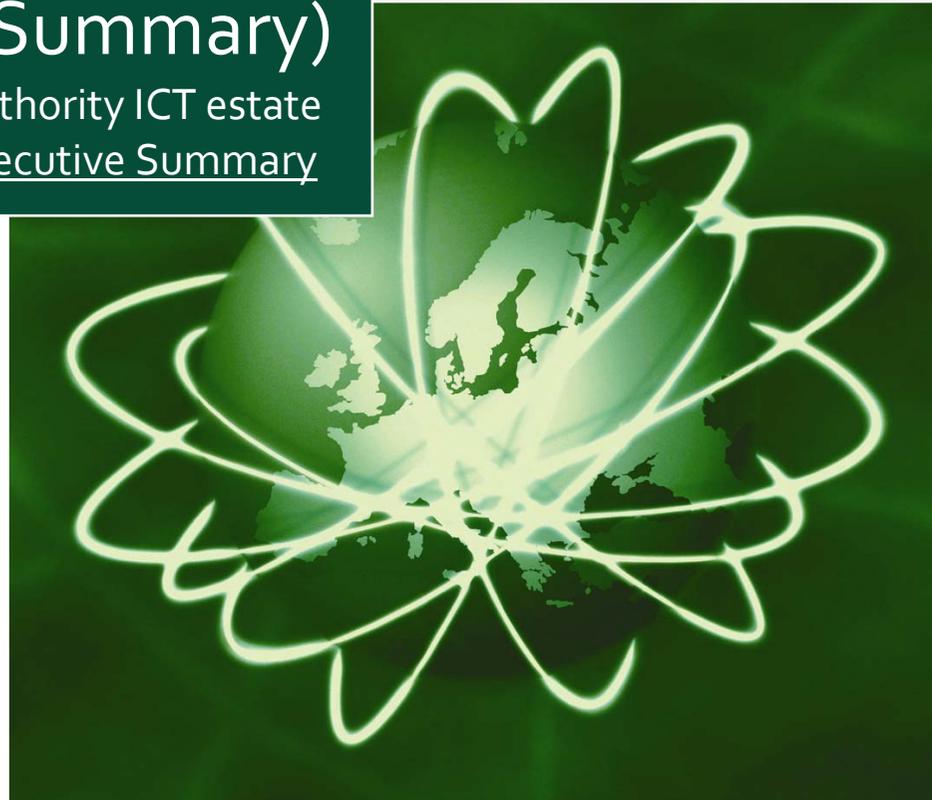


2008

# Green Veneer or Green Revolution? (Executive Summary)

- greening the local authority ICT estate

Executive Summary



Published by:

LGITU magazine and [www.UKAuthorITy.com](http://www.UKAuthorITy.com) with support from  
SAS UK, Sun Microsystems, CIMA and Socitm.

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### **Introduction: Will local government be able to match central government's 'carbon neutral ICT within four years' goal?**

This key question, asked in LGITU editorial back in July 2008, instigated the research programme, 'Green Veneer or Green Revolution'.

When Cabinet Office minister, Tom Watson, announced the government's aim to make energy consumption of its ICT estate carbon neutral within four years – and carbon neutral throughout its entire lifetime, including manufacture and disposal by 2020 – the British government became the first in the world to tackle the carbon footprint of its own computer systems.

Computers produce as much carbon globally as the airline industry. And, yes, technology does admittedly use a massive amount of carbon energy. Yet there is universal acknowledgement of technology's potential for cutting the carbon footprint of an organisation's operations – any organisation.

As a transformational tool, there is no doubting that technology will enable mobile, flexible, joined up, innovative, smart, efficient – and green – ways of working. It can deliver the green aspirations of many.

Following Watson's announcement, the government published a document containing '18 key steps' that departments can take to become green. Some were simple in the extreme – such as removing screen savers and automatically switching off PCs outside working hours – but if followed across the public sector these simple measures could have a massive impact on carbon emissions and budgets.

The difficulty, of course, will be any perceived trade-offs in the desire to implement leading edge, transformation technology solutions delivering enhanced customer services, and meeting green aspirations.

Reducing the carbon footprint of service provision will indeed involve a radical rethink on behalf of both suppliers and the public sector on how 'green technology' is factored into the business case, enforced throughout the procurement process, and measured at the end of the day.

Supported by SAS UK, Sun Microsystems, the Chartered Institute of Management Accountants (CIMA) and the Society of Information Technology Management (SOCITM), the research team set out to investigate whether local government can 'green' its ICT estate within the next four years; how it can ensure that 'green' is factored into the business case and procurement process; and, most importantly, how it will measure, monitor, and thus prove, its success in meeting this global challenge.

