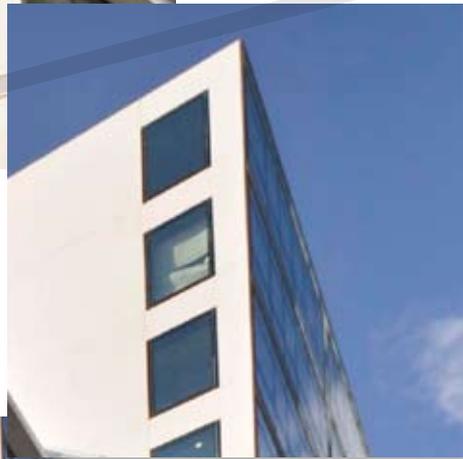


Behind the Green Façade

Is the UK development industry really embracing sustainability?

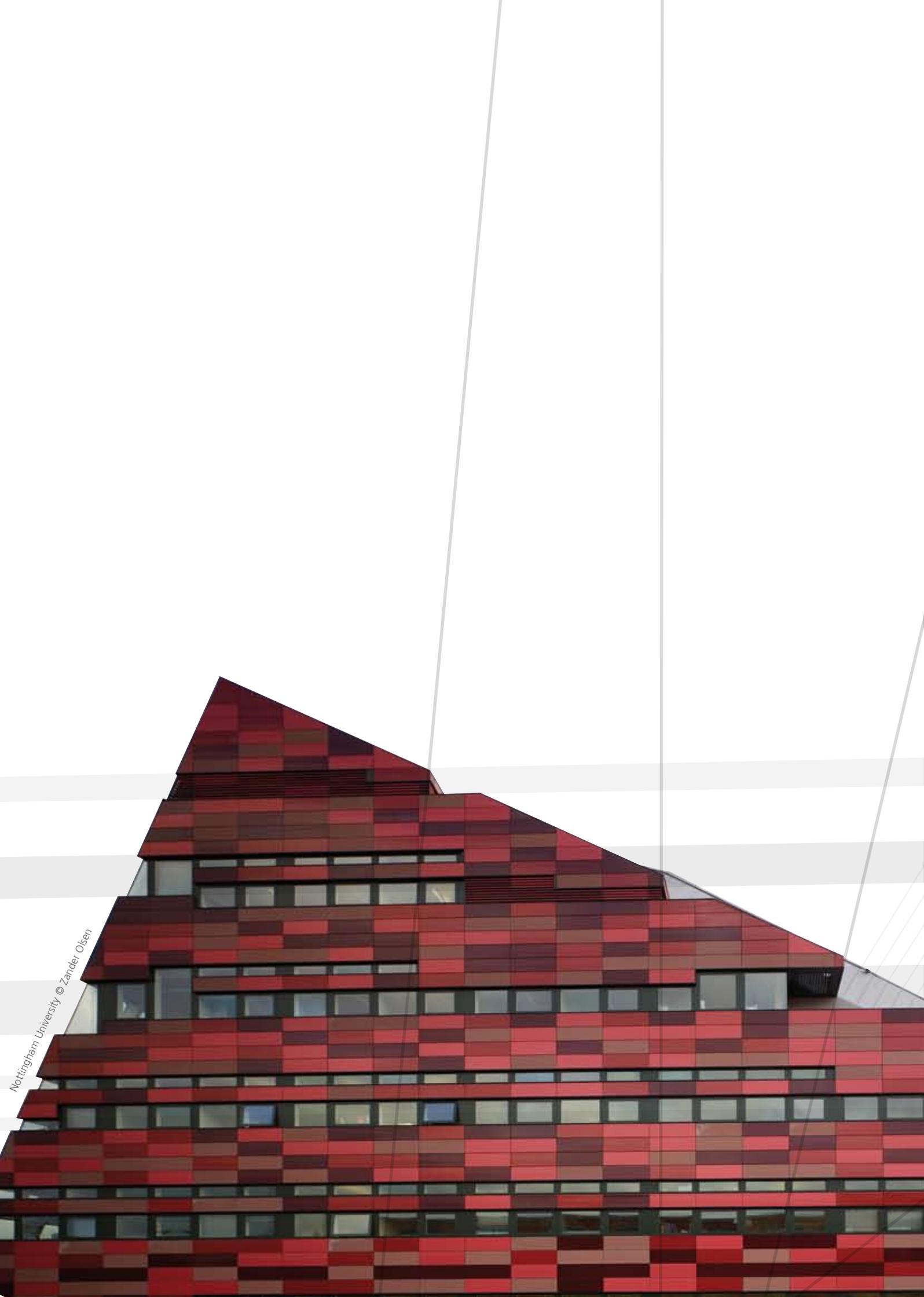




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Foreword

This is an amazing time to be involved in shaping the built environment - a moment when everyday actions and the impact they have on the planet are at the forefront of people's minds. The wider public is acutely aware of the concerns surrounding fossil fuels and climate change and this presents an incredible challenge for all of us as professionals.

Yet Taylor Wessing's groundbreaking Survey shows surprisingly uneven industry awareness of the fundamental issues and challenges we need to address.

Just as we questioned the social impact of the 1960's housing developments, so we must now face up to the reality that the glass box is dead. The energy guzzling buildings of the recent past that we all associate with modern architecture are yesterday's news. 'Bling' architecture such as this, constructed when resources were cheap and in abundance, is now redundant. Our new emphasis must be to create super energy efficient architecture for both new and existing structures. These buildings need not be expensive, and sustainability should not compromise the beauty of the building.

Architectural practices like ours have fully adopted the new philosophy. Wherever possible we recycle existing structures. We super insulate our buildings to reduce the need for heating. The windows are located to respond to the local environmental conditions and to reduce solar glare while maintaining good daylight and views. We reduce the water consumption of our buildings by collecting rainwater to be used for the flushing of toilets and to help prevent localised flooding. We use ground water to heat the buildings in the winter and cool them in the summer. We collect and recycle any waste heat, and transform this into cooling. We look to technology to create energy from the sun and wind. And we look to use recycled and recyclable materials whenever we can.

The more forward-thinking investors, funders, developers, end users, contractors and professional advisers are thinking along the same lines and beginning to adopt appropriate measures in their own areas of responsibility.

The silver lining to the current financial crisis is that it can, indeed should, provide the impetus to address these critical issues facing our society. This will determine whether we can provide a sustainable future for our planet and create a fantastic environment for all of us to enjoy.

Ken Shuttleworth

Partner and founder of Make Architects





Introduction

Welcome to the *Taylor Wessing Sustainability Report*, incorporating the findings of our Sustainability Survey, which examines the UK development industry's awareness of, and attitudes towards, the environmental and green agenda.

In undertaking this research we have sought to examine and address some of the key issues that all of us involved in the built environment will have to face when applying existing and proposed sustainability legislation.

One of our key findings has been that the word 'sustainability' is itself problematic. The lack of an industry-wide consensus on what the term means precisely, coupled with the associated raft of European and international concepts and numerous Government policy papers, leads to widespread confusion that feeds into many of the themes explored within the Survey.

For the purposes of providing a platform for the Survey and fostering debate on its conclusions, we have defined 'sustainability' as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs'.¹ For the built environment, this includes the following objectives:

- minimising carbon emissions,
- the conservation of resources,
- maximising economies in the use of energy,
- eliminating unnecessary waste and optimising recycling opportunities,
- settling measurement criteria for how buildings meet the objectives, and
- more controversially, building use and operation.

Buildings account for almost half of the UK's carbon emissions, and commercial property is thought to contribute around a fifth of all carbon emissions.² The application of sustainability principles to development is therefore set to become an even more prominent component of the wider regulatory and policy agenda, as can be seen from the following featured targets:

- 100% of new, non-domestic development to be zero-carbon by 2019 (2008 Budget speech)
- 42% reduction in CO₂ by 2020 (Climate Change Committee Report)
- 80% reduction in CO₂ by 2050 (Climate Change Committee Report / Climate Change Act 2008)
- 15% of UK total energy supply from renewable sources (EU Commitment)
- 25% of all materials used in construction products to be procured from responsible suppliers by 2012 (Strategy for Sustainable Construction 2008)

These are certainly stretching targets. They will continue to evolve, as will regulation itself; witness the recent draft Energy for the Performance of Buildings Directive.³ Indeed, many have expressed doubts about whether the targets can be achieved within the timescales that have been set and whether the development industry, viewed by some as historically slow to change, can gain sufficient momentum to respond to the environmental challenges ahead and the raft of evolving regulation.

Vigorous concerns have also been expressed to the effect that more needs to be done by Government; not only to communicate clearly but also to develop focused and cohesive regulation which will encourage the industry to create the sustainable built environment of our common future.

The *Taylor Wessing Sustainability Report* provides much needed evidence to help identify the factors that stimulate and inhibit effective behavioural change, establish where the leadership is to come from for the next advances in the sustainability agenda, and to suggest how sustainable objectives and their implementation are likely to evolve. In so doing, it provides a unique insight into the implications and consequences of the greener future facing the UK development industry.

We hope you find the Report interesting reading.

Helen Garthwaite
UK Head of Construction and Engineering
Taylor Wessing LLP





Methodology

We believe that the *Taylor Wessing Sustainability Report* incorporates the most comprehensive survey of its kind to date, bringing together views from the largest and most extensive sample so far of the development industry, targeting all of the sectors identified below. It covers current and proposed environmental legislation, as well as other sustainability issues and programmes relevant to the development industry.

The Survey, conducted with our research collaborator, Spada, was constructed using a specifically targeted database of over 5,450 individuals. It was undertaken during the global financial crisis in October 2008 and following a period of volatility in the cost of fuel. Over 800 people responded to the Survey, representing 550 UK-based companies, organisations and universities, and with over 100 responses in total received from each of the following sectors:

- Investors and funders (107)
- Developers (114)
- Contractors (174)
- Architects, planners and other technical advisers (185)
- Commercial agents and other specialist advisers (102)
- End users (146)

The *Taylor Wessing Sustainability Report* also incorporates the findings of two in-depth discussion groups held in November 2008 to consider the initial Survey findings and their implications. These debates brought together 20 experts from different sectors across the industry and, appearing throughout the Report, are a selection of the group participants' anonymous remarks, along with statistical analysis of responses from Survey respondents and their own commentary.

