

Less is more

Optimising resource use and waste management to cut costs and support corporate responsibility

Presentation for the European Facilities Management Summit

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How can less be more?

Imagine for a moment you run a publicly funded institution with an annual income of €240m and in the blink of an eye – following a revised funding round – you stand to lose 5% of your income in one fell swoop. That's the fate that faced Birmingham Children's Hospital (BCH), one of the busiest specialist children's hospitals in the UK, in November 2010¹.

With total admissions growing by some 20% in four years, and no sign of a decline in the rate of admissions or patient episodes, the hospital's administrators faced that very question: how can you get less for more?

The hospital had already invested in a new finance and purchasing system that was expected to deliver savings of €710,000 per year, but they were keen to explore where further savings could be made in facilities costs.

A number of measures were tabled, including the adoption of a sustainable procurement policy, and installation of smart metering at the main hospital site. But another area where savings might be generated was non-emergency ambulance and taxi usage.

The hospital spends a lot on taxis: patients and staff travelling to and from hospital in differing circumstances, and medical packages being ferried around. In non-emergencies, ambulances are also regularly used for transporting patients to and from home to hospital, and between theirs and other hospitals. In fact, in just three months, four wards had generated 588 separate taxi and 144 ambulance journeys.

The booking process was administratively intense, putting pressure on front line ward staff to complete paper forms for action by the central facilities team. There was little in the way of journey planning, and many of the vehicles carried just one passenger.

Working closely with service provider, Ambinet, BCH developed what was to become the first patient centred transport ordering system of its kind in the UK, a cost effective, dedicated solution for maintaining effective control of the hospital ambulance, taxi and internal transport booking management. The new system drove decision-making back to ward level, allowed for better coordination of patient journeys, introduced an element of carbon as well

as financial reporting, and ultimately reduced the number of taxi and ambulance journeys and hence the overall costs.

Over the three-month period from January to March 2013, taxi journeys for the same four wards fell by 9%, while non-emergency ambulance journeys fell by 11%. Cost savings of between 10% and 25% were achieved on all four wards, simply through the deployment of a web-based system to improve the efficiency and control of journey planning.

ATOM (Ambulance and Taxi Operational Management), the service partnership created by Ambinet and BCH, is currently being rolled out to multiple sites and has potential to achieve savings across a wide range of facilities management services where transport is concerned.

It's a great example of why facilities management is the natural home of sustainable business.

My name is David Sharp, Founder and Managing Director of Workplace Law, a regulatory firm with offices in the UK and South Africa. We specialise in employment law, health and safety, and environmental management, and have a 17-year history in the facilities management sector.

Workplace Law is the conference partner to the British Institute of Facilities Management (BIFM) at the annual ThinkFM event, and we produce an annual survey of the UK FM marketplace. In the environmental arena, we are an approved training provider of the Institute of Environmental Management and Assessment (IEMA) and a professional advisor providing support and consultancy in the areas of sustainability, resource efficiency, and environmental compliance.

I want to invite you to put on your green-tinted spectacles, to help you appreciate the far-reaching contribution that we, as facilities managers, can make to sustainable business.

Firstly, I want to focus on the *why*. Why facilities management? Why focus on waste management? Why now?

I then want to focus on the *how*. How can we be more efficient? How can we measure it? How can I find out more?

Facilities management is influential

The facilities management sector, as much if not more than any other major business sector, has a tremendous capacity to influence the way organisations are run, and therefore to achieve improved resource efficiencies.

Facilities management is big business. The standard European definition of FM refers to it as:

"... the integration of processes within an organisation to maintain and develop the agreed services which support and improve the effectiveness of its primary activities".

As a support service, it plays a part in the operation of every organisation. And it's a sizeable market.

Current estimates of the value of the UK market for facilities management services put it in the region of €50-100bn per annum¹. Other earlier studies have come up with figures almost double this size², depending on how facilities management services are categorised.

According to Asset Skills – the UK Sector Skills Council for facilities management – some 1.4m people are employed in facilities management in the UK. That's approximately one in 20 of all workers³.

¹ According to BIFM website 29 Apr 2013

² Research reports in 2007 by Mintel and the UK's Centre for Facilities Management (CFM) estimate a market size of approximately €135-200bn, even after accounting for the removal of revenues from IT services. See the UK's P&FM Magazine, December 2007 issue.

