

# Breaking the Vicious Circle of Blame – Making the Business Case for Sustainable Buildings

## Sixty second summary

The buildings we live and work in have an impact not only on our lives, and our sense of well-being, but also on the world we live in.

Buildings and the work in constructing them are probably the largest contributor to global resource use and pollution emissions. Consequently, the potential contribution of buildings and of the property and construction sector to sustainable development is immense. So, why are so few sustainable buildings being designed, built or retrofitted? Why is sustainable property investment and management not yet mainstream? What are the drivers of this process and what are the barriers? Does sustainable property investment really pay off or are property investors simply doing it to show their green credentials? Are consumers sufficiently informed about the respective merits of the options open to them, and do they actually value “sustainability” as an attribute when making property related decisions?

These were among the questions raised during an RICS conference organised by the RICS EU Public Affairs Office in the framework of the second EU Sustainable Energy Week in Brussels in 2008. The conference, entitled “**Investing in a Sustainable Built Environment – do energy efficient buildings make economic sense?**” set out to investigate why everyone involved – investors, developers, constructors, occupiers – pass the responsibility onto someone else. This has become known as the “**Vicious Circle of Blame**”. In principle, breaking this vicious circle should be easy enough. In practice, however, there are obvious gaps and a need for the involvement of a wider circle of actors to create “**Virtuous Loops of Feedback and Adaptation**” within the market as well as a radical rethinking in terms of marketing and communication. Only then will the built environment play its full role in terms of being truly sustainable – not by simply going “green” but by also embracing the social aspects of the triple bottom line, an aspect which so far has been somewhat neglected by both stakeholders and practitioners as well as political decision makers but one which is sure to gain momentum in years to come.



## The conference put forward five Key Messages

- Sustainable buildings are not any more expensive to build from the outset than conventional ones but their ownership can result in clear benefits for investors, ranging from drastically lower operating costs to improved marketability, longer useful life-spans, significantly increased occupant productivity and well-being as well as more stable cash-flows which in turn have economically quantifiable benefits.
- Effort should be focused on the immense savings potential embedded in the existing building stock. Retrofitting and refurbishing the existing stock offers the most cost-effective solution for reducing energy consumption.
- Unsustainable construction, investment and management practices will lead to accelerated building obsolescence and losses with regard to asset value and financial performance.
- There needs to be a shift in marketing strategies for sustainable property towards a clear focus on user-satisfaction and comfort all of which can enhance the prestige of the building.
- A truly sustainable property market needs to go beyond “green” and economic considerations and also embrace social sustainability.

## The challenge ahead: saving 20% by 2020



At the March 2007 summit, EU heads of state and governments reached agreement for “decisive and immediate action” on climate-change and stressed “the vital importance of achieving the strategic objective of limiting the global average temperature increase to not more than 2°C above pre-industrial levels”. To achieve this aim, EU leaders agreed to a binding target to slash the EU's greenhouse

gas emissions by 20% in 2020 compared with 1990 levels.

The summit endorsed an action plan to be implemented between 2007 and 2009. Among other elements, the plan includes the strategic objective of **boosting energy efficiency with a target to save 20% of the EU's total primary energy consumption by 2020.**

## How are we going to meet the 20 % challenge?

Since 2000, the EU has adopted a number of legislative measures to foster the market penetration of both renewable and energy efficient technologies. Today there is a common understanding between EU member states that recent increases in sustainable energy production and sustainable consumption patterns are having a positive impact on the environment. However, there is still great scope to further increase energy efficiency. Widespread action is required to encourage the uptake of energy efficiency measures and the use of renewables. Over the past decade, a number of major EU programmes have been set up to help in the development of projects in the fields of renewable energy and energy efficiency, to disseminate their achievements and results, and finally to demonstrate the benefits of new tools and technologies. One of these programmes is the **Intelligent Energy Programme**, now in its second cycle. This programme aims to develop and promote methods that foster sustainable energy use and production by supporting non-technological activities and projects concerning renewables, energy efficiency, clean transport and alternative fuels, as well as promoting co-operation with developing countries.

One of the elements within this programme is the European Commission's **Sustainable Energy Europe 2005-2008 Campaign** through which the Commission aims to raise public awareness and promote sustainable energy production and use among individuals and organisations, private companies and public authorities, professional and energy agencies, industry associations and NGOs across Europe.

