job title Energy and environment adviser
Organisation Linklaters LLP
University course BSc in environmental science, University of Greenwich



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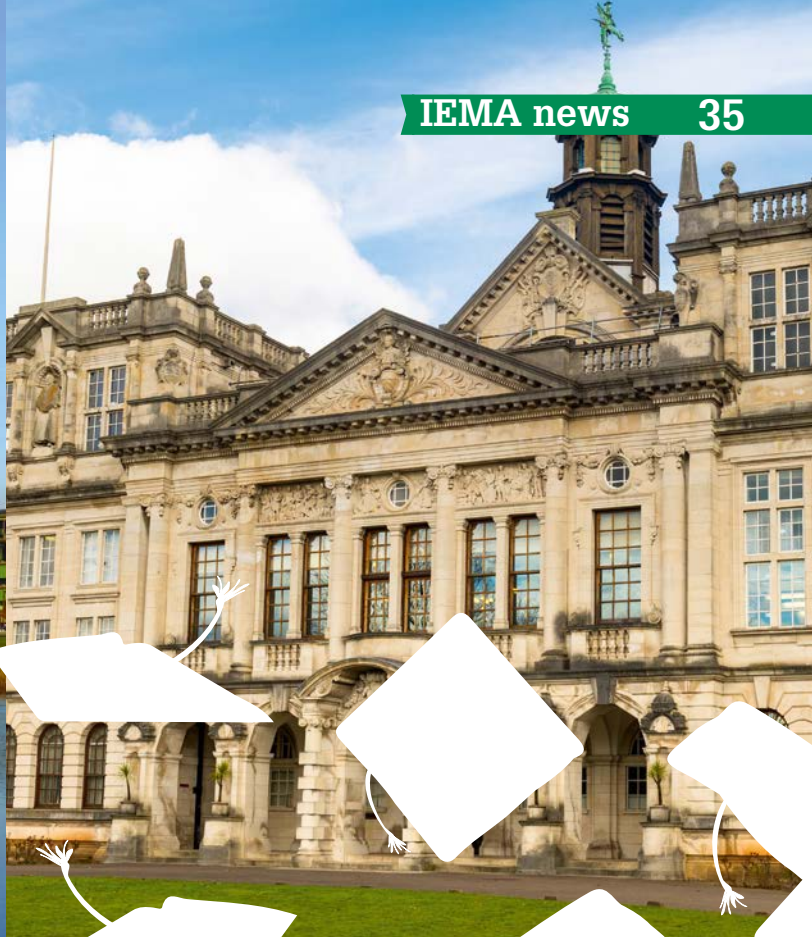
An environmental science graduate from the University of Greenwich, Lee Collier completed an internship at Linklaters LLP while studying. He became a full-time member of the team in 2011 as an energy and environment adviser.

Collier was nominated by Linklaters' global environment manager, Leilani Weier, who said: "Lee is a pleasure to work with. He's thorough, reliable, practical, personable and really gets things done. He is a highly valued member of the team and Linklaters is keen to see him progress.

"Lee brings a level of expertise to the team that can't be taught – initiative, drive and determination. He has driven the environment agenda of the firm forward and, as we have moved past the easy wins, he's been able to focus on getting more creative projects up and running."

Collier was chosen as a finalist by the judges because of his energy and initiative, his ability to take on responsibility for projects and to work at a high level. He was also praised for his technical aptitudes, which have brought about energy efficiencies and cost savings for Linklaters, and his valuable communication skills.

Collier said: "Being nominated for this award was a great compliment, then to find out I'd been chosen as a finalist by the judges really did make me stop and think about what I have achieved. It was also a great reminder of the support and development opportunities Linklaters has made available to me, which has given me a truly excellent start to my career."



Coco Smits

Job title Graduate environmental scientist/consultant

Organisation Royal HaskoningDHV

University course MSc in environmental sciences, Wageningen University



Hanna Hayward

Job title Sustainability adviser, London region

Organisation BAM Construction

University course BSc in environmental geosciences, Cardiff University



Coco Smits completed her MSc in environmental sciences from Wageningen University in the Netherlands shortly before joining Royal HaskoningDHV in 2012 as a graduate environmental scientist/consultant.

Smits' nominator, Charles Haine, director and project specialist, environment industry at Royal HaskoningDHV, said: "Coco has all the attributes of a top-flight junior consultant and is destined for big things. She is a likeable team player and takes advice on board willingly and without complaint.

"She has pursued a wide range of initiatives related to her specialist area of knowledge – development in the Arctic. She is very professional and one of the few graduates who is ready-made to be actively involved in the interface with clients, stakeholders and the public."

