This research was funded and commissioned through the IPF Research Programme 2006–2009.

This programme supports the IPF’s wider goals of enhancing the knowledge, understanding and efficiency of property as an investment class. The initiative provides the UK property investment market with the ability to deliver substantial, objective and high quality analysis on a structured basis. It will enable the whole industry to engage with other financial markets, the wider business community and government on a range of complementary issues.

The programme is funded by a cross-section of 24 businesses, representing key market participants. The IPF gratefully acknowledges the continuing support of the contributing organisations.
DEMAND FOR SUSTAINABLE OFFICES IN THE UK

Research Findings
IPF Research Programme 2006–2009
March 2009
DEMAND FOR SUSTAINABLE OFFICES IN THE UK

Research team
Tim Dixon
Gina Ennis-Reynolds
Claire Roberts
Sally Sims

Oxford Institute for Sustainable Development (OISD)
School of the Built Environment
Oxford Brookes University

Project steering group
Louise Ellison, IPF
Peter Clarke, British Land
Paul Harrington, PWC
Miles Keeping, GVA Grimley
Andrew Marston, Land Securities
Russell McMillan, Deloitte
Philip Parnell, Drivers Jonas
Keith Steventon, AtisReal

Acknowledgements
Our thanks are owed to all interviewees in this research and the companies involved in the case studies.
We would also like to thank Atisreal, King Sturge, PricewaterhouseCoopers and GVA Grimley for their help in assembling the occupier database.

Disclaimer
This document is for information purposes only. The information herein is believed to be correct, but cannot be guaranteed, and the opinions expressed in it constitute our judgement as of this date but are subject to change. Reliance should not be placed on the information and opinions set out herein for the purposes of any particular transaction or advice. The IPF cannot accept any liability arising from any use of this document.
EXECUTIVE SUMMARY

Research overview
The overall aim of the research was to determine the nature and extent of demand for sustainable offices in the UK. Based on 87 telephone and face-to-face interviews with 50 major corporate occupiers, and detailed analyses of five case study buildings, which were carried out from April to November 2008, the research examined the reasons behind actual office moves made within the previous two years, and assesses the extent to which sustainability played a role in the final choice of office building. The research is important because, for the first time, it analyses actual occupier moves and the choice of office made in relation to sustainability, rather than ‘preferred’ or ‘hypothetical’ choices. The research suggests that there is an emerging and increasing demand for sustainable offices, but location, availability of stock and other factors continue to remain more important in determining occupiers’ final choice of office.

Research headlines
- Sustainability (as represented by explicit sustainability features in a building) is less important than location, availability of suitable stock, overall building quality and other factors in the final choice of office, but has become relatively more important in moves made over the last 12 months, or moves which were imminent.
- The most common sustainability features in office buildings are flexible space, efficient energy and utilities, effective monitoring systems, and sustainable waste and water systems.
- Occupiers who moved to a BREEAM-rated building, and were based in business sectors with strong environmental or corporate responsibility policies, place more emphasis on sustainability than other groups in the final choice of office, but location and availability remained paramount.
- Nearly one third of respondents had specified minimum levels of environmental performance in the agent’s brief, but only three mentioned sustainability explicitly. The vast majority of those that had specified environmental standards tended to move to BREEAM-rated offices.
- Committed occupiers are likely to find and select office buildings with a greater number of sustainability features present, despite competition for such space, and a perception of market undersupply by occupiers.
- Some 42% of respondents suggested that they had assessed the business and financial case for sustainability in their choice of office, but the perceived additional costs of sustainability remains a key barrier for occupiers.
- Organisational change is a key driver in the market for sustainable offices: occupiers want buildings which can help them achieve cultural change and encourage more sustainable practices, and the key benefits of such buildings include a better public image, improved client relations and improved employee retention.
Over the last few years the topic of sustainability has increasingly dominated discussion and debate in the commercial property sector. This has been largely fuelled by a growing understanding that commercial buildings are major contributors to increased carbon emissions, which most experts now acknowledge is a major cause of climate change, and that improving the energy efficiency of such buildings can help reduce emissions.

