

Pollution

22

Skills

28

Feedback

32

**Data exploration**

Pollution inventory information can help identify substances to focus on in control programmes

**Leadership style**

A better understanding of top management in your firm could make the EMS more effective

**Selection process**

Identifying the right audience for stakeholder engagement is the key to successful projects

# the environmentalist

environmentalisonline.com

February 2014



## Unpacking sustainability

**iema**  
Institute of Environmental  
Management & Assessment

# Greenspace

takes the hard work out of compliance

**Greenspace** is a consultancy supported platform for your Environmental, Health & Safety and Energy Management Systems. Build your Greenspace site from a growing range of applications.

- **Legal Register** updates and manages compliance
- **Aspect Register** controls your impacts
- **Bespoke email updates** and compliance calendar
- **Super-user** for multi-site functionality
- **Carbon Manager** reports your carbon footprint
- **Document Manager** hosts your policies, reports, documents and records

---

**“Legal Register is a personal service that focuses sharply on the legislation that could affect our activities at our Stanlow complex. It gives me peace of mind for our ongoing compliance.”**

Steve Cross, Environmental Manager, Shell UK

---

For further information and to apply for a FREE\* trial, please contact:

**Tom Cullingford**

**t** 0114 229 8900

**e** [thomas.cullingford@watermangroup.com](mailto:thomas.cullingford@watermangroup.com)

**[www.watermangroup.com](http://www.watermangroup.com)**

To find out more visit

**[www.legalregister.co.uk](http://www.legalregister.co.uk)**

**View sample**





# February

## News

- 4** Prime minister lauds cuts to Defra guidance  
Sepsa toils over GHG target
- 5** European commission omits energy  
efficiency from new 2030 climate goals
- 6** UNEP warns of land-use crisis  
Fossil fuels still rule in 2035  
**In parliament** Alan Whitehead praises  
Decc's community energy strategy but warns  
that it will only be as good as what follows
- 8** Shift focus to resource use, say Tory MPs  
**EIA update** The latest on impact assessment
- 9** "Carrot" dangled to fire shale revolution
- 10** **Online news** A selection of news stories  
from [environmentalistonline.com](http://environmentalistonline.com)

## Legal brief

- 11** **Recent prosecutions** Scottish Water fined  
for "avoidable" acid spill; Environment  
Agency agrees biggest civil penalty;  
Sellafield Ltd appeal against £700k fine fails  
**Case law** Simon Colvin at Weightmans  
argues that the Sellafield Ltd decision  
undermines new guidance on sentencing
- 12** **New regulations** Built environment;  
energy; planning; waste; hazardous  
substances; environment protection
- 13** **Latest consultations** HS2; opencast  
mining; water abstraction; marine  
environment; clinical waste – standard  
rules; energy efficiency  
**Guidance** CRC auditing; low-carbon  
heating; waste – online waste transfer notes
- 14** **Laying down the law** Ross Fairley warns  
the fledgling solar industry that it will be  
covered by the revised WEEE regime

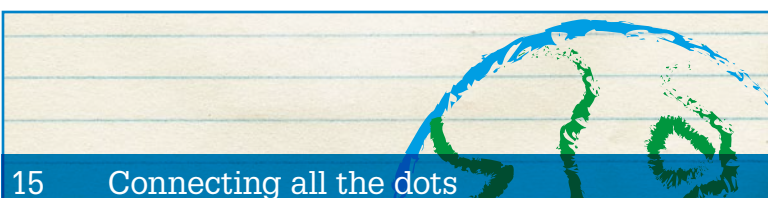
## Regulars

- 38** **Reviews** *On Gaia*; *Vital signs: volume 20*;  
*Energy efficiency*
- 39** **Change agent** Jae Mather, director of  
sustainability at HW Fisher and co-founder  
of the Carbon Free Group UK

## IEMA news

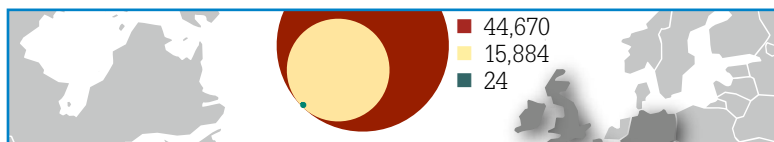
- 34** IEMA members to share contact details  
Headlines from 2014 practitioner survey
- 35** Latest IEMA Fellow: Andrew Whitehorn  
**Policy update** Josh Fothergill on how  
IEMA is expanding its influence on EIA

## Features



### 15 Connecting all the dots

Paul Suff discovers what sustainability means to environment practitioners and how they are working to embed the concept within their organisations



### 20 Global standards

This month's Datafile uses the latest figures from ISO to illustrate uptake of 9001, 14001 and 50001 certification since the standards' introduction



### 22 Data releases

The latest pollution inventory data from Europe and the US are a goldmine of information for businesses, say Jonathan Nwagbaraocha and Ana Santos



### 25 Unwrapping sustainability

*the environmentalist* reports on what Nestlé UK and Ireland is doing to curb the harmful impacts of its operations across its six pillars of sustainability



### 28 Making people tick

Greg Roberts and Michael Brown explain how a better understanding of your senior management team could improve engagement with your EMS



### 32 Catching the right people

Stakeholder engagement initiatives can help ensure the success of a project, but they're only effective if you talk to the right people, says Chris Reynolds

How do we prove  
competency for our..?

**LEADERS**

Level 6 - Leading with  
Environmental Sustainability

**MANAGERS**

Level 4 - Managing with  
Environmental Sustainability

**TEAMS**

Level 2 - Working with  
Environmental Sustainability

...with new  
**nationally recognised**  
training courses from

**iema**  
Institute of Environmental  
Management & Assessment

&

**City &  
Guilds**

by the **whg Skills Centre**

contact us today for more information

phone: 0845 155 0310 email: [skillscentre@whgrp.co.uk](mailto:skillscentre@whgrp.co.uk)

**Courses being delivered now!**

**City &  
Guilds**  
Approved Centre

**cskills  
awards**  
City & Guilds  
Awarding Organisation



**whg**  
in  
partnership  
with  
**ESP**



# The blame game

The first month of 2014 was officially the wettest January on record in the southeast and central southern England. The Met Office reports that these areas received more than twice the average rainfall for the time of year in the first 28 days of 2014. Across the southwest and south Wales, January was the fifth wettest since records began in 1910. For the UK as a whole, the amount of rain that fell last month was 35% above the long-term average.

Images of huge swathes of England under water for several weeks, with no respite in sight, have placed flooding and the role of the Environment Agency in protecting vulnerable communities centre stage. Many of those living and working in the Somerset Levels, for example, whose homes have been flooded and livelihoods damaged, point the finger of blame at the agency. Its apparent failure to routinely dredge the local Tone and Parrett rivers and its expenditure on creating a wetland near the coast have been singled out as reasons why the Levels have been submerged this winter.

But if we want to apportion blame we need to look elsewhere. The agency reported in December 2013 that it routinely considers dredging and other types of watercourse channel management to reduce flood risk, and spends £20 million annually on dredging, desilting, removing gravel and obstructions along with weed control to clear channels. It also reports carrying out desilting work in October 2013 at five "pinch point" locations on the Tone and Parrett to improve flows.

Irrespective of whether more dredging would have stopped the Levels flooding on this occasion – and most experts believe that even river channels with a significantly larger capacity would not have coped with the amount of rain that fell throughout the first weeks of 2014 – the agency has to fund its river maintenance work from a rapidly declining pot of money. Parliament's environment committee reported in 2013 that the agency's maintenance budget for 2013/14 was just under £70 million and for 2014/15 was set to be £60.7 million, concluding that since 2000 funding for maintenance activities had halved. Many agency officers have worked tirelessly since the high tides in early December brought the first round of winter floods. Yet, this year nearly 15% of the agency workforce will be made redundant following Defra's decision to slash annual funding by £33.5 million.

Computer models suggest that climate change will increase winter precipitation in the UK and the country will be at risk of more frequent extreme weather, such as storm surges, so it must prepare for a greater risk of flooding. Dwindling finances and a smaller workforce will mean the agency will find it harder to provide the necessary flood protection in many areas. But that's not the fault of the agency.

**Dwindling finances and a smaller workforce mean the Environment Agency will find it harder to provide flood protection in many areas. But that's not the fault of the agency**



**Paul Suff, editor**

The Institute of Environmental Management & Assessment (IEMA) is the UK's largest environmental professional body, providing practitioners with career guidance, ongoing support and development opportunities to ensure sound environmental performance delivers business benefit. IEMA is dedicated to placing professionals at the heart of change.

IEMA works alongside government, the media and industry to enhance the recognition of the profession and promote the importance of practitioners in combating climate change, working towards a low-carbon economy and building a sustainable future.

## IEMA

Saracen House  
Crusader Road  
City Office Park  
Tritton Road  
Lincoln LN6 7AS  
tel: +44 (0) 1522 540069  
fax: +44 (0) 1522 540090  
info@iema.net | www.iema.net

## Editor

Paul Suff  
paul.suff@lexisnexis.co.uk

## Deputy editor

Sarah-Jayne Russell  
sarah.russell@lexisnexis.co.uk

## Managing editor

Louis Wustemann  
louis.wustemann@lexisnexis.co.uk

## Sub-editors

Mike McNabb, Brenda Morris  
Angela Partington

## Advertising sales executive

Jodie Fletcher  
tel: +44 (0) 20 8212 1989  
jodie.fletcher@lexisnexis.co.uk

## Recruitment advertising

Sam MacKenzie  
tel: +44 (0) 20 8212 1913  
sam.mackenzie@lexisnexis.co.uk

## Marketing campaign manager

Victoria Newman  
victoria.newman@lexisnexis.co.uk

## Design

Jack Witherden  
jack.witherden@lexisnexis.co.uk

## Advertisement production

John Woffenden  
john.woffenden@lexisnexis.co.uk

## Director of content

Simon Collin  
simon.collin@lexisnexis.co.uk

## IEMA communications coordinator

Katrina Pierce  
k.pierce@iema.net

## Advertising, subscription and back-copy enquiries to

Customer services,  
tel: +44 (0) 845 370 1234  
The 2014 annual rate is £135.

## Printing

Headley Brothers Ltd, Ashford, Kent

## Published by

LexisNexis, Quadrant House, The Quadrant,  
Sutton, Surrey SM2 5AS  
www.lexisnexis.co.uk

© IEMA 2014

LexisNexis aims to provide authoritative and accurate information at all times. Its publications are, however, for guidance only and are not an official information source. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical or otherwise, without the prior written consent of the publisher and editor.

ISSN 14727625



the environmentalist is  
printed by ISO 14001  
certified printers on  
55% recycled paper  
stock and despatched in  
biodegradable polywrap



**LexisNexis®**

## Short cuts

## Cool app for farmers

Heineken, Marks & Spencer, PepsiCo, Tesco and Unilever are among a group of global agri-food businesses promoting a new carbon management app for farmers. The “cool farm tool” helps to assess and improve the environmental and economic performance of farms. Developed by the Cool Farm Institute, the online calculator enables farmers of all types worldwide to understand the carbon footprint of their production systems and adapt their management to improve performance. It has been successfully trialled by a range of farmers, from small cotton and coffee bean growers in India and Kenya to egg and potato producers in the US and the UK. The app was launched at the 2014 Farming Futures conference by Carmel McQuaid, head of sustainable business at Marks & Spencer. She said: “I’m hopeful the app will transform the business of reducing farm emissions from being a burden on farmers and become a valuable decision support tool.” The app is based on an Excel model created by the University of Aberdeen in partnership with Unilever and the Sustainable Food Lab. It can be accessed at [coolfarmtool.org](http://coolfarmtool.org).

## Bats flying high

Bat numbers in Europe soared by more than 40% between 1993 and 2011, according to European Environment Agency. In the most comprehensive study yet of European bat populations, the agency examined 16 of the 45 bat species found across the continent, cataloguing bats hibernating at 6,000 sites in nine countries, including the UK. The number of species at the sites increased by 43 % during the 19-year study. European bat populations declined significantly during the second half of the 20th century, largely due to intensifying agriculture, changes in land use, intentional killing and destruction of roosts. The report notes that environmental or human pressures can cause bat populations to decline rapidly, while recovery is often slow.

## PM lauds cuts to guidance

Plans by Defra to make environmental guidance simpler, quicker and easier for businesses to understand by reducing 100,000 pages of guidance by more than 80% have been cited as the way forward by David Cameron. Speaking to the Federation of Small Businesses (FSB), the prime minister claimed the move would make it vastly easier and cheaper for businesses to meet environmental obligations, potentially saving them £100 million a year.

He also argued that the revisions to guidance by the environment department, which should be completed by March 2015, would reinforce, not remove, protections. “If it is easier for people to find out how they look after wildlife and the environment, they are more likely to do so,” he said.

Paul King, chief executive at the UK Green Building Council, described the removal of 80,000 pages of environmental guidance as “utterly reprehensible”, however. “It is the same poisonous political

rhetoric from Number 10, devaluing environmental regulation in a slash and burn manner,” said King.

In a 2012 report on the first phase of its review of environmental regulation, Defra revealed that there were about 6,000 guidance documents published by the government and its agencies, totalling more than 100,000 pages. It also confirmed that there are around 250 separate data reporting requirements, which force businesses to report similar data at different times and in different formats. The environment department’s plans for “smarter” guidance is part of the wider “red tape challenge”, established by the government in April 2011 to reduce the “burden” of regulation on business.

In his speech to the FSB, Cameron said the government had met its target to find 3,000 regulations to scrap or improve, reporting that 800 regulations had already been abolished or simplified and promising that more will be scrapped or amended.

## Sepa toils over GHG target

New figures reveal that the Scottish Environment Protection Agency (Sepa) is struggling to achieve its 2020 target to reduce greenhouse-gas (GHG) emissions by 42% against a 2006/07 baseline.

Data in the regulator’s latest sustainability report show that, although overall GHG emissions in 2012/13 were 10.1% lower than in the baseline period, total carbon emissions increased by 2.4%. Sepa also reports that it failed to achieve its goal to reduce travel emissions in 2012/13, as they fell by 1.9%, less than half of its 5% target.

“We are still openly and honestly struggling with following our own GHG roadmap and keeping pace with our target of an overall reduction in our emissions of 42% by 2020,” admitted Sepa chief executive James Curran.

The agency says its internal GHG plan predicts that emissions will rise temporarily as it moves from old buildings into new ones. In one such move, a new integrated laboratory and office building in North Lanarkshire replaced two buildings in East Kilbride and a laboratory in Edinburgh.

“The overlap of buildings will likely cause a net rise of emissions for a couple of

years particularly as temporary additional IT server space and cooling is factored in to ensure the continuity of records, day-to-day inspections and sampling workloads,” states the report.

“We recognise that achieving our sustainable goals will not be easy, particularly as we will have to accept increased emissions at times as we adopt new buildings and before we dispose of old buildings,” conceded Curran. Sepa expects its emissions to drop significantly from the end of 2015/16, as it completes the consolidation of its estate.

The Scottish regulator has been more successful in achieving its other environmental targets for 2012/13, covering waste, procurement and biodiversity. Successes include: hitting the target to segregate metals, glass, plastics, paper and cardboard nine months earlier than the Scottish national target (end December 2013); increasing the recycling rate from 69% in 2011/12 to 73% in 2012/13; achieving a 5% increase in the number of sustainable goods and services procured in line with its sustainability criteria; and meeting its interim target to review all biodiversity action plans at local offices.

# Commission omits energy efficiency from 2030 goals

The EU will have to cut greenhouse-gas (GHG) emissions by 40% and source 27% of its energy from renewables, under 2030 targets proposed by the European commission. However, the climate change goals do not include a legally-binding target for energy efficiency.

The suggested targets would replace the bloc's "20-20-20" goals, which require the EU to reduce GHGs by 20% against 1990 levels, source 20% of energy from renewable sources, and improve energy efficiency by 20% by 2020.

The proposed 2030 GHG target, which will have to be met by reductions in domestic EU emissions rather than international offsets, was welcomed as a step in the right direction by the UK's energy secretary. "A 40% GHG target for Europe is a good start ... and will lead to massive investment in low-carbon energy," commented Ed Davey. "Yet Europe must be ready to adopt a 50% target if the rest of the world is prepared to sign an ambitious global climate deal in 2015."

Business leaders gave a similar response, with Paul Polman, chief executive at Unilever, commenting: "A 40% target is a minimum level of ambition if we are to tackle climate change and deliver sustainable growth in the long term."

Nevertheless, EU climate change commissioner Connie Hedegaard hailed the target as ambitious. "In spite of all those arguing that nothing ambitious would come out of the commission, we did it. A 40% emission reduction is the most cost-effective target for the EU and takes account of our global responsibility," she said.

Meanwhile, the commission's decision to reject the 2020 approach of setting member states individual targets for renewable energy generation, preferring instead to adopt a bloc-wide target, was criticised by industry bodies.

"Under this pan-EU approach, we are likely to see a scenario where countries like Germany that take a long-term perspective continue to strongly back their renewables industry into the next decade, while we [the UK] fall even further behind," said Leonie Greene, head of external affairs at the Solar Trade Association. She also argued that the 27% target was too low, and called on the EU council and parliament to negotiate a higher goal. "The target is no more than the commission expects under business-



EU commission president José Manuel Barroso announced the 2030 targets

as-usual. The council and parliament must improve this significantly if it's to have any meaningful effect."

With the EU likely to miss its voluntary energy efficiency target in 2020, MEPs urged the commission in January to introduce a legally-binding 2030 target. The commission's proposals not only omit any such goal, but also fail to outline the level of energy savings it expects the EU to make between 2020 and 2030. Although the commission stated that "no transition towards a competitive, secure and sustainable energy system is possible without energy efficiency", it has postponed setting any policy goals until the Energy Efficiency Directive has been reviewed later this year.

Anne Delvaux MEP, co-rapporteur of the report recommending a legally binding target, said: "Increased energy efficiency should be seen as the cornerstone of the EU's 2030 climate and energy package, and a binding 40% target is the only way to unlock the huge energy savings possible."

Negotiations between the commission, the parliament and member states on the 2030 targets will begin in March.

## Reform of the EU ETS

Legislation to reform the EU emissions trading scheme (ETS) and ensure that the supply of allowances can be automatically adjusted in response to shifts in the market for ETS permits has been drafted by the commission. The change would ensure the ETS is more resilient to shocks and the price of carbon remains high enough to incentivise energy efficiency. If accepted by the EU parliament and council the changes will come into force from the start of the second phase in 2021.

