



RenoValue

Drivers for change: strengthening the role of valuation professionals in market transition

Market Insights Report

November 2015





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About RenoValue

RenoValue is a 2-year project funded by the Intelligent Energy Europe Programme of the European Union. The project will develop a training toolkit for property valuation professionals on how to factor energy efficiency, renewable energy and other sustainability aspects into valuation practices, and consequently help valuation professionals better understand the relationship between building performance and property value and encourage them to advise their clients accordingly.

The project started in February 2014 and is run by a consortium of companies and organisations, which together cover a broad range of real estate and construction stakeholders.

The RenoValue consortium consists of: RICS, the Karlsruhe Institute of Technology (KIT), CBRE, the Polytechnic of Milan, the Polish National Energy Conservation Agency, Troostwijk Real Estate, Skanska and Business Solutions Europa.

In addition the research project is assisted by a high level European Valuation Steering Group including representatives from the following organizations: Caisse des Dépôts, Cushman & Wakefield, Hermes Real Estate, European Group of Valuer's Associations (TEGoVA), United Nations Environment Programme's Sustainable Buildings and Climate Initiative (UNEP-SBCI), World Green Building Council.



Table of Contents

01	About this report	6
02	RenoValue against the EU policy background	8
03	The RenoValue project rationale	
3.1	Valuation and property lifecycle	10
3.2	The role of the valuation professional	12
3.3	The crucial role of building performance and market transaction data	14
04	RenoValue objectives and outcomes	16
05	RenoValue approach and methodology	
5.1	Research and processes	19
5.2	Roundtable workshops	20
5.3	The RenoValue survey	22
5.4	The EU Valuation Steering Group	23
06	Common themes	24
07	Conclusion	
7.1	Roundtables findings	28
7.2	Policy recommendations	32
7.3	Next steps	33
	ANNEX I National roundtable findings	
	Belgium	36
	Germany	40
	Italy	46
	Poland	50
	Sweden	56
	The Netherlands	60
	United Kingdom	66
	ANNEX II Survey questionnaire	
	Survey questionnaire	74
	End notes	76
	Sources and References	77
	Acknowledgements	78

01

About this report

This report represents a summary of the first phase of the Intelligent Energy Europe (IEE) funded project RenoValue. The findings presented in this report are based on a series of roundtables and a stakeholder survey carried out between May and July 2014 and a workshop organised at the World Sustainable Building Conference in Barcelona in October 2014.

The key objectives of the first phase of the project were to identify valuation professionals' training needs and explore the three main questions below:

- 1 What are the current levels of awareness and knowledge with regard to energy efficiency and other sustainability aspects amongst valuation professionals across a sample of countries within Europe?
- 2 What kind of market barriers currently hinder the consideration of energy performance data and other sustainability aspects by the valuation community?
- 3 What is the local market sentiment with regard to energy efficient and sustainable buildings potentially commanding higher sales or rental premiums?

02

RenoValue against
the EU policy background

The subject of promoting energy efficiency (EE), the installation of renewable energy sources (RES) and the consideration of other sustainability aspects in buildings has become increasingly important for the EU over the past decade.

For many years, the EU has been at the forefront of this issue by setting long term plans to guide climate and energy policies that remain some of the most ambitious in the world.

The built environment plays a crucial role in reaching the long term EU energy and climate goals. Achieving a low carbon economy by 2050 will require a contribution by the building sector of approximately 40/50% cost efficient reduction of GHG by 2030 and approximately 90% by 2050¹. Meeting these targets will require 80% of the existing building stock to be refurbished: the equivalent of one building every minute for the next 40 years.

A vital aspect of the business case for investing in energy efficiency and renewable energy sources and for advocating nearly Zero Energy Buildings (nZEB) and sustainable buildings in general is the building's potentially increased future value, which is usually determined through a valuation of the property. As workshops with property owners in the framework of the Intelligent Energy Europe funded project TRAINREBUILD have illustrated, there still is a prevailing lack of confidence regarding a reasonable return on capital. For this to change, the business case for wide-scale investment into nearly Zero Energy Buildings and more sustainable buildings in new construction and refurbishment must be made, explained, disseminated and incorporated into

real estate market decision making and daily valuation practice.

Developing, strengthening and communicating the link between energy performance and the value of buildings has an important part to play in the EU's energy efficiency and renewable energy strategy, offering a significant opportunity to meet the EU's 2020 and 2030 targets for energy efficiency and renewable energy. This in return will create local jobs and economic growth in the European Union. It will also help European companies to keep their leadership in energy efficiency, renewable energy technologies and the development of new, sustainable construction materials and thus help to drive future innovation in the region.

The **EU Energy Performance of Buildings Directive (EPBD)** and its recast represent the most important single legislation affecting the building sector. It requires member states to comply with minimum energy performance requirements for buildings, which are set to achieve cost optimal levels using a comparative methodology framework. Also included within the directive is the obligation for member states to introduce Energy Performance Certificates (EPCs) and the objective of nearly zero energy levels for all new buildings by January 2021.

Another important piece of legislation is the **EU Energy Efficiency Directive (EED)**, which entered into force in December 2012. Articles 4 and 5 of this document outline the EU's strategy in regard to buildings and associated national renovation strategies and financing of the strategies. This is an overarching EU wide energy efficiency strategy anchored in legislation, and member states must integrate the requirements of the EED into national law. This directive sets objectives and targets to be achieved across all aspects of the energy system.

03

The RenoValue project rationale

03.1 Valuation and the Property Life Cycle

The use of property valuations is an essential aspect of the property lifecycle. This is particularly valid at the point of transaction, e.g. when buildings are being sold or when investment decisions are being taken; for example when a major refurbishment may need to be considered.

Accurate valuations are vital for a transparent property market and a stable economy. They form the basis of portfolio performance analysis, financing and investment decisions, transactions, and land development advice as well as dispute resolution and taxation. Valuations are carried out at almost every stage of the property life cycle.

There is an emerging body of empirical evidence from an increasing number of markets that sustainable buildings not only perform better in terms of energy efficiency but also financially; amongst other issues, they command higher rents or resale prices and/or they hold their value better over time².

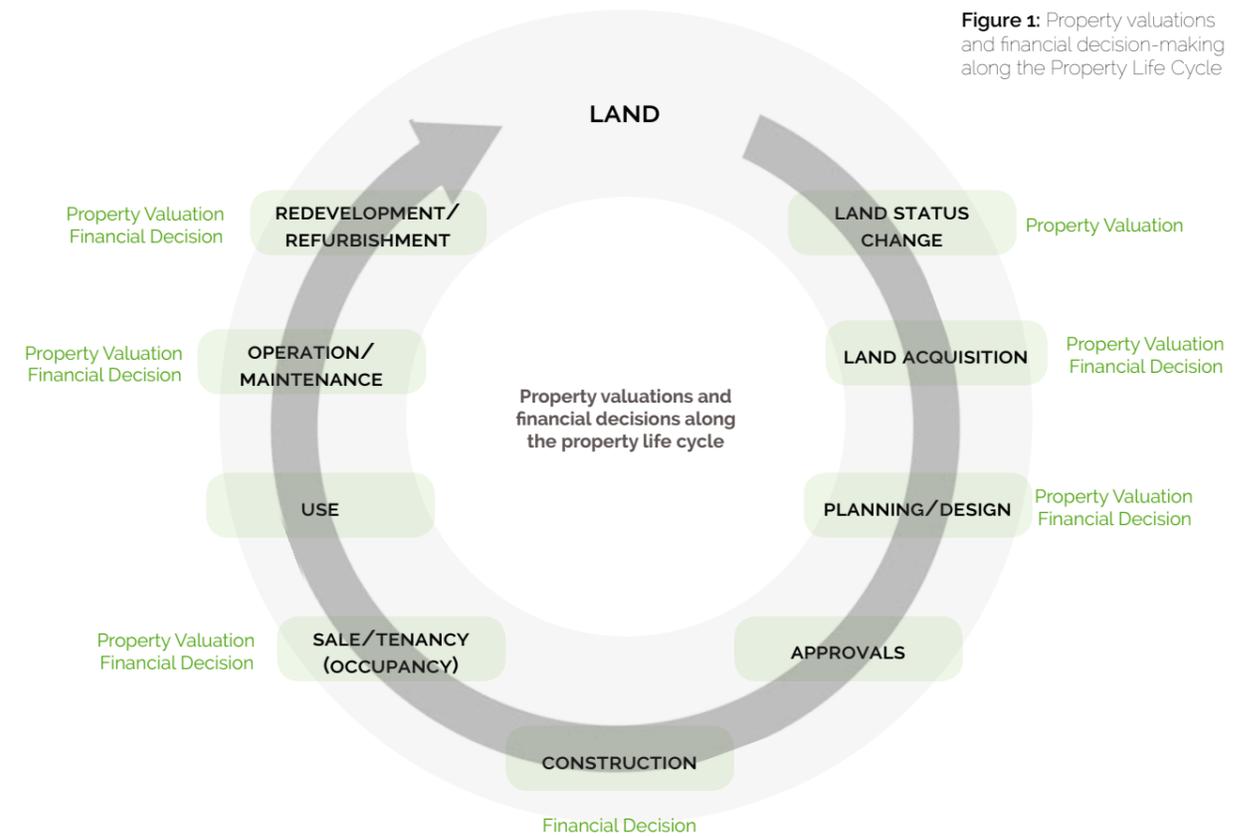


Figure 1: Property valuations and financial decision-making along the Property Life Cycle

Figure 1 clearly illustrates why incorporating energy efficiency, renewable energy and other sustainability aspects into valuation practices is essential to raise awareness on the value of investing in energy efficiency, renewable energy and other sustainability features amongst prospective buyers, sellers, lenders and investors. Being able to demonstrate the business case to these built environment stakeholders is a

prerequisite to accelerating the market transition towards Nearly Zero Energy Buildings (NZEB) in both new buildings and existing stock. The life cycle diagram mainly refers to the commercial market segment but, in principle, also applies for residential. However, as a rule, for owner-occupied residential dwellings there are fewer instances where a formal valuation would be required and necessary.

03.2 The role of the valuation professional

There are at least 70,000³ affiliated valuation professionals (and many more non-affiliated) in Europe. As part of their daily practice they comment on the financial impact of asset specific and wider market factors.

- Valuations are carried out in almost any phase of the building life cycle.
- Valuation professionals are the 'independent axis around which property information flows.
- Valuation professionals act as 'information managers' in often highly intransparent property markets.
- Arguments used in negotiations between the parties in a (commercial) transaction process are usually based on advice given by professionals acting on both sides.

While the role of valuation professionals is to reflect the market - in other words they do not 'make the market'- their advice and the nature and scope of their services do influence property market outcomes. If they were able to offer their clients evidence-based advice and transparent qualitative judgement on sustainability-related issues in addition to their customary reporting services during the transaction phase, this would have a significant market impact. Therefore, their expertise plays a crucial role in boosting the market for energy efficiency and renewable energy in buildings. Unfortunately, the valuation community is not yet fully engaged around the issues of energy efficiency, renewable energy and other sustainability related aspects. This lack of engagement formed the basis of the RenoValue project which started with the following assumptions:

- 1 Commitment of valuation professionals**
Awareness and understanding among valuation professionals of their own role with regard to considering the aforesaid issues in valuations is still relatively low in most markets.
- 2 Data and information management sources**
Valuation professionals are not in a position to consider energy efficient, renewable energy and sustainable building features as part of their standard valuation practice without existing market evidence. This creates a vicious circle (see Figure 2) whereby clients are not adequately advised about the value and long-term benefits of energy efficiency, renewable energy and sustainability solutions: therefore investment and demand for these remain stagnant.