Under the umbrella of the **Sustainable Energy Europe Campaign (SEE)**, the second **EU Sustainable Energy Week (EUSEW)** was held at the end of January 2008.

“Widespread action is required to encourage the uptake of energy efficiency measures and the use of renewables.”



## “Take a week to change tomorrow”

“Today it is clear to everyone that energy efficiency and greater use of renewable energy sources are the main response to climate change and alleviate the risks of Europe’s energy import dependency. But we can be successful in tackling climate change only when we manage to bring together all stakeholders and increase real citizen participation – this is what Sustainable Energy Week is all about.”

**Andris Piebalgs, European Commissioner for Energy at the launch of EUSEW 08**

The **EUSEW** with its slogan **“Take a week to change tomorrow”** is the key event for sustainable energy issues in Europe. The seminars, conferences, workshops and exhibitions organised during EUSEW cover key topics that highlight the multi-sectoral nature of sustainable energy development and stress the need for everyone to work together towards a common goal; from renewable energy sources to energy efficiency, from EU policy to local action, from distributed energy to planning, from technologies to markets, from legislation

to behaviour to education, from buildings to transport. The events in 2008 followed the adoption on 23 January by the Commission of an ambitious set of measures responding to the challenges of climate change and reiterating Europe’s role in assuming leadership towards reaching a low carbon society. Almost 80 events in Brussels, Belgium, and in other cities across Europe with 4.500 registrations looked at ways of saving energy.



## RICS and the EU Sustainable Energy Campaign

In line with its own sustainability policy agreed by the organisation’s International Governing Council in 2005, RICS became partner of the Sustainable Energy Campaign of the European Commission as well as media partner in 2007.

The RICS project **“RICS – Surveying Sustainability and Building a Low Carbon Environment”** consists of a series of high profile events and workshops as well as a series of research papers, guidance notes for practitioners and consumer manuals. RICS is also associate of the EU EPBD (Energy Performance of Buildings Directive) platform and as such closely collaborating with the Commission and other stakeholders with regard to the implementation and the revision of the current Energy Performance of Buildings Directive.

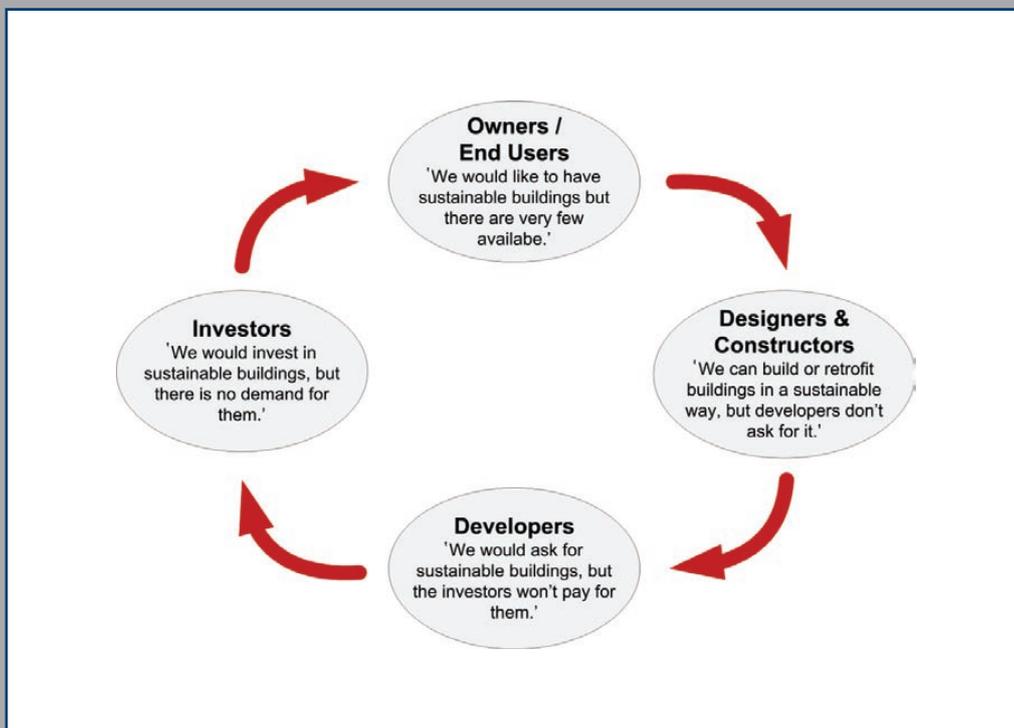
In the framework of the second Sustainable Energy Week, RICS EU Public Affairs organised a well-attended and highly successful conference titled **“Investing in Sustainable Built Environment – do energy efficient buildings make economic sense?”**. Panels consisting of RICS members and market participants from across the EU highlighted essential key drivers for the mainstreaming of sustainable property investment and explained how to turn the so-called **“Vicious Circle of Blame”** into **“Virtuous Loops of Feedback and Adaptation”**.