Overview and key findings

Background

In order to meet its sustainability objectives the Government has evolved a 'sustainability agenda' encompassing a number of domestic regulatory controls, policy initiatives and measures (both incentives and disincentives) in line with European and international sustainability directives and goals.

The *Taylor Wessing Sustainability Report* examines and analyses the awareness of the UK development industry of this agenda,

	Key finding	Taylor Wessing view
Meaning	<p>A consensus has yet to be reached within the development industry as to what the term 'sustainability' means precisely. This has clouded the debate surrounding what the industry's response should be to effectively meet the challenges ahead.</p>	<p>A universally accepted definition is unlikely to be achievable. Development of common criteria to frame sustainability objectives by reference to material issues in context is a more feasible goal.</p>
Awareness	<p>The industry is split in terms of its awareness and understanding of sustainability issues. End users and investors significantly trail other sectors, with less than 30% reporting good or high levels of awareness and understanding (representing core groups that truly understand the issues). The best informed sectors are developers (46%), technical advisers (48%) and contractors (54%).</p>	<p>All sectors of the industry need to be able and willing to buy-in to the sustainability agenda if targets are to be met. For this to happen the starting point must be that the value and benefits of doing so are clearly communicated to relevant industry sectors, using 'commercial' language that all stakeholders can understand, as opposed to relying on jargon. Steps taken by core groups can play a significant part in this process.</p>
Responsibility	<p>57% agree that the Government should have primary responsibility for driving the sustainability agenda forward. However, there is widespread frustration with the mounting level of legislation, which many believe has been implemented in piecemeal fashion, and for the wrong reasons: 33% believe that the driving force behind the Government's involvement in the sustainability agenda is 'to show the international community that we are playing our part'.</p>	<p>More cohesion and clarity of legislation (currently fragmented as different technologies have evolved and awareness has grown with an increasingly socially conscious Europe) is required. A common approach to interpretation and implementation at Central and Local Government level would be welcome. This will require long-term commitment across the political spectrum, even if it means alienating voters in the short-term. If that can be achieved then the signs are that industry will respond and innovate.</p>
Strategy	<p>Whilst regulatory sanctions have an important role to play in driving the sustainability agenda forward, the development industry believes financial incentives will be the key to unlocking true behavioural change, particularly with regard to existing building stock. 57% believe that incentives such as tax relief (40%), grants or aid (17%) will be more effective than regulation (39%).</p>	<p>Given the limited understanding surrounding existing regulation, and the potential risks and costs of the sustainability agenda to be borne by industry, Government and industry should look to work together creatively, exploring benefits and incentives that will promote behavioural change as well as effective regulatory sanctions.</p>

with the aim of establishing current approaches and identifying future requirements and demands in the context of such measures.

We summarise below the key findings, our thoughts on them and the steps we suggest are needed to influence behaviour effectively, so as to help the industry meet evolving sustainability objectives.

	Key finding	Taylor Wessing view
Cost	The biggest impediment to the development of commercially viable sustainable buildings is thought to lie in the extra cost to developers and/or tenants. Yet end users believe that the bigger issue is the focus on short-term build cost rather than whole life building cost and suitability for sustainable and practicable occupation. 87% of end users believe that the typical corporate occupier would be willing to pay more rent to secure a long-term sustainable building.	This suggests that end users are beginning to take a more holistic, long-term approach to finance and costing, particularly those with a younger demographic. The apparent disconnect between what the industry believes landlords and tenants would be willing to pay in order to secure a sustainable building, and what end users actually say merits further research to determine the true level of occupier appetite for supporting the higher front end cost of sustainable property.
Green agreements	Corporate social responsibility is evolving with recognition of the sustainability agenda evidenced through use of 'green' policies and protocols. However, there is limited awareness and use of 'green agreements' although our Survey found them likely to be one of the key factors influencing commitment to behavioural change. 36% are not at all aware of 'green agreements', rising to 46% (almost half) for end users. That said, 'green' documents are already in circulation and more widely in use by the major players. 21% say they have 'green' provisions in agreements. These are often collaborative rather than prescriptive terms.	Stricter and wider ranging regulation, and an increased focus on corporate and financial risk management, will drive more prescriptive 'green' provisions in agreements going forward. The risk will be passed to industry at a quickly evolving pace. Given the rising social pressure to act sustainably, tenants will play a prominent role in informing the development of these green mechanisms, particularly so as to facilitate sustainable buildings in use. Expect to see more collaboration between occupiers and landlords.
Renewable energy source	Three quarters of respondents indicate that they are likely to be involved with renewable energy sources as an element of property development going forward. Most suggest they will manage this themselves in some way, but implementation will be difficult. Industry is frustrated with varied and often conflicting Local Government measures to interpret and implement Central Government targets in this arena.	Despite encouraging aspirations, ambivalence remains about the cost and 'carbon effectiveness' of current technology. More cohesive (but flexible and practicable) interpretation by Local Government of conditions and measures placed on new development is to be welcomed. The industry needs to develop an improved understanding of energy processes and operating systems if sustainable energy sources are to be viewed as more than just 'greenwash'.
Viability	The majority of respondents believe that the industry has the right level of technology, resources, knowledge and skills to drive forward the sustainability agenda. However, questions over implementation and will to change are thought to be unresolved.	The UK possesses the necessary skills and technology to drive the sustainability agenda, both domestically and internationally, but implementation differs dramatically from our European counterparts. Industry needs more cogent reasons and real encouragement to change. Despite much reported anxiety in the press, the economic crisis is not distracting people from the looming climate crisis – in fact, it may be the catalyst required to shake the industry into action.



'Sustainability' – What are we really talking about?

Is the UK development industry really embracing sustainability?

“ Education will be crucial especially in getting end users to focus on overall running costs not simply rent per square foot. ”
Investor, Survey respondent



'Sustainability' - What are we really talking about?

Is the UK development industry really embracing sustainability?

Figure 1. Currently, how important do you consider the sustainability agenda to be in respect to your sector?

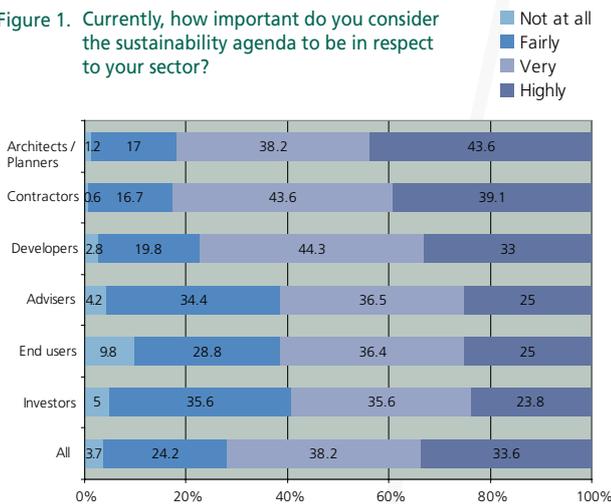
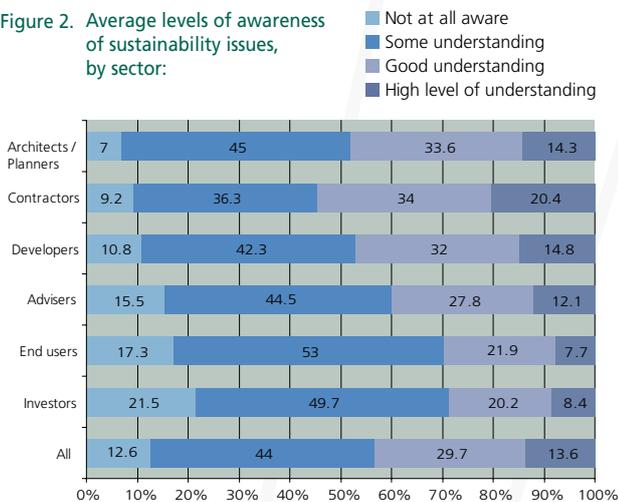


Figure 2. Average levels of awareness of sustainability issues, by sector:



A recurring theme throughout our research was confusion as to what the word 'sustainability' actually means when applied to the development industry. This lack of a common understanding clouds much of the debate surrounding the most effective means of meeting the challenges and managing the risks that lie ahead.

Communication is made more difficult due to the fact that the industry is fragmented and incredibly diverse, with significant differences placed on the importance of sustainability by discrete stakeholders. For the sustainability agenda to prosper it needs to be adopted across the entire industry and not just by some of its more 'progressive' wings.

Question

"Currently, how important do you consider the sustainability agenda to be in respect to both your sector and to the UK development industry as a whole?"

Overall most respondents (over 70%) consider the sustainability agenda to be very or highly important to the industry as a whole. Some sectors, particularly investors and end users, believe that sustainability is less important for their own sector than others.

This difference of opinion carries through to levels of awareness within each sector around specific issues grouped together under the 'sustainability' banner. If we take a closer look at Figure 2, average levels of awareness and understanding show a striking similarity to those in Figure 1, with investors and end users clearly trailing the rest of the industry in terms of their awareness of specific sustainability issues.

As a supplementary question we asked respondents to assess their level of awareness and understanding of 16 selected issues and policies, such as Energy Performance Certificates (EPCs), Display Energy Certificates (DECs), site waste management plans and 'green agreements', all of which form part of the current legal and voluntary regime relating to sustainable development of the built environment. Please refer to Appendix A for detailed graphs regarding their awareness and understanding of specific sustainability issues and applicable legislation within the following areas:

- Energy efficiency and renewable energy (Figure 15),
- Climate change and emission controls – the drive for 'zero carbon' buildings (Figure 16),
- Waste minimisation and management, re-use and recycling (Figure 17), and
- Sustainable construction going forward (Figure 18).

