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to television

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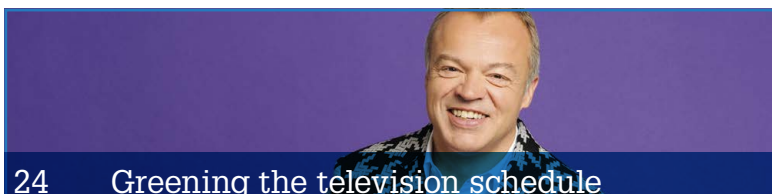
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How safe are your documents?

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Under attack

Environmental taxation, onshore wind, solar and energy efficiency – the list of environment and low-carbon policy areas that have been axed or scaled back by the government in the first three months of being in office gets longer by the day. It was less than two years ago that newspaper stories emerged – which were not explicitly denied at the time – that David Cameron was seeking to cut the “green crap”. Shorn of any Liberal Democrat influence, it seems the prime minister, aided by the chancellor, George Osborne, is now following through on that ambition.

Environmentalists will rail against the description that policies designed to support the generation of clean energy or improve the energy efficiency of buildings as crap, but the actions being pursued by the government suggest we have a battle on our hands to achieve the economy-wide transition required to meet the targets set out in the Climate Change Act. In its latest progress report on reducing emissions, the Committee on Climate Change warned of a policy gap to achieving the fourth carbon budget (2023–27) and establishing the cost-effective path to the 2050 (80% reduction) target. That assessment was based on the policy landscape before the election. The raft of announcements since can only mean that gap will get bigger, particularly as the removal of support for the most cost-effective ways of reducing emissions has been accompanied by more help for the North Sea oil and gas sector and the nascent shale industry.

Political commentators suggest that incoming governments tend to deliver bad news in the first couple of years, so it is largely forgotten by the time of the next election. As we're only at the beginning of the government's five-year term, environmentalists may want to brace themselves for more potential discomfort. With the chancellor's demand that non-protected departments deliver budget savings of up to 40%, Decc and Defra, and non-departmental bodies, such as the Environment Agency, will face further cuts. We reported in June the concerns of environmentalists over the ability of a financially constrained agency to continue to realise its purpose, which is to protect and improve the environment. Given the scale of the savings the Treasury is calling for, it is feasible that Decc or Defra will cease to exist. Perhaps unfavourable headlines in the run-up to the Paris climate summit will provide a stay of execution but, in an environment where public expenditure is being curtailed and green policies are under continuous attack, don't bet against one or both departments disappearing.

Given the scale of the savings being demanded by the Treasury and with green policies under attack, it is feasible that either Decc or Defra or both will cease to exist



Paul Suff, editor

The Institute of Environmental Management & Assessment (IEMA) is the professional home of more than 15,000 environment and sustainability practitioners from around the globe. We support individuals and organisations to set, recognise and achieve global sustainability standards and practice.

We are independent and international, enabling us to deliver evidence to governments, information to business, inspiration to employers and great stories to the media that demonstrate how to transform the world to sustainability. Join us at iema.net.

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Short cuts

Financial alignment

Financial systems need to align better with the needs of a resource-efficient, low-carbon economy, according to financial experts and governments taking part in a major inquiry by the UN environment programme (UNEP). It analysed the financial systems of countries with major business centres, such as the UK and US, and developing economies, including Brazil, China and South Africa. Participants focused on five key barriers, including: the continuous creation of unchecked risks despite progress in regulation; financial regulations that favour short-term investments; and emerging markets with less access to global capital flows. Initial findings highlight the leading role played by developing nations. These include: Brazil, where the central bank has established environmental risk management requirements for banks; South Africa, where the stock exchange requires listed companies to report on sustainability performance; and Indonesia, where the financial services authority has published a 10-year roadmap for sustainable finance. The full report is due in October.

Deal on emission limits

Limits on emissions from medium-size combustion plants have been agreed by the European parliament. The directive will set emission limit values for sulphur dioxide, nitrogen oxide and dust, and would apply to new and existing combustion plants between 1MW and 50MW. The agreed text introduces differentiated regimes for existing combustion plants based on their size, which were outside the original proposal from the European commission. It has been introduced to reduce costs for the smallest plants. Under the plans, there will be a two-year transitional period for new plants to comply with the directive, while existing plants will have to meet the limits from 2025 (5-50MW) or 2030 (1-5MW). Some plants, including those using biomass as their main fuel, may be granted extended deadlines. Member states will need to consider applying stricter limits for plants in zones not complying with EU air quality limit values.

Renewed focus on red tape

Rules and regulations governing the energy, mineral extraction and waste industries are being reviewed as part of the government's latest attempt to reduce what it describes as "bureaucratic barriers to growth and productivity".

Announcing the reviews, which also cover agriculture and care homes, business secretary Sajid Javid said cutting red tape could save British businesses £10 billion over the next five years. "For the first time, these reviews will look not only at the rules themselves but the way they are enforced," said Javid, who offered several examples of how regulations and their implementation can be burdensome.

He said that having to apply for both planning permission and environmental permits often delayed investment by mining and quarrying companies because permits can require firms to adopt a different approach to that set out in the planning consent, requiring them to start the process again. Businesses want better interaction between the planning and permitting regimes, and simplified application processes and inspection, he said.

Javid also argued that regulators could respond better to innovation in the waste management sector and help it maximise opportunities to recycle or reuse material



Image: Photofusion/REX

that could otherwise end up in landfill. He said the review of waste rules and regulations would be used to identify and remove barriers to advancing the sector, while ensuring human health and the environment remain protected.

The waste review will look at the impact of regulations across the industry – from production and processing to collection, disposal and treatment. Resource minister Rory Stewart said it was an opportunity for the waste industry to have a say on regulations that affect it.

The coalition government also reviewed waste regulations. The outcome included ending the requirement on large construction sites to create waste management plans and a simplification of waste transfer notes.

Circular economy support systems

MEPs have backed a resolution calling on the European commission to include binding waste reduction targets, revamped ecodesign laws and measures to uncouple growth from resource use in its proposals for a circular economy. These are due to be published by the end of the year.

The resolution, proposed by Finish MEP Sirpa Pietikäinen, stated that a 30% increase in resource productivity across the EU by 2030 could boost GDP by nearly 1% and create two million jobs. "To make this happen, we need a set of indicators and targets," said Pietikäinen. "We need a review of existing legislation, as it fails to incorporate the value of ecosystem services. We need a broadening of the scope of the ecodesign directive [and] a renewal of the waste directive."

To tackle the problem of scarce resources, the MEPs called for extraction and use of resources to be reduced, and the link between growth and the use of

natural resources severed. They also want resource efficiency indicators, including mandatory measurement of resource consumption, to be established and apply from 2018. In addition, the MEPs said the commission should set an EU-wide target to increase resource efficiency by 30% by 2030 against 2014 levels.

The vote in the European parliament came after a new report on developing a circular economy in Europe was published jointly by the Ellen MacArthur Foundation, the McKinsey Centre for Business and Environment and Stiftungs fonds für Umweltökonomie und Nachhaltigkeit. *Growth within: a circular economy vision for a competitive Europe* looked at the benefits of adopting circular economy principles when developing new technology. This approach would be worth €1.8 trillion by 2030 to the EU economy, says the report. Other outcomes include a halving of CO₂ emissions compared with current levels.

Businesses see benefits from review of energy efficiency

Business groups have welcomed the government's review of energy efficiency policies and taxes announced in the summer budget.

The review will consider the carbon reduction commitment energy efficiency scheme (CRC), the climate change levy (CCL) and climate change agreements (CCAs), and how they interact with other business energy efficiency policies and regulations. The CBI and manufacturers' trade body EEF are among business groups that called for the review.

Richard Warren, senior energy and environment policy adviser at EEF, said the organisation backed simplification. "The CRC is a fairly complex tax. It's not necessarily delivering what it was designed to do." Improvements in energy efficiency are not the primary aim of the review, which is being carried out by the Treasury. "It's number one objective is that the revenue stream is intact," Warren said. CCLs generate around £800 million a year for the exchequer, while the CRC is worth some £900 million, he said. EEF would like new policies to be cost-neutral for business. The way the Treasury chooses to consolidate revenue



Image: Design Pics Inc/REX

streams from the current policies will be more expensive for some companies and less for others, Warren said.

Meanwhile, the CBI wants the review to consider the support given to energy-intensive industries, including current compensation packages and exemptions.

A report published by the energy and climate department (Decc) in July revealed that, although the CRC had driven energy efficiency investments in 56% of businesses, around half of CRC participants felt the scheme was not delivered efficiently or consistently. Businesses supported the creation of more consistent policy, but the report revealed a variety of opinions on how this should be done.

Air pollution curbs agreed

Tougher proposals to curb air pollution across Europe have been agreed by MEPs on the European parliament's environment committee.

Politicians voted for binding caps on emissions of particulate matter (PM2.5), sulphur dioxide, nitrogen oxide and dioxide (NO₂), volatile organic compounds and ammonia from 2025. The actual limits will be set when the directive is adopted and will commit countries to percentage reductions against a 2005 baseline.

A limit will also be set for methane, but member states will have five years longer to comply. Targets for ammonia and methane, which are largely produced from agriculture, were opposed by the farming lobby and some national governments, including the UK and France.

MEPs backed the proposals by 38 votes to 28, with two abstentions. The proposed caps are more stringent than in the European commission's original proposal.

Louise Duprez, senior policy officer for air quality at the European Environmental Bureau (EEB), said: "The environment committee has shown leadership in the fight against air pollution." There will be a full vote in the European parliament in October.

Meanwhile, research has revealed that nearly half the health impacts of air pollution on Londoners come from emissions originating outside the capital, such as diesel fumes and industrial emissions. The study, commissioned by mayor Boris Johnson, for the first time quantifies the health and economic impacts of NO₂. It found that long-term exposure was responsible for 5,900 deaths in London in 2010, the latest data available, while PM2.5 caused 3,500 deaths, a decline from the 4,300 recorded in 2006.

A consultation on measures for London boroughs to tackle air pollution hot spots and local emissions through the air quality management process was also published.

Short cuts

Collective storage

A plan to create Europe's first industrial carbon capture and storage network on Teesside has been published by the organisations backing the project. The Teesside Collective, which is supported by Decc, includes hydrogen producer BOC, fertiliser business GrowHow, polyester-resin company Lotte Chemical and steel manufacturer Sahaviriya Steel. The four companies will collaborate on the first phase of the project, which aims to be operational by 2024 and would permanently store 2.8 million tonnes of CO₂ a year – a quarter of Teesside's emissions – under the North Sea. The collective says the initial phase will create 1,200 construction jobs and safeguard nearly 6,000 existing posts. Expansion of the project is planned by 2035, with other local industries plugging into the network and storing up to 15 million tonnes of CO₂ a year. A study for the collective estimates that the cost of setting up the network and storing 56 million tonnes of CO₂ over 20 years is equivalent to £95 a tonne at current prices.

Going Dutch

Housing associations, construction companies and trade bodies in the UK have come together in a project refurbish 111,000 houses to net zero energy levels. Energiesprong UK is inspired by Energiesprong, a Dutch government programme to deliver "whole-house" refurbishment to greatly improve energy efficiency. The Dutch model consists of installing customised, off-site manufactured walls and roofs, which are pre-fitted with windows and doors to improve the building envelope. This is accompanied by a services module, which uses renewable energy, grid connection and intelligent management systems to provide heat and power. Each refurbishment is completed in a week and the cost is recouped from the energy savings. Organisations participating in the project include building company Willmott Dixon, social housing services business Mears, and Affinity Sutton, one of the largest housing associations in England.

In parliament



New committee outlines inquiries

Our actions over the next five years of this parliament could be critical if we want to protect the global environment and humanity's place in it. Domestically there is much to do and the Environmental Audit Committee will be a positive force, not only by scrutinising the government's policies on the environment and sustainable development, but by helping to set the agenda and creating space for sometimes difficult decisions.

The new committee met for the first time just before the summer recess and we have hit the ground running with two important inquiries. The first will explore the impact that the government's fiscal and legislative agenda will have on sustainable development. It will also ask what metrics the committee should be using to measure the government's environmental performance. This early work is particularly pertinent in view of a recent flurry of announcements by the government, which have raised questions over the coherence of a vision and policies for sustainable development, and what success will look like at the end of the parliament.

The second inquiry will focus on the environmental concerns relating to the recommendations by the Airports commission for a third runway at Heathrow. Our inquiry will assess the scale of the environmental challenge should the case for a third runway be accepted, and the potentially wide-ranging measures needed to address air quality, climate change and noise.

When parliament returns in September, the committee will agree further work and we are seeking your views on the areas of sustainable development and environmental protection we should be looking into.

I hope that readers of the *environmentalist* can feed into our inquiries to help us shape our sustainable future, hold the government to account, and encourage ambition and global leadership at this critical time.

Huw Irranca Davies, Labour MP and chair of the Environmental Audit Committee.

EU plans post-2020 ETS

The number of free allowances available under the EU emissions trading system will decline by 2.2% a year from 2021, although the quantity that will be auctioned will remain the same.

These measures are contained in legislative proposals from the European commission for phase four of the system. The commission claimed the plans would safeguard the international competitiveness of industry sectors in Europe that are most likely to move production outside the EU to countries with less robust rules on emissions.

Under the proposals, industries covered by the system will receive 261 million fewer allowances between 2021 and 2030, according to analysts at Thomson Reuters Point Carbon.

