

PREPARING FOR THE PERFECT STORM

SKILLS FOR A SUSTAINABLE ECONOMY

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INTRODUCTION

Business is facing a perfect storm. Growing demand for scarcer and scarcer vital resources will drive commodity prices ever higher. Rapid population growth, volatility of materials supply and energy prices, plus climatic uncertainty and extreme weather events, will combine to ensure businesses operate in an increasingly complex and difficult world.

Organisations need to recognise and prepare for these changes, to turn the challenges into opportunities. To do so they have to put environmental management and sustainability at their heart. In the new business world, sustainability will no longer be a “bolt-on” to the way organisations work; it must be in their DNA.

Environment and sustainability skills will be essential to plan the adaptations needed to survive and stay competitive, helping businesses adapt manufacturing processes and service delivery to cope with supply volatility and to work towards a “circular economy”, extracting the maximum value from materials and turning waste into resources.

But many UK businesses say they are ill prepared for these growing challenges; they recognise the gravity of the threats, but lack the necessary skills to face them head on and turn them to their advantage.

In this report we look at the scale of the problem and highlight some organisations and sustainability professionals who are in the vanguard of transforming business to come through the storm unscathed.

STORM WARNING



80% of our economy isn't circular – it relies on a supply of cheap commodities and loses valuable materials in landfill. But cheap commodities are a thing of the past.

Julie Hill
Chair, Circular Economy Task Force



In a world of changing climates, there will be shifts in trading and investment patterns, and price volatility in the production and supply of resources will be the norm.

Celine Herweijer
Partner, PwC



Commodity prices have risen 147% since 2000 and are likely to continue to soar.

Jeremy Grantham
Co-founder, GMO



Freshwater consumption worldwide has more than **doubled** since World War II and is expected to rise another 25% by 2030 as the global population reaches 8bn. One-third of the world's inhabitants already lives in water-stressed countries and by 2025 this is **expected to rise to two-thirds**.

UNEP, 2012



Europeans are **consuming natural resources at more than 2.5 times the rate** at which they can be generated and in the US it is more than four times. If every country in the world were to consume natural resources in the same way as an average European, then **we would need 2.66 planets** to sustain our current consumption levels.

Global Footprint Network, 2013



The economic value of **assets at risk from floods** will reach **\$45 trillion** by the middle of the century.

OECD, 2013



Global temperatures are likely to rise by between **0.3°C and 4.8°C** on 1985 to 2003 levels by the end of the century.

IPCC, 2013



World population of 7.2bn in mid-2013 is projected to increase to 8.1bn in 2025, and **to rise further to 9.6bn** in 2050 and 10.9bn by 2100.

UN, 2012



Climate change poses a **physical threat to 207 of the world's largest cities**, affecting 50% the world's population and putting 80% of global GDP at risk.

CDP, AECOM and C40 Cities Climate Leadership Group, 2014



The IPCC's "carbon budget" to limit global temperature rise to **2°C** by **2100** will be blown by **2034**, with a rise of **4°C** more likely by the end of the century.

PwC, 2013



Of 60 metals analysed by the UN Environment Programme, only 18 had end-of-life recycling rates of more than 50%, and over half, including 14 rare earth metals, had **recycling rates of less than 1%**.

UNEP, 2011



The volatile **cost of materials**, commodity supply risks and the UK's high dependency on imports are **threatening UK growth** and are an increasingly serious concern in manufacturing.

EEF, 2014



If governments and industry do nothing to address energy use and metal shortages, **\$2 trillion-worth of output will be put at risk** by 2030. But if manufacturers improve their use of steel and increase recycling rates they could **save \$46.9bn by 2030**, and greater energy efficiency could create **further savings of \$37bn**.

World Economic Forum, 2012



Environmental sustainability will drive profound changes in manufacturing processes over the next four decades. Volatility of supply, climate change, greater use of regulation and consumer pull for eco-products will drive the development of alternative business models and the emergence of a "**circular economy**". This will change the skills landscape for manufacturing.

Foresight report, 2013



A STATE OF UNPREPAREDNESS

Climate change and resource volatility are already affecting world business.

The floods that engulfed Thailand in 2011 demonstrated sharply how climate impacts in one region can devastate global supply chains. Nearly 10,000 factories were forced to close, reducing the country's output by around 40%.

At the time, almost half of the world's hard drives were manufactured in Thailand. The flooding resulted in the price of drives doubling and manufacturer Western Digital suffered losses of \$235 million. Disruption to supply chains reduced production of Honda vehicles in North America by 50%, while Nissan spent \$67 million on supply chain flood recovery.

Climatic threats like these will be repeated in the next decades and be compounded by resource scarcity. No nation will be exempt.