Given that carbon emissions from energy use in non-domestic buildings account for about 18% of total emissions in the UK, it is not surprising that energy efficiency and energy consumption have frequently been a primary focus in this sector. However, energy efficiency is just one of a number of characteristics of what are now described as ‘sustainable’ or ‘green’ buildings, which include commercial offices in their ambit.

There is a clear difference in the evolution of thinking on ‘green’ and ‘sustainable buildings’ partly created by cultural differences between North America or Australasia where the term ‘green’ is commonplace, and the UK and Europe, where the term ‘sustainable’ tends to be used. This is not an exclusive distinction, and the terms have frequently been used interchangeably. However, the main differences between the terms can partly be related to whether the focus is on new build (‘green’) or new build plus existing (‘sustainable’). In this respect, the term, ‘green’ is taken by some to mean ‘beyond compliance’. For the purposes of this research we adopt the following definition of ‘sustainable buildings’ as our starting point:

‘Any building that exhibit(s), at a minimum, better environmental performance than buildings built to building regulation standards in England, and that, in addition, may or may not have any features that address social and economic sustainability principles’.

But how important is sustainability in affecting the decision to move to a particular building? Previous research has shown that location tends to predominate as the most important factor in occupiers’ final choices of commercial buildings. Although sustainability has been found to be important in more recent research studies, these have focused on ‘preferred choice’, or questions posed to occupiers which relate to hypothetical moves, rather than actual moves.

This research therefore set out to examine the extent of demand for sustainable offices in the UK by examining actual moves made over a two year period, and, in addressing this key theme, posed a number of related questions which included:

- What has driven the decision to occupy a particular office property from drawing up the agent’s brief through to final selection?
- What aspects of sustainability were most important in the final decision to occupy the eventual choice of office?
- Which sustainability features tend to be most common in the final choice of office building?
- What might be influencing the importance of sustainability in the decision to make the final selection of the office (ie sector, timing of move, for example)?
- To what extent are occupiers assessing the business/financial case for sustainability, and what is the evidence on actual costs?
- What are the key drivers and barriers which are impacting on the overall market for sustainable office space?
- How is sustainability linked with company culture, corporate responsibility and environmental policy?
- What are the critical success factors which make for a successful and sustainable office project (from both the investment and occupier points of view)?

The research methods are summarised in Appendix A.

2. MAIN FINDINGS

The following sections summarise the main findings from the telephone survey and case studies.

2.1 Importance of sustainability in the final choice of office

Sustainability (as represented by sustainability features) is less important than location, availability of suitable stock, building quality, annual running costs and overall design in the final choice of office (Figure 1).

This view was confirmed in relation to drawing up the agent’s brief prior to the move, where sustainability was viewed as much less important than, for example, location and size of building: for example, only three respondents’ mentioned ‘sustainability’ explicitly in their description of the brief, although several said that this would be more important were they to consider a move today than it had been in their past decision.

Location continues to remain important for occupiers in two ways: it was seen as being a very important factor (second in importance behind expansion/growth) in the decision to move (ie a move to a better location), and it was the single most important factor in the final choice of office (as represented by, for example, a central location and proximity to clients).

Location was also used in several instances by respondents as part of an argument to suggest the office was ‘sustainable’ because of a central location close to good public transport links. Similarly, ‘running costs’ in the final choice of building includes energy costs and other utilities, and so there is a strong implicit ‘sustainability’ theme here. Generally speaking, however, the focus from occupiers was much more on rental cost and other related costs.