### **Executive Summary: Green veneer paves way for green revolution, Helen Olsen, editor LGITU**

Almost six hundred local government officers – across the spectrum of councils and responsibilities – opened a survey form during this research project, reflecting the universal appeal of, and interest in, green issues.

What initially surprised researchers, however, was that only a third of these forms were completed.

A quick follow up exercise confirmed suspicions: whilst 84.5% of the 162 officers responding to this second exercise thought that technology had a part to play in 'going green' for their council, the majority felt unable to complete the survey because either it was not their personal area of work, the questions were too complex, or they felt unable to answer on behalf of their council.

There is obviously great interest in greening the council ICT estate, but there appears at present to be more talk than firm, well communicated, plans of action.

Overall, 359 officers from 219 local authorities participated in the research programme, representing 47% of the UK's 468 local authorities. In-depth questionnaires were completed by 197.

#### **Technology has a key role**

The vast majority of 'quick survey' respondents (162) thought that technology had a part to play in 'going green' (84.5%) – even more than felt that their council was committed to going green (74.7%); or that their council saw green issues as important (81.5%); or felt informed about green issues in the first place (60.5%).

Of those completing the in-depth questionnaires (197) just 4.1% felt that green issues were of limited or no importance to their council. The majority felt that green issues were of central importance (49.2%) or of some importance (46.7%) to their council's wider organisational strategy.

The majority (87%) of in-depth survey respondents again see technology as a key enabler of sustainability, council-wide. Despite this, however, the head of IT or CIO appears to have little role in leading on green issues outside of the IT department.

*"We recognise that ICT has a vital contribution to make both in terms of reduction of energy consumption and as an enabler to other initiatives."*

*"It should be married to cost efficiency - we are wasting our own money, we need to be finding a way to use IT more efficiently."*

*"It becomes even more important that Chief Officers and politicians have bought into a sustainable strategy for the delivery of sustainable solutions. The total lack of strategy in many public organisations means that solutions that meet green targets are NOT being enabled in the most efficient way. This requires governance over business transformation AND strategic IT."*

*"It is not understood by decision makers (our Head of ICT does, but can't seem to get adequate support as ICT itself is not valued)."*

Disappointingly, just four percent of respondents were confident that their council's ICT estate would be carbon neutral within four years. Just over a third thought it 'possible', and 1.5% 'probable'. But 12% were definite that their council would not meet this goal.

### High levels of interest in all things Green

In general, interest in green issues seemed to be higher in the larger councils than in the smaller ones. Nearly nine in ten of the London boroughs and the metropolitan councils responded to the survey, with almost three quarters of the counties showing interest. The lowest response rates came from among the English districts (36.1%), Scottish unitaries (34.4%), Welsh unitaries (13.6%), with Northern Ireland showing least regional interest (3.8%).

In many cases, more than one officer from many of these larger councils submitted surveys. For example, eight responses came in from Birmingham City Council from officers with a wide variety of responsibilities and levels of seniority, suggesting that the importance of green issues permeates all levels of that organisation.

The main drivers for pursuing green initiatives appeared to be local: a desire to play a part in conserving the local environment, champion local environmental responsibility and ensure local sustainability.

The link to cost savings and efficiencies from 'going green' has not been lost on many, however. Six in ten said that this was a major or key driver to their green programmes.

### Green in the policy agenda

More respondents felt that the green agenda complemented the regeneration/place shaping policy agenda (63%) than felt it complemented any other – but only slightly more than felt it complemented the transformation agenda (61%).

Over half (55%) felt that green issues were complementary to the Gershon efficiency drive.

However, one in ten (8%) felt that the green agenda conflicted with efficiency efforts. Over a quarter (27%) also felt that green issues and Varney customer service aspirations bore no relation to each other - and three percent that they were in conflict with each other.

Pulling together the threads of policy agendas to ensure that the organisation as a whole is acting in a coherent fashion on all fronts is no easy matter. Green, however, appears to be a policy that relates easily in the minds of many to other major policy issues, and could well be a cross cutting, or underpinning, theme pulling other agendas into the fuller picture.

### Who leads the green charge?

There is little consistency as to who leads on green initiatives within councils at either the strategic or the operational level, except for when it comes to technology: responsibility for this lies firmly at the door of the head of IT or CIO.

Setting the corporate vision fell to the chief executive in a third of councils and the lead member in another third. In one third, however, there appeared to be no senior officer steering direction, which, in light of later identification of senior level buy-in being an essential factor for success, suggests that many councils will struggle to implement a coordinated green response.

One striking factor was the lack of lead by heads of finance either operationally or strategically in green issues.

### Time to track

Encouragingly, almost seven in ten (68%) councils currently had green targets embedded within overall corporate targets. A further two in ten (21%) planned to embed targets in this way.