Most UK businesses are simply not heeding the call to prepare themselves for the stresses to come. A 2013 report from the Carbon Disclosure Project — based on a survey of 260 firms in the FTSE 350 index — revealed that while 86% of companies are conscious of climate risk, their level of understanding of and ability to manage this risk, particularly in supply chains overseas, is far lower. Almost half of companies do not engage with suppliers on emissions or climate change and the majority of emissions from companies' value chains are not measured.

Defra calculates that businesses adopting resource efficiency measures with less than a one-year payback time can save £23 billion. When the payback time is longer than 12 months, the savings almost double to £55 billion.

But as the following pages show, IEMA's research into more than 900 UK businesses reveals that many lack the basic skills to take advantage of the opportunities offered by sustainable business management or to make the transition needed to guarantee their survival in the new economy.

“
Many organisations are 'asleep at the wheel' when it comes to addressing sustainability and resource scarcity. Too often businesses see taking action as an obligation and a cost.

Tom Delay
Chief Executive,
Carbon Trust

“
There isn't an organisation I know of which isn't already being impacted by climate change at some level ... We need to get beyond the concept that progressive climate change policy is bad for business; it can be a huge driver of innovation and create opportunities for growth and prosperity.

Niall Dunne
Chief Sustainability Officer, BT

HOW CONFIDENT ARE ORGANISATIONS THEY HAVE THE SKILLS TO COMPETE IN A SUSTAINABLE ECONOMY?

Somewhat confident; there are significant gaps



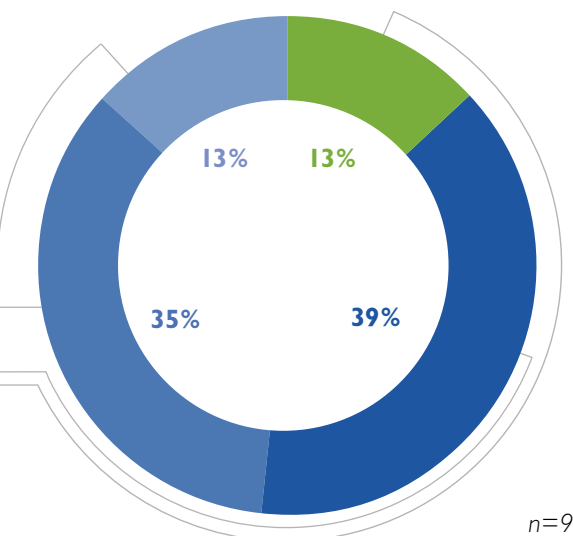
Not confident



Reasonably confident, but there are gaps



Very confident



n=945 organisations

42%

of employers say environmental training in the past two years has enabled them to make **none or only some of the changes** they needed.

89%

of organisations say their **finance staff** are not capable or only partly capable of contributing to their environment and sustainability agendas.

62%

of organisations say **environment and sustainability training is more poorly funded** than other professional areas such as safety and finance and 10% say they have no environmental training budget at all.

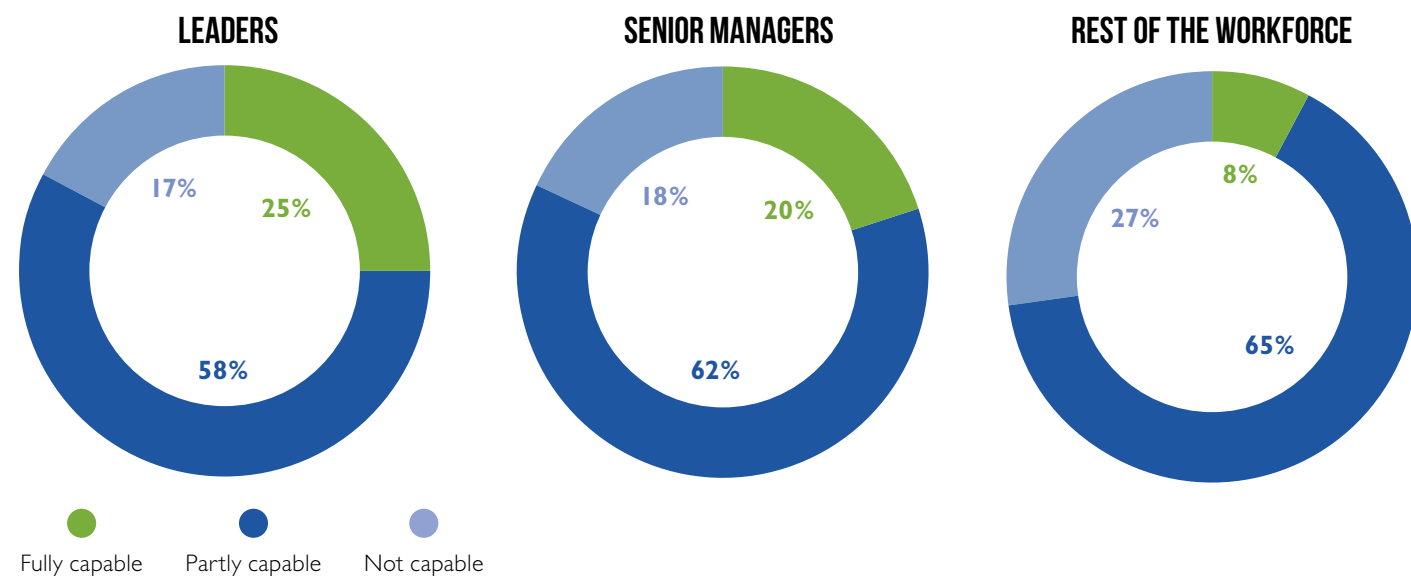
82%

of organisations say their **procurement staff** are not capable or only partly capable of contributing to their environment and sustainability agendas.

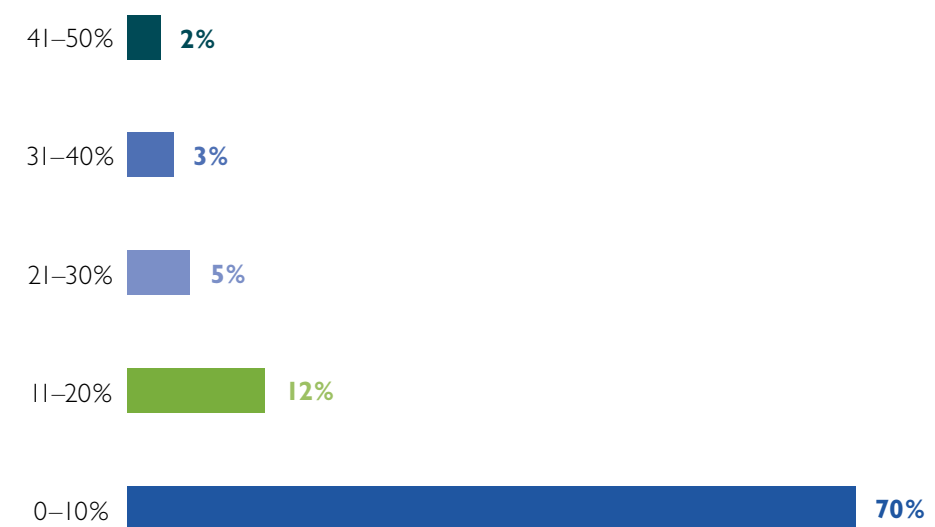
74%

of organisations say their **product development staff** are not capable or only partly capable of contributing to their environment and sustainability agendas.

HOW CONFIDENT ARE ORGANISATIONS THAT EMPLOYEE GROUPS HAVE THE SKILLS TO ADDRESS THE ENVIRONMENT AND SUSTAINABILITY AGENDA?



WHAT PROPORTION OF ORGANISATIONS' TRAINING BUDGETS IS SPENT ON ENVIRONMENT/SUSTAINABILITY TRAINING?



71%
of organisations are **not fully confident their customers** have the skills required to move to a sustainable economy.

SKILLS GAPS MOST COMMONLY REPORTED BY ORGANISATIONS WITH RECRUITMENT PROBLEMS:

- 1**

Technical knowledge and understanding
- 2**

Strategic understanding of sustainable issues
- 3**

Leadership for change
- 4**

Sustainable practice
- 5**

Wider business skills (egs marketing, finance)

BARRIERS MOST COMMONLY REPORTED INCLUDE:

- 1**

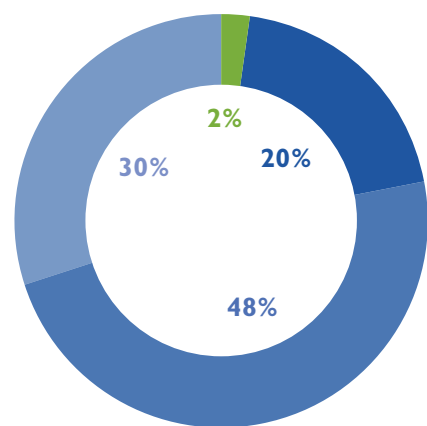
Courses too expensive/ lack of budget
- 2**

Lack of time
- 3**

No appropriate courses
- 4**

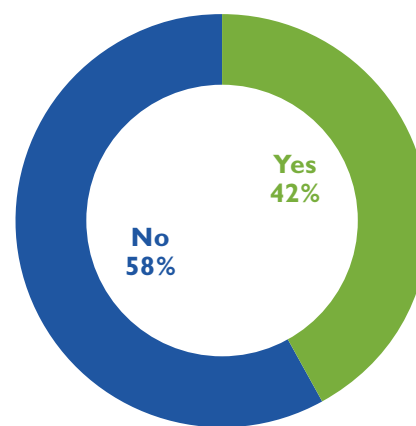
No local courses

HOW CONFIDENT ARE ORGANISATIONS THEIR SUPPLIERS HAVE THE CAPABILITY TO MAKE THE TRANSITION TO A SUSTAINABLE ECONOMY?