## Short cuts

### Sustainable healthcare

A sustainable development strategy for how organisations in the health and care system can work together to tackle sustainability challenges has been launched. Developed by the Sustainable Development Unit at the NHS, with support from NHS England, Public Health England and the Local Government Association, the strategy aims to reduce the negative impacts of the NHS, public health and social care on the environment. The main focus is on better energy and waste management, with organisations encouraged to adopt alternative energy sources, improve recycling rates and use fewer disposable products. Organisations are also urged to change staff attitudes by encouraging more sustainable behaviour. The strategy is supported by five modules, which focus on: leadership, engagement and development; sustainable clinical and care models; healthy, sustainable and resilient communities; carbon hotspots; and commissioning and procurement. Three further modules will be launched next year. These will focus on technology and research; metrics; and social capital.

### Draft water standard

Consultation has ended on the second draft of ISO 14046, the new standard for water footprinting. ISO 14046 specifies the principles, requirements and guidelines related to evaluating the amount of water used throughout a product, process or organisation's lifecycle. The standard will provide requirements and guidance for calculating and reporting a water footprint as either a standalone assessment, where only the impacts relating to water are considered, or as part of a wider environmental assessment. ISO is expected to publish the standard and its accompanying technical report, which provides example methodologies, at the end of the year. Business standards body BSI advises that organisations should continue to use ISO 14001 to manage water consumption and supply until ISO 14046 becomes available.



## In parliament



## Making community energy work

Well done to Decc for publishing its community energy strategy. It's long overdue. You could, of course, say that the UK has been through an extended period of reduction in community energy. After all, what were the original town gasworks if not a long-lost version of this very concept? Indeed, energy secretary Ed Davey believes we could see a substantial return to a localised energy landscape, with the possibility of schemes involving local communities supplying enough electricity for 1 million homes by 2020.

The strategy also mentions the possible role of communities in the other side of the energy equation – efficiency and demand side reduction – and the role that, local areas can play in developing their own energy-saving programmes.

So there's much to praise about the new strategy, but I can't help thinking that for any sort of community energy strategy to work, there needs to be some joined-up policy. One recent example demonstrates the need for such cohesion. Under the new strategy Decc will have "a programme of engagement with communities and local authorities in the energy companies obligation" (ECO). But wait, haven't we heard that somewhere before? A number of local authorities have been very engaged in ECO, to the extent that they were doing exactly what the strategy says – getting local partnerships together, securing external funds, building local interest, and easing the path for large schemes of community energy efficiency uplift.

Southampton, for example, was about to agree a programme that would have installed cladding on hundreds of hard-to-treat homes. But then the prime minister "reviewed" ECO and up and down the country schemes are being axed.

The net result is some very bruised local communities and authorities. It's great to have a strategy, but it will only be as good as what follows from it.

**Alan Whitehead**, Labour MP for Southampton Test and a member of the House of Commons energy and climate change committee.

## UN warns of land-use crisis

Natural land covering an area 35 times larger than the UK may have to be converted to grow crops by 2050 unless agricultural practices and consumption patterns become more sustainable, warns UNEP in a new report on global land use.

Experts from national governments and the scientific community took part in the study and conclude that growing demand for meat-rich diets, biofuels and fibres will increase need for land for agriculture and growing crops. This "land grab" will have a significant impact on biodiversity and soil quality, says the report, which notes that 23% of the world's soils are already degraded.

"The world has witnessed a sharp decline in terrestrial ecosystems services and functions during the past decades. Forests and wetlands have been converted to agricultural land but at a cost that is not sustainable," said UNEP's Achim Steiner.

The study finds that more than 40% of the world's land is given over to agricultural activities and cropland, and a further 849 million hectares of savannah, grasslands and forests will have been converted to grow food and fuel by 2050 if there is no action to improve land management, restore degraded soils and increase crop yields sustainably.



The recommendations in the report to prevent more land being used to grow food and fuel feedstocks include: ending subsidies for biofuels; taking action to prevent food waste and encouraging vegetarian diets; and improving land monitoring and planning processes to better protect high-value natural habitats.

Taking such actions will help to save 319 million hectares of land from degradation by 2050, according to the report. UNEP calculates that food creation should account for no more than 0.2 hectares per person in 2030 to protect ecosystems. In 2007, the food footprint of an EU citizen was more than 0.3 hectares.

## Fossil fuels still rule in 2035

More than 80% of the world's energy will come from oil, gas and coal in 2035, according to the latest estimates from BP.

In its fourth annual report examining trends in global energy consumption, the oil and gas giant calculates that energy use will increase by 41% over the next 20 years, increasing the amount of energy-related carbon emissions by 29%. The forecast growth in demand for energy is less than previous BP predictions, however, and the firm concludes that better energy efficiency, particularly in developed economies, is helping to counteract the growth in demand from emerging economies such as China.

According to the report, energy consumption in OECD countries will increase just 5% up to 2030 and then begin to fall. Meanwhile, in non-OECD countries demand is predicted to be 69% higher than in 2012. BP also calculates that the increase in energy-related CO<sub>2</sub> will be entirely from developing economies.

While the renewables sector is predicted to be the fastest-growing part of the energy industry up to 2035, it will account only for around 5–7% of global energy generation. Meanwhile, natural gas, oil and coal will each account for 27% of the market.

BP's report came as the UN's top climate change official warned investors not to put money into high-carbon assets. In a speech to financial leaders on climate risk, Christine Figueres, executive secretary of the UN convention on climate change, said: "The pensions, life assurances and nest eggs of billions of ordinary people depend on the long-term security and stability of investment funds. Climate change increasingly poses one of the biggest threats to those investments."

"Companies that act now to minimise exposure will be best positioned to lead and to profit in the coming low-carbon investment landscape."



**"It's all about meeting the needs of our customers. My team are always on hand to provide advice and guidance and make the necessary practical arrangements too."**

Kayley, RRC Customer Services Manager

# NEBOSH and IEMA Environmental Training from RRC

RRC have been developing and delivering first class training for over 80 years and our reputation speaks for itself. Whether you're an individual looking to further your career or an organisation looking to train your staff, you won't find expertise greater than ours. We work hard to make training as easy as possible and we are always thinking of new ways to make our courses effective and enjoyable. Our tutors are highly experienced, friendly and approachable and our dedicated Customer Services team back this up with excellent support.

## RRC Environmental Courses



### IEMA Accredited Courses

- IEMA Introduction to Environmental Management Systems
- IEMA Foundation Certificate in Environmental Management
- IEMA Associate Certificate in Environmental Management
- IEMA Lead Environmental Auditor



### NEBOSH Accredited Courses

- NEBOSH National Certificate in Environmental Management
- NEBOSH Diploma in Environmental Management

Classroom Training – London, Birmingham, Chorley Newcastle, Bahrain, Dubai  
Distance / e-Learning available worldwide

### In company Training

We deliver training at a venue of your choice. Accredited courses available as well as bespoke training to meet the specific needs of your organisation.



RRC Training  
27-37 St George's Road  
London SW19 4DS

Telephone:  
+44 (0)20 8944 3100  
E-mail: [info@rrc.co.uk](mailto:info@rrc.co.uk)



**RRC**  
INTERNATIONAL  
TRAINING & CONSULTANCY  
[www.rrc.co.uk](http://www.rrc.co.uk)



# Shift focus to resource use, say Tory MPs

A group of Conservative MPs has called on the government and businesses to do more to improve resource productivity. The MPs also want to replace gross domestic product as a measure of the economy with a profitability metric, and stop using labour productivity as a proxy for economic efficiency. Instead, they argue that resource productivity ought to be reported more effectively.

The report from the Conservative 2020 productivity and efficiency group, entitled *Sweating our assets*, concludes that future economic success will be won by economies that are resource aware, and driven by improving efficiency and resource productivity. Countries that remain wedded to wasteful economic models and measure success in terms of labour productivity are predicted to struggle.

"Resource productivity would deliver greater economic value and competitiveness," argued Laura Sandys MP, chair of the group. "Normally productivity means focusing on labour

productivity, but this report rebalances the debate from labour productivity to resource productivity." The MPs also say that reducing the resources used in products and generating as much value as possible from increasingly scarce raw materials would cut manufacturing costs and help build a potentially buoyant new remanufacturing sector.

Among their recommendations is updating the 30-year old definition of waste and the regulation of waste. They point out that existing legislation generally requires a substance or object that is no longer required to undergo some form of reprocessing for it to cease to be waste. "More needs to be done to improve regulation around greater utilisation of waste," the report states. It also advises



transferring responsibility for waste from Defra to the business department, arguing that such a move would regard waste as an opportunity not a liability, and ensure resources are viewed as assets with a second and third life.

Banning more materials from landfill is also advocated. The report explains that the £1 billion spent each year on sending plastics, wood, textiles and food to landfill would be saved if a ban was imposed, and a further £2.5 billion of value could be generated by reusing the materials.

## EIA update

**iema**

### Revising the EIA Directive

A compromise text has been agreed and it looks likely that agreement on the revised EIA Directive will be in place by May. MEPs voted on proposed amendments in October 2013, allowing negotiations with member states to begin. The Lithuanian presidency of the EU made agreement on the EIA Directive a key priority of its six-month term and held four informal "trialogues" in November and December, which were supported by several tripartite meetings on technical matters. The European parliament and council reached informal agreement on 18 December, producing a compromise text, which will now be discussed and voted on by the council and the parliament in the next few months. If the text passes these votes, it will amend the Directive, which will then need to be implemented in each member state within three years. So what should we expect for UK EIA practice in 2017? The compromise text is a pared-down version of the original October 2012 proposal by the commission, but still includes many

elements of the original plan. If agreed the revisions will require:

- developers to produce screening reports for annex 2 applications above national thresholds;
- the use of competent experts to undertake EIA; and
- more binding, but non-mandatory, scoping, including coverage of climate change and disaster risk, where a development is likely to be significantly effected.

### Revising schedule 2

In the 2012 autumn statement, the chancellor indicated that the communities and local government department would consult on increasing the thresholds in schedule 2 to reduce the application of EIA in England. While nothing happened in 2013, these plans have not been abandoned; the government's response to an article in the *Daily Telegraph* last month indicates that a consultation is imminent. Changing the thresholds will be no easy task, however. Article 2 of the EIA Directive means the government will need to show

how each threshold has taken account of the relevant criteria from annex 3. If the government wants to avoid legal challenges, its consultation will need to provide substantial explanation to justify the proposed changes.

### EIA roundup

- IEMA is assisting the Scottish government in delivering more efficient and effective environmental, community and economic appraisals across its planning system.
- The European Bank of Reconstruction and Development has released its revised environmental and social policy for comment ([lexisurl.com/iema17401](http://lexisurl.com/iema17401)). The consultation ends on 5 March. A meeting in London on 25 February is one of a series being held to discuss the revised policy.
- IEMA supported the first major conference held by the Hong Kong Institute of EIA in 10 years. The focus was on shaping the future of EIA, and IEMA policy lead on impact assessment Josh Fothergill gave a keynote speech (see p.35).



# 'Carrot' dangled to fire shale revolution

Local authorities will be able to retain all of the business rates they collect from shale gas sites, under new government proposals to support the development of onshore oil and gas exploration.

Currently, councils can keep only 50% of business rates. The government claims that doubling the amount authorities hosting shale gas operations can retain in business rates could be worth up to £1.7 million a year to them per site.

The onshore oil and gas industry has also agreed to re-examine how to share the money it has pledged to give local communities – £100,000 per test well and 1% of revenues if shale gas is extracted, which could be worth up to £10 million over the lifetime of a site.

In a further move to support the industry, whose activities (particularly hydraulic fracturing or "fracking") have been widely criticised, the communities and local government department has said it intends to take forward proposals to reform the notification requirements

for planning applications for underground oil and gas operations.

These will remove the requirement to serve notice on owners of land where underground operations may take place. In its response to the consultation on planning permission for shale gas operations, the department argues that, because extraction takes place over a significant underground area and involves multiple landowners and/or agricultural tenancies, it would be impractical to notify individual owners and tenants.

The Environment Agency has already streamlined the regulation of exploration activity, including developing a single application form for permits, and the government has now announced that the regulator aims to reduce permitting times for low-risk activities from 13 weeks to approximately two weeks.



A shale gas site could generate £1.7m annually for a host authority

Meanwhile, Cuadrilla, the first company to explore reserves of shale gas in the UK, has withdrawn applications for permits to frack in Lancashire. The move came after the agency said it would not grant radioactive substances licences until it was sure the wastewater from such activities – which will contain low levels of naturally-occurring radiation – will be disposed of safely. A spokesperson for Cuadrilla confirmed the company was preparing new permit applications with the necessary information.

From [environmentalisonline.com](http://environmentalisonline.com)...

## 14001 ballot

ISO member countries have voted in favour of moving the latest version of the revised ISO 14001 text to draft international standard (DIS). A second committee draft (CD2) of the environment management systems standard was published in October 2013 and ISO countries had until 23 January to vote on whether it should become a DIS. ISO has now confirmed that the national groups have agreed to take CD2 to the next stage. After meetings on 16 December and 9 January, the UK's national working group confirmed it had backed CD2 becoming a DIS. It also proposed a new definition of "risk" to clarify that – within the context of 14001 – risks have a negative consequence. The ISO working group revising 14001 will discuss the UK's proposed definition and comments from other national groups at its next meeting which takes place between 25 February and 1 March.

[environmentalisonline.com/14001vote](http://environmentalisonline.com/14001vote)

## Green HGVs

Converting heavy commercial vehicles to run partly on natural gas could cut the amount of CO<sub>2</sub> they generate by up to 25%, according to logistics firm Brit European. The company, which delivers new cars, is halfway through a two-year government-backed pilot involving the conversion of 36 vehicle transporters to burn both diesel and natural gas. The technology enables heavy goods vehicles (HGVs) to replace up to 55% of the diesel used to drive the engine with compressed natural gas (CNG), switching back to burning pure diesel mode if the vehicle runs out of CNG. According to Brit European, the results from the first year of the pilot suggest that companies could cut fuel costs by 10% and carbon emissions by as much as one-quarter. The firm has also revealed that, with its fleet of 36 dual-fuel HGVs travelling around 60,000 miles a week, it expects to achieve payback on the £30,000 conversion in two years.

[environmentalisonline.com/HGV](http://environmentalisonline.com/HGV)

## CCC is 'vital'

The independent expert advice provided by the committee on climate change (CCC) plays a key role in ensuring the credibility of the UK's climate change policies and will continue to do so, Decc has confirmed. In its first review of the CCC, Decc asked for feedback from government departments, regulators, parliamentary committees and independent environment groups on how the committee was performing, and concluded it should remain in place. "The CCC has the necessary expertise to provide the detailed analysis and advice required to ensure that government sets and maintains appropriate targets and is held accountable," states the review. According to Decc, there was "a strong feeling from all departments that the functions of the CCC remain relevant", and that the body was perceived as a "highly credible, transparent broker of climate and energy-related information".

[environmentalisonline.com/CCC](http://environmentalisonline.com/CCC)

Visit [environmentalisonline.com](http://environmentalisonline.com) for daily news updates

University of  
Hertfordshire

# Advance>>> your career in Environmental Management.

Postgraduate study in the Department of Human and Environmental Sciences at the University of Hertfordshire

- MSc Environmental Management
- MSc Environmental Management for Agriculture
- MSc Environmental Management for Business
- MSc Water and Environmental Management

Flexible part-time study with:

- 2-3 days short courses in Hatfield followed by distance learning
- Tailor made modules designed to fit around your busy workload and suit your organisation's needs

Full time tuition and short courses also available

To find out more about our courses visit [go.herts.ac.uk/envi](http://go.herts.ac.uk/envi)

or e-mail us at [Admissionsenvman@herts.ac.uk](mailto:Admissionsenvman@herts.ac.uk)



Accredited by IEMA for Associate membership and CIWEM for graduate membership

GA13913/12\_13

## What's on offer..?

Valuable editorial coverage through reprints

- A tailor-made copy of your article or advertisement alone, with your company logo, or even as part of a special brochure
- An e-print to instantly place on your website
- Customised reprints or e-prints of your editorial coverage in *Health and Safety at Work* and *The Environmentalist* can be used for a whole range of promotional opportunities, including:
  - Sales literature;
  - Exhibitions and conferences;
  - Product launches;
  - Shareholder reinforcement;
  - Targeted direct mail;
  - External and internal PR;
  - Distributor support

Please contact **Jodie Fletcher** for more information, tel: **020 8212 1989**, email: [jodie.fletcher@lexisnexis.co.uk](mailto:jodie.fletcher@lexisnexis.co.uk)



Create an impression with LexisNexis reprints

## Read the latest news daily at [environmentalisonline.com](http://environmentalisonline.com)



### ONLINE OFFERS

As an IEMA member you can access:

- daily news updates
- *the environmentalist* blog
- searchable archive of *the environmentalist* articles
- links to the latest consultations
- details of new regulations
- links to upcoming events
- daily updates of the latest jobs

Accessible anytime, anywhere, you need never be without the UK's leading environment management magazine

**the environmentalist**



[www.environmentalisonline.com](http://www.environmentalisonline.com)

**iema**  
Institute of Environmental  
Management & Assessment



## Recent prosecutions

### Scottish Water fined for 'avoidable' acid spill

Alloa Sheriff Court has fined Scottish Water £10,000 for two water pollution offences caused by poor maintenance and monitoring procedures, one of which saw thousands of litres of sulphuric acid escape a tank and pollute the River Devon.

On 4 July 2011, after complaints from the public about pollution in the river, an officer from the Scottish Environment Protection Agency (Sepa) visited the Glendevon water treatment plant in Clackmannanshire and found workers tackling a serious pollution incident. It was later established that between 10,000 and 12,000 litres of 96% concentrated sulphuric acid had escaped from a tank via secondary pipework. Some of the acid had entered the river, polluting the waterway for 6km and killing fish, molluscs and shrimps. The incident was classified as a Category 1 major pollution incident by Sepa and local councils issued warnings against swimming or fishing in the river, which were not lifted until 19 August.

A Sepa investigation revealed that Scottish Water had failed to properly maintain the tank containing the acid and that no chemical spill kits were available onsite. "Had the tank been maintained in accordance with the manufacturer's recommendations, and appropriate materials used, it is likely that the incident would not have occurred," confirmed Calum Waddell, Sepa's reporting officer.

In a separate incident on 1 August 2011, a poorly maintained alarm system at the St Serfs sewage pumping station failed to alert staff that sewage levels were too high. As a result, sewage backed up and escaped into the Goudnie Burn, polluting a 750m stretch of the waterway. The court heard that a vital cable in the alarm had broken in March 2011 and had not been replaced. "Both these incidents were, sadly, entirely avoidable," said Sara Shaw prosecuting. "If proper safeguards and an effective system for checking and maintaining Scottish Water plant had been in place, both of these incidents could have been prevented."