However, sustainability has become relatively more important in moves made over the last 12 months compared with moves made longer ago (ie a mean rating of importance of 4.42, compared with moves made more than 12 months ago where the mean rating is 3.39). For moves in the process of being made the mean rating was higher.
still at 4.89. We also found evidence of a greater number of sustainable features present in a building in moves made more recently, or where moves were happening at the time of the survey. Nonetheless in both instances location and other factors were still found to be more important than sustainability as factors influencing the final choice of office in all groups within our sample.

The conclusion drawn is that sustainability in its own right has been a relatively low priority overall in office choice in comparison with other factors, although that is not to say it is unimportant, and its relative importance has increased in more recent moves.

2.2 Key features of the new/ refurbished office

The most common sustainability features in office buildings are flexible space, efficient energy and utilities, and effective monitoring systems, followed by sustainable waste and water systems (Figure 2).

Nearly one third of respondents had specified minimum levels of environmental performance in the agent’s brief, but only three had mentioned sustainability explicitly. The vast majority of those that had specified environmental standards tended to move to BREEAM-rated offices. Those who rated sustainability relatively more importantly also tended to move to buildings which had a greater number of ‘sustainable features’ present than the rest of the sample.

Less than a fifth of respondents suggested that the EPBD had played a role in their decision to occupy. However this is possibly related to the timing of the survey and the fact that moves had occurred over a two year period.

Building accreditation featured in 40% of cases, represented by the fact that there were 17 buildings which were BREEAM ‘good’ or above in the final 50 telephone-based interviews. This compares with the estimate in this research that BREEAM-rated stock is less than 7% of new build, which itself is 1-2% of total stock. In terms of the sample, this difference may be because the majority of the sample was based in London and the South East, but it is not possible to be categorical on this point because BREEAM data is not available regionally from BRE.
2.3 Assessing the business and financial case for sustainability

Although some 42% of respondents had assessed the business and financial case for sustainability in their choice of office, the rationale for assessing this is not simply about cost, but is also driven by company culture. Knowledge and understanding of the cost implications also varied widely, but practising what you preach was fundamental to maintaining credibility with customers and clients.

Approaches to the question regarding length of payback period varied significantly from those to whom the costs of sustainability were not as important as other benefits for the company and the individuals, to those with more precise knowledge of the costs of each individual aspect of the project and specific payback periods. Of those with more knowledge of costs, payback periods ranged from one to five years.

Although the case studies were not able to provide precise costings, several stakeholders argued that sustainability was not adding anything substantial to total costs (i.e. 1-3% additional costs).

The case studies also suggested that different scales of project suit different circumstances. For example, new build through to refurbishment/reconstruction. Indeed, a sustainable end result can be achieved at a relatively low cost through a sustainable fit-out, and this provides further opportunities for sourcing materials locally.

Refurbishment projects were often perceived as being less straightforward than new build in terms of sustainability, especially where properties were multi-tenanted, or the scale of the project was relatively small. Frustrations were also expressed in two case studies as to the unavailability of BREEAM certification for fit outs.

2.4 Factors influencing the importance of sustainability

Some sectors in the sample (for example, technology, media and telecommunications (TMT)) are more likely to consider sustainability as being less important in the choice of an office than other sectors (for example, financial and business services and real estate and construction (REC)), particularly where the company within the particular sector did not have a CSR policy in place. However, it is important to note that only five respondents in the sample did not have a CSR policy and four of these were in the TMT sector.

Those moving to a BREEAM-rated office building tended to rate sustainability as being relatively more important than those moving to an office building without a BREEAM rating. However, location and availability are still the most important factors.

More recent (and imminent) office moves show an increasing importance attributed to sustainability in final office choice, and a relatively higher number of ‘sustainable features’ in an office building than moves made more than one year ago, but again location and availability remain paramount.

Committed occupiers who rate sustainability relatively higher are likely to find office buildings with a greater number of sustainability features, despite competition for such space, and perceived undersupply from occupiers.

