



**Sustainability:**

**Who cares?**

**A property**

**industry survey**

**Earle Arney, Chris Mobbs,  
Sean Coward and Nicola Brew**

# Aircraft travel is not the 'poster child' of pollution that it has been made out to be.



"Air travel is bad!", so the popular media periodically reminds us. The devastation we inflict on the environment as a result of this energy intensive form of transport is at the fore of public awareness, particularly in Europe. Market savvy airlines have responded by becoming carbon neutral and invite their passengers to similarly 'do their bit' by offsetting the greenhouse gas emissions associated with their flights. Some communities feel that the situation is so dire that they shame people for taking unnecessary airline travel rather than visiting nearby holiday destinations reached by more sustainable forms of transport. In the twenty-first century we have been conditioned to think of 'air miles' not as a measure of airline loyalty but as a mark of our environmental impact.

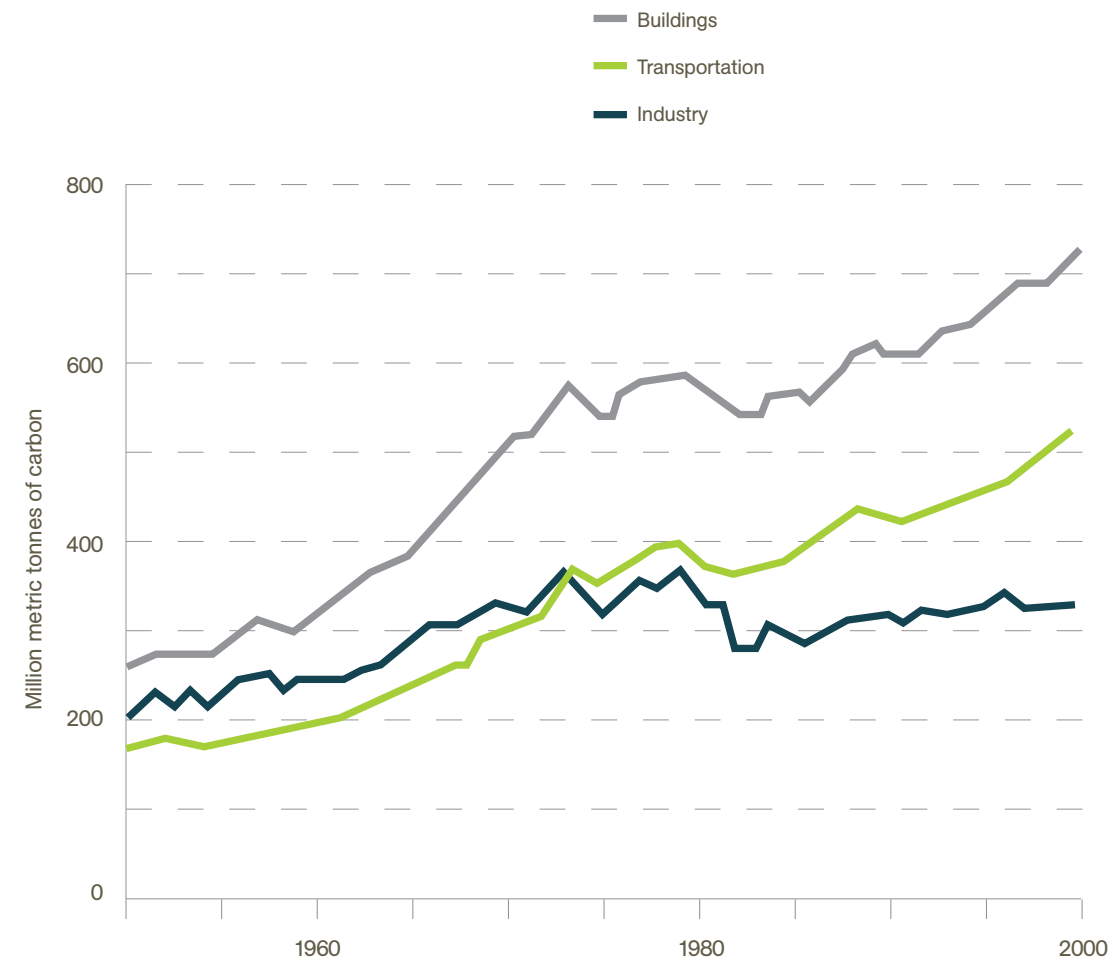
Despite this extraordinary focus on irresponsible 'plane-polluters' and their associated contrails, research shows that aircraft travel, or even transport as a whole, is not the 'poster child' of environmental pollution that it has been made out to be. According to the OECD's 2008 International Transport Forum, domestic and international aircraft travel represents merely 11% of all global transport carbon emissions, which in turn accounts for only 23% of total carbon emitted from all sources. Buildings, on the other hand, account for considerably more carbon emissions than any other sector, as represented in Figure 1 (American Institute of Architects, 2008).