# Turning the Vicious Circle of Blame into Virtuous Loops of Feedback and Adaptation

So, what is the problem? The knowledge and the technologies needed to produce sustainable buildings are available. The economic benefits of sustainable design and construction are now well-documented in the literature. However, what is standing in the way is the misalignment of incentives between the providers of buildings and those who are going to invest in or occupy buildings. This has become known as the “**Vicious Circle of Blame**” (see Figure 1).

It’s understandable to see how we have ended up here, with the industry structures that exist. As the late David Pearce said (2005, p. 481) the property and construction industry “can be forgiven if it struggles to take sustainable development, or sustainability, on board since there is a shortage of sound guidance on just what the concept means [for property and construction] and what the industry would have to do to achieve it.”

Figure 1: **The Vicious Circle of Blame (adopted from Cadman, 2000)**

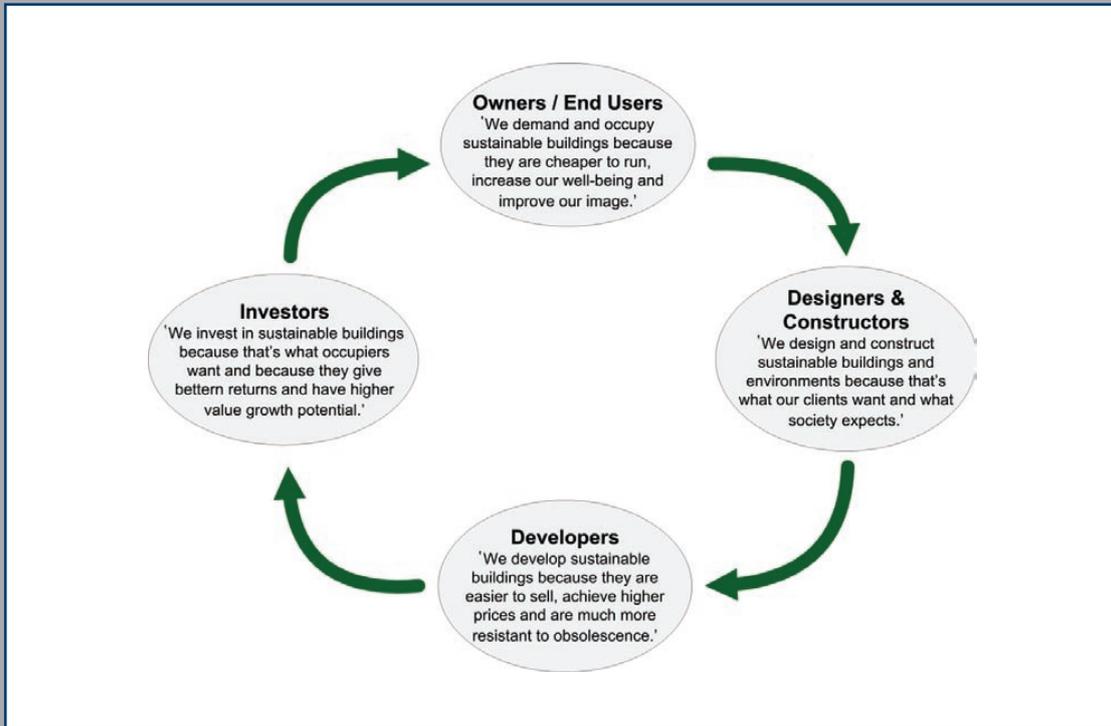


“It’s understandable to see how we have ended up here, with the industry structures that exist.”

In theory, each of these statements can be turned into a positive, turning the vicious circle in to a virtuous circle (see Figure 2). How this can be done in practice was the focus

of the first round of panellists of the RICS session which represented the different groups of actors involved.