Current market barriers to large-scale uptake of energy efficiency (EE) and renewable energy (RE) in buildings in the EU

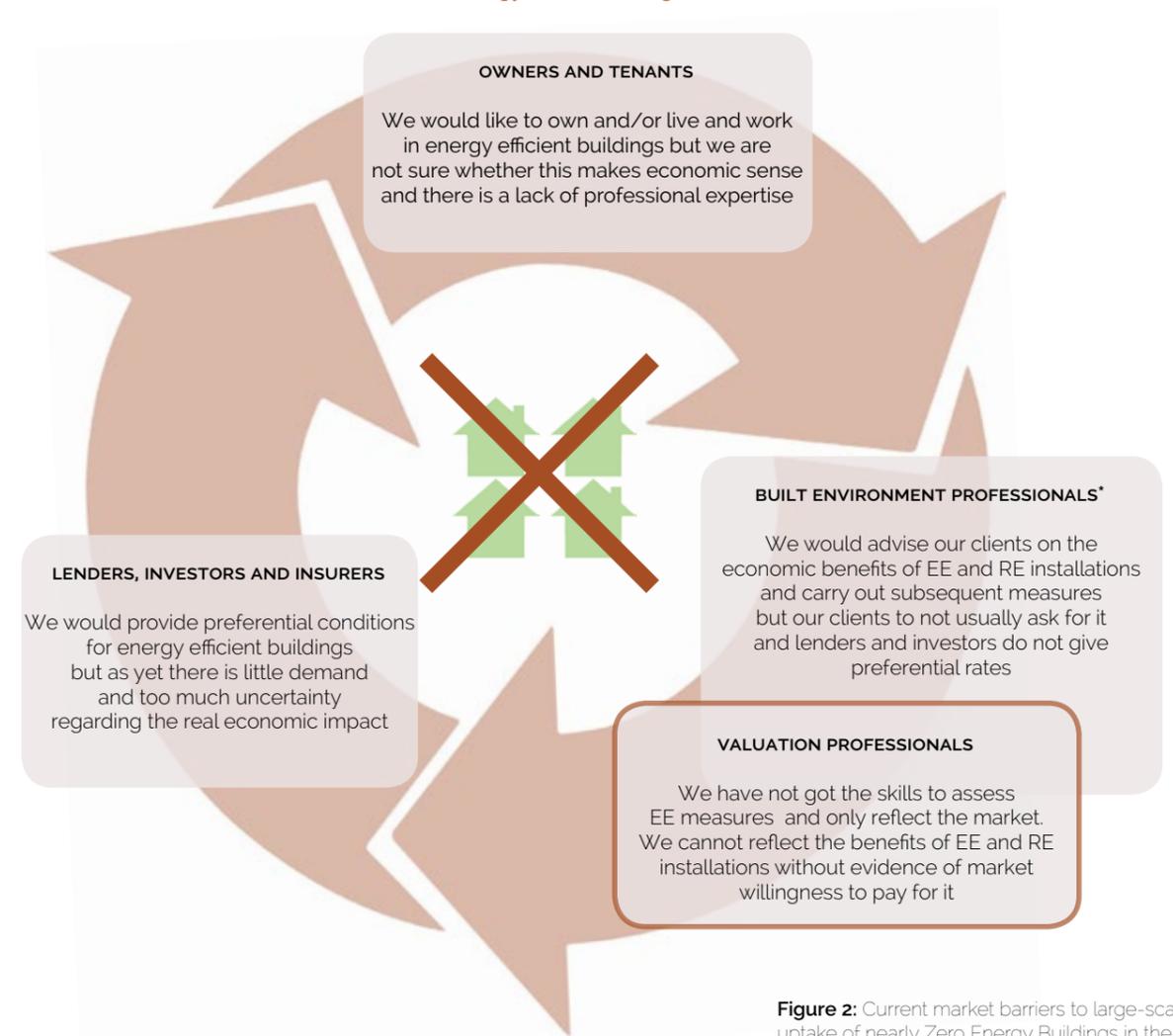


Figure 2: Current market barriers to large-scale uptake of nearly Zero Energy Buildings in the EU

03.3 The crucial role of building performance and market transaction data

One of the main challenges when assessing whether a building's energy performance and other sustainability aspects have an impact on its value is access to robust, good quality data.

Also the Intelligent Energy Europe project IMMOVALUE has shown that a broad application of the new valuation approaches are hindered by the lack of data on energy efficiency. Indeed, one of the lessons learned from the project was that in addition to a lack of basic knowledge on energy efficiency, valuation professionals are "missing reliable data bases on reference/comparable buildings as well as data on energy efficiency and operational costs".

In most EU member states, data evidence on financial performance and value enhancement through improved energy efficiency, the use of renewable energy or investments in other aspects of sustainability is still not readily available. Valuable data from the design stage are often lost and building performance information is not systematically collected and managed during operation.

In addition, information from available data sources such as energy performance certificates is not automatically linked to transaction data and the quality of both greatly varies. Without reliable data, a valuation professional cannot factor the energy and wider sustainability performance of an asset into the valuation report. This lack of market transparency is the single most important obstacle to establishing the linkages between a building's energy performance and its value.

“ Without reliable data, a valuation professional cannot factor the energy and wider sustainability performance of an asset into the valuation report. ”

04

RenoValue objectives and outcomes

Whilst current valuation techniques have the capacity to reflect energy efficiency, renewable energy and sustainability aspects, at present there is still a lack of dedicated training for valuation professionals when it comes to understanding valuation users' requirements and the possible value impact of existing and emerging measures and technologies. Due to the often rather technical nature of energy efficiency measures, renewable energy and sustainable installations, arguably many valuation professionals may not even have the required knowledge to assess them. This type of knowledge usually falls more in the domain of building specialists such as architects, building controllers, building surveyors and facility managers.

The importance of a more holistic approach to capacity building and training along the value chain is stressed in a joint Concerted Action and Build Up Skills Report which states: "The conventional approach to capacity building, based on strictly vertical skills (mason, electrician, etc.), needs to be extended, requesting more horizontal training approaches. It is most important that a building has to be understood as an integrated concept where cross-trade knowledge is crucial."

The RenoValue objective is to analyse and assess needs concerning the integration of sustainability related aspects into property valuation practices in order to design dedicated training material for practising valuation professionals.

This would create a virtuous circle that will ultimately help the transition to a significantly improved energy performance of the building stock in the EU as illustrated in Figure 3.

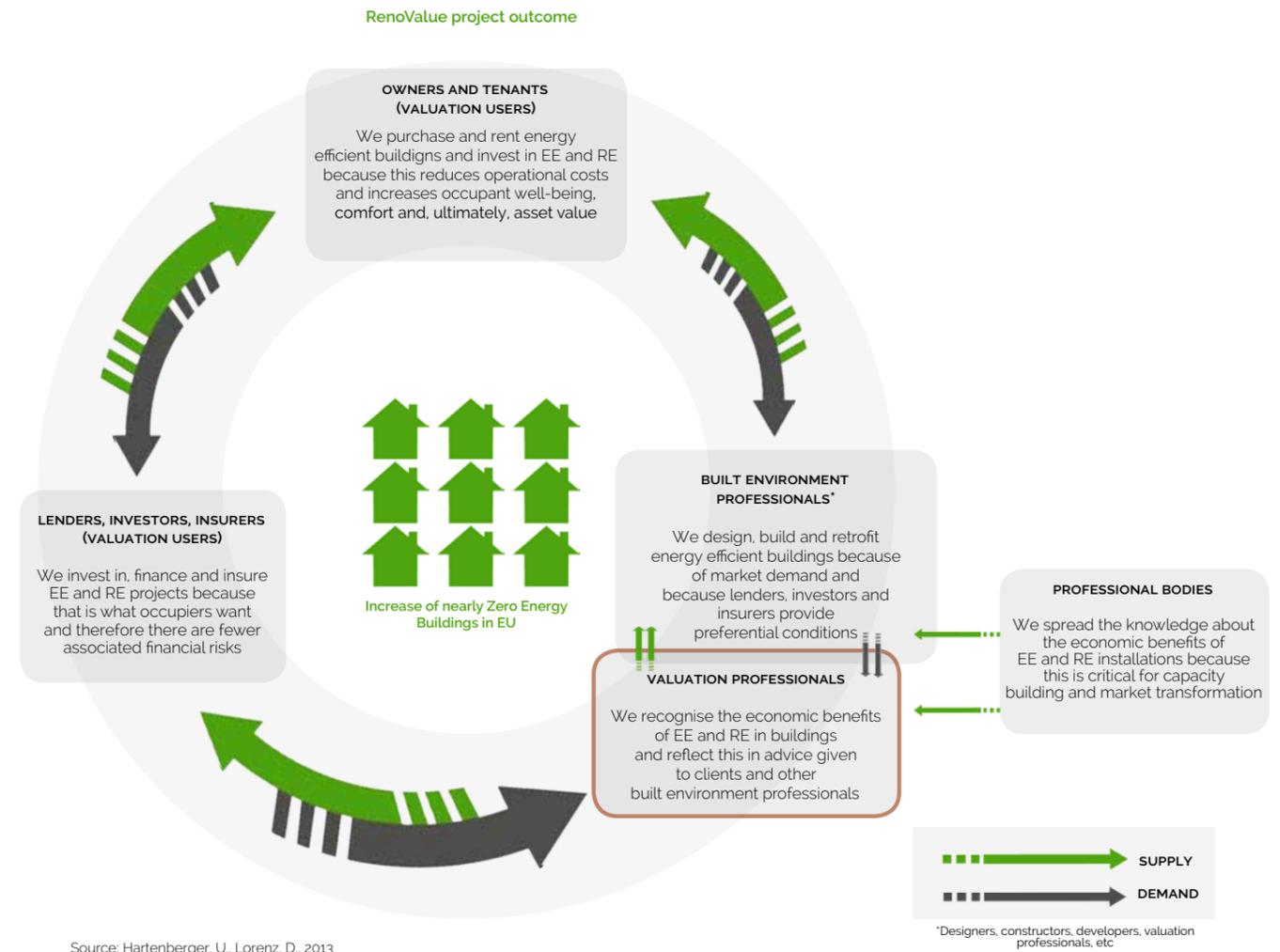


Figure 3: RenoValue project objectives and outcome

05

RenoValue
approach and methodology

DESK RESEARCH



EUVSG



ROUNDTABLE



TRAINING MATERIAL



PILOT PHASE



05.1 Research and processes

The ultimate goal of the RenoValue project is to develop a training toolkit for property valuation professionals on how to factor energy efficiency, renewable energy and other sustainability considerations into daily valuation practice.

Figure 2 illustrates what is widely considered to be the current situation: the circle of blame where investors, tenants, and developers refuse to take responsibility for the promotion of EU targets. It is anticipated that the training will help turn the same scenario into a positive, virtuous circle in time.