The results suggest that stakeholders are not taking up the sustainability agenda in equal measure. Certain sectors, primarily landlords and developers, targeted with a greater degree of regulatory control, shoulder a greater proportion of the burden. Not surprisingly, 46% of developers, 48% of

“Without knowledge of the requirements that currently exist and an understanding of forthcoming legislation and Government intention, construction will not be able to drive the sustainability agenda.”

Contractor, Survey respondent

architects, planners, and other technical advisers, and 54% of contractors report good or high levels of understanding. The large majority of end users and investors admit to being not at all aware or having a limited understanding of the issues. However, where these groups are informed, their understanding and commitment is high; there is also an appreciation that they need to know more, and that if they do not take steps it may result in increased risk and financial cost in the long-term. A much smaller core of informed people are leading the way on sustainability issues for end users and investors (ie, less than 30% of each).

“Hysteria rather than knowledge drives the agenda.”
Specialist adviser, Survey respondent

Taylor Wessing view

The development industry as a whole needs to buy-in to the sustainability agenda to achieve the ambitious targets that the Government has set. Investors and end users have relatively low levels of awareness because they have not previously registered, and perhaps have not been compelled to develop, an appreciation of the importance of sustainability for their own future businesses.

A significant part of this process should involve communicating value using 'commercial' language and terms that mean something to investors and end users. A universally accepted definition of 'sustainability', or other concepts like 'zero carbon', are unlikely to be achievable, but core sustainable criteria can be established to provide a framework of objectives by reference to material issues in context. That said, the industry's attempts to date to reach a consensus on these matters should also be acknowledged.⁴

Government and informed industry leaders have a responsibility to communicate the language of sustainability without resorting to the jargon that characterises much current environmental thinking. By the same token, less informed sectors of the industry should take on greater responsibility for assessing the relevance of sustainability to their own businesses, and the impact this has, not only on them, but also on society as a whole. Informed industry leaders are equipped to, and ultimately may benefit from, helping to communicate a common message influencing the development of future policy and regulatory controls from the outset.

“The word 'sustainability' itself causes problems in that if I said to an agent "Does your tenant want sustainability?" They will say, "No, it costs too much money. They are not interested; it is additional cost." But if you turn to the same agent and say, "I did not mean that. I meant, does your tenant want daylight, good views, lower running costs, healthier staff, better retention of staff, better productivity, a better amenity, quality of space?" The answer is, "Yes, absolutely, I want all that." That is sustainability.”
Developer, discussion group participant



Drivers and barriers

What is driving the sustainability agenda and who is ultimately responsible for it?

“ Taking a position of leadership around enshrining climate change targets in law and being early on certain agendas may be part of trying to show some global leadership. ”

Discussion group participant

Drivers and barriers

What is driving the sustainability agenda and who is ultimately responsible for it?

“We do not need more legislation. In the construction industry we have legislation coming out of our ears. It is about using what you have.”

Contractor, discussion group participant

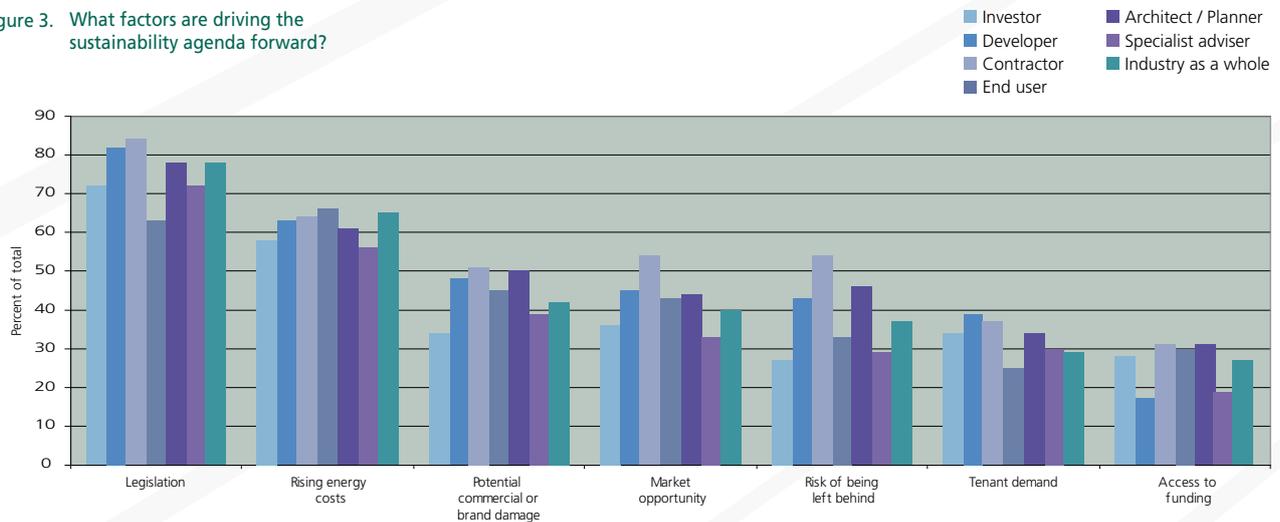
Once wholesale buy-in to the sustainability agenda is achieved, actually implementing practical change will present its own set of challenges. We therefore need to take account of the factors that are driving the wider sustainability agenda, and identify where responsibility for the built environment's contribution should ultimately reside.

Question

"Currently, what factors are driving the sustainability agenda forward, both in your sector and the UK development industry as a whole?" (Respondents were not restricted to one answer)

The most popular response was legislation, both for individual sectors and for the industry as a whole. Rising energy costs came second. Potential commercial or brand damage (which some flagged as giving rise to significant financial consequences) was the third most popular response, although certain sectors, such as contractors, found this to be less important than market opportunity or the risk of being left behind.

Figure 3. What factors are driving the sustainability agenda forward?



The results suggest that Government as legislator is currently perceived as the primary driving force. But is this really what the industry wants, or even needs? Respondents frequently mentioned their frustration with mounting levels of legislation, which they tended to view as ad hoc and disconnected. Some mentioned problems with policing the existing amount of legislation, difficulties which are likely to be compounded with the passage of future legislation. As a consequence, the industry as a whole expresses doubt that sustainability objectives will ultimately be deliverable.

Question

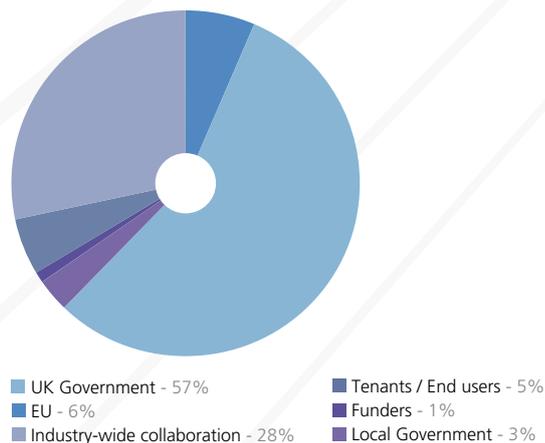
"Who should have the primary responsibility for driving forward the sustainability agenda in the UK development industry?"

The responses to this question confirm that the majority (53%) believe that the Government should have primary responsibility for driving forward the sustainability agenda. The second most popular response was industry-wide collaboration (27%), and a minority of 6% believe that the EU should ultimately be responsible. This suggests there is little appetite for an international regulatory regime with enforcement capability, and those that have advocated this approach are unlikely to see progress due to practical concerns over delivery and application.

Despite the fact that the Government is perceived to be the driving force, it is also apparent from our findings that the industry is somewhat disappointed at its disjointed, and some might say political, approach towards sustainability, all of which points towards a need for greater involvement and representation from the different industry sectors.

Many respondents and discussion group participants commented that Government has been 'short-termist' in the application of legislation and policy implementation. Some feel that sustainability has become a hostage to political fortune. Moreover, whilst it is encouraging to note that the Climate Change Bill (since enacted)⁵ seems to reflect ambition across the political divide, with the potential to set the scene for the radical change needed, it is also felt that it cannot operate in isolation and new legislation and policy linked to this statutory framework will be required to make a real difference. Measures will need to be directed towards specific areas, eg, transport and energy.

Figure 4. Who should have primary responsibility for driving forward the sustainability agenda?

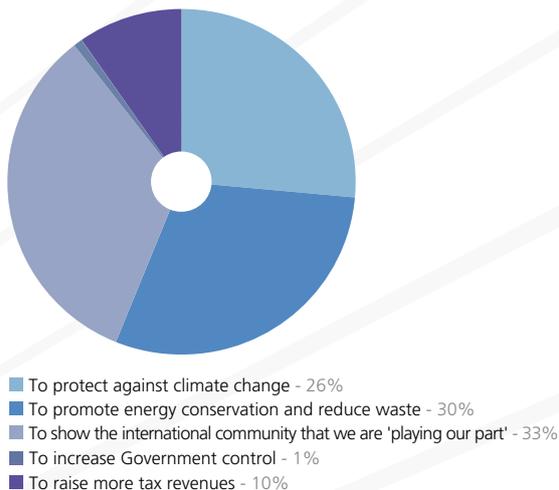


“Our efforts are hampered by lack of real Government commitment in terms of energy and transport policies that will be unpopular with voters. Look at the way strategic rail funding has been cut in recent years, and the fact that airport expansion and tax relief on air fuel continues.”

Technical adviser, discussion group participant

Drivers and barriers continued ...

Figure 5. What do you believe the driving force behind government involvement in the sustainability agenda is?



“ I would suggest that the EU probably has a greater role to play. It is then how the UK interprets it and puts it into the context of business and society.

Contractor, discussion group participant ”

“ The industry needs to go to Scandinavia and Germany to learn how to build properly with new technologies and cost-effectively. Currently there is no comparison.