Figure 2: **Breaking the Vicious Circle of Blame**



The change that can be brought about by an enlightened occupier/investor was explained in a presentation by **Deutsche Bank** entitled "State-of-the-art greening of an iconic high-rise building" in Frankfurt am Main. The modernisation of Tausananlage 12 (the bank's headquarters in Germany) underlined the bank's commitment to an environmentally and socially conscious buildings portfolio. New fire protection requirements introduced in 2004 led to an overall refurbishment of their high rise headquarters, which included not only a life cycle driven replacement of technical equipment, new architectural design and a more up-to-date work environment but also a reduction of energy use and CO2 emissions by incorporating a wide variety of sustainable building and urban design features.

The developers' perspective was highlighted by **Pal Barros, Chairman of RICS Hungary**. In his presentation he raised the question of whether a more energy-efficient approach to property development could

generate an acceptable financial return to the developer. He strongly advocated such an approach, stressing that there is clearly a tenant driven value aspect, as not "going green" could very well lead to building obsolescence. Whilst also highlighting that investors, developers and tenants may have different motivations and incentives for saving energy he concluded that future investors and tenants will only buy and occupy buildings that are energy efficient. As a result, if today's developments were not "going green", these buildings could well be obsolete in 10 years time.

**John Goodall of FIEC (European Construction Industry Federation)**, explained the role of the constructors. According to him the greatest opportunity for cost-effective solutions for emissions reductions lay within the renovation of the existing building stock. As well as the fact that this covered by far the largest proportion of the total building stock, this would also have a positive economic effect of creating more jobs while at the same time improving occupier satisfaction. He

“Finance and valuation processes play a pivotal role for demonstrating value to clients.”

suggested that there should be increased incentives through innovative tax schemes (such as providing a linkage between building certification and fiscal measures) for the renovation and retrofitting of the existing stock. In addition, greater investment into training in the construction industry should be promoted. He also called for the strengthening the role of tenants by giving them the statutory right to insist that landlords actually carry out energy efficiency measures in rented buildings.

**Ben Bolgar, Director of Design Theory and Networks at the Prince of Wales Foundation for the Built Environment**, highlighted how energy efficiency can be achieved through sustainable urban design and management – what has come to be known as ‘urbanism’. He compared the contemporary – and unsustainable – suburban model with the notion of sustainable urbanism. Furthermore, he stressed the need for restructuring towns and cities so that they become capable of adapting to – and thus make society more robust to – a broad set of changing environmental conditions including, but not limited to, those caused by climate change. He argued that existing neighbourhoods built before the advent of the car display qualities of locational efficiency from which contemporary builders can learn and that future-thinking urban design promotes both interconnected neighbourhoods, better management of densities (reducing overall land use), shared technologies such as combined heat and power, and higher quality environments in which walking and cycling are attractive travel choices. According to the Foundation’s philosophy, higher densities and mixed use developments within walkable centres means that daily needs can be met within a five minute walk, and

a more varied housing stock which supports lower-carbon lifestyle choices, as home working and telecommuting become possible.