³ According to the Office for National Statistics, there were 29.7m people in employment in April 2013. http://www.ons.gov.uk/ons/dcp171778_305051.pdf

Of course, the UK market is but a smaller part of a European, and a global, market, and there is always some discrepancy in values. A 2009 study put the total size of the market for FM services in 41 European countries at €655bn⁴, while a more recent report in the US estimated the FM services sector will grow to around €300bn globally by 2017⁵.

What matters more than absolute size is relative size, and a number of European studies have suggested that the FM sector is worth somewhere between 5 and 8% of European GDP⁶.

FMs are in a prime position to exert cultural and behavioural influence, and that in so doing can support corporate responsibility goals too.

Regulation of waste



On average⁷, each of the 500m people living in the EU throws away around half a tonne of household rubbish every year. This is on top of huge amounts of waste generated from activities such as manufacturing (360mt) and construction (900mt), while water supply and energy production generate another 95mt. Altogether, the European Union produces up to three billion tonnes of waste every year.

The actual cost of waste to an organisation is typically equivalent to between 4% and 5% of turnover, but it can be as high as 10%⁸.

The principle of 'less is more' is actually enshrined in European law, certainly where waste is concerned. The EU Waste Framework Directive⁹ came into force in 2008 and applies to all European member states. The Directive sets out a common definition of what constitutes 'waste'¹⁰, as well as the principles of national regulation: in the UK it has been transposed into the Waste (England and Wales) Regulations 2011, amended in 2012 to require the separate collection of waste streams.

Added to that, most of you will be familiar enough with the plethora of EU law that has been enacted in recent years to support the 'polluter pays' principle in more particular circumstances, including the Waste Electrical and Electronic Equipment (WEEE) Directive, the EU Landfill Directive, the Packaging and Packaging Waste Directive, the End of Life Vehicles Directive, the Waste Batteries and Accumulators Directive, the Energy Performance of Buildings Directive, and so on.

⁴ Report by Sven Teichman published in Der Facilities Manager, 2009. Excluding non-EU member states the market is estimated at €570bn.

⁵ Global Facilities Management Market to Reach \$394.69bn by 2017, according to New Report by Global Industry Analysts, Inc. <http://www.sfgate.com/business/article/Global-Facilities-Management-Market-to-Reach-2363794.php#ixzz2RqhzGNrg>

⁶ <http://www.eurofm.org/news/fm-represents-5-to-8-of-gdp/>

⁷ Statistics from 'Being wise with waste: the EU's approach to waste management'

⁸ <http://www.fmlink.com/article.cgi?type=1&title=What%20a%20waste&pub=1&id=43450&mode=sourc>

⁹ <https://www.gov.uk/waste-legislation-and-regulations#eu-waste-framework-directive>

¹⁰ Article 3(1): "...any substance or object which the holder discards or intends or is required to discard..." The UK's DEFRA has produced useful guidance on the legal definition of waste and its application:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69590/pb13813-waste-legal-def-guide.pdf

Waste hierarchy



But perhaps most importantly, Article 4 of the Waste Framework Directive establishes a central concept to be borne in mind even before any waste is created. That concept is known as the waste hierarchy.

Again, this might be very familiar to facilities managers, more usually shown in the shape of a triangle, where the most desired actions are ranked according to environmental impact.

Some examples help to illustrate this important concept.

- **Prevention:** using less material in design and manufacture, keeping products for longer, re-use, using less hazardous materials.
- **Preparing for re-use:** checking, cleaning, repairing, refurbishing, whole items or spare parts.
- **Recycling:** turning waste into a new substance or product, includes composting if it meets quality protocols.
- **Other recovery:** includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat and power) and materials from waste.
- **Disposal:** landfill and incineration without energy recovery.

This is the interesting part for FM, because of its position as a vital support function. The order of preference makes sense both from an environmental and economic point of view. With waste prevention you save twice because you are using fewer resources in the first instance and also reducing the amount of end-of-pipe waste that you have to deal with.

If your organisation produces or handles waste – and this includes importing, producing, carrying, keeping or treating waste; dealers or brokers who have control of waste and anyone responsible for the transfer of waste – then *you must take all reasonable measures both to prevent waste, and to apply the waste hierarchy when you transfer waste.*

Under the 2011 UK Regulations, businesses are obliged to confirm in writing that they have applied the waste hierarchy when transferring their waste. The process of documenting this activity means making a declaration on waste transfer / consignment notes. Simply put, the law *requires you* to focus wherever reasonably practicable on the first measure – prevention – before you consider the remaining measures.

