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## Environmental Performance

### A Global Perspective on Commercial Real Estate

#### Summary Version

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## Introduction

In this article we summarise the results of the first global survey on environmental practices in listed property companies and private property funds. Because real estate investments play an increasingly important role in institutional investors' responsible investment strategies, three leading European pension funds, APG Asset Management, PGGM Investments, and the Universities Superannuation Scheme, commissioned the European Centre for Corporate Engagement at Maastricht University to undertake this “Global Environmental Real Estate Survey”. The survey has also been endorsed by the Australian Council of Superannuation Investors (ACSI), the European Public Real Estate Association (EPRA), and the European Association for Investors in Non-Listed Real Estate Vehicles (INREV).

From a societal perspective, attention to the environmental performance of real estate investments is important, because the commercial real estate sector is among the largest consumers of natural resources and one of the heaviest polluters in terms of greenhouse gas emissions and waste production. Thus, the property industry can play a major role in reducing global energy and resource consumption and in limiting greenhouse gas emissions.

From an investment perspective, an increased focus on energy efficiency and sustainability implies resolving a market inefficiency, since the investments needed to make buildings more energy efficient have, to a large extent, positive net present values, even at current energy prices. This positive net present value holds especially true for better building management; lighting, cooling, and heating technology; and better insulation. However, these investments have thus far been hindered by barriers, such as a dearth of financing mechanisms and proper rent contracts, and a lack of information and market awareness on the merits of energy efficiency, among both building owners and their financiers.

This first-ever global survey on the environmental performance of listed property companies and private property funds is intended to increase industry awareness and provide information on current environmental management practices. Without detailed information on the behaviour and environmental performance of the global property sector, investments in property funds and companies cannot be assessed on environmental performance, so a responsible investment strategy cannot be implemented.

This survey provides the institutional property investment market with a unique dynamic environmental benchmark: based on the survey results, we have developed an “Environmental Real Estate Index”, which includes sub-scores on environmental management practices and on the actual implementation of these practices. By using information contained in the index, institutional investors can compare the environmental score of individual property investments with their environmental real estate targets. This benchmarking can serve as a catalyst for environmental engagement in real estate investments.

## The Environmental Real Estate Survey

The survey focuses on two dimensions, the definition of an environmental management policy and the actual implementation and measurement of that policy. In Part I, public and private property investors were asked 20 detailed questions related to the presence of environmental management policies, the integration of environmental issues in property management, and the disclosure of environmental policies. In Part II, respondents were asked 28 questions, the purpose of which was to supply evidence on the actual implementation and measurement of their environmental policies. For instance, we asked investors to provide detailed information on energy and water consumption, waste collection and recycling, and CO2 emissions, and on employee environmental training programs and remuneration policies.

The sample of surveyed property companies comprises 688 listed property companies and private property funds: 426 from Europe, 194 from the U.S., 50 from Asia, and 18 from Australia. Of this total, 211 are publicly listed. Table 1 shows substantial variation in response rates between regions and types of property funds. The overall absolute response rate is 198 respondents (29% of the surveyed sample): 72 listed companies, and 126 private funds. We note that non-responding property funds are likely to lag behind in environmental management. Thus, extrapolating the results based on the sample of respondents may provide an overly optimistic view on the current environmental performance of the global universe of listed property companies and private property funds.

Among listed respondents, we identify high response rates for European and Australian property companies, especially when we weigh these response rates by the market capitalisation of the surveyed companies. The response rate of 20% for the U.S. is relatively low. The zero response (out of 13) for Asian property companies is disappointing. Further analysis shows that the variation in response rates is related to the transparency of the local property market. We use the Jones Lang LaSalle Real Estate Transparency Index to correlate the response rates in each country.<sup>2</sup> We find that the correlation is negative (-0.52) and statistically significant: a strong ranking on the JLL Transparency Index increases the response rate. For instance, Japan and Greece rank 26th and 33rd on the Transparency Index, and both have a response rate of zero. But in contrast, Australia and the U.K. rank 2nd and 5th on the Transparency Index, and both have high response rates of close to 66%.

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<sup>2</sup> The Jones Lang LaSalle Real Estate Transparency Index measures and aggregates the transparency factors related to the legal and regulatory environment, performance measurement, the transaction process, and market fundamentals in 82 markets (JLL, 2009).

