Building momentum

A survey of sustainability in China’s real estate sector
The global movement towards building ‘green’ is well underway and is gaining momentum in China. Decades of strong economic growth have led to commercial and residential buildings being constructed in China at an exceptional pace. Growing domestic awareness of environmental problems created by this rapid economic growth has brought attention to the importance of sustainable development in China. Government-led efforts, with the support of private industry, are beginning to bring results and developers are increasingly integrating sustainable initiatives into new projects in response to growing demand from occupiers.

To highlight these trends and capture a snapshot of the increasing drive towards sustainability, Jones Lang LaSalle invited a diverse pool of high-end real estate users in Greater China to participate in an online survey. More than 200 respondents completed the questionnaire, including investors, developers, design practitioners, manufacturers, suppliers, occupiers, service providers and government workers. The following report details the findings of this survey on sustainability in China.

The report reveals that respondents are aware of the costs and benefits of sustainable real estate development, from construction costs and energy savings to market differentiation and corporate social responsibility (CSR). This bodes well for developers of and investors in sustainable buildings in China. Opportunity also abounds for service providers involved in corporate real estate to meet emerging demand. Lack of awareness as to international ratings systems was widespread, with respondents expressing enthusiasm to learn more. Consulting firms that can establish themselves as sustainability experts should reap the benefits as more people and firms, both domestic and international, move toward investing in and occupying sustainable space.

Drivers of sustainability

The majority of respondents believe that differentiation and CSR are major drivers of sustainable building practices (Figure 1). Environmental sustainability is becoming an important differentiator in an increasingly crowded high-end real estate market, with some cities, such as Shanghai and Beijing, trending toward fiercer competition and higher vacancies. At the same time, occupying sustainable buildings is an important part of many international firms’ CSR requirements. In addition, as oil prices continue to reach historical highs¹, 48.2% of respondents regard the increasing cost of energy as a key motivator.

Figure 1: Constituent parts of sustainability

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation as an employer (CSR)</td>
<td>53.1%</td>
</tr>
<tr>
<td>Increasing cost of energy</td>
<td>48.2%</td>
</tr>
<tr>
<td>Legislation and regulations</td>
<td>44.3%</td>
</tr>
<tr>
<td>Long-term capital gains</td>
<td>36.4%</td>
</tr>
<tr>
<td>Government incentives</td>
<td>31.1%</td>
</tr>
<tr>
<td>Global reporting initiatives</td>
<td>24.6%</td>
</tr>
<tr>
<td>Short-term operating cost savings</td>
<td>19.3%</td>
</tr>
</tbody>
</table>

Source: Jones Lang LaSalle
Note: Respondents were able to select multiple answers

Occupiers and international firms are two groups that are becoming more discerning in their building requirements, which may explain the relatively high importance they place on differentiation and CSR: 64% and 58% respectively. Following on from this, 68% of service providers placed importance on differentiation and CSR. Interestingly, only 5% of service providers think government incentives are a major driver, compared to 1% in the overall sample. While service providers are rarely the beneficiaries of government incentives, the nature of their work is likely to make them more sensitive to market competition and the importance of differentiation.

Respondents clearly identified the government as the most important leader in sustainability, followed by multi-national occupiers and developers (Figure 2). Chinese firms place a higher importance on the government with 76% of local respondents considering it the most important stakeholder in the sustainability market.

Figure 2: Which stakeholders are most important in leading sustainability in the market?

Source: Jones Lang LaSalle

- 10% of Global GDP is contributed by the Building and Construction Sector (or US $3,000 billion)
- It is estimated that the built environment is responsible for approximately:
  - 25 to 40% of total energy use worldwide
  - 30 to 40% of solid waste generation
  - 30 to 40% of greenhouse gas (GHG) emission

Source: www.unepbci.org/aboutSBCI/GetInvolved

Property is the largest asset class in the world by a significant margin and the development, use and ongoing maintenance of property have a massive impact on the environment. Taking into account the incredible scale of China’s building industry – With 2 million sqm of new office space expected in 2008 in Beijing alone – improving the sustainability of new developments in China is critical in fighting climate change.