Before starting the work on the actual training toolkit, the project sought to assess:

- the current levels of awareness and knowledge with regard to energy efficiency and renewable energy installations amongst valuation professionals across a sample of countries within Europe;
- the market barriers currently hindering the consideration of energy and wider sustainability performance data by the valuation community;

- the sources currently available to valuation professionals and their training needs;
- the local market sentiment with regard to energy efficient and/or sustainable buildings potentially commanding higher sales or rental premiums.

The assessment was carried out through seven national roundtable workshops and the RenoValue survey. The findings from both the roundtables and the survey will inform the content of the training material. It is important to note that the research carried out in the framework of this project represents a snapshot of the current market situation in a number of EU member states at a specific point in time. Of course it does not allow for detailed conclusions to be drawn for other member states. It does however allow drawing some overarching conclusions beyond the particular context of the countries involved.

05.2 Roundtable workshops

In order to assess valuation professionals' training needs and valuation users' requirements regarding the integration of EE and RE features and other sustainability aspects into daily valuation practices, the RenoValue project organised a series of national valuation roundtable workshops in seven EU countries: Belgium (BE), Germany (DE), Italy (IT), the Netherlands (NL), Poland (PL), Sweden (SE) and the United Kingdom (UK).

To be able to get a comprehensive and representative overview, each roundtable involved approximately 20-35 participants representing valuation professionals and real estate firms offering valuation services, mortgage lenders and banks, insurers, private, public and institutional investors and landlords and other representatives from the built environment value chain including designers, planners, architects, civil engineers, construction economists and EE and RE products suppliers and solutions providers.

Annex I of this report provides summaries of the individual national roundtables for each of the seven countries. The summaries are based on the responses from the specially designed RenoValue survey (see 05.3) and the issues discussed at each respective roundtable workshop.



05.3 The RenoValue survey

The roundtable workshops were guided by the results of a survey (for survey questionnaire and main quantitative informations concerning the respondents see Annex II) circulated to roundtable participants prior to the workshops.

The RenoValue survey had the following objectives:

- To understand the extent to which each participant was engaged in valuation activity and the type of property valuations they undertake;
- To identify the primary sources of information used when carrying out valuations;
- To assess the quality of information on property transaction data, whether held by a public or private source, and the quality of any publicly available information;
- To assess the accessibility of property operational cost data and the extent of information normally provided by clients instructing valuation work;
- To understand whether valuation professionals currently receive dedicated training regarding green labels or certification schemes.;
- To investigate the existence of public registers for Energy Performance Certificates and, if any, their accessibility, and whether the consideration of other green labels or certification schemes for buildings is standard practice.

05.4 The EU Valuation Steering Group

A dedicated EU Valuation Steering Group (EUVSG) was established by the RenoValue consortium to provide strategic input to assist with the research project (the members of EUVSG are listed in the Acknowledgements, on the inside back cover of this report).

The EUVSG comprises senior members from the finance, construction and real estate services side of the sector. The members of this group were selected on the basis of their expertise with regard to sustainability of the built environment in their day-to-day roles. They cover all markets across the EU.



06

Common themes

The combination of the roundtable workshops and the survey responses were a crucial part of the larger project as both gave valuation professionals the opportunity to state and explain their needs.

Having taken place in countries with varying levels of market maturity, the seven roundtables covered a broad range of real estate markets. Subsequently, the responses from roundtable participants varied due to the specific characteristics of the market they operate in. Nonetheless five common themes across all seven countries were observed:

1 Lack of a publicly available central database of Energy Performance Certificates (EPCs)

In most countries -The Netherlands, Sweden and the UK are notable exceptions- a publicly available central database of EPCs does not exist. Therefore valuation professionals are not able to interpret the EPC rating of a building subject to sale or purchase in relation to how energy efficiency or renewable energy could have an impact on value. Even in countries where EPCs are publicly available they are difficult and time consuming to access. Furthermore, there is no publicly endorsed building certification system which is easily accessible and which represents a reliable source of information for valuation and other property professionals.

2 Lack of internationally recognised public building rating certificates

The issue of sustainable buildings is to varying degrees becoming increasingly important in all of the markets where roundtable workshops took place. Market demand has triggered the creation of a few commercial labels with the objective to differentiate buildings with sustainable features. However, the detailed disaggregated data behind these certificates are not publicly accessible, as commercial label providers do not reveal background information but only overall certification results. Labels are therefore a limited source of information for valuation professionals.

3 Lack of property operational cost data

Publicly available information on property performance and the associated operational costs is not available in any of the countries where roundtable workshops took place. The availability of building operational data would enable valuation professionals to discern if sustainable buildings have lower operational costs. Instead valuation professionals' only source of this type of information is the client.

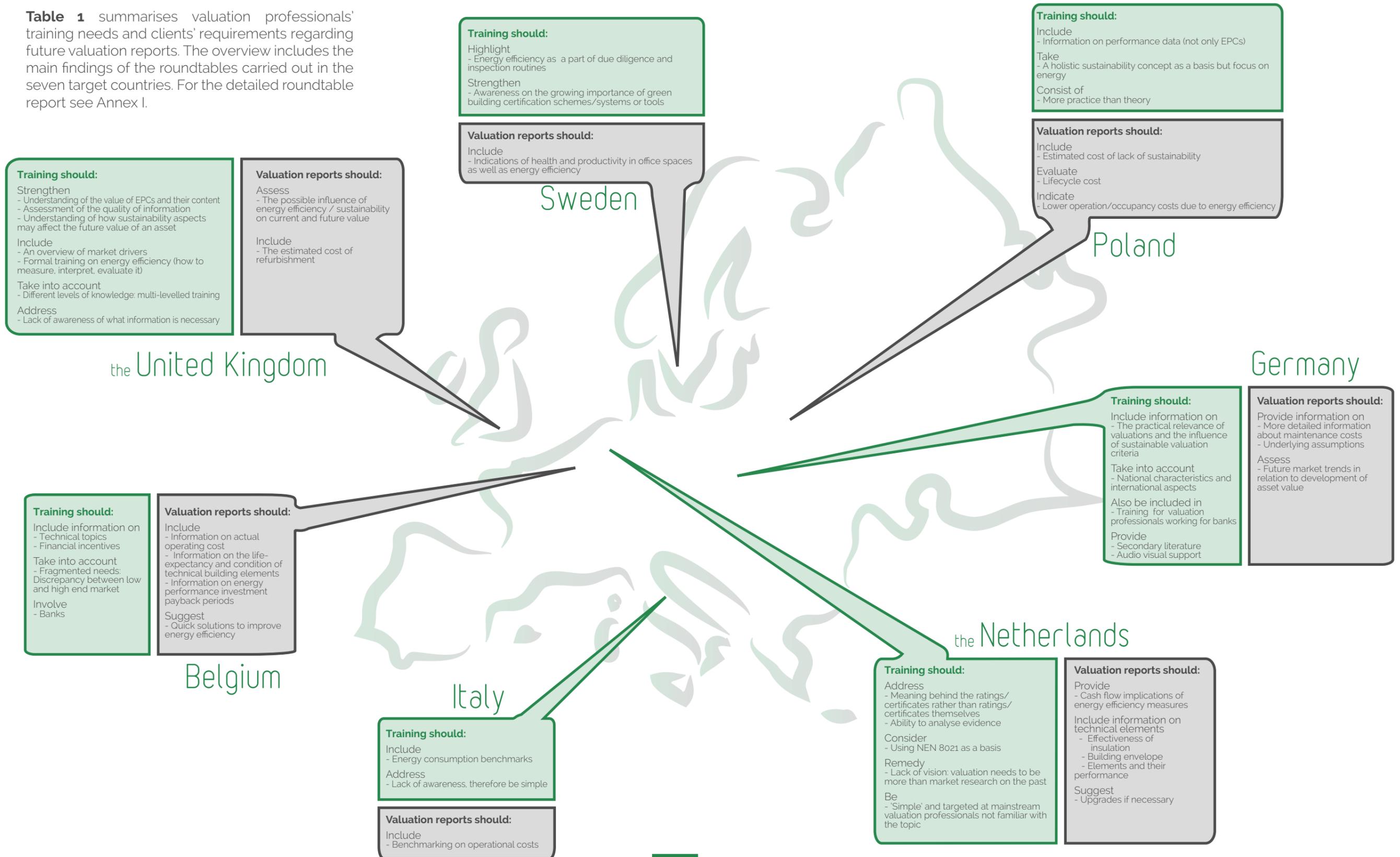
4 Lack of adequate property transaction data

While the availability of transaction data varied from country to country, information on individual building characteristics was either very difficult or impossible to obtain. As a consequence, the potential price differential is difficult to quantify, as valuation professionals do not always have full access to adequate comparable information. In all countries it emerged that certain market players have their own internal databases of transactions. As a consequence, valuation professionals working at larger firms have a competitive advantage vis-à-vis those working in smaller and medium-sized practices.

5 Inadequate data quality

Even in the countries where information is publicly available, it is often incomplete and unreliable for valuation purposes, as the information is not always verified for quality assurance purposes. EPCs for example were generally considered an unreliable source of information.

Table 1 summarises valuation professionals' training needs and clients' requirements regarding future valuation reports. The overview includes the main findings of the roundtables carried out in the seven target countries. For the detailed roundtable report see Annex I.



07

Conclusion

07.1 Roundtables findings

The findings from the roundtable workshops validated the RenoValue project objectives and confirmed the assumptions made at the start of the project with regard to the overall project rationale. As can be expected, the issues discussed at the roundtables and raised in the survey responses varied considerably across the seven target countries. Notable differences from country to country emerged under the following issues:

- the level of general market maturity in terms of market transparency or availability of data on transactions and building characteristics
- the awareness of energy efficiency, renewable energy and other sustainability related building features
- different approaches to regulatory enforcement and different market and building stock characteristics.

With regard to the three questions raised at the beginning of this report, the roundtables delivered the following results:

What are the current levels of awareness and knowledge with regard to energy efficiency, renewable energy installations and other sustainability aspects in buildings amongst valuation professionals across a sample of countries within Europe?

The level of awareness with regard to energy efficiency, renewable energy and other aspects of sustainability varied from country to country, but generally it was limited. The highest levels of awareness were in the Netherlands, the UK and Germany, with the lowest being in Italy, Belgium and Poland.

There are various reasons why in some markets valuation professionals' awareness is higher than in others. Generally, the countries with better information availability on properties have valuation professionals with higher levels of awareness about energy efficiency, renewable energy installations and sustainable building features. The roundtables pointed to a correlation between valuation professionals' awareness and data availability.

In any case, there are highly aware and motivated valuation professionals in all countries, but they did not represent the norm.

Roundtables also illustrated that valuation professionals working for international companies had a higher level of awareness, which is to be expected, as these professionals are more likely to provide services to international clients with corporate responsibility agendas. In addition, valuation professionals working for larger companies are also more likely to have access to the expertise of sustainable building specialists.

Regardless of regional variances at the level of market maturity or regulatory implementation

and enforcement, valuation professionals in all countries covered by the project expressed a clear need for more guidance and training on:

- how to interpret energy efficiency, renewable energy and other sustainability related information,
- on how to consider this type of information in valuation reports and
- on how to advise their clients accordingly by highlighting the potential risk and opportunities with regard to prospective investments.