Less encouragingly, however, when it came to embedding green targets within specific IT department targets, just three in ten (30%) of councils currently did this. Just over a third (34%) not only had no IT department targets, but had no plans to do this. The remainder 36% had plans to instigate green targets within IT.

And even less encouragingly, the majority of respondents did not feel that their councils had a clear understanding of the impact of current operations and working practices.

Half of respondents claimed that their councils were tracking and measuring sustainability within the wider strategic performance process and within existing performance indicators. Yet just a third were using carbon footprint calculations, and only six percent currently used a green house gas protocol accounting tool.

By dint of the lack of activity, a number seemed to feel that tracking of specific green targets was not necessary.

### Green technology initiatives

Whilst the role that ICT can play in enabling greener working practices is universally acknowledged, initiatives seem to focus on reducing the carbon

*"Budget pressures mean that 'Green IT' is not really a priority in procurement. We are implementing things under the 'Green' banner, eg Power Down, but the real reason for doing this is to save costs."*

*"There are far more pressing issues to tackle and we have neither the will, funds or resources to deal with additional requirements, especially when they are so ill defined."*

*"All of these (policy items) are led by the City's Sustainable Community Strategy where 'green' issues underpin much of the action."*

*"Lots of hype and misinformation which tends to cloud real issues and benefits. There is an inability to look at the overall impact, especially with external influences – a tendency to jump on latest bandwagon. See the LCD monitor situation for an example."*

footprint of the ICT function (virtualisation, thin client computing, power down, technology refresh etc).

Videoconferencing and mobile working stand out as greener working practices enabled by technology being actively deployed by councils – but telehealth had been explored by few.

### Green purchasing

Ensuring that green factors are embedded into the procurement process will be key to delivering sustainable ICT according to recent Gartner reports. Encouragingly, over four in ten (42%) of councils currently specify green/sustainability issues within the tender process.

However, only 17% of councils currently use whole life costing when assessing best value procurement options. The majority, 62%, used a combination of quality and cost, with a further 15% making decisions based on 'lowest cost' alone.

At present there is little involvement of finance teams in the tracking of performance measures and indicators. However, this can be expected to change as procurement and tender processes increasingly specify green criteria.

There is a recognition that ICT environmental impact continues well after the hardware comes to the end of its life, with 74% stating that sustainable IT disposal initiatives are currently underway.

Increasingly, it would seem, technology suppliers will need to demonstrate green credentials for both themselves and their products – 67% either currently, or will soon, specify green/sustainability issues in the tender process. A further 53% state that they either currently, or will soon, request evidence of green accountability from suppliers.

It is obvious that green credentials are beginning to have a substantial impact on the tender process. And it can be expected that green will increasingly become a standard criteria within technology procurement within the next four years.

However, it remains to be seen whether green considerations will override cost considerations – especially in the wake of the credit crunch and banking failures prevailing in the last quarter of 2008.

### Factors for success

Embedding green initiatives within the corporate strategy was seen as the most important enabler for success in delivering a 'green council', with 68% scoring it as very or vitally important.

Having senior green champions within the organisation and both engaging with and involving employees were also cited as key to ensuring the success of green initiatives.

Quantifiable targets with clear performance reporting to officers and the community was also seen as important by a majority of respondents.

Interestingly, ICT was currently seen as the least important of these factors by the majority of respondents, with under half (46%) suggesting that they were very or vitally important to success. This despite the majority acknowledging technology's importance to the green agenda in previous questions.

### Green barriers

Overwhelmingly, insufficient resource/budget was seen as the biggest barrier to the success of a council's successful implementation of its green initiatives – seven in ten said that it was a main or major barrier. Just 1.5% said that this was not a barrier at all.

Respondents felt that green initiatives were not yet given enough priority or importance within the majority of councils – and this, according to many, was a main blocker to successful implementation. Existing corporate culture, lack of clear targets and corporate requirements for a quick ROI were also listed as key barriers to success.

A third felt that their council's current inability to monitor or measure progress was a major block – which is understandable. After all, if you can't prove progress and success, how can you build the case for implementing such initiatives?

This lack of reporting ability appears in direct contradiction to the majority opinion that getting senior level and end user buy in to such initiatives was vital as a precursor to success. To engage effectively you need both evidence and a communication channel.

Councils, of course, are not green field sites. There is a massive existing investment in technology, fuelled in large part by the local e-government programme which ended in 2005 and aimed to e-enable local services. This existing, legacy technology infrastructure was cited as a main or major barrier to successful implementation of green initiatives by four in ten respondents (41%).