2.5 Drivers and barriers for a sustainable office market

Key drivers in the sustainable office sector are seen by occupiers as being organisational factors, increased demand from stakeholders (primarily customers, shareholders and employees) and legislation. Less important are direct publicity and marketing benefits, the use of accreditation schemes and green leases. The key drivers are seen as being more important overall than barriers in the sector, perhaps reflecting the fact that there is now an upward trajectory in market growth in this sector.
Sectional change in relation to sustainability, particularly in the financial and business services and real estate and construction sectors, is also being driven by a need to ‘walk the talk’ for clients, customers and shareholders.

Key barriers in the sector are seen by occupiers as being lengthy payback periods, relatively high sustainability costs and a lack of sustainable office supply.

2.6 Sustainability and company policy

Companies vary in their measurement, systems and policies for environmental management and related activities. For example:

- Some 62% of respondents measured the overall environmental performance of their company’s buildings, and of these, 58% published the data.
- Some 56% of respondents had some form of Environmental Management System, primarily ISO14001 or EMAS or both. Where companies had no system in place, respondents mentioned costs, time, and size of company (ie perceived as being too small) as being key barriers.
- A large majority (90% of respondents) of companies had a CSR policy, but where there was no policy in place (primarily in the TMT sector) again the key barriers were company size (where companies were smaller) and cost.

At a company level, employees are the main drivers of change (82% of cases), followed by clients and customers (53%), and others in the supply chain (43%).

2.7 Critical success factors for a successful sustainable office project

Synthesis of the findings from the five case studies in the research (see Appendix A) enables ‘critical success’ factors to be identified as key to a project’s success in terms of the sustainability outcomes (Figure 3).

As well as strong leadership and vision within an integrated project team (which would include the occupier, architect, developer/investor, agent and other key actors in a typical project), key for property investors is the need to recognise and understand the drivers for change in occupiers’ businesses. Investors should recognise that occupiers with a cultural change agenda can use relocation to a sustainable office as a springboard for effecting successful change in the following ways (ie in terms of occupier responses and benefits):

- **Relocation can help drive cultural change and also encourage more sustainable practices in the office:** in many instances office relocations have been used as the springboard for changing company cultures in relation to space, people and the use of resources.

- **Sustainability can improve working conditions:** employees were generally pleased with the outcomes of the projects in this study, but it can be difficult to separate long-term change from a more short term ‘Hawthorne effect’, or alternatively that any office upgrade whether sustainable or not could be perceived positively. Again post-occupancy evaluation can offer more informed views of long term benefits.

- **Educating the work force and helping them understand the building can promote a smooth transition:** where a technology is relatively new and untested, patience is required over the transition period as the technology becomes embedded in the company workplace (eg chilled beam technology).

---

2 The Hawthorne effect is, in its broadest sense, a form of reactivity, and describes a temporary change to behaviour or performance in response to a change in the environmental conditions, with the response being typically an improvement of some kind.
2. MAIN FINDINGS

- A sustainable building is good for public image and for promoting better client relations: several case studies highlighted this benefit, but also the idea of ‘walking the talk’ with clients, particularly if the business was one which provided a service with a strong sustainability theme running through it.

**Figure 3: Critical success factors for sustainable office projects**

<table>
<thead>
<tr>
<th>Project team</th>
<th>Occupier responses and benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Strong leadership</td>
<td>- Cultural change</td>
</tr>
<tr>
<td>- Inclusive approach</td>
<td>- Improved conditions</td>
</tr>
<tr>
<td>- Early engagement</td>
<td>- Education</td>
</tr>
<tr>
<td>- Communication</td>
<td>- Public image</td>
</tr>
<tr>
<td>- Language of sustainability</td>
<td></td>
</tr>
<tr>
<td>- Costs and better information</td>
<td></td>
</tr>
</tbody>
</table>

It is also important that the project team and investors understand the cost implications and language of sustainability. Property investors need to recognise that sustainability can be cost-effective within a range of project scales and that they themselves have a role to play in helping clarify the language of sustainability in the marketplace, alongside occupiers, agents, developers, and others. However, better information and improved knowledge of costs is needed to underpin this.