**Table 1. Survey Response Rates**

	Universe (# of funds)	Response (# of funds)	Response Rate (by # of funds)	Response Rate (by market cap)
<b>Survey Listed</b>				
Europe	84	45	54%	80%
U.S.	102	19	19%	31%
Australia	12	8	67%	88%
Asia	13	0	0%	0%
<b>Survey Private</b>				
Europe	342	64	19%	-
U.S.	92	37	40%	-
Australia	6	5	83%	-
Asia	37	20	54%	-
<b>Total</b>	<b>688</b>	<b>198</b>	<b>29%</b>	

## The Environmental Real Estate Index - Listed Property Companies

Table 2 provides an overview of the scores on the Environmental Real Estate Index for the top three of listed property companies in different regions. We provide scores on the subcategories "Management & Policy" and "Implementation & Measurement", which comprise the total score. Overall, but with the notable exceptions of Australia and the U.K., property companies do not come close to achieving the maximum score on the global Environmental Real Estate Index. However, the environmental scores of the best performers show that the current environmental benchmark set by three leading pension funds in Europe is realistic. These top green real estate performers provide the clear examples that the industry needs if it intends to improve environmental performance. Emulation of leading industry peers is an extensively tested and very effective way to encourage the adoption of new technology and management practices in any industry, and this approach can also hold for the adoption of environmental management practices in the property industry.

Since it is likely that the response rate is higher among the relatively strong environmental performers, our results may even overestimate the current environmental performance of the global property sector. This finding suggests that most property investors are not yet aware of the potential for shareholder value creation associated with energy efficiency or environmental investments in their buildings, i.e., there is untapped potential to increase shareholder value.

A statistical analysis in the main survey report shows that among listed companies, the larger investors are significantly more likely to have a strong environmental performance. Although we cannot establish a causal link, we find that environmental performance is also significantly and positively related with return on assets, and also with the percentage free float of property company shares. We find that companies that invest in residential or non-core property types score substantially lower on the Implementation & Measurement index of environmental practices.

**Table 2. Global Environmental Leaders - Listed Property Companies**

Rank	Company	Country	Management & Policy	Implementation & Measurement	Total
<b>Continental Europe</b>					
1.	Unibail-Rodamco	France	83	67	73
2.	Castellum	Sweden	87	59	70
3.	Hufvudstaden	Sweden	83	46	60
<b>United Kingdom</b>					
1.	Big Yellow Group		83	83	83
2.	Hammerson		70	89	81
3.	British Land Company		61	79	72
<b>United States</b>					
1.	Vornado Realty Trust		83	37	55
2.	Liberty Property Trust		43	56	51
3.	Douglas Emmett		74	34	50
<b>Australia</b>					
1.	GPT		83	89	86
2.	Stockland		83	80	81
3.	Commonwealth Property Office Fund		91	66	76

## Private Property Funds

We analyse the survey results for private property funds separately. Table 3 provides the scores on the Environmental Real Estate Index for the top performers among the 126 private property funds that responded to the survey. Listed property companies show a much better environmental performance than do their private counterparts. We also note that for some funds, there are substantial discrepancies between the score on Management & Policy and the score on Implementation & Measurement. The low scores may be partly due to the limited disclosure, as a result of which there is inadequate public scrutiny of property funds that operate in the private market. Moreover, the finite life of some private funds may lead to a more short-term focus and may hinder investments in energy efficiency. We conclude that private funds should consider their listed counterparts as benchmarks for "best practices" in environmental performance.

The variation in the scores largely accords with the scores for listed property companies: scores for Management & Policy are higher than are those for Implementation & Measurement, and Australian funds outperform their European, Asian, and American peers. It is clear that property managers from all over the world can learn from the Australian best practices in environmental management.

Further results in the main survey report show that in explaining the existence of an environmental policy and its thorough implementation, the location of a property fund is more important than is the country of origin of the fund manager. Residential property funds score low on Management & Policy, and even lower on Implementation & Measurement. This low score may be due to the small size of the investment units, or the lack of incentives for energy efficiency improvements following the use of a net rental contract between owner and tenant. The dedicated office funds have the highest scores, both on

Management & Policy and on Implementation & Measurement. Most of the environmental metrics and energy efficiency technology that initially appeared on the market were aimed specifically at office buildings. One exception is the score for industrial funds, which lags significantly behind the environmental performance of other sectors.