### Green future

According to Gartner, immediate green IT issues centre on power, cooling and flow space problems in data centres and office environments. The analyst suggests eight areas of focus within the next two years: modern data centre facilities' design concepts; advanced cooling technologies;

*There are benefits in some aspects such as power saving, but much of the 'green agenda' is over hyped, lacks credibility, and is promoted by those with a vested interest. Anything that is done is either a knee-jerk reaction or a box ticking exercise."*

*"There are far more pressing issues to tackle and we have neither the will, funds or resources to deal with additional requirements, especially when they are so ill defined."*

*"North Tyneside Council's early engagement with Keysource has resulted in the implementation of a free cooling system solution representing potential savings of £55,000 per annum. An equivalent saving of 300 tonnes of CO<sub>2</sub> based on National Grid emissions."*

use of modelling and monitoring software; virtualisation technologies; processor design and server efficiency; energy management for the office environment; integrated energy management for the software environment; combined heat and power.

During the next two to five years, Gartner believes that many green technologies will mature and become important in the development of greener IT organisations. However, the analyst stresses the importance of planning and assessing the appropriateness and cost of using these new products. It suggests that organisations focus on green IT procurement; green asset life-cycle programmes; environmental labelling of servers and other devices; videoconferencing; changing people's behaviours; green accounting in IT; green legislation in data centres; corporate social responsibility (CSR) and IT programs.

Gartner identifies seven further areas to focus on long term: carbon offsetting and carbon trading, data centre heat recycling, alternative energy sources, software efficiency, green building design, green legislation, green chargeback. And it warns organisations to beware of 'greenwash' – industry hype that causes confusion!

The results of our research suggest that local government is already making inroads with the immediate green IT issues – indeed the government's 18 step plan to greener IT aligns nicely with these goals.

However, local government has made less progress with Gartner's areas of medium and long term focus. Indeed, the sector will have its work cut out in the next few years if it is to green the ICT estate – either to match the government's own target, or whether because it sees the benefit to the organisation and local communities of doing so.

The situation today would appear to be neither green veneer nor green revolution - but there is an unstoppable green tide washing over local government that will revolutionise the way it underpins operations and service delivery.

#### Project Partners:



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#### Commentary: When flying through heavy turbulence into a green fog you need good instrumentation, *Dave Waltho, Head of Government Affairs, SAS UK*

The roots of the current financial crisis lie in the inability of some major, multinational organisations to make evidence based risk:benefit decisions, and to therefore align resources and incentives with sustainable strategic goals.

Indeed, it is not uncommon in our dealings with private sector organisations for SAS Business Intelligence and Analytics solutions to uncover that c20% of an organisation's customers are destroying c400% of their profit. However, because more than half of executives agree that they do not fully understand what drives their profit, many have been making decisions – such as investing scarce resources in and incentivising staff on high response rates from marketing campaigns to those same or similar customers - that are in fact accelerating the death of the company.

Reminding myself of this helps me to assess these research results in Green IT through a half full rather than half empty lens. If global organisations are even now managing such fundamental and long standing KPIs as profit by using gut feel and/or bad data, then it is no surprise that many Local Authorities admit that they are currently struggling to integrate, measure and prioritise the impacts of new, and harder to pin down, KPIs such as green.

Our global research shows that the majority of larger organisations across all sectors have also identified environmental issues as a key strategic issue – if only because of the increasing demand from all of their external stakeholders. But few have successfully embedded this in their strategies, corporate and business unit performance management frameworks and 'business-as-usual' operations. Fewer still really understand how to benchmark, measure and track progress and prioritise what they should do next.

Certainly it has to be highly encouraging to find that, not only do almost all councils acknowledge that green issues are vital to their wider organisational strategy, but also that nearly 70% see it as their role to act as a champion and provide a lead locally in environmental responsibility and awareness.

Furthermore, it makes absolute sense that many have started by putting a green veneer on existing cost saving initiatives. Best practice suggests that a phased approach, starting with the more obvious lower hanging fruit, is a great way of getting quick wins and generating internal momentum and buy in.

Nevertheless other parts of the research indicate that the commitment to green among many councils is built on fragile foundations. The fact that, in the short time since the research was completed and the financial crisis has worsened, some councils have already reported that green has become an 'unaffordable luxury' supports this more pessimistic

perspective. For some councils at least, it seems that green was not even momentarily this seasons 'new black' but merely an even faster passing fad among accessories!

To some extent this apparent fickleness is surprising because 91% of councils identify that embedding green into corporate strategy is the biggest enabler - and 60% claim to have done this. A similar majority say that green is regarded, and indeed communicated, as complementary to other key goals such as 'Place shaping', Transformation and Gershon.

Nevertheless, other responses point to the shaky foundations and more of a 'zero sum' mentality - not least the 93% who say that insufficient budget and resources are the key barrier to greening the organisation. Perhaps of most concern is that over 50% say they are tracking green performance, but a higher proportion then admit that they do not understand the green impacts of either their current working practices or their future plans and few are using one of the established carbon accounting protocols.