End user, Survey respondent ”

Question

"What do you believe the driving force behind Government involvement in the sustainability agenda is?" (Respondents were asked to select only one answer)

Interestingly, the largest percentage (33%) believes that the driving force behind the Government's involvement is 'to show the international community that we are playing our part'. If managed correctly, this could present an interesting opportunity for industry to participate alongside Government in the wider European and international debate, and to exploit new development markets with associated sustainable and energy technologies. As it stands, concern was expressed over whether we are doing enough to keep up with our European neighbours.

The reality is that all of the categories in Figure 5 are likely to form part of the Government's response to the sustainability agenda, albeit to varying degrees. However, what the results indicate is that the Government's motivations are perceived to be complex, and perhaps even more tellingly, that the Government is failing to communicate the language of sustainable policy and legislation effectively to industry. Finally, there is strong sentiment that national goals will remain merely aspirational if Government fails to translate targets at a Local Government level.

Many respondents commented that the UK trails its European counterparts in terms of developing sustainable buildings. Countries such as Germany and Sweden are perceived to 'get it', and have invested in new and emerging technologies to back up sustainable objectives. Governments in these countries have the necessary structures in place to facilitate and reward 'sustainable building', such as the ability to sell excess energy back to the grid for a profit. Incentivising action and making it work financially for stakeholders is seen as key.

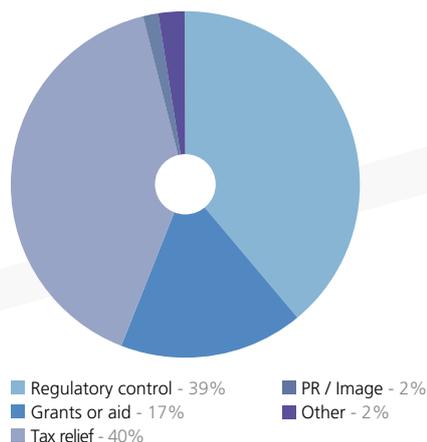
Legislation originating from the EU and implemented in the UK has been perceived to hit the UK development industry harder than in other countries that have applied greater technology and know-how which they are able to rely upon, boosted by a higher level of incentives.

Question

"What form of Government strategy do you believe will be most effective in driving forward the sustainability agenda in the future?" (Respondents were asked to select one answer)

Tax relief was the most popular response (40%), though regulatory control followed closely behind (39%), and a significant proportion (17%) believe that grants or aid will be most effective. These results suggest that although the 'stick' of regulatory sanction is acknowledged to have its place, a clear majority believe that the 'carrot' of financial incentive will be the most effective strategy for driving real behavioural change. Many respondents commented that incentivisation schemes would certainly help the industry to overcome cost impediments, particularly taking into account the current financial climate.

Figure 6. What type of government strategy will be most effective?



“Regulation is slow and it tends to stifle innovation in a lot of ways because people just try to meet the regulation. Incentives sometimes are faster and tend to drive innovation.”

Developer, discussion group participant

Taylor Wessing view

The industry would welcome a greater degree of joined-up, cross-party and cross-departmental political thinking. This will also require a long-term commitment by all political parties, supported by industry, to policies that will force true behavioural change, even if they may alienate voters in the short-term.

Implementation of EU legislation at a domestic level within Member States has itself been piecemeal in nature and not necessarily synchronised with new technologies and innovations, all of which adds to the complexity of regulation to be grappled with by the development industry. If clear motivational incentives are brought forward by Government, the industry is likely to push innovation up the agenda and respond positively.

“We would like to see a more comprehensive and cohesive approach to the imposition of legislation.”

Developer, discussion group participant



Taylor Wessing LLP, 5 New Street Square, London © Land Securities Group plc



Developing the built environment – A new strategy?

A unified approach to a multi-faceted problem.

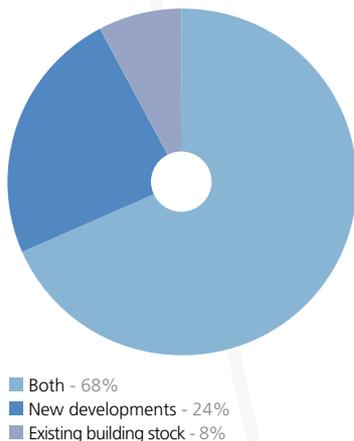
“ Think about the increased awareness in society now, the 24 / 7 communication channels which are informing the public about environmental issues, and the improvement in our formal education system in which people are much more aware of these issues and taught at a much earlier age. I think it is a good thing, and it is a driver. That affects politicians as well. ”

Developer, discussion group participant

Developing the built environment – A new strategy?

A unified approach to a multi-faceted problem.

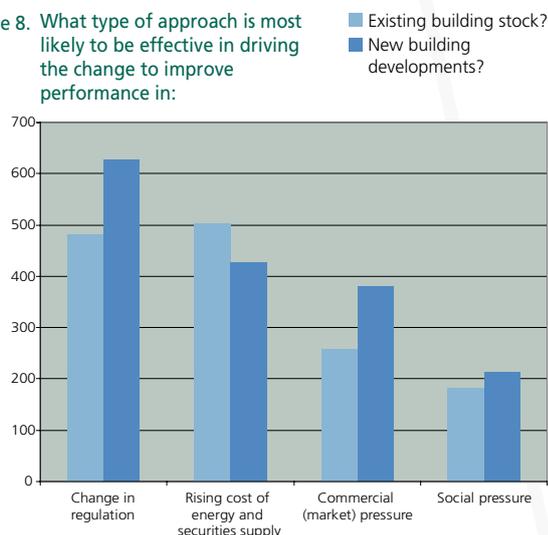
Figure 7. Should the primary focus of the sustainability agenda be upon existing building stock or new developments?



“The split should be focused on existing. In new development, you are dealing with current regulations and therefore go into it with your eyes open. In existing, you require an incentive; otherwise there is a reluctance.”

Technical adviser, discussion group participant

Figure 8. What type of approach is most likely to be effective in driving the change to improve performance in:



Influencing future development will count for little if we fail to address the contribution that existing real estate, constructed over hundreds of years, continues to make towards our carbon emissions. We need to look backwards as well as forwards, and develop an approach that unifies the combined forces of Government and industry.

Question

"Should the primary focus of the sustainability agenda be upon existing building stock or new developments?"

The majority of respondents (68%) agree that the focus should be on both new developments and existing building stock.

This is hardly surprising: New developments make up only a small proportion of building stock, meaning that existing buildings comfortably account for the greater proportion of carbon emissions. Indeed, it is predicted that around two thirds of the building stock that will be standing in 2050 has already been built.⁶ Improving energy efficiency in existing stock is therefore crucial to reducing the UK's carbon emissions.

The accompanying comments also suggest an ambivalence within the industry about how to drive the change towards more of a focus on existing building stock. Respondents correctly acknowledge that it will be costly for the industry to focus its efforts here. However, better awareness and understanding of new technologies may mean that retrofitting can in time be seen as financially viable.

Encouragingly, our Survey reveals that there may be opportunities to promote sustainable objectives for existing building stock by considering the way in which existing buildings operate, and are, or could be, managed and refurbished.

Question

"What type of approach is most likely to be effective in driving the change to improve performance in existing building stock and new building developments?"

Our findings show that regulatory change is thought to be the most effective approach for new developments; by contrast, for existing stock, addressing the rising cost of energy and security of energy supply, will be more important in driving change. The energy efficiency of existing building stock is at present only regulated by legislation that has to be considered when a building is marketed for sale or rent, or major refurbishment is planned.

Social pressure has been placed by Survey respondents higher up the agenda than we anticipated. The generational demographic is also interesting to note in this context:

Younger respondents expressed greater preference for social pressure as a driver of change, with 16% of those under 40 choosing this option, compared to 13% overall.

In presenting these findings we draw attention to the volatility of fuel prices when the Survey was conducted in October 2008 (they dropped only after the Survey was completed). This may have influenced the number of respondents that opted for the rising cost of energy as a strong driver.

“If you could take VAT off insulation products it would make a big difference, especially in construction where there is now a great deal of refurbishment work because there are no new buildings coming onboard.”

Technical adviser, discussion group participant

Taylor Wessing view

Regulation remains a necessary and important component of the UK response to climate change, energy efficiency and levels of carbon emissions. However, industry is expressing a clear preference for more incentives to help offset the cost of sustainable buildings and refurbishment, particularly with regard to existing building stock.

With so many existing regulations and controls, and limited industry understanding of what they all mean, there is real concern that this is likely to be a significant barrier to change. We will, therefore, need to find ways of encouraging greater, more efficient and more creative participation of stakeholders within existing regulatory frameworks.

Government must therefore look towards developing innovative incentivisation schemes in order to spur real behavioural change in existing stock. One of the suggested methods would be to extend the scope of VAT reduction, currently charged at a reduced rate of 5% for the installation of energy saving materials, beyond residential accommodation and into the commercial arena. This would reduce the burden of making energy saving changes to existing structures, and in the process tie carbon reduction to cost reduction.

In the November 2008 Pre-Budget Report, the Government signalled its support for the European Commission's work examining where economic instruments, including VAT rates, can increase the use of energy efficient products, and called on the Commission to bring forward a proposal to introduce reduced VAT rates for these products as soon as possible.⁷ Whilst encouraging, the Government has not yet signalled how it intends to use the tax system to incentivise sustainable behaviour in the long-term. A more comprehensive Government strategy to support such action is needed and would be welcome.

“There are a lot of standards companies have attained and the procurement protocols are there, though they are not always enforced. We only need to look at the Central Government protocol to see that in action. It is magnificently well written and nobody pays any attention to it.”

Developer, discussion group participant

Park House, Oxford Street, London © Land Securities Group plc



Who bears the cost?

What are the current obstacles to developing sustainable buildings, and how might they be addressed?

“ Should this not be turned around another way from an occupier's point of view? How much more sustainable is a developer willing to make a building in order to secure a tenant?

Developer, discussion group participant

”

Who bears the cost?

What are the current obstacles to developing sustainable buildings, and how might they be addressed?

“I have had so many experiences where sustainable solutions have been offered to the Client but once the Client knows they will increase construction costs, they are swiftly turned down.”

Contractor, Survey respondent

Alongside location, cost has traditionally been a key driver in most property development considerations. It is hardly surprising, in the current economic climate, that perceived expense is a major factor militating against real behavioural change and preventing sustainable outcomes.

While, for instance, energy saving measures tend to be prohibitively costly in the short-term, the initial charge can be outweighed by long-term savings. Potential also exists to reduce non-financial and socio-economic costs.

Question

“What are the impediments preventing the development of sustainable buildings from becoming a commercially viable proposition for the UK development industry?”

(Respondents were asked to select all options that applied to them)

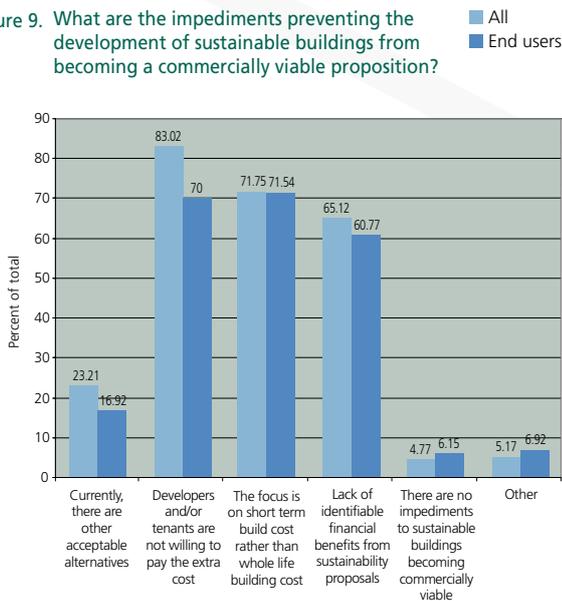
Over 80% of respondents believe that the biggest impediment is 'developers and/or tenants are not willing to pay the extra cost'.

It is interesting to note that the end users surveyed were the only group which suggested that the biggest impediment is 'the focus is on short-term build cost rather than whole life building cost'. Does this mean that end users may be less short sighted than the rest of the industry perceives them to be? Is there scope to address this misconception?

As social pressure and awareness of the climate change debate becomes stronger, there is some evidence that end users, particularly those with young demographics, are beginning to demand a more sustainable environment. If, as our Survey suggests, individual social consciousness is evolving into corporate social responsibility, then it is the younger generation that is leading us in the right direction.

Of course, it is possible that at least some end users answered our question 'aspirationally'. Or is this the 'vicious circle of blame' in action, ie, a self-perpetuating cycle whereby end users claim that not enough sustainable buildings

Figure 9. What are the impediments preventing the development of sustainable buildings from becoming a commercially viable proposition?



“As the young people now go through the market, this is going to change because the youth of today is much more into this than our generation.”

End user, discussion group participant

are available to meet their demand, with designers and constructors claiming that developers are not asking for sustainable buildings, developers asserting that investors will not pay for them, and investors claiming that they would invest, if only there was demand from end users.⁸

Question

"How much more rent do you think the typical corporate occupier would be willing to pay in order to secure a sustainable building?"

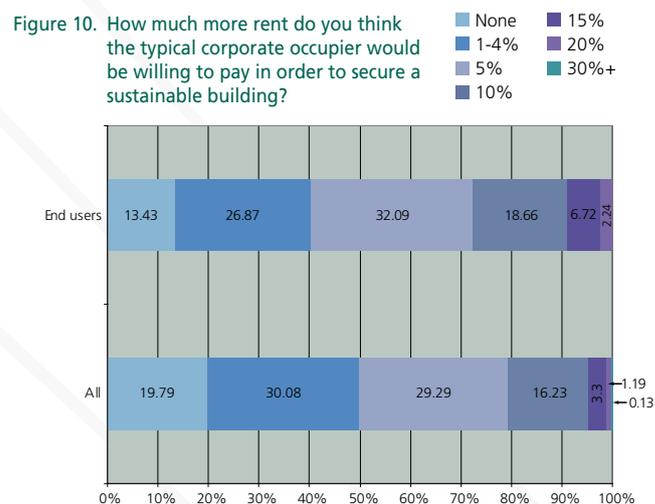
Again, our results show an interesting discrepancy between the overall response and the end users' response. While nearly 20% of respondents believe that the typical corporate occupier would not pay any extra cost for a sustainable building, only 13% of end users say that this is the case. 60% of end users assert that the typical corporate occupier would be willing to pay 5% or more additional rent, compared to 50% overall.

Our findings suggest that end users are increasingly taking a more holistic, long-term approach to cost – after all, 87% say that they would pay more rent to secure a sustainable building.

If these conclusions are to be taken at face value, and other sectors have incorrect assumptions about what end users are actually willing to pay, this indicates something of a disconnect between what is required and what is being delivered?

“Our CSR and sustainability policies set objectives far higher than property and construction landlords.”

Investor, Survey respondent



Taylor Wessing view

More and more, end users are adopting the sustainability agenda, and bearing the associated short-term rises in financial cost. We suggest that this is due to enhanced public pressure, the rise of corporate responsibility and corporate sustainable goals, and the need to attract and retain a new generation of socially conscious employees.

End users might be willing to pay higher rents but more research is needed before we can determine the true level of occupier appetite for sustainable buildings. For example, under what conditions will end users pay more, and what cost/benefit analysis will they use?

It may be that a two-tier market will evolve for sustainable and non-sustainable building stock. The likelihood of this occurring may increase in a more cautious fiscal climate, as development financiers begin to factor sustainability criteria, backed up by legally enforceable contractual commitments, into their fundamental finance calculations.

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Green agreements – Are they a solution?

Is there a developing culture of green 'protocols' or policies?



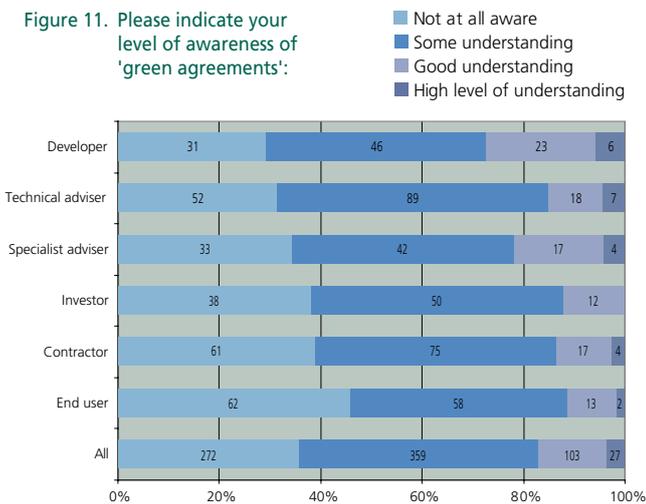
“ I think that is a major problem with green leases. The blind nature of the relationship between landlords and tenants is that they do not have any shared responsibility to each other. It is not within the landlord's interest as to whether the tenant reduces his rates or not, and that is a major problem. ”

End user, discussion group participant

Green agreements – Are they a solution?

Is there a developing culture of green 'protocols' or policies?

Figure 11. Please indicate your level of awareness of 'green agreements':



Green contract provisions, eg, green leases and green building contracts together with green memoranda of understanding, can cover various issues relating to the design, construction, supply, maintenance and operational use of property. Energy efficiency measures, waste reduction / management, as well as social and ethical considerations can all be included. 'Green agreements' are in the early stages of development in the UK, but are predicted to be much more widely adopted across the industry.⁹ They are already common practice in Australia, and can be a key mechanism promoting commitment to real behavioural change going forward.

Question

"Please indicate your level of awareness of obligations in respect of the following environmental issues: 'Green agreements' including 'green leases' and 'green construction contracts'."

Over one third (36%) of all respondents are not at all aware of green agreements, including green leases. This figure rises to almost half (46%) for end users.

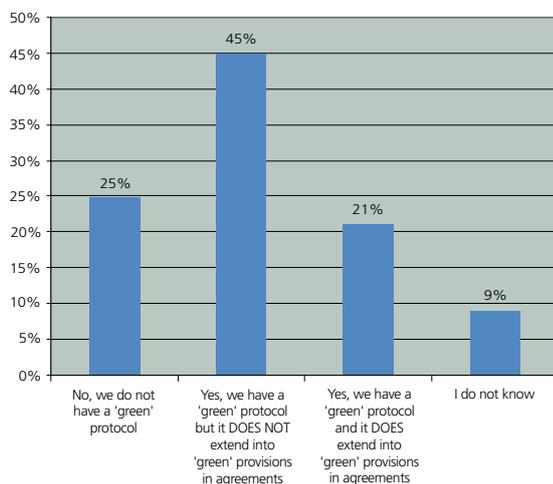
Question

"Does your organisation have a 'green' protocol or policies, and if so does it extend to include 'green' provisions (or 'green clauses') in agreements you enter into?"

Our Survey finds that more than a fifth (21%) of all respondents have green protocols and provisions in place. This is encouraging, considering that green agreements are still in their infancy in the UK. However, the fact remains that many in the industry are not aware of them at all.

“If you make them prescriptive you are also creating a problem. How are you going to police it? What landlord really polices his lease?”
 Developer, discussion group participant

Figure 12. Does your organisation have a 'green' protocol or policies, and if so does it extend to include 'green' provisions (or 'green clauses') in agreements you enter into?



We asked participants in our discussion groups about their experiences with green agreements, and in particular, green leases. They confirmed that these contractual arrangements are either already in place or being considered seriously, and what is more, at the highest organisational levels. Indeed, many of the participants felt that green agreements will become standard in the future.