- Very confident
- Reasonably confident, but there are gaps
- Somewhat confident, but there are significant gaps
- Not confident, they lack most skills required

HAVE ORGANISATIONS MET BARRIERS IN SECURING ENVIRONMENT/SUSTAINABILITY TRAINING IN THE PAST TWO YEARS?



**Percentages exclude respondents who have not bought training in previous two years.*

DO ORGANISATIONS HAVE PROBLEMS RECRUITING ENVIRONMENT AND SUSTAINABILITY PROFESSIONALS WITH THE SKILLS THEY NEED?



**Percentages exclude respondents who have not recruited in previous two years.*

- No — we have no problems
- Yes — we often have to recruit environment and sustainability professionals with skills gaps
- Yes — we cannot find environment and sustainability professionals with the required skills and so cannot recruit

UP TO THE CHALLENGE

Business preparedness for the challenges of a changing economy is worryingly poor, but there are shining exceptions. Forward-looking businesses are leveraging a commitment to environment and sustainability skills to reap financial benefits now and gain competitive advantage, as well as increasing their resilience against coming uncertainty.

Asda recently launched its resilience plan after research revealed that an estimated 95% of all the fresh produce on its shelves is at risk from climate change, and more than a third is classed as high risk. The supermarket giant plans to work with its suppliers through its Sustain & Save Exchange programme to strengthen resilience to a changing climate. "If [suppliers] haven't got plans, how can we help them? What do we need to look at in terms of how we work with our supply base to make them more efficient? That's [about] sharing information, looking at how we could invest and encourage investment in those suppliers so they are able to continue to supply us," said Asda Vice President Paul Kelly.

Unilever Chief Executive Paul Polman has warned that natural disasters are already costing the consumer goods company £190 million a year. "Left unchecked, climate change has the potential to become a significant barrier to our growth strategy, and that of just about every other company," he told an audience at Imperial College, London. "As scarcity and volatility continue to increase the prices of raw materials, businesses will see increased pressure on profit margins, reducing growth and the ability to invest." Unilever's sustainable living plan, launched in 2010, includes targets to source 100% of its agricultural raw materials sustainably by 2020 and to halve the greenhouse gas impact of its products across their lifecycles.

A survey of 500 IEMA members reveals that many organisations employing skilled and qualified environment and sustainability professionals are achieving significant benefits by taking action on resource efficiency. One in five practitioners working in very large companies reported their organisation has saved more than £1 million a year by improving their resource efficiency; more than 20% of large companies reported annual savings of £100,000 a year; and nearly 70% of all companies reported annual savings of more than £10,000. These figures suggest that annual savings of more than £108 million have been achieved by organisations that employ environment and sustainability practitioners.

In this section we highlight some of the organisations and sustainability professionals IEMA believes are pointing the way forward to a future-fit economy.



Lighter, more aerodynamic vehicles, more efficient engines, alternative powertrains, greater use of renewable and recycled materials, and easier disassembly are among Jaguar Land Rover's (JLR) initiatives to improve environmental performance.

Investment in efficient manufacturing and logistics supply chain, strict environmental standards for suppliers, and a global CSR programme, form a sustainability strategy aimed at reducing the environmental and social impacts of JLR's operations and products, from design to the end of a vehicle's life.

Its achievements were recognised by Business in the Community with its UK Responsible Business of the Year award in 2013.

JLR's 2020 aspirations include:

- products that offer competitive tailpipe CO2 emissions. Reduced environmental impacts in the product lifecycle, including 30% reduction in operating CO2 emissions and water consumption versus 2007.
- Leadership in sustainable operations, targeting zero waste to landfill and carbon-neutral manufacturing.

- Using global reach, resources and partnerships to create opportunities for 12 million people to make a positive change in their lives.
- Employees and partners aligned to an environmental innovation mindset, to deliver more sustainable outcomes from business decisions.
- JLR sites and strategic supply chain facilities resilient to climate change impacts.
- Sustainability criteria applied to all sourcing decisions.

Measures at JLR's new "Ingenuim" engine manufacturing centre at Wolverhampton include the UK's largest roof mounted solar array, capable of meeting up to 30% of the electricity demand.