### Agency agrees biggest civil penalty

Cosmetics retailer GR & MM Blackledge has paid £191,100 to Lancashire Wildlife Trust in the largest civil sanction payment agreed so far with the Environment Agency. The firm proposed the record donation as part of an enforcement undertaking after being found in breach of the Producer Responsibility Obligations (Packaging Waste) Regulations 2007.

Enforcement undertakings (EUs) are an alternative to criminal prosecution for some environment offences, and are formal offers to make amends for the offence and any resulting impact on the environment. The regulator has published the details of the 17 EUs it agreed with companies between 1 May and 31 October 2013, revealing that they raised more than £460,000 in civil sanction donations to wildlife charities in reparation for environment offences. Eleven of the 17 EUs, were accepted for breaches of producer responsibility rules for packaging, while two related to the international shipment of waste and two were for water pollution offences.

### Sellafield appeal against fine fails

The court of appeal has rejected Sellafield Limited's claim that the £700,000 fine it received for sending radioactive waste to landfill was "manifestly excessive". The judges dismissed the firm's appeal, arguing that the fine imposed by Carlisle crown court accurately reflected the company's culpability and turnover.

In June 2013, Judge Peter Hughes QC fined the firm £100,000 for each of seven environment and safety offences relating to an incident in April 2010 when four bags of low-level radioactive waste were mistakenly sent to the Lillyhall landfill site in Workington, Cumbria.

Sellafield argued that the fine was excessive because there had been no actual harm and a very low risk of harm. However, the court of appeal agreed with the crown court ruling, which found that the incident indicated "basic management failures". The judges also argued that the level of fine in such circumstances should not simply reflect the level of harm, but also a company's turnover to provide "a real incentive to the directors and shareholders to remedy the failures" (see right).

## Case law

### Court of appeal goes back to basics on sentencing

On 17 January, the court of appeal rejected Sellafield Limited's claim that the £700,000 fine imposed by Carlisle crown court for a series of environment and safety offences related to sending radioactive waste to landfill was "manifestly excessive" (see below left). The court's decision that a £100,000 fine was appropriate for a single environmental offence seemingly undermines the forthcoming sentencing guideline on environment offences. In rejecting the company's appeal, the judges used the sentencing principles set out in the Criminal Justice Act 2003. They stated that the fine must take account of the financial circumstances of the offender and the seriousness of the offence. The court of appeal acknowledged that the incident had resulted in no harm, and the risk of any harm occurring had been "very low". However, the judges concluded that the fine was appropriate when taking into account the company's turnover, profitability and the "message" that needed to be brought home to the directors and shareholders. A new guideline, due to be published by the sentencing council, outlines a tariff-based approach for environment offences, with the maximum fine dictated by the harm caused, the offender's culpability and turnover. If the court of appeal had applied the guideline to Sellafield Ltd's case, the firm would have been fined a maximum £13,000–£25,000 per offence. The decision seems to drive a coach and horses through the fine tariffs that the guideline proposes even before it comes into effect.

*Simon Colvin*

Weightmans

Read this article in full at [environmentalistonline.com/Sellafield](http://environmentalistonline.com/Sellafield)



## New Regulations




In force	Subject	Details
13 Dec 2013 	Energy	The Renewable Heat Incentive Scheme (Amendment) (No 3) Regulations 2013 amend the 2011 Regulations. Changes include the circumstances for calculating the initial tariff payable under reg 37A, and the testing of emissions of NOx and particulate matter. <a href="http://lexisurl.com/iema17255">lexisurl.com/iema17255</a>
18 Dec 2013 	Planning	The Infrastructure Planning (Business or Commercial Projects) Regulations 2013 put in place section 26 of the Growth and Infrastructure Act 2013, which amended part 4 of the Planning Act 2008. The Regulations enable certain business or commercial projects to be authorised under the planning regime that currently applies to nationally significant infrastructure projects. <a href="http://lexisurl.com/iema17254">lexisurl.com/iema17254</a>
20 Dec 2013 	Built environment	The Energy Efficiency (Eligible Buildings) Regulations 2013 transpose art 5 of the Energy Efficiency Directive 2012/27/EU. Reg 3 sets an energy savings target of 163.6 GWh to be achieved in eligible buildings owned and occupied by central government; reg 4 places a duty on the competent authorities to encourage public bodies to adopt energy efficiency plans; and reg 5 requires the relevant secretary of state to examine the operation and effect of the Regulations and publish a report by 14 January 2019. <a href="http://lexisurl.com/iema17257">lexisurl.com/iema17257</a>
1 Jan 2014 	Waste	The Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulations (Northern Ireland) 2012 amend the 2007 Regulations, including setting new waste packaging recovery and recycling targets for the years 2012–2017 and a new set of targets for recycling waste glass packaging by re-melt for the same period. <a href="http://lexisurl.com/iema14144">lexisurl.com/iema14144</a>
13 Jan 2014 	Planning	The Town and Country Planning (Development Management Procedure and Section 62A Applications) (England) (Amendment No 2) Order 2013 amends the 2010 Order and relates to planning permission for onshore oil or natural gas operations (including exploratory drilling). <a href="http://lexisurl.com/iema17253">lexisurl.com/iema17253</a>
21 Jan 2014 	Waste	The Landfill Tax (Scotland) Act 2014 has received royal assent, paving the way for the introduction in 2015 of a devolved replacement for the UK landfill tax system. The new tax will be collected by the Scottish Environment Protection Agency from April 2015. <a href="http://lexisurl.com/iema17345">lexisurl.com/iema17345</a>
27 Jan 2014 	Ecodesign	European commission Regulation 4/2014 amends Regulation 640/2009 implementing the Ecodesign Directive 2005/32/EC (recast as 2009/125/EC) with regard to eco-design requirements for electric motors. The changes apply from July 2014. <a href="http://lexisurl.com/iema17264">lexisurl.com/iema17264</a>
29 Jan 2014 	Hazardous substances	The European commission has amended annex IV of the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (2011/65/EU (RoHS)). The commission has issued 16 delegated directives – 2014/1/EU to 2014/16/EU – mainly related to the exemption for lead in specific medical equipment. <a href="http://lexisurl.com/iema17263">lexisurl.com/iema17263</a>
31 Jan 2014 	Environment protection	The Environmental Protection (Restriction on Use of Lead Shot) (Scotland) Amendment Regulations 2013 amend the 2004 Regulations to create an exemption in respect of the clay target event at the Commonwealth Games 2014. <a href="http://lexisurl.com/iema17116">lexisurl.com/iema17116</a>
1 Feb 2014 	Energy	The CRC Energy Efficiency Scheme (Allocation of Allowances for Payment) Regulations 2013 revoke and replace the 2012 Regulations. The 2013 Regulations provide the Environment Agency with the power to allocate allowances and to charge fees to cover the costs of allocating allowances. They also set the timing of requests for allowances and govern the payment for and issue of allowances, including setting the price of allowances and outlining the consequences of late or non-payment and the consequences of a transfer of excess allowances. <a href="http://lexisurl.com/iema17114">lexisurl.com/iema17114</a>

To find new regulations by jurisdiction visit [environmentalisonline.com/search](http://environmentalisonline.com/search) and enter your search criteria

# Latest consultations



27 Feb 2014  
**HS2**



 The environmental statement for the route of the first phase of HS2 has been published by the transport department. The statement includes the likely significant environmental impacts along the high-speed rail route and the mitigation measures needed to manage and reduce these. Stakeholders are invited to comment on the statement, which was finalised after a consultation held between May and July 2013.  
[lexisul.com/17355](http://lexisul.com/17355)

27 Feb 2014  
**Opencast mining**

 The Scottish government is consulting on more effective regulation to secure the restoration of existing surface (opencast) coal mines and of future sites, including extensions. It follows a report from the taskforce on Scottish opencast mines, which highlighted concerns from those regulating such sites (including planning authorities and Sepa) and groups sensitive to the environmental impacts of opencast mines. The consultation also links with Scotland's third national planning framework (NPF3), which is due to be published in June 2014 and will set out the Scottish government's strategic development priorities over the

next 20–30 years. The government is considering how the NPF3 action programme can reflect the environmental prerequisites of restoring opencast coal mines.  
[lexisurl.com/iema17127](http://lexisurl.com/iema17127)

28 Mar 2014  
**Water abstraction**


  Proposals to change the water abstraction regime in England and Wales have been put out to consultation by Defra and the Welsh government. They say the reforms are designed to make the system more flexible and resilient to future pressures, as well as build on actions being taken to tackle unsustainable abstraction.  
[lexisurl.com/iema17353](http://lexisurl.com/iema17353)

2 Apr 2014  
**Marine environment**


 The EU Marine Strategy Framework Directive (2008/56/EC) – brought into UK law by the Marine Strategy Regulations 2010 – requires member states to ensure their marine environments are of “good” status by 2020. Defra is seeking views on the ways in which the marine environment around the UK is monitored. The consultation covers proposals for monitoring each of the 11 indicators outlined in the Directive, which include: commercially exploited

fish and shellfish; human-induced eutrophication; and marine litter.  
[lexisurl.com/iema17350](http://lexisurl.com/iema17350)

11 Apr 2014  
**Clinical waste – standard rules**

 The Environment Agency is consulting on its new standard-rules permit for small clinical waste treatment units and associated risk assessments. Such permits contain just one condition, which refers to a fixed set (or sets) of standard rules with which an operator must comply.  
[lexisurl.com/iema17357](http://lexisurl.com/iema17357)

16 Apr 2014  
**Energy efficiency**

 Proposals to transpose art 14(5)–(8) of the Energy Efficiency Directive (2012/27/EU) in Scotland by amending the Pollution Prevention and Control (Scotland) Regulations 2012 are out for consultation. The overall objective of art 14 is to encourage the identification of the potential for delivering cost-effective energy efficiency through: cogeneration (combined heat and power); efficient district heating and cooling; and the recovery of industrial waste heat; or, when these are not cost-effective, through other efficient heating and cooling supply options.  
[lexisurl.com/iema17356](http://lexisurl.com/iema17356)

## New guidance

### CRC auditing

The carbon reduction commitment energy efficiency (CRC) scheme, which started in April 2010, requires participants to keep records in their evidence pack to support the information they have provided during registration and in complying with the CRC reporting obligations. The Environment Agency has issued three updated guides on preparing for a CRC compliance audit. These are: *Compliance audit best practice guide* ([lexisurl.com/iema14404](http://lexisurl.com/iema14404)); *Preparing for the compliance audit* ([lexisurl.com/iema14405](http://lexisurl.com/iema14405)); and *Compliance audit need-to-know guide* ([lexisurl.com/iema14406](http://lexisurl.com/iema14406)).

### Low-carbon heating

New guidance for local authorities on accessing the finance available under the heat networks funding stream has been published by Decc ([lexisurl.com/iema16998](http://lexisurl.com/iema16998)). The £6 million fund is designed to support local authorities in identifying, evaluating and in developing new heating and cooling networks and the expansion of existing heating and cooling networks in England and Wales. The guide outlines the activities and services that the finance stream will, and will not, support. It also sets out the criteria for funding, the bidding process and how Decc's heat network delivery unit will assess bids.

### Waste

The Environment Agency has launched edoc ([edoconline.co.uk](http://edoconline.co.uk)), a new online system allowing organisations to create, send and store waste transfer notes electronically. To help firms use the new system the website includes a range of guidance, such as: videos on how to register and use the site; a step-by-step implementation plan; a list of frequently asked questions; and a test site so users can try out tasks, such as creating electronic waste transfer notes, before registering.



## Laying down the law

### A new industry caught by WEEE

**Ross Fairley** describes the recent changes to the producer responsibility regime to cover companies in the solar sector



**T**he solar sector in the UK is growing, with the small-scale feed-in tariff (FIT) and support from the Renewables Obligation driving considerable expansion over the past few years. Almost 1.7GW of solar capacity has been installed in the UK under the FIT scheme, and the government's solar roadmap forecasts that around 10GW will be deployed by 2020.

The growth of the UK solar industry has seen many new companies established and more developers are gaining consent and constructing solar energy projects to tight deadlines. The UK has also seen an influx of overseas businesses setting up operations.

Activity in the UK's solar sector has been frenetic and it is understandable that not all companies will have looked up from their day-to-day development work to focus on whether there are any new and emerging EU rules and regulations that affect their business. One such example is the producer responsibility regime for the safe disposal of waste electrical and electronic equipment (WEEE), which has recently been amended and now covers solar photovoltaic (PV) panels.

#### New WEEE Regulations

The Waste Electrical and Electronic Equipment Regulations 2013 (the 2013 Regulations) came into force on 1 January 2014 and implement the recast WEEE Directive (2012/19/EU). The original WEEE Directive (2002/96/EC), published in 2002, covered a range of electrical and electronic equipment (EEE) used by consumers and businesses, and was implemented by the WEEE Regulations 2006. These regulations placed responsibility on EEE producers to fund the management of WEEE that arises from products placed on the UK market.

The 2013 Regulations extend the 10 original WEEE categories to cover a wider range of EEE, which now includes solar PV panels. Although some EEE is not caught by the new regulations until 1 January 2019, PV panel producers and distributors must comply with its requirements from 1 January 2014. Solar development businesses can be forgiven for thinking that they are not automatically a "producer" of EEE. However, the 2013 Regulations reiterate that, for the purposes of compliance, a producer refers to those that:

- manufacture EEE;
- import EEE into an EU member state (either for sale or installation); and
- relabel EEE to place it on the European market under their own brand.

The definition of producer is sufficiently broad that businesses importing PV panels for installation on large-scale commercial and renewable developments are likely to be caught.

#### Impact on PV supply chain

All producers of EEE are legally required to register with an approved producer compliance scheme (PCS), an industry-managed take-back and recycling initiative. Through registration with a PCS, producers finance the cost of collection, treatment, recycling and disposal of both their own EEE placed on the UK market and any WEEE that their products replace.

Producers must inform the PCS provider of the amount of EEE they place on to the UK market in the "business-to-consumer" and/or "business-to-business" categories in each compliance year. A minimum threshold has been introduced in the 2013 Regulations. It means that producers who place less than five tonnes of EEE on to the market in a year can meet their obligations by registering with the relevant environment regulator, and are not required to join a PCS for the next compliance year.

The new regime also allows producers and non-household EEE users to enter into

agreements for the treatment of WEEE using alternative financing methods, such as collecting and treating unwanted electrical equipment when new equipment is installed.

The anticipated lifespan of PV panels used in new projects is 25–30 years. The financing of safe disposal may, therefore, not be a significant concern for the solar industry for some time. However, compliance with the regulatory scheme is required now and new companies, many of which may be thinking of participating in public authority procurement programmes, should be careful not to find themselves blacklisted as a result of non-compliance. Companies and their officers also need to be wary of the criminal penalties of breaching the Regulations.

#### What producers need to know

From 1 January 2014, all manufacturers and importers of photovoltaic (PV) panels as well as firms rebranding PV panels for installation or sale must:

- ensure that PV panels are marked with the waste electrical and electronic equipment (WEEE) symbol (a crossed-out wheeled bin);
- keep records for at least four years of the amount of electrical and electronic equipment (EEE) placed on the UK market, broken down by categories listed under the regime;
- sign up to an approved producer compliance scheme; and
- provide customers with information as to the treatment and disposal arrangements they provide for EEE once it reaches its end of life.



#### Getting help

The Environment Agency has published guidance on when EEE is considered waste and the controls that apply ([lexisurl.com/17379](http://lexisurl.com/17379)), and how producers, importers and rebranders can comply with the Waste Electrical and Electronic Equipment Regulations 2013 ([lexisurl.com/17380](http://lexisurl.com/17380)).

**Ross Fairley** is a partner in the award-winning energy and environment team at Burges Salmon. Contact him on +44 (0)117 902 6351 or at [ross.fairley@burges-salmon.com](mailto:ross.fairley@burges-salmon.com).



# Connecting all the dots



## Paul Suff finds out what sustainability means to environment practitioners and how they are working to embed the concept

**S**ustainability seems to be everywhere. More and more companies are developing sustainability strategies, establishing sustainability departments and publishing sustainability reports. Consumer goods business Unilever, for example, has its sustainable living plan, a sustainable business team led by the firm's chief sustainability officer, and produces regular sustainability progress reports.

For companies like Unilever, sustainability activities centre on the classic "triple bottom line" of "profit, people, planet", which was first outlined in 1994 by John Elkington, founder of the consultancy SustainAbility. The three "Ps" are now commonly referred to as the three "Es", "economic, environment and social equity". In Unilever's case, for example, sustainability is about improving health and wellbeing, reducing environmental impacts across the whole value chain and enhancing livelihoods.

Sustainability has its roots in ecology and a growing number of environment professionals are playing a key role in helping to make businesses more sustainable. Others, however, are unsure how, or to what extent, environment practitioners should be involved in the non-environmental elements of the sustainability agenda. Some are perhaps fearful that any shift away from their core discipline will downgrade their status, as sustainability is often seen as less about science and more about public relations. Some may be reluctant to embrace new skill sets, having spent years honing their environmental knowledge and gaining recognition for their technical expertise. To better understand the role that environment professionals are actually playing in the wider sustainability agenda, *the environmentalist* spoke to some prominent practitioners.

### What's in a definition?


The starting point for most environmentalists when describing their view of sustainability is the 1987 Brundtland definition, which states that sustainable development is meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.

For example, **Kirsten Holman**, environment manager at Parsons Brinckerhoff UK, says that to her sustainability is about "living within our means/ resources without causing detriment to the world we live in, and without compromising future generations ability to do the same." **Bekir Andrews**, group sustainability manager at Balfour Beatty, offers a similar view: "To me, sustainability is about conducting your business responsibly and transparently, while minimising your negative impact on the environment and maximising your positive impact on society."

**Andrews** believes the Brundtland definition should be seen as a guide to help businesses develop their own interpretation of sustainability. "It is really up to each organisation to interpret these guiding principles and apply them to their own business," he says. **Andrews**, who started his working life in environmental biochemistry and now considers himself a sustainability practitioner, explains that the definition of sustainability applied at Balfour Beatty is based on the classical three pillars of economy, society and the environment, and are referred to as "profitable markets", "healthy communities" and "environmental limits".

"Sustainability touches every aspect of our company. It affects our behaviour, impacts our costs, creates new business opportunities, sharpens our competitive edge and helps us contribute to our customers' long-term profitability," says **Andrews**.





# Environment

At travel company Thomas Cook, activities to make the business more sustainable centre around four key pillars – the environment, people, communities and the “marketplace”, described by the firm as all of its interactions with stakeholders, from customers to suppliers. “The four pillars interlink with our aims to deliver for our customers; increase trust in our brand; create value; and reduce risk,” says **Victoria Barlow**, group environmental manager at Thomas Cook.