The increased awareness of sustainable building practices among developers and tenants is convincing more investors to enter the sustainable real estate market.
Advance

Jones Lang LaSalle has found that another key driver for sustainable buildings entering the market is that investors and developers see increasing demand for this type of space. Occupying sustainable buildings is a focus for some CSR-conscious multi-national occupiers. Developers would not pay the premium for a sustainable building if they did not believe that it was also the most economically sound approach. As investors look at areas where they can improve performance and minimise risk for their portfolios, they are setting strict sustainability guidelines for the assets they build, acquire and operate.

The government’s role is still primarily focused on minimum sustainability requirements for all new development across China. The Ministry of Construction (MOC) released a voluntary rating system in fall 2007, but it has yet to reach the level of recognition enjoyed by the United States Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED) certification.

<table>
<thead>
<tr>
<th>LEED Rating</th>
<th>Building name</th>
<th>City</th>
<th>GFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold - NC</td>
<td>ACCORD21 Beijing Demonstration</td>
<td>Beijing</td>
<td>12,914</td>
</tr>
<tr>
<td>Gold - CS</td>
<td>Beijing Prosper Center</td>
<td>Beijing</td>
<td>150,038</td>
</tr>
<tr>
<td>Silver - CS</td>
<td>Le Sang Shopping Mall</td>
<td>Harbin</td>
<td>79,999</td>
</tr>
<tr>
<td>Silver - NC</td>
<td>TaiGe Apartments</td>
<td>Shenzhen</td>
<td>26,021</td>
</tr>
<tr>
<td>Gold - NC</td>
<td>Plantronics Factory</td>
<td>Suzhou</td>
<td>13,991</td>
</tr>
<tr>
<td>Silver - NC</td>
<td>Plantronics Office</td>
<td>Suzhou</td>
<td>5,992</td>
</tr>
<tr>
<td>Gold - CI</td>
<td>InterfaceFLOR Shanghai Office</td>
<td>Shanghai</td>
<td>236</td>
</tr>
<tr>
<td>Gold - NC</td>
<td>Nokia BDA Campus</td>
<td>Beijing</td>
<td>77,049</td>
</tr>
<tr>
<td>Silver - CI</td>
<td>HOK Shanghai Office Interior Fit-Out</td>
<td>Shanghai</td>
<td>240</td>
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<tr>
<td>Gold - CI</td>
<td>HOK Beijing Office</td>
<td>Beijing</td>
<td>316</td>
</tr>
<tr>
<td>Silver - CI</td>
<td>Shui On Land Ltd HQ - 26/F Shui On Plaza</td>
<td>Shanghai</td>
<td>1,940</td>
</tr>
<tr>
<td>Gold - ND</td>
<td>Beijing Olympic Village</td>
<td>Beijing</td>
<td>524,767</td>
</tr>
</tbody>
</table>

Source: www.usgbc.org/LEED/Project/CertifiedProjectList.aspx
Note: As at September 2008

Defining sustainability

The Organisation of Economic Co-operation and Development (OECD) defines sustainable buildings as those buildings that have minimum adverse impacts on the built and natural environment. This is in terms of the buildings themselves, their immediate surroundings, and the broader regional and global setting.

Sustainable or ‘green’ buildings are designed, constructed, commissioned and operated in ways that enhance their impact on the environment and on the building occupants with strategies for addressing:

1. energy efficiency
2. greenhouse gas emission abatement
3. water conservation
4. waste avoidance, reuse and recycling
5. pollution prevention - noise, water, air, soil and light
6. enhanced biodiversity
7. reduced natural resource consumption
8. productive and healthier environments
9. flexible and adaptable spaces

Sustainable construction takes into consideration a building’s impact on the local environment and takes measures to reduce negative impacts. Often ‘sustainable’ is used interchangeably with ‘green’ and ‘environmentally friendly’.