At the dawn of this century, buildings were dumping approximately 280% more carbon into the atmosphere than in the 1950s. The energy required to heat and cool our workplaces and homes is by far the biggest single contributor to carbon pollution. Buildings are not only the largest single source of carbon emissions; they are also the biggest energy users. They represent 40% of global energy consumption, of which 33% is attributable to commercial properties and 67% to residential (World Business Council for Sustainable Development, 2007). We need to refocus. If we continue on our current trajectory, buildings will be at the top of the environment's epitaph.

Given that the property industry is responsible for the world's largest carbon emissions, Woods Bagot conducted a survey to determine industry attitudes and experiences in the adoption of sustainable solutions for the built environment. How much do we actually care and will we get past the challenges being faced with regard to the delivery of sustainable buildings? Over 200 industry professionals from Australia, New Zealand, the United Kingdom, United States, United Arab Emirates and Bahrain completed the survey.

The major findings are reported in the following pages.

**Figure 1.** US CO<sub>2</sub> emissions by sector. Reproduced with permission from American Institute of Architects



## We need to refocus. If we continue on our current trajectory, buildings will be at the top of the environment's epitaph.

## FINDING 1

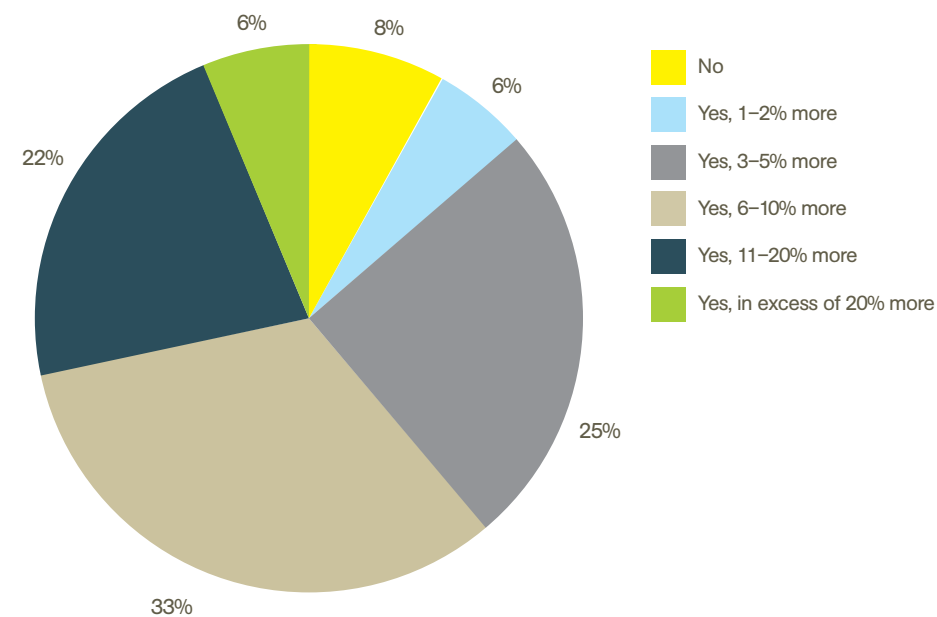
**A third of respondents claim that there is a 6–10% cost penalty for going green. Such misjudgments of the costs of sustainable construction create potential barriers to the adoption of energy efficiency measures in the building industry.**

Given that buildings are big polluters, we proposed questions to uncover any barriers that may exist in procuring sustainable buildings. Firstly we asked people what they believed was the cost premium for creating a sustainable building. Figure 2 illustrates our respondents' perception that a green building costs significantly more than a 'standard' building, with a third of respondents believing that green buildings cost between 6–10% more and a quarter of the sample believing that the cost premium is between 3 and 5% more.