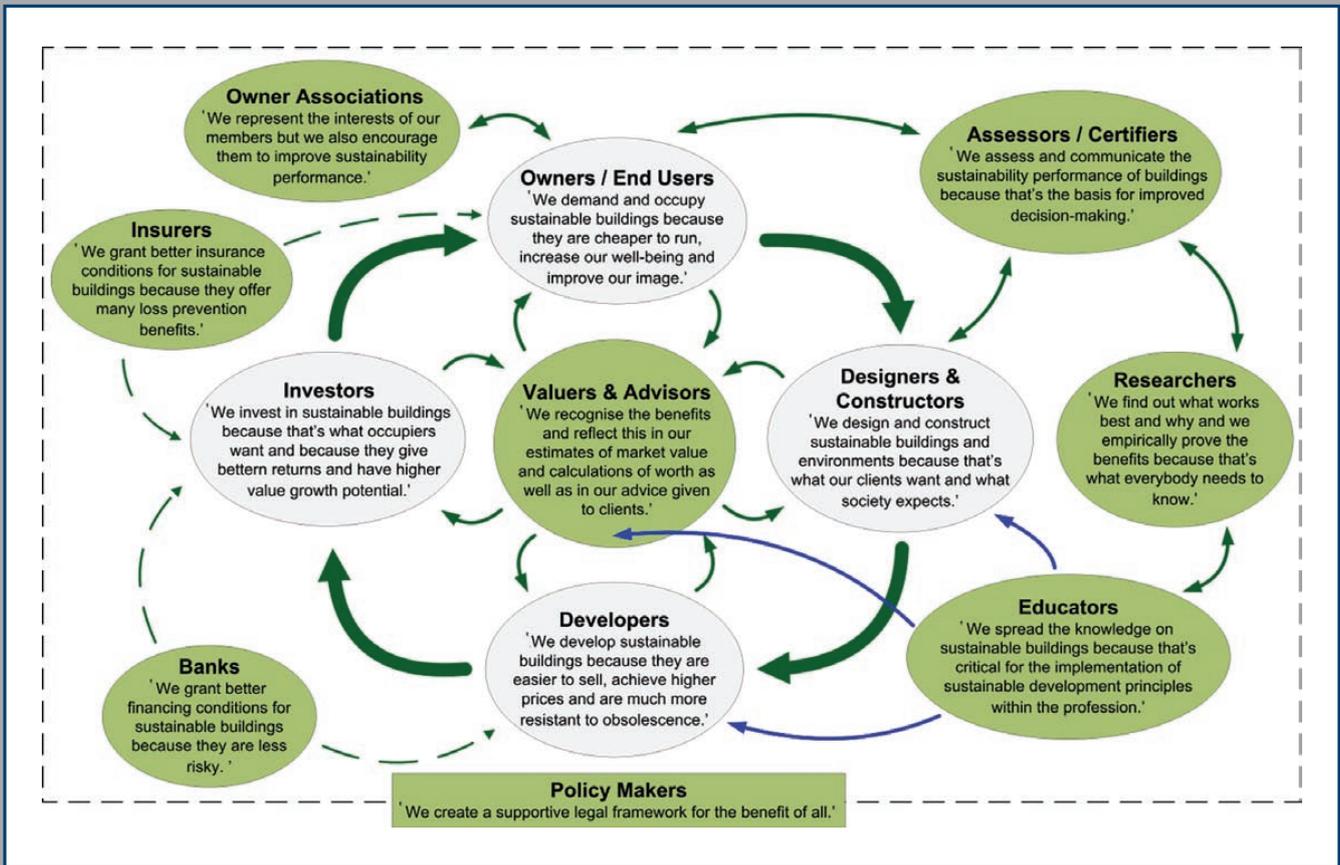
**Richard Lorch, Editor of Building Research and Information**, underlined the role of building design in achieving sustainability objectives and questioned whether we actually know how buildings and people perform. He commented that most existing building performance assessment methods fail to assess building in use, fail to contribute to improving the performance of buildings, fail to link the performance to appraisal and valuation methods and practice and also do not sufficiently account for the existing building stock. He then went on to explore what capabilities architects, designers and property professionals need to develop and adopt into their daily work with clients in order to be able to realise the full potential of design that will not only cater for a better environmental performance of the built environment but also for an improved sense of well-being of the people who live and work in it. Against this background he strongly advocated a trans-disciplinary understanding of sustainable development by improving existing education curricula for design professionals both from a social, spatial, technical and economic point of view. He suggested that a designer’s professional responsibilities should not end with the design phase but should also include an appropriate handover and “after sales service” for their clients. Clients for their part need to begin to understand the link between initial capital and subsequent operating costs. Finance and valuation processes play a pivotal role for demonstrating value to clients, thus realigning incentives to mainstream sustainable buildings.

Realigning incentives, and thus installing appropriate feedback mechanisms, can be seen as the fundamental precondition for breaking the vicious circle of blame not only in theory but also in practice. For this to happen, everyone involved needs to be provided with appropriate feedback on both the environmental and social aspects of building performance as well as on its various interrelations with financial performance and property value. In this regard, the traditional focus on the construction part of the entire process has certainly been helpful but not sufficient.

The involvement of additional groups of actors such as property professionals, banks, assessors and certifiers as well as research and educational institutions is an absolute necessity (see Figure 3). Valuation professionals and the valuation process itself can and should play a crucial role, as mainstream financial professionals are unwilling to include sustainability issues in property investment and financing decisions unless and until sustainable building features and related performance are integrated into property valuations; in other words, unless “the financial sector understands the benefits of green to the net value of an asset” (RICS, 2005, p. 17).