This suggests that many are essentially 'flying blind' – unclear on both where they took off from and where they are headed; with no information on fuel levels, and no instrumentation or radar to steer them through the turbulence.

To make matters worse, few seem to have their qualified pilots on board! The limited involvement of both Heads of Finance and Heads of IT in the greening of councils technology estate surprised all who have been involved in commissioning and reviewing this survey. The research underlines that the latter do have a clear responsibility for leading the greening of the IT department but that they are largely missing the opportunity to make a bigger impact by evangelising how IT can help green the rest of the organisation. In contrast, it seems that Heads of Finance are almost entirely failing to engage - not even being involved in the measuring, monitoring, analysis and performance of green initiatives.

Until the strong relationship between carbon emissions and pounds - and the importance of accounting for both - is understood, then 'green' initiatives will always be the first to be jettisoned when councils hit turbulence and fuel runs low and choices between alternative routes through the storm will have to be made on gut feel.

With the long range forecast indicating that the regulatory and moral pressures on councils to not only do more with less but achieve and be transparent about their green credentials will only grow, the prospects for a crash landing for many would seem to be high.

From our experience of deploying integrated 'instrumentation and radar' in the private sector, SAS knows that the right information can make organisations both more fuel efficient and better at piloting a successful course through financial storms. Our 'IT

Intelligence' solutions not only enable the 'greening of IT' but also generate many £ms in quick win savings – at the same time as reducing contingency risk. Indeed, we are so confident of these capabilities that we often enter risk:reward arrangements.

However, identifying and reaching the bulk of the fruit that is above the easy pickings line requires a more holistic approach. Investing a small proportion of the 'Green IT' savings in solutions such as SAS 'Sustainability Performance Management' - which includes carbon footprint modelling, 'what if' scenario analysis and simple and consistent reporting - enables a balanced view across economic, social and environmental issues and shows where you can be both 'green' and 'lean' going forward.

Evidence based decisions between alternative routes can then generate much larger financial and carbon savings both across the organisation as a whole (IT generally represents 2% of emissions) and also within its value chain.

The alternative is to fly by the seat of your pants. But, as the 'profit blind' private sector executives found, taking that approach in turbulent economic weather can result in lost bearings and decision making that may not only hasten the organisation's demise but also, in the case of green issues, that of the rest of the planet.

**Commentary: Think global, act local to impact sustainability, Jim Craig, Public Policy and Corporate Social Responsibility Manager, Sun Microsystems Ltd**

I'd like to thank all the participants who took the time to respond. Overall we were encouraged by the responses to the 'Green Revolution' survey. The importance of local initiatives combining to create a wider benefit cannot be underestimated.

It is positive to see that over 90% of councils who responded feel that green issues are central or of some importance to the wider organisational strategy. The importance of thinking globally and acting locally is something that a combination of local authorities and global organisations can achieve.

Green issues are seen as aiding the transformation agenda and in order for us to mitigate the impact of climate change we can increase our focus on transformation.

The Eco-nomic and Eco-logical aspects are well balanced in the survey demonstrating both commercial and environmental awareness. More benefits can be achieved with cross functional teams.

IT provides a service used by all the authorities and is both part of the carbon emission problem and reassuringly is also seen as part of the carbon reduction solution.

The Global eSustainability Initiative (GeSI) in its Smart2020 report recommends technology for mobile and flexible working and video-conferencing; this view was also echoed by the authorities questioned. At Sun we encourage flexible working. This saves time, money and GHG emissions avoided or reduced by eliminating employee commutes. In 2008 a US study revealed that employees saved on average 107 hours in travel time, 151 gallons of fuel and avoided 52000 metric tons of carbon dioxide!

Technology can provide dramatic reductions in electrical consumption and associated carbon emissions. Sun's thin client desktop model uses approximately 5% of the electricity consumed by a traditional PC, providing significant environmental and cost benefits.

Expansion of green/sustainable procurement policies will encourage technology vendors to take this aspect of their business even more seriously. Standards for measurement and comparison within the industry will help authorities to compare 'apples with apples'.

Measuring whole life costs would help to identify products that were more 'sustainable', especially combined with green accountability of suppliers. A greater weighting towards sustainable technology is favoured. Measuring and accounting of emissions will become standard practice. You can't manage what you can't (or don't) measure. With figures of €30 per tonne of carbon being muted currently, involving the finance team in this process will be a key enabler to success.

An on-going partnership is important between vendors and authorities to create 'exemplars' of successful implementations while simultaneously understanding and removing barriers to adoption; this will help in the overall implementation and promotion of sustainable ICT.

The key to 'Green IT' is that it should not (and does not) cost more. Many efforts are underway to reduce the environmental impacts of ICT within authorities, including server virtualisation and PC replacements with thin clients. These help reduce power, space, heat and cooling costs. More positive use of ICT to help the broader organisation reduce emissions is also considered, such as video conferencing and remote working.