Rating systems provide a standard for evaluation of a building or tenancy that examines the design and construction or operation of the building and awards a score to the building based on pre-defined environmental elements. Ratings systems are voluntary and usually created by NGOs or construction-related government organisations.
Building momentum

Regulations

Although government leadership is regarded as imperative, the vast majority of respondents believe that these regulations need to be either tightened or enforced, while many others are simply unaware of any such regulations (Figure 3). While the Chinese government has attempted to address the issue in the form of legislation and regulations, actual progress on the ground has been limited. As Vice-Minister Pan Yue of China’s chief environmental watchdog SEPA was recently quoted as saying, “At the moment, the reality is that the current environmental policies and targets are not stringent enough.”

Part of the economic and social planning process in China is to publish the ‘Five-Year-Plan.’ This addresses social and economic issues affecting the country. What is noteworthy is that in 2006, significant attention was placed on environment for the very first time. Targets and policies include the following:

- A reduction of energy use per unit of GDP by 20% by 2010
- Water consumption will be reduced by 30% per unit of industrial output by 2010
- The Chinese government will develop and refurbish government buildings and then improve their management to increase energy efficiency
- China will continue the reform of the urban house heating system. Under the new system, households shall pay heating companies by the amount of heat they actually use, not in accordance with floor space of their accommodations
- Government departments must make annual energy-saving plans, and take specific implementations, such as using energy-friendly products; new building projects and building renovations must match energy conservation standards

The Evaluation Standard for Green Buildings (October 2007) states:

“... scientific development philosophy must be steadily created and seriously implemented, and the concept of sustainable development must be adhered to, to strongly develop green buildings. When developing green buildings, state technologic and economic policies that save resources and protect environment shall be implemented and performed. The purpose of formulating this standard is to regulate evaluation on green buildings and promote the development of green buildings.”

It is hoped, that by 2015, these standards will have been implemented on a national level. Such standards, combined with the massive scale of property development yet to enter the market, give China a unique opportunity to lead many of the developed countries by implementing sustainable practices into development from the outset.

China government environmental policies and targets

In 2005 China’s Ministry of Construction (MOC) signed a Memorandum of Understanding, pledging to organize a China Green Building Council to join the World Green Building Council to help foster a Chinese green building rating system and green building projects.

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Figure 3: What is your view of current government regulations/legislation surrounding sustainability issues?

Source: Jones Lang LaSalle
Note: Numbers may not add up to 100% due to rounding
laws look good on paper, but that’s by and large where they remain because our power to punish offenders is pretty limited.”

By comparison, Europe and the United States have advanced with the take-up of sustainable buildings as these markets have been willing to pay for good design and high-performance buildings. Success overseas has arguably been driven by institutions and governments mandating minimum environmental ratings for occupied space, such as LEED in the US or Green Star in Australia, as well as tough environmental non-compliance penalties which are enforced throughout Europe.

Measures that could be adopted by government, both on the national and provincial level, to promote sustainable practices across China, may include the following:

- Taxation incentives and rewards to companies undertaking sustainable building practices
- Taxation penalties to those companies failing to meet environmental and sustainable building standards
- Taxation incentives for existing or new commercial buildings that achieve 60% savings on projected annual energy costs for heating, cooling, and lighting compared to national standards

These types of policies could assist China to meet the demands of new development in a sustainable manner while addressing inefficiency problems in existing buildings. They could also promote an injection of funds into sustainable services, technologies and products.

Unlike most other developed countries that have established industry-wide rating systems, almost 40% percent of respondents are unaware of any sort of environmental rating systems in China (Figure 4). Those operating in industrial property are generally more aware of rating systems, with only 22% stating that there are no rating systems being used in their markets. Manufacturers and investors in industrial space are more likely to be impacted by environmental regulations over time and therefore have a vested interest in future proofing their assets. Commercial developers too are increasingly taking the view that laws will be tightened.