At the moment, those green agreements in use are more likely to be voluntary and non-prescriptive, their aim being to educate whilst instigating sustainable and 'environmentally friendly' behaviour in occupied buildings.¹⁰ Many developers indicated that they would be reluctant to put in place prescriptive provisions in their leases, albeit that they acknowledge the industry is steadily heading in this direction. Green clauses in building contract conditions are less used currently, although green provisions affecting design and construction appear in technical requirements. The view is that this is set to change, both in respect of the expected 'pass through' to green development and green lease provisions, and as a result of industry promoting use in standard forms.¹¹

One of the key points that came out of our research was that the relationship between developer and end user is changing, and will continue to evolve. In order to make a real difference going forward and fulfil mutual corporate sustainable objectives, developers, landlords and end users will have to work more closely, from the planning and design stage through to occupational acquisition or tenancy.

Contract solutions or voluntary memoranda of understanding may present an opportunity to facilitate a shift to a more collaborative relationship between sectors, and could address thorny issues such as shared responsibility for costs and the benefits of energy consumption.

Some tenants already appear to be advocating this approach, and are frustrated that their landlords are not able to accommodate them. In many cases their green policies may be far more advanced than the landlord's policies. It could be that developers and landlords who can deliver on end users' sustainability expectations are likely to have an edge in securing lettings in the current development market.

Multi-tenancy buildings pose a particular challenge in this context, as other tenants already in the space may not be willing to change their own behaviour.

Taylor Wessing view

Green contract solutions are likely to play an increasingly important role in encouraging and enforcing behavioural change going forward, driven in large part by tougher legislation on industry sectors. The shift will occur incrementally to address key regulatory measures, and a mix of 'light green' voluntary agreements and 'dark green' mandatory and prescriptive agreements is likely. Occupiers, the 'lifblood of developers', will have a very strong voice in this process. Developers and landlords will initially lead the way and there are signs that they are already doing so by working with current occupiers, striving to promote a change in their behaviour to maintain the sustainable element of 'green development'. Greater collaboration is to be expected across the industry in the short-term, and given time, we believe that the informed end users could actually drive negotiations in the future.

Forward thinking advisers are putting in place a variety of approaches for their clients to select. Green documents are coming - the salient question is: 'How quickly?' As always, those who have done most to prepare the ground will be in prime position to exploit the opportunities.

“It is slightly frustrating from an end user's point of view where we do want to have those operational improvements to our portfolio, but we cannot always obtain that in buildings where we are not the sole occupier.”

End user, discussion group participant

“I think the relationship between the end user and developer will become closer. The end user will have more involvement at the early stage. I think the brief will become much more specific, driven by the end user.”

Specialist advisor, discussion group participant

“There is still the end user concern about whether it really works and whether you are selling me a concept that is not proven. There is a little bit of reluctance and a little bit of concern that it is too much. I think the tenant or the end user will play a big part going forward.”

End user, discussion group participant



Sustainable energy measures – The real thing or just 'greenwash'?

Will renewable / sustainable energy sources be an element of future property development?

“ Large scale solutions that work for a particular demographic is the best use of the money invested to get renewable resources, not putting 'green bling' on a building. ”

Technical adviser, discussion group participant

Sustainable energy measures – The real thing or just 'greenwash'?

Will renewable / sustainable energy sources be an element of future property development?

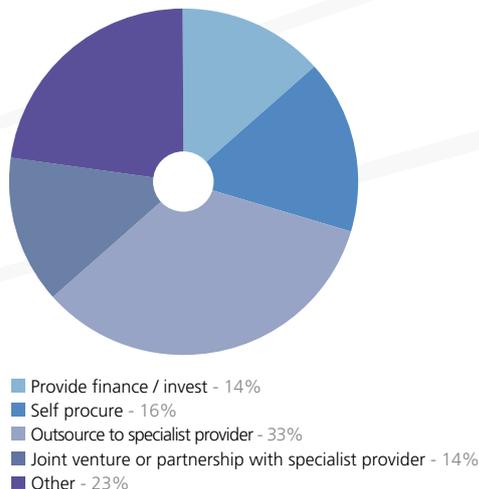
“We have to get involved in this because of the way that plans and policies are working everywhere.”

Developer, discussion group participant

Currently, sustainable energy sources, including renewable energy and emerging technologies, make up less than 2% of primary demand in the UK. Most of our energy is provided by electricity suppliers and is generated mainly from fossil fuels. The national gas grid fuels the majority of heating needs.

However, the Government is responding to the 'security of energy challenge' by taking matters forward through a new legislative framework.¹² The choice of energy sources is, therefore, likely to have a significant role to play in the development industry. Different mixes of energy supply and different approaches towards development, renewal and refurbishment might emerge, influenced by factors such as security of energy supply, fuel poverty, social values and economic circumstances. There may be some advantage for the industry to participate in the energy debate, and there is the prospect that expense may reduce if a low cost energy solution is found. What is clear is that the decisions made today about energy sources will have huge impact for the longer term solution.

Figure 13. In what way are you likely to be involved in sustainable energy source as an element of property development?



Question

"Is renewable / sustainable energy source (eg, combined heating and cooling, biomass, solar, wind, energy from waste) likely to be an element of property development you will be involved in?"

Our Survey found that a substantial majority, three quarters, of respondents (75%) believe that a renewable/sustainable energy source is likely to be an element of property development that they will be involved in.

Of these 75% who said "yes", we asked a follow-on question: ***"In what way?"*** With so many people signing up to sustainable energy, how might the implementation of renewables be handled 'on the ground'?

The largest sub-group (33%) say that they would outsource to a specialist provider. More than half of the contractors in particular indicate that they would be prepared to proceed in this direction (52%).

Surprisingly, 44% of respondents say that they will manage this themselves in some way, with 14% providing finance or investing, 14% in a joint venture or partnership with a specialist provider, and 16% self procuring. Of the 20% answering "other", many indicate that all of these elements are likely to be a part of how they will be involved with sustainable energy.

Much of the feedback received indicated mixed views about the potential for sustainable energy sources.

On the one hand, the industry wants to make change, but on the other, it sees small-scale renewables as being wasteful tokens rather than truly making a difference. Solutions in design do not necessarily translate to solutions in practice.

There is an opportunity for Government and the wider public sector to lead and inform the effective implementation of new technologies. Moreover, there is a very strong view that Government needs to grapple with the practical application of renewables targets and the application of regulations at a Local Government level.

Some view local authorities as not always having been consistent about the implementation of requirements. Perhaps public bodies need to consider further issues of efficiency for small scale renewables and feasibility for small companies?

“Surely with all the innovation and the amount of revenues that we are piling into all these micro wind turbines, which work occasionally, it would be far better to carve off some, pay it to a single source, and generate wind turbines somewhere else to feed the grid.”

Developer, discussion group participant

“As the renewable obligation comes on stream, you should be allowed to procure your energy from a truly certified renewable source, and that should be contributory to your renewable component.”

End user, discussion group participant

Taylor Wessing view

If renewable and sustainable energy sources are to be seen as effective, the industry needs to develop an improved awareness and understanding of available energy processes and operating systems, and the potential for innovation using emerging technologies. Right now, most UK innovation is focused on the optimisation of existing systems. A shift to greater reliance on renewable and sustainable energy sources will require investment in new technologies, training and skills, as well as wider industry buy-in.

There may be scope for more flexibility in how renewables targets and requirements are attained. The Government could assess whether further steps are required to encourage alternative methods for delivering sustainability, energy efficiency and significant emissions reductions. We suggest there is a need for Government to communicate more effectively with local authorities, and heed concerns expressed in relation to renewable targets at a Local Government level.



The viability of the sustainability agenda

Do we have the knowledge and skills, and can we afford to drive the sustainability agenda forward?

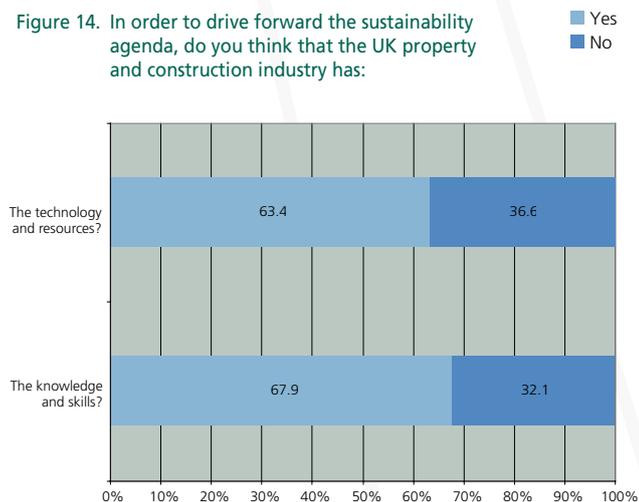
“ I think the credit crunch has actually helped in this space. Last summer we were still in a period of comfort and opulence within the banking environment, certainly. We have actually put the handbrake on very quickly and have gone from comfort and opulence straight into sustainability and efficiency without going through anything in between. The corporate world is waking up very quickly to efficiency issues; that is right in this space. ”

End user, discussion group participant

The viability of the sustainability agenda

Do we have the knowledge and skills, and can we afford to drive the sustainability agenda forward?

Figure 14. In order to drive forward the sustainability agenda, do you think that the UK property and construction industry has:



“I think the intellectual capital that the UK has is of formidable influence. Whether or not we are using it at the moment is another question that needs to be answered. There is a layer in the industry, 1% or 2%, who get it and understand and do it, but the 98% beneath that is the challenge.

Developer, discussion group participant”

“If you look at previous times when we have gone through a downturn, one of the first things to go is the investment in skills and training. My greatest fear is that we will not have the skills and the people employed to take advantage of the upturn when it comes.

Developer, discussion group participant”

To achieve sustainability objectives, necessary expertise combining technology, resources, knowledge and skills is identified as a key component for success. Is the development industry appropriately equipped, and can it afford the cost? More immediately, how will the 'credit crunch' affect the sustainability agenda? Will the severity of the downturn curtail much of the investment required, or could it actually have a positive effect and prompt industry leaders to use it as an opportunity to boost their green credentials in preparation for proposed legislative developments in the area?

Question

"In order to drive forward the sustainability agenda, do you think that the UK development industry has: The knowledge and skills, technology and resources?"