Business groups said the measures failed to protect industries at risk of carbon leakage. Gareth Stace, director at trade body UK Steel, described the proposals as another flawed solution to the competitiveness issues the ETS causes for the industry. "This smacks of two steps forward and one step back. The ETS's carbon leakage measures are meant to address this by ensuring the best-performing plants are given all the ETS allowances they need for free. But neither



Image: ImageBROKER/REX

the current measures nor the commission's new proposals live up to this promise."

Point Carbon has revised upwards its forecasts for allowances ahead of the start of phase four after the commission released its plans. The analysts now expect prices to average €17.30 in 2019 and €18.30 in 2020.

Raising allowances is a key aim for the commission. They are currently trading at around €8, compared with €30 in 2008. Sandrine Dixon-Declevé at CISL, said: "It's the level of the price that will make or break of the ETS over the next 10 years – we're yet to be convinced that [the commission's] proposal will go far enough to secure the much-needed high prices."

Barriers to sustainability rise

Businesses are finding it increasingly difficult to implement and manage sustainability policies, research by the British Institute for Facilities Management (BIFM) has found.

The institute's annual survey revealed that respondents' confidence in their ability to implement and manage environmental and sustainability policies had declined from 60% last year to 40%. It is the steepest year-on-year decrease in the nine years the BIFM has been conducting the survey.

The sharp decline in confidence coincides with a reported increase in barriers to fulfilling sustainable practices. Physical limitations, such as building fabric or permissions needed for changes, were reported to be a problem by 80% of respondents. Financial constraints were highlighted by 71%, while 69% said they were held back by a lack of organisational engagement.

The survey also found that more than one-third (36%) had no formal reporting system or data collection process for measuring sustainable initiatives, resulting in a lack of evidence for building and reinforcing the business case for sustainability among leadership teams.

The poll found a disconnect between the perceived importance of sustainability among different tiers of management. Despite 81% of chief executives and senior management reporting sustainability as being a very important issue for their businesses, only 61% of middle management and 63% of frontline management felt the same. This suggests that messages are being diluted as they pass through business and need to be better communicated, the BIFM said.

The institute's chief executive, Gareth Tancred, said: "Despite increased pressure on businesses to be more sustainable, we are seeing a decline in their ability to do so."

Regulation not anti-business

Businesses are key to convincing the government to take action on climate and environmental issues, according to the chair of the Committee on Climate Change (CCC), Lord Deben.

Speaking at an Aldersgate Group event, Deben said the business community has to make the government understand that it is not anti-business to set standards or to regulate. "That's not anti-business, it's pro-business, and there are too many people in government today who don't understand that," he said. Deben said governments need to realise the importance of setting parameters for its support for low-carbon technologies so that businesses have the certainty they require to invest. "The CCC has made it absolutely clear that the first priority of the new government is to give business certainty for the next decade."

He also said the civil service needed to better understand the urgency required when making decisions on carbon policy. "It seems to be possible to put things off in the civil service to an extent that is not



Lord Deben: "Too many in government don't understand it is not anti-business to regulate"

acceptable to business. We have no real structure for how we're going to meet carbon budgets after 2020."

However, he warned campaigners that the government must be free to change policy. "Of course you want as much stability as possible, but if the price of solar comes down very sharply then we have to change the subsidy system," he said. "We have to face down those in the green lobby whose knee-jerk reaction, the moment the government says anything like that, is that there must be something wicked behind it."

Leaders need to do more on climate

Without an increase in political commitment and an acceleration of technological innovation, global emissions are likely to rise by more than 4°C by the end of the century, and continue to increase over the next few decades, according to a report for the Foreign and Commonwealth office.

The *Climate change risk assessment* looked at how much effort governments should expend on countering climate change and was produced by a group of experts in the UK, US, China and India. The group, led by David King, the foreign secretary's special representative for climate change, concluded that current policies and plans for major countries and regions are consistent with a medium to high emissions pathway that would result in temperatures rising by more than 4°C by 2150. However, they could not rule out a high emissions pathway in which temperatures would rise by 7°C by the end of the century. This is because of the global potential for extraction of large new coal reserves, as well as oil shale and methane hydrates.

The report warns that technological challenges to achieving a low emissions

pathway, which is to restrict temperature rise to around 2°C in the second half of the century, are substantial, and are not being adequately addressed at present. Without an acceleration of innovation in energy technology and energy systems – including wind and solar with storage, nuclear, biofuel, petroleum-free passenger transport, carbon capture and storage, and large-scale energy efficiency – the likelihood of following a pathway in which emissions fall rapidly and approach zero by late in the century is very low, its states.

At the launch of the report foreign office minister, Baroness Anelay, warned: "When we think about keeping our country safe, we always consider the worst-case scenarios. That is what guides our policies on nuclear non-proliferation, counter-terrorism, and conflict prevention. We have to think about climate change in the same way. Unlike those more familiar risks, the risks of climate change will increase continually over time – until we have entirely eliminated their cause. To manage these risks successfully, it is essential that we take a long-term view, and that we act in the present, with urgency."

Business plans

The decorative paints division of **AkzoNobel UK** has achieved the **Carbon Trust** triple standard, becoming one of the first companies to be recertified for reducing its greenhouse-gas emissions, waste and water use. The company has installed a heating and cooling system at its Slough head office, which is designed to save £335,000 on the annual energy bill, while the introduction of a rainwater harvesting system at its manufacturing plant in Prudhoe saves around 900,000 litres of water a year.

The collaboration between **Adidas** and the NGO, **Parley for the Oceans**, has resulted in a prototype for a new sports shoe, whose upper section is made entirely of yarns and filaments reclaimed and recycled from ocean waste and illegal deep-sea gillnets. The sportswear company says it will launch consumer-ready ocean plastic products later this year.

ArcelorMittal has announced a partnership with carbon recycling company **LanzaTech** and the steel industry services business, **Primetals Technologies**, to construct Europe's first commercial-scale production facility to create bioethanol from waste gases produced during steelmaking. The £87 million plant will be built next to ArcelorMittal's Ghent plant in Belgium. The company says 1 tonne of bioethanol will displace 5.2 barrels of conventional fuel and reduce its carbon emissions by 2.3 tonnes.

Facebook is to build a datacentre at Fort Worth in Texas that will be powered entirely by the 20MW of new wind energy the company will install and connect to the state's grid. The firm claims the carbon impact of one person's annual use of Facebook is equivalent to the carbon impact of a medium-size latte. It says this relatively small footprint has been achieved by investing in operational efficiencies and renewables.

Virgin Atlantic reduced its absolute carbon footprint by 12% between 2007 and 2014. The airline is aiming to achieve a 30% saving in carbon for every tonne of passengers and cargo flown between 2007 and 2020. It says savings so far are mostly due to its \$7 billion investment in more carbon-efficient planes from Airbus and Boeing.



In court

Serious pollution prosecutions in England decline

There were 81 prosecutions for waste, water quality and emissions monitoring offences in England in 2014, a 21% decrease from 2013 when the Environment Agency secured 118 convictions. The figures are from the agency's summary of serious pollution incidents in England in 2014.

It also reveals that the number of enforcement notices was up, with 245 issued in 2014 compared with 205 in 2013. The notices require operators to ensure sites comply in the future and put right any damage caused to the environment. Since 2011, the agency has had the power to issue enforcement undertakings, which allow offenders to pay to clean up the damage caused and improve the environment rather than pay fines. The number issued had been increasing each year, but there was a 20% decline in 2014 compared with 2013 – 43 compared with 54.

The number of serious pollution incidents in England in 2014 declined by 11% compared with 2013, according to the data. Serious pollution incidents are those classified as category 1 or 2. There were 614 last year and 688 in 2013. The latest figures also reveal a 23% decrease in incidents at sites regulated by the agency under the Environmental Permitting Regulations (EPR) – from 323 in 2013 to 249 in 2014. However, the number of pollution incidents recorded at non-permitted sites, such as those regulated under the Water Resources Act, increased by 6% – from 218 in 2013 to 232 in 2014. Of the serious pollution incidents in 2014, 59% had an impact on water and 32% affected air. Incidents caused by sites with permits mainly affected air, while those caused by non-permitted sites and unidentified sources mainly affected water.

Legal warning to Dutch government

The Dutch government has been ordered by the district court of The Hague to adopt more stringent climate policies to reduce the contribution of the Netherlands to global greenhouse-gas emissions. The Urgenda Foundation, a sustainable development campaign group, which brought the case with nearly 900 co-plaintiffs, claimed the ruling was the first time a judge has legally required a state to take precautions against climate change.

The court ruled that the government must ensure Dutch emissions in 2020 are at least 25% lower than in 1990. It noted that current policy would achieve a reduction of 17% at most in 2020, which the court said is below the norm of 25% to 40% for developed countries. "The state must do more to avert the imminent danger caused by climate change, also in view of its duty of care to protect and improve the living environment. The state is responsible for effectively controlling the Dutch emission levels. Moreover, the costs of the measures ordered by the court are not unacceptably high. Therefore, the state should not hide behind the argument that the solution to the global climate problem does not depend solely on Dutch efforts," it said.

Utilities challenge Hinkley C

Ten Austrian and German utility companies have united to file a legal complaint with the EU Court of Justice over UK government subsidies for the proposed new nuclear plant at Hinkley in Somerset.

The European commission approved the subsidy in October 2014, but the alliance alleges that the approval process contained "numerous legal errors". One organisation involved in the action is German cooperative Greenpeace Energy. Its managing director, Soenke Tangermann, claimed the subsidy package could distort the European energy market. "We want the Court of Justice to annul the commission's decision because these exorbitant nuclear subsidies are an unlawful operational aid from our point of view," he said. "They should never have been approved."

The other organisations include the municipal utilities of Aalen, Bietigheim-Bissingen, Bochum, Mainz, Muehlacker, Schwäbisch Hall and Tübingen.

The Austrian government has complained separately to the court about the subsidy. The Austrian chancellor, Werner Faymann, said the subsidies should only support "new and modern technology", which did not apply to atomic energy.

Case law

Political involvement in planning decisions

In *Broadview Energy v Secretary of state for communities and local government*, the Planning Court rejected a claim under s.288 of the Town and Country Planning Act 1990 that a decision to refuse planning permission for a wind turbine development was impaired because of lobbying by the local MP.

Broadview sought permission for a wind farm in Northamptonshire. While the application was being considered, the MP, Andrea Leadsom, campaigned against the development. The firm challenged the secretary of state's decision to refuse planning permission at appeal, alleging that there had been breaches of natural justice and that the decision was vitiated by actual and apparent bias because of representations made by the MP to ministers.

In rejecting the claim, Justice Cranston said one of the functions of the modern MP was to take up constituency issues and that lobbying of ministers was part and parcel of their representative role. He also noted that parliament had created a system in which planning decisions were made by politicians, at both a local and national level. This would inevitably lead to MPs contacting ministers about constituency planning matters being considered by them and it was unavoidable that ministers should receive written representations on behalf of constituents. Cranston concluded that because ministers are primary decision-makers for some planning matters, there is nothing unlawful in their being lobbied by an MP, so long as the minister acts fairly and consistently with the standards of propriety set by the planning inquiries rules, the ministerial code and the planning propriety guidance.

Jen Hawkins

Lexis®PSL

New regulations



In force	Subject	Details
15 Apr 2015 	Energy	The Renewable Transport Fuel Obligations (Amendment) Order 2015 amends the renewables obligation scheme by making hydrotreated vegetable oil a wholly renewable feedstock for calculating eligible volumes. lexisurl.com/iema87616
15 Apr 2015 	Planning	The Town and Country Planning (General Permitted Development) (England) Order 2015 revokes the 1995 Order and consolidates its provisions (as amended). Changes include a new permitted development right for the installation of solar photovoltaics with a capacity up to 1MW on the roofs of non-domestic buildings. lexisurl.com/iema87651
20 Apr 2015 	Energy	The Heat Network (Metering and Billing) (Amendment) Regulations 2015 amend the 2014 Regulations. Changes include extending the deadline for heat network operators to notify the National Measurement Office of their systems from 30 April 2015 to 31 December 2015. lexisurl.com/iema87650
29 Apr 2015 	Environment protection	The Wellbeing of Future Generations (Wales) Act 2015 imposes a duty on public bodies in Wales to carry out sustainable development and take action to achieve specific wellbeing goals. Annual progress reports must be submitted to the Welsh ministers. lexisurl.com/iema96570
13 May 2015 	Marine environment	The Scottish Marine Regions Order 2015 defines the regions under the Marine (Scotland) Act 2010 and requires ministers to prepare and adopt regional marine plans for each area. These plans are to include specific policies, including some on sustainable development. lexisurl.com/iema96583
16 May 2015 	Emissions	The Climate Change (Additional Greenhouse Gas) (Scotland) Order 2015 amends the Climate Change (Scotland) Act 2009. Nitrogen trifluoride is added as a further greenhouse gas under the Act, and will be subject to a 1995 baseline year. lexisurl.com/iema96581
18 May 2015 	Waste	The Ship Recycling Facilities Regulations (Northern Ireland) 2015 implement EU Regulation 1257/2013 on ship recycling, which itself implements the Hong Kong international convention for the safe and environmentally sound recycling of ships. lexisurl.com/iema96567
20 May 2015 	Environment management	European commission decision 2015/801 sets out best environmental management practice, performance indicators and benchmarks for the retail sector under the EU eco-management and audit scheme (EMAS). lexisurl.com/iema96601
1 Jun 2015   	Hazardous substances	The Planning (Hazardous Substances) Regulations 2015 and the Town and Country Planning (Hazardous Substances) (Scotland) Regulations 2015 implement land-use planning requirements under the Seveso III Directive (2012/18/EU) on the control of major accident hazards. The first set applies in England and to non-devolved planning decisions only in Wales and Scotland. The Town and Country Planning (Hazardous Substances Inquiry Session Procedure) (Scotland) Rules 2015 establish procedures for local inquiries on hazardous substance consent applications and appeals. lexisurl.com/iema91871 ; lexisurl.com/iema96566 ; lexisurl.com/iema96568
1 Jun 2015 	Hazardous substances	EU Regulation 1357/2014 replaces annex III of the Waste Framework Directive (2008/98/EC), which defines properties of waste that are considered hazardous, to reflect revised criteria under the Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation 1272/2008. The names of four hazardous properties are updated to reflect the CLP Regulation. Decision 2014/955/EU updates the list of wastes for the European Waste Catalogue (EWC), which was established under Decision 2000/532/EC. Changes also reflect the implementation of the CLP Regulation. Significant changes are made to the range of six-digit EWC codes available. Many will be suspended and replaced with one or more new EWC codes. lexisurl.com/iema61490 ; lexisurl.com/iema61492