While few local players know about LEED, less than a quarter are aware of local rating systems. There are currently a number of different international rating systems present in China. LEED enjoys the most widespread usage and is expected to be the preferred system for companies in years to come. Several other systems have had less success with their application in China, notably BREEAM (United Kingdom) and HK-BEAM (Hong Kong). The only China rating system currently available is the MOC’s voluntary framework, which was launched in October 2007.

Figure 4: Are you aware of any environmental rating systems for buildings being used in your market?

Source: Jones Lang LaSalle

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Environmental Rating Systems

LEED

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ encourages and accelerates global adoption of sustainable building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria. LEED is a third-party certification program and the nationally accepted benchmark for the design, construction and operation of high-performance sustainable buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Architects, real estate professionals, facility managers, engineers, interior designers, landscape architects, construction managers, project managers, lenders and government officials all use LEED to help transform the built environment to sustainability. State and local governments across the world are adopting LEED for public-owned and public-funded buildings; and LEED projects are in progress in more than 41 different countries, including China, Canada, Brazil, Mexico and India.

LEED Rating System

<table>
<thead>
<tr>
<th>LEED for New Construction</th>
<th>LEED for Existing Building</th>
<th>LEED for Commercial Interiors</th>
<th>LEED for Core and Shell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Sites</td>
<td>Materials &amp; Resources</td>
<td>Energy &amp; Atmosphere</td>
<td>Water Efficiency</td>
</tr>
<tr>
<td>Indoor Environmental Quality</td>
<td>Innovation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LEED® Credit Categories

- LEED credit intents, requirements, and strategies for:

Source: U.S. Green Building Council
Environmental Rating Systems
Evaluation standard for Green Building

The Ministry of Construction unveiled its own domestic ratings system as part of a recent government push to improve sustainability in the enormous construction industry. Called “Evaluation Standard for Green Building,” the system is similar to LEED in that developers or owners of buildings can submit an application, and the MOC will then award a rating of one, two or three stars. Aspects of sustainable construction under consideration differ between residential and commercial/public development, and include such diverse topics as water use reduction, utilization of underground space, and access to public transportation. Points are then awarded by category, with minimum thresholds needed for each level or rating. The government announced the first six projects that applied for ratings in May; only one developer submitted a residential building³.

<table>
<thead>
<tr>
<th>Grade</th>
<th>★</th>
<th>★★</th>
<th>★★★</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal terms (40 total)</td>
<td></td>
<td></td>
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<tr>
<td>Land savings and outdoor environment (9 total)</td>
<td>4</td>
<td>6</td>
<td>7</td>
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<tr>
<td>Energy use (5 total)</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Water use (7 total)</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Materials use (6 total)</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Quality of indoor environment (6 total)</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operations management (8 total)</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Special terms (6 total)</td>
<td>–</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Ministry of Construction, Science and Technology Bureau

<table>
<thead>
<tr>
<th>Grade</th>
<th>★</th>
<th>★★</th>
<th>★★★</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal terms (40 total)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land savings and outdoor environment (8 total)</td>
<td>3</td>
<td>5</td>
<td>7</td>
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<tr>
<td>Energy use (10 total)</td>
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<td>Water use (6 total)</td>
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<td>Materials use (5 total)</td>
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<tr>
<td>Quality of indoor environment (7 total)</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Operations management (7 total)</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Special terms (21 total)</td>
<td>–</td>
<td>6</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Ministry of Construction, Science and Technology Bureau

Benefits
Studies in the US, Canada, Australia and the UK have examined large groups of buildings that are designed, constructed and operated with sustainability initiatives. However, in China, despite the rapid growth in the construction of sustainable buildings, the number of completed certified buildings is small and information on these projects is limited. A common problem in the take-up of sustainable principles and practices is a lack of well-documented, project-specific evidence outlining the benefits sustainable buildings bring. The China industry needs to establish a simple platform to share knowledge, collate lessons learned and compare project information, like for like, around costs and benefits of sustainable buildings. Part of the challenge is that information tends to be treated as commercially sensitive and once a project is completed, the teams usually disperse and move onto new projects.