The results show that a clear majority believe that the industry does have the right level of technology and resources (63%), along with the requisite knowledge and skills (68%), to drive forward the sustainability agenda.

Respondents believe that we have all the knowledge and skills necessary to drive forward the sustainability agenda, but that we are not making the best use of them or reaping the full rewards. The perception is that our European partners are taking the lead, and that UK industry is missing out on the opportunity to capitalise globally on sustainability objectives, showcasing our world-class level of technology and skills. Respondents express a view that the reason for this is a long-term lack of 'real' investment.

Investment and the impact of the current financial crisis or 'credit crunch'

The 'credit crunch' has raised important questions. Will the financial crisis alter the dynamics of the sustainability challenge? How will recession and the associated slowdown in new buildings affect the green agenda? Along with financial services, the UK construction industry is predicted to be the hardest hit by the 'credit crunch', with large job losses forecast.¹³ Will investment in sustainability be a casualty?

Although it may seem counter-intuitive, most of the feedback we received in our discussion groups actually suggests that the 'credit crunch' may actually benefit the sustainability agenda. Other studies provide further grounds for such optimism: A recent poll by the UK Green Building Council found that 92% of members believe sustainability will either grow as an issue or stay at the same level despite the 'credit crunch'¹⁴; and, a poll carried out in 12 countries by a coalition of climate groups found that 43% of the 12,000 respondents to the survey chose climate change ahead of the global economy when asked about their current concerns.¹⁵

Clearly, the economic crisis is not distracting people from the looming climate crisis – in fact this may be the catalyst to jolt the UK development industry into action. More austere times are heightening social pressure against 'wastefulness', which may also influence sustainable objectives. The pace of this change for both business and the public has been rapid.

“Many parts of the world look to the UK to lead this mindset change, but until such time as the value of a green building can be demonstrated (and reflected on paper in pound notes), there is no real incentive other than marketing to ensure people act upon sustainability.”

Contractor, Survey respondent

Taylor Wessing view

The sustainability challenge will not go away, which means that the economic downturn cannot be allowed to obstruct the solution – indeed it could and should focus our response with ever greater intensity. Sustainability should be embraced as one of the big growth sectors of the future, as the recent rise in 'green collar' jobs suggests.

The development industry must not delay - habits need to change now if it is to reap the rewards. Willing industry participants are more likely to benefit from future changes to regulation and policy. Those that build the sustainability agenda into future business plans may ultimately profit. An added benefit is likely to be an enhanced green image and successful public relations, which may lead to wider public acceptance of proposed development schemes. Industry, therefore, needs the Government to take a more supportive position to encourage investment in new technologies, training and skills in order to keep pace with sustainability demands. The financial crisis has hit the development industry hard, but it has also presented us with a valuable opportunity for reflection and preparation.

“This is the period when we innovate and start to think about when the upturn comes, what will be the requirements that our clients are looking for?”

Contractor, discussion group participant



Concluding remarks

We hope that the *Taylor Wessing Sustainability Report* serves as a useful contribution to current and future debate surrounding the development industry's response to the sustainability challenge. While the focus of this research has been the UK development industry's levels of awareness and understanding of the regulatory framework within which its various discrete sectors have to operate, it has also raised serious questions about how Government legislative solutions, both already in force and in future, will have to adapt to the economic and social contexts of a rapidly changing world. We look forward to working with all industry stakeholders to help provide answers to these questions and secure the sustainable built environment of all our futures.

“ I do not think there is anything about the sustainable agenda that is not viable or sustainable in its own right; it is the legislation and guidance that could influence its viability, particularly over this difficult period. ”

Discussion group participant

Appendix A

Levels of awareness and understanding of sustainability issues.

Figure 15. Energy efficiency and renewable energy

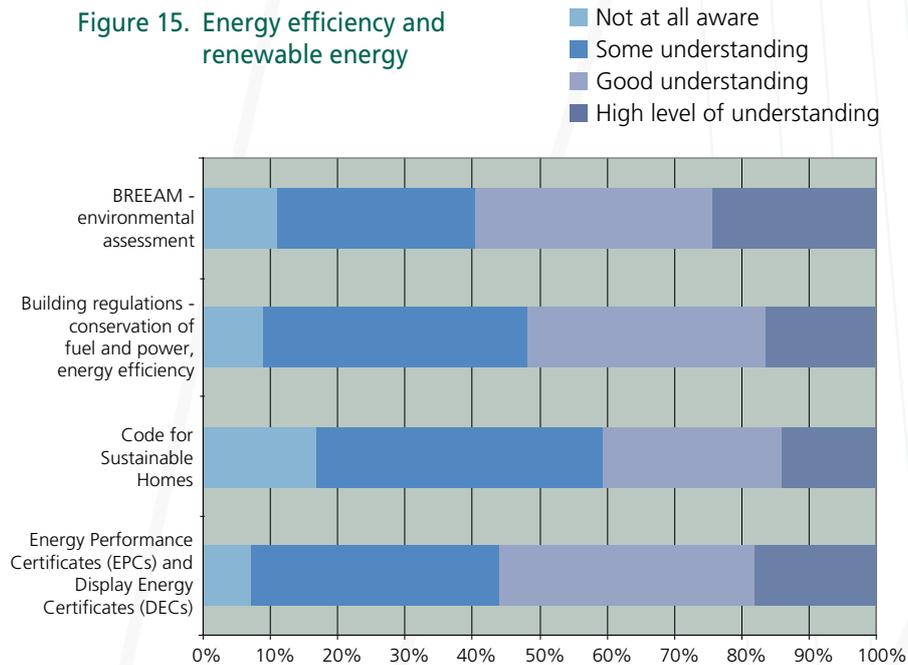


Figure 16. Climate change and emission controls - The drive for 'zero carbon' buildings