The facility achieved a BREEAM Excellent rating for environmental building standards, including passive lighting, grey water use and a zero waste system.

CSR Director Jonathan Garrett says that as innovation and long-term thinking are crucial for JLR to achieve its responsible growth objectives, engaging the company's workforce is paramount.



LED lighting reduced energy consumption by 70%, saving more than **1000 TONNES** of CO2 a year and cutting annual costs by more than £140,000

"Our business is growing. And with it, our ability to make a long term difference to the world in which we operate," he says. "We aim to engage all our employees in our 2020 environmental and social goals, to help us future-proof our business."

"Our employees are engaged in the whole business transformation process, which ultimately pulls together our approach to customer loyalty, new product development and environmental innovation, to deliver experiences that customers love for life."

ANNA-LISA MILLS



Group Sustainability Manager, Innovation Group

At insurance claims management and software specialists Innovation Group, Anna-Lisa Mills is helping to fulfil the company's aim to be a future ready business, using carbon measurement and reduction to benefit the group's clients and suppliers as well as the wider world.

Mills coordinated the appointment of a regional network of sustainability ambassadors among the group's senior management. After advanced training in carbon accounting, the ambassadors gathered emissions data for their regions, using the Carbon Fix

Foundation's online SmartCarbon tool and submitted them to the centre allowing Mills to derive a group total of around 10,000 tonnes of CO2 equivalent (tCO2e) a year.

At the same time she launched an ambitious carbon reduction plan, which saved the group 857 tCO2e in 2013/14, its first year.

The board has now set a target to reduce emissions by 6% by 2015 against the 2013/14 baseline and to hit a 15% reduction by 2020. It has launched an elearning course for all of Innovation Group's 3000 staff to help them support the aim.

Mills has now started a programme to encourage Innovation's suppliers to record and manage their carbon footprints, making reporting a contractual requirement for all suppliers to the UK Property Division. The group holds roadshows and provides training to support them.

Helping its suppliers increase their efficiency generates savings that Innovation can then pass on to the insurers that make up its customer base.



Network Rail Infrastructure Projects (NRIP) will be responsible for delivering £25 billion worth of investment across 15,000 projects between 2014 and 2019. With such a large-scale investment programme, NRIP has set itself an objective to “advance the standard of environmental management” as part of its five-year business plan.

According to Tertius Beneke, Head of Sustainable Development, the key to improving environmental management performance at NRIP is to improve the environmental knowledge of its entire 4000-strong workforce.

A system to embed environmental competence across the business, which uses IEMA’s skills map to identify the skills and knowledge required by staff at all levels, was signed off in March 2014. The competences have been designed so staff will demonstrate around 70% of the prescribed level of competence by simply following Network Rail procedures. A further 20% of the desired competence level will come through mentoring, by environment managers or project managers, for example. The remaining 10% will be met by training. NRIP is currently

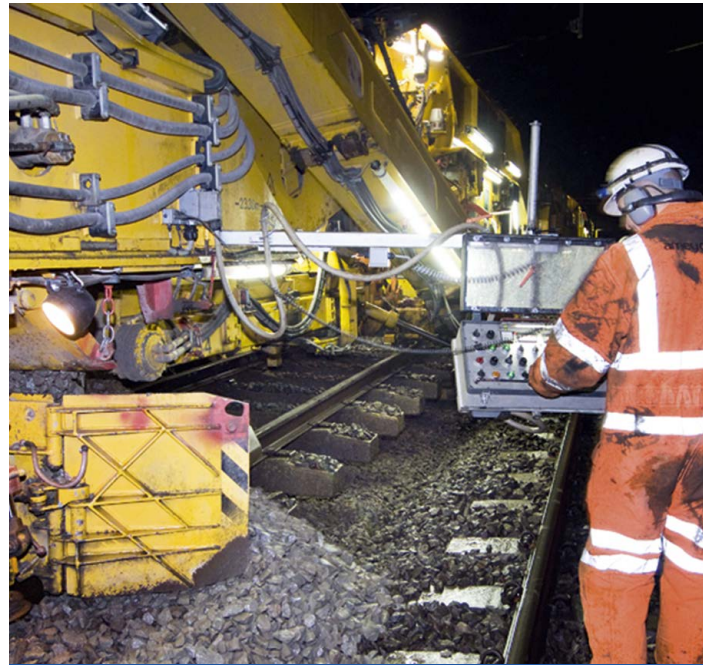
working with IEMA and its training providers to design appropriate courses.

NRIP has set a target for 60% of its workforce to be compliant with its environmental competence requirements by March 2015. This environmental competence is being rolled out across the whole of Network Rail — a total of 35,000 people.

The ultimate aim is to make the environment part of everyone’s job. “We want to get to a position where people do not have to be told to think about the environment,” says Beneke, “but, like safety, to consider it as a matter of course and raise any issues. It is no longer acceptable to be passive participants; we all have an obligation to look out for the environment.”

The training is a crucial element of Network Rail’s approach to sustainable development, which the business says is integral to the long-term success of the company and the railways. Key aspects of its sustainable business strategy focus on adapting the rail infrastructure to the predicted effects of climate change and reducing the carbon footprint of its energy consumption.

The refurbishment of Blackfriars station in London



NRIP has set a target for **60%** of its workforce to be compliant with its environmental competence requirements by March 2015

provides an example of how Network Rail is reducing its footprint. The station roof hosts 4400 photovoltaic panels, providing up to 50% of the

station’s energy, enough to make almost 80,000 cups of tea a day, and reducing annual CO2 emissions from the facility by about 511 tonnes.

RICOH

imagine. change.

Managed-document services and IT solutions business Ricoh believes sustainable business practices are the key to long-term prosperity. And that through ethical partnership with customers and suppliers alike, putting sustainability at the top of its agenda is the only way to ensure the long term success of the economy. Ricoh has recently created a sustainable business services team to engage with UK businesses and develop and encourage new and sustainable business practices based on its own proven methods and successes.

Ricoh has a longstanding commitment to developing innovative and sustainable products and operations. Its corporate philosophy, set out by founder Kiyoshi Ichimura in 1936, states that sustainability starts with product design and is not an afterthought. Today the company views sustainability as developing a business model that will deliver lasting value for all stakeholders in the future, and looks beyond managing its impact on the environment.

Ricoh, which in 2014 celebrated 10 continuous years in the list of the 100 most sustainable businesses worldwide,

has a global workforce of around 109,000 and opened its first environment office in 1976. This office demands Ricoh continually challenges itself to innovate to reduce its environmental impact.

At its Telford plant, Ricoh has replaced sodium lighting with high-frequency fluorescent lighting in the toner plant warehouse, cutting annual energy costs by £25,000 and CO2 emissions by 150 tonnes; return on investment is 1.6 years and light quality has improved by around 60%.

Even bigger savings have been achieved by installing variable speed drives (VSDs) on motors and pumps. Fitting 110 VSDs has saved the plant £85,000 a year, so the investment was paid back in just eight months. The drives have also reduced annual CO2 emissions by 520 tonnes.

The most dramatic project undertaken by Ricoh has seen the four head office sites in Northampton condensed into one. The Transformational Business Service cut travel, improved business mobility and reduced employee stress. It cut paper consumption by 32% and energy use by 25%.

Chas Moloney, Marketing Director at Ricoh UK and Ireland,



Fitting 110 VSDs has saved the plant **£85,000** a year, so the investment was paid back in just eight months

explains that the company’s logo contains the phrase “imagine change” and says that is all about what Ricoh can do to ensure sustainability in future.

Moloney says that training is a key part of making

progress in this area: “Every employee needs to be aware of sustainability issues, not just environment practitioners. Everyone needs to know that by doing simple things they can make a big difference.”

MATTHEW ROWLAND-JONES



Environment Affairs Manager, Rexam

Matthew Rowland-Jones is Environmental Affairs Manager at leading global beverage can maker Rexam, tasked with raising the proportion of its annual output of more than 60 billion cans that are eventually recycled. He spends most of his days engaging with customers and industry bodies about Rexam’s sustainability work and promoting recycling to end consumers.

He works with a number of major drinks brands that buy Rexam’s cans to inform and support their recycling programmes. “On the surface, it might sound strange for a business-to-business company to concern itself with the public,” he says, “but we’ve been doing a lot of carbon footprint work in recent years and we know that the environmental impact of our cans is ultimately

controlled by the way consumers dispose of their cans. That’s why we put a lot of emphasis on encouraging recycling of what is already the most recycled drinks pack in the world.” His role also involves horizon scanning and ensuring the business is aware and understands the implication of future environment and sustainability trends so it can plan to address them.

JAE MATHER



Director of Sustainability, HW Fisher

Co-founder of the Carbon Free Group consultancy, Jae Mather estimates he has helped organisations abate at least 5000 times more carbon dioxide than he will generate in a lifetime.

He worked with Birmingham City Council on the renovation strategy for its 65,000 Victorian social houses, showing the council the way to reduce greenhouse gas emissions by 80% immediately by retrofitting the hard-to-treat housing stock.

He also helped with the tender for the groundbreaking ultra-low-carbon Brent civic centre in London. The £75 million project, which gained an Outstanding BREEAM rating, includes natural ventilation and a combined cooling, heating and power plant which runs on waste food oil, cutting carbon emissions by 33%.

Alongside his work for Carbon Free Group, Mather is also Director of Sustainability at accountants HW Fisher. His team’s

forensic energy and carbon audits for the firm’s clients identify energy savings of 15% to 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,” he says. “It’s a great feeling to see that look when someone finally understands, and says ‘I never thought about it like that before.’”

Power systems company Rolls-Royce has a turnover of £15 billion and employs 55,000 staff. All of its businesses are certified to the ISO 14001 environmental management standard, and its three-pronged environment strategy focuses on: supporting customers to reduce their environmental impacts; developing low-emission products; and reducing the company's own impacts.

Nigel Marsh, Global Head of Environment, says meeting the company's environmental objectives needs a suitably skilled and knowledgeable workforce. "It's vital we have access to the right sort of capabilities in our environment practitioners, and indeed much of the rest of our workforce," he says.

Marsh uses Rolls-Royce's closed loop recycling initiative to illustrate the sort of benefits that can come from improving employees' skills and awareness. Called Revert, the programme aims to recover, recycle and reuse waste metals in manufacturing and turn them into new aerospace grade alloys.

Every one of its aero manufacturing facilities around the world is part of the programme. It saves Rolls-Royce 20,000 MWh of energy each year — enough to power 1.8 million homes for a day. Revert also saves 9000 tonnes of CO2 a year.

"To do more using less, we need to raise both skills and awareness among our employees," says Marsh. "We believe we can make significant savings by educating our workforce in techniques like waste mapping. That will make us both more competitive and more resilient as a business."

Rolls-Royce is increasingly looking to IEMA to help provide environment and sustainability skills. "IEMA enjoys a unique position in the environment arena, and it is continually developing things that interest us. The institute is in a position to be both a global driver for and provider of environmental skills," says Marsh. IEMA is helping Rolls-Royce pilot the "managing with environmental sustainability" course in one of the company's businesses, for example.



Recycling metal saves Rolls-Royce
20,000 MWH
 of energy each year
 – enough to power
1.8 MILLION
 homes for a day

PHS Group has decades of experience in workplace services, and takes its environmental responsibility seriously. "It is inherent in our business model, which by focusing on providing service and rental products allows us to control the entire product lifecycle from design to ongoing maintenance and end-of-life disposal," says PHS's Sustainability Manager Emma Wood. She cites the PHS Washrooms business which each year recycles more than 50 tonnes of plastic sanitary bins and recovers around 28,500 product components for repair and reuse.

Engaging staff in tackling environmental impacts is key to improving performance, so the group has established a network of environmental champions and "footsteps leaders" to encourage behaviour change and help reduce, for example, carbon emissions. Footsteps is PHS's brand for its efforts to become a more sustainable and environmentally focused organisation.

The network of 140 footsteps leaders mainly comprises PHS depot managers, while there are 12 divisional environmental champions, each responsible for one of the company's business

divisions. "The champions all work at a senior level in the organisation and are in a position to influence and make a significant difference to the environmental impact of PHS's operations," says Wood. Together, the footsteps leaders and champions monitor energy use and actively support improved energy efficiency.

The company's aim in creating the champions network is to upskill this senior group of staff so that they have a good understanding of sustainability issues and can make more environmentally sound business decisions. Ensuring that the champions and footsteps leaders have the right skills and expertise is seen as the first step in ensuring they are effective in their role, and all 152 individuals have undertaken an IEMA certified environmental awareness course.

Footsteps leaders have been actively contributing to PHS's goal to reduce energy use. One example is a lighting upgrade at the group's Curdworth site. Ian Cairns, the environmental champion responsible for the site, led a project to install LED lamps and cut lighting costs by more than 50%. The Curdworth site is one of the group's biggest energy users, so the switch to LED has



The PHS Washrooms business each year
 recycles more than
50 TONNES
 of plastic sanitary bins and recovers
 around 28,500 product components for
 repair and reuse.

significantly reduced both the site's and the firm's overall energy consumption.

At another site, all the warehouse lights were upgraded to LEDs and more switches installed to provide better control. Meanwhile, installation of a lightweight partition to

split the building in half has cut heating costs. It has separated warehouse storage activities from the production area, reducing the number of heaters required and retaining the warmth where it is needed. These measures will pay for themselves within two years.

ANDREW MAGUIRE



Health, Safety and Environment Manager, Kepak Convenience Foods

Andrew Maguire has cut waste to landfill and created a £250,000 revenue stream for Kepak Convenience Foods, which makes more than two million burgers, wraps and panini a week for supermarket chains.

As a rapidly expanding company keen to lessen its environmental impacts, and with the costs of landfilling increasing to £80,000 a year, improving recycling rates and avoiding waste creation became a pressing priority. In 2013, 2600 tonnes of waste was generated

on site and 100% was diverted from landfill.

Key to Maguire's success has been treating Kepak's waste as other companies' raw materials, with procedures to ensure correct segregation and eliminate contamination.

Almost 700 tonnes of fat recovered from the cooking process and a fatty sludge recovered in Kepak's on-site water treatment plant were converted into biodiesel, which Maguire describes as "liquid gold" as it is one of the major

contributors to the £250,000 the company recovers from waste each year.

Other food waste is now composted, cutting landfill costs, and approximately 900 tonnes of cardboard and plastic is baled on site before being sent for recycling.

A switch from single-use cardboard packaging for meat products during the production process to a multi-use alternative, a suggestion that came from the shop floor, generated a £100,000 saving,

JAMES DIXON



Waste Manager (and Sustainability Lead), Newcastle-upon-Tyne Hospitals NHS Foundation Trust

James Dixon's sustainability work at his NHS trust has saved more than £800,000 and reduced waste related carbon dioxide emissions by 75% in the last four years.

He managed £300,000 of these savings in the first year, as well as trebling recycling rates, primarily due to the consolidation of several legacy waste contracts to dispose of almost 5000 tonnes of waste covering more than 20 sites.

He put out a tender for the whole trust with innovative environmental requirements, including increased recycling rates, zero waste to landfill and accurate monthly data on the weight of waste collected and the amount

of carbon created by the different waste disposal routes.

He says this last requirement produced "a number of blank looks from contractors", but as a great believer that "you can't manage what you can't measure", he persisted and SITA, which won the contract, provides him with detailed monthly figures. These help prove that the trust is moving up the waste hierarchy year on year and achieving carbon reductions in the process.

The tight environmental specification, and professional partnership with SITA, has freed up time for Dixon to deliver projects that further reduce waste,

increase reuse and boost recycling rates across the trust.

The bespoke data provided by SITA also helps him demonstrate the value of certain projects to staff and senior management. This confirms staff efforts are worthwhile and helps encourage further achievements in other areas of the trust.

The trust has reduced waste costs and increased recycling year on year since Dixon's arrival. It now recycles approximately 1000 tonnes a year and despite an increase in overall waste produced, its waste intensity (total waste/total number of patients treated) has decreased.

SEIZING THE OPPORTUNITY

The topic of skills is a fundamental, non-negotiable issue and action is needed now. Governments and businesses worldwide need to work together to ensure a policy framework is in place so that national economies can manage the risks and businesses can develop the flexibility and resilience to succeed. To support this, we propose a new skills framework that will equip organisations everywhere and which includes developing:

- skills for leaders to integrate sustainability into long-term decision making
- enhanced skills and capability for environment and sustainability professionals so they can integrate sustainability throughout their organisations and value chains, building in foresight and horizon scanning and creating the business case
- increased environment and sustainability knowledge and understanding for all other workers, so they can play their full roles.

Crucially, government has an important role to play. Environment and sustainability must be integrated into the national curriculum, ensuring that young people entering work are able to play their part and drive a positive cultural response to the challenge, right from the start of their careers.

Skills policy and support, aimed at those already in work, needs to address the skills gap at all levels. Focusing on apprentices, without addressing higher-level roles, will not prepare the economy for the changes to come.

IEMA is providing the pathways and support for businesses to upskill and develop the capability to meet the challenges but the scale of this challenge means it cannot be achieved by one organisation. Partnership and collaboration between policymakers, business leaders and the professions is vital to the realisation of a sustainable economy. We can have a bigger impact and achieve more when sectors and supply chains work together to solve problems and develop solutions across the whole system.

Investing in the skills to transition to a sustainable economy offers business the best chance of maximising the opportunities that will, without doubt, arise. It's a "no regrets" approach to preparing for a successful future.

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IEMA AND ISSP TRANSFORMING THE WORLD TO SUSTAINABILITY

The Institute of Environmental Management & Assessment (IEMA) is the professional home of over 15,000 environment and sustainability professionals from around the globe. The International Society of Sustainability Professionals (ISSP) mirrors IEMA's aim to upskill, inform and promote the role of sustainability professionals worldwide. Together, our organisations support individuals to drive and deliver unrivalled environment and sustainability performance on a scale never seen before.

We are Member-driven, facilitating and mobilising networks of skilled, knowledgeable, empowered and passionate professionals who lead sustainability in their organisations. By joining forces, we can reach thousands of organisations and hundreds of thousands of professionals, changing attitudes to environment and sustainability to ensure every business everywhere survive the perfect storm.

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