Similar to the question on drivers, respondents identified branding as the most important contribution that sustainability makes to a company. Often sustainable buildings are perceived as modern and dynamic, and those organizations associated with sustainable buildings will benefit from these perceptions through improved occupier satisfaction and well being.

China would benefit from a simple platform to share knowledge, collate lessons learned and compare project information on the costs and benefits of sustainable buildings.

Maintaining the image of an environmentally responsible employer also weighed heavily (Figure 5). International company respondents stressed the importance of creating a healthy working environment for staff and attracting potential employees in a market where the skilled workforce is very competitive. Local firms, however, are less concerned with attracting employees; only 18% of local respondents considered it an important benefit of sustainability. Although the Chinese population is generally concerned about environmental issues, according to a 2007 national survey⁴, they nevertheless rank the environment below economic concerns.

The importance respondents placed on branding as a sustainability driver does help explain why LEED has become the most popular rating system in China. LEED has become popular all over the world, and after the Ministry of Science used

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Figure 5: What do you think is the biggest contribution sustainability makes to your company?

- **28.1%** Competitive and branding advantage
- **24.6%** An environmentally responsible employer of choice
- **19.7%** A healthier working environment for staff
- **10.5%** Increase in capital value of building
- **10.1%** Reduced operating costs
- **4.4%** Increased sales

Source: Jones Lang LaSalle
Note: Respondents ranked answers. This chart represents answers ranked number one. Numbers may not add up to 100% due to rounding.

LEED for its Accord 21 project in 2006, it became the most recognized system in China. Developers of and investors in sustainable buildings, therefore, prefer LEED as it is recognized internationally as one of the leading tools for benchmarking high-performance buildings. Those investors and developers who have sought certification have in some cases received enormous amounts of publicity. Prosper Center, a LEED certified high-quality office building in Beijing, has been featured in a number of reports, and the Accord 21 project, while not a commercial building, was covered by international news media.6

In China there is a growing recognition of the link between sustainability and property value. The Royal Institution of Chartered Surveyors (RICS) report, ‘Green Value: Growing Buildings, Growing Assets’6, found that sustainable buildings earn higher rents, attract tenants and buyers more quickly, enjoy lower tenant turnover, and cost less to operate and maintain – not to mention provide improved business productivity for occupants.

Other benefits of sustainable buildings that can be achieved include the following7:

- Improved marketability and publicity
- Reduced ongoing operation and maintenance costs
- Longer life cycle of asset
- Future-proofing against rising energy costs and future regulations
- Reduced liability risk
- Improved indoor air quality
- Improved occupant satisfaction, well being and productivity
- Enhanced biodiversity
- Flexible and adaptable spaces
- Improved conservation – energy, water and waste

Source: Jones Lang LaSalle

6 Dr Ross Davies (Editor) “Green Value: Green Buildings, Growing Assets”, Royal Institution of Chartered Surveyors (RICS). www.rics.org/greenvalue
Design features of a sustainable building

Designs and technologies that save energy and water and reduce waste continue to push the edge of innovation. Following are just a few examples of design technologies that can be implemented to achieve more sustainable buildings:

Active Shading Devices
Shading elements attached to the facade of the building can help regulate the amount of direct sunlight that enters the building through exterior windows. These devices save energy by limiting external influence on indoor temperature and can increase comfort through more efficient use of natural light. Active shading systems improve on fixed elements such as overhangs and fins by automatically adjusting position according to ambient light, maintaining effectiveness 24-hours a day and year-round.