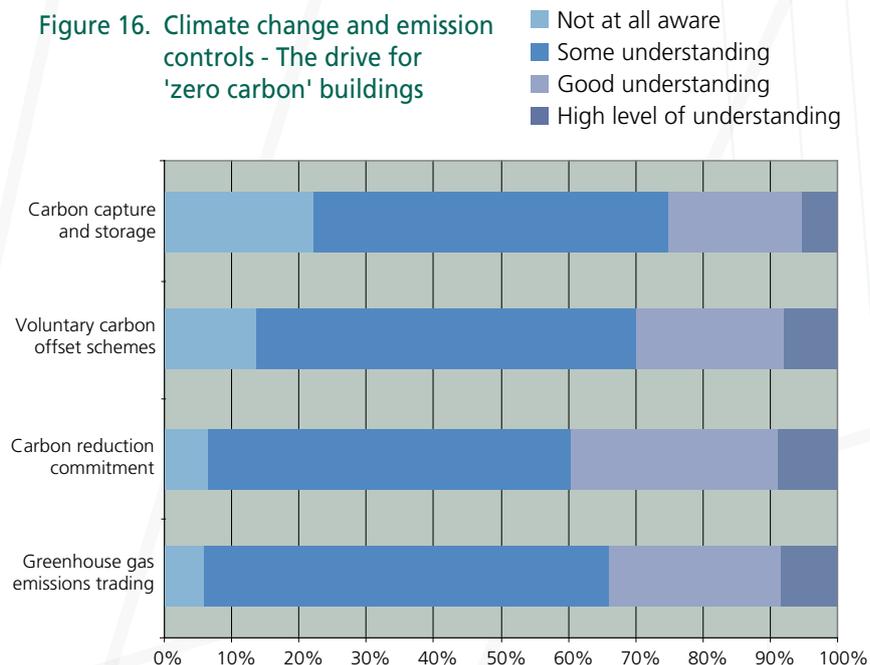


Figure 17. Waste minimisation and management / re-use and recycling

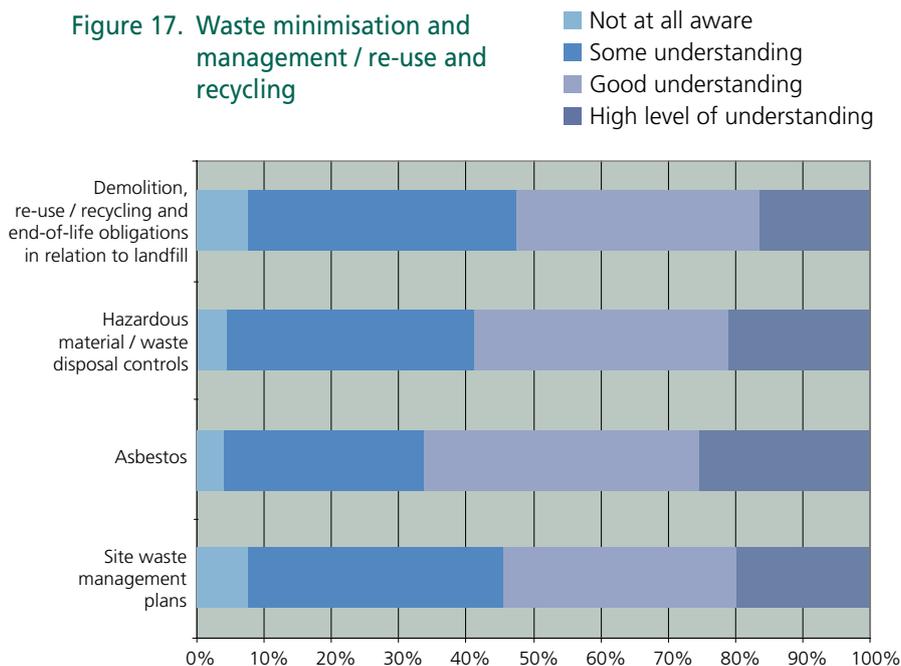
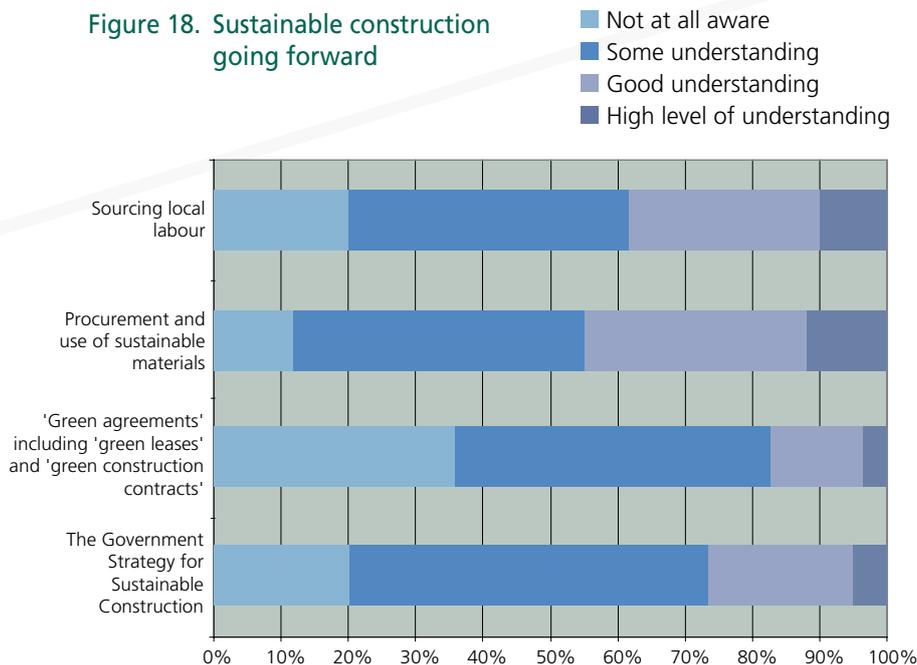
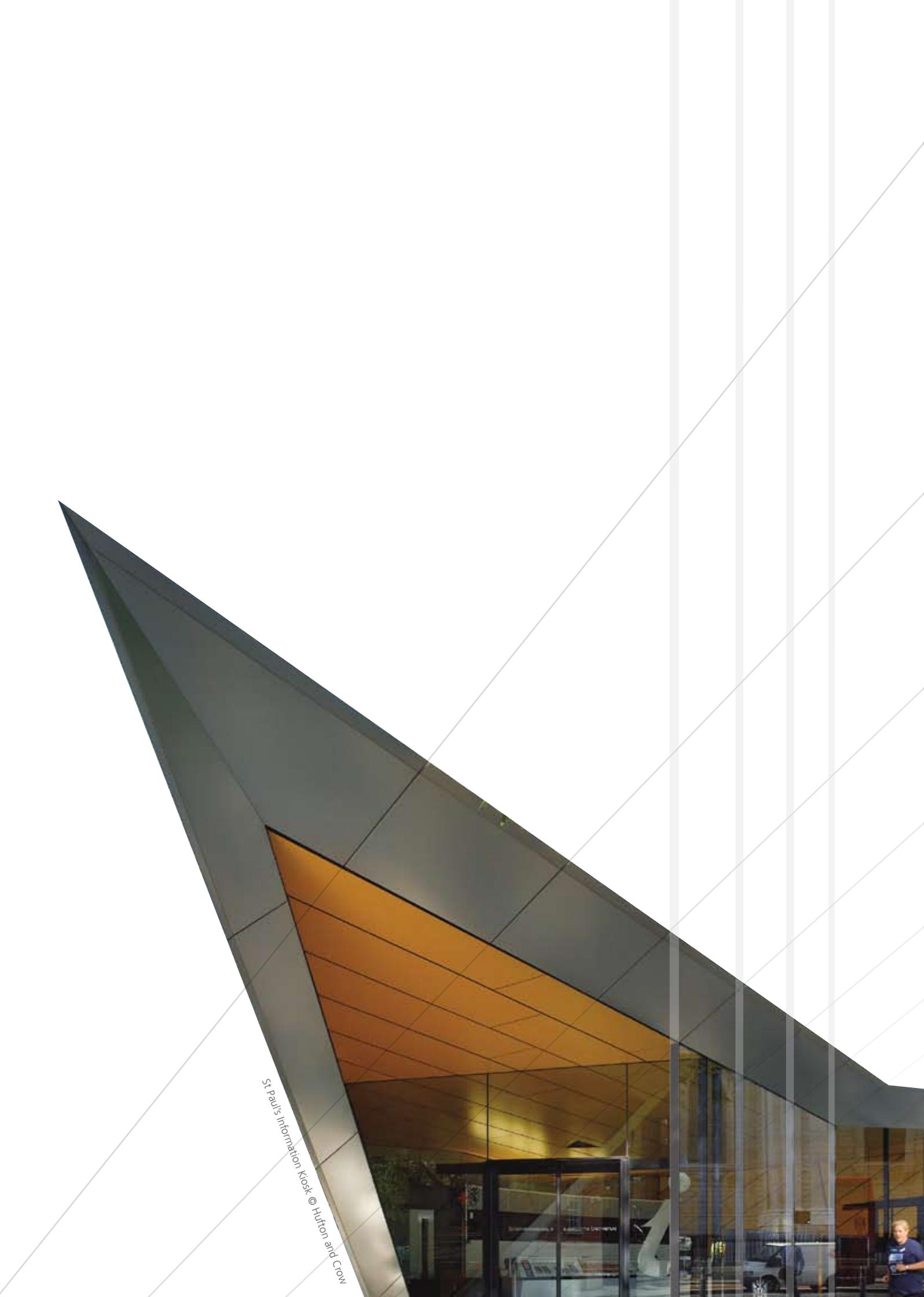


Figure 18. Sustainable construction going forward



St Paul's Information Kiosk © Hurfon and Crow



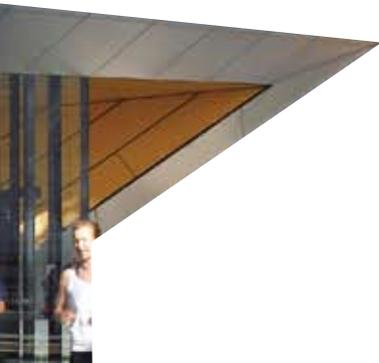
Appendix B

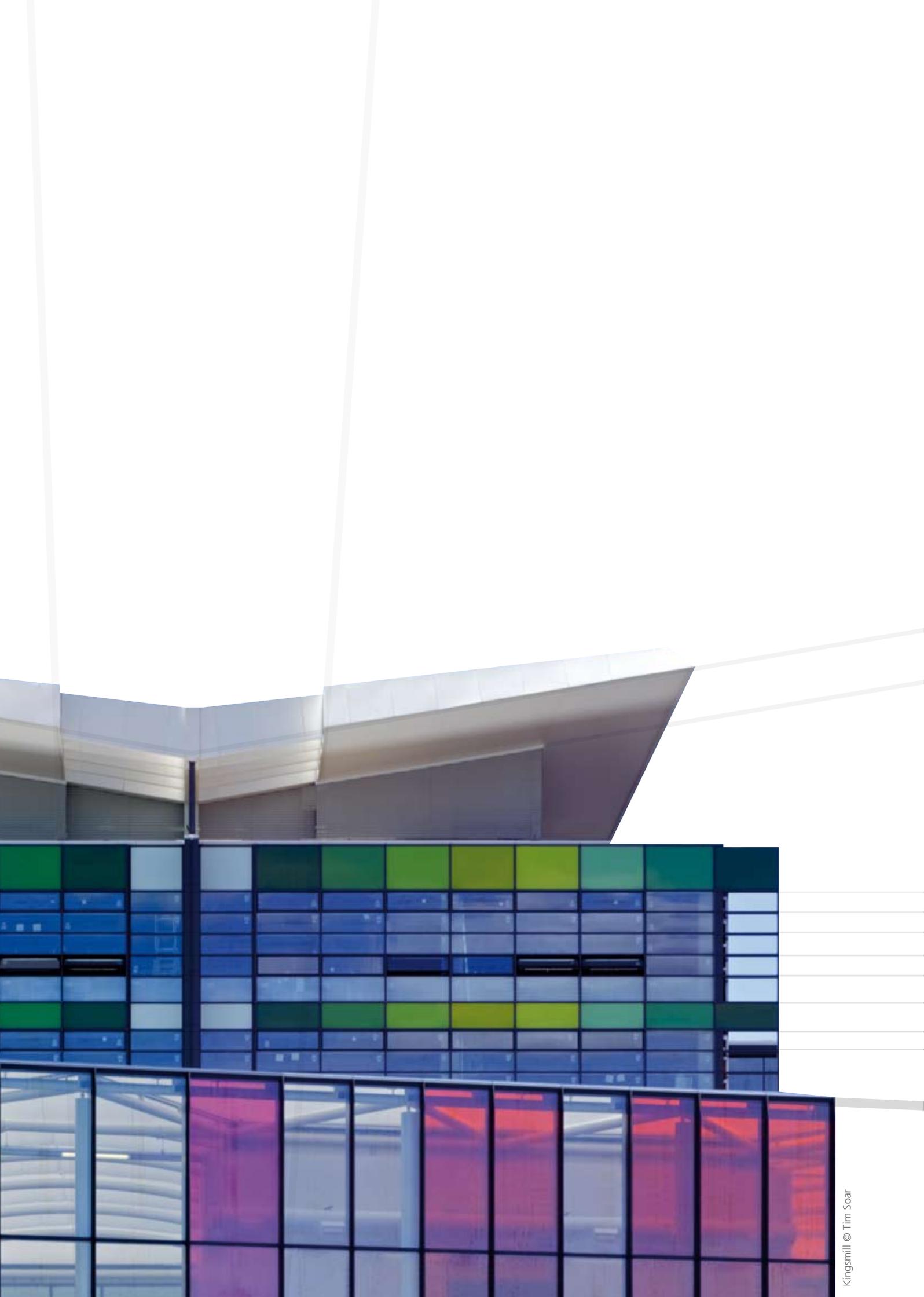
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Additional notes

References in this Report to 'Government', 'Central Government' and 'Local Government' refer to the Government of the United Kingdom.





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