Perhaps a more informed opinion is that of cost consultants, Davis Langdon, who suggest in their publication, *The cost of going green* (2004), that significant environmental measures increase the capital cost of buildings by as little as 2–4%.

A recent survey of building professionals, conducted by the World Business Council for Sustainable Development (WBCSD), found that on average the industry estimated a 17% premium compared with standard developments, with Chinese respondents estimating the highest premium of 28% (2007). The WBCSD states that this is more than three times the actual cost differential of approximately 5% (WBCSD, 2007). Such misjudgments of the costs of green construction may create barriers to the adoption of sustainability initiatives in the building sector.

**Figure 2.** Do you believe green projects cost more than standard developments?



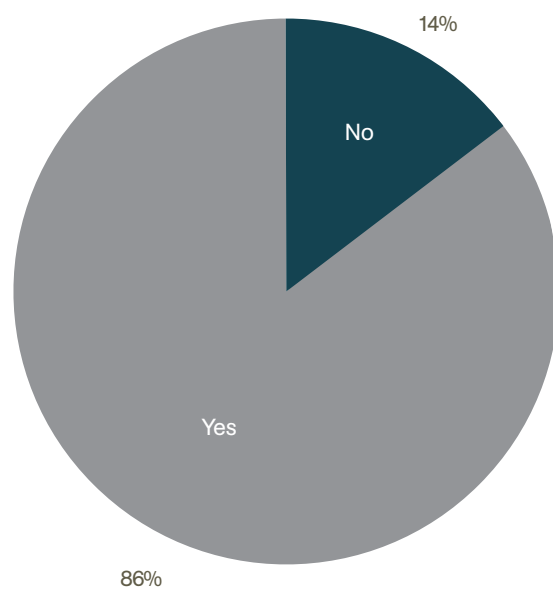
## FINDING 2

**Despite the perceived costs, 86% of respondents believe green buildings are worth it.**

Despite the high perceived capital cost of sustainable initiatives, most of the respondents (86%) believe green buildings are worth it (Figure 3). This is not surprising as we understand the benefits of sustainable buildings to include:

- / Improved corporate reputation or brand value
- / Improved staff productivity
- / Higher asset value
- / Reduced operating costs
- / Reduced operational risk
- / Future proofing

**Figure 3.** If you believe there is a premium for green buildings or fitouts, then do you think it is offset by the benefits?