With the publication of the RICS Guidance Note on Sustainability and Commercial Property Valuation, dedicated sustainability guidance is now available to valuation professionals. The 2014 edition of the RICS Red Book now explicitly lists sustainability as an issue that needs to be considered. Both of these will have far-reaching consequences for both valuation professionals and their clients and will serve to improve valuation professionals' awareness with regard to energy efficiency, renewable energy installations and other aspects of sustainability.

However, the majority of roundtable participants felt that it was important to design the training material at a more basic level to cater for the needs of the mainstream valuation professional rather than targeting those who already have some knowledge of the subject.

What kind of market barriers currently hinder the consideration of energy performance data by the valuation community?

The most widely mentioned barriers are related to the general lack of market transparency, linking transaction and energy performance data, the lack of systematic and centralised collection and management of building information and finally the lack of quality assurance procedures relating to both basic transaction data and energy performance data recorded through energy performance certificates.

As a consequence, valuation professionals commonly struggle to get even basic information on property transactions and data on energy and wider sustainability performance are very difficult to come by.

This was particularly evident from the roundtable meetings in Poland, Italy and Belgium. Even in real estate markets with relatively high levels of transparency such as the Netherlands, the UK and to certain extent also Germany, information on the energy performance of a building is not always easily available, and where it is available there are concerns regarding data consistency and reliability.

Consequently, it is not really possible to link transaction and energy performance data, and therefore valuation professionals are not able to assess the extent to which energy performance features make a difference.

The lack of systemic and centralised collection of building information (whether it is recorded

as part of real estate transactions or not) is an issue that was highlighted in all of the countries in which roundtable workshops were held. Even if there are national organisations collecting data, often this data is insufficient for valuation professionals seeking to identify transaction data for comparable purposes. To make matters even more complicated, some databases run by national organisations have cumbersome systems, so the process behind the identification of building transaction information or building information can be very difficult: valuation professionals have to wade through large quantities of data: for example in some countries transaction data are even only available in hardcopy or they have to conduct time-consuming searches using codes as it is the case for EPCs. Also, where databases exist (both in relation to building information and energy performance data), valuation professionals often doubt the veracity of the information. This is because there are seldom quality assurance procedures in place to ensure that the information is correct.

Finally, even if data are available, they are not always shared by stakeholders. Data represent a valuable commodity and commercial interests and dynamics can therefore potentially hinder the consideration of energy performance and wider sustainable building aspects by the valuation community.

What is the local market sentiment with regard to energy efficient buildings potentially commanding higher sales or rental premiums?

With the availability of reliable and robust local data still being the exception rather than the rule in the majority of countries examined, the empirical evidence base across those countries is also still rather patchy.

The extent of general market transparency in the countries' property markets did not seem to make a difference in this regard. Even in relatively transparent markets with high volumes of transactions, participants were only able to state that a sales or rental premium was down to sentiment. As the perception of roundtable participants of the existence of sales or rental price premiums seemed to be at anecdotal level only, the difficulty of quantifying the extent of any sort of sales or rental premiums led some participants to question whether there are actually any premiums at all: the industry appears to be divided on this.

For some occupiers and investors this may in fact be immaterial as for them opting for a 'green', energy efficient building is simply part of their wider corporate sustainability strategy that will positively support their brand and is also likely to future-proof the asset.

As the discussions with roundtable participants highlighted, for buildings that no longer meet legislative requirement thresholds and client expectations, in the longer term the market may talk more about a 'brown discount' than a 'green premium'.

This trend was specifically highlighted at the German roundtable meeting. Participants stated that as there is significant political pressure in this country for buildings to be brought up to certain standards in terms of sustainability features, certain investors and occupiers might only seek to purchase or occupy this class of buildings. This forces down the price of stock that does not meet these standards. A similar trend was also mentioned during the UK roundtable workshop.

07.2 Policy Recommendation

The findings of phase 1 of the RenoValue project illustrate how most of the challenges which valuation professionals face are a direct result of a lack of transparency in their respective markets. Therefore the key policy recommendation from this report is that policy makers should enforce regulation to make sure that market participants have access to reliable transaction and performance data (as a first step, this could include EPC-data only).

Consequently, RenoValue recommends EU and member state policy makers to consider developing and enforcing regulatory and/or fiscal policies that will help improve market transparency, and herewith address one of the most significant barriers to systematic consideration of energy efficiency and renewable energy and other sustainability aspects in valuation and the articulation of the business case thereof.

07.3 Next steps

The next step in the project is to develop tailored training material for practising valuation professionals from across the EU. This material will be based on the findings of the roundtable meetings, and it will also directly build on RICS guidance.

In the findings listed in the national roundtable reports in Annex I and in the summary provided in Table 1, participants at each roundtable identified key elements they would like to see considered as part of the training material. These can be grouped into four main topics:

- raising awareness about the relevance and importance of considering energy and sustainability performance related aspects into daily valuation practice
- fostering of technical insights and knowledge needed to verify the sustainability credentials of buildings both during building inspection and when having to assess available information sources (whether with regard to commercial or residential buildings)
- examination of the assessment criteria which inform commercial building ratings and EPCs and how an understanding of these can affect a property valuation
- and finally, how to consider the energy performance and other sustainability aspects within the actual application of different valuation methodologies.

The training material will be piloted during the remaining lifetime of the project among practising valuation professionals from 7 EU countries and will be fine-tuned according to their feedback. Those countries are: Belgium (BE), Germany (DE), Italy (IT), the Netherlands (NL), Sweden (SE), Poland (PL) and the United Kingdom (UK). In the long term, and after project completion, a mechanism to ensure the training rollout at scale across the EU will be put in place.

As a final note, whilst the training material developed as part of the RenoValue project will undoubtedly support market transformation towards a more sustainable and therefore more energy efficient building stock in Europe and help to increase the number of nearly Zero Energy Buildings (nZEBs), training on its own will not be the panacea to meet this goal. A legislative framework that addresses the aforesaid policy recommendation about improving data accessibility would also need to be put in place and properly enforced.

ANNEX I

National roundtable findings



Summary of key issues

There is some awareness of sustainable building features among the valuation community, especially within the major international companies, and this is improving. However, there is a low level of awareness among local valuation professionals who are not obliged to value in line with international standards.

The main barrier hindering the consideration of energy performance data by the valuation community is the lack of a legal framework which covers the entire country. Most valuation projects are carried out by 'land surveyors' who are not required to adhere to certain standards. Normally these land surveyors do not follow IVS or RICS guidelines.

The local market sentiment is that buildings with sustainable features do attract rental and sale price premiums, although it is very difficult to quantify the extent of the difference.

1. Profile of Belgian⁴ roundtable participants

Valuation professionals, property advisors, architects, real estate agents, researchers –mainly covering Wallonia and Brussels with one representative covering all three regions including Flanders.

2. Market snapshot

Effectively there are three separate markets in Belgium, which align with the political divisions in the country. These are: Wallonia, Flanders and the Brussels region. The three markets are subject to different building policies, regulations and energy performance financial incentive schemes.

There was consensus amongst roundtable participants that sustainable⁵ building certificates and labels are seen as effective marketing tools in the Belgian investment market. Buildings with these certificates or labels are becoming more common, notwithstanding the potential inconsistencies between claims that are made during a marketing process of the sale of an asset, and the actual energy performance of buildings. Participants also agreed that most clients or investors do not appear to be fully aware of the details behind a certain rating, or how buildings are assessed for certification purposes.

From a valuation viewpoint, professionals stated that it is difficult to understand and reflect sustainable building features in individual property valuations. This observation applied to both the residential and commercial market segments. Most Belgian valuation professionals currently lack the technical skills to verify the sustainable credentials of buildings. On this point participants conceded that certificates offer some future proofing and validation to investors.

The availability of information for valuation purposes was discussed in detail. With regard to commercial buildings there was consensus that valuation professionals seldom receive

information on building energy consumption for valuation assignments.

In the residential market segment, the quality of sustainability features in buildings varies to a large extent. This market characteristic renders comparisons for valuation purposes very difficult. In general, public documentation that is issued for new buildings is not sufficiently detailed to be useful for valuation professionals. Even when this documentation is made available this usually only happens after a transaction has already been finalised, which is normally too late for valuation professionals.

In the commercial investment market, new buildings tend to have more sustainable features due to the continuous tightening of the regional building regulations in Belgium, which ensure a minimum rate of replacement and an on-going improvement of stock. According to participants, buildings marketed as being sustainable generally achieve higher rental levels or are let more quickly. However, sustainability aspects are not necessarily the main drivers as energy costs are a component within the overall costs incurred by businesses. Whilst institutional landlords appear to be focusing on selecting sustainable buildings for their portfolios, especially in the office sector and some tenants seek to only occupy sustainable buildings, cost effectiveness in the short to medium term tends to be more important for occupiers.

3. Challenges

3.1 Data and information sources

The fragmented political situation in Belgium makes a coherent approach to data and information collection and management challenging. Data are held at regional and municipal levels in the three different parts of the country (Wallonia region, Flanders region and Brussels Capital) and there is little, if any, communication and cooperation between them. Access to the land registry is difficult and users have to wade through high volumes of information. Whilst notaries do hold all transaction data, the information is often out of date (more than 12 months old), patchy and inaccurate.

Transaction and market data

In general, transaction data and information are mostly sourced in-house through colleagues, although some data are sourced from clients.

It should be noted that the high stamp duty rate and registration fees in Belgium discourage transactions relating directly to property ownerships. To circumnavigate this problem investors commonly create holding companies for properties and these companies are sold or bought when ownership needs to be transferred. This market characteristic exacerbates the unavailability of data and comparability issue. In addition, in the residential market in some cases the high rate of stamp duty acts as a

disincentive to disclose the real price for which properties change hands, i.e. the price on the sales deeds may be lower than actually paid to avoid higher taxes.

Time-span between actual transaction and accessibility of transaction data

This tends to vary considerably as there is no central, organised private or public agency that fulfils this role on a comprehensive basis. At a private level the average is around 3 months, but the little information that is available publicly tends to take longer to transfer.

Energy performance data

Energy Performance Certificates (EPCs) are not logged in a central database and do not work as a common Belgian benchmark because of the regional differences between Brussels, Flanders and Wallonia. Instead of using EPCs as a source of energy performance information, professionals often consult aerial thermo imaging if the property in question are based in the two major cities of Brussels and Antwerp.

Quality and quality assurance of available data

The publication of transaction and operational data raises concerns of privacy and there is little political will to change the existing situation. Currently, there is no quality assurance or third party verification of data available. Due to insufficient data it is difficult to cross-check information, and therefore the competence and judgement of valuation professionals is essential.

Linking energy performance data with transaction data

There are no links between transaction and energy performance data in Belgium. Participants felt that an ideal situation would be if the transaction data held by notaries and the cadastral registry would be joined with energy performance data collected by energy suppliers.

Sources of information:

- Ordre Belge des Geometres-Expert asbl (www.obge-bole.be)
- Institute Professionnel des agent Immobiliers - IPI (www.ipi.be)
- Building Performance Istitutte Europe - BPIE (www.bpie.eu)

3.2 Training needs

The valuation profession in Belgium is highly fragmented and brings together professionals with a range of different educational backgrounds. The majority of them tend to be land surveyors (about 1,000 professionals, members of the l'Ordre Belge des Géomètres-Experts asbl), real estate agents and brokers (registered by the Institut Professionnel des Agents Immobiliers IPI-BIV), architects and building engineers. Their level of qualification and awareness of sustainability issues is basic and varies greatly.