Green Roofs
A green roof consists of a roofing assembly composed of vegetation on top of some sort of waterproof membrane, essentially creating a large garden on top of the building. These roofs serve many purposes, both reducing heat created through reflection of sunlight and better insulating the internal climate of the building. Well designed green roofs can also protect building structure by limiting temperature fluctuation and absorbing rainfall.

Grey Water Systems
Besides saving energy, sustainable buildings have a responsibility to conserve water, which grey water systems do by recycling waste water and using rain for non-human-consumption purposes. Examples of this type of recycling include using rainwater to fill toilets and directing drainage from sinks into the landscaping irrigation systems. Such systems reduce stress on local water resources and save energy by reducing the need for water treatment.

Typical design features of a sustainable building

Source: Jones Lang LaSalle
Costs
More than 70% percent of respondents are willing to pay from 0-20% more to incorporate sustainable goals into the construction process (Figure 6). These findings indicate that appetite for sustainable buildings has grown slightly since 2007, when a separate survey conducted by Jones Lang LaSalle and CoreNet Global found that 64% of occupiers were willing to pay a premium for sustainable space.8

Of the respondents, 36% were willing to pay up to 5% more, and a quarter would pay up to 10%. Almost 18%, however, wanted to spend the same on sustainable construction as in normal construction projects. According to a 2003 study in California, if the process is undertaken at the beginning of the design stage, attaining LEED certification adds about 2% to the cost of a building; more recent research on buildings in China puts the range of initial cost at 0-5% depending on the level of certification attained.9

It is worth noting that the initial capital cost for a sustainable building only takes into account the cost of design and physical construction. By contrast, life cycle costing assesses the true cost and payback of a building over its entire life, from planning, design, procurement, construction, and operation through to demolition. The decisions made at the first phase of building design and construction can significantly impact the costs and efficiencies of how the building performs over time. The benefits, such as savings in water, energy and waste, should be looked at from a whole life cycle approach, not just on the initial capital outlay.

It is possible to minimise spending if sustainability is incorporated during the initial planning phases.10 Continued investment in ongoing management and operation of the building after completion is also important if value is to be maximised. Incorrect operation of even the most high-performance building can lead to waste of resources and lower return on investment over the building’s life.

Most respondents expect savings in excess of the amount they expressed they were willing to pay for sustainable construction. A full 75% considered

There is growing recognition of the link between sustainability and property value.

Figure 6: How much would you be willing to pay in additional construction costs to incorporate sustainable goals?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expect to pay less</td>
<td>7.9%</td>
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<tr>
<td>Expect to pay the same</td>
<td>17.5%</td>
</tr>
<tr>
<td>Would pay 0-5% more</td>
<td>35.5%</td>
</tr>
<tr>
<td>Would pay 5-10% more</td>
<td>25.0%</td>
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<tr>
<td>Would pay 10-20% more</td>
<td>8.3%</td>
</tr>
<tr>
<td>Would pay over 20% more</td>
<td>2.6%</td>
</tr>
<tr>
<td>Not answered</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Source: Jones Lang LaSalle

8 “Global Trends in Sustainable Real Estate: An Occupier’s Perspective” CoreNet Global/Jones Lang LaSalle, March 2007
savings between 0-20% to be achievable (Figure 7). These rates are generally in line with actual savings from a sustainable building when considered from a building life cycle point of view.

According to the aforementioned 2003 survey by Kats, energy savings from LEED-certified construction exceed the initial investment, while total savings, including indirect benefits such as workforce health, can reach 20% over 20 years. This demonstrates how decisions made at the first phase of building design and construction, along with the way a building is managed, can significantly impact the costs and efficiencies resulting from building performance over the long-term.

While sustainable buildings do generally incur a small premium above the costs of a standard construction, they also deliver a suite of environmental and financial benefits that conventional buildings do not. It is also likely that over time the cost premium will become insignificant as architects, engineers and contractors become more experienced in sustainable buildings, and related construction materials are more widely used.