This legislative update has been provided by Waterman's Legal Register available at legalregister.co.uk

Latest consultations



28 Aug 2015

HS2

 The government is consulting on amendments to the environmental statement for phase one of the high-speed railway (HS2) between London and Birmingham. A supplementary statement and an additional provision come after developer HS2 Limited held further discussions with key stakeholders, and include refinements to the design and updated environmental information. The original environmental statement was published in November 2013. lexisurl.com/102688

4 Sept 2015

Geological disposal

 Decc has issued a call for evidence on processes for working with communities in the siting of geological disposal facilities for radioactive waste. It is looking for evidence, including case studies or anecdotal evidence, such as descriptions of projects and examples of actual community representation structures that are being delivered. This could include examples of innovation or best practice, as well as information on barriers and challenges, says Decc. lexisurl.com/102689


4 Sept 2015

EU waste markets

 In January 2015, the European commission launched a study to examine obstacles and regulatory failures affecting the functioning of waste markets across the bloc. It has now launched a consultation to understand better the nature and extent of regulatory failures that cause undue distortions to EU waste markets for recycling and recovery. The commission says the feedback will be considered when preparing the new initiative on the circular economy. lexisurl.com/102694


9 Sept 2015

Energy efficiency

 The Welsh government is consulting on its plans for an energy efficiency strategy for Wales. The consultation document says the strategy will address the energy “trilemma” of affordability, security of energy supply, and the need for decarbonisation, as well as helping to support economic growth by creating jobs. It also says the energy system in Wales is on the threshold of a low-carbon transition and that energy-efficient buildings are key to this change. lexisurl.com/102702

17 Sept 2015

Regulatory charges

 The Scottish Environment Protection Agency is consulting on its plans for a new charging scheme from 1 April 2016. The proposals replace five existing schemes, which cover 90% of the regulator’s chargeable income, with a single system. Sepa says the new approach will enable it to prioritise its efforts on activities that have potential to cause most harm and where poor practice is more common. It says its aim is not to increase the revenue it receives from charges each year, but to create a system that is more transparent and has balanced approach to allocating charges. lexisurl.com/102696

9 Oct 2015

EU energy reform

 One of the European commission’s strategic objectives is the creation of a “resilient” energy union with a forward-looking climate policy. It says this will require a redesign of the EU electricity market. The commission has launched a consultation to gather views on the issues that may need to be addressed in such a redesign, such as the integration of renewables. lexisurl.com/102692

New guidance

Water technology

Defra has updated the list of water-efficient products eligible for the enhanced capital allowance (ECA) scheme (lexisurl.com/iema102702). The ECA allows businesses to write off all of the cost against taxable profits in the year of purchase. Defra annually reviews the lists of eligible water technologies and products and the latest one consists of 14 categories, from taps to water-efficient industrial cleaning equipment. The environment department has also revised the criteria for inclusion in the list (lexisurl.com/iema102705).

Flood preparation

Revised guidance for regulated sites – those covered by the environmental permitting regime and the Control of Major Accident Hazards (COMAH) regulations – on preparing for flooding has been published by the Environment Agency (lexisurl.com/iema102705). Sections include: knowing when flooding is imminent; understanding flood warnings; obtaining site topography and more detailed flood modelling; and preparing a flood plan.

Brownfield land

The Wildlife and Countryside Link (Link) has published guidelines to help local authorities and developers determine whether brownfield land is of “high environmental value” to wildlife (lexisurl.com/iema102707). Under the national planning policy framework, the government is committed to protecting previously developed or brownfield land that is deemed to be of such value. The guide focuses on when the issue of high environmental value might arise in terms of biodiversity conservation.

Solar rooftops

The Solar Trade Association has published a checklist to help organisations install solar panels on the roofs of their buildings. It can be downloaded from the STA website (lexisurl.com/iema102710) and is applicable to all sizes of commercial rooftop installation, from schools and small businesses to large supermarkets and factories. The checklist covers the five stages of the process: pre-quotation; design; development; installation; and commissioning and handover.

Laying down the law



Decommissioning industrial plants

Ross Fairley outlines the 10 issues companies must consider if they are to effectively manage and mitigate the potential environmental legal risks of closing industrial premises



The number of industrial plants closing in the UK continues to rise. Decommissioning an industrial site is a complicated business and dealing with environmental issues is usually a key factor. There are 10 issues that a business should consider in its advanced planning to manage and mitigate the potential environmental legal risks associated with decommissioning a site.

Consider confidentiality

It is essential to think about the environmental issues in advance, even though there is an understandable nervousness about information leaking prematurely to stakeholders, customers and the workforce, which may cause unnecessary concerns. It is wise for a business to consider legal support – whether internal or external – early on to ensure suitable confidentiality agreements are in place or to manage the process of protecting documents and plans from public disclosure.

Put together a team

There is no substitute for an experienced site closure team. The business should consider its in-house capabilities in areas such as surveying, environmental consultancy, valuation, legal and project management. There is often a strong case for buying in previous experience through external advisers, which may also help in limiting any damage in the early stages disclosure, such as the possible need for confidentiality.

When establishing this team, and particularly when appointing external advisers, consider carefully the scope of their role and their appointments. Often

environmental reports will be relied on by potential purchasers or, in the case of a lease surrender, landlords, so it is important to get the scope right and ensure there are suitable warranties available to others in due course. The right team will know how to manage timescales, liaise with stakeholders and minimise ongoing liabilities.

Understand the plan

Is the site going to be closed and dismantled or is the plan to mothball it? Mothballing will entail the business keeping environmental permits live and could involve permit variation applications.

Supply and service contracts

Put together a list of customer supply and service contracts. Consider a legal review to understand what obligations the business is under to fulfil customer contracts because this may affect the timing of closure and identify potential liabilities.

Site ownership

Is it freehold or held under a lease? If it is leased, take legal advice to understand what, if any, surrender provisions there are in the contract. Any of these provisions, or the lack of them, will have an impact on timing and costs in terms of negotiations with the landlord or whether a landlord has to accept a surrender at all.

Future of the site

Clarify what the business plans to do with the site. Is it intending to hand it back to the landlord or sell it on? It may even decide to keep it as a “land-banked” site. Alternatively, the plan may be to obtain planning permission for redevelopment and sell it on for new uses. Each of these has different implications for environmental liabilities, permit surrender, new permit applications, timing and costs.

Consents and permissions

Find out what consents and permissions exist for the site? These will include

the environmental permit, planning permissions and any other consents. Will closure lead to decommissioning obligations being triggered under the planning permission? Legal and technical advice will also be needed on the environmental permit surrender obligations and the techniques to meet the clean-up standards.

Know the stakeholders

Identify in advance the key players and individuals you will need to liaise with and convince. These may include a landlord, local planning authorities, the regulator, such as the Environment Agency, neighbours and customers.

Environmental reports

List all previous environmental reports for the site. The list will allow the advisers to hit the ground running by understanding the likely status of the site and developing an initial strategy for clean-up and mitigation of environmental liability.

Identify key workers

It is very helpful to have key workers with knowledge of the history of a site available throughout the closure and decommissioning phase. Consider agreeing contracts with them early in the process.

Permit surrender

The Environment Agency expects permit holders to adopt a “lifetime approach” to the protection of land and groundwater. This means preventing pollution, rectifying any problems at the time and keeping adequate records as an integral part of management systems – so evidence is ready for surrender of the permit. There are four tiers of surrender for non-radioactive substances facilities: notification – for Part B installations; basic – where activities are inherently low-risk to land and groundwater; low-risk – where activities could in principle pollute land or groundwater but the operator can show through records and pollution control measures it is leaving the site in a “satisfactory state”; and full – a detailed report is required, using monitoring data.

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A man in a dark business suit and a brown leather helmet with the letters 'E S O S' on the front is crouching on a grassy field. He is wearing goggles and holding a brown leather briefcase. The background is a cloudy sky.

On your marks

Peter Brown asks experts and the regulator where companies should be as they gear up to comply with the energy savings opportunity scheme

Most companies that need to declare their compliance with the energy savings opportunity scheme (ESOS) have yet to do so. About 7,000 large businesses in the UK are covered by the scheme and, as *the environmentalist* went to press, the Environment Agency had received compliance notifications from just 85, suggesting that many will be scrambling over the next few months to meet the December deadline.

Getting ready

ESOS covers companies with more than 250 employees; or that have a turnover of at least €50 million and a balance sheet exceeding €43 million; or those that are part of a corporate group where one part in the UK exceeds those thresholds. The scheme requires eligible UK businesses to review their energy consumption.

Simon Clouston, technical director at consultancy WSP, says his firm has been fielding ESOS enquiries from businesses since late 2014, although most of his clients are still in the early stages of what can be a complex, time-consuming process. “Even with clients that started early in the year, they’ve still got a lot to do,” says Clouston. “For some of our larger clients with multiple sites to audit, their audits are booked in all the way to September and October.”

Wendy Buckley, director at consultancy Carbon Footprint, believes that the December deadline is the reason why some businesses have held back. She says: “It’s natural if a date is at the end of the year for people to think they can leave it until September but this will cut things really tight. Our evidence suggests it can take three to four months for a mid-sized company to complete their ESOS process – with the caveat that it can vary widely depending on the size and complexity of the organisation.”

Both Buckley and Clouston recommend that their clients plan to complete their audit programme at least a month before the deadline to allow enough time to validate the data, correct any errors and obtain executive sign-off.

Before a company can look at the detail of its energy use, some fundamental questions need to be answered. The first involves understanding which parts of the business need to comply. Jo Scully, project manager for ESOS at the Environment Agency, which is administering the scheme, says queries to the organisation’s helpdesk often concern confusion over which operations fall under ESOS. UK operations may need to respond if their overseas parent company meets the qualifying criteria. And if multiple companies within a corporate group qualify, it is crucial they understand which entity has ultimate responsibility for compliance in order to avoid missing or duplicating any work. Scully urges anyone with questions of this nature to contact the agency.

The routes to compliance

By now, businesses should have decided their route to compliance. ESOS allows companies to comply under the ISO 50001 certification for energy management or by using previous energy assessments, such as display

energy certificates (DEC) or green deal assessments, or by carrying out new ESOS-compliant energy audits.

Scully expects most companies to comply using either the 50001 standard or new ESOS audits, and Clouston confirms that few of the businesses he has worked with are planning to use existing assessment data. He says: “With lots of organisations, when they look at the scope of what is required by ESOS, they’re not convinced their previous audits have the coverage they need, so they decide to carry out new ones to be sure they’ll comply.”

50001 offers companies a robust, comprehensive approach to energy management. Unlike ESOS, it embeds a system for implementing energy savings continuously (see Hanson UK opts for 50001, p.14). However, firms that have yet to start the certification process are unlikely to complete it before December.

Judith Turner, EMS and energy technical manager at LRQA, is working with clients complying under both 50001 and the new ESOS energy audits. She recommends that, for those organisations unable to achieve 50001 certification this year, it is still worth considering as a longer-term compliance solution. “I would suggest looking beyond the December deadline and think about embedding a 50001 system to implement the energy-saving opportunities that come about from the ESOS audits,” she says. “That way, when the ESOS compliance obligation comes around again in four years, they’ll comply automatically under the energy management standard.”

Step by step

Most companies will be running new audits. The essential first stage is to gather the data for the total energy calculation (TEC) that will define the scope of the audit programme, which must cover 90% of an organisation’s energy usage.

Depending on the size of the company, the number of sites it operates and the accuracy of its existing data, this can be time-consuming. Scully hopes that any large company will have completed its TEC already and be at the planning stage, if not yet carrying out its onsite audits. Buckley urges companies to take the time to run careful desk-based auditing of their data before they go onsite. “The ESOS guidance is very clear on this,” she says. “Do things in the right order, follow the logical flow and you won’t audit the wrong things and need to rework.”

Companies need accurate energy data to plan an audit programme alongside their chosen ESOS lead assessor. Whether they train an employee for that role or enlist external support, time is running out to secure lead assessor services. Clouston points out that the procurement process for consultants can take several months and predicts a squeeze on the availability of qualified lead assessors later in the year: “If they’re not very busy already, they’ll be getting very busy very soon.”

Turner agrees: “You can see on the Environment Agency’s register whether an individual assessor or an organisation has experience in your sector. That’s key. You really want someone who understands your business and your industry so they can identify the key energy saving opportunities.”