The judges were particularly impressed by Smits' commitment to her demanding specialism and her exemplary work on the trans-Adriatic pipeline project. They also singled out her ability to demonstrate her knowledge, work on multiple international projects and network at a high level as impressive, as was her undoubted professionalism.

After finding out she had been shortlisted, Smit said: "I was very excited when Charles Haine told me that I was shortlisted for the IEMA graduate award. I feel privileged to belong to the final three nominees. It is a great compliment to my work and what I have accomplished during the past year since I have graduated from my master's in environmental sciences."

Hanna Hayward gained a first class BSc honours in environmental geoscience from Cardiff University in July 2011. She joined BAM Construction as an assistant environmental adviser while she was studying, before quickly being promoted to sustainability adviser for the London region after completing her degree.

Nitesh Magdani, director of sustainability at BAM Construction, said in Hayward's nomination: "Hanna has proved to be a real find for BAM. She has worked on a wide range of issues, adding real value by helping to improve our environmental monitoring system.

"She has also taken her own initiative to develop new schemes, which are now having a very real and positive impact on the business, both in terms of reducing our impacts and helping us to win new work."

The judges selected Hayward as a finalist because of her dedication and "above and beyond" attitude, leadership skills, rapid development and her ability to handle and understand complex issues across multimillion-pound operations.

Hayward said that the day she found out she had been shortlisted for the IEMA graduate award was one she wouldn't soon forget. "I was in an industry workshop that day and when it finished I looked at my phone and had emails, voicemails and texts informing me of the news," she said. "It's great to be valued and supported by BAM Construction and being nominated for this award was a nice surprise."

More successful IEMA members

Associate (online entry exam)

Farhan Ali, Adnec
 Joe Ayoubkhani, WSP
 Adriaan Bekker, BCM Construction
 Charlotte Breen, Grosvenor
 Chris Brock, Tunbridge Wells BC
 Thomas Caldicott, Credit 360
 Jonathan Campbell-Copp, WPD Scotland
 Paul Carson
 Helen Costin
 Michael Davey
 Sarah Digby, University College Birmingham
 Steve Downey, National Savings and Investments
 Alan Erickson, Premier Oil
 Giuliano Gianforte, Tunbridge Wells BC
 Aamir Rasool Ghulam, Al Ghurair Arjaan and Rayhaan
 Nasir Hamid, Reel Middle East
 Mark Harrison, Cargill

William Heffron
 Paul Howrihane, Beran Instruments
 Ogonnaya Iroakasi, Shell Petroleum Development Company of Nigeria
 Adrian Laney, MOD
 Ben Lewis
 Naoko Wakiwaka, Greengage Environmental LLP

Full

Sam Jones, Associated British Foods
 Kevin McAughrey
 Graciela Melitsko, Reading Borough Council
 Christopher Shaw, Environ UK
 Cheryl White
 William Yonge, Olive Consultancy

Full and CEnv

Rosemary Atuah, Mouchel
 Elizabeth Batchelor, Land Securities
 Adriaan Bekker, BCM Construction

Dominic Freestone, Environment Agency
 Daniel Bicknell, Environment Agency
 Gavin Harrison, Deloitte LLP
 Mathew Jackson, Environment Agency
 Evelina Maier, Balfour Beatty Civil Engineering
 Jae Mather, Carbonfree Group
 David Pratt, Marine Scotland
 Andrew Pritchard, Gloucestershire CC
 Joanne Rock, Willmott Dixon Construction
 Will Schreiber, Best Foot Forward
 Gayathiri Gowri Shankar, Kellogg, Brown and Root
 Rachel Waggett, Warrington BC
 Emma Ward, McNicholas
 Matthew Wayman, TRL
 Linda Wilkinson, Interserve Construction
 Zoe Williams, Lafarge Tarmac Cement and Lime

IEMA events

Date	Region/Time	Topic
25 Nov	North East	Engaging people in sustainability
2 Dec	North West	Christmas social (Manchester)
3 Dec	Central Scotland	ISO 14001 revision workshop
5 Dec	South East	Christmas social (London)
9 Dec	Yorkshire and Humber	Christmas social (Leeds)
10 Dec	Wales	ISO 14001 revision workshop
11 Dec	Midlands	Christmas social (Birmingham)
12 Dec	Midlands	ISO 14001 revision workshop
12 Dec	East of England	Christmas social (Cambridge)
12 Dec	North East	Ecosystem services – practical application
18 Dec	South West	Christmas social (Exeter)

Membership workshops

25 Nov	South East	Full membership workshop
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Webinars

28 Nov	12.30–1.30pm	Environmental impact assessment in water
10 Dec	12.30–1.30pm	Monitoring and measuring
19 Dec	12.30–1.30pm	Environmental impact assessment

External professional events

Date	Region/Time	Topic	Further information
21 Nov	London	Sustainability leaders' forum	sustainabilityleaders.net
27 Nov	London	Carbon Trust annual debate – sustainability inside	lexisurl.com/iema16563



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Sue Smith

Sustainable development coordinator,
BAE Systems Munitions

Why did you become an environment professional? I grew up in the age of discovery of the hole in the ozone layer and the Montreal Protocol. My interest in the environment grew from those early days into a belief that we cannot continue as we are now and not expect to feel the consequences in future.