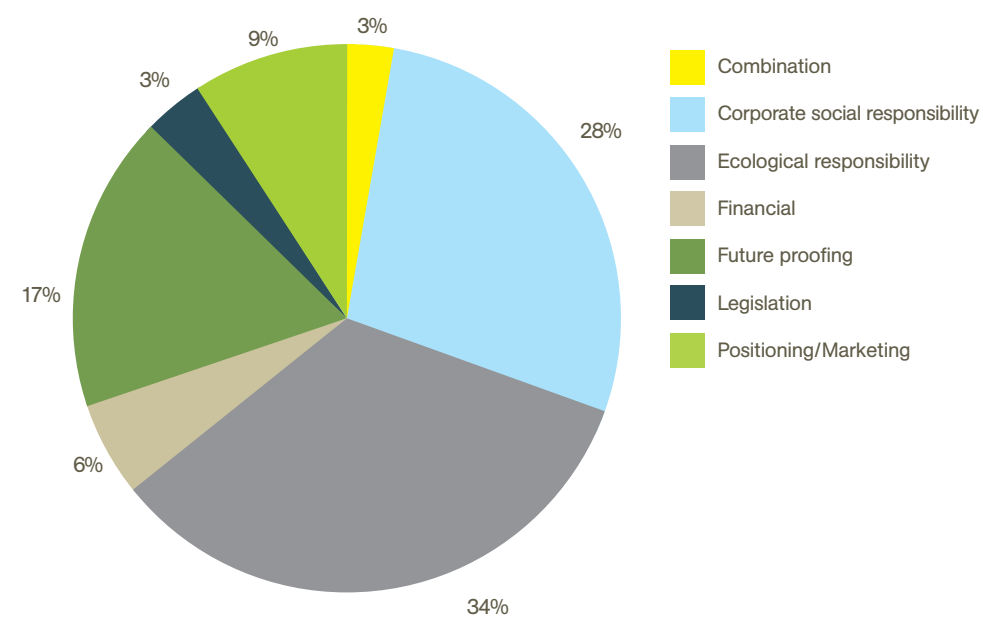
## FINDING 3

**Seventy-three per cent of respondents believe sustainable buildings are effective instruments for attracting and retaining key talent.**

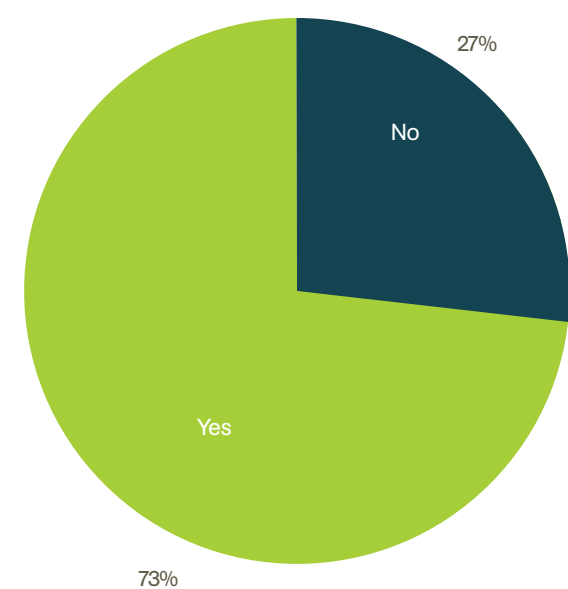
In the past, the business case for sustainability has often been argued by property industry commentators in purely financial terms. Our research shows that there is a much more complex matrix of green drivers. We understand the basic equation that in an environment of high energy costs or high energy taxes, the long-term operational costs of commercial office buildings outweigh the cost of their construction. However, we can see from our survey that the financial drivers, such as reduced operating costs, make up only a small percentage of the key reasons to go green. Respondents are far more focused upon the need to promote ecological responsibility and corporate social responsibility than financial considerations (Figure 4). Furthermore, 73% of respondents believe that green buildings are useful tools for attracting and retaining key talent (Figure 5).

# Respondents are far more focused upon the need to promote ecological responsibility and corporate social responsibility than financial considerations.

**Figure 4.** Which of the following presents the most appealing rationale for undertaking a green project?



**Figure 5.** Do you believe that green buildings are useful tools for attracting and retaining key talent?



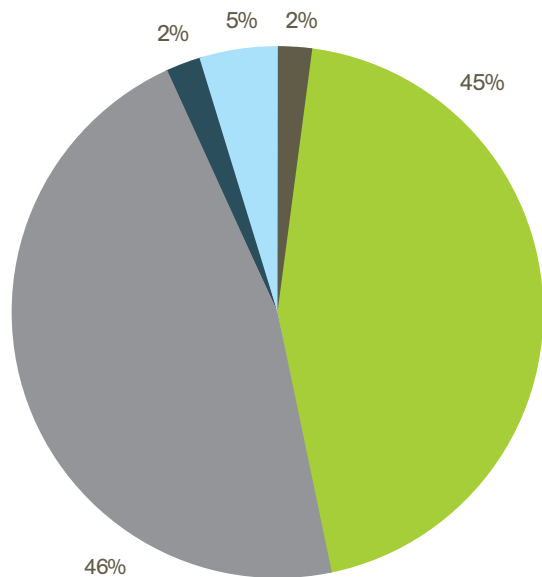
## FINDING 4

### We are not doing enough to deliver sustainable solutions.

Eighty-two per cent of respondents support the statement that the industry is not doing enough to deliver sustainable solutions. This was a surprise as a significant proportion of respondents consider themselves to be totally committed to supporting the drive for a more sustainable future through the delivery of a more sustainable built environment (Figure 6).