Hanson UK opts for 50001

For Martin Crow, head of environment at building materials firm Hanson UK, the international energy management standard, ISO 50001, offers the most effective route to compliance with the energy savings opportunity scheme (ESOS).



Hanson has rolled out an integrated management system (IMS) covering health and safety, environment and quality assurance. This system has ISO 14000 certification, so 50001 mapped neatly on to it.

Crow and his team carried out a gap analysis to determine where the scope of the IMS needed to be adjusted to achieve 50001 certification. "The big difference between this approach and ESOS audits is that 50001 really drives the improvements into the business," he says. "If you go down the ESOS audit route, you'll identify energy savings but it doesn't necessarily put those into an action plan as part of an integrated management system."

Certification has forced Hanson to focus on the areas of its energy usage where the biggest reductions can be made and has the added value of embedding a long-term approach to energy management in the business. "We're already thinking about how to develop the system and how to make sure everyone's engaging with it," Crow says. "The December ESOS deadline has now almost ceased to be relevant to us because this is an ongoing process, and that's really what we wanted out of it."

He recommends any organisation serious about its energy management to consider 50001, if not for this year then for the future: "For anyone with an established management system in place I'd certainly advocate it, even if it's beyond December. I suspect people would find the hurdles aren't as great as they think. Certainly we found that a lot of what we were already doing – 14001 certification, tracking against sustainability targets, and reporting for the EU emissions trading system and carbon reduction commitment scheme – has put us in good shape for getting 50001."

Buckley reminds businesses that they can also consider sending an employee on an energy assessor course and still use an external ESOS lead assessor to sign off. "We feel that's really helpful because there's an opportunity to learn about what you're doing," she says. "If you pass all your ESOS activities and energy auditing to somebody else you may never gain those skills in house. When it comes to implementing energy reductions beyond the compliance point it's easier if you've been on that learning journey yourself."

For companies that do use an external assessor, Buckley cautions against taking too much of a backseat. "With your ESOS lead assessor, the clue is in the title – they're there to lead what you're doing, not do everything for you," she says. "If your lead assessor wants to do absolutely everything for you I would question that, and ask if that was really in your best interest in the long term because you're not going to gain any of that expertise yourself."

Almost done

Companies well into the auditing stage report that ESOS is for the most part relatively straightforward. GE employs about 17,000 people in the UK and operates 60 industrial sites as well as 40 offices, but Peter Tayar-Watson, the company's senior EHS expert

for Europe, says that ESOS fitted well with the company's existing energy management initiatives. "We approached ESOS almost as 'CRC-plus'," he says, referring to GE's existing arrangements to comply with the carbon reduction commitment scheme. With many of the data gathering processes already in place for the CRC, GE had to make only minor adjustments to its energy reduction approach.

Tayar-Watson also emphasises the flexibility of ESOS. He explained that, by working alongside its lead assessor, GE could reduce the number of sites that required full auditing. If the company was soon to leave a site, or could show that there were no feasible additional energy savings to be made, it would supply a DEC or run a simpler audit instead.

"Companies shouldn't be afraid of explaining to the Environment Agency why it might not make sense to run an audit on a particular site or activity," Tayar-Watson says. "The overall focus is on energy saving so, if there are no energy saving opportunities and you can agree that rationale with your lead assessor, you might be able to avoid doing some ESOS audits and save some time and money."

Scully confirms that the agency is not interested in forcing people to audit sites where they can show the energy saving opportunities are negligible.

Dan Grandage, head of responsible property investment at Aberdeen Asset Management, agrees that businesses must focus on the potential benefits of ESOS. As part of an energy management programme, this year his company is undertaking about 80 ESOS audits on its own properties and on some occupied by the clients whose funds it manages.

"Part of our objective with these audits is making sure that any actions are tracked," Grandage says. "We will upload all the recommendations into an online tool where we can assign responsibility to property managers and track them over time to make sure that an energy saving opportunity that has been identified is followed through. To just run the audits as a simple one-off would be a missed opportunity."

Grandage is already starting to see the benefits of the ESOS audit process. "We have found assets with existing audits that didn't meet the ESOS requirements," he says. "If anything this will improve the quality of the assessments we run." In some cases, the ESOS audit programme is paying for itself. "We have had some buildings where ESOS has allowed us to identify some substantial energy savings."

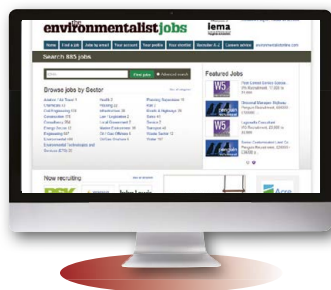
Tayar-Watson confirms similar findings at GE. "We've found our opportunities to save far outweigh the cost of doing these audits, or even of implementing an ISO management system," he says. "If you're challenged by your manager to just tick the box for ESOS, explain that, if you do more than the minimum to comply, you will more than pay back the investment."

Peter Brown is a freelance writer.

The Environment Agency ESOS helpdesk can be contacted at ESOS@environment-agency.gov.uk. A list of IEMA members who are qualified as lead assessors is available at lexisurl.com/iema103002.

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The gold standard

Wrap CEO **Liz Goodwin** calls on businesses to be more resource-efficient or risk disappearing



We always strive for gold, whether it is a gold star at school or a gold medal in sports. Countless films have documented our love affair with this precious metal: from the story of Robin Hood in which King John obsessively counts his gold coins to the tales of Indiana Jones, the heroic archaeologist come treasure hunter. Perhaps one of the most distinctive traits of seafarers in the past was their trademark gold hoop earring – a financial guarantor of receiving a formal burial after their passing. In the early part of the 20th century, many major currencies were pegged to the gold standard, with President Richard Nixon taking the US dollar off it as recently as 1971.

More recently, the monetary system has undergone some dramatic changes from gold coins to metal coins, paper notes and plastic cards. What is carried in wallets or purses no longer represents a person's wealth in its entirety. Instead, a figure on a computer screen will provide a better indication. We've moved from a culture of storing in a safe or under lock and key at a goldsmith's to one that is almost devoid of tangible cash. Bitcoin might never become what it could have been, but cloud computing and virtual currency systems are being increasingly integrated into everyday banking.

The common means of trade are changing, and so too are business models. As Tom Goodwin of Havas Media has pointed out, AirBnB is the world's largest accommodation provider, yet it owns no property; and Facebook is the world's largest media owner, yet it produces no content. Then there are some of the other game-changing giants, such as Amazon and eBay,

which are not solely responsible for their inventory, or Netflix, which relies on streaming. Businesses that either did not exist or were just in their infancy only 10 years ago now dominate the global market yet have few physical assets to call their own. Failing to spot such changes could damage or even destroy a business.

The new world order

In the past 50 years, GDP has risen nearly fourfold in the UK. We all consume more, have more “stuff”, have more varied diets and live longer. But as the population increases and the appetite for consumer goods grows, we are putting enormous pressure on the world’s natural resources. We have to find different ways to operate.

In August last year, humanity had already exhausted “nature’s budget” for the year, according to Global Footprint Network, but continued to consume the earth’s natural resources and drive the planet into greater ecological debt. Our consumption habits must change. This is why we urgently need to accelerate the move towards the societal trends and economies that are less reliant on the earth’s capital, and embrace the alternative business models that accommodate this.

In 1984, Madonna sang about living in a material world but now there is no guarantee of how much longer we can continue this way. And just as Madonna has had to reinvent herself over the years to keep up with change and set trends, so too have successful businesses. Now businesses have the chance to rethink, redefine and reinvent their approaches in ways that they can progress while minimising their impact on the environment. The reality is that we are heading full speed into a world that lacks the materials needed to continue as we have done.

The fact is that making stuff is becoming more challenging and has a detrimental impact on the environment. One pair of leather boots can take up to 14 tonnes of water and 50m³ of land to produce, according to Friends of the Earth. At the same time, the price of natural resources has been increasing more than wage growth – twice as much over the past 10 years.

But let’s return to gold – what has become of it now? The material that was once the dominant global trading commodity and the primary symbol of wealth is now often buried in landfill sites along with other precious metals that are embedded into everyday electrical goods. In fact, 65 tonnes of precious metals, including gold and silver, are lost every year in the UK. To help visualise what this looks like, it is about the equivalent in weight to five London double-decker buses. As a society, we have become so accustomed to making, using and throwing away that we do not consider the value in old products and what can be recovered.

Moving forward

But change is important. Historically, businesses have tended to act like a rear view mirror. They examine their performance, drawing from the past. This is reflected in sales figures, case studies and competitor comparisons. We need to be more forward-facing, looking ahead, and we need to be driving in the direction of our intended destination. It’s one that needs to be more sustainable and resource-efficient.

A circular economy is an alternative to the traditional “make, use, dispose” linear model. It keeps resources in use for as long as possible, extracts the maximum value from them while they are used, then recovers and regenerates products and materials at the end of life. This journey preserves the earth’s natural capital and reduces CO₂ emissions.

The switch to a circular economy can be difficult. However, Wrap is working to map out the journey, provide direction, and bring together the knowledge and tools to ensure the route is navigable and avoids risks. Fortunately, we know that now is the time to start the journey.

We can succeed, as the Courtauld Commitment demonstrates. This voluntary agreement to improve resource efficiency in the UK grocery sector brought together large and small retailers to find ways to reduce waste. In the first phase, from 2005 to 2010, 1.2 million tonnes of packaging and food waste was prevented. This in turn, saved 3.3 million tonnes of CO₂ equivalent, which is equal to an aeroplane flying around the world half a million times. In phase two, from 2010 to 2012, a further 1.7 million tonnes were saved. It also resulted in businesses collectively saving £3.1 billion.

It is a tried-and-tested solution that works, so Wrap has been applying the same approach to other areas of industry, such as textiles and, more recently, electricals. It has been working with more than 50 businesses, including Samsung, Panasonic and Argos, to help give their business models a “health check” and work out options that are less resource-reliant through its esap programme (electrical sustainability action plan).

Wrap has identified the themes that aim to deliver collaborative action to improve business efficiency and sustainability of products throughout their lifecycles. This includes extending product durability, looking at ways products can be repaired and gaining greater value from reuse and recycling. By adopting this approach, we can prevent some of those materials, such as gold, ending up as landfill.

The current linear approach is part of our unsustainable fast-turnover culture. But the alternative is an appealing proposition. Innovation thinktank The Club of Rome published a report in April – *The circular economy and the benefits for society* – looking at the effects of a more circular economy in Sweden. It focused on three scenarios: deploying renewables, energy efficiency and resource-efficiency measures. It found that, if all three strategies were pursued at the same time, by 2030 CO₂ emissions could be reduced by up to 70% and more than 100,000 jobs created. With current population trends, creating jobs and helping society in a way that preserves the environment can only be a winning solution. Similar reports for Spain and the Netherlands will follow.

As the naturalist Sir David Attenborough observed, when he began his career in 1950 there were just over 2.5 billion people in the world – now there are seven billion. By 2050, there could be nine billion.

Change is happening, the pace is picking up, and we need to find ways to accommodate and adapt in a way to live within the planet’s means. As Ban Ki-moon, UN secretary-general, put it: “There is no Plan B for action as there is no Planet B.”



Image: iStock

Reduction in GHG emissions compared with **1990/2005** levels



“The EU has already reduced emissions by around 19% on 1990 levels, while GDP has grown by more than 44% over the same period. As a result, average per capita emissions across the EU states have fallen from 12 tonnes CO₂-equivalent in 1990 to 9 tonnes in 2012 and are projected to fall to around 6 tonnes in 2030.”

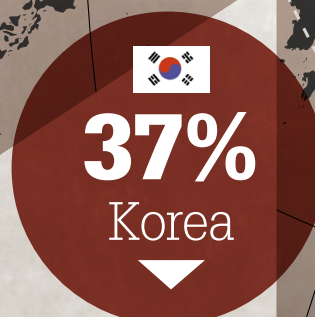
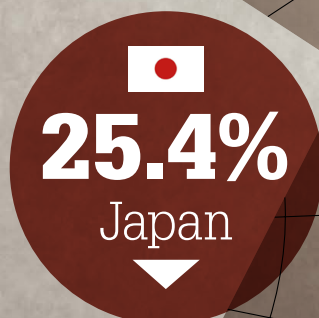
China targets peak emissions

Achieve peak CO₂ emissions by 2030 and lower CO₂ emissions per unit of GDP by 60–65% from 2005 level.

“In 2009, China announced that, by 2020, it will lower CO₂ emissions per unit of GDP by 40–45% from the 2005 level, increase the share of non-fossil fuels in primary energy consumption to about 15% and increase the forested area by 40 million hectares and the forest stock volume by 1.3 billion cubic metres compared with the 2005 levels.”

60–65%
China

“Approximately 90% of GHG emissions in Japan are covered by energy-originated CO₂. Emissions of energy-originated CO₂ will be reduced by 24% compared with [the] fiscal year 2005 level.”



“Korea announced its voluntary mitigation target in 2009 to reduce GHG emissions by 30% from the business-as-usual level by 2020. The target was stipulated in the Framework Act on Low Carbon, Green Growth, which came into effect in April 2010.”

Source: *Intended nationally determined contributions, UNFCCC.*

“The US has already undertaken substantial policy action to reduce its emissions, taking the necessary steps to place [the country] on a path to achieve the 2020 target of reducing emissions in the range of 17% below the 2005 level.”

GHG CUTS


26–28%
US

Countries attending the Paris climate summit (COP21) are required to share their emission reductions pledges to help keep global temperature rise below 2°C. Here, **the environmentalist** illustrates what some of the major economies are committed to achieving by 2030.