Service provision
A common barrier to mainstream uptake of sustainable building principles and practices is the lack in knowledge, skills and expertise around delivering and operating high-performance buildings.

The decisions made at the first phase of building design and construction can significantly impact how a building performs over time.

Figure 7: How much do you think you could save in building operating costs with a sustainable fitout?

Source: Jones Lang LaSalle

Figure 8: What area of sustainability are you most interested in receiving more information on?

Source: Jones Lang LaSalle

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In the survey there was significant interest in all aspects of sustainability across all respondent groups, especially concerning how to implement sustainable best practices (Figure 8). Domestic firms expressed particular interest in learning about sustainable buildings, which may be because they are increasingly faced with the need to comply with rating systems and environmental regulations and their knowledge gap relative to international players has become apparent.

Interest among real estate investors, developers and tenants about sustainable building practices is rising as awareness of issues related to climate change becomes more prevalent and energy prices escalate. As of 2006, office buildings consumed 25% of all electricity in China\textsuperscript{13}, and about 75% of China’s power is generated from heavily polluting coal\textsuperscript{14}. Given the dramatic rises in the price of oil and the prospect of a surge in energy demand, it makes good sense to design the most energy efficient buildings possible.

Despite this growing awareness, many respondents blame a dearth of services such as sustainable construction consulting for the failure to meet environmental goals. A majority of respondents said there is no or limited provision of services in the market (Figure 9). While some well-established firms offer expertise in sustainable real estate, the practice is not yet widespread, particularly among local service providers, and many consultancies have yet to expand beyond China’s largest cities.

**Outlook**

In the future, sustainable practices will become a necessity in China and the primary driver will shift from differentiation to immediate economical considerations. In the short-term with more premium real estate entering the market, promotion of sustainable space is a point of differentiation for investors and developers. Additionally, with rising energy costs and stricter environmental regulations, the economic benefits will make sustainable building practices a practical driver over the short and mid-term.

Investors and developers have already begun improving the performance of their assets by incorporating green standards, delivering both environmental and financial returns in China. While investors and developers have a role in driving sustainability and the growth of LEED Certified buildings, occupiers are also increasingly demanding green space to drive efficiencies, meet CSR guidelines and provide environmentally friendly workplaces which can help to retain and attract employees. In driving sustainable development in China, investors, developers and users of commercial real estate can take a much more active role.

**Figure 9:** How well are your requirements for sustainability currently being met?

<table>
<thead>
<tr>
<th>Service Provision</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good service provision and choice of providers</td>
<td>9.6%</td>
</tr>
<tr>
<td>Good service provision but limited provider choice</td>
<td>13.2%</td>
</tr>
<tr>
<td>Limited provision of services in the market</td>
<td>41.2%</td>
</tr>
<tr>
<td>Minimal or no provision of services</td>
<td>12.3%</td>
</tr>
<tr>
<td>Have not had a requirement for sustainability services</td>
<td>18.0%</td>
</tr>
<tr>
<td>Not answered</td>
<td>5.7%</td>
</tr>
</tbody>
</table>
Jones Lang LaSalle is a strong advocate of creating a more sustainable environment for current and future generations. As an industry leader in property and facilities management, the firm recognises that the commercial real estate industry has the capacity to drive real change and innovation to ensure our buildings are environmentally sustainable. At Jones Lang LaSalle, sustainability means making the right decisions today to achieve long-term, commercial benefits for property assets while making a positive and lasting contribution to enhancing our environment.

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We stress that forecasting is a problematical exercise which at best should be regarded as an indicative assessment of possibilities rather than absolute certainties. The process of making forward projections involves assumptions regarding numerous variables which are acutely sensitive to changing conditions, variations in any one of which may significantly affect the outcome, and we draw your attention to this factor.