Essentially, there is a great discrepancy between the professional competencies of the low- and high-end of the market, which is difficult to address with a training course, unless the course is designed to suit multiple needs and levels. In the commercial segment, the market is dominated by about 10 valuation firms mainly run by RICS members. These generally have more advanced knowledge of sustainability issues. In terms of the training material, it was suggested the course modules should cover (on a basic level) building specific technical topics such as wall insulation, heat recovery, and other KPIs (e.g. the ones identified by IPD EcoPAS). Training modules could also comprise information about financial incentives, however it should be taken into account that the authorities change these every year and that the information could therefore get relatively quickly outdated.

Summary of key issues

There is good awareness of energy efficiency and renewable energy installations amongst valuation professionals in Germany. Awareness tends to be stronger among valuation professionals from international companies. One of the reasons for the general good level of awareness is that the overall sustainability agenda has strong political backing.

The biggest market barrier hindering the consideration of energy performance data is the lack of publicly available data. EPCs are publicly available, but these can be difficult to obtain.

The local market sentiment is that sustainable building certifications are currently mainly used for marketing purposes to help the sale or letting of a building. However, considering the pressure being applied at a political level there is the expectation that buildings will have to conform to a minimum level of sustainability for both investors and occupiers in the near future, and that a brown discount will apply to buildings which do not meet minimum requirements.



1. Profile of German roundtable participants

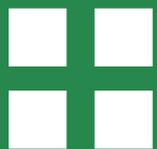
Valuation professionals, technical due diligence consultants, project managers, representatives from banks, engineers, landlords, developers, and lawyers.

2. Market snapshot

The real estate market in Germany is active from an investment point of view. With regard to commercial buildings, the volume of funds invested over the last few years has been high (typically well over €20bn for the entire country). There is also an active residential investment market with large landlords owning vast investment portfolios. However, the proportion of private owner-occupiers is relatively low when compared to the rest of Europe.

Although the awareness for the necessity of energy efficient buildings is very high in Germany and the government provides financial support for retrofitting, transparent data relating to building sustainability features, data relating to commercial certifications, how these are assessed and which buildings they are in place for are not publicly available to market participants such as developers, architects, consultants, etc. Landlords are not obliged to divulge this kind of data.

In Germany, one key interest concerns the level of operating expenses from 'green buildings' compared to their conventional counterparts. In some cases operational costs for 'brown buildings' are even called 'a second rent' because they can be very high and are expected to increase in the future due to higher energy costs. According to the discussions during the roundtable it is expected that there will be no price premium for high performing buildings building in the future but rather a discount for non-energy efficient buildings both for rents or and sales prices.



3. Challenges

3.1 Data and information sources

Transaction and market data

The main public sources of information for valuation professionals are valuation expert committees that act on a local basis: the so-called 'Gutachterausschüsse'. These committees hold vast amounts of transaction data that valuation professionals can access, as these committees are legally obliged to make the information available. However, there are approximately 500 of these committees, and the services provided are not always comparable from region to region as these committees have no single data capturing and reporting standard. As a result, data collection appears to be unsystematic and methodologies vary. Data concerning technical and environmental issues are often not included in databases so the rather simple opportunity to collect and analyse data centrally remains largely unused. This creates difficulties from a valuation point of view as the information supplied may greatly vary.

Time-span between actual transaction and accessibility of transaction data

After a transaction has taken place, the notary sends the information from the sales contract to a valuation expert committee, which then feeds this information, including the sale price and most basic data such as address and

lot size, into a transaction database. It usually takes between 4 and 8 weeks before this information is available to valuation professionals.

In parallel, the valuation expert committees try to obtain more detailed information through site inspections and/or by sending out a questionnaire to the buyer. Depending on their resources some committees are more advanced in this than others and there is no common format for these questionnaires. This also explains why the information provided by these committees varies significantly. In addition the information is not held in a central database but in different local databases.

Scope of property transaction and valuation data

The scope and breadth of transaction data also vary significantly. Some valuation expert committees provide very detailed information such as use type which tends to be very specific like multi-family houses or condominiums etc., size of the use area, site area, location of the unit within the property (if applicable), availability of elevator, balcony, car parking space, date of sale, etc. Some committees have started to include information from EPCs in their databases.

Energy performance data

From 1 May 2014, an amendment to the German Energy-Saving Regulation (EnEV) came into force. It obliges all landlords to provide or rather to physically hand over potential tenants and buyers with the energy performance certificates of the property in question. In addition, EPCs need to be registered in a central database. However, the database cannot yet be searched by valuation professionals for individual buildings' EPC results. In order to obtain energy performance data, valuation professionals in Germany have to rely on their clients or the building owners.

Quality assurance

The data from the valuation expert committees is very reliable. Valuation expert committees carry out quality assurance and their staff ensures that only reliable and realistic data are put into the database.

Linking transaction data and energy performance data

As a rule, transaction and energy performance data are not yet linked. However, some valuation expert committees have started to do this. In theory, these committees are well placed to fulfil the role of linking transaction and energy performance data, but better rules and enforcement of these mechanisms are required until such a time when legislation may actually require this to be linked anyway. For example, there could be an obligation that EPCs are annexed to sales contracts, which are then passed onto valuation expert committees. They could then feed their database not only with transaction data but also with information from EPCs.

Sources of information:

- Gutachterausschüsse are independent valuation expert committees that act on a local basis (www.gutachterausschuesse-online.de)

3.2 Training needs

The wish list of participants concerning the potential content of training modules included the following:

- A general introduction to the topic
- Accounting for national characteristics whilst also pointing out international aspects
- The provision of secondary literature
- Explanations on the impact of sustainability related criteria on valuation reports
 - » General quality criteria of valuation reports
 - » Content requirements for 'sustainable' reports
- Practical relevance with regard to extended demands in relation to building inspection and market analysis
- Audio-visual support, for example a filmed inspection to support the training modules.

As a second step, it was suggested that once tried and tested the developed training modules could be considered for training valuation professionals working for banks.



The above subject was discussed in depth during the German roundtable workshop. According to roundtable participants, the most important thing would be to have more customer-friendly valuation reports. The following aspects were mentioned under the sustainability heading:

- More performance data should be made available and presented in valuation reports, but this needs to be easily understandable and relevant
- Detailed explanation of underlying assumptions of the valuation exercise
- More detailed information about maintenance costs should be provided, i.e. whether the property profitable or may present a risk. On a short and long term basis, this would also need to be seen in relation to the potential rise of energy costs and therefore a potential decrease of net rent as users are willing to pay a certain amount per month for rent, no matter about the proportion of net rent / energy costs
- Future market trend assessments should be integrated in the report, i.e. a valuation report should not only refer to the date of the valuation but should also provide scenarios for future developments relating to aspects such as the development of heating costs. This could be potentially undertaken in a sensitivity analysis with the aim of showing the competitiveness of the building in the future by highlighting the development of the net rent in correlation to the development of energy costs – as outlined above
- The description of buildings within valuation reports should be improved by widening the scope of building descriptions to also cover sustainability related quality characteristics. This should also cover the description of technical infrastructure and performance measurement instrumentation.
- Information about environmental impact during the production, the delivery and installation of energy efficient materials such as thermal insulation etc. should be provided (whenever possible). It should be noted this topic was discussed actively amongst participants, as some doubted whether this data could be made available, whether it is taken into account and if investors are interested in this subject.

Summary of key issues

There is some awareness with regard to sustainability issues amongst valuation professionals, but this tends to be patchy which is in line with the relatively immature sustainable buildings market compared to other European countries. Domestic developers are generally not under market pressure to construct buildings with the most modern sustainable features. Some international developers have done so, but these projects tend to be rare.

The immaturity of the sustainable buildings market is the main barrier blocking the development of valuation professionals' awareness. As there are not many new construction projects with high commercial sustainability ratings, valuation professionals are not developing an appreciation of the benefits of these buildings. In addition, the market in Italy is relatively opaque; comprehensive information on transactions is being rarely made available on a public basis.

The low number of transactions registered with regard to sustainable buildings means there is no strong market sentiment in relation to higher sales prices or rental premiums. However, some valuation professionals have observed a positive impact on rents and reductions in letting periods, although the extent of such premiums is not quantifiable.



1. Profile of Italian roundtable participants

Valuation professionals, property investors, architects, banks, academic, engineers, designers - the majority of roundtable participants tended to focus on the northern part of the country (from Rome northwards)

2. Market snapshot

With regard to commercial buildings, the role of foreign investors has been crucial for the promotion and construction of buildings with sustainable labels or certifications. Foreign investors are committed to setting new benchmarks and also seeking international tenants with the same mind-set, but tend to focus on the biggest commercial cities such as Milan and Rome, or major retail outlets. Italian investors demand sustainability related building features in a limited number of cases.

On the residential side, the implementation of sustainable buildings is more patchy and entrepreneurial, with more advanced developers often undertaking sustainable developments to reduce future operational costs.

Valuation professionals struggle with the lack of market transparency and their judgement is crucial considering the general extent of opacity in the market. In most cases only the parties directly involved in a transaction are aware of the full details. At present, there is a lack of observable rental or price premium for green buildings, and valuation professionals are sceptical whether reliable data proving this can be provided in the near future, given the current general lack of market transparency.

Valuation professionals at the roundtable also made the point that as the volume of new stock is very limited compared to other markets with many of the larger city centres tending to have a high proportion of historical buildings subject to strict rules, evidence pointing to a premium for sustainable buildings is even harder to obtain.

There was general consensus from the roundtable that an additional reason behind the current situation is that sustainable features in buildings are still considered more expensive to build and buy and that the majority of clients do not consider the total operational cost in their calculations. As a result, the best solution for most players was to avoid buildings with these features.



3. Challenges

3.1 Data and information sources

There are no national or regional public databases recording real estate transactions or disseminating information about deals that are deemed trustworthy.

The only national source that releases data on a public basis is called Agenzia del Territorio. This organisation reports high-level information about properties, such as value per square metre for market segments located in different parts of cities. Valuation professionals occasionally refer to this database for information purposes, but the information found is not sufficient for the valuation of individual properties.

Agenzia del Territorio offers a service called OMI (Osservatorio del Mercato Immobiliare), which provides information such as quarterly market reviews both for the residential and non-residential market segment and real estate values (€/sq m) per municipality (for residential, retail, office and industrial buildings). Values reported

by the OMI usually refer to average figures recorded in geographical areas which normally do not correspond to sub-markets.

This organisation also conveys data about the number of transactions of residential and non-residential assets and land values, although valuation professionals normally consider the figures provided as informative only.

There are some regional databases that make information publicly available but these are inconsistent from region to region in terms of the type of data that is held.

For example in Milan, there is a public organisation called TEMA S.c.p.a. (Territori, Mercati, Ambiente) which reports market review essays with mainly residential values. However, again the information offered by this agency is indicative rather than definitive for valuation professionals.

This explains why the Italian valuation community uses private data sources for their

work to a large extent.