Finally, although evaluation and monitoring is, ultimately, the responsibility of the occupier, property investors can also benefit by understanding and recognising how a sustainable office also creates benefits for employees if the project works successfully. This requires a recognition that sustainability is about buildings and the people that work in them (ie a sustainable building can help create a sustainable business) and that a successful outcome for the occupier can be achieved by an occupier monitoring space, resources and people over the project lifecycle, including post-occupancy. In short, property investors need to understand that the office building and its occupants drive the FM perspective of the occupier.
This research has shown that although there is evidence of an emerging and increasing demand for sustainable offices, other factors such as location, availability of stock and building quality remain more important in determining occupiers’ final choice of office. This, however, must be seen in the context of a sample which had a higher proportion of BREEAM-rated offices than the UK office stock nationally, and so one could hypothesise that for stock which is less BREEAM-focused sustainability might even be considered relatively less important than it was in this survey.

In terms of what may be influencing the final choice of office, statistical testing suggests that a relatively more important view of sustainability is taken by companies which have moved recently, or are moving; are based in the REC or Finance and Business Services (F & BS) sectors; are moving to a BREEAM-rated building; or are companies which have a CSR policy in place. However, this must be seen in the light of the small sample and the fact that in these sectors other factors were still more important than sustainability.

Although lack of demand is not perceived to be a key barrier, occupiers generally believed that the additional costs of sustainability and undersupply were restricting market growth. Nonetheless the research also suggested that if occupiers look hard enough there is a supply of BREEAM-rated offices, although these may be restricted in terms of locational choice. We were not able to look at this latter point in detail in the UK as a whole because of the confidential nature of BREEAM certifications.

Landlords were not generally seen as being strong agents for change in the sector. In some instances there was some criticism of landlords, developers and agents from occupiers in terms of these groups’ levels of engagement in the sustainability agenda.

There is clearly a step change needed if the sector is to supply more sustainable offices to satisfy an increasing demand in the UK. This can only be brought about through behavioural change, underpinned by legislation which has been strengthened, for example, with the Climate Change Act 2008, Energy Act 2008 and Planning Act 2008, alongside the Energy Performance of Buildings Directive, which introduced EPCs and DECs. The targets set by the Climate Change Committee for UK non-domestic buildings and the imminent Code for Sustainable Buildings will also raise key challenges for the property investment sector in terms of carbon reduction. Given the tendency to rate sustainability as relatively more important in recent or imminent moves it would be therefore be interesting to conduct the same survey over the next few years as we also enter a period of changing economic conditions and increased legislative focus.

Investors and developers need to understand occupier requirements more clearly and to engage more closely with other stakeholders to understand and agree what is meant by ‘sustainability’, and a ‘sustainable building’. In the same way agents and occupiers should also help ensure that the simple benefits of sustainability such as energy efficiency, adequate ventilation, natural daylight and open, flexible space do not get lost in the detail of ‘sustainability’. This should also carry through into clearly communicating the sustainable outcomes/achievements of the building and its operations to employees. Finally, the research has also shown that improved information on the costs of sustainability is needed to better inform key stakeholders.

As one interviewee in the telephone survey commented:

‘I think it’s perhaps quite often the breakdown of communication between landlords and tenants, as to what they need. We’ve talked for years about the circle of blame, everyone else blaming each other: “We would be sustainable, but for the investor or the landlord or the tenant or the consultant”, or whatever. It’s breaking out of that and saying, “Let’s get on with it, let’s get some sustainable schemes… that have been completed for a reasonable cost; everyone’s going to get a very good return out of that, and that these will provide the blueprints for going forward”’. (Financial and Business Services).