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Figure 3: **Virtuous Loops of Feedback and Adaptation**



The interplay between all these different actors as well as the information flow needs to be organised in such a way that the knowledge on the benefits of sustainable buildings pervades all areas and is accounted for within the highly influential processes of valuation, investment consultancy and risk analysis.

At the moment, the problem facing the market is that the feedback mechanisms that can encourage and facilitate change are not yet fully in place. These issues were explored by the panellists in the second part the RICS session:

**Lin Davies of the College of Estate Management in Reading** summarised the importance of education and life-long life learning in meeting the challenges of achieving a low carbon built environment. All students and professionals should be able to demonstrate knowledge and understanding of why and how sustainability seeks to balance economic, environmental and social objectives at the global, national and local levels, in the context of land, property and the built environment. She pointed out that all new members of the RICS have to demonstrate their competence in sustainability and provide evidence of practical application of sustainability appropriate to their area of practice, and of aware-

ness of the circumstances in which specialist advice is necessary. Finally, they need to provide evidence of reasoned advice given to clients and others on existing legislation and best practice in the field of sustainability in their area of practice. To meet this requirement she deemed it essential for universities and course providers to introduce and further develop sustainability as a key 'Learning Objective' to all courses.

The interests of small property owners were presented by **Béatrice Laloux, Secretary General of the International Union of Property Owners (UIPI)**. Quoting the example of the Energy Performance of Buildings

Directive, she called on political decision makers only to introduce such new measures that are feasible and make economic sense. According to her, mandatory certification is not enough if it is not accompanied by supporting legal frameworks. For example, certification may cause pressure on buildings owners to carry out renovation works. However, this does not necessarily result in increased rental returns as in many countries tenants' statutory rights make the enforcement of rental increases difficult or even impossible. She concluded that an awareness-raising campaign specifically targeted at building owners is absolutely essential in order for any legislative measures to succeed in this field. Otherwise, there might be the risk that building owners regard building certification as just another bureaucratic burden. In the light of this, the European Commission should not increase certification obligations for building owners before new concrete measures are proposed to assist them into the implementation phase.

**Angus McIntosh, Partner and Head of Research at King Sturge**, pointed out that although building regulations in Europe are changing as a result of the growing awareness of climate uncertainty, these in reality only affected new buildings, which make up a mere 2% of the built stock every year, whilst not touching the buildings that are already standing. He therefore welcomed the introduction of energy performance certificates across Europe as a means of influencing both the occupier and investor market. But for him "green" is only one side of the coin. He stressed that investing in a sustainable built environment must go beyond energy efficiency and has to include issues of social inclusion, human well-being and corporate social responsibility. He conceded that there are as yet no real key performance indicators for social sustainability, nor are there any approaches to auditing these from one year to the next. According to him, one area where a lack of social inclusion is well-documented is town planning. Planners are beginning to realise that "green" does not necessarily mean social sustainability. In this context he mentioned the riots in the suburbs of Paris in 2005 and similar acts of violence in other parts of Europe; in essence these demonstrate an acute divide

both in society and in the property market. For him, a divided property market equals a divided nation which in turn creates enormous social costs in terms of health and crime.

**Antonello Pezzini, Advisor to the European Economic and Social Committee**, focused on bridging the gaps between EU policy and organised civil society. He listed a variety of factors which prevent energy saving and the better use of energy resources such as the difficulty of handling change, lack of know-how, inadequate fiscal policy, a lack of entrepreneurship, but most importantly a lack of information. Policy makers need to "avoid creating intolerable constraints for Member States in terms of international competition" and to "avoid imposing charges on property owners – whether renting out or living in their property – that are disproportionate to their means, as this could have the effect of neutralising the objectives of the Energy Performance of Buildings Directive, and encouraging people to reject a united Europe." From his point of view it is essential that owners and tenants do not see these new Community measures as just another new tax levied on such a primary asset as the home.

**Frank van Genne, Professor at the Hanze University in Groningen (The Netherlands)** investigated drivers for demand by looking at end users. Recent research has shown that "sustainability" does not sell very well in the residential sector, with the willingness of consumers to pay extra for additional energy saving features being relatively low. Marketing strategies focusing merely on those features were clearly doomed to fail as consumers were more likely to respond to aspects of improved well-being, comfort and prestige. Research has shown that consumers will respond favourably to "sustainability" if it is offered to them in a way that offers them added value – the attraction is not the "sustainability" itself. What also emerges is that responses differ between individual income groups. This presents new market opportunities as well as threats to current real estate practice. Many developers and owners do not yet seem to have recognised these opportunities and threats, and so the full potential in terms of marketing is as yet not being seized.