Larger companies use their own internal databases populated with information from agents and other professionals involved in market facing activity. Smaller companies have to work with the best information they can find. It was acknowledged that some companies may have a commercial advantage as a result of keeping their own databases, in other words, a commercial advantage that is based on the lack of overall market transparency. Participants felt that this reinforces the static market situation, as these parties are reluctant to lose this advantage by releasing and sharing information.

Sources of information:

- Osservatorio del Mercato Immobiliare (www.agenziadelleentrate.gov.it) collects information related to real estate values, the rental market and annuity rates in reference to the definition of property values
- TEMA S.c.p.a.v Territori, Mercati, Ambiente (www.termilano.it) is delegated to the support and enhancement of the territory, environmental policies, food markets, real estate market
- Quotidiano Immobiliare (www.ilqi.it) is an online magazine dedicated to real estate
- Borsino Immobiliare (www.borsinoimmobiliare.it) is a service provider of quotes, analysis, and information about homes and properties

Transaction and market data

In general, transaction data and information is mostly sourced in-house, through fellow valuation professionals and from clients as public authorities do not hold accurate and comprehensive property related data and notaries do not make any property transaction data available.

Apart from Agenzia del Territorio, Quotidiano Immobiliare, a private entity, reports on some of the latest transactions although it only records limited transaction information such as location and price. In addition, trade magazines and newspapers publish data on commercial buildings but only to a certain extent.

Some major assets are held by specially created commercial set-ups (a company set up for the purpose of holding property) to avoid stamp duty transaction fees. This further contributes to market opacity.

Time-span between actual transaction and accessibility of transaction data

The time span is difficult to estimate as it varies significantly depending on the type of transaction, the parties involved and the type of property.

Energy performance data

As part of any commercial transaction the seller or landlord of a property is legally obliged to present an energy efficiency certificate (APE – Attestato di Prestazione Energetica) to the prospective buyer or tenant of a property as part of the transaction process. However, EPCs are not logged in a central database and there is no benchmarking on a countrywide basis in terms of the content of an EPC.

Quality and quality assurance of available data

Publication of transaction and operational data raises concerns of privacy and there is little political will to change the existing situation. The limited amount of data that is available is not double-checked. Valuation professionals do not consider data collected for EPCs as reliable.

Linking energy performance data with transaction data

The participants at the roundtable were not aware of any currently existing databases linking transaction and building performance data.

3.2 Training needs

Valuation professionals emphasised that they find the inclusion of sustainability aspects in valuations difficult. Most of them have not had any specific training on the subject and do not feel confident when considering these issues.

It was stressed that any training needs to be simple, and that awareness of the issues needs to be promoted.

Issues that should be covered include:

- an explanation of what actually sits behind building ratings
- how to understand what sustainable building features are
- and how to carry out a valuation if these features are not present in a building.

Valuation professionals commented it would also be helpful to understand more about energy consumption benchmarks, although there was a general acknowledgement around the table that this may be difficult as information in this regard could be building and tenant specific.

Summary of key issues

Generally there is a low level of awareness of energy efficiency and renewable building installations among valuation professionals in Poland. There is also a two-tier market when it comes to sustainable building features, as valuation professionals working for international firms have more awareness because of the demands of their international investor and occupier clients.

The main market barriers, which hinder valuation professionals' consideration of energy performance data, are the low availability of data and the lack of a long-term consistent regulatory framework and policies to support investment in sustainable buildings. Local market sentiment with regard to sustainable building features commanding higher sales prices or rentals points to some positive impact, but this is generally not substantiated. Market players, mainly international investors, are aware of building certifications but these tend to be perceived as a 'tick box' exercise.



1. Profile of Polish roundtable participants

Valuation professionals, property advisors, representatives from banks, investors, developers, representatives from construction firms, architects, wider industry representatives, researchers, energy consultants.

2. Market snapshot⁶

Compared to other major European countries, the Polish property investment market is relatively nascent because of the country's historical context. Energy costs are still considered to be low, and this factor combined with the fact that the Polish investment market is currently buoyant (especially in Warsaw) means that sustainable considerations tend not to be a major consideration for investors when they look at investment opportunities. In addition, as energy costs are still low there is little financial incentive for developers to carry out refurbishments to make older buildings more energy efficient. Developers therefore still see location as the biggest driver of value. However, participants at the roundtable felt that during a future downturn, sustainability aspects could become more important.

Building certification (both compulsory and voluntary) has not played a major role in the Polish market up until now. The certification process is seen as a mere 'tick-box exercise' by a market largely driven by international investors and occupiers, with domestic players generally showing less concern for this issue. This trend has effectively created a two-tier system in terms of how sustainable buildings are viewed.

Whilst the commercial certificates may at least carry a marketing value, energy performance certificates are widely doubted by market participants. There is no trust in the calculation methodology and no belief in their value as a market instrument.

Finally, there is a lack of financial incentives to kick-start the market for energy efficiency.

Roundtable participants indicated that legislators would have a role to play in carrying energy efficiency forward, e.g. through financial incentives and/or taxation.



3. Challenges

3.1 Data and information sources

Transaction data is collected and captured by public authorities, but the main issue is the lack of accessibility to that data resulting from:

- The data format: the largest part is in hard copy format only and the digital data sources have various, mainly non-editable formats
- A lack of a central database and a scattering of databases among local authorities: there is no national tool to access and filter data

The scope of the data varies significantly between regions. Access to notarial deeds is granted to authorised persons only (e.g. valuation professionals). Some administration offices offer electronic access and others, including Warsaw, permit only in-person access and photocopies. The data are neither published nor publicly disseminated. Nevertheless, Polish valuation professionals do have access to transaction data through various sources as they appear to be well organised and tend to cooperate both with each other and with real estate agents and brokers. Peer communities of valuation professionals create own databases but these are made accessible only to associated members. For institutional investors the main source is 'proprietary market knowledge'. This obviously has the caveat that this is not publicly available and does therefore not foster general market transparency.

Transaction and market data

The quality of data obtained through cooperation with brokers is better than information obtained from other sources, such as the notaries' databases.

Transaction databases are usually created by the valuation professionals in cooperation with regional associations, e.g. Warszawska Baza Walo (Warsaw Data Base Walo), Osrodek Badan Rynku Nieruchomosci Sp. z o.o. (Real Estate Market Research Center Ltd), Silesia, Slask-Katowice, Aceno-Rzeszow, Lodzka Baza Danych (Data Base Lodz), PKRM - Gdansk, Data base Stettin, MSRM1 - Krakow, Karkonoskie konsorcjum - Jelenia Gora, Swietkorzyskie SM Kielce.

The Polish association of valuation professionals is currently undertaking efforts to create one central, nationwide transaction database. The representatives of the valuation professionals' association, attending the roundtable, expressed their willingness to include energy efficiency related data fields within this transaction database. This was generally considered as a big opportunity that should not be missed.

Time-span between actual transaction and accessibility of transaction data

Depending on the region, the time-span of showing up the transaction data can vary. In Warsaw, this typically takes a few months. As such, in order to provide professional services valuation professionals carry out personal investigation into notarial deeds prior to actual registration.

Scope of property transaction and valuation data

Because each district administration uses different software, different transaction data are entered into the system.

Sources of information:

- The District Administrative Office: prices and real property register created on the basis of notarial deeds of sale of properties, master maps
- City Hall / Municipality Council: land and buildings register (information on the register number, surfaces), information on valid land-use development plan and issued construction permits
- District courts - land and mortgage register
- Public information from ministries
- Real estate cadastre is the comprehensive register of the real estate or real property's metes-and-bounds of Poland
- Relevant valuations carried out by professionals such as Research Evaluation and Assessment Services - Reas
- RedNet (www.rednetproperty.pl) is the largest Polish company, serving the real estate market
- Amron (www.amron.pl) is a standardized database on real estate values and prices
- Emmerson Evaluations (www.emmerson-evaluation.pl) is a company of real estate sales and evaluations
- Cenatorium (www.Cenatorium.pl) are specialists in real estate and infrastructure investment
- National Bank of Poland (www.nbp.pl) publishes market analysis established on the grounds of transactional and quotation data
- Central Statistical Office GUS (www.stat.gov.pl)

Data entered in Warsaw City Hall

- Information source: notary's register, notary's personal data, and transaction date.
- Location of the property: city, address, district number, parcel number, mortgage indication (land and mortgage register number).
- Information about the owner and transaction: owner (private or legal entity), selling party (private or legal entity), transaction type (primary or secondary market, sale or donation)
- Information about the property: property type (land property, developed or undeveloped, premises, agricultural property, others), surface of the land/ premises, property price, land price and prices of the remaining elements if specified in the notarial deed, price for m2 of the land or premises).
- Additional information about the property: if specified in the notarial deed, including, e.g. decisions permitting the development, decisions concerning the development conditions, the way the price was established (whether it includes VAT, if yes, the amount), payment conditions (e.g. installments), information about limited property rights (easement) information about the state of the property, e.g. whether it requires renovation, if there is waste/ contamination on the property, if there is additional space belonging to the premises (e.g. a loggia, terrace) and whether the property is registered as a historic monument.
- Information within data bases created by the valuation professionals: these are extended by information gathered by the given professional, including information about the services and utilities regarding the land, types of buildings and their surfaces as well as technical and utilisation state, and other information relevant to the property value.

Energy performance data

The new Act on the energy performance of buildings was accepted by the Polish Parliament on 29 August 2014 and came into force 9 March 2015. It introduces the central register of the energy performance of buildings, managed by the Ministry of Infrastructure and Regional Development. The aim is to ensure an independent system for auditing, public access to a regularly updated list of experts, and information on the energy standard of buildings occupied by public authorities. According to this act the following changes are applicable: an EPC is not required for new buildings erected by investors for their own use, there are no sanctions or penalties for not preparing an EPC on change of ownership or tenant and there is no obligation to carry out random verifications, although some monitoring and verification is planned. In September 2012, a document titled 'Recommendation J concerning rules for the collection and processing by banks data about real estate' was issued by the Polish Financial Supervision Authority (PFSA) based on Article 137 Section 5 of the Act of 29

August 1997: the Banking Law (with further amendments) which foresees the future inclusion of basic information from energy performance certificates in the valuation reports issued for loan purposes. It is a first step, although so far data on basic information from certificates is considered non obligatory. The recommendation envisages that the PFSA will review the appendix detailing the fields required in databases: the NBSA will regularly review the requirements in terms of improving the acquisition of information by banks and consider revision of the optional fields as mandatory or facultative. A field concerning an energy efficiency certificate was originally defined as optional, but subject to Directive 2010/31/EC of 19 May 2010 and its integration into Polish law, the information on energy performance certificates should be mandatory.

So far, the lack of data availability regarding energy efficiency information means valuation professionals cannot reflect energy efficiency in the valuation. If an EPC has been issued for a given property it is possible to utilise it only if the owner gives his/her

prior consent to do so, unless the certificate has been issued after 8th March 2015 and is available in the central register of the energy performance of buildings.

Quality assurance

Regarding the potential use of EPCs for valuation purposes – even if they were widely available – the credibility of EPCs is an issue of big concern as there is no data quality assurance in place. For the commercial market segment, economic viability was clearly seen as crucial, but it was argued that certificates are not designed to take this into account. Even the awareness raising aspect of the certificates has not yet really resonated with the Polish market.