Overall the signs are encouraging. Understanding the benefits of sustainable technologies, sharing lessons learned and looking at the eco-nomic as well as eco-logical benefits provides a balanced view to organisations for long term sustainability.

**Commentary: Traditional financial tools and strategy will underpin green ambitions, Helenne Doody, Sustainability Specialist, Chartered Institute of Management Accountants (CIMA)**

CIMA supported this survey because we are interested to learn whether sustainability is becoming integrated within local government. Thousands of our members work within the public sector and it is important for us to get a better understanding of how the green agenda is affecting their role and the organisations they work for.

Local authorities have a vital role to play in taking the lead on 'going green' and are uniquely placed for encouraging local action for reducing carbon emissions and responding to climate change. The survey results have been positive in this respect. It is clear from both the 'quick survey' and the 'main survey' that green issues are of importance to local government, and the majority of respondents felt that their council is committed to going green.

However, in digging a little deeper, the survey results generally reflect what we are seeing in the private sector. Although environmental issues are becoming increasingly important, and there is a lot of talk about 'going green', this talk is often not translated into action. Few organisations, in either the public or the private sector, have really integrated sustainability into strategy, and fewer still are involving the finance team.

One reason for this may be a lack of real understanding as to what 'going green' actually means, both for the local authorities and for individuals. The main survey highlighted that the majority of respondents feel that their local authority does not have a clear understanding of the green impacts of its current or future operations. Without a clear understanding of impacts it is difficult to identify appropriate actions. In terms of individuals, the quick survey showed that less than two thirds feel adequately informed about green issues.

A contributing factor may be that there is little consistency as to who leads on green issues, both at a strategic or operational level. In a significant number of cases there appears to be no senior officer responsible for steering direction of green issues at all. It is important that all organisations have a clear vision in relation to green issues and related objectives should be incorporated into the council's overall strategy. Equally important is communication of strategy and objectives throughout the organisation, and regular updates on progress towards meeting the objectives. Although 62% of councils report regularly on sustainability performance internally to staff, 38% do not. Yet the key enabler rated with the highest overall importance was 'engaging and involving employees'.

Almost two thirds claimed to have green targets embedded within business strategy and in overall corporate targets, but only about half felt that their councils were tracking and

measuring sustainability within the wider strategic performance process. A further 15% planned to do so.

Strategy should be the starting point. Measurements and targets will play an important role, but metrics will have little value unless they are in demand to support strategy and long term decision making. Likewise, unless sustainability reporting is demonstrating measured progress towards implementing a sustainability strategy, it is largely just a backward-looking compliance or public relations exercise.

Survey respondents agree that strategy is a key enabler to going green, with 88% believing that is important that green initiatives are embedded in corporate strategy. Organisations should be more forward looking and think about how to adapt their strategy to make sustainability part of day-to-day operations. Finance professionals have a key role to play in this process, providing vital business intelligence to support strategy and influence long-term decision making.

When making capital investments, including those relating to ICT processes and technologies, it is important to consider the long-term implications – both financial and environmental – and balance these with short-term costs. Finance teams should be involved in such capital investment appraisal exercises, applying tools such as whole-life costing and looking at the entire value chain.

The main survey showed that only 17% of local authorities are currently using whole-life costing processes when assessing best value procurement options. The majority use a combination of quality and cost, but 15% are still making decisions based on 'lowest cost' alone, with no consideration being given to environmental impacts.

In the Cabinet Office's document on 'Greening Government's ICT' Finance Directors have been tasked with assuring that the environmental consequences of procurements are fully evaluated.

Yet in the small percentage of cases where whole-life costing is being applied, there is limited involvement of the finance team. Making investment decisions based on long-term impacts may be a challenge for finance directors, who are often faced with short-term budget pressures, particularly in the current economic climate. It is important to encourage a change in mind set, from the top downwards, so that decisions made are based on the best long-term financial return and the lowest environmental impact, even when this may mean a greater up-front investment.

Culture and insufficient budget and resources were seen by survey respondents as the top two key barriers to successful implementation of green initiatives. It is important that a more long-term view is taken when making procurement decisions and up-front investments will need to be made. However, many 'quick wins' have also been identified - actions that do not cost any money but that save money. Implementing quick wins are an

ideal start in the journey to going green. They will help to build momentum and motivation, as well as contribute towards reducing costs and the council's carbon footprint. Seeking cost savings and efficiencies were seen as another key driver of green initiatives.

Although the finance team do have involvement in procurement decisions, they surprisingly have very little involvement in activities such as tracking performance measures, preparing carbon footprint calculations, carbon accounting/budgeting and sustainability reporting. CIMA would like to see this situation change over time, with organisations making better use of the skill sets of finance professionals. Traditional financial tools and techniques can be applied to these new and challenging issues.

**Commentary: Green IT, pragmatism & strategy, Richard Steel, Society of IT Management (SOCITM) President, CIO London Borough of Newham**

The Green Bandwagon is rolling, but how can we steer beyond the hype and adopt a pragmatic approach that's embedded in our ICT strategy? And how can we avoid preaching to the converted and influence those who are only paying lip-service?

I was recently a Panellist at an 'Answer Time for Green IT' conference organised by the Environmental IT Leadership Team, which was interesting and informative, but I realised that the audience was already converted to the cause. The indifferent majority have yet to be engaged. Part of the answer, I suppose, is that the converted must be missionaries for the cause, but I feel there's a still greater need to cut through the hype and articulate a realistic Green Agenda.

Experts agree that the most environmental damage occurs during the manufacture, delivery and disposal of ICT equipment, so that hints at priority areas in which to focus our efforts on sustainable procurement and end-of-life strategies, and implies the need to sweat the asset.

Understandably though, the Bandwagon has initially focussed on the more obvious power consumption and the mantra now is to switch unused equipment off. This sounds like a no-brainer, but is it? Old IT lags, like me, remember the days when we dreaded disruption to our Data Centre power supplies because there were always failures when equipment that had to be turned-off was switched back on again.

My own conversion to green consciousness started last year when I decided to switch-off the three year old family PC at night. So, guess what, the hard disc failed. The reality still is that the longevity of computer equipment, especially where motors are involved, is heavily affected by switching on and off and associated affects such as heat variation and power spikes.

So how do we achieve the right balance when it comes to sweating the asset and power management?

The clue, I think, is in the words 'power management'. Modern systems software is designed to strike a reasonable balance between minimising power consumption and maximising equipment longevity. ICT products, services and applications have massive potential to reduce climate change in other industrial and domestic sectors through a reduction in their carbon emissions, but we should also ensure that we maximise the potential for ICT tools to mitigate its own carbon footprint.

An allied consideration is that, in the UK, accepted wisdom says that we should turn equipment off at night; 'standby is not good enough'. But when I was at a conference in Sweden earlier this year an EU Researcher on the subject presented figures that showed that the difference between power consumption in computers switched-off, and in a sleep state, were negligible. (See [www.ecocomputer.org](http://www.ecocomputer.org)). A less debatable focus for the avoidance of power wastage is in the millions of transformers we use for the chargers and low voltage power supplies used by our 'phones and computer peripherals. More often than not, these are left humming away when the equipment they serve is turned-off, or fully charged!

On the principle that every little helps, we can help to save energy by avoiding the use of bright colours in our applications design (if using LCD screens – there's no difference with CRTs) – see the alternative to Google... [www.blackle.com](http://www.blackle.com)

So, we need to be clearer about what really makes a difference. But the other key consideration is strategy.

How does the Green Agenda fit alongside other imperatives, such as digital convergence and the resulting new security infrastructure requirements, Local Government Reorganisation, Data Centre virtualisation, greater partnership working driven by Local & Multi-Area Agreements, Comprehensive Area Assessment, New Ways of Working and accelerating channel migration?

Actually, most of these will considerably help reduce Local Government's carbon footprint in the longer term, but we must, at all costs, avoid knee-jerk reaction to single-issue agenda items, like 'Green IT', driven by misinformation and hype.

An holistic approach to strategy development is vital. We have to plan for the long-term and the reality, therefore, is that the full potential for sustainable, ICT facilitated reduction in Local Government's carbon footprint will only be achievable in the medium to long term.

In the meantime, there are some 'no-brainers' that will deliver benefits in the short-term. Effective print management, almost certainly based on networked multi-function devices, with accounting controls to encourage efficient use of resources, is certainly one of them.

**Commentary: Green veneer or green revolution?** *Jos Creese, Head of IT, Hampshire County Council (Local Government Delivery Board, CIO Council and SOCITM Vice President)*

The trouble is, 'Green IT' has a sort of fashionable ring about it. At one end of the spectrum it's seen as being sustainable and organic, but with little practical business value – a sort of 'green froth'. At the other end it is seen to be just about reducing energy consumption and marketing more environmentally sensitive manufacturing methods.

In reality, Green IT must be about much more. Technology is a major contributor to greenhouse gases and at a time of soaring demand for energy it really does offer the potential to help save the planet - if it is used and designed responsibly.

Part of the problem is that no one seems to really know exactly what to do. Clearly switching off things when they are not in use makes practical sense. But beyond this things get a little more complicated.

Take for example bio-fuels – good or bad for the planet? The jury is out. The same goes for disposable versus traditional nappies. You would think these were the easy things to prove! Home working is more difficult, yet we are told it's a good thing and most companies are pushing for more flexible working to save money and to reduce carbon footprint. I'd be the first to admit that flying to Brussels twice a week is probably not good for the planet. But for many businesses the most energy and carbon efficient approach is to squeeze as many people as possible in to a well-designed office block, even if they have to commute there, rather than all of us working in our own homes, with our own PCs, printers, lighting, heating etc. ... not that I can prove it of course.

The trouble is that business has been quick to spot the savings from home working and of course the ability to claim carbon savings on the company 'green' balance sheet.

And then there are PCs. Not many people know that it is estimated that 80% of the 'carbon cost' of the life of a PC lies in its manufacture, not in its use or even its disposal. Yet we seem fixated on power ratings. The same goes for mobile phones – do we really need a new one every 12 months? Do they really all need different chargers and cables? The manufacturers thinks so, and few of us seem to resist those 'free' upgrades.

Of course, the big debate in IT is about data centres and the enormous power they consume and the energy they waste in heat. Whilst there is a great deal of good practice in consolidation, power management and heat reuse, there is still a risk that companies will choose to simply outsource their data centre carbon footprint to the far east and claim the benefit.

In all this, therefore, there must be a role for government and we are all braced for new regulations. Given the failure of market forces to control the banking sector there seems little hope in my view that market forces alone will bring about change in response to global climate issues until it's too late.

So I am in favour of regulation to encourage 'green' behaviours and corporate social responsibility. But I am also a bit worried that regulation may be based on some of the misconceptions I've described, or at least some inadequate information about what really works.

Whilst recessionary pressures will inevitably pop the bubbles of any 'green froth', it will also stimulate considerable interest in technology to support more efficient ways of working, energy efficiency and more rigorous practices in acquisition, management and disposal of technologies. It might even encourage a wider and more sensible debate about how technology can contribute to more sustainable business practices and working behaviours. At least, that is my hope.

**Commentary: Green in the here and now can make a difference long term,**  
*Glyn Evans, Assistant to the Chief Executive on Transformation, Birmingham City Council  
 (Local Government Delivery Board, CIO Council)*

I grew up in the shadow of The Bomb. Though for most people it had no tangible impact on daily lives, it was a constant companion; something over which you had no control but which could destroy not just you but everything you held dear in an instant.

It seems sometimes that global warming is the new Bomb. Most people don't feel that they can contribute much to saving the planet (an interesting conceit in itself as, whatever happens, we're not going to destroy Earth). And to a large extent they are right; whilst it might have an important symbolic role, turning off unneeded lights will have a marginal impact on carbon emissions.

I think we have the focus wrong. When it comes to 'Green IT', there are three main changes I would like to see.

**First**, let's make the incentives clearer. National targets that set challenging commitments for 2050 will not necessarily result in the required actions being taken

today. The more cynical might argue that's precisely the point.

In Birmingham, we have set a target that we will reduce the city's carbon emissions by 60% by 2026. Better, but it will still be hard to motivate people to strive for something that far in the future. In local government we're used to the annual planning cycle, so let's use it; build annual targets built into our business plans that are set at the required level.

A 4.5% annual carbon reduction will pretty well achieve Birmingham's target, and sounds more realistic. And by working on an annual basis we can build the targets into performance management systems that will incentivise their delivery. Clearly, in such an environment carbon emission reductions will not all come from Green IT, but it will make an important contribution.

**Second**, we should emphasise the 'no brainer' aspects of 'Green IT'. Almost all local government managers are faced with challenging efficiency targets. It doesn't require significant intellectual ability to realise that reducing energy consumption will result in lower energy bills.

The problem for many is that the charge made to a cost centre for energy often bears little relationship to the energy consumed by that service, with bills often being aggregated and recharged within overall building costs. We need to make the linkage much closer – by using smart metering, for example – and managers can then see a direct link between energy savings and budget savings. They will soon be knocking at the IT manager's door for tools to drive down the cost of running their PCs.

**Third**, and perhaps more controversially, I'd like to see a move away from the focus on 'Green IT'. Not only does it paint IT (at least implicitly) as somehow vaguely disreputable when it comes to environmental credentials, but it only looks at one aspect of the issue.

What should concern us more is the total carbon footprint of particular public service. By focusing our attention on the IT we risk missing other, potentially greater, green opportunities. One example would be channel shift; if we move our customers to electronic self service from home rather than visiting the one-stop shop, there is a reduction in carbon emissions.

And it's cheaper for us too, so there are efficiency savings as well as environmental benefits.

In practice, green issues are rarely central within a local authority. The problem is that our priority is the here and now and not future generations. The answer is to recognise this. By making 'Green' a here and now issue, we may actually make a difference in the long term.