**Table 3. Global Environmental Leaders - Private Property Funds**

Rank	Company/ Manager	Fund Name	Management & Policy	Implementation & Measurement	Total
<b>United Kingdom</b>					
1.	Capital & Regional	CRM Fund	57	51	53
2.	PRUPIM	M&G Property Portfolio	57	49	52
3.	Grosvenor	Grosvenor Shopping Centre Fund	43	43	43
<b>Continental Europe</b>					
1.	ING REIM	Dutch Office Fund	52	43	47
2.	ING REIM	ING RPI	70	29	45
3.	Pramerica Real Estate	TMW Immobilien Weltfonds	52	37	43
<b>United States</b>					
1.	Principal	[anonymous]	57	51	53
2.	USAA Real Estate Company	USAA Real Estate Funds (overall)	52	44	47
3.	Normandy Real Estate Partners	Normandy Real Estate Funds (overall)	61	31	43
<b>Australia</b>					
1.	GPT Funds Management	GPT Wholesale Office Fund	87	86	86
2.	Investa	Investa Commercial	91	80	84
3.	GPT Funds Management	GPT Wholesale Shopping Centre Fund	87	54	67
<b>Asia</b>					
1.	CapitaLand	CapRet China Incubator	61	51	55
2.	Lend Lease Property Investment Services	APIC II	74	33	49
3.	ING REIM Korea	ING Korea Fund	65	34	47

## Walking the Green Talk

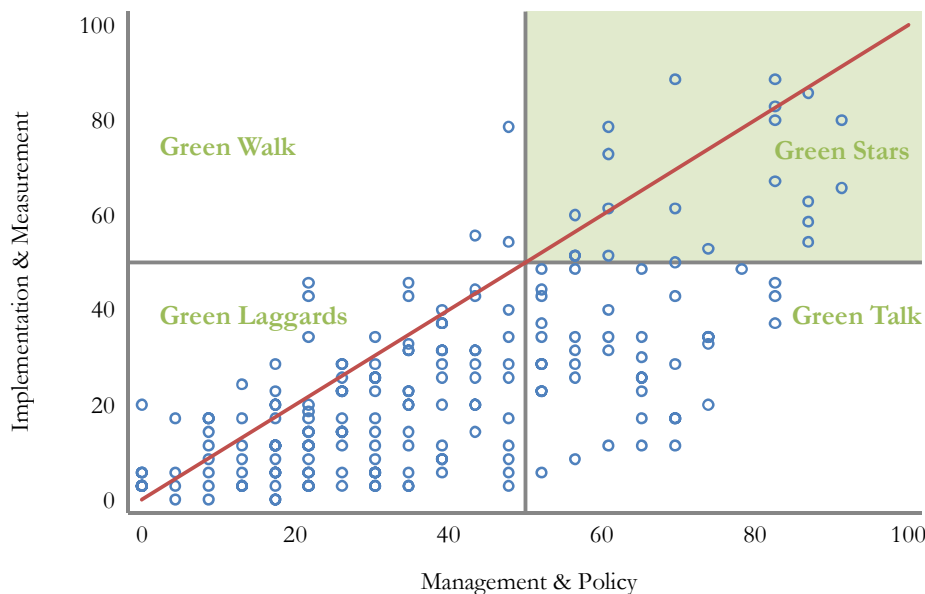
To address the relation between environmental policies and environmental management practices, we map for every respondent how their score on Management & Policy relates to their score on Implementation & Measurement. Figure 1 shows the results. If all the good intentions of the respondents are reflected in actions, then the dots in the figure should either be lying on, or very close to, the 45-degree line drawn in the graph. If respondents were to outperform their intentions, then the dots should lie above the line. However, this is not the case. Our results provide incontrovertible evidence of “green talk”, rather than “green walk”: performance on environmental Management & Policy is much better than performance on Implementation & Measurement. Clearly, property companies do not necessarily practice what they preach when it comes to environmental management.