Linking transaction data and performance data

There are no current initiatives to build a link between transaction data and energy performance data but, as already mentioned, the Polish Valuers' Association showed interest in exploring this possibility in the course of building their central transaction data base.

3.2 Training needs

Participants stressed that it was important to look at sustainability issues on a holistic basis, but that the focus should clearly be on energy efficiency. If possible, the training material should be tailor-made for the separate market segments and instruct valuation professionals to look at performance data, e.g. actual energy consumption instead of solely relying on EPCs.

The participants strongly advocated a 'more practice, less theory' approach. Against this background they suggested to use real-life and local case studies which valuation professionals can relate to.

An ideal scenario would be to take two buildings that are comparable with respect to all parameters that may be influencing pricing and rentability such as location, comfort, legal status etc. but with a different energy efficiency rating and benchmark them against each other. On the basis of this a video could be produced as integral part of the training that would show a valuation professional going through a green building, explaining the green features and how these could be considered within a Discounted Cash Flow (DCF) methodology.

Summary of key issues

There is some valuer awareness and knowledge with regard to sustainable building features, but valuation professionals are generally not provided with information in relation to these features by clients unless it is specifically requested.

The main market barrier is that it is not currently within the normal routine of valuation professionals to address sustainable building aspects because there is no clear market demand for this. Buildings' sustainability is increasingly becoming an issue, but there are few comparables of buildings with certifications that valuation professionals can rely on.

Many market players believe there is a positive effect on rents and sales prices, but that this is not quantifiable.



1. Profile of Swedish roundtable participants

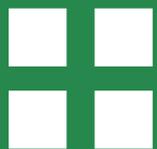
Valuation professionals, fund managers, property advisors, real estate agents, investors, developers, representatives from construction firms, wider industry representatives, consultants and researchers.

2. Market snapshot

There was consensus from participants at the roundtable that lower energy and operating costs from sustainable buildings lead to a rental or value premium. However, it is difficult to identify and quantify the 'sustainable' attributes and separate these from the usual expectations of good quality buildings. The energy performance of buildings has not been monitored over a long enough period of time and therefore there is no detailed information readily available yet as far as the actual performance of the building stock is concerned.

Corporate social responsibility is relatively high on the agenda of players in both the commercial and residential market segments, making it a driver for high quality and more sustainable buildings. Subsequently, the market value and economic performance of sustainable buildings are largely influenced by the business model and CSR commitments of building users, owners and investors. The preferences of high profile clients and investors in sustainable buildings are slowly trickling down and are beginning to be replicated by the rest of the market. Within the market of commercially certified buildings, refurbishments and In-Use certification schemes are gaining in importance.

The term 'quality' was frequently used by roundtable participants when referring to 'sustainable', demonstrating a strong focus on quality of buildings in Sweden.



3. Challenges

3.1 Data and information sources

Transaction and market data

The most important source of information for valuations in Sweden is local knowledge gained through experience and 'knowledge of the local market', through conversations with investors, through information from investment and agency teams, in-house databases about past transactions and through personal contacts.

The data gained from these sources were also deemed the most reliable by roundtable participants. However, this information is not openly accessible. The context in which valuation professionals operate, e.g. whether they are working for a large firm, an SME or even as a sole practitioner is also an important differentiator for gaining access to reliable data and information.

One reason behind the opacity in the commercial segment is that commercial properties tend to be sold through the medium of special purpose vehicles, such as holdings rather than as built assets.

Time-span between actual transaction and accessibility of transaction data

Depending on sources, the registration can take from 1 day to 3 months.

Scope of property transaction and valuation data

The scope and breadth of the data is very variable depending on the source but tends to cover area, age, space quality and rental income. However, structural condition or quality of location is left to the valuation professional's judgement.

Public data include size, year of construction and major renovation(s), easements, tax value, plot size, address, floor size and rent (although some of these are provided by the property owner and could therefore be inaccurate). Mäklarstatistik includes information from real estate agents such as building characteristics and prices.

Energy performance data

EPC data are relatively easily accessible via the Gripen database run by the Swedish National Board of Housing, however data quality is inconsistent⁷. EPC ratings are based on asset ratings and there are no provisions to account for climate differences, which can be quite significant. Being pure asset ratings, EPCs do not provide much information about occupancy and building management.

Post-occupancy evaluations are mandatory by law (2 years after the completion of new projects), however, there are no enforcement provisions in the Building Regulation. Therefore there are no consequences for buildings not meeting the specified energy performance at the design stage.

Energy performance guarantees and agreements between owners and tenants are not widespread, but this is a growing trend.

Valuation professionals do not typically request energy performance data. When it is requested clients are often not able to provide it.

Quality assurance

Both the survey responses and the ensuing roundtable discussions highlighted that quality may depend on the source, but the reliability of the information is to a large extent unknown and there are no quality assurance or auditing procedures in place.

Linking transaction data and performance data

The participants at the roundtable were not aware of any currently existing databases which link transaction and building performance data.

3.2 Training needs

Overall it was felt that valuation professionals should take energy efficiency into consideration as part of their routine technical due diligence. There is an increasing demand for certificates. For new flagship developments, certificates are part of the total package, therefore valuation professionals should be made aware about the growing importance of the labels.

Sources of information:

- Press releases about sales of commercial buildings
- Boverket (www.boverket.se) is the central government authority that analyses the housing market, issuing building regulations and supervise the Town and Country Planning SBC (www.sbc.se) is an housing service provider
- EGI (www.egi.co) specialist in the commercial property market
- Property Week (www.propertyweek.com) is leading news magazine in the commercial and residential property market
- Focus (www.focusnet.co) is one of the most comprehensive database of verified commercial property information
- CoStar (www.costar.com) is a commercial real estate information company
- Property Databank (www.ipd.com) is an independent provider of research-driven insight and tools for institutional investors
- Datscha (www.datscha.com) is the leading provider information and analysis of commercial real estate
- Svefa (www.naisvefa.se) provides advice in valuation, analysis, community planning, real estate transaction, leasing, property information
- Fastighetssverige (www.fastighetssverige.se) is an agency that compares law firms, construction companies, property developers, owners and investors about real estate
- Värderingsdata (www.varderingsdata.se) is a Sweden's widest provider of web services for analysis and evaluation of the Swedish property market, both private and commercial
- Mäklarstatistik (www.maklarstatistik.se) reports every month the comprehensive and current price data for villas, cottages and apartment
- Real Capital Analytics (www.rcanalytics.com) is an independent firm that tracks commercial real estate transactions and investors on a global scale

Data include information concerning:

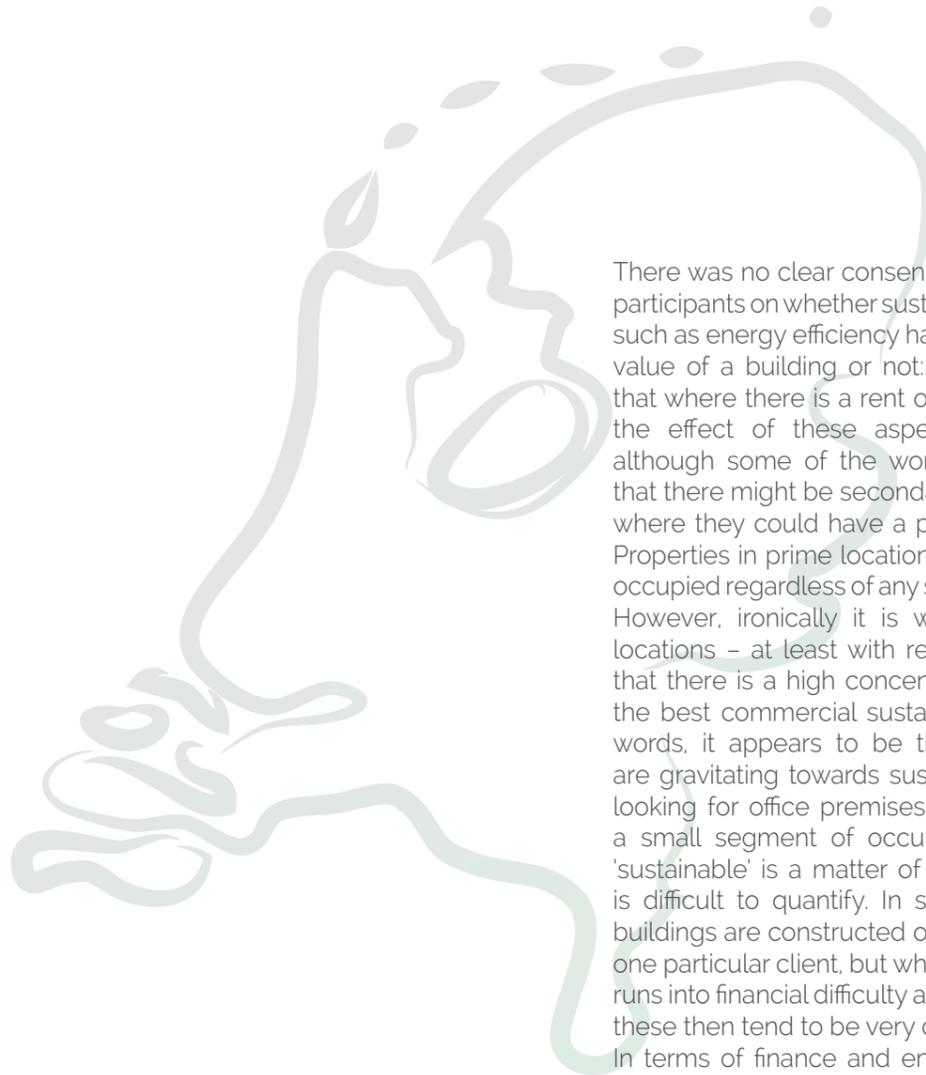
- Buyer and seller
- Location: city, city location (including quality of location) and address or property name
- Type of property / main space
- Year of construction
- Lot size / building size and floor space
- Tax value
- Status: lease- or freehold
- Recent / major renovation(s)

Summary of key issues

Most valuation professionals in the Netherlands are aware of sustainable building aspects in a general sense, and some valuation professionals have some technical knowledge about the background of certain features and installations, however, the extent of overall knowledge is limited.

The real estate market in the Netherlands is relatively transparent in terms of the key drivers of value and the details reflected by transactions such as yields, rents and operational costs but the impact of sustainability aspects such as energy performance and how this may affect the benchmarks for a transaction is not available. As the full details behind a deal are not published, valuation professionals do not have transparency in terms of what owners and tenants agree. Agents acting for their clients are not able to provide information in this regard either.

The valuation industry is divided on the issue of whether energy efficient buildings command higher sales or rental premiums. Some valuation professionals are of the view that there is no concrete evidence of any sustainability aspects affecting rents and yields. Others believe sustainability aspects do have an impact, but that the extent of premium cannot be quantified.



There was no clear consensus amongst roundtable participants on whether sustainable building aspects, such as energy efficiency have a clear impact on the value of a building or not. All participants agreed that where there is a rent or capital value premium, the effect of these aspects is not quantifiable although some of the workshop participants said that there might be secondary and tertiary locations where they could have a positive impact on value. Properties in prime locations will generally become occupied regardless of any sustainability credentials. However, ironically it is within these very prime locations – at least with regard to office buildings, that there is a high concentration of buildings with the best commercial sustainability ratings. In other words, it appears to be the case that occupiers are gravitating towards sustainable buildings when looking for office premises. There appears to exist a small segment of occupiers for whom renting 'sustainable' is a matter of prestige, but again, this is difficult to quantify. In some cases, sustainable buildings are constructed on a built-to-suit basis for one particular client, but when the occupying tenant runs into financial difficulty and vacates the buildings, these then tend to be very difficult to let.