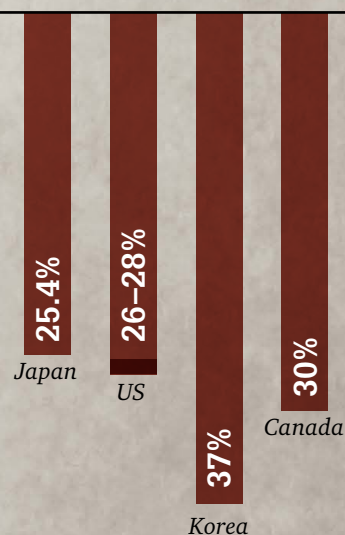

30%
Canada


25–30%
Russia

“[Target] represents a substantial reduction from Canada’s business-as-usual emissions ... between 2005 and 2013 GHG emissions fell 3.1%, while the economy grew 12.9%”

“GDP of the Russian Federation in 2012 amounted to 172.9% of the 2000 level, while the GHG emissions (without land use, land-use change and forestry) had reached only 111.8% of the 2000 level. Thus, GDP was growing significantly [while] the increase in GHG emissions was minimal.”

Pledges below **1990** levels



Pledges below **2005** levels



Speaking out on 14001

Lucy Candlin and Ben Vivian believe that complying with a revised clause in 14001 on communication could test practitioners

Some of the changes to ISO 14001 appear large and potentially scary, while others are less extensive and, on the surface, not so challenging. The revised clause on communication fits into the second category, but could turn out to be one of the most challenging for environment professionals and organisations.

The key changes in revised clause 7.4 (see panel on p.22 for a comparison) are the addition of the word “reliable” and an explicit requirement to link communications back to performance output information of the environment management system (EMS) as well as the introduction of a planned and controlled process.

Getting feedback

At the IEMA EMS forum in November 2014, we asked practitioners their thoughts on the implications of the changed language relating to communication in the revised 14001 standard. The first question was: what communications does an organisation issue that might be relevant?

The challenge was to refocus minds from “environmental communications” to “communications with environmental content”. This was potentially far broader than many of the participants expected,

and could include internal, external, formal, informal, written, verbal, local, global and corporate communications. The panel (top of p.21) summarises some of the audience’s responses.

In essence the revised clause requires the organisation to think about any environmental information released in any form outside the company as well as what it releases internally. Alongside more formalised communications, which transmit actual messages, organisations need to consider implied messages that are given by actions and behaviours, and messages given out by staff, contractors or others working with the organisation.

The next question put to the audience was: what is environmental information? The responses are summarised in the panel (bottom of p.21) and readers can probably easily add to that list from their own experiences. A key point to remember is that information may be both quantitative and qualitative; it might be based on number data from the EMS or research, analysis, interpretation and judgment.

Our final question was: what does “reliable” mean? The answers are summarised in the panel on p.22. A common response was that reliable information had to be audited. We checked this interpretation with Martin Baxter, chief policy advisor at IEMA and head

Types of environmental information

- Key environmental performance indicators selected for the EMS.
- Objectives and targets selected for the EMS and progress towards them.
- Results of performance monitoring and reviews, compliance evaluations, significant aspects and impacts evaluations.
- Energy and other environmental statistics – organisational performance and product/service claims, for example.
- Climate change (and associated issues) risk evaluation.
- Climate change adaption proposals/responses.
- Supply chain impacts and performance.
- Biodiversity and ecology impact and performance.
- Permit condition compliance and monitoring information.
- Business risks resulting from changing external environmental conditions.

Types of communication that may contain environment content

- Annual company report and financial accounts.
- Investor briefings/investment statements.
- Forecasts/backcasts/scenario planning/strategy planning.
- Mergers and acquisitions/due diligence/audit and review reports.
- Policies/governance/values statements.
- Regulatory reporting – for example, greenhouse-gas reporting and compliance notifications under the energy savings opportunity scheme.
- Briefings/reports to management/board/staff and associated meeting minutes.
- Company brochures, leaflets and other public relations/marketing material, including press releases/news and media articles.
- Internet/intranet (webpages)/Twitter/Facebook/other social media.
- Presentations/conference speeches.
- Employee and subcontractor recruitment/induction/awareness/training information.
- Product/services brochures/manuals/leaflets/performance claims.
- Sales claims/proposals/tender submissions/contract specifications and associated documents.
- Sponsorship/advertising campaigns.
- Community/stakeholder engagement and reporting.
- Performance review/benchmarking.
- Regulatory (environmental) permit monitoring reports.
- Sustainability/CSR/environment reports.
- Declarations/ratings/benchmark reporting – for example, DJSI, CPD, FTSE4Good.

of the UK delegation on the working group revising 14001. His response was clear: “One thing to emphasise is that the standard is not requiring that all environmental information is audited, but that it is controlled.”

We analysed the audience responses and looked at recognised definitions and commonly accepted principles of accounting for financial and non-financial data. To be reliable, information must be “a faithful representation of reality” and be “true, fair and balanced”. If this is the case, people who base their decisions on the information should have a reasonable expectation of the outcomes.

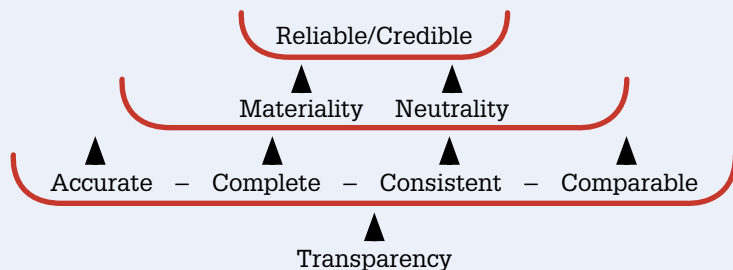
The principles of communication

ISO 14033 lists some useful principles for quantitative environmental information. These can also be applied to qualitative information. The chart on p.22 illustrates how information can be structured to show how each principle supports others in underpinning reliability – or credibility, as 14033 describes it.

Other principles also apply and organisations should consider using them all when developing their communications. Examples of these include making sure information is:

Image: iStock

Relationship between accounting principles



Contributors to reliability

- Transparent/open/clear as to source, definitions, meaning.
- Being able to back up statements with evidence/testimony/references; verifiable.
- Neutral – no “greenwash”, bias or spin.
- Validated/audited (internally or by third party).
- Documented protocol/methodology/standards for accounting for/determining data and information across the data flow: generation – manipulation – interpretation.
- Signed off and authorised for release by a competent accountable person.
- Based on recognised monitoring/accounting principles.

14001 clauses

Old (2004)

4.4.3 Communication

With regard to its environmental aspects and environmental management system, the organisation shall establish, implement and maintain a procedure(s) for:

- internal communication among the various levels and functions of the organisation; and
- receiving, documenting and responding to relevant communication from external interested parties.

The organisation shall decide whether to communicate externally about its significant environmental aspects, and shall document its decision. If the decision is to communicate, the organisation shall establish and implement a method(s) for this external communication.

New (FDIS)

7.4 Communication

7.4.1 General

The organisation shall establish, implement and maintain the processes needed for internal and external communications relevant to the environmental management system, including:

- what it will communicate;
- when to communicate;
- with whom to communicate; and
- how to communicate.

When planning its communications process, the organisation shall:

- take into account its compliance obligations;
- ensure that environmental information communicated is **consistent with information generated** within the environmental management system, and is **reliable**.

Image: iStock

- relevant for the needs of users;
- produced in a timely fashion; and
- explained in an appropriate (neutral) way – that is, using language appropriate for the audience and the subject matter without bias or spin.

Reliability is one of the principles set out in the G4 sustainability reporting guidelines from the Global Reporting Initiative. It is defined in G4 as: “The organisation should gather, record, compile, analyse and disclose information and processes used in the preparation of a report in a way that they can be subject to examination and that establishes the quality and materiality of the information.”

The guidelines add: “Stakeholders should have confidence that a report can be checked to establish the veracity of its contents and the extent to which it has appropriately applied reporting principles.”

In the GRI-G4 context, reliable information is that which can be checked, but the broader principles imply more than this, especially in the context of interpretation, bias and relevance. The accounting system(s) through which environmental information is controlled need to take account of the range of principles underpinning reliability.

Consideration should also be given to the principle of materiality – the importance and significance of an issue – when developing communications. Environmental reporting guidance has encouraged professionals to consider this to mean its relevance or significance for readers. This is similar to the way in which 14001 uses significant to evaluate environmental aspects and impacts to identify what is important for the organisation to control and respond to.

Materiality has another meaning, however, and one that is more commonly used in business management and from which it is essential to distinguish when planning communications. Most company boards will have a materiality threshold to determine risk levels and issues for them to consider; this threshold is usually – but not always – a financial value.

In relation to environmental communications, it is important to recognise that for many organisations the environmental issues that practitioners consider important may never reach management’s financial materiality threshold or cannot be expressed in financial terms even though they may be significant to an organisation’s performance or reputation. Clarity is therefore required in communicating with management about this and in defining elements of the planned communications process.



Clause 7.4.1

The EMS forum considered the questions an organisation should ask itself in order to plan a communications process consistent with the intent of clause 7.4.1 – in particular, what an information control process should look like.

The panel (right) summarises these questions as a checklist for organisations moving to the revised standard, while the panel (below) outlines some of the elements to be considered in developing an information control process.

There are many things for environment professionals to think about to ensure that information is reliable when communicated internally or externally. It means that meeting this element of 14001: 2015 needs to be considered early in a transition process. This is likely to involve many people and parts of the organisation that have not been in close contact previously with the EMS.

There are several other ISO standards that could provide information to support the evolution of a communications control process from the perspective of the revised 14001. These include 14031, 14033, 14063, and 14064–3 as well as the emerging ISO-FDIS 50015. Both 14064–3 and 50015 relate to monitoring and verification of greenhouse-gas emissions and energy information, subject areas that require high levels of control and assurance over the information that is disclosed. As such, they provide a useful source of good practice information that can be applied flexibly to other areas of environmental communication.

Areas of practical interpretation will emerge as certification of the revised standard proceeds. Notwithstanding all the requirements of various standards, the ownership of the diverse nature of communications, which are likely to contain environmental information, may make control complex. Environmental professionals are likely to be in the position of “owning” some significant information in communications but have little ownership over how it is conveyed.

One area that may become contentious is the reliability of analysis or interpretation of quantitative data. Although the information may be reliable, the interpretation placed on it by the company might not always present a balanced or objective position. This is when “spin” and “greenwash” are likely to become meaningful risks. Better technical competence in communications teams is perhaps required to make statements based on environmental information.

Lucy Candlin, FIEMA, CEnv, is director of Planet & Prosperity.
Dr Ben Vivian, FIEMA, is a co-founder and director of the Vivian Partnership.

The planning process and constraints

Initial questions to Consider

- What existing communications are made, by whom, for what purpose, and through which channels?
- Are there feedback loops to pick up issues with disclosed information?
- What are the current risks of inappropriate use of information? Is there consistency between different types of information released? Do you know how third parties use disclosed information?
- Who is authorised to sign off communications with environmental content? Are they qualified to do so? Do they know enough to validate data and interpretations released for it to be reliable?
- What control systems are in place? Do they conform to good practice for reliable data? Are there processes of validation/verification of data/information before release?
- What response protocols are in place to ensure appropriate environmental information is communicated by management/others in response to questions?

Potential constraints

- Stakeholder expectations.
- Timeliness of data – is it out of date by the time it is released?
- Organisational context and culture.
- Resources – the people and capabilities available for good quality information and communications disclosure.
- Commitment of management and other key departments, such as marketing/communications; procurement/contracting; and internal control/risk.
- Questions of confidentiality or legal obligations to disclose.

The information control process

- A communications matrix to identify channels and types of communication and to evaluate risk: for example, intended purpose (historical, predictive, horizon scanning); types of data needed, such as qualitative and quantitative; intended audiences; levels of accuracy/detail required by users of information; the need for independent assurance over some datasets; where/how spin/bias might be introduced; what use information might be put to by internal and third parties.
- A communications policy stating what information is controlled and who is authorised to release it. This must integrate or link to any brand and branding guidelines that an organisation has.
- Subject matter experts to be involved in sign off/release authorisations.
- Define the core primary dataset to be collected and validated, including aligning the context of collection/generation with that of reporting/disclosure.
- Documented accounting protocols to enable validation and to facilitate evidence.
- Identify existing systems to collect and control data/information flow and who “owns” them.
- Approved “library” of validated environmental information that can be used as a source for communications – for example, an IT database or other reference point to eliminate multiple routes to data, which could cause inconsistency.
- Awareness training for personnel with communications responsibilities/opportunities.
- A process for feedback – particularly when the reliability of information is challenged.

Greening the television schedule

Paul Suff learns how TV programme makers are rising to the sustainability challenge

History is littered with remarkable Alberts, including the physicist Einstein and former US vice-president and climate change campaigner Gore. Another has emerged to help the UK's leading television production companies and broadcasters reduce the environmental impacts of their programmes.

The albert Consortium features 12 of the UK's largest screen production companies and broadcasters, including all3media, the BBC, Channel 4, Endemol, IMG, ITV, Hat Trick, Kudos, NBCUniversal International Television, Sky, Twofour, UKTV and Warner Bros Television Production UK. It champions the television industry's use of sustainable production techniques and provides tools – including the bespoke carbon calculator albert, from which the group derives its name and certification scheme albert+ – as well as guidance on reducing the environmental impact of moving-image media production.

The list of popular television shows that have achieved albert+ include the long-running BBC drama *Casualty*; the Sky documentary series *Ross Kemp: Extreme World*; the BBC talk show *Graham Norton*; and the Sky comedy *Trollied* (p.26).

Counting the cost

The consortium operates under the aegis of the British Academy of Film and Television Arts (Bafta). Aaron Matthews, Bafta's industry sustainability manager, is responsible for maintaining the carbon calculator as well as the website – wearealbert.co.uk – which has

tips and information to support sustainable working practices in the screen arts. He says the ephemeral nature of the industry underlines the need for a single, easily accessible resource. "Screen production is an industry mainly of freelancers, many of whom jump from one project to another. At the same time, most broadcasters commission programmes from independent production companies rather than make their own. So an industry standard and freely available tools to help producers calculate and do something about their carbon footprint is essential if the industry is to become more sustainable."

Matthews says carbon emissions from the TV industry must be reduced by 80% by 2050 in line with government targets for the UK. The consortium's latest annual report reveals that in 2014 the average carbon footprint of one hour's television in the UK was 9.4 tonnes. This includes emissions from the energy to power studios and production facilities, travel for cast and crew, set building and catering. Across the main genres, archive and animated programmes tend to have the smallest footprint and drama productions the largest.

Calculating a programme's carbon footprint is the first step to reducing it, says Matthews. The albert carbon calculator is key, enabling production companies to estimate the footprint of a programme by inputting information from across the production process, such as studio use and time spent in editing suites. albert then produces a series of charts showing the total CO₂ emitted during production, the amount emitted for each £100,000 of budget and for each production hour.

A production company can use albert before shooting begins to generate an indicative footprint and challenge itself to perform better or submit a final score after a programme has been made. Footprint predictions are independently reviewed by the consultancy, Sustainable Business Practices, and, if approved, added to the albert database.

albert also contains data from more than 1,000 productions, so makers can benchmark their programme against similar ones.

The calculator began life at the BBC. Its creator, Richard Smith, sustainable production manager at the corporation, says albert was developed to engage programme makers. "The BBC had its overall corporate carbon target but it was remote and not particularly relevant to individual programmes. We also had no idea what the carbon impact was of, say, *Mastermind*, and how it compared with that of *Blue Peter*, for example," he explains.

That was in 2009 when Smith, a former business correspondent, was asked to devise a way to measure the footprint of BBC programmes. "We wanted a way to compare programmes across genres, from comedy and drama to entertainment and factual. Something to enable us to benchmark 15 minutes of a *Newsround* special against hundreds of hours of *Eastenders*."

Smith says albert was deliberately made simple and easily accessible. "albert is a means to an end, not an end in itself," he says. "Its aim is to motivate people in the industry to take action rather than produce a complete picture of the carbon impact of a programme." He explains that albert is accurate in so far as the formula and conversion factors are correct, but it does not capture everything. "That was intentional," he says. "If we had made it too complex, production and editorial teams would not have used it. The fact that they can answer a few questions to generate a figure and compare it with other programmes is the start of a process."

He says the questions posed are intended to provoke dialogue in production teams over issues such as the number of nights that cast and crew need to spend in a hotel or whether "greener" lighting systems can be used on set. Matthews says: "We ask questions that we know production managers or companies will know the answers to. They will know, for example, the size of skip they've hired and what proportion of waste goes to recycling rather than the amount in tonnes of waste generated over the course of making a programme. For timber, we ask for total spend, not amount in cubic metres. It is the same for travel and fuel."

To encourage its wider use in the industry, the consortium took over responsibility for albert in 2011. The latest version of the calculator has been developed by carbon management software business Greenstone and uses a combination of bespoke and Defra carbon factors to calculate footprints.

Since 2011, about 1,400 footprints have been submitted to albert. These have generated more than 80,000 tonnes of carbon, used 38 million kWh

of electricity, recorded 69 million travel miles, and consumed 1.8 million litres of diesel to power generators.

The plus factor

Raising awareness of environmental issues through the carbon calculator is an important first step but, if the industry is to be more sustainable, production companies need to address their impacts.

To assist them, the consortium's wearealbert website has more than 200 green production tips. These include simple suggestions, such as posting signs to remind people to switch off computers and lights, and to print double-sided or not print at all, as well as more complicated actions, such as developing and implementing a waste management plan to limit or eliminate waste to landfill. The online resource hosts more than 50 case studies showcasing the efforts of programme makers.

The consortium's albert+ certification scheme seeks to further embed sustainability in the industry. It is also key to engaging audiences on sustainability. Programmes that achieve a particular number of tasks aimed at embedding sustainability principles are awarded the albert+ badge, which is displayed in the credits that roll at the end of the show.

A programme bearing the albert+ mark will have achieved three things:

- sustainability issues were led by somebody at the top of the production company;
- its environmental footprint was accurately measured; and
- procedures were put in place to reduce its impact.

It also means that, while making the programme, the cast and crew:

- adopted a planned approach to their environmental impact;
- sought to reduce their travel wherever possible;
- used resources sensibly and managed waste responsibly; and
- limited their power consumption.

Productions have to provide evidence that sustainability was promoted on set, and that they adopted best practice and reduced their carbon footprint against standard industry practice. Independent auditors review the evidence, and programmes receive a 1-, 2- or 3-star rating, depending on the number of initiatives adopted. Reports are fed back to the consortium to find out what is working in practice.

Since albert+ was developed and piloted by the BBC in 2013, more than 20 programmes on its channels have achieved the standard, including CBBC programmes *All At Sea* and *Gigglebiz*, and the natural history unit's *Springwatch*, *Autumnwatch* and *Winterwatch*. The first to display the badge was the drama *From There To Here*, which aired in May 2014 and was made for BBC1 by consortium member Kudos.



Casualty

The BBC medical drama *Casualty* is filmed in a building rated as BREEAM outstanding. Lighting is provided by a low-energy solution – mainly KinoFlo to reduce energy consumption by 158,000 kWh a year – and will pay for itself in four years. Meanwhile, the sound department on the programme has switched to rechargeable batteries. The annual cost of buying conventional batteries (AA and 9V) was £850, while rechargeable ones cost only £150 a year. *Casualty* achieved the highest 3-star rating under the albert+ certification scheme.

Ross Kemp: Extreme World

The fourth season of *Ross Kemp: Extreme World* is an albert+ certified production and the most sustainable series of programmes so far. Using albert+ guidelines, the maker, Freshwater Films, adopted “greener” modes of travel and reduced fuel consumption, giving it a carbon footprint 20% lower than the industry average for factual programmes. The series aired on Sky1 earlier this year.



Graham Norton Show

The *Graham Norton Show*, which is produced by So Television, first aired in 2007 and has just completed its 17th season on BBC1. The latest series achieved albert+ certification for reducing its carbon emissions from energy and fuel consumption by using low-energy lighting and hybrid vehicles. It also saved almost 10,000 sheets of paper, while the set has been reused for all 240 shows in the 17 series.

The Interceptor

The recently aired eight-part BBC drama, *The Interceptor*, was the first UK production to use electric vehicles. The series was made in-house by BBC Drama Productions and achieved the highest 3-star rating under the albert+ scheme. Other measures in production to reduce the environmental impacts include using sustainable caterers and low-energy lighting, and repurposing bits of the set.



Trollied

Season four of the comedy *Trollied* was the first Sky production to secure albert+ certification, achieving the highest 3-star rating. Roughcut TV, which made the series, halved the power it consumed on set by removing one-third of ceiling fluorescent lights and reducing the number of floor-lamp lights. It also reduced its paper use by 80% by using an opt-in policy for call sheets and scripts. Secondhand props and dressings were sourced, while transport emissions, which accounted for half of the series' carbon footprint, were cut by crewing locally and accommodating most of the cast in the same hotel and taking them to the set together when possible. Overall, the carbon footprint of the fourth series was 7% less than the previous one.

Switched on

Matthews and Smith agree that it is now easier to engage people in the industry on sustainability. "In the past, we'd approach productions and ask them to do albert. "Now we get requests," says Matthews. Smith says: "Senior people at the BBC are supportive of sustainable production and shows produced in-house must use the carbon calculator, so there is a general acceptance across the corporation that production teams must complete their 'alberts'."

Smith says it is now common for production teams to approach the sustainability department for advice after a programme is commissioned. "It's not about helping them fill in the albert calculator, but about having a discussion on the actions they might consider to reduce the programme's impacts," he says.

Broadcasters such as Sky, which demands details of a carbon footprint from programme makers, is also helping to raise awareness and use of albert and albert+.

Demonstrating that sustainable production methods are not necessarily more costly, which is often the perception, is also important in getting more companies to engage. "We cannot promise people they will save a lot of money but by making the right choices a sustainable production can easily be cost-neutral," says Smith. "It's swings and roundabouts. What you save from reusing sets or minimising waste can be spent on slightly more expensive LED lighting."

Smith believes the cost savings will increase as equipment, such as low-energy lighting and solar-powered or hybrid generators for filming on location, becomes more widely available.

However, time-pressed production teams can be cautious and sometimes reluctant to use unconventional equipment. "It's their reputations on the line and they want to be sure the technology works," Smith says. "There was a perception in the industry a few years ago that LED lighting in studios was not good enough. But now the flagship BBC drama *Casualty* uses 100% low-energy lighting, which is altering opinions." To assist the transition, the BBC has produced a guide outlining the technical capabilities for some of the low-energy lighting technologies that are available.

Smith points out that, although television is a highly competitive industry, it is collaborating on sustainability. "It is important that everyone in the industry is on board, as content will increasingly be produced by the independent sector."

The consortium's plans include engaging television audiences on sustainability. Having the albert+ badge on more programmes is part of this strategy. "People recognise the FSC and Fairtrade logos and that is our goal for albert+," says Matthews.

To further this ambition, the consortium is aiming for all the major UK broadcasters to transmit at least one albert+ programme in 2015.

Environmental Technology Verification: All you need to know

Imagine you are a technology manufacturer trying to introduce a new product into the market. As in the case of most start-ups, you require additional capital to support the expansion of your product. Attracting investment is your only solution, but how can you reassure investors that what you're selling does what it says on the tin? One option is to undergo third-party verification.

Third-party verification involves independently testing a product to determine whether it is performing as expected and also ensures it is compliant with specific safety and quality standards. However, as it stands, current environmental technology performance certification schemes are not fit-for-purpose. Written with existing technology in mind, these standards are often too inflexible, often under-reporting or excluding the benefits of newer, more innovative designs and technologies.

To tackle this issue, the EU Environmental Technology Verification (ETV) programme, led by the European Commission, is specifically aimed at verifying the specific performance claims of novel and emerging technologies when there is no existing standard available. Independent accredited bodies, such as the National Physical Laboratory (NPL), provide a 'bespoke' verification that is tailored to the individual environmental technology, providing high quality verifiable performance data that will build investor confidence.



For a limited time only, NPL is able to offer a subsidy of up to 50% of the cost of a verification (excluding the costs of any testing required). If are interested in learning more about ETV and how it can benefit your business, please contact Nicola Smith – email: etv@npl.co.uk, tel: +44 (0)20 8943 6964 or alternatively, attend a free ETV workshop on 7 October 2015 in Swindon, co-hosted by NPL and other UK verification bodies.

To register, visit <http://euetvworkshop.eventbrite.co.uk>.

Nature's economic support services

Mark Everard reviews UK initiatives to better account for natural capital

Societies in the developed world remain as dependent on nature as the agricultural communities did in the past but there has been a tendency to become detached from it by technology, trade and economic leverage.

Consequently, governance and market models have become dissociated from nature's stocks and flows. We sporadically confront the need – through resource scarcities and pollution incidents, for example – to place aspects of nature's supportive capacities into the market model to drive political and business decisions. These can range from reactions to depleted fish stocks and climatic instability, air and water pollution, and ozone layer damage. The integration of economic factors with social and environmental ones is recognised in the concept of sustainable development, while the role ecosystem goods and services play in sustaining human wellbeing has led to natural systems being assigned economic significance.

Today the term natural capital is finding favour and work has been continuing in the UK to find ways to better account for the value of the services nature provides to sustain wellbeing and the economy.

Capital asset check

The 2011 national ecosystem assessment (NEA) incorporated significant research to improve economic appraisal of natural capital in the UK and to integrate it with mainstream economic systems. It included further development of the natural capital asset check (NCAC) tool, posing three questions to be addressed through five steps:

Q1: Extent – How much of the natural capital asset do we have?

- **Step 1** defines it as based on the goods and services it produces.
- **Step 2** considers its integrity, defined by extent and condition.

Q2: Productivity – What does the natural capital asset produce?

- **Step 3** assesses how the integrity of the natural capital influences the goods and services it produces, including thresholds and the consequences of crossing them.

Q3: Trend – How do our decisions affect the extent and productivity of the natural capital over time?

- **Step 4** considers the increase or decrease of the asset over time, taking account of available data on thresholds.
- **Step 5** combines these questions to determine whether natural capital is being managed in a way that poses risks by crossing thresholds.

A pasture is an example of a definable asset (extent) supporting an economically important head of milk-producing cattle (productivity), but declining sward health (trend) may jeopardise dairy yield (future productivity).

Determining thresholds

NEA research that tested the NCAC considered nine case studies, including lakes and reservoirs, fish stocks, and bees and other pollinators. The lakes and reservoirs study used data from national and river basin district scales, supported by more detailed information from individual sites, to examine consequences for several ecosystem services.

Assessment of trends in natural capital is important in the NCAC to identify thresholds or trade-offs in their relationships with benefits for society. Nutrient concentration thresholds for different services were identified in the rivers and lakes case study. For conservation of species and ecosystems adapted to low-nutrient conditions, slight enrichment can damage system integrity, function and production of valued services, with some nutrient limits already defined through conservation targets – though there remain major knowledge gaps.

By contrast, recreational uses of rivers and lakes are compromised at two higher thresholds as nutrient concentrations trigger algal blooms. These may reduce user enjoyment and, at increasing concentrations, create health risks for animals, including humans. Similar multi-threshold principles apply to marine fisheries, forests, coral reefs, urban green spaces and other natural assets.

Building thresholds into economic thinking and decision-making becomes vital for sustainable management. Under the NCAC, productive natural assets approaching a threshold are signalled by a



Image: iStock

red flag, comparable to how shortfalls in skills and investment in research and development by businesses already trigger early warning alerts in established economic systems.

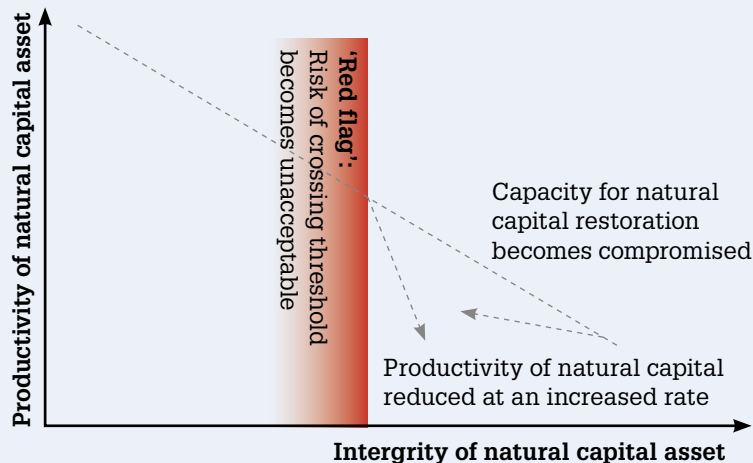
As NCACs are inevitably limited by shortfalls in data and knowledge about thresholds, estimates are based on a simple model in which productivity of natural capital is assumed to decline as it becomes more fragile. A red flag warning zone is set at the point at which non-linear reductions in productivity are considered likely, and beyond which potential restoration is compromised (see panel, p.30).

The devil, as ever, is in the detail. Data gaps remain a problem. The rivers and lakes case study highlights the need to integrate datasets.

Significant unknowns include assumptions about relationships between productivity and integrity. The points at which thresholds occur with respect to multiple ecosystem services are also rarely known, as is the realistic potential for restoration of ecosystems honed over time.

The need to consider all ecosystem services as a connected system, a fundamental principle of systems thinking, introduces further complexity and uncertainties. Although knowledge of thresholds in some systems is excellent, such as calculation of maximum sustainable yield (MSY) in forestry, knowledge about production of a broader range of ecosystem services is less developed. Neither is there enough understanding of which natural capital assets produce which services, and how the balance of services produced varies with asset condition.

Productivity and integrity of natural capital



Source: Adapted from UK national ecosystem assessment follow-on – work package report 1 by Ian Dickie, Philip Cryle and Lindsay Maskell.

This is all vital information if we are to avoid compromising the quality and productivity of the natural capital that sustains human wellbeing.

The NCAC is a work in progress. Nonetheless, it represents a flexible tool applicable at multiple scales. It may assess a specific habitat or other asset, such as a fishery or soil, the state of a particular ecosystem service, such as pollination, which constituted an NEA case study, or how a subset of ecosystem services is produced from a selected habitat.

Data intensity and associated analytical uncertainties increase across scales, the biggest inherent risk being accounting for trade-offs between interconnected services. However, the NCAC articulates aspects of how natural productivity and ecosystem integrity generate economic goods and services. In so doing it provides important information that may, in time, enable the progressive integration of fundamentally important natural capital and its associated red flags into national accounts.

Capital accounting

The Natural Capital Committee (NCC) was established in 2012 as an independent body on a three-year term to advise the government how to ensure efficient and sustainable management of England's natural wealth. It applied modified applications of the NCAC, seeking to incorporate natural capital into national accounts and developing a new corporate natural capital accounting (CNCA) framework. This has been piloted by several organisations, including LaFarge Tarmac, United Utilities, the National Trust and The Crown Estate, to accompany traditional financial accounts. The framework helps organisations to address:

- which natural capital assets are of utmost importance;
- how much of the value of the business relies on natural capital;
- how this reliance may change in future; and
- how much it needs to spend to maintain the natural capital it uses.

The NCC's third report, *Protecting and improving natural capital for prosperity and wellbeing*, was published in early 2015. It recognises that "natural capital deficits" built up over the long term are proving costly to the wellbeing of society as well as the economy, and must be halted or reversed to sustain economic growth. It also expresses optimism that "significant improvements are possible with the right investments and these will open up a range of economic opportunities for enhancing quality of life for current and future generations".

The report sets out a strategy requiring a 25-year plan from the government, which consists of building blocks (measurement, accounting and valuation), investment (creation and restoration of several optimally located habitat types) and financing.

Changing the 'real' world

How can natural capital accounting help support tough decisions in the highly contested "real world"? For example, what values do London's green belt provide, and can the net benefits of its ecosystem services be retained or even enhanced if it is used to meet the demands for new housing?

The national planning policy framework (NPPF) set out what would constitute appropriate development, stating five purposes for the green belt: check unrestricted urban sprawl; prevent neighbouring towns merging; safeguard the countryside from encroachment; preserve the character of historic towns; and assist urban regeneration through recycling derelict land.

Presumptions about protection of greenfield sites with redevelopment of brownfield could benefit from fresh scrutiny of natural capital. What ecosystem services do greenfield sites provide? Are these greater than those provided by brownfield locations? Are brownfield sites more biodiverse and accessible? Do they perform more significant flood and air quality regulatory services than green fields simplified by drainage and monoculture? What innovative infrastructure, following "green infrastructure" concepts, can work with and perhaps even enhance natural capital and its contribution to societal value?

These are pertinent questions for local authorities under pressure to explain why undeveloped land is valuable, while seeking a sustainable basis to accommodate required development. Reframing arguments for and against development and shaping appropriate forms of development on the basis of how ecosystems and their functions provide valuable services may be more constructive than the established "preservationist" model.

By whatever terms we refer to it, and despite emerging awareness of the need to internalise more of its values into an economic system founded substantially on its liquidation, we have yet to integrate natural capital substantially into mainstream political and business decision-making. However, emerging tools support its progressive inclusion, a process we must accelerate to address escalating sustainability pressures.

Dr Mark Everard is associate professor of ecosystem services at the University of the West of England.

IEMA announces its 2015 annual general meeting



Image: iStock

Company name:
The Institute of Environmental
Management and Assessment
Company number: 03690916

Martin Baxter, company secretary
Institute of Environmental
Management and Assessment,
Saracen House, Crusader Road,
Lincoln LN6 7AS, UK

Notice is hereby given that the 15th annual general meeting of the Institute of Environmental Management and Assessment ("Institute") will be held at 17.30 on Wednesday 26 August 2015 at:

The Thistle Hotel Euston,
Cardington Street,
London, NW1 2LP

Ordinary business

- To confirm the minutes of the AGM held on 17 September 2014.
- To confirm Ian Bamford, Martin Bigg, Gillian Gibson and Colin Lewis as non-executive directors of the Institute.
- To reconfirm Richard Powell as a non-executive director of the Institute.
- To receive and accept the directors' report and accounts of the Institute for the financial year ending 31 December 2014.
- To reappoint Streets LLP as auditors of the Institute until the conclusion of the next general meeting at which accounts are laid.
- To authorise the board to fix the remuneration of the auditors.

Any member will be entitled to speak on any matters arising out of the directors' report and accounts, but no other business other than that given in the notice will be transacted at the meeting.

Every member entitled to attend and vote at the meeting is entitled to appoint a proxy or proxies to attend and, on a poll, vote on his or her behalf. A proxy must be a member of the Institute. A template form for submitting proxy votes can be found on the IEMA website (iema.net/agm-2015) and shows all the information that is required. Completion and return of a form of proxy will not prevent a member attending and voting at the meeting in person should he or she wish to do so. All proxies so appointed should be notified in writing, by no later than noon on Tuesday 25 August, to the following name and address:

Governance officer,
Institute of Environmental
Management and Assessment,
Saracen House, Crusader Road
Lincoln LN6 7AS, UK

Visit iema.net/agm-2015 for details.

Get £5 off renewal with direct debit

Maintaining your IEMA membership, on time, with no interruption in benefits, is an important annual step. To make the renewal process simpler and quicker, IEMA has launched a new way to make it automatic.

IEMA has always offered a direct debit renewal service but earlier this month it became easier than ever to switch your method of payment. Our payment portal launched on 3 August and enables members to sign up online to renew by direct debit. Previously, members had to complete a mandate and return this to IEMA for processing. The new payment portal lets you complete your sign-up in one easy online step. Paying your annual renewal by direct debit is also the most cost-effective way to renew, because all IEMA members who use this payment method will receive an automatic £5 discount off their next fee. Visit the new portal at iema.net/member to set up your direct debit.

Many IEMA members already renew their membership through direct debit, and they testify that it is quick, easy, fuss-free and the most sustainable option. Here's what a few have to say:

"As an environmental consultant my IEMA membership is crucial. Paying through direct debit is perfect, so much easier, no risk of me forgetting to renew, and better for the environment!"
Neil Howe (Associate)

"Using direct debit enables me to maintain my IEMA membership without the hassle of missing a renewal. In this busy digital world we all need a little help and this is one timesaver I approve of."
Bill Delamare (Affiliate)

"Direct debit is a 'fit and forget' solution to a professional like me. There are so many things we have to remember these days. Farming off routine important membership payments to a service like direct debit makes total sense!"
Anmarie Justine Landi (Full)

IEMA and BRE Academy launch membership partnership

On 20 July, IEMA announced a new partnership with the BRE Academy that entitles members of both bodies to claim special discounts and opportunities.

As a mark of our mutual commitment to upskilling and developing professionals from across the environment, sustainability and built environment professions, IEMA and the BRE Academy have developed some attractive opportunities for IEMA members. This means that IEMA members can join the BRE Academy for half the standard £99 rate.

By becoming an energy member of the BRE Academy, IEMA members will be eligible to take advantage of:

- Discounts on BRE Academy training courses.
- A badge of recognition.

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Management & Assessment

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- Exclusive discounts on BRE publications and events.
- Access to an online continuing professional development portal to log CPD hours.
- Many other exclusive benefits.

To join the BRE Academy go to lexisurl.com/iema103756 and use discount code IEMA50.

Updating your CPD record

Your monthly copy of *the environmentalist* helps you not only to keep your knowledge of new and changing practice up to date, but it also contributes to your continuing professional development (CPD). You can earn CPD points by attending events (p.34), reading key materials or by undertaking formal training courses. But you need to maintain a CPD record throughout your career.

All Full, Fellow and CEnv members and EIA and Auditor registrants must submit CPD logs annually. If you have not recently submitted your annual CPD log, it may be due soon. A member of IEMA's professional standards team will be in touch when your CPD record is due, but it is best not to wait for a prompt. Guidance on how to record, format and submit a CPD log is available at iema.net/membership-cpd. Alternatively, email professional.standards@iema.net or call +44 (0)1522 540069 to discuss your CPD.

SAVE THE DATE

13th October 2015

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IEMA says sustainability skills are key to success of Osborne's productivity plan

The UK Treasury published its productivity report, *Fixing the foundations: creating a more prosperous nation*, in July. IEMA offered words of welcome for the government's ambition to place skills at the centre of the plan. However, the institute voiced concern over several other issues in the report, such as the apparent end of the commitment to zero-carbon homes.

IEMA's chief policy advisor, Martin Baxter, believes the plan will provide significant opportunities to build sustainability into the UK's skills base. However, he expressed disappointment that the report does not explicitly highlight the opportunities for sustainability skills. Previous IEMA research has found that only 13% of organisations are fully confident that they have enough of these skills to compete in a sustainable economy.

"While the Treasury's plan does not specifically highlight sustainability skills, the need for the UK to develop the higher level of skills required for its long-term success is brought into clear focus," said Baxter. "The plan provides huge opportunities for mainstreaming sustainable thinking across the UK economy. Moves to deliver three million apprenticeships and register technology institutes with professional bodies have the



Image: ISA HARSIN/STPA/REX

potential to significantly enhance the reach of sustainability skills needed to deliver UK businesses the growth opportunities inherent in a sustainable economy."

However, the government's decision not to proceed with the zero carbon allowable solutions carbon offsetting scheme or the proposed 2016 increase in onsite energy efficiency standards puts at risk sustained progress on implementing low-carbon initiatives, says IEMA. The institute believes this is a backward step that will frustrate and disappoint green leaders in industry who have been working towards previous targets. It also notes that the "reliable and low carbon" energy commitments in the report fail to mention the importance of the UK's growing wind industry.

Disappointing summer budget

IEMA has expressed its disappointment at the lack of environment and sustainability measures announced in the budget delivered by the chancellor, George Osborne, on 8 July.

The institute's policy and practice lead, Nick Blyth, said: "IEMA supports the clear commitment from the UK government to push for a global climate deal that keeps the goal of limiting global warming to 2°C firmly within reach. However, in other respects this is far from a green budget and we have concerns over the government's commitment to the green economy. The chancellor's clear statement that the government will not extend the

coalition government's commitment to increasing the proportion of revenue from environmental taxes to this parliament is a retrograde move.

"The announcement that the government will review the business energy efficiency tax and carbon reporting landscape and consider approaches to simplify and improve the effectiveness of the regime is welcome. The majority of IEMA members believe there is a need for the government to rationalise the number of energy and carbon schemes affecting the very largest organisations and we look forward to the autumn consultation."

Policy update



Bad news or hint of an opportunity?

In July, the budget and productivity report (left) caused more than a few ripples. Many environmentalists were angered by announcements on dropping plans for higher onsite energy efficiency, as well as a separate target for zero-carbon emissions for non-domestic buildings by 2019. The zero-carbon target would have ensured all new dwellings from 2016 would generate as much energy onsite – through renewable sources, such as wind or solar – as they would use for heating, hot water and lighting. This would have been accompanied by tighter energy efficiency standards and a scheme allowing housebuilders to deliver equivalent carbon savings offsite.

The chancellor's statement that the new government will not extend the coalition's commitment to increasing the proportion of revenue from environmental taxes into this parliament was also criticised (bottom, left). It came after earlier announcements on ending subsidies for onshore wind. Many in the renewables sector commented that the government was no longer providing industry with policy confidence, and that moving the "goalposts" earlier than planned could push some projects from profit into loss.

However, plans by the government to review the business energy efficiency tax and carbon reporting landscape (p.5), and consider approaches to improve their effectiveness may be a positive development. Some believe it is an opportunity to create a lasting policy landscape with longer-term price (tax) signals. A consultation is anticipated from September, and IEMA will be inviting Decc officials to workshops with members. Our pre-election polls indicate that most members want a reduction in the number of schemes that apply to the largest organisations. IEMA will be keen to ensure any new policy landscape is effective over the long term, and if possible extend policy drivers that support energy and low-carbon transition to other businesses.

Nick Blyth is policy and engagement lead at IEMA; @nblythiema.

More successful IEMA members

IEMA would like to congratulate the following individuals on recently upgrading their membership as part of their ongoing commitment to learning and professional development.

Associate

Saleh Al-Ageel, KEMYA Al-Jubail Petrochemical
Hashim Al-Attas, National Industrial Gases Company
Turki A Al-Khaldi, Saudi Methanol Company
Ahmed Eid Al-Rashidi, Saudi Kayan Petrochemical
Abdulahdi Saeed Al-Qahtani, Petrokemya
Mansour Al-Wadaie, National Methanol Company
Katy Andrews, Sellafield
Francesca Athies, CBRE
Andrew Bate, Bespoke Supportive Tendencies
Daniel Bowles, Hitachi Zosen Inova UK
Samantha Christophers, Ian Williams

Stewart Deary, Bredero Shaw
Mike Doran, Babcock MoD
Simon Evans, Carillion
Liam Faulder, Ultra Electronics
Helen Fletcher, EON
Rachael Ford, WSP Group
Simon Forth, University of Wolverhampton
Matthew Gardiner, Costain
Adam Gilbert, Knight Frank
Jonathan Hall, Stride Treglown Architects
Abigail Harrison-Strong, Eni Engineering E&P
Mark Hemmins, Selco Builders Warehouse
Jennifer Hogan, BCM Construction
Kinga Holda, IT Limited
Stephen Horn
David Hughes, Eight Associates
Paula Ireland, Fujitsu Services
David James, Coca-Cola Enterprises

Mererid Jones, Puffin Produce
Paul Jones
Shona Jones, Centrica Energy
Stewart Kelly, Brink Group
Alan O'Hagan, J Murphy and Sons
Stephen Mellor, Cet
Maria Moses, Environment Agency
Kent Oliver, HM Forces
Michael Pantling, Ramboll
Darryl Pearce, Automated Technology Group
Sophie Perrin, Sol Environment
Silvia Potts Penaranda, UBB Essex Construction
Stephen Powell-Waddell, Conlon Consulting
Robin Pressley
Jenny Pulman, Royal Shakespeare Company
Fiona Quinlan, Centrica
Hattan Qutob, Saudi Yanbu Petrochemical Company
Linden Richardson, Integra Consulting Engineers

Stephen Robinson, Abellio Greater Anglia
Ben Thomas, Yamazaki Mazak UK
Mark Thomas, Monica Trust
Rhian Thomas, DVLA
Jonathan Tucker, Vinci
James Waide
Nicholas Wainman, HS2
Marcus Ward, British Sugar
Emma Watson, Carbon Credentials Energy Services
Laura Weise
Allan Wickham, Royal Bank of Scotland
Paul Wilson
Danuta Wiss, Lady Consulting
Angela Woolley, J Murphy and Sons

Full and Chartered environmentalist

Richard Cattan, Skanska UK
Mark Andrew Crowther, Buro Happold
Patrick Davison, Mayer Environment

IEMA events

Date	Region/Time	Topic	
3 Sep	South East	Social (London)	
9 Sep	Wales	Full member and CEnv mentor forum	
9 Sep	Wales	IEMA network meeting and social	
23 Sep	North West	Management of wastewater and waste	
23 Sep	Yorkshire and Humber	Social (Leeds)	
23 Sep	Yorkshire and Humber	Social (Lincoln)	
1 Oct	South East	Social (London)	
Conferences			
13 Oct	London	Sustainability in practice	
3 Nov	London	EIA and ESIA masterclass	
1 Dec	Manchester	EMS national forum	
Webinars			
27 Aug	12:30–13:30	Towards guidelines for historic environment impact assessment	
2 Sep	12:30–13:30	Gypsum to gypsum: the circular economy in the plasterboard industry	
8 Sep	12:30–13:30	ISO 14001: 2015 – tackling requirement number 1: context	
External events			
15 Sep	Birmingham	Responsible procurement	lexisurl.com/iema103764
26–27 Oct	London	Climate change 2015	lexisurl.com/iema103760

EIA update

Environmental statements on the rise

District planning authorities in England received 501 environmental statements in the 12 months to the end of March 2015. This is nearly 14% more than the number submitted in 2013/14, and 56% up on 2011/12, when 321 statements were received.

The figures, published by the department for local government and communities, are further evidence of an upturn in development in England. They also reveal that only a very small proportion of planning applications include an environmental impact assessment. Planning authorities received 473,866 planning applications between April 2014 and the end of March 2015. Environmental statements were submitted for just 0.1%.

The figures for the five types of district planning authorities were:

- Shire district authorities received 223 environmental statements. The most were submitted to Allerdale in Cumbria, which received 10 out of 812 applications, Northampton (eight out of 1,103) and Ryedale in north Yorkshire (eight out of 634).
- Eighty environmental statements were submitted to London boroughs.



Image: iStock

The 32 boroughs received 92,969 planning applications. Tower Hamlets and Barnet received the most statements – 21 (out of 1,710) and 13 (3,906) respectively.

- Metropolitan boroughs received 43 environmental statements out of 58,071 applications, with Manchester receiving the most – nine out of 2,238.
- Unitary authorities received 145 statements, with Cornwall receiving 15 and the East Riding of Yorkshire 12. Overall, the 56 unitary authorities in England received 96,001 planning submissions.
- The national parks authorities received 10 statements, four of these for the South Downs (pictured). Fully 7,984 planning applications were made to park authorities in 2014/15.

Scottish news

The latest EIA newsletter from the environmental assessment team at the Scottish government and the consultation authorities – Scottish Natural Heritage, Sepa and Historic Scotland – has been published (lexisurl.com/iema103318). Highlights include:

- Throughout August, those submitting reports to the SEA Gateway will be asked to participate in a customer survey to gauge the effectiveness of the online tool to manage the administration of strategic environmental assessment consultations.
- For three months from October, the consultation authorities plan to trial a single response to reports and plans when commenting on environmental report consultations.

- The Historic Environment Scotland Act 2014 establishes Historic Environment Scotland (HES). It will take over the functions of Historic Scotland, including its role as a consultation authority for strategic environmental assessment on behalf of Scottish ministers. Secondary legislation is due to take effect on 1 October 2015 making HES responsible for fulfilling this role in the future.
- The 2015 Habitats Regulations Appraisal (HRA) forum takes place on 9 September at Victoria Quay, Edinburgh. Email HRAddevelopmentplans@scotland.gsi.gov.uk to register. In 2016, the HRA and SEA forums will be combined in one event.

EIA research

Planning conditions

Planning conditions, section 106 agreements and unilateral undertakings are currently the only mechanisms for ensuring the delivery of mitigation commitments proposed in an environmental statement. But, as Alistair Walker at the Waterman Group argues in a new QMark paper, this process can be inefficient and the legal controls do not ensure implementation of mitigation proposals. He says this is for three main reasons: the change of responsibility from pre-planning to post-planning; a lack of ownership and responsibility for implementing and monitoring post-planning mitigation measures; and a lack of public sector resources and guidance. Walker says that simplifying the transition and having the correct mechanisms in place between the pre-planning and post-planning teams would reduce the potential for misinterpretation or poor implementation of mitigation measures after handover.

environmentalisonline.com/conds

Changing thresholds

In a QMark paper, environmental planners Adam Boyden, Alison Carroll and Jonathan Murphy at Nicholas Pearson Associates reveal where an EIA proved useful, even though it was not required. In October 2014, the University of Oxford submitted an environmental statement for student accommodation at Castle Mill. Unusually, the statement was retrospective as it assessed the environmental effects of a development that already had been built with planning permission. It identified several significant environmental effects on the landscape and the historic environment, and considered new design measures to mitigate these effects. The authors argue that, in such cases, a conventional pre-consent EIA would have identified the environmental effects of development if assessment had been required before planning permission was granted.

environmentalisonline.com/oxford

Phil Cumming

Corporate sustainability professional
and independent consultant



Why did you become an environment/sustainability professional? I had developed an enthusiasm for the outdoors at a young age, loved physical geography, and even studied environmental science at GCSE level at the same time as the first Rio summit in 1992. This led me to studying environmental studies and geography and, as I got more into the subject, things just fell into place.

What was your first environment/sustainability job? I was lucky enough to get a number of weeks doing contract work with Environ (EAG as it was in those days) as soon as I'd finished my BSc. During my studying for an MSc I picked up several other environmental consultancy assignments too.

How did you get your first role? I really wanted an environmental consultancy role but the career advisers told me that it would be highly unlikely that I would get one. I chose to ignore their advice and wrote to more than 100 companies – I kind of figured (and hoped) that it was a bit of a numbers game and that one of my letters would land on the right person's desk at the right time – happily, I was right!

How did you progress your environment/sustainability career? I went into consultancy with the aim of developing as many skills and as much expertise as possible. I started working in contaminated land and monitoring pollution. I quickly progressed into areas like auditing, due diligence, EMS, waste management and asbestos surveys. It wasn't long before I was winning my own work and became a seller-doer. I owe a lot to my more mainstream consultancy days, when I gained technical, commercial, and project management skills.

What does your current role involve? During my 18-month stint with Kingfisher I designed a clearer policy, operational delivery and governance framework for its sustainability

programme. I am now freelancing while looking for my next challenge. In addition to my core work, I am on the board of Julie's Bicycle, a leading sustainability charity, and deliver an IEMA-approved MSc module on sustainable business practice for Birkbeck College. I chair a new BSI committee on resource management and the circular economy, and am also on IEMA's GACSO advisory group.

How has your role changed over the past few years? When I took on my first corporate sustainability role in 2006 it was a case of "every day is a school day" – and in many ways this still holds true as this agenda continues to evolve as our awareness of sustainability issues and their complexity grows.

What's the best part of your work? When you've managed to alter somebody's pretty entrenched mind-set and the penny-dropping moment comes.

What's the hardest part of your job? Accepting that sometimes a way forward is blocked without a proper business decision. If a decision has been taken after discussion with the key players that's OK. If it's a simple no, with little or no discussion, that can be a bitter pill to swallow.

What was the last event you attended and what did you bring back to your job? The World Economic Forum's annual meeting in Davos in January. I fulfilled a years worth of CPD in one hit.

What is/are the most important skill(s) for your role and why? Above all, listening! I recall one of my first bosses reminding me that "audit" is from the Latin for "to listen" and this has stayed with me throughout my career.

Where do you see the profession going? I do not believe sustainability is a profession, yet – not in the same sense as other more established professions anyway. The difference is that more

Career file

Qualifications: MSc, BSc, AIEMA, CEnv, GACSO, MCIWM, MICRS

Career history:

2015 to now Independent sustainability consultant
2014 to now Non-executive director, Julie's Bicycle
2013 to now Associate lecturer/Expert in residence, Birkbeck College
2013-2014 Acting head of sustainability strategy, Kingfisher
2006-2012 Deputy head of sustainability, London 2012
2002-2006 Principal consultant, Parsons Brinckerhoff
2000-2002 Consultant, Bonnard & Gardel
1998-2000 Environmental scientist, URS
1997-1998 Various short-term environmental consultancy

mainstream functions, such as HR, are very much seen as serving a need rather than simply something that is a good thing to have but not absolutely necessary. With the merger of IEMA and GACSO and launch of ICRS last year it's great to see steps finally being taken to support professionals working in this field – very long overdue!

Where would like to be in five years' time? I hope that I am still helping organisations build robust, industry-leading sustainability programmes and genuinely improving their overall business performance.

What advice would you give to someone entering the profession? Keep an open mind to anything that comes your way. I often speak to students who are set on one particular thing. It's great to have a clear goal – but I do think that I have greatly benefited from the fact that I grabbed every opportunity to build a portfolio of skills and expertise.

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