We then divide Figure 1 into four quadrants, each of which depicts a special set of environmental performance characteristics. Property companies and funds that appear in the lower left-hand quadrant are the “green laggards”. These respondents are underperformers when it comes to environmental performance; they do not have either the environmental policies or the implementation, and thus do not take environmental metrics into account. We note that this quadrant is the most densely populated, with about 133 of the respondents (67%) in this area.

In the lower right-hand quadrant are the property companies and funds that “talk the talk”, but do not “walk the walk”. Their performance on Management & Policy is relatively high, but these respondents do not execute these policies equally well, which is reflected by a low score on Implementation & Measurement. We call this quadrant “green talk”. The respondents in this quadrant show at least some awareness of the fact that energy-efficiency investments in buildings are often good business, but the large number of observations in this quadrant also suggests that public relations still plays an important role in explaining the environmental credentials of property investors. This quadrant is the second most densely populated of the four quadrants, containing 41 (21%) of all respondents.

In the upper right-hand corner are the environmental top performers, the so-called “green stars”. These companies and funds have set ambitious environmental targets, actively implement measures to improve the environmental performance of their properties, and regularly assess the effects of these measures. Only 20 respondents (10%) can be classified as “green stars”, with relatively high scores on both environmental Management & Policy and Implementation & Measurement.

**Figure 1. Policies or Implementation: Talking the Talk or Walking the Walk?**



In the main survey report, we also present a selection of survey results with responses to the most important individual questions. A substantial part of the survey collects information on the actual

environmental metrics that are measured by the respondents. We address energy and water consumption, waste treatment, and CO2 emissions. Table 4 summarises the results. Only 37 (19%) of the respondents were able to report the exact energy consumption for their total property portfolio in 2007 or 2008. The percentage of respondents that reported information on other environmental metrics, such as water and waste, is even lower (16% and 12%, respectively).

The last column of Table 4, “Percentage of Respondents with Smart Meter”, provides evidence on the use of “smart meters”. The information collected by such meters is essential to establishing a baseline measurement of energy consumption across buildings, to setting targets for energy reduction, and to measuring the immediate effect of resource efficiency measures. Even though utility companies all over the world are installing smart meters, the results show that this basic infrastructure to obtain information on environmental metrics is in place in parts of the property portfolios of 76 respondents only

**Table 4. Environmental Metrics Measured by Property Investors**

Respondents with Information on:

Region		Total energy consumption (in GWh)	Total water consumption (in K litres)	Total waste collected (in tonnes)	Total waste recycled (in tonnes)	Total CO <sub>2</sub> emissions (in tonnes)	Percentage of Sample With Smart Meters
<b>Europe</b>	Listed	31.1%	24.4%	20.0%	17.8%	28.9%	60.0%
	Private	6.3%	7.8%	4.7%	4.7%	4.7%	28.1%
<b>U.S.</b>	Listed	26.3%	5.3%	5.3%	10.5%	10.5%	42.1%
	Private	5.4%	5.4%	0.0%	0.0%	0.0%	27.0%
<b>Australia</b>	Listed	62.5%	62.5%	50.0%	37.5%	62.5%	87.5%
	Private	80.0%	80.0%	80.0%	80.0%	60.0%	100%
<b>Asia</b>	Private	15.0%	15.0%	15.0%	10.0%	5.0%	21.4%
<b>Total</b>		<b>18.7%</b>	<b>15.7%</b>	<b>12.1%</b>	<b>11.1%</b>	<b>13.6%</b>	<b>38.6%</b>

## Conclusions

The results of this survey show strong differences in the environmental performance of property investors. The environmental scores of the best performers show that the current environmental benchmark, as set by the three pension funds, is realistic. Some Australian, Swedish, and U.K. property companies achieve close to the maximum score on the global Environmental Real Estate Index and outperform the rest of the world. These findings suggest that the environmental performance of the global property investment industry can be substantially improved.

Many investors have taken some steps toward optimising environmental performance. Unquestionably, end-investors also have a major responsibility, which could lead to many more and extended collaborative initiatives in the near future. This survey is the first of its kind, and, given the increasing speed at which the commercial property sector is embracing environmental investment policies, it is likely that this survey will be repeated on a regular basis. We strongly urge those property companies and funds that did not participate in this survey to respond to future surveys, and we invite the global property industry not only to talk, but also to walk the walk toward optimal environmental performance.