Meanwhile, Dŵr Cymru (Welsh Water) has outlined a 25-year strategy (to 2035) to improve drinking water quality, customer service and environmental protection, while charging customers less than equivalent UK water companies. Its “sustainable future” plan has eight dimensions, including “safeguarding the environment”, aspiring to be an “employer of choice”, and delivering cost-beneficial investment programmes, which the company categorises as “looking after our assets”.

Director of environment **Tony Harrington** says that he sees sustainability through the classic Venn diagram (see right), explaining that for a project to be really successful it needs to hit the “sweet spot” in the middle, where the economic, environment and social “circles” overlap. “Those that don’t are either suboptimal, or store up issues for the future,” he says.

**Ian Hill**, chief sustainability officer at Openreach, BT’s access network, reports that the communications giant regards sustainability as an integral part of the company’s broader strategy to create a better business with a better future. “In environment terms, it’s very much about helping others reduce their impacts. BT’s end-to-end carbon impact is roughly equal to the emissions our products help customers avoid. But we want to change that ratio and help customers avoid three times our carbon impact,” he says. This goal links with the other key aspects of BT’s sustainability strategy, which seeks to improve lives globally and to connect society through its products and services.

Like BT, retailer Marks & Spencer has a high-profile sustainability plan. Sustainability and reporting manager **Rowland Hill** has spent more than 30 years at M&S, and has seen firsthand how sustainability has developed, helping to set up the function now responsible for the retailer’s Plan A strategy. He says there has been a noticeable change in the focus of sustainability activities over the past five years. “When we launched Plan A in 2007, the balance was about 70% environment and 30% social. That balance has now swung the other way. Social aspects, like employment and skills, are now more to the fore,” he explains.

This change is noticeable in the 2010 version of Plan A, which increased the original 100 commitments

set out in 2007 to 180. In the first iteration of Plan A, 67 of the commitments focused on climate, waste and raw materials, whereas more than half (93) of the 180 commitments made in 2010 are outside of these environment-based pillars. Nineteen focus on health and wellbeing and 21 on being a “fair partner” to employees and suppliers, while 13 relate to customers. Although some of the commitments in these categories have an environmental aspect, such as building “greener” stores, they are not specifically labelled as such, reflecting a shifting emphasis.

“The recession has pushed the short-term needs of society to the fore, rather long-term environmental challenges,” says **Hill**. Nonetheless, he reports that M&S is mindful of the need to retain its focus on the environment. “It’s our future, so we can’t ignore it, even if it’s no longer as high on the radar of politicians and the general public,” he explains.

**Mandy Gloyer** is stakeholder and planning policy manager at ScottishPower Renewables (SPR). ScottishPower is part of Spanish energy business Iberdrola and **Gloyer** says the parent company’s sustainability strategy embraces economic, environmental and social dimensions. According to the firm’s 2012 sustainability report: “Iberdrola has focused on sustainability in its broadest sense, continuously seeking equilibrium among its financial results, its environmental performance and its commitment to the people it serves and to the countries and societies in which it is present.”

Iberdrola’s 2012 sustainability scorecard covers 81 measures of economic, environmental and social performance. Of these, 54 are economic or social. “These sustainability indicators apply at every level of the business,” says **Gloyer**.

## Playing their part

There is a general consensus among our panel that environment professionals can play a significant role in assisting businesses to achieve their sustainability ambitions, though the extent of their involvement varies and there is concern that some practitioners do not have the right skills to help deliver the necessary change.

Independent environment consultant **Marek Bidwell** explains that he works across a number of sectors, from manufacturing to electricity distribution and rail. While he is confident to engage clients on sustainability issues, he says that some environment professionals are focused only on environmental compliance issues.

“I generally have the most interesting discussions about sustainability with the directors of those organisations, because they are in control of the



business plans that shape their products and services,” says **Bidwell**. “For me, it is vital that I understand sustainability, in addition to environmental compliance, or I couldn’t have these conversations.”

**Bidwell** believes it is important that where environment and sustainability are two separate functions, they work closely together. “The sustainability people should aim to add value by identifying new ‘greener’ opportunities and ways of doing business, while the environment people manage and minimise environmental risk,” he says. “The worst case scenario is that the sustainability people see those focused on environment management systems [EMS] as ‘compliance luddites’, and the EMS people see sustainability as all fluff and ‘style over substance’.”

**Holman** at Parsons Brinckerhoff provides a good example of how the two functions can operate together successfully. **Holman** is responsible for environment management across the firm’s UK operations and is a member of the health, safety, environment and quality team, which is separate from the sustainability function. “The sustainability team is a mix of client-facing and corporate staff. I work very closely with them, and we rely on each other for help when necessary,” she explains.

**Holman** reveals that, while the functions have separate goals and targets, their work often crosses over, particularly when it comes to behaviour-change programmes and initiatives that focus on energy, water and waste. **Holman** also highlights the important role she plays in supporting the economic and social pillars of sustainability at Parsons Brinckerhoff. “Maintaining our certification to ISO 14001 is critical to winning new work and keeping existing clients,” she says, adding that her work to improve environmental performance and reporting also brings financial benefits by helping to boost efficiency and cut costs.

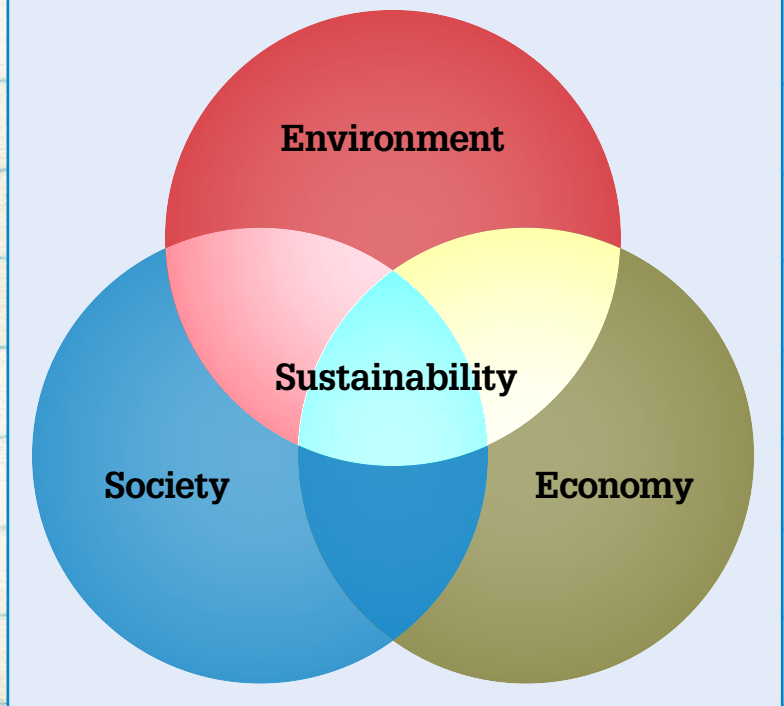
**Holman’s** role has a social dimension too, through her involvement in supporting offices’ individual environmental action plans, which can include improving local biodiversity and habitats through volunteering initiatives, for example.

Parsons Brinckerhoff is part of Balfour Beatty, and **Andrews** confirms the structure of separate environment and sustainability functions outlined by **Holman** is common across most of the firm’s businesses. He also confirms that they tend to work very closely with one another.

**Barlow** at Thomas Cook is part of the sustainability team but, like her peers in organisations with separate functions, she also works with non-environmentalists on various initiatives. One example is the firm’s work to effectively manage water. A priority for Thomas Cook is to encourage its accommodation suppliers to better consider and reduce water consumption.

“Water management is primarily an environmental issue, but it has a knock-on effect on economic and social impacts,” says **Barlow**. “My role is about working with the sustainable destination manager and overseas teams to engage hotels and local communities on the importance of reducing water use. It’s about providing technical information.”

## Classic definition of sustainability

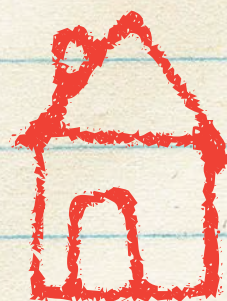


Likewise, the sustainability team at M&S acts like an internal consultancy. “A lot of the team are skilled project managers,” says **Rowland Hill**. “They take a project, whether it is environment or employment based, for example, and work with people throughout the business to deliver it.”

The policy and innovation team at SPR includes policy specialists, two community liaison officers and three ecologists and is part of the firm’s policy and innovation function. **Gloyer** explains that the team works on onshore and offshore wind, wave and tidal projects, with a focus on developing community and



# Society



stakeholder relationships. “SPR policy is to develop and operate sites for the lifecycle of the plans (around 25 years for a wind turbine), so we have to work with local people right from the start, when designing the project,” she says. **Gloyer** says the ecologists, who are concerned mainly with habitats, work very closely with project teams, both onshore and offshore.

## Knowledge sharing

Aside from being a source of technical knowledge, environment practitioners typically have skills that can benefit other elements of the sustainability agenda. **Andrews** identifies compliance and EMS auditing as one such area of expertise. He explains that part of his role at Balfour Beatty is to monitor, audit and report on the progress of the sustainability strategy. “Auditing skills are quite easily transferable, if you have the right level of expertise and the necessary subject matter knowledge. Balfour Beatty, for instance, uses its internal auditors who are experienced at auditing financial data to also audit its non-financial sustainability data.”

There is concern that some environment professionals lack the ability or are reluctant to see outside their technical specialism, which makes it difficult for them to take a lead role on sustainability. “There’s a tendency for environmentalists to specialise in waste or water or whatever, whereas a sustainability person is essentially a Jack-of-all-trades. Specialists tend to lack context, so they’re unable to see the bigger picture, something that is crucial in sustainability,” comments **Jae Mather**, director of sustainability at the Carbon Free Group (see also p.39). He believes that the ability to take a broader perspective on an issue is the next stage of the evolution of the profession.

**Rowland Hill** at M&S says that it is essential that members of the retailer’s sustainability function can see the bigger picture and how to measure the impact on the business of water scarcity, for example.

**Harrington** at Dŵr Cymru believes the profession is generally now much less “monochromatic” in its approach to issues than in the past. “The profession has evolved and many practitioners are now able to take a more holistic view, rather than just focus on say the environment,” he says.

**Harrington** is concerned, however, that too many environment graduates still lack the right combination of skills to make them really effective in the broader roles that industry has to offer. “Leadership and the ability to build relationships do not really feature

in many science degrees. There is no shortage of graduates with good technical knowledge, but to apply this knowledge effectively and drive change they need to have strong people and leadership skills too.”

**Harrington** reports that Dŵr Cymru puts graduate job applicants through a one-day assessment centre, which includes psychometric tests that focus on leadership skills, aptitudes and behaviours, to ensure they recruit candidates with both strong technical and leadership skill sets.

According to **Andrews**, some environmentalists find it difficult to quantify the benefits of a particular project. “They are good at identifying the issues, but poor at developing the business case,” he argues. **Andrews** says he has benefited from working closely with business development managers. “Typically, they consult widely and consider all potential eventualities before bringing an initiative forward.”

**Ian Hill** at BT advises practitioners to expand their business knowledge and learn how they might apply the skills they already possess to different agendas.

**Andrews** urges environmentalists to engage in continuing professional development (CPD). “I keep my CPD up to date by attending and organising events that are of interest to me, taking part in workshops, auditing project sites and learning on the job,” he says. “I like to keep abreast of technological solutions, especially in the field of energy efficiency and IT, and I also take an active interest in finance and procurement solutions.”

**Mather** suggests that environment practitioners keep informed on the major sustainability issues, even if they only have time to read things like the two-page summary from the IPCC on the latest climate change projections, and to think about what the changes might mean for their organisation. **Bidwell** agrees. “Environment managers need to ensure key developments are on their radar,” he says.

**Holman** sees no problem in developing her knowledge and skills set. “I think this has already happened throughout my career. I’ve had to learn about carbon management and footprinting, sustainable procurement, reporting and climate adaptation,” she explains. “Professionals should never stop learning.”



# THE FUTURE OF ISO 14001

In this NQA e-movie briefing, Martin Baxter (Executive Director of Policy, IEMA) reveals his thoughts on the upcoming changes to ISO 14001

To view **scan the QR code**  
or go to [www.nqa.com/revisions-14001](http://www.nqa.com/revisions-14001)

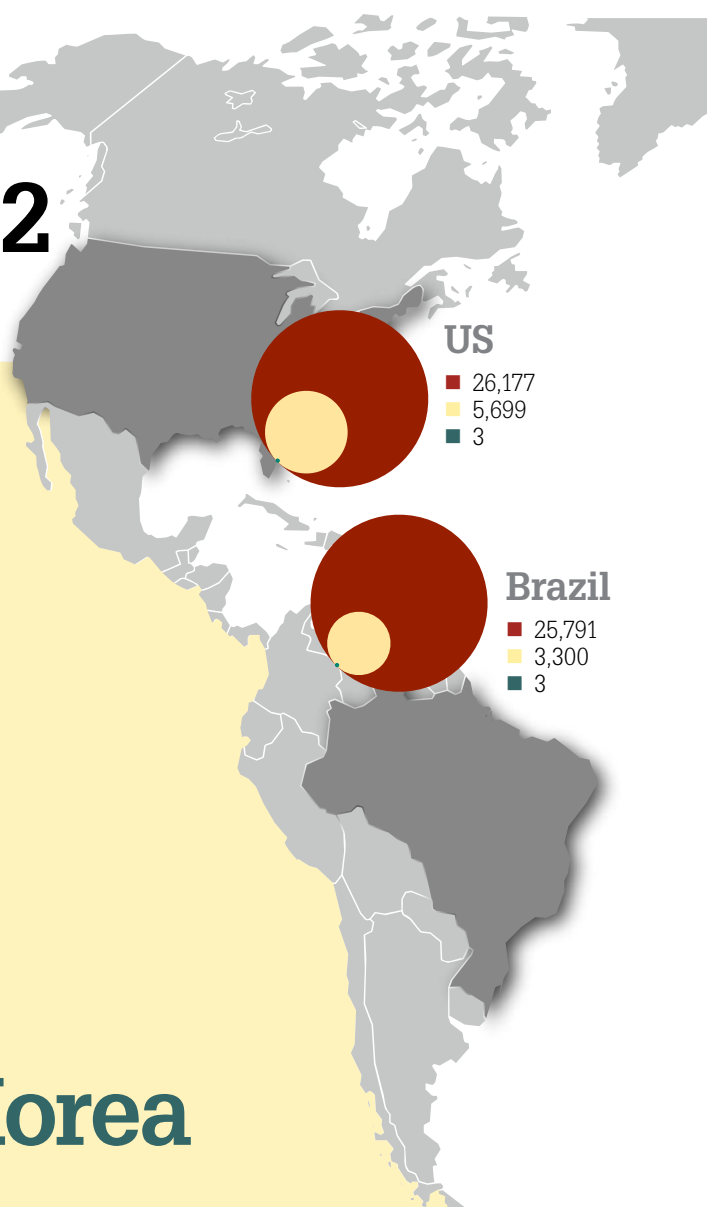
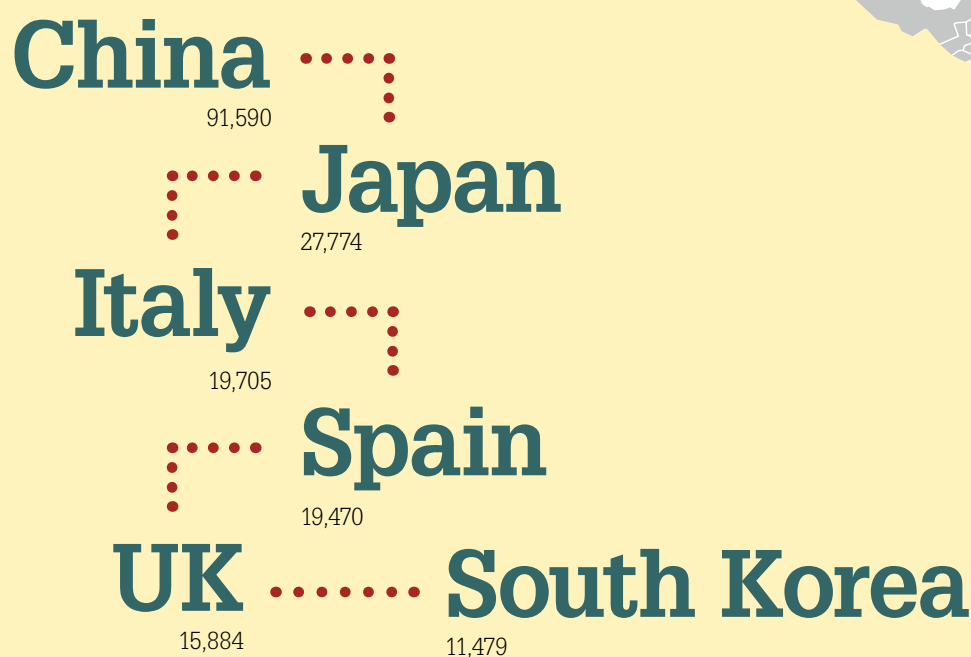


NEVER STOP IMPROVING



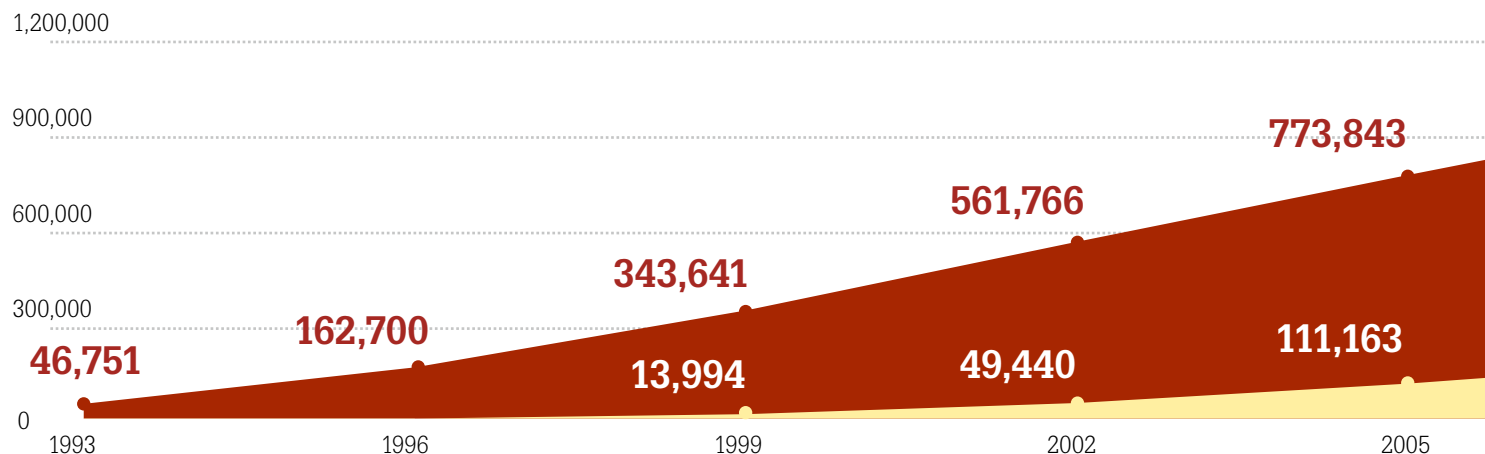
# Global standards: certification in 2012