Of course, prevention makes financial sense in any event: according to a recent case study by the UK Design Council, 80% of the environmental impact of today's products, services and infrastructures are determined at the *design* stage¹¹. But it's important to reiterate: prevention is not just something that is good to do, it's an attitude and an approach that facilities managers, along with everyone else, are required to adopt *by law*.

Resource scarcity

Compliance is not the only reason to prevent, or design out, waste in the first place. Natural resources are running out, and businesses know it. According to the US National Intelligence Council's Global Trends 2030 report¹², environmental impacts pose a security threat: demand for food, water, and energy will grow by approximately 35, 40 and 50% respectively in the next 17 years. The report argues that scarcities can be avoided, but only if coordinated steps are taken to improve productivity and efficiency across a raft of industries and economies. When resource shortages do become a reality, 60% of organisations think the cost of their products and services will need to increase, 55% that they will need to engage in fewer markets, and 43% that they will deliver a less varied service or product offering. So says the Carbon Trust.

¹¹ <http://www.designcouncil.org.uk/our-work/Insight/Research/Research-Briefings/Driving-innovation-through-public-procurement/>

¹² <http://www.guardian.co.uk/environment/2012/dec/11/intelligence-community-climate-security-threat>

Businesses believe a resource-constricted world will impact them in the following ways:



BUT businesses are doing little to pre-empt these effects:



Source: The Carbon Trust

Despite that, there is tangible proof that businesses are sleepwalking into a crisis. The same international research by the Carbon Trust¹³ shows that only 39% of businesses have either made changes, or are planning to make changes in the next three years, to the way they do business in order to combat resource scarcity.

Nearly half (46%) recognise the problem but don't plan to take action for at least the next five years.



Source: The Carbon Trust

According to the Carbon Trust, 43% do not monitor the risks to their business of environmentally-related shocks such as energy price rises and environmental disasters, and over 50% have not developed goals to reduce their company's consumption of water, waste production or carbon emissions.

Increased costs, reduction in geographical markets, changes to products and services and a decrease in quality. Significant changes to business processes. All of these issues impact on facilities management – or perhaps better put, facilities management impacts on all of these issues?

¹³ <http://www.carbontrust.com/news/2013/03/how-businesses-are-sleepwalking-into-a-resource-crunch>

Senior Executives are stalling on taking action on resources and sustainability because they still see them as a purely legal obligation and a cost: nearly half (47%) of executives surveyed by the Caron Trust believe that acting on sustainability issues decreases profits, whereas there is significant evidence to the contrary.

Financial cost

In fact, a failure to properly plan to eliminate waste is expensive. In the UK, the Landfill Tax has grown rapidly to £72 (€85) per tonne in 2013, while still nearly half of all waste in the UK (46%) goes to landfill.

It's an expensive folly. Recycling is commonly thought to be 25-35% less expensive than landfill, re-use even lower still. What's the cost saving of designing out waste altogether?

That's a great question; how much could you save by designing out waste altogether? To answer it, a study by the UK's Waste Resource Action Programme (WRAP) looked at the additional costs that had been saved in diverting food waste from landfill, which in the retail sector on its own amounted to a saving of £70 per tonne. WRAP estimates that preventing creation of that food waste to start with would save £500 per tonne in manufacturing costs, £1,088 per tonne in distribution cost, and £1,676 per tonne in the retail sector: almost 50 times more than the cost of landfill disposal alone¹⁴.

And not only do we have to pay to send waste to landfill, the waste we're disposing of has a value we are failing to capitalise on. The EU estimates that the materials sent to landfill could have an annual commercial value of around €5.25bn if we handled them more intelligently.

Corporate social responsibility

Let's not forget the people, who are our customers, our supporters and our workers.

Highly skilled and talented workers are in short supply, and employers need to do all they can to attract them. All the evidence points to the fact that the millennial generation has a strong preference to work for organisations that share their world view. Nearly 60% of respondents to a recent PWC survey¹⁵ said they have deliberately sought employers whose corporate responsibility behaviour reflects their own values.

Good corporate responsibility attracts and keeps staff and customers, the only true way to build a sustainable business over the long term. The backlash against the squalid conditions in the Bangladeshi clothing factories and the values of the western businesses that employ them shows only too well that sustained success must come from ethical leadership, not short-term financial gain.

So those are the three principles of why 'less is more' is important, and why facilities managers are the people to put 'less is more' into practice.

Less is more: principles

It was not many years ago that businesses were proud of their ability to create things that needed replacing. It's known as 'built-in obsolescence' – the 'make, use, dispose' cycle – and product designers were proud of their ability to generate a longer-term stream of profits for their masters.