**Figure 6.** Respondents levels of commitment to sustainable development

- I am unaware of the issues surrounding sustainability
- I understand sustainability issues, however, I am not convinced by the agenda
- I am aware of sustainability issues but do not understand them
- I am doing my bit for sustainability, but could probably do more
- I am totally committed to sustainability and always seek to include environmentally sustainable design principles in my projects



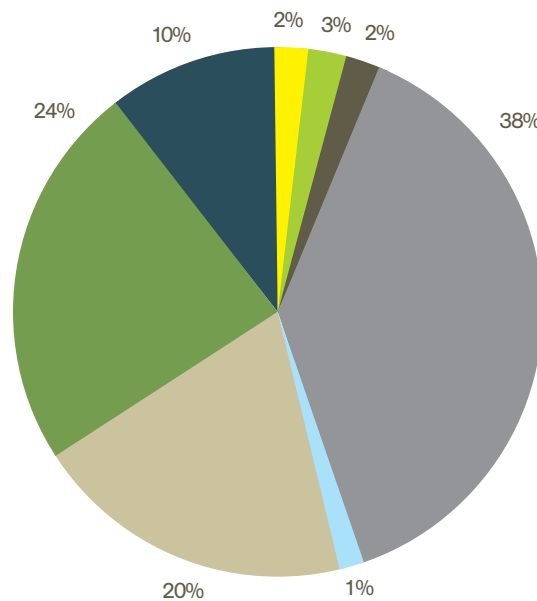
## FINDING 5

### Sadly, the property industry's most significant challenge right now is providing a convincing argument for the benefits of sustainability.

Despite the awareness of climate change, the most significant challenge facing the property industry is the development and delivery of a compelling benefits case that supports the adoption and delivery of environmentally sustainable solutions. There are potentially a number of reasons for this, including the fact that the respondents' perception of costs is higher for sustainable developments than what is actually the case. (However, our research also suggests that the elevated risk associated with the delivery of green buildings is critical. In particular, our sample group cited significant challenges associated with delivery expertise and process compliance (Figure 7).

**Figure 7.** The biggest challenges faced by respondents when attempting to deliver green developments

- Additional capital costs
- I don't have any obstacles, because I do not undertake sustainable projects
- Lack of government incentives/regulation
- Providing a convincing argument for the benefits of sustainable initiatives
- Public perceptions and behaviour
- Satisfying certification criteria and processes
- The limited availability of delivery expertise
- Using limited/unproven technologies