Top **six** countries for ISO 14001 certificates

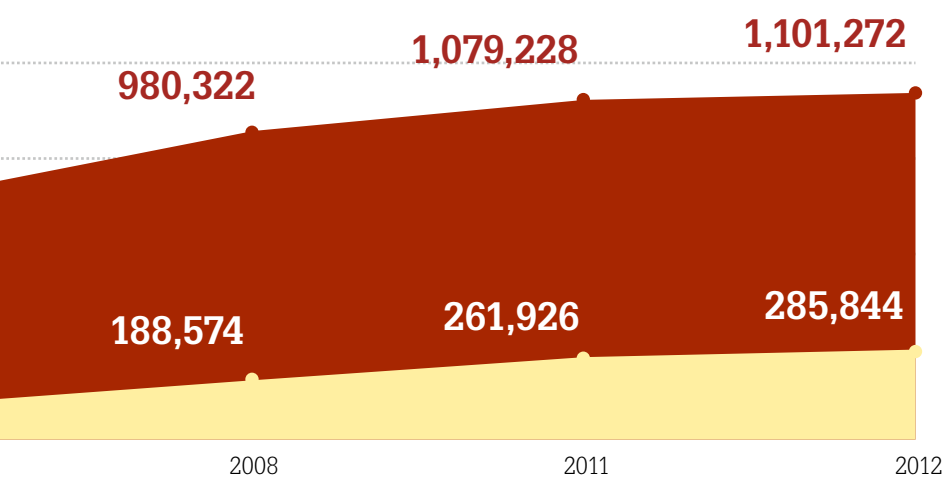
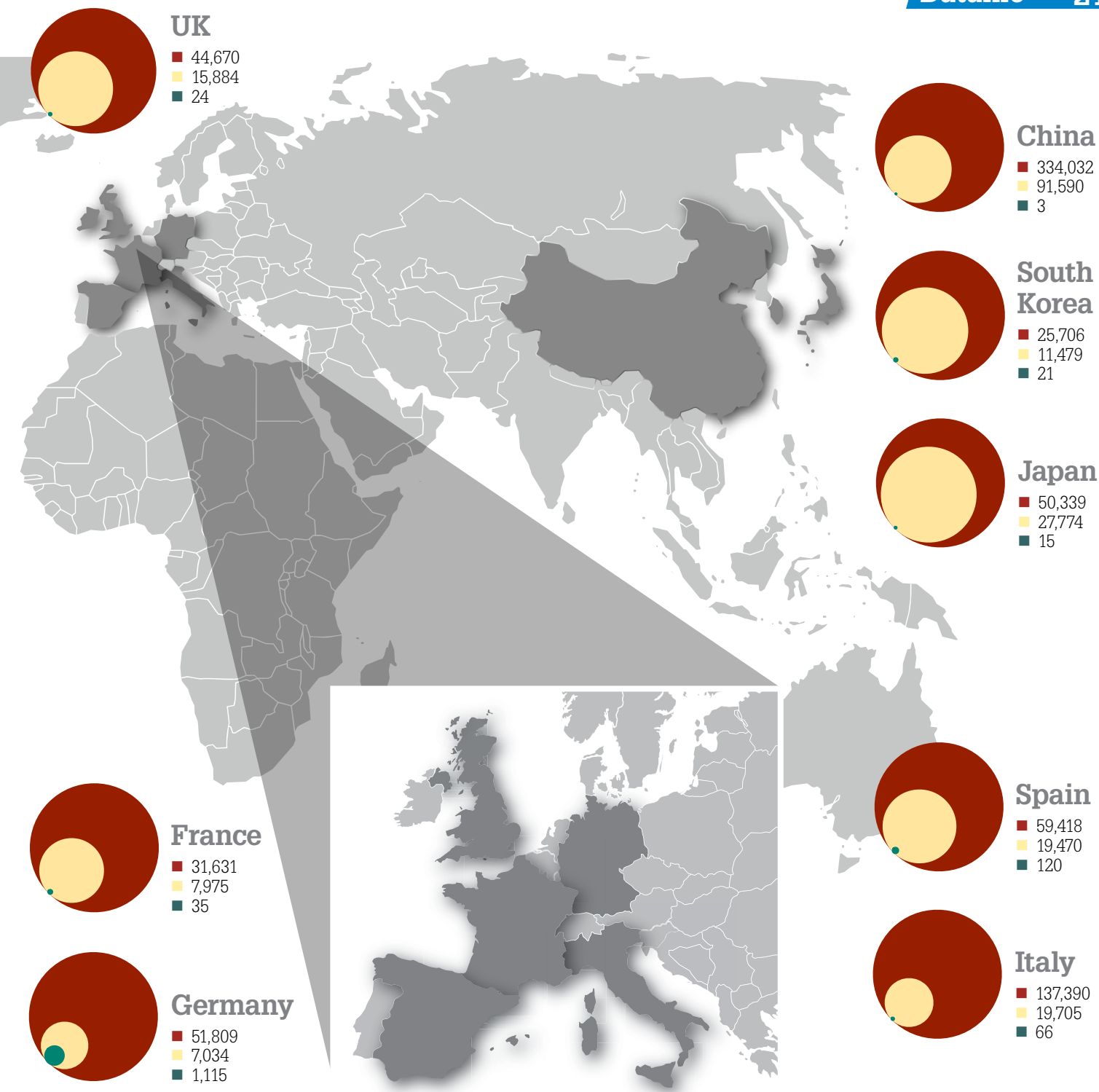


## Growth in ISO 9001, 14001 and 50001 certifications between 1993 and 2012

The data in these graphs (below and right) starts from the introduction of each of the standards: 9001 (quality) in 1993; 14001 (environment management) in 1999; and 50001 (energy management) in 2011







ISO 50001  
**1,981**

ISO 14001  
**285,844**

ISO 9001  
**1,101,272**

This data has been taken from the ISO Survey 2012, the most recent assessment of certification rates worldwide.



# Data releases

**Jonathan Nwagbaraocha and Ana Santos on the latest pollution information from Europe and the US, and how companies can best use the data**

**E**very year, the authorities in the US and the EU publish data on pollutant releases and waste transfers from industrial facilities in their territories. The data for 2011 – the most recent available – reveals some interesting trends, including which sectors are the largest polluters; which substances are being released; the types of waste being transferred; what pollution reduction techniques are being implemented; and changes to reporting requirements.

The European Pollutant Release and Transfer Register (E-PRTR) data, published in May 2013, and the pollutant release and waste transfer data reported in January 2013 by the US Environmental Protection Agency (EPA) as part of the Toxic Release Inventory (TRI) both cover 2011. TRI and E-PRTR 2011 trend data are useful not only for policymakers in deciding whether further regulation is required, but also for companies as they prioritise how to effectively reduce pollutant emissions and comply with changing reporting obligations.

## 2011 and all that

The 2011 TRI data reveals an 8% increase in disposal and other releases of chemicals compared with 2010, while the number of facilities reporting fell by 1% to 20,927. Although air releases decreased, land releases increased and production-related waste rose. The EPA concluded that the 8% increase in toxic chemical releases in the US was the result of the metal mining sector – facilities mining copper, lead, zinc, silver, gold and other metals – increasing onsite land disposal. By contrast, other sectors, including utilities, chemicals, primary metals, paper and food sectors, reported a fall in releases.

Notably, there was an increase in production-related waste in 2011 for some sectors. Waste from the chemicals manufacturing sector increased by more than

3%, having risen by a similar amount between 2009 and 2010. Production-related waste includes waste that is recycled, burned for energy recovery or treated, as well as disposed of or otherwise released.

The 2011 E-PRTR data was gathered from 30,916 industrial facilities, located in 27 EU member states (Croatia excluded), as well as Iceland, Liechtenstein, Norway, Serbia and Switzerland. The number of reporting facilities increased by 2% from 2010, mainly due to a larger number of facilities reporting waste transfers in 2011. Analysis of the E-PRTR data for 2011 indicates that:

- thermal power plants and other combustion installations (excluding biomass) generated 67.7% of CO<sub>2</sub> emissions, and 60.7% of emissions of arsenic and its compounds;
- 85.7% of polychlorinated biphenyls (PCBs) releases originated from the production of iron, steel, cement clinker and lime;
- 15% of all releases of cadmium and cadmium compounds were from Portuguese facilities; and
- sites in Belgium and Italy accounted for 74% of all releases of PCBs.

Analysis of E-PRTR data for the years 2007–11 shows that there was a slight reduction of releases into the ambient air, water and soil during this period.

Data on waste transfers, however, show that they increased significantly between 2007 and 2011, with a big increase in 2010, followed by a reduction the following year. Compared with 2010, the amount of waste transferred in 2011 declined by:

- 16% for non-hazardous waste – from 544.8 million tonnes to 457.4 million tonnes;
- 9% for domestic hazardous waste – from 53.4 million tonnes to 48.6 million tonnes; and
- 3% for transboundary hazardous waste – from 3.3 million tonnes to 3.2 million tonnes.



9%

drop in hazardous waste transfers across the EU in 2011



## Drilling down

The E-PRTR and TRI data reveal that the sectors contributing most to pollutant releases and waste transfers are generally the same in Europe and the US. The major difference between the two is the relative level of contribution to pollutant releases and transfers.

As was noted earlier, the largest sector contributing to pollutant releases and disposal in the US was metal mining. It accounted for 46% of the total reported pollutant releases and waste transfers in 2011. Metal mining was followed by the electricity sector (15%) and the chemicals industry (12%). The characteristics of pollutants released and disposed by metal mining operations in the US may explain the increase of specific substances between 2010 and 2011. For example, the EPA reported that the growth of mercury and lead was the result of the greater land releases of pollutants by the industry.

While the metal mining industry was the largest contributor in the US, this is not the case in Europe, which has generally seen a decline in mining over the past few decades. In 2011, releases to air in Europe were dominated by facilities in the energy, minerals and cement, and chemical sectors. The mineral industry includes activities such as mining and related operations. The mineral mining sector in Europe reported that it released 3 tonnes of mercury and compound releases into the air in 2011 – 10% of total reported releases of mercury to air. By contrast, the energy sector and chemical industry contributed 16.9 tonnes and 3.3 tonnes of mercury, respectively.

In the Europe, there were significant falls in reported releases of some substances in 2011, but big rises in others. For example, there was an 85% reduction of anthracene releases into water and a 70% fall in chlorofluorocarbons (CFCs) releases to air. However, sulphur hexafluoride releases to air increased by almost 400% between 2010 and 2011, following a reduction between 2007 and 2010. Releases of chromium and its compounds into water also swelled, rising 180%, following a 64% reduction between 2007 and 2010.

Releases of CO<sub>2</sub> from European facilities reporting throughout 2007–11 decreased by around 6%.

Facilities in the US do not report CO<sub>2</sub> emissions to TRI, but do under the Greenhouse Gas Reporting Rule. In 2011, US facilities released 3.3 billion tonnes of CO<sub>2</sub> equivalent into the atmosphere, compared with 3.2 billion tonnes in 2010. Other examples of increasing pollutant release and waste transfers in the US include:

- 102% increase between 2009 and 2011 in the amount of lead and lead compounds released or disposed of;

- 35% rise in disposal or other releases of dioxins in 2011 compared with 2010; and
- 4% increase in production-related waste between 2010 and 2011.

Like their European counterparts, US facilities also scaled back some air pollutant releases and waste transfers in 2011. For example, there was an overall 10% decrease in air releases of mercury and its compounds in 2011 compared with 2010, and a 3% fall in releases of known or suspected carcinogens into the air.

Analysis of the E-PRTR and TRI data indicates that efforts to reduce releases of pollutants are yielding results. Releases of mercury are declining in both the US and Europe, for example, after numerous efforts to reduce emissions, including: the protocol on heavy metals in the 1998 convention on long-range transboundary air pollution, which includes limit values and deadlines for emissions reduction for new and existing stationary sources; and the EU mercury strategy, which paved the way for, among others, restrictions on mercury emissions from certain facilities, a ban on mercury exports and restrictions on the inclusion of mercury and its compounds in measuring devices, batteries, and electrical and electronic equipment.

The EPA has stated that likely reasons for the continued decrease of incidences of hazardous air pollutants include a shift in the US from coal to other fuel sources, and the installation of control technologies at coal-fired power plants.

## Making use of the data

Pollutant release and waste transfer data can influence future action taken by policymakers as they try to prevent releases of harmful substances. The successful reduction of certain substances may provide evidence to policymakers on the most effective ways to tackle other pollutants, especially where there are increasing incidences of releases into the environment. The TRI data may demonstrate that establishing emission limits and stringent control technology, along with encouraging the use of alternative industrial processes that generate less pollution, is the most efficient approach.

The data are also useful to companies seeking to identify what substances to focus on in pollution control programmes. Implementing pollution prevention activities could result in the release of fewer pollutants and reduce the amount of waste needing



10%

decrease in  
mercury air  
releases from US  
facilities in 2011



4%

increase in  
production-related  
waste from US  
industry in 2011

to be transferred. In its 2011 report, the EPA stated that disposal or releases of pollutants and production-related waste can increase or decrease owing to several factors, such as: changes in operations at facilities that alter the chemicals they use; the adoption of pollution prevention activities; or changes in business activity.

In addition to reporting pollutant releases and transfers to the TRI, US facilities also report source reduction activities they have implemented. In 2011, 2,509 or 12% of all TRI facilities implemented a total of 8,430 source reduction actions. These included improvements to site maintenance schedules; modifications to processes; and the introduction of raw materials of higher quality (greater purity).

While comparative data is not available for the E-PRTR, the source reductions techniques cited in the US can be implemented at any facility. Source reduction measures have been established per type of activity in best available techniques reference documents.

#### A changing picture

Awareness of changes to pollution reporting requirements is crucial. In 2011, there were 16 new substances added to the list of reportable substances under the TRI. These substances were classified as being "reasonably anticipated to be a human carcinogen" by the US national toxicology programme,

and include: 1-Amino-2,4-Dibromoanthraquinone, furan, glycidol and nitromethane. These substances are used in a variety of chemical processes, ranging from the synthesis of derivatives used as pharmaceuticals to the manufacture of vat dyes typically used with cotton, wool, and cellulose acetate. Furthermore, new reporting processes were introduced for US facilities on 21 January 2014, requiring them to submit all non-confidential reports to the EPA using the TRI-MEweb application.

Changes to the list of substances covered by reporting obligations or in how to submit data may have an impact on the costs associated with compliance, so preparation is critical. The first step is to ensure an internal procedure is in place to track regulatory developments that might impact reporting obligations. The next step involves determining how internal procedures need to be revised to ensure compliance. Keeping an eye on published information, such as the E-PRTR and TRI data, provides companies with a useful insight into trends in pollutant releases and waste transfers from different sectors and regions, and will help to ensure ongoing compliance with the duty to report.

**Jonathan Nwagbaraocha** is programme manager of monitoring services, and **Ana Santos** is a consultant at the global health, safety and environment consultancy Enhesa.

## the environmentalist

Get up to speed  
with proposed changes to  
**ISO 14001**

**ISO 14001**, the world leading environmental management standard, is being revised. In April, ISO published a committee draft of the new edition proposing new requirements concerning organisational strategy, the role of leaders, life-cycle impacts and supply chains.

Subscribe to **the environmentalist** and discover what the proposed changes are and what they will mean for you.

Subscribe for just £108\*

 **online** [www.environmentalisonline.com/subscribe-today](http://www.environmentalisonline.com/subscribe-today)

 **email** [newsales@lexisnexis.co.uk](mailto:newsales@lexisnexis.co.uk)

Please quote promotion code: 17720AD

\*Normally £135. Only available to new subscribers and cannot replace an existing subscription



 LexisNexis®

**iema**  
Institute of Environmental  
Management & Assessment

A division of Reed Elsevier (UK) Ltd. Registered office 1-3 Strand London WC2N 5JR. Registered in England number 2746621 VAT Registered No. GB 730 8595 20. LexisNexis and the Knowledge Burst logo are trademarks of Reed Elsevier Properties Inc. © LexisNexis 2013 0813-007

# Unwrapping sustainability

*the environmentalist* investigates how Nestlé UK and Ireland is curbing the harmful impacts of its operations

**G**lobal food and drinks company Nestlé has committed to developing its business in a way that reduces its adverse impact on the environment and preserves natural resources for future generations. “We cannot exist without nature, but nature can exist without us,” says Inder Poonaji, head of sustainability at Nestlé UK and Ireland and an IEMA member. To realise the company’s vision, the UK and Ireland subsidiary has adopted a strategy based on six pillars of sustainability – energy; water; waste; biodiversity; the value chain; and community and people.

The company has launched an impressive range of initiatives at its production sites to achieve the targets set for each of these pillars (see panel, p.27). Part of Nestlé’s strategy involves using “lighthouse” sites to trial innovative projects that “push the envelope” of its corporate sustainability strategy. The firm’s Fawdon factory near Newcastle (see panel, p.26) offers successful testament to this pioneering approach; here, Nestlé learns from its implementation of groundbreaking projects before applying them elsewhere in the UK and Ireland.

Nestlé’s sustainability plan for the two countries encompasses a plethora of projects, big and small, to reduce its greenhouse-gas (GHG) emissions, cut water and energy consumption, eradicate the waste it sends to landfill, and encourage biodiversity. These initiatives range from simple energy-saving changes to an industry first in 2012 when its entire Easter egg range was packaged in 100% recyclable materials.

## Energy target setting

Nestlé UK and Ireland has developed a bespoke method to help it take action to increase resource efficiency across its production sites. In February 2012, its Girvan factory in Scotland, which manufactures milk crumb, became the first site to test the company’s “energy target setting” (ETS) approach.

The ETS process involves up to 30 internal and external sustainability experts from across Europe converging on a site for 10 days to scrutinise its environmental practices. It involves in-depth studies to analyse water and energy consumption, including thermal imaging to assess heat loss.

The panel of experts often suggest the introduction of sustainability initiatives. The viability of the recommendations are closely analysed and prioritised, and Nestlé takes forward those with a business case that demonstrates a clear return on investment. The ETS exercise undertaken at Girvan resulted in a £700,000 investment plan for the site which is expected to deliver an 84% reduction in water use and a 43% reduction in energy consumption in 2014. Since the inaugural ETS at Girvan, all of Nestlé’s UK sites have been assessed.

## Every last drop

As part of its bid to improve water efficiency across its UK operations and halve absolute water usage by 2020, Nestlé carried out water mapping studies in 2011 at all of its manufacturing sites to identify ways of minimising consumption.

The following year, the company opened a state-of-the-art production facility at Waterswallows in Buxton. The site produces Buxton and Pure Life bottled water, and the £35 million plant was designed with cutting-edge features to reduce water use, including a sustainable drainage system to manage the rainwater that runs off the building’s wave-shaped roof. The drainage system uses sophisticated technology to mimic nature, echoing as closely as possible the natural drainage of the site to minimise the impact of the plant. It promotes environmental benefits such as the natural recharging of groundwater, as well as enabling rainwater and the wastewater from production and cleaning processes to be recovered and recycled.

Engaging with employees and suppliers to encourage more sustainable behaviour is integral to Nestlé’s



## Fawdon – the ‘lighthouse’ factory

Nestlé Fawdon is home to Rowntree’s fruit pastilles and fruit gums, and a range of chocolate confectionery, including Munchies and Toffee Crisp. It is also Nestlé’s “lighthouse” factory for sustainability initiatives, where the company is pioneering ways to improve its environmental performance above and beyond its corporate goals. The corporate target for greenhouse-gas (GHG) emissions is a 30% cut by 2015, while a company-wide goal of halving water use is set for 2020. At Fawdon, however, the company aimed to achieve a 20% reduction in GHGs and to halve water consumption by the end of 2013.

Based near Newcastle and employing around 550 people, the Fawdon factory was chosen as the site to pilot groundbreaking sustainability projects because of its complex day-to-day operations. “Production at the Fawdon plant involves some of our more challenging manufacturing processes for confectionery, so we can learn more from the sustainability initiatives we trial there before rolling them out in other parts of the business,” explains Inder Poonaji, head of sustainability at Nestlé UK and Ireland.

### A blueprint for future action

Nestlé’s sustainability plan for Fawdon aims to establish a blueprint for other sites to follow. Based on the firm’s six pillars of sustainability – energy; water; waste; biodiversity; the value chain; and community and people – the site plan involves piloting a wide range of initiatives to support Fawdon to become a low-carbon manufacturing site. Nestlé has made a substantial investment in an anaerobic digestion system, which turns liquid and solid food waste into energy and meets up to 15% of the site’s energy requirements. The initiative also helps the factory to make better use of waste and reduce the amount it discharges to the sewage system.

Nestlé has replaced one of the diesel vans at the Fawdon site with a low-emission electric van to measure the amount of carbon it would save by switching more of its fleet. It is also piloting micro-renewable technologies, which use resources such as solar radiation to generate energy. If the technologies on trial at Fawdon are successful, Nestlé plans to implement similar systems at its other UK sites, and has already done so in some cases.

### Biodiversity and butterflies

In 2011, Fawdon factory employees joined members of the local community, Natural England, the Northumberland Wildlife Trust and Northumberland Butterfly Conservation to plant a wildflower meadow (pictured, above). The initiative – straddling at least two of the firm’s six sustainability pillars (biodiversity and community) – is now part of Nestlé’s national programme to plant 75 acres of butterfly meadows. By 2015, all of its UK sites will have a wildflower meadow within the factory grounds. Seven dairy farmers from Nestlé’s “first milk sustainability” partnership group have also joined the initiative.

“Butterflies are vital for our ecosystem but they are facing particularly tough conditions,” says Poonaji. “Their numbers indicate the environmental health of an area and by restoring natural habits we will see an increase in fauna and flora, thereby improving local biodiversity and helping local indigenous species, including butterflies.”

In 2012, Nestlé launched a global commitment on natural capital and as part of this has adopted a strategy to identify its reliance and potential impact on the nature around production sites. “Operating factories across the UK and using agricultural raw materials, Nestlé understands its responsibility to develop the business in a way that promotes natural capital and, in particular, biodiversity,” explains Poonaji.

strategy around the six pillars, and raising awareness of water scarcity is a prime example. To mark World Water Day 2012, for example, Nestlé UK ran a nationwide programme to educate employees about water scarcity via the Food and Drink Federation’s “every last drop” campaign. On the day, staff at the firm’s Croydon and York sites attended information sessions on how the company is saving water and how employees can make a difference. Posters promoting the campaign were displayed at factory sites and a photo competition encouraged employees to submit images showing themselves saving water at home or at work.

Nestlé UK and Ireland has already reduced absolute water usage by 36% since 2006, beating its original target of 30% by 2020. Since 2001, the company has reduced water withdrawals at its factories by 28%, while at the same time increasing food and drink production by 73%.

### Combating climate change

“We are committed to reducing GHGs from our operations by improving energy efficiency, switching to cleaner fuels and investing in renewable sources,” says Poonaji. The company has halved GHG emissions per tonne of product from its UK factories since 2001, and more is being done. There is a range of energy-saving changes and projects underway across Nestlé’s sites. At its Girvan factory, for example, the company has replaced five boilers that ran on heavy fuel oil with two new gas-fired boilers, saving 6,000 tonnes of GHG emissions a year. Meanwhile, Poonaji says that Nestlé’s new factory in Buxton is one of the most efficient bottling plants of its kind in the world. Inside the factory, heat generated by the bottling lines is used to warm the warehouse and office areas – helping to reduce energy consumption and GHGs – while low-energy lighting further increases energy efficiency. For every 1,000 bottles of water produced, the plant uses around 32kWh of electricity. This equates to an energy saving of 20% compared to the old site.

Nestlé is also working to minimise the environmental impact of its transport and distribution network by using lower emitting vehicles and, where possible, selecting alternative modes of transport. “Our ambition is to reduce our CO<sub>2</sub> emissions and ultimately become less reliant on fossil fuels,” says Poonaji.





"In 2010, we began trialling liquefied methane-powered trucks, which can significantly reduce CO<sub>2</sub> and other air emissions," he says. During the trial, the three trucks travelled 225,000km and carried 25,800 tonnes. The results showed that the vehicles saved 40,275 litres of diesel and achieved a CO<sub>2</sub> equivalent reduction of 25.4 tonnes. The pilot proved that liquefied methane-powered trucks are reliable and a feasible alternative to vehicles fuelled by diesel, says Poonaji.

### Zero waste and less packaging

Nestlé UK and Ireland is well on its way to achieving its target for all 14 of its sites to send zero waste to landfill by 2015 (excluding a minimum amount of hazardous waste). In 2006, the sites collectively sent 695,700 tonnes of waste to landfill, reports Poonaji. In 2013, the amount going to landfill had fallen to less than 50 tonnes. Ninety per cent of the packaging used for Nestlé products in the UK is recyclable, and the company reuses or recovers more than 80% of the waste generated in its factories.

Nestlé Tutbury, in South Derbyshire, is the home of several Nescafé products, including Dolce Gusto, Nescafé Original and Gold Blend. The site is a typical example of how the firm is achieving its zero waste goal. At the factory, areas are dedicated to each of its 16 waste streams so that materials can be monitored and segregated. Waste from onsite contractors is managed in the same way, providing a uniform approach across the plant. As well as training and engaging employees and contractors in its waste strategy, the company has invested in balers to ease the handling and management of packaging waste.

Since 2006, Nestlé has reduced the primary packaging of its products by more than 16%. One example of this approach is the lighter packaging being used for Nescafé compact refill packs – the new 150g refills use 30% less material than the previous refill packs and are more space efficient. Twice as many fit on to a pallet, reducing lorry journeys by more than 50%.

Poonaji says Nestlé UK and Ireland is proud of what it has achieved so far within its six pillars of sustainability; but he acknowledges more needs to be done, confirming that the firm is committed to pioneering innovative ways to improve its environmental performance.

### Nestlé UK and Ireland – targets

To achieve its overall sustainability goals, Nestlé UK and Ireland has set ambitious targets in the areas captured in its six pillars of sustainability – energy; water; waste; biodiversity; the value chain; and community and people. These targets are subject to continuous improvement and when the company reaches an objective in advance of its due date, it sets a more stretching target. Examples of such targets include:

#### Water consumption

- The original target was to reduce water consumption by 30% by 2020 against a 2006 baseline. Nestlé has already achieved this target and has now set a new goal to halve total water consumption by 2020.

#### Climate change – energy and emissions

- Develop climate change adaptation plans for all sites.
- Cut greenhouse-gas emissions by 30% and achieve 10% renewable energy use by 2015 – both against a 2006 baseline.
- Pilot micro-renewables at Fawdon factory (complete trial in 2014).

#### Climate change – transport and distribution

- Switch 15% of road transportation to and from UK and Ireland sites to rail by 2015 against a 2010 baseline.
- Support the Freight Transport Association's target of reducing CO<sub>2</sub> emissions by 8% by 2015.

#### Natural capital

- The company aims to develop biodiversity programmes at every UK site by 2015.

#### Packaging and waste

- Help identify and promote appropriate methods for the collection, sorting and recycling of mixed plastics.
- Achieve 95% recyclability packaging rate by 2015.
- Send zero waste from Nestlé UK factories to landfill by 2015 (excluding a minimum amount of hazardous waste).



Nestlé Good Food, Good Life



# Making people tick

**Greg Roberts** and **Michael Brown** explain how a better understanding of senior management could improve your environment management system

**L**eadership will rightly take centre stage in the new version of ISO 14001, due to be published in 2015. Senior management teams will have to champion the environment management system (EMS) and integrate it into business processes. This is a step change from the existing, rudimentary requirement for top management to appoint a management representative, sign the environment policy and attend a management review meeting.

To ensure the new requirements of 14001 are met, and to also benefit from an EMS that can potentially deliver greater value to the business, environment practitioners need to better understand what makes management teams and organisations tick.

## Leading from the front

The Chartered Institute of Personnel and Development defines leadership as the capacity to influence people to achieve a common goal, through personal attributes and/or behaviours. The successful implementation and improvement of an EMS is dependent on it being

adopted at all levels and functions of the organisation, but, ultimately, it has to be led from the very top.

Environment management strategies, more than many other organisational plans, benefit from devout, resolute and often pioneering leadership. It is in the vanguard in opposing the trend of short-termism in business – excessive focus on immediate results at the expense of long-term interests – because leaders need a long-term vision to manage issues such as climate change and resource scarcity. Take Stuart Rose, former chief executive at Marks & Spencer or Paul Polman, CEO at Unilever; both are leaders who have bucked the business-as-usual trend and embraced a longer-term perspective that has placed sustainability at the heart of their respective business strategies. A less well-known figure is Timothy Parkinson, chair of the spring and wire forming firm Airedale Springs, whose vision to build an eco-factory helped to differentiate his business from its competitors and increased sales.

Unfortunately, such pioneering business leaders are still few and far between, and most environment managers will find themselves devoid of leadership with regards to sustainability. Consequently, it becomes an uphill struggle to convince managers throughout the organisation to adopt more environmentally friendly practices because they are often seen as a distraction to what managers are trying to achieve personally.

So how does an environment practitioner go about changing this scenario to one where senior management champion the EMS and see it as equal to other business objectives?

## Identifying style

The first question a practitioner needs to ask is whether the organisation encourages and supports a particular style of leadership. Only by satisfactorily answering this question can you move on to develop an approach that will best influence the senior management team's commitment to your organisation's EMS.

## Leadership styles

**Coercive** – the “do what I say” approach, where leaders dictate actions and goals.

**Authoritative** – the “come with me” approach, where the leader states the overall goal, but gives staff the freedom to choose their own means of achieving it.

**Affiliative** – leaders adopt a “people come first” attitude, focusing on praise and rarely offering advice.

**Democratic** – leaders give workers a greater voice in the decision-making process.

**Pacesetter** – a leader who sets high performance standards and exemplifies them.

**Coaching** – leaders focus more on personal development than on immediate work-related tasks.

*Source: “Leadership that gets results”, Daniel Goleman (2000), Harvard Business Review*



## Case study – BAE Systems

EEF has been working with senior leaders and managers at BAE Systems to educate and raise awareness of good environment practices. In November 2012, BAE Systems Maritime – Naval Ships sent some of its senior executives to EEF to take part in the pilot of a new IEMA course designed for top-level managers – “Leading with environmental sustainability”. Following the completion of the pilot, the business decided to send its entire executive team and first-line reports on the programme in 2013. The success of the programme has led other businesses within BAE Systems to follow suit, including Maritime Services which plans to roll out further sessions this year.

BAE Systems has been working towards environmental sustainability using an internally devised model called the environmental sustainability maturity matrix (ESMM) for several years. The model provides a roadmap for the company’s businesses to improve their environmental performance and covers operations, product design and the supply chain.

The product innovation process is helping to future-proof BAE Systems against climate change and resource scarcity as well as comply with ever more stringent regulation. However, Maritime Naval Ships realised that if it was to continue to progress against the ESMM model, it needed to gain support for, and embed, sustainability at the strategic level to strengthen existing initiatives.

The leadership course run by EEF is highly interactive. Based on the concept of facilitated discussion, it enables senior executives to explore sustainability at the level they require; to review drivers and barriers in their business; and determine whether their company’s strategy is fit for purpose. The discussion is informed by case studies and concludes with a commitment from each individual for change.

Elevating the strategic importance of good environmental practices, and their associated benefits, is already reaping benefits despite the training programme having been delivered relatively recently, with Maritime Naval Ships acting swiftly to put the knowledge gained from the course into action.

Output from the course workshops is being fed into revisions to the business strategy; once completed and approved, these will embed sustainability into the core of the business. A member of the executive team has also been appointed as executive sustainability sponsor. He is charged with driving sustainability and reports directly to the managing director. Meanwhile, Dominik Pinnington, environmental sustainability practitioner at BAE Systems Maritime – Naval Ships, is collating the commitments each course attendee has made. “I will be monitoring progress and stretching those commitments to make sure this isn’t just another training

course,” he explains. “Sustainability is a journey and we are very much on that journey.”

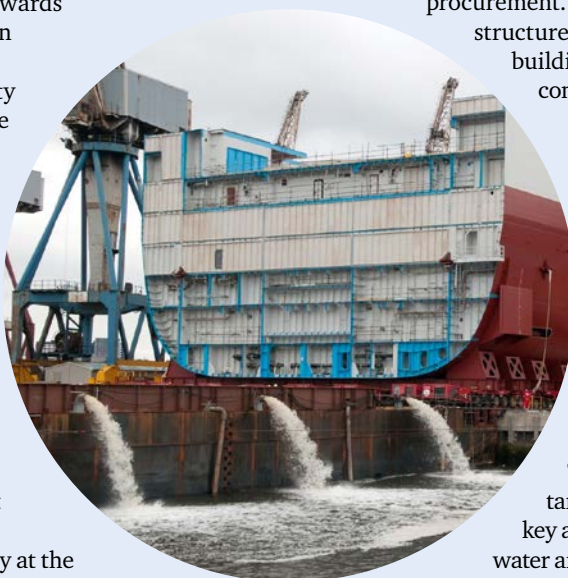
John Degnan, production director and general manager for BAE Systems Maritime – Naval Ships at its Glasgow site in Scotstoun and Govan, was one of the first to complete the course. Since attending the course, Degnan has set up monthly environmental sustainability forums at both Govan and Scotstoun. Each forum is comprised of members of the following functions: site-services, production, finance, supply chain, engineering, and safety, health and environment. Degnan believes the biggest shift to long-term environmental sustainability will come through engineering and procurement. In the meantime, he is creating a structure to support the sustainability forums, building formal reporting mechanisms and communication links.

The forums aim to drive local actions to progress sustainability improvements. Environmental sustainability manager Sharon Young has been appointed to strengthen support for the sustainability journey that the business has embarked on. “It was clear from the initial forum meetings that there were common issues and themes being raised at Govan and Scotstoun.

These included progress against targets, communications, training and key areas for action, including waste, water and energy use,” she says. “Working collaboratively to address these key themes will be our focus for 2014, as well as learning lessons that can be rolled out across the rest of the business.”

There have been other successes following the course. In engineering for example, a sustainability policy has been in place for several years for the new generations of ships, and current designs focus on sustainable materials, reduced resource consumption, and fewer emissions. The course has raised the understanding of sustainability initiatives and generated more support for the engineers in innovation, while raising the profile of research into adapting environmental technologies for naval ships.

The “Leading with sustainability” course is recognised as the first step to ensuring senior level buy-in to the sustainability strategy. Enhanced visibility of progress will be provided throughout 2014 via a range of communications and meetings to ensure that ownership is maintained at all levels across product development, operations and the supply chain. “The next step is to provide knowledge to middle management and team leaders and we’re assessing the most appropriate training to do this,” confirms Pinnington. “The interest and enthusiasm generated amongst the senior team through these courses has created such momentum that we are becoming unstoppable. I believe sustainability will become the backbone of our business.”





There is a plethora of work on different leadership styles and, although such studies are useful, it is dangerous to pigeonhole someone as having a specific style based solely on their personal or cognitive abilities. Of equal importance are situational factors, for example the financial position of the business, the management structure and the immediate urgency of tasks. Managers are likely to adopt different leadership styles according to the situation they are in – for instance, crisis versus growth. It is useful to think of both what the individual is like and what they are dealing with at the time.

Daniel Goleman identifies six different leadership styles (see panel, p.28) in his work on emotional intelligence – a way of understanding and assessing people's behaviour, management style, attitudes, interpersonal skills and potential. Collaborative leadership styles are more suitable for work on an EMS because they can help to engage an entire workforce in a long-term vision of sustainability, while allowing individual responsibility, which in turn encourages innovation. This type of leadership can be seen at GE, the global capital, expertise and infrastructure company, which has promoted innovation from each of its businesses through its “ecomagination” model. Its vision is to: “Imagine and build innovative solutions to today's environmental challenges, while driving economic growth.” By engaging employees and the outside world in this vision, GE claims to have saved its customers billions of dollars through efficiency.

Identifying the leadership style used in an organisation and appreciating the reasons behind its adoption can offer a useful insight into how to proceed with implementing an EMS. If a coercive or

pacesetting leadership style is dominant, perhaps because the organisation has short-term difficulties, then environmental issues need to be presented in such a way as to address the required short-term targets or actions. For example, senior management teams will be more receptive where an EMS contributes to the business objective to reduce operating costs.

By contrast, where an organisation is looking to expand, and democratic and authoritative styles are in the ascendancy, then the EMS can be presented as a means to manage long-term growth, for example, by moving the business into providing low-carbon environmental goods and services.

### Integrating the EMS

All organisations adopt an approach to managing their performance to some degree, with the aim of bringing consistency and ensuring resources are directed to those areas of the business that really matter. A performance management system sets out to establish organisational goals and objectives to ensure that a business is successful and employees perform to the highest possible standard.

Commonly, the EMS does not form part of the performance management system, so environmental objectives are not included in managers' personal goals. Consequently, the EMS is overlooked and practitioners are unable to make significant improvement to the firm's environmental performance. Integrating the EMS into business processes, as is proposed in the revised 14001 standard, is therefore essential. Environmental goals will rise up the management agenda because managers' individual performance is more likely to be measured against them.

It is crucial that environment practitioners influence their senior managers during the planning and review of performance management processes to ensure the integration of environment concerns, rather than watching them become a “bolt-on”. To achieve this, the business case for environmental measures has to be developed and articulated to highlight how the EMS can assist the organisation to achieve its goals – whether they are to reduce costs, increase sales, motivate staff and/or encourage innovation.

Integrating the EMS into business practices, can also help to ensure that future goals are developed to meet an increased interest in the environment, such as developing more resource efficient products. If the practitioner succeeds, this will ensure that the environment is considered in both departmental and employee objectives, and that key performance indicators are embedded to measure environmental performance – for example, in the form of personal objectives or departmental balanced scorecards.

Once the environment is incorporated into the performance management process, practitioners are then free to influence operational managers to ensure that environmental objectives are considered as equally important to the other measures they are accountable for.

### Top 10 tips on influencing managers

- **Understand your organisation's performance management system** – What is in the mission statement? What metrics are important to the success of your organisation?
- **Understand yourself** – How do you influence others? How do you lead?
- **Understand the business case for the environment** – Where possible, draw the link between existing organisational goals and the environment.
- **Practice articulating the business case** – Not just in formal presentations but in general discussions.
- **Take time to understand your managers' goals** – Focus on those you are trying to influence.
- **Make a connection between the environment and your managers' goals** – Do they need to cut costs? Do they need to develop new products or a new marketing campaign?
- **Use the most relevant data** – A marketing manager will be interested in the publicity an environmental initiative might create rather than the specifics of the initiative.
- **Share case studies** – Looking at what their peers are doing will help managers to understand what is possible.
- **Report back** – Highlight successful initiatives.
- **Advise managers to attend some environmental training** – Learning will help them to understand how environmental issues can be integrated into business practices.

Greg Roberts, MIEMA, and Michael Brown are consultants at EEF, the manufacturers' organisation.

# Lexis<sup>®</sup>PSL Environment.

Check your blind spot.

Lexis<sup>®</sup>PSL gives you the what, how *and* Y.

Lexis<sup>®</sup>PSL may look similar to other practical law services. It's just as speedy and easy.  
Lexis<sup>®</sup>PSL comes with practice notes, checklists, tables, updates, precedents, drafting notes and time-saving tools.

But for it to make complete sense, you need the Y.

Lexis<sup>®</sup>PSL links directly to the underlying authority and expert commentary you rely on:  
All England Law Reports, All England Law Reports European Cases, Consolidated UK  
Parliament Acts and SIs, EU Legislation and Materials and more.

Lexis<sup>®</sup>PSL. Take a free trial at [www.lexisnexis.co.uk/FadEv](http://www.lexisnexis.co.uk/FadEv)



# Catching the

**Chris Reynolds** explains how practitioners can best identify and engage stakeholders

**S**takeholder engagement is used by organisations for a variety of purposes, such as product development, reactive issue resolution, proactive issue avoidance or simply to demonstrate that they are listening. Some organisations might also use it as a way to influence others and as a complex form of outward communication – though there is an expectation in stakeholder engagement that a two-way communication process takes place. As environment professionals, we can expect to become involved in stakeholder engagement as a part of our day-to-day work.

The complex mix of drivers, risks and stakeholder groups means that there are significant potential pitfalls, and this can cause organisations to shy away from stakeholder engagement. A poorly planned and executed programme can lead to negative publicity and is counterproductive. It is, therefore, worth getting it right and identifying stakeholders carefully.

Trailblazing organisations – frequently those associated with quality products and procedures – are likely to have embedded the stakeholder engagement process in their business activities. In such organisations, stakeholder engagement is often seen as a continual programme of communication with regular reviews of who stakeholders are, rather than a one-off exercise. Firms that successfully engage their stakeholders usually enjoy an improved image, more trust and a faster route to issue resolution when their business develops in a new way. They typically benefit from better stakeholder relations all round. These organisations are also more likely to base some or all of the elements of stakeholder engagement on an open invitation to “come and talk” and a wider range of involvement, rather than needing to proactively seek stakeholders out.

## Why it's good to talk

As in many areas of life, those organisations that are most successful at stakeholder engagement do not need to advertise the fact. Those that have embedded a continuous process of engagement will be open to new stakeholders who need only to announce their arrival. Many high-profile technology companies adopt this approach. It allows them to obtain continuous feedback on product design, customer needs and wants, production processes and risks. For instance, some of the biggest names in IT pay “friendly” hackers for any product exploitation they uncover, and they will develop products using targeted stakeholder groups. Such an approach can be invaluable for

product and service development. Some stakeholders can be the source of the best quality consultancy advice possible, and for free, but only if the process is adequately resourced and given sufficient weight and influence in business development processes.

Organisations also need to learn how to listen to them.

In short, companies that continuously engage their stakeholders do so because they regard it as matter of strategic importance. Those firms that do not consider stakeholder engagement to be part of their day-to-day activities will tend to deal with it on an issue-by-issue basis and delegate the task to staff working on the particular topic. At this point, it is often too late for effective stakeholder engagement.

The companies that employ a rolling programme of stakeholder dialogue are often those that also adopt a very challenging continuous improvement programme in their processes and procedures.

## Open process

Some bold organisations, or those with statutory obligations to consult, often focus their efforts on open engagement with their stakeholders rather than spending a lot of effort on first identifying them. When the chemical company Solutia installed wind turbines, often a controversial step in communities, at its site in Newport, its stakeholder engagement was considered particularly successful. This success was due to the time they put in hand-delivering information to all residents who might be affected by the turbines, along with an open invitation to ask any questions. The effort put into door knocking was rewarded with locals' cooperation over the turbine planning approval and installation, and the maintenance of good community relations.

A similar example of open stakeholder engagement, but on a larger scale, is taking place in Guildford. Like many local authorities, Guildford Borough Council (GBC) is currently developing its local plan. This document will set the scene for development in the area for the next decade or so, and is a requirement by the government if the council is to have any real control over the construction that takes place in the borough. This is a significant exercise generating lots of local interest and for stakeholders it presents a one-off opportunity to have input into the process.

To ensure that all stakeholders, including groups who do not routinely engage with the council, have the opportunity to share their input, GBC has developed an open process. This includes consultation and workshop activities in the town and rural communities around

# right people

## Stakeholder matrix

<i>How big an impact does the project have on the stakeholder?</i>	Effort required to address concerns	Engage strongly and enlist their help to gain momentum	High
	Inform	Involve	Medium
	Low	Medium	High
	<i>How important is this stakeholder to the success of the project?</i>		

the borough, and a “local plan shop” in the centre of Guildford, which is open seven days a week. These physical mechanisms are supplemented by a website.

Despite the open and receptive nature of the consultation, GBC has still undertaken an exercise to identify specific stakeholder groups. One of the challenges, given the nature of consultation, is that vocal stakeholders tend to be much more effective at inputting their views, often to the detriment of other groups. The council has an obligation to seek and consider the views of all stakeholder groups, so various exercises have taken place to identify groups, such as the elderly, traveller communities and ethnic communities, and engage them in the most appropriate ways. The hard-to-reach groups have been targeted in particular to provide proper balance in the engagement exercise.

There is also an intergenerational aspect to local plan development, as future generations will be impacted as heavily as current generations – for example, in respect of affordable housing – so parents of young children have become a useful proxy for what might be considered an “impossible-to-reach” stakeholder group.

### Identifying characteristics

So, what is the best way to identify stakeholders and how should you select those with which you want to have dialogue? Whether you wish to be selective will largely depend on what you’re seeking from the dialogue, and whether there is any sensitivity in the subject you’re engaging on. One technique that can be used to identify the most important stakeholders – and these might vary from project to project – is to develop a stakeholder matrix (see above). Stakeholder groups can be plotted on the matrix based on the two criteria of “importance to the project” and “impact the project will have on them”. Communications can then be tailored to each group accordingly.

Stakeholders appearing in the top right cell will often take less convincing and, when properly informed, they can be mobilised to help bring other stakeholders along. Meanwhile, it may require more effort to understand and deal with the concerns of those placed in the top left cell. This is why some organisations invest heavily in trying to contact hard-to-reach groups.

Instead of adopting a very open stakeholder engagement programme, organisations may choose to focus their dialogue on influencing key stakeholders, for example, rather than just engaging them. The main factors to take into account when selecting stakeholders with whom to engage include:

- their willingness to engage with you;
- the scope and level of their influence; and
- their receptiveness to your messages.

Trade associations will sometimes take on the role of stakeholder engagement on behalf of members. One such example involved several trade bodies representing a new range of products collaborating on stakeholder engagement. The forum was seeking constructive dialogue on products that had significant scope for future benefits for society but also carried perceived risks in the manufacturing, use or disposal phases of their lifecycle. Here the stakeholder engagement was highly focused, and it was clearly in the interests of the manufacturers for it to be objective.

The selection of the most suitable non-governmental organisations (NGOs) for initial engagement was made using a graph, with NGOs likely to be positive to the products placed on the X axis, and those likely to influence the general public, for example, placed on the Y axis. This is a variation of the example stakeholder matrix above, but with both axes simply measuring the degree of positivity or negativity. The result was a graph where the top right quadrant showed the stakeholders offering the best chance of early engagement.

### No rules

There are no hard and fast rules for stakeholder engagement – there are too many variables, but the job of environment professionals is to decide on the best course of action based on the sensitivities of the organisation, the stakeholders and the purpose of the engagement. One thing is sure, however. If conducted well, stakeholder engagement should improve stakeholders’ trust and enhance an organisation’s reputation. It should also pave the way for improved future engagement, which will be conducted from a position of enhanced trust.

**Chris Reynolds**, FIEMA, is energy management and sustainability officer at Guildford Borough Council.



# Sharing your details

The January issue of *the environmentalist* opened with the Institute's chief executive, Tim Balcon, revealing some of the key details of IEMA's Vision 2020, saying that it is focused on "supporting its engaged, ambitious and tenacious members". Part of that support is about facilitating the ability of members to connect with both IEMA and each other.

The IEMA community of environment and sustainability practitioners relies not only on input from the Institute, but contributions of knowledge, experience and advice from the membership. For this to thrive, members must have every opportunity to be able to directly connect with other members. The IEMA LinkedIn groups and its Twitter activity provide opportunities for this, but being able to

share basic contact information – name and email address – with other members, solely for the purpose of engaging in IEMA-related activity, will enhance the ability of members to actively participate, network and collaborate.

Following advice from the Information Commissioner's Office on the best way to share members' contact details and remain compliant with the Data Protection Act, a resolution was passed at the 2013 AGM to enable data sharing to take place where individual members grant permission. From 1 March, all members will have the opportunity to share their basic contact details and request those of other members where appropriate.

All members will be listed by default as "opted in" unless IEMA has been

notified otherwise, but can opt-out at any time. Every member was contacted by either email or letter in January, allowing a full 30-day period to opt-out of the scheme prior to launch.

If you have not yet opted out and would like to do so, simply email [info@iema.net](mailto:info@iema.net) with your name and membership number and IEMA will ensure your details are not made available. If the Institute does not hear from you, it will assume that you are happy to share your details with other IEMA members.

Full details about sharing your details are available from [iema.net/membership-your-details](http://iema.net/membership-your-details). If you have any queries, please do not hesitate to contact the Institute at [info@iema.net](mailto:info@iema.net).

## Headlines from 2014 practitioner survey

A total of 2,120 members responded to the 2014 IEMA practitioner survey. A full analysis of the results will be published as a special supplement in the March issue of *the environmentalist*, detailing up-to-date statistics on the environment and sustainability profession. Ahead of the full 2014 report, here are some key summary findings:

- Employment of IEMA members is at 96.7%, up 0.6% on the 2013 level.
- More IEMA members are self-employed, rising to 9.3% during 2013 from a low of 5.6% in 2011.
- 58.9% of members received some form of pay rise during 2013.
- Environment management – including working on environment management systems – is the most cited primary work area, with 20.6% of members primarily engaged in such activity. This is a change from both 2012 and 2013 when health, safety and environment management had been the most cited primary work area.
- Nearly all members' roles involve working across multiple work areas, with only 16% reporting that they work exclusively in one area.
- Employer support for continuing professional development (CPD) is high among respondents, with 87.6% of those undertaking CPD during 2013 receiving financial support for such activities from their employer.
- Employer support for IEMA membership fees is also high, with 67% of employed members receiving funding for their membership.
- Respondents who consider themselves to be "career changers" – moving into the profession from another field of work – are more satisfied with their role than those who have always worked in an environment role; 77% of such practitioners report being satisfied or very satisfied compared with 66% for "non-changers".

## Latest IEMA Fellow

Andrew Whitehorn, head of sustainable business at waste management firm Viridor, has joined the ranks of IEMA Fellows. Whitehorn joins 51 other Fellows at the top of the Institute's membership ladder.

FIEMA status is awarded to members who have used their leadership skills to accomplish substantial achievements in the fields of environment management, assessment and sustainability. With an impressive CV of qualifications, including an MBA and two professional charterships, and a wide range of practical and leadership skills, Whitehorn (pictured) is a good example of an IEMA Fellow. His varied career has taken him from service with the Grenadier Guards, which included operational tours and postings in Africa, Europe and the US, and an expedition to the Himalayas, to the financial services sector, before moving into an environment role in 2001.

Throughout his 13 years at Viridor, which is part of the Pennon Group and one of the UK's leading recycling, renewable energy and waste management companies, Whitehorn has progressed through technical and supervisory roles with environment responsibilities for landfill sites and pollution to a variety of management roles. He has headed aftercare management and regulatory compliance and risk for key projects, and also led the Pennon Group's compliance with the carbon reduction commitment



scheme and the Carbon Disclosure Project before being promoted to his present position in 2011. Describing his role as "a primary agent for change", Whitehorn has overall responsibility for the development and delivery of the company's sustainability initiatives, such as its sustainability and resilience strategy and its procurement policy.

Whitehorn received his Fellow status in January. He said: "Being able to say that I'm a Fellow member of IEMA is an incredible feeling; it's really a very proud moment for me. Given that my career history is so varied I think that everything I've accomplished and learned – both formally through study and informally through vocational leadership experience – has helped me achieve FIEMA."

IEMA's chief executive, Tim Balcon, congratulated Whitehorn, saying: "I'm delighted to welcome him into IEMA's small, yet incredibly influential group of Fellows."

If Whitehorn's story has made you think about upgrading your membership to a level that reflects your knowledge, experience and achievements, visit the new IEMA membership pages at [iema.net/membership](http://iema.net/membership).

## All change for MIEMA

With just weeks left before IEMA's Full membership standard changes to include new assessment criteria and interview methods, the Institute has published additional support for those interested in upgrading to MIEMA status.

A breakdown of the changes to the eligibility criteria, application documentation and assessment process is available at [iema.net/membership-full-is-changing](http://iema.net/membership-full-is-changing). An article in the training focus supplement in the December issue of *the environmentalist* ([environmentalisonline.com/Full](http://environmentalisonline.com/Full)) also provides details of the revisions, including the new competences.

Practitioners who are interested in applying to become MIEMA under

the new standard from April 2014 are encouraged to read the article, and the online information on the changes, in preparation for their application. This background information will ensure they are fully aware of how, and why, the standard is changing. Anyone who wants to be kept up to date on the changes can email [full.membership@iema.net](mailto:full.membership@iema.net) and be placed on a mailing list.

While some members have already signed up to apply for Full under the new system, there are some limited places available to apply for MIEMA under the current standard and interview process. To find out more go to [iema.net/membership-full](http://iema.net/membership-full).

## Policy update



### IEMA goes global on EIA

I recently presented the keynote address at a conference in Hong Kong, alongside speakers from China, and Japan, among others. Delegates included senior Hong Kong and Chinese government officials, in attendance to find out more about the latest regional and international developments in environmental impact assessment (EIA) with the aim of improving the quality of their own systems. I was invited because IEMA is increasingly recognised for its role in enhancing the UK's international reputation for high quality EIA. From launching the world's first principles on EIA and climate change in 2010, through presenting at the European commission's 25th anniversary EIA conference, to winning a coveted global award for EIA in 2012, IEMA has been at the forefront of developments.

After the presentation, IEMA agreed to develop a memorandum of understanding with the Hong Kong Institute of EIA, and to engage with officials in Beijing on how to improve the quality of EIA practice in China.

So why does the UK government, particularly the communities and local government department, see EIA as a barrier? In this area, the self-styled "greenest government" still holds to the false dichotomy of environment or growth. The communities department will shortly consult on plans to reduce the application of EIA in England, having previously attempted to scale back revisions to the EIA Directive.

It's not all bad though. The Scottish government regularly works with IEMA on improving EIA quality and performance. Also, more developers contract only those consultancies registered on IEMA's EIA Quality Mark scheme. In 2014, developers will work with IEMA on an action plan for effective EIA. Despite Whitehall's stance, IEMA and its members will continue to enhance UK and, increasingly, global EIA practice.

**Josh Fothergill** is policy and practice lead at IEMA.



## 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

**Lucy Ashford**, Renewable Energy Systems  
**Natalie Ashford-Hodges**, Nutrisure  
**Christopher Atkinson**  
**Kathryn Bate**, GroundSure  
**Edward Birkhead**, CCL Stressing Systems  
**Jonathan Bowen**  
**Alice Bowles**, Associated British Ports  
**Jason Brooker**, Southern Railways  
**Stephen Comins**  
**George Crone**, University of Southampton  
**Robyn Cummings**, RSP Group  
**Craig Davies**, Airbus Operations UK  
**Jake Dennis**, RPS Group  
**Adrian Early**  
**Bradley Hall**, URS Infrastructure & Environment UK  
**Paul Hammersley**, Airbus Operations UK  
**James Hastings**

**Alice Hopkins**, GroundSure  
**Jenny Horton**, Integrated Water Services  
**Ian Howden**, Sekisui Diagnostics  
**Ruby Diaz Hurtado**, Wilcomatic  
**Christopher Ingoe**  
**Majid Islam**, Sekisui Diagnostics  
**Peter Jones**, IEMA  
**Wilfred Koech**, Kenya Power & Lighting Company  
**Stephen Laird**, Airbus Operations UK  
**Marcos Martin**, Eurofins Holdings  
**Timothy McLoughlin**, Balfour Beatty  
**Thomas Milnes**, MGF (Trench Construction Systems)  
**Aliya Moldagazyeva**, North Caspian Operating Company  
**Jayne Murdoch**, Mace Group  
**James Noblett**, Compass Minerals UK  
**Zhanna Nurzhapova**, North Caspian Operating Company  
**Andrew Piper**  
**Peter Radcliffe**, Airbus Operations UK  
**Alasdair Revie**, Works Group Royal Engineers  
**Gary Rorke**, Total UK  
**Susan Russell**, Simian Risk Management  
**Tim Sapsford**

**Alexander Sexton**, Lancaster University  
**Michael Stubbs**, Unison Engine Components  
**Diana Tovar**, Addison Lee  
**Stephanie Tyrrell**, WSP Environmental  
**Mark van Kalles**, Megamas Training  
**Nicholas von Fircks**  
**James Wheatman**, Airbus Operations UK  
**John Whitfield**, Airbus Operations UK  
**Rosie Wood**, EHS Projects  
**Amanda Wright**, BAM Construction

### Full

**Oliver Ingwall King**, Groundwork Suffolk

### Full and CEnv

**Nicola Ashworth**, Parsons Brinckerhoff  
**Rafaela Konialidis**  
**Helen Manns**, University of Northumbria  
**Gemma Melvill**, Landmark Practice  
**Candice Snelling**, Natural Environment Research Council

### Fellow

**Andrew Whitehorn**, Viridor

## IEMA events

Date	Region/Time	Topic
19 Feb	North East	Climate change and energy position statement workshop
19 Feb	South West	Social (Exeter)
21 Feb	East of England	Great Blakenham energy-from-waste plant visit
26 Feb	East of England	Climate change and energy position statement workshop
27 Feb	Scotland West	Dust in the environment and at work
5 Mar	Scotland Central	Climate change and energy position statement workshop
6 Mar	North West	Climate change and energy position statement workshop
6 Mar	South East	Social (London)
6 Mar	South East	Climate change and energy position statement workshop
12 Mar	Wales	Climate change and energy position statement workshop
12 Mar	South East	Green drinks (Southampton)
18 Mar	Northern Ireland	Climate change and energy position statement workshop
19 Mar	Republic of Ireland	Climate change and energy position statement workshop
19 Mar	South West	Social (Exeter)
24 Mar	Yorkshire and Humber	Climate change and energy position statement workshop
25 Mar	Midlands	Climate change and energy position statement workshop

### Webinars

27 Feb	12.30–1.30pm	EIA and naturally significant infrastructure
--------	--------------	--



ADAM INTRODUCED  
REUSE AND RECYCLING  
INITIATIVES WHICH  
DELIVERED SAVINGS  
OF £100,000  
TO THE BUSINESS



**People  
like Adam  
say:**

My role as an Environmental Manager is increasingly driven by commercial needs. A solid environmental strategy is no longer a 'nice to have', it's a requirement because the construction industry understands that good practice delivers profitability.

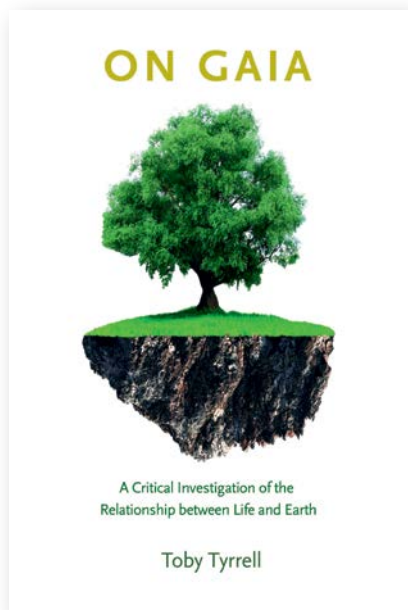
Just consider the facts. In 2011, I was able to reduce the company's waste to landfill by 70% to turn a cost into £30,000 revenue, reduced the group energy

consumption by 3% and made an annual saving of £100,000 on waste management.

Every business needs to find ways to cut costs, especially when times are tough and I've been able to do that right across our operation.

It's also worth remembering that in a competitive and fast moving industry like construction, a good reputation is priceless.



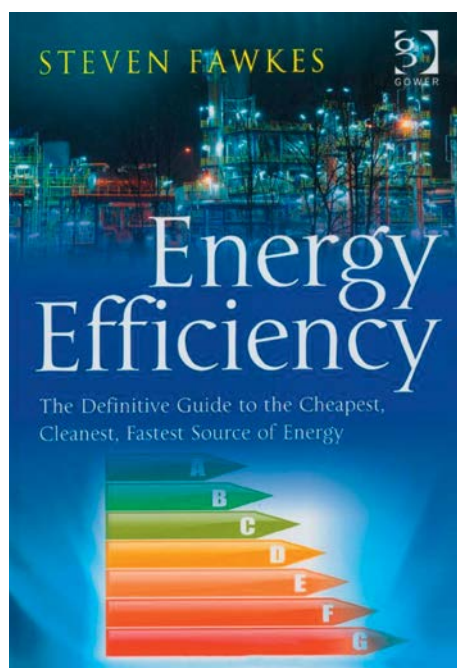


### On Gaia

Toby Tyrrell / Princeton / Hardback / £24.95 / ISBN: 978-0-6911-2158-1

Some 40 years ago, James Lovelock posed the Gaia hypothesis: that life itself keeps the planet in check via feedback mechanisms. In this book, Toby Tyrrell, a professor of earth systems at Southampton University, re-examines the hypothesis in the context of scientific research that has taken place in recent decades. Tyrrell takes us through a number of natural systems; some are the same examples Lovelock used, but he also offers case studies, which appear to counter the Gaia hypothesis. Tyrrell offers no conclusion at this point, but rather a series of well-stated facts, which is both a strength and a weakness. Although the book contains a scientifically correct set of descriptors to support and counter Gaia, it is rather turgid wading through the facts. That said, Tyrrell is scrupulous in addressing Lovelock's assertions. Eventually, the author provides a conclusion. Unlike other rebuttals of Gaia, which have been unfounded dismissals, Tyrrell considers all the information in the preceding chapters. He asserts that Gaia does not stand up to scrutiny, but does not dismiss entirely all of the hypothesis and brings together several arguments to conclude that co-evolution seems to be a more plausible hypothesis for how the Earth is maintained. As Tyrrell acknowledges, his theory is not as grandiose as Gaia, but it is far more compelling. The conclusion is worth reading by itself if you are pushed for time, but for those who really want a good insight into Gaia in the context of natural systems, I would recommend reading the whole book.

*Gillian Gibson, FIEMA CEnv, is an environmental scientist*

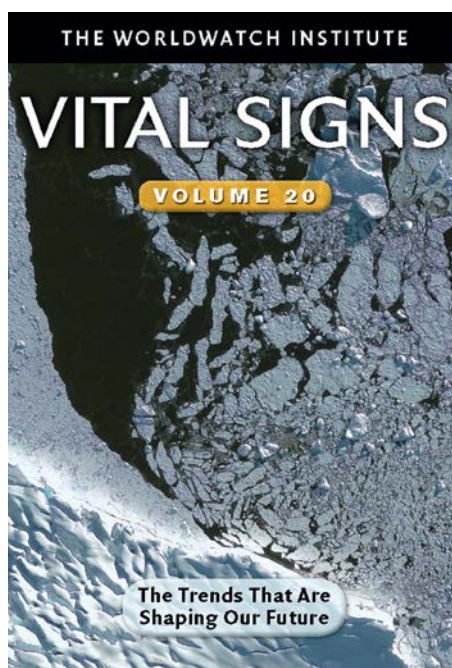


### Energy efficiency

Dr Steven Fawkes / Ashgate / Hardback / £65 / ISBN: 978-1-4094-5359-8

This book looks at energy efficiency from a macro to a micro level; encompassing everything from government policies to the practical implementation of energy-saving measures in an organisation. It is an informative and thoroughly referenced book that could be particularly helpful for students writing a paper on this topic. By taking a systems approach, the author provides a detailed insight into all the major aspects of energy efficiency, including: energy management; existing, new and emerging technologies; the role governments can play in setting energy policy; and financing energy savings. It also provides an interesting perspective on the role that energy suppliers play. If you are interested in learning why, as a planet, we have only reached the dizzy heights of 11% energy efficiency Dr Steven Fawkes's book is definitely worth a read.

*Andrew Fletcher, CEnv, is environment and training director at ESP*



### Vital signs: volume 20

The Worldwatch Institute / Island Press / £11.99 / ISBN: 978-1-6109-1456-7

This book is the latest in a series launched in 1992 by The Worldwatch Institute. It brings together articles published online to summarise global trends under broad headings covering energy, climate, food, economy, resources and society. Written in plain English, the bite-sized chapters are easy to read and understand. Perhaps unsurprisingly, the book reveals that trends in production and consumption continue upwards, despite recent financial turmoil. While this may suggest cause for celebration at our ability to improve resource efficiency, some of the supporting statistics are startling. Milk output per cow in the US, for example, has increased threefold over the past 50 years, and 72% of global poultry production is now in concentrated animal feeding operations. Such statistics are underlined by an analysis of the negative consequences of these developments on the climate, the natural environment, public health, social justice and animal welfare. Underpinning the entire book is a call to reconnect production with local communities and the natural world to ensure real and lasting sustainability. Vital signs will interest decision makers in business or government, as well as those engaged with sustainability. In particular, I recommend it to anyone whose commitment to sustainability may waiver in the face of the day-to-day challenges necessary to bring about positive change.

*Caroline Coyle, AIEMA, is a consultant*

# Man on a mission

**Jae Mather** explains how he has helped organisations abate at least 5,000 times more carbon dioxide than he will generate in a lifetime



**W**hen people ask me what I do for a living, my most frequent response is: “I try very hard to prevent us from destroying ourselves and I fail miserably.” I have absolutely no qualms in saying that I am on a mission to make a difference, to disrupt accepted thinking and spread the message that, to become a truly sustainable society, business-as-usual attitudes and approaches must be turned on their head.

I moved from my native Canada to Europe 16 years ago because, as someone who wanted a career in sustainability, my options were limited to performing environmental impact assessments and I wanted to do more. Since then, I have enjoyed an incredibly varied career. I’ve lived in the Netherlands, Switzerland and the UK. I’ve worked for local authorities on procurement initiatives and NGOs on designing sustainable communities. I have been involved with projects helping small businesses innovate green products and advised large corporations on tackling their environment impacts. I’ve developed a new award-winning sustainability service offering for an accountancy firm and set up an events series that has enabled me to talk to thousands of people.

A career in sustainability is multifaceted and complex. It’s not simply a case of working for company A, then B and then C, and you’re a success. You have to forge your own path by looking at things in a more creative way. In 2007, I managed an EU-funded project aimed at helping small- and medium-sized enterprises (SMEs) get new environmental products to market. It taught me that at least 65% of the innovation happening in developing sustainable goods was occurring at the SME level, and got me thinking in a different way about how we are going to solve the problem of living within our means. It struck me that success will be down to micro-innovators and individual champions, even in large businesses, and that sustainability cannot be achieved with bits and pieces of kit, but by understanding the interdependencies between products, systems and people.

As a result, together with some of the innovators I’d been working with, I co-founded the Carbon Free Group. We established consortiums, bringing together examples of best practice in sustainability. We live in a reductionist society that assumes we can find answers by breaking everything down into their component parts. What is essential is the pulling together of different ideas to create solutions and the Carbon Free Group does that.

Seven years on, I’ve been able to achieve some incredible things through the group. I worked with Birmingham City Council, for example, on its

renovation strategy for its 65,000 Victorian social houses. Birmingham has the largest number of hard-to-treat houses of any city in the UK, and I was able to write a report demonstrating the viability of retrofitting those properties. We showed the council it could achieve an 80% reduction in greenhouse-gas emissions from those houses straight away in a technically feasible and cost-effective way.

I also helped with the tender for the groundbreaking ultra-low-carbon Brent civic centre in London. The £75 million project, which was awarded an “outstanding” BREEAM rating, includes sustainable features such as natural ventilation and a combined cooling, heating and power plant which runs on waste food oil, cutting carbon emissions by 33%.

Alongside my work through the Carbon Free Group, I have another role heading sustainability at HW Fisher. I joined the accountancy firm 2.5 years ago after two of its accountants attended a course I was giving and asked me to develop a new sustainability services offering. We now conduct forensic energy and carbon audits – identifying energy savings of 15%–35% on average – as well as offering training and sustainability strategy creation. I go into boardrooms and really challenge executives as to the sustainability of their business model and how they could be changing it. It’s a great feeling to see that look when someone finally understands, and they say: “I never thought about it like that before.” I’m proud that I get to help people and companies transform the way they’re approaching things. That’s why I embarked on this career; to galvanise change.

When I started the Carbon Free Group, I set up a spreadsheet and I’ve marked down every project that I’ve been involved with and the amount of carbon it abated. So far, I estimate that I have helped organisations save the equivalent of at least 5,000 times the amount of carbon I will generate in my lifetime. Now, there will be some executives in large corporate that could do the same in a day, but what I’m really proud of is that 90% of those carbon savings are from small businesses, where the projects save just five or 10 tonnes. At the end of the day, each of us has just one life and if you want to try to effect change you have to put yourself in the places where you have the most chance of that. After 16 years, I’ve managed to fight my way into the system and do just that.

**Jae Mather**, MIEMA CEnv, is director of sustainability at HW Fisher & Company, the co-founder of Carbon Free Group UK and a guest lecturer at the Universities of Birmingham, Cambridge, Westminster and Portsmouth.

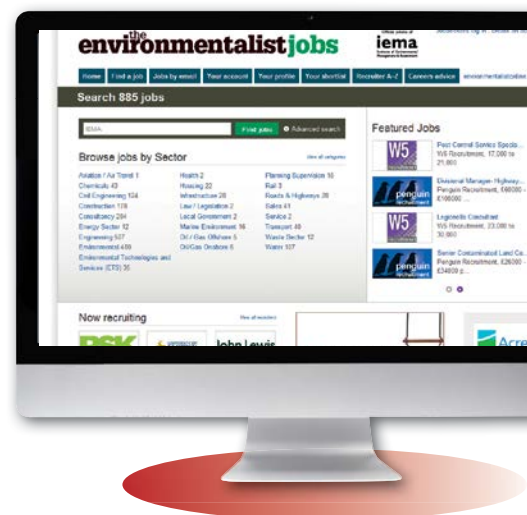


[www.jobs.environmentalstonline.com](http://www.jobs.environmentalstonline.com)


**the environmentalistjobs**

Official jobsite of  
**iema**  
Institute of Environmental  
Management & Assessment

To register for FREE job email alerts, go to  
[www.jobs.environmentalstonline.com](http://www.jobs.environmentalstonline.com)



## Featured jobs

<p><b>Sustainability Consultant</b> £Competitive + benefit package Sittingbourne and Oldham</p> 	<p><b>Designated Environmental Adviser</b> £Competitive Harefield, Home Counties</p> 
<p><b>Senior/EIA Consultant</b> Competitive salary and attractive benefits package Sutton Coldfield, Birmingham Job closes: 21 February 2014</p> 	<p><b>Volunteer Assistant Ecologist, Wales &amp; West Environment Team</b> Voluntary Based in Birmingham, Fazeley or Hatton office</p> 
<p><b>EIA Project Consultant</b> £28,000–£35,000 Edinburgh or Glasgow</p> 	<p><b>Environmental Assistant</b> To £27,000 depending on experience East Midlands Job closes: 14 February 2014</p> 

From the publishers of

**the environmentalist**

[www.jobs.environmentalstonline.com](http://www.jobs.environmentalstonline.com)

# Senior Ecologist

Cardiff/Bristol

Excellent Salary & Benefits

As part of our ecology team, you will have the opportunity to work in a highly stimulating environment to deliver projects to best practice industry standards.

We work collectively on projects in the UK with an emphasis on the infrastructure and residential sectors. We also pro-actively support developers and Local Planning Authorities on smaller scale development initiatives and work with our clients to incorporate real biodiversity benefit into development schemes. Combined with our work across a wide range of other sectors, we have a strong, diverse and sustainable ecology business, with room to build a long-term career at the forefront of ecological consulting and conservation.

Our team has thrived in recent years based on its ethos in providing innovative approaches to projects through applying our practical consenting experience to support all our clients, whether developers, local authorities or regulatory bodies.

Currently we are looking to appoint a Senior Ecologist. The ideal candidate will have sound field skills as well as solid report writing skills and the ability to apply ecological principles to a range of projects. We are looking for an ecologist who is enthusiastic and able to work in a team as well as being able to manage and deliver their own work.

In return, we provide an excellent opportunity to develop as an ecologist along with strong commitments to support with continuing professional development and a highly competitive salary and benefits package.

To apply, or for more information, contact our Recruitment Manager, Geoff Thorpe via e-mail at [geoff.thorpe@rpsgroup.com](mailto:geoff.thorpe@rpsgroup.com)

No Agencies Please

RPS is an equal opportunities employer

## Our Company

RPS is a leading multi-disciplinary consultancy with the expertise to support clients through the development process, from planning to design to implementation.

We are acknowledged as experts in planning, transport, landscape and environmental consultancy and we are award winning architects, civil, structural and mechanical and electrical engineers.

RPS has grown into one of the world's pre-eminent consultancies by maintaining its local connections whilst underpinning these with the resources and knowledge of a global business.

We employ 5,000 people in the UK, Ireland, the Netherlands, the United States, Canada, Brazil, Africa, the Middle East, Australia and Asia. Our international presence allows us to undertake co-ordinated and integrated projects throughout the world.





# LRQA: EMS training specialists

An Environmental Management System makes good business sense: pressure to measure and minimise the impact your organisation has on the environment has never been greater. No organisation should neglect their training needs against such a backdrop of dynamic environmental change.

LRQA training provides world class environmental audit training, from Internal Auditor and Lead Auditor, onto Environmental Systems Manager and beyond.

- EMS Specialists with unrivalled experience in delivering relevant, engaging course content
- We understand the environmental challenges that organisations face every day
- Providers of specialist public environmental courses
- InCompany training courses tailored to your objectives and organisation

Call us today to speak to one of our experienced advisors who can support you with your training needs. Or alternatively visit our website for further information on our EMS courses.



#### LRQA Training

T 0800 328 6543

E [lrqatraining@lrqa.com](mailto:lrqatraining@lrqa.com)

W [www.lrqa.co.uk/training](http://www.lrqa.co.uk/training)

#### Certification

T 0800 783 2179

E [enquiries@lrqa.co.uk](mailto:enquiries@lrqa.co.uk)

W [www.lrqa.co.uk](http://www.lrqa.co.uk)



Lloyd's Register  
LRQA

Improving performance,  
reducing risk