But as we've seen, not long-term enough. It's now recognised that the circular economy is the only sustainable, long-term approach to successful business, in which resources are in use for as long as possible, the maximum value can be extracted from them whilst in use,

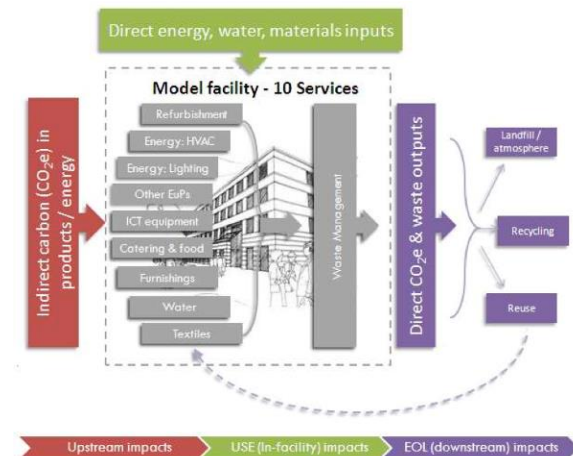
¹⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/181992/wpp-consult-doc-20130311.pdf Section 50, p.24.

¹⁵ <http://www.pwc.com/gx/en/managing-tomorrows-people/future-of-work/millennials-survey.jhtml> (Interestingly, this figure is much lower than the 88% who stated this in the pre-recession 2008 survey).

and then products and materials can be recovered and regenerated at the end of their service life.

Less is more: key opportunities for facilities managers

WRAP has recently produced some extremely useful guidance to support the vital role that FM plays in sustainable business. The WRAP FM hotspots model¹⁶ lists the impact of ten typical FM services, and then considers which of them are most acutely affected where a number of metrics are concerned, such as materials use, waste, and cost.



Source: WRAP

'Hotspots' for each of these metrics are shown in the table below, giving a focus to apply the waste hierarchy where the impact is at its most severe. These represent the greatest opportunities for facilities managers.

Metric	Hotspot service
Materials	Catering (supply of food)
Waste	Furniture (workspace furniture)
Energy use	HVAC (particularly heating)
CO₂e emissions (in-use)	HVAC (particularly heating)
CO₂e emissions (embodied)	ICT equipment
Water Use	WC & kitchens
Cost	ICT equipment

Source: WRAP

WRAP is looking to support and undertake further research into the impact of FM on these metrics, but its initial study suggests that savings of up to 10% could be achieved in water efficiency, 25% could be saved in reducing materials waste, energy and carbon emissions in use, and savings of up to 40% could be achieved in furniture waste. WRAP estimates that costs of waste could be reduced by 20%, representing around €3bn in savings based on its hotspots study.

I'd now like to look at four different examples of how facilities managers have tackled four of these hotspot areas, with regard to: ICT equipment, food, refurbishment, and furniture.

¹⁶ 'Opportunities for Resource Savings in the FM sector'. The report's findings are based on research conducted in four broad sectors: offices, schools, retail and the national health service, and are for illustrative purposes only.
<http://www.wrap.org.uk/sites/files/wrap/WRAP%20FM%20Hotspots%20Report%20Exec%20Summary.pdf>

Waste electrical and electronic equipment (WEEE)

Waste electrical and electronic equipment – such as computers, servers, white goods and electrical tools – is the fastest growing waste stream in the EU, and is expected to reach 12mt by 2020.

The amount of waste generated for a single laptop computer is close to 4,000 times its weight¹⁷.

WEEE is valuable; it contains rare earth metals as well as other valuable components such as copper and gold. It can be easier to extract 1kg of gold from waste mobile phones than from the earth.¹⁸

A sizeable Workplace Law client installs large-scale security and access systems (for universities and museums for example). It generates a large quantity of WEEE waste through its installation and service activities – including old CCTV cameras, VDU screens, and control panels – a lot of copper wiring!

Previously it was disposing of it all as waste, but has since found that it can now recover many of the valuable components itself and has found a new recycling solution (compliant with the WEEE Regulations) which has cut its waste management costs significantly.

The challenge with this type of WEEE waste is separating the valuable metals from the less valuable plastics – and it is this reason why it can often be costly for the end user to recycle and recover materials.

It is approximately 20 times less expensive to recycle WEEE waste outside the boundaries of the EU and – although mostly illegal – there is a burgeoning black market because of this price differential. WEEE waste is ending up in destinations such as Ghana, Nigeria, India and China – where it is processed in jurisdictions without the required environmental legislation to prevent harm to human health and the environment.