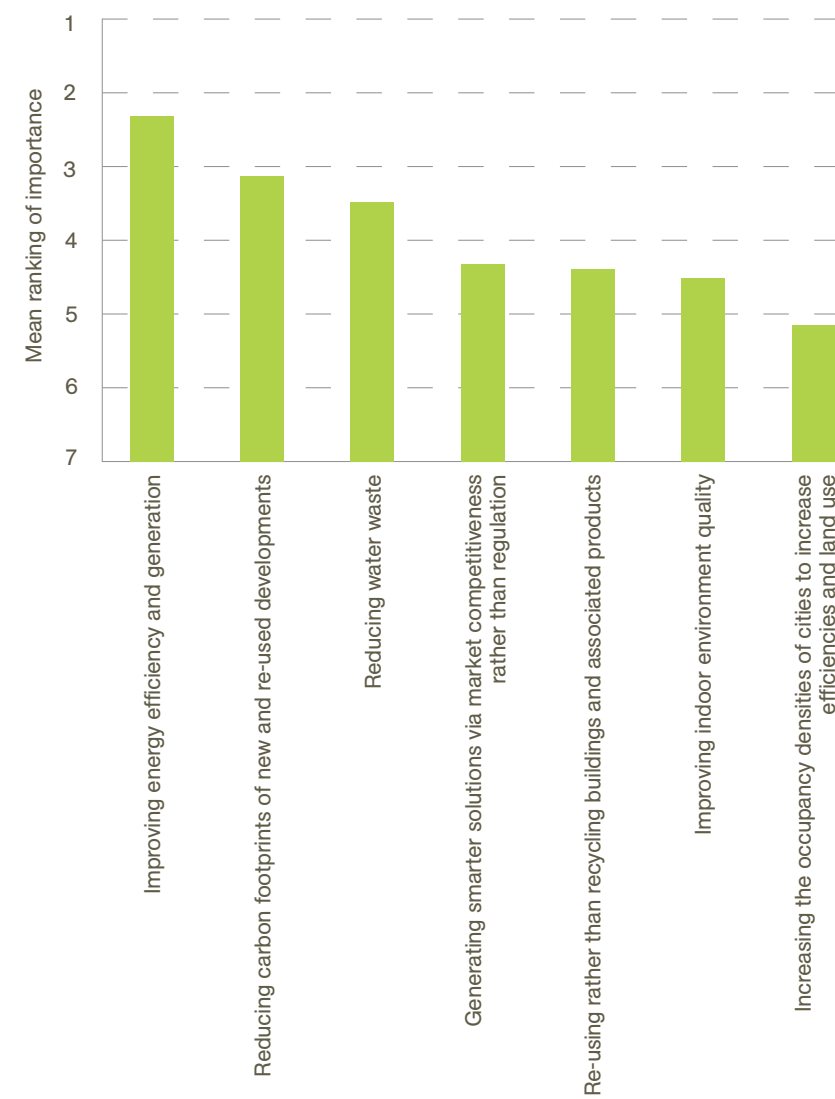


## FINDING 6

### Delivery expertise and process compliance are significant risks for the property industry.

Delivery expertise and process compliance are considered to be two major challenges faced when trying to deliver sustainable built environments. Forty-four per cent of respondents identified these two challenges as the most significant of those listed, despite 79% of respondents believing that the market is not over-regulated. One can deduce from the results that the underlying issue driving process compliance is the relative lack of knowledge and delivery expertise required to satisfy compliance goals.

**Figure 8.** The issues ranked most important for solving in the future



## FINDING 7

### Energy efficiency and generation is currently ranked the most important issue for the future.

This was followed by reducing carbon footprints of new and refurbished developments and reducing water use (Figure 8). We suspect that if our sample included more representatives from the Northern Hemisphere that issues of water consumption would be less of a concern. Anecdotally, we have also seen a recent increase in the awareness of 'indoor environmental quality' and we expect this to receive higher scores in future survey results, particularly in light of growing research linking the indoor environment with the productivity of staff (Clements-Croome, 2003).

**Conclusion**

"In my very first job, a very wise person said to me that, 'the power is never where you think it is'. I am periodically reminded of this sage advice as I progress through my career and marvel at how, sometimes, we can get it so wrong." Earle Arney

Similarly, it is amazing at how we have got it so wrong in terms of our current focus of sustainability. The power to affect real change for the betterment of the environment is not singularly in the hands of those who are labouring on driving sustainable modes of transport. The single biggest opportunity to sustain life as we know it is before us all in the property industry—cleaner and more efficient buildings.

There are many obstacles to creating a more informed and environmentally responsive built environment. A major challenge is clearly the wide variance in the perceived cost of going green. This no doubt influences people's beliefs that the biggest challenge is finding a convincing argument for sustainability, despite almost universal acceptance of the reality of climate change.

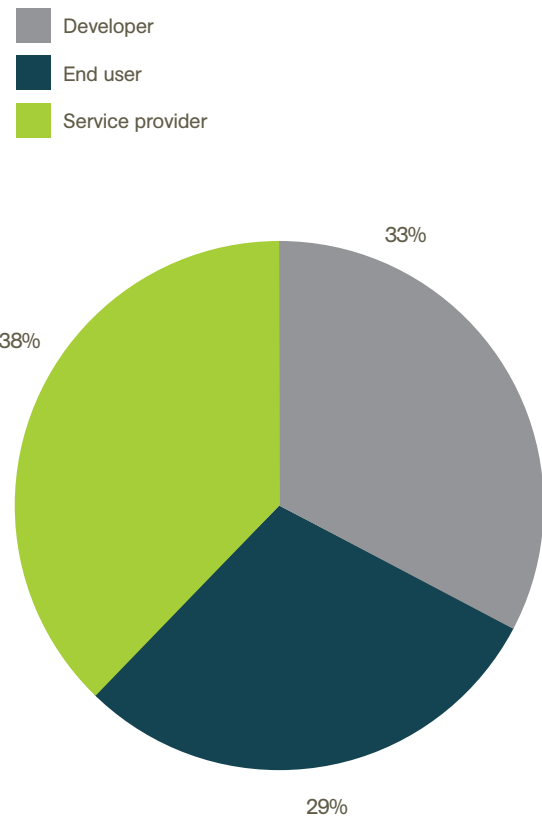
The drivers of sustainability are rich and varied. The reductive capital/operational expenditure equation is historic and fails to recognise that there are new change agents of sustainability. Corporate social and ecological responsibility is far more important, as is the potential to use authentic positioning to attract and retain talent.