What was your first sustainability job? I started working in administration straight from school and subsequently worked my way up through various roles and organisations to become the personal assistant of the managing director of BAE Systems Munitions. Six years ago, after working in administration for 18 years, I set myself the goal of following my interest in the environment and changing my career path to an environmental role. BAE Systems Munitions gave me the opportunity to explore a career change and I moved into my sustainable development coordinator position.

How did you get the role?

By expressing an interest in an environmental role and capitalising on an opportunity when it arose.

How have you progressed your sustainability career? Although I've had the same job title for six years, my role of sustainable development coordinator has changed as I have taken advantage of on-the-job training, formal training courses and attending events.

What does your current role involve? My role encompasses the full spectrum of environmental sustainability, from auditing and ensuring compliance with our environment management system and legislation to identifying resource reduction opportunities and working on employee engagement.

How has your role changed over the past few years? In the early days "environment" was very much seen as something that was vague and many of my colleagues did not really understand

what my role was. There is now a much better understanding. Also, since I started in my role in 2007 it has changed to focus much more on supporting the strategic goals of BAE Systems Munitions through resource management, waste prevention, innovation, auditing and information statistics.

What's the best part of your work? Getting a project off the ground and seeing it develop a life of its own.

What's the hardest part of your job? There's still a long way to go for environment professionals to be seen in the same light as other professionals.

What was the last training course you attended? I'm in my second year of an MSc in integrated environmental management from Bath University. My learning is being sponsored by my employer, and I am completing the course via distance learning.

What did you bring back to your job? Since starting my MSc I have definitely become more proactive in my approach to my role. I have brought back a sense of confidence that can only be gained from speaking to others facing similar and, alternatively, very different challenges from you.

What are the most important skills for your role? There are many competing views in any organisation. As an environment professional, you need to be able to stand up, put your point of view across and be prepared to stick by it. It's also important not to be disheartened if a project is repeatedly knocked back.

Where would like to be in five years' time? Working as an environment manager and a Full member of IEMA.

Where do you see the environment profession going? I think as a profession we must become much more corporate savvy, while



Career file

Qualifications:

AIEMA, BA in social sciences with environment, IEMA-registered lead auditor for ISO 14001, Diploma in environmental policy

Career history:

2007 to now Sustainable development coordinator, BAE Systems Munitions

2005–2007 Personal assistant to managing director, BAE Systems Munitions

2003–2005 Personal assistant, General Dynamics

2000–2003 Administration coordination, Surface Technology Systems

1998–2000 Personal assistant, Ashted Plant Hire

1997–1998 Secretary, Eversheds

1987–1997 Secretary to commercial manager, Newleco Limited

maintaining our personal ethical stance – the two are not mutually exclusive.

What advice would you give to someone entering the profession?

Being an environment professional is very challenging and you shouldn't start down this career path unless you are committed to it. Also, professional qualifications are a must, but nothing compares to getting hands-on experience.

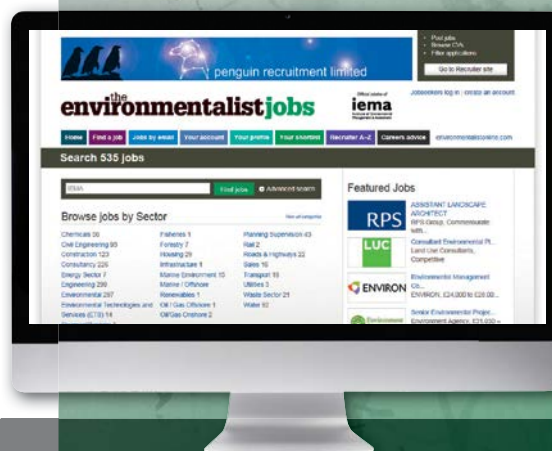
How do you use IEMA's environmental skills map?

The skills map has allowed me to explore the various ways in which I can develop my environment career. I would recommend it for anyone already working in the field and especially for anyone thinking of entering the profession as a way of signposting your career path.

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