This is happening despite us having the technical capability to recycle 100% of WEEE waste within the boundaries of the EU and it having so many valuable materials to recover.

Food

Food is a key area of waste controlled by facilities managers. The EU estimates that on average 40% of biodegradable waste in the European Union goes into landfill. England alone produces around 7mt of non-domestic food waste each year, enough to fill Wembley stadium nine times over¹⁹.



Resource-intensive processes within catering services include:

- Food waste (pre-preparation, pre-service and post-service)
- Non-food waste (such as packaging)
- Refrigeration and freezing
- Heating and cooking
- Ventilation
- Water-using fittings and appliances

Elior²⁰ is a leading provider of food and integrated services in the UK, operating in the private sector as well as education, defence and healthcare sectors. Its client TDK-Lambda already enjoyed a recycling rate of 97% across its 315-employee manufacturing site in southern

¹⁷ According to WARPit

¹⁸ http://www.nature.com/nature/journal/v495/n7440_supp/full/495S4a.html

¹⁹ <http://england.lovefoodhatewaste.com>

²⁰ <http://www.wrap.org.uk/content/fm-case-study-food-waste-monitoring-triggers-improved-performance>

England, but Elior thought more could be done to improve resource efficiency in its catering operations by reducing waste at source.

Elior's motivations were three-fold, says Regional Director for the South, Mark Hall, who says "legislation, corporate responsibility and cost all play their part".

A resource efficiency review by WRAP identified potential for annual cost savings of £2,441, diversion of 1.6t of waste from landfill, and 2.6t of CO₂ equivalent saving.

One of the most significant changes was for Elior to start managing food waste in terms of weight, rather than cost, as previously. Although a target of 3% was in place for production waste, when assessed by weight instead of value the impact was immediately obvious.

Simple steps such as menu planning to avoid expensive or difficult to source ingredients, replacing disposable cutlery with more sustainable choices, improving food preparation to minimise waste, and using leftovers to make soups and stocks, further improved resource efficiency.

WRAP has produced further useful studies on food waste; at a large shopping centre²¹ generating 200mt of food waste per year; at Stansted Airport²² which caters for 18m passengers every year; and at the 900-employee headquarters building of Oxfam, where food waste collection cut landfill disposal by 64%²³.

Refurbishment

HVAC (heating, ventilation and air conditioning) is identified by WRAP as a significant opportunity to design out waste with positive impacts for reductions in energy and emissions of greenhouse gases.

Refurbishment provides a great opportunity for facilities managers to re-think their use, not just of space, but of the whole internal architecture.



To what extent are raised floors and suspended ceilings needed? Would it be possible to remove, or at the very least, significantly reduce the need for HVAC in many cases completely?

This example from Saint-Gobain Ecophon shows how a normal suspended ceiling has been replaced by rafts or baffles instead of a full suspended ceiling, thus reducing overall material consumption (no metal grid, fewer ceiling tiles), employing less labour (due to the ease of

²¹ <http://www.wrap.org.uk/content/fm-case-study-cost-effective-food-waste-scheme-adds-value-materials>

²² <http://www.wrap.org.uk/content/fm-case-study-airport-recycling-rates-soar-terminal-food-waste-collection>

²³ <http://www.wrap.org.uk/content/fm-case-study-food-waste-makes-business-sense-oxfam>

installation) and reduced travel impact from the sub trades to site. Planning for acoustics must not be overlooked if expensive post-fit modifications are to be avoided. When used in conjunction with a thermally activated building system (TABS), such as in the WOOPA Project in Lyon, it is also possible to significantly reduce the need for air conditioning systems. The use of Ecophon's acoustic Solo rafts instead of a full suspended ceiling allowed for a 50% reduction in materials and affected the TABS cooling capacity by no more than 0.3°C, depending on positioning, which was perfectly acceptable to the thermal engineers on the project.

This approach has significantly reduced waste both in the construction phase and at the end of use – improving the environmental impact of the refurbishment over its whole life cycle.

Furniture

Only 10% of the raw materials used to make an office furniture product are found in the final product itself²⁴, which means the chair you are sitting on now most likely actually generated a further 90% of waste during its manufacture.

WARPit (the Waste Action Reuse Portal) is a good example of a community that has been set up to help extend the life of common goods such as office furniture by redistributing it where there is over- or under-supply. This can involve giving goods away or loaning them, and can operate internally or between different organisations. The initial participants in WARPit were public sector organisations such as local authorities but the initiative has been widened to incorporate firms in the private sector too.