In terms of finance and energy efficiency or wider sustainability, investors and especially banks are reluctant to provide funding for sustainable refurbishments that do not add a proven value. This is largely because the credit worthiness of an existing or prospective building owner is seen as unrelated to the building's energy efficiency

1. Profile of Dutch roundtable participants

Valuation professionals, fund managers, representatives from ESCOs, property advisors, real estate agents, investors, developers, wider industry representatives, consultants, researchers.

2. Market snapshot

features and potential energy bill savings. There was a consensus that valuation professionals should provide this information to financial institutions but that the data that would be needed to be able to do this are currently lacking.

Financial institutions are in general more willing to invest through Energy Service Companies (ESCOs) and other performance contract based operations.

For the residential market segment, it was mentioned that certain banks are willing to increase the mortgage/loan for a dwelling with an A or a B rating or a new energy efficient building.

An example of legislation hindering innovation refers to investors being practically disincentivised to actively pursue energy production though the installation of renewable energy fittings such as solar panels. If an investor has FBI-status (Fiscale Beleggings Instelling), it is impossible to benefit from the income that would be generated through the production of energy as investors are not allowed to have any other cash flow besides rental income.

The differences in demand for energy efficiency varies significantly per property type, e.g. commercial, office, residential or retail. In the retail sector there is currently no interest in energy efficiency, as it has a minimal impact (1-2%) on a landlord's profit and loss. In general, energy efficiency is not high on the discussion list of tenants, as service charges represent around 10% of total occupancy costs. Location or the lifestyle component stays the primary decision factor and there are no real retail flagship buildings that would allow a reliable comparison.



3. Challenges

3.1 Data and information sources

Transaction and market data

There is no comprehensive public database for real estate transactions. The Dutch Land Register (Kadaster) does show all property ownerships, including land plot and its size, property owner and often mortgage as well as easement details. However, additional information such as building floor areas, building age and condition are not shown. Rental transactions and rental details are also not registered.

In principle, the Kadaster should gather and register all purchase prices from all transaction agreements but this is not consistently done for a wide variety of reasons. As a result, the Kadaster does not give the public or valuation professionals a complete view of commercial property transactions.

It is therefore currently an inadequate system to follow the influence of energy efficiency on commercial (investment) property values.

The survey listed the following parameters (both public and private):

- Floor size (not registered in public source)
- Condition
- Age
- Involved participants
- Incentives
- Term that it is offered as vacant
- Original price

Similar to the UK Rating system, the municipalities in Holland prepare a property value, the so-called WOZ value, for taxation purposes. The WOZ value is a very rough mass appraisal based estimate of a building's 'value' and assumes vacant possession. It is not an accurately calculated market value in the way a valuation professional would understand value. The WOZ value is only provided to the owner and is not an openly available database. For residential property, the Kadaster is relatively comprehensive. However, the main residential brokerage companies only have limited insight into their particular market segment.



Time-span between actual transaction and accessibility of transaction data

The time-span (and also the scope) greatly varies between public and private databases.

With in-house databases the transaction information is available almost in real time (1 day to 1 month).

Public databases can take between 4-6 months after the sales contract is signed and the notary has registered the transaction price in the Kadaster. Rentals are not registered in the public registers.

Scope of property transaction and valuation data

The scope of property transaction data is split according to building use and also according to data source (public versus private). The sources are listed in the box on the right.

Sources of information:

- Central Agency of Statistical Information CBS (www.cbs.nl) publishes many statistics relevant to the economy, and this includes aggregate level property information (for example house prices and transaction volumes) but they do not provide adequate transaction/sales price information for commercial property which a valuation professional can use

- Kadaster (www.kadaster.nl), the BAG Viewer has been designed by the Government and Kadaster to provide some real estate information to the public. BAG provides building addresses and (often) an estimate of a buildings floor area and age. However, the floor areas in particular are not reliable and should be treated with caution and as purely indicative

Alternative sources:

- In-house research department/data bases and colleagues
- All real estate firms, international real estate agencies (DTZ, JLL, CBRE, etc), valuation firms (Troostwijk) and also banks, such as FGH, Rabobank and ING publish market reports, these also cover general market conditions
- Accountancy firms
- Funda business (www.fundabusiness.nl) is the biggest selection of commercial property on offer in the Netherlands
- Realworks (www.realworks.nl) provides its services to real estate brokers
- RealNext (www.realnxt.nl) represents the most complete collection of available commercial properties in the Netherlands
- Vastgoedmarkt (www.vastgoedmarkt.nl) provides professional, reliable and timely information on trends and developments in the real estate area for real estate professionals
- Vastgoedjournaal (www.vastgoedjournaal.nl) is the online newspaper for the real estate professional and leader in internet real estate information
- Property Assurantien (www.property.nl) specialist in advising companies, property owners and associations of owners
- CBS (www.cbs.nl) is the Central Agency of Statistical Information and it is responsible for collecting and processing data in order to publish statistics to be used in practice
- Netherlands Bureau for Economic Policy Analysis CPB (www.cpb.nl) does scientific research aimed at contributing to the economic decision-making process of politicians and policymakers
- MVGM (www.mvgn.nl) is the largest real estate manager of Netherlands
- Real estate & property magazines, professional literature, university articles and publications
- Client transaction information
- NVM database, Property NL data



the Netherlands

Energy performance data

A public, central database for energy performance certificates exists and can be accessed via www.ep-online.nl. Additionally, the website www.energylabelatlas.nl provides information on certificates.

Whilst roundtable participants deemed this necessary, the legal valuation regime in The Netherlands does not require the consideration of energy performance in a valuation report. When asked about whether valuation professionals typically request energy performance data, the roundtable responses were divided and there does not seem to be standard practice within the valuation community. Some valuation professionals appear to be asking about the energy performance rating whereas participants from the investment side said that they had never had come across a valuation professional asking them about kWh/m² results.

Quality assurance

Both the survey results and the roundtable discussions demonstrated very little faith

in data quality assurance. However, officially, if errors occur in the Kadaster, a process exists to correct these. The following statement submitted as part of the survey illustrates the issue surrounding data quality accurately: «The process of the reliable and trustworthy is not known to us»

Linking transaction data and energy performance data

Currently there is no linking of transaction and energy performance data. However, during the roundtable workshop it was mentioned that a database might be created through legislation in a few years time and that the Dutch Waarderingskamer (tax ratings office) has plans to make energy labels part of the WOZ-value (value for taxation purposes) for residential property. There is no legislation on this yet, but the market should be relatively well-prepared for such legislation as the energy performance of residential property is one of the aspects that must already be taken into account under law when rents are fixed for the large social housing sector.



3.2 Training needs

It was suggested that the RenoValue training course should make overall sustainability aspects more accessible for valuation professionals, and provide them with key information necessary to be able to answer and ask the right questions. Participants felt that there is a real potential for the Dutch market and valuation professionals to take the lead at European level with regard to sustainability issues if valuation professionals were equipped with the right skills. It was argued that the right methodologies already exist (e.g. Discounted Cash Flow, Option Theory), but that the fundamentals of the profession would need to change into something more than only following the market and reflecting the past.

In this context, NEN 8021 (performance analysis for real estate) was also mentioned as a good potential basis, but could potentially be too complicated for use by valuation professionals. There are already existing NEN guidelines related to energy use in properties.

More specifically, the training ought to explain to valuation professionals not so much which sustainability criteria constitute commercial labels, but what actually sits behind the rating and how that may translate into valuation. It should also enable valuation professionals to adequately analyse transactions and extract the actual evidence. Until now this has not been possible or has not produced any significant results.



Summary of key issues

The valuation community in the UK market has a reasonable level of awareness with regard to sustainability issues. However, the extent of this awareness is subject to two key issues which are (i) building location as occupier and investment markets vary considerably depending on this factor, and (ii) the size of the valuation firm as there is a large difference between large and small valuation firms with larger companies being able to draw upon more in-house knowledge and data.

The largest barrier hindering the consideration of energy performance data by the valuation community is the large variety in terms of the quality of energy performance certificates and the lack of data.

The market sentiment is that sustainable building aspects, such as the energy performance of an asset can have a positive impact on higher sales prices or rental premiums, although it is not possible at present to quantify the extent of premiums because any sustainability aspects tends to be considered as part of a wider package of building characteristics. In addition, the extent of premium depends largely on the location of a building. As the market is beginning to set minimum requirements which buildings need to conform to, there also appears to be evidence of brown discounts.



1. Profile of English roundtable participants

Valuation professionals, investors, fund managers, energy advisors, researchers, engineers.

2. Market snapshot

The UK property market is generally more internationalised and institutionalised compared to other European markets. Foreign investors and large national investors tend to dominate the London and other commercial sub-markets, taking hold of trophy assets. Smaller domestic investors have to look for secondary and tertiary opportunities in regional sub-markets.

The UK market is also considered to be relatively transparent compared to other European markets. It is commonplace for agents to share market information with one another and there is a range of consolidated public sources of property information that are managed by private companies.

Over the years, sustainable issues have become increasingly important in the UK property market, particularly on the occupier side. Occupier policies are crucial to this trend.

For example, certain tenants with a strong corporate responsibility agenda central to their business model will only occupy buildings that meet high sustainability specifications, including energy efficiency.

However, recent supply and demand trends have had a marked impact on investment trends and, consequently, the demand for sustainability-labelled buildings. There has been a lack of stock available for purchase across the UK, which has coincided with an increase in available equity as the UK economy, and investor sentiment continues to improve. This increase in demand has meant that investor drivers have been to seize any opportunity that comes onto the market, regardless of the building's sustainability credentials.





the United Kingdom

3. Challenges

3.1 Data and information sources

Transaction and market data

There are publicly available UK market databases such as, for example, those of the Valuation Office Agency⁸ (VOA). The remit of the Valuation Office Agency is to set the property tax. However, despite its name, it is not deemed as a reliable source for valuations.

For example, it is not the VOA's responsibility to check the surface area measurement of properties. Hence, official data recorded for property taxation purposes does not necessarily match with 'real' transaction data.

Public authorities' databases are therefore not the main repository of data for valuation professionals. They merely tend to complement local market knowledge gained through experience and 'knowledge of the local market' in addition to information drawn from large commercial databases.

In terms of how valuation professionals are able to gain access to reliable data and information in the UK, this seems to depend on the context

in which they are operating, e.g. whether they are working for a large national/multi-national firm or an SME or even as sole practitioner.

Valuation professionals in large firms typically access data via trusted sources, such as in-house databases or colleagues in other relevant departments, in particular from brokerage firms and estate agencies.

Valuation professionals in small firms or working as sole practitioners tend to have to rely on their own local market knowledge and intuition. These small firms, which lack in resources compared to their larger competitors, tend to specialise and operate in sub-markets. They also cooperate with local estate agents and brokers. However, the quality of data/information achievable to them is usually not as optimal as the in-house sources available to valuation professionals working in larger firms.



Time-span between actