



Office politics

As we enter a new age of environmental awareness, businesses are being urged to initiate and implement sustainable policies throughout their organisations, from the way the building functions to how staff react to their environment

The initial problem that many companies face is knowing what to do or where to start. All things considered, defining what constitutes sustainable is a task in itself. Is there even a finite definition?

Sustainability is of course borne out of concerns for energy consumption, the environment and the economy. With that in mind it is generally thought to be environmental, social and economic considerations.

But is meeting one or all of those criteria enough to be sustainable? How do companies go about achieving sustainable status?

'Buildings themselves have personalities, and what fits for one building might not for another. So it's important not to think of sustainable solutions in a one-size fits all way,' says Sam Carson, operations manager at Battle McCarthy.

With that in mind, making environmental changes in commercial buildings has to be a united approach between landlord and tenant. It will dictate how effectively the building's practises are implemented, and represent an opportunity for staff and management to work with the tenant to ensure a building policy is deployed effectively.

'There is often a disconnection between what site staff and offsite management feel is required for a building,' ...

“SUSTAINABILITY IS MORE THAN ECO-BLING, AND MANY PROPERTY INVESTORS WILL BE LOOKING SERIOUSLY AT INNOVATING IN THIS FIELD”

says Carson. 'The former has a vested interest in being proactive with building management. It is both more interesting to do so, but also the building reacts better.'

'There is an implicit connection between sustainability and quality in buildings,' he adds. 'If a building is sustainable, there is usually some kind of injection of quality into the management process.'

This is not only in the form of investment. It's often just as important that common goals are established between site staff and their management, where the site staff are able to ask for repairs and improvements, or additional training. To make a difference to the building, it is important that those using it feel involved and motivated to meet the objectives.

and ventilation system is something at the bottom of architects' and specifiers' lists,' says Mike Lamb, managing director at Warmafloor. 'Energy used in heating and cooling buildings is responsible for nearly half of the UK's total carbon dioxide emissions.'

In a recent YouGov survey commissioned by Warmafloor, 96 per cent of workers admitted to taking action in uncomfortable office temperatures. These trivial moves — such as opening a window or turning on the air con — have a large impact on the effectiveness of building management systems that regulate the office environment, control carbon emissions and manage running costs. And this isn't an isolated incident — 71 per cent of workers

“THERE IS AN IMPLICIT CONNECTION BETWEEN SUSTAINABILITY AND QUALITY IN BUILDINGS”

Motivating and empowering staff can be achieved in a number of ways, it just has to be communicated effectively. Some companies have contextualised their goals, showing power output to staff — the amount of energy in real terms and its cost.

Play it cool

Small changes to the way an office is heated can have an affect on both overheads and staff productivity, yet many companies are doing little about their office environment.

'It's always a surprise that choosing the right heating

surveyed felt their workplace was often too hot or too cold, stifling their performance.

Evidently indoor temperature also influences productivity and health. The survey revealed further that 67 per cent of indoor workers felt drowsy in a hot room, 56 per cent suffer from loss of concentration, 37 per cent experience headaches and 21 per cent suffer from irritated eyes, nose and throat, which could all affect their performance.

This issue is at the heart of what Battle McCarthy does. The company works to improve the air quality in a work

Case Study

The BRE's environmental building at Garston was built to provide a model for the energy efficient office of the future — it achieved the highest BREEAM rating possible at the time. It is innovative and environmentally advanced, demonstrating the way for the future, based on a platform of new low-energy targets.

The building is the result of collaboration between BRE and eleven other organisations, initiated under the UK Governments' Energy Efficiency Best Practice Programme. The primary objective was to demonstrate that environmental principles can be applied to design, construction and management, to give a comfortable, healthy environment that is also energy efficient. The capital and operating costs had to lead to a total cost-in-use no greater than contemporary low-energy buildings to maintain commercial edge and



demonstrate the viability of environmentally-conscious design.

A key part of the specification was the need to reduce energy consumption and CO2 emissions by 30 per cent compared with contemporary low-energy buildings. Warmafloor was appointed to design, supply and install an under-floor cooling system to help meet the targets. The building is controlled by a dedicated building management system (BMS), but the occupants also have control of their local environment. Any adjustments made during the day are reset at midnight. This provides a comfortable balance between energy efficiency and occupant comfort.

Following significant monitoring, the energy and environmental performance of the building is proving successful.



space as well at its overall feel, and is currently working on putting a green wall into a university.

Sam Carson says of the project: 'The idea is that this green wall is part of the air re-circulation system, and filters the air and adds oxygen in the process. Apart from that, the wall will make people feel like they are more outside than inside. Subconsciously, people are more tolerant of their environment when they're outside.'

The ecological benefits of designing and managing buildings in a sustainable way are manifold. The bigger benefit is associated with the reduced carbon footprint, although from a biodiversity perspective, the benefits can be as rewarding. While harder to quantify, creating space for species relocation, ecosystems and green rooftops is beneficial to both building and environment.

From a heating and ventilation perspective, introducing sustainable technologies reduces energy consumption and carbon pollution. Lamb says: 'Underfloor heating systems will result in energy savings of up to 50 per cent in commercial and industrial buildings.' The systems also go hand-in-hand with efficient or low energy sources that further reduce energy consumption and carbon emissions. ●●●



Footprint trackers allow employees to monitor the amount of energy being used at any one time, and effectively look at ways of lowering the figure



Rules, regulations and frameworks

Although sometimes slow on the uptake, Government has introduced a number of incentives to encourage organisations to reduce energy use, and head towards a more sustainable future. Among those is the Carbon Reduction Commitment Energy Efficiency Scheme (CRC).

Having been introduced in April 2010, the CRC requires all companies using more than 6000MWh of electricity per year to measure and report their energy use annually.

The system aims to reduce companies' energy emissions significantly, in particular those in the non-energy-intensive UK sectors, which generate more than 10 per cent of UK CO2 emissions each year. It also allows companies to buy allowances from the Government to cover their energy use from the previous year, so those that are able to reduce their use will also reduce their costs.

Though an encouraging step from Government, the scheme hasn't gone down too well with some. 'The CRC is an over-developed piece of legislation, which has the potential to really change how buildings are managed going forward,' comments Lamb. 'It's effectively a price in carbon, but for a select group of major companies.'



The Knight Frank office in Cardiff

FEATURE

Useful contacts for a greener office

- The Green Office aids companies in becoming card neutral by offering only green stationery and recycled office supplies — from paper and pens to inks and toners. It will even plant a tree on your behalf each time an order of £100 or more is placed. For more information visit www.thegreenoffice.co.uk.
- The Rainforest Alliance helps companies get started in becoming more sustainable by helping find greener ways of sourcing coffee and tea, paper, packaging and furniture.
- For more information visit www.rainforest-alliance.org.

Lamb adds that because of the way it is governed, the CRC affects the property in a rather strange way. Because the emissions are counted on a company level rather than a property level, it means that programmes applied to buildings aren't likely to be felt by the organisation where the CRC has an effect.

'A centre manager in a large retail portfolio might drive emissions down by five per cent year-on-year, but if those emissions are not a significant part of the overall company disclosure, they might be lost in the aggregate total. This is a shame.'

To alleviate the problem, the British Property Federation and UK-Green Building Council proposed that Display Energy Certificates (DECs) be made mandatory for all commercial buildings and used in the basis CRC participation.

As the DECs show the actual performance of the building, ●●●