Organisations pay a small annual sum to register, depending on their number of employees, after which they can add surplus furniture or claim unwanted items, via a web interface. The community provides a useful first port of call to acquire furniture *before* buying new. Every transaction on WARPit has a carbon, waste and financial value, making it easy to calculate the environmental impact of a decision to buy used.

There are also clear financial benefits to users of the WARPit community. It is already saving large organisations up to €6,000 per month on avoided procurement, with further direct savings coming from reduced waste disposal costs, and more indirect savings created through more efficient use of workspace.

A sustainable approach to furniture and other fittings has also helped Carillion plc, a large construction and facilities management services business, with 50,000 employees in the UK, Canada, Middle East and North Africa. The creation of a storage facility to facilitate the re-use of furniture, signage and fittings has saved Carillion £257,211 over five years, saving many items that would otherwise have gone into landfill²⁵.

Smart steps to sustainable FM



I hope to have shown you *why* businesses really need to focus on resource efficiency *now*, and given you some examples of how we as facilities managers can apply the waste hierarchy to prevent waste at source, where cost savings are at their greatest.

One of the problems with designing out waste, as I have alluded to earlier, is that it's hard to argue the benefits of what doesn't happen, as opposed to what does. As stated in the EU publication 'Being wise with waste':

*"Waste prevention ... is a very challenging concept as it is difficult to measure something which, by definition, never existed."*²⁶

Workplace Law is currently working with partners in the FM sector, including BIFM and IEMA on an initiative to engage the facilities management sector and to help build the FM business

²⁴ <https://www.warp-it.co.uk/howitworks>

²⁵ <http://www.wrap.org.uk/content/fm-case-study-furniture-re-use-lays-building-blocks-cost-savings>

²⁶ EU publication: 'Being wise with waste: the EU's approach to waste management'

case for resource efficiency. We're not trying to reinvent the wheel – which would, after all, be a rather wasteful exercise – but we are keen to share experiences of practising FM's and to tell you our experiences of the difficulties we've faced and opportunities we've helped create.

We are currently running a short online survey as part of our involvement in ThinkFM 2013, which you can access here: <https://www.surveymonkey.com/s/ThinkFMSurvey2013>.

If you would like to take part in our Smart Steps to Sustainable FM initiative, please contact Workplace Law's Head of Environment, Peter Watts, on +44 (0)871 777 8881 or email peter.watts@workplacelaw.net.

Conclusions

Facilities management plays a major role supporting an organisation's operations. FM services span a very wide range of activities, but as WRAP has identified, a number of 'hotspot' areas exist within FM where readily achievable savings can be made, such as waste electrical and electronic equipment, catering and food waste, HVAC and refurbishment projects, and furniture and fittings.

There are three important drivers to resource efficiency.

The first is compliance, not just in terms of meeting the requirements of European and national legislation, but also through internationally recognised standards such as ISO 14001 and the requirements of customers and suppliers in the value chain. (It should be noted that the revision of ISO 14001, currently expected to come into effect in January 2015²⁷, is likely to be more widely encompassing in aligning corporate strategy with environmental operations – along with national legislation shortly to be enacted in the UK, senior managers will be required to play a much more involved role in corporate responsibility than now).

The second relates to resource scarcity. We are running out of resources, and WRAP estimates if we continue consuming resources at the current rate, we will need three times more resources, and 70% more food, by 2050 just to stand still.

The third concerns people, and the organisation's need to relate to them as consumers, as employees, and as advocates. A business that is not resource efficient will increasingly find itself out of favour with the general mood, for the foreseeable future at least.

For too many organisations, the current focus is on end-of-pipe solutions involving diverting waste from landfill – while this is laudable, the savings that can be achieved by designing out waste in the first place can be 10, 20, 30 ... up to 50 times greater. Facilities managers find themselves ideally placed to exert their influence to create these more sustainable businesses, to cut costs, and support corporate responsibility.

I'm inviting you to think differently, to challenge not only the perceived wisdom in your workplace, but to seek out the invisible assumptions we base our decisions on every day.

I hope you will join Workplace Law in our Smart Steps to Sustainable FM initiative, and look forward to engaging with you.

Thank you.

David Sharp
Managing Director
Workplace Law

²⁷ Thanks to Martin Baxter, Executive Director, Policy at IEMA for insight into revisions to ISO 14001. The IEMA position statement on the consultation can be found at www.iema.net/iso14001.