“Research has shown that consumers will respond favourably to “sustainability” if it is offered to them in a way that offers them added value.”

**Professor Thomas Lützkendorf of the University of Karlsruhe**, examined the role of assessors and certifiers and argued that an essential prerequisite for achieving a more sustainable built environment is that the overall financial performance and sustainability of buildings can be described, assessed and communicated. He explained that the basics for assessing the sustainability of buildings are currently being harmonized at international and European level and will be based, amongst other things, on the methods of life cycle assessment and life cycle costing. In the future, sustainability assessment reports and certificates will form an important basis for property-related decision making. However, they are no substitute for systematic management, energy performance controlling and benchmarking of operating costs. The results of building assessments and sustainability certification must be “translated” into the language and manner of reasoning of different actors involved and must be integrated into the different actors’ methodologies and instruments.

**David Lorenz, Chairman of the RICS EU Advisory Group on Sustainable Property Investment and Management**, examined in detail the financial implications of sustainable design. He argued against the misconception that sustainable building cost more to build from the outset than conventional ones. Instead, they offer a variety of benefits for owners, occupiers and investors. As a consequence the perception of property as a commodity is changing to emphasise sustainability-related building characteristics and performance aspects as important determinants of a property’s worth and market value. In response to this, the scope of property valuation reports should be extended to include statements on why and how sustainability issues impact on value estimates. He argued that the description of property assets in transaction databases and indexes should be improved by using agreed criteria and performance indicators as well as reliable assessment methods and tools – this, he suggested, would enable a proper assessment and benchmarking of the performance of buildings.

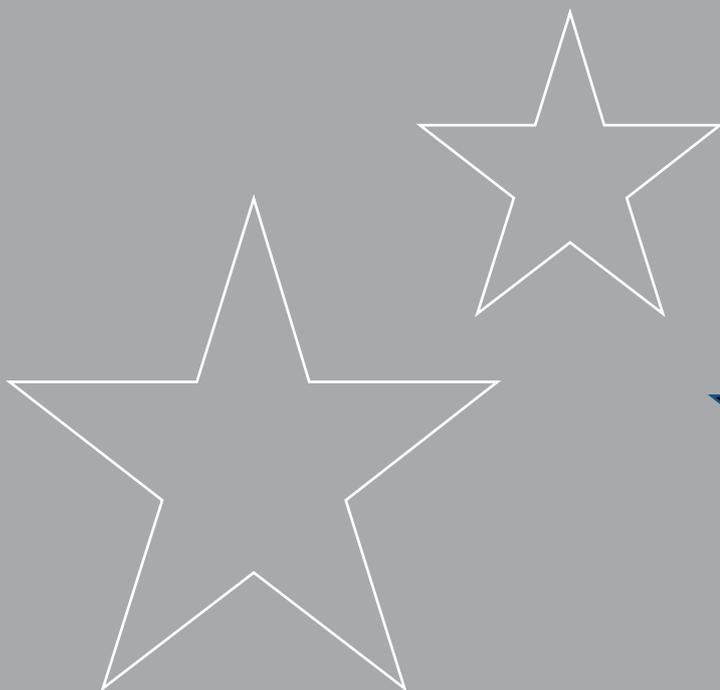
## What was the final view?

“Taking sustainability issues into account can truly result in real win-win situations for all stakeholders in the property sector as numerous case studies from around the world have shown. Implementing the principles of sustainable development within property-related decision making is a highly profitable exercise and unsustainable property investment and management practices will result in losses with regard to asset value and financial performance.”



## What are our five recommendations to decision-makers?

- Invest in people – skills and knowledge are essential prerequisites for meeting the challenges ahead
- Invest in “walkable”, attractive, high density, mixed use urban communities
- Invest in workable, pragmatic and acceptable energy efficiency legislation
- Invest in real fiscal incentives that will kick-start the market by creating consumer demand
- Invest in more research to create sound empirical proof of the increased value of sustainable buildings



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Website of EU Sustainable Energy Campaign: <http://www.sustenergy.org>

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