3. CONCLUSIONS
Combined with a range of other questions relating to real estate strategies, the decision to move, and company policy, the research examined two main dimensions to sustainability, based on 50 telephone interviews with major corporate occupiers. These dimensions comprised:

- ‘Sustainability Rating’ in relation to other factors which influenced the final choice of office (e.g., location and availability of space) (Table 1). In this sense ‘sustainability’ is related to the ‘sustainability features’ of the building (energy, waste and water and design).
- ‘Sustainability Index’, based on a total ‘score’ of ‘hard’ sustainability features which were present in the final choice of office (e.g., flexible space, energy, monitoring systems).

Non-parametric statistical tests were used to test the relationships between key variables in the dataset. These tests do not require assumptions to be made about the underlying population (i.e., they are distribution free) and can be used when data is ‘nominal’ or ‘ordinal’ level.

Table 1: Factors influencing final choice of office

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>physical and geographic location</td>
</tr>
<tr>
<td>Availability</td>
<td>available at the right time</td>
</tr>
<tr>
<td>Building quality</td>
<td>overall quality of building</td>
</tr>
<tr>
<td>Running costs</td>
<td>annual running costs (rent, rates and other costs, including service charges and energy costs)</td>
</tr>
<tr>
<td>Design</td>
<td>the overall form and pattern of the building</td>
</tr>
<tr>
<td>Sustainability</td>
<td>the range of sustainability-related features in the building</td>
</tr>
</tbody>
</table>

Some 50 interviews were conducted with senior decision makers in private sector companies in a range of business sectors. The overall response rate to telephone interview requests was about 30%, but in declining to be interviewed, the vast majority of interviewees suggested they did not have time to be interviewed, rather than expressing any lack of interest in either sustainability or the survey itself. In some sectors, the response rate was between 75% and 100%, but the financial and business services sector was lower at 12%, perhaps reflecting the fact that the sector is fee/hour based and perhaps therefore there was a greater reluctance to engage. Overall, however, there is no evidence to suggest that there is any ‘non-response’ bias in the sample.

The total UK floorspace taken within office buildings in the telephone survey represents some 2.53m sq ft of floorspace (leased and owner occupied), equivalent to about 5% of the total UK floorspace held by respondents. The sample was split fairly evenly between new build and refurbished properties.

These interviews were then supported by a further 37 face-to-face interviews with key stakeholders (including members of the office project teams and employees) in five case study buildings selected from the telephone sample, and which were located in London (three buildings), Southampton (one building) and Coventry (one building) (Table 2). All the interviews for the project were carried out during April to November 2008 and covered moves made within the previous two years or moves which were imminent.
**Table 2: Case study summary**

<table>
<thead>
<tr>
<th>Building Case Study Code</th>
<th>Location</th>
<th>Company sector</th>
<th>Leased?</th>
<th>New build?</th>
<th>BREEAM?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>City Place House, London</td>
<td>Financial and Business Services</td>
<td>Leased</td>
<td>Refurbishment</td>
<td>No</td>
</tr>
<tr>
<td>B</td>
<td>2 New Street Square, London</td>
<td>Financial and Business Services</td>
<td>Leased</td>
<td>New</td>
<td>BREEAM Excellent</td>
</tr>
<tr>
<td>C</td>
<td>55 Baker Street, London</td>
<td>Real Estate and Construction (Company1) Financial and Business Services (Company2)</td>
<td>Leased</td>
<td>Reconstruction</td>
<td>BREEAM Excellent</td>
</tr>
<tr>
<td>D</td>
<td>Carlton House Studios Southampton</td>
<td>Other</td>
<td>Owner-occupied</td>
<td>New</td>
<td>BREEAM Very good</td>
</tr>
<tr>
<td>E</td>
<td>Friars House, Manor House Drive, Coventry</td>
<td>Other</td>
<td>Leased</td>
<td>New</td>
<td>No</td>
</tr>
</tbody>
</table>