We are in the early phases of acquiring knowledge as to how best to deliver a sustainable built environment. The disjunction that often results between design and delivery of sustainable solutions presents a significant risk to our industry. The scarcity of delivery expertise and product availability, combined with the challenge of process compliance, is also a major hurdle that is frustrating industry attempts to adopt green solutions.

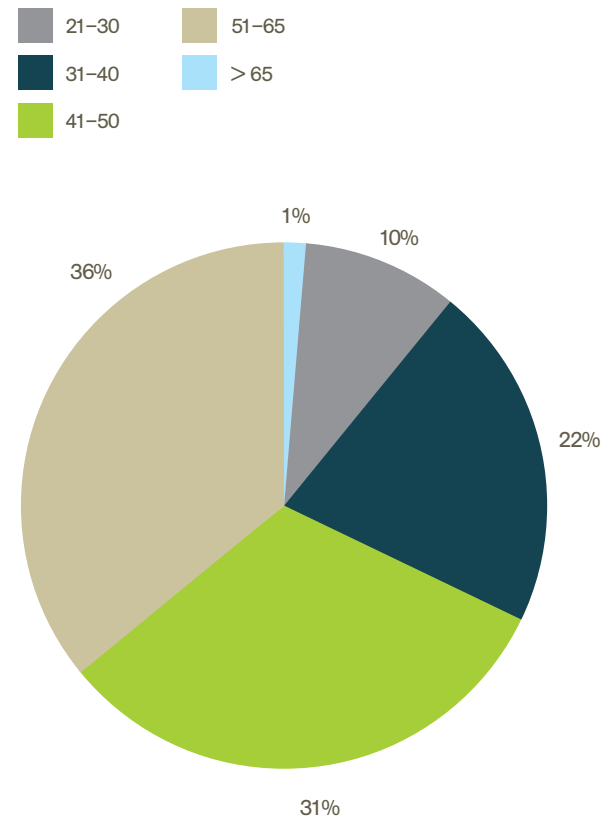
It is likely that as we gain experience in creating green solutions, the delivery risk will diminish as will the uncertainties surrounding process compliance. It is also likely that our quest to 'touch this earth lightly' will continue to become more and more expansive. We will see cities as opportunities to sustain life rather than to merely accommodate people. Similarly, individual buildings will provide opportunities to give back to the environment rather than deplete its resources. We have a long way to go but, considering the findings of this survey, it seems that we do care.

**The power is never where you think it is...  
The single biggest opportunity to sustain life is before us all in the property industry—cleaner and more efficient buildings.**

**Figure 9.**  
Roles of survey respondents



**Figure 10.**  
Ages of survey respondents



**Research methods**

Woods Bagot conducted an internet survey during 2008. Over 200 industry professionals completed the survey. Participants were mostly from Australia and New Zealand (97%). Other participants were from the United Kingdom, US, United Arab Emirates and Bahrain. The numbers of respondents were evenly spread across age brackets and the industry categories of service providers, developers and end users (see Figures 9 and 10). Forty-two per cent of respondents work in the commercial office sector; 35% in mixed use; 12% in lifestyle (residential; hotel; retail etc.) and 11% in the education, science or health sectors. Whilst the sample size is substantial, we acknowledge that those clients and consultants interested in the sustainability agenda will for the most part have completed the survey over those who are not as interested. This is a pilot study to gauge insights and trends into sustainability for the built environment which we aim to rollout annually in the other regions we operate in: Asia; the Middle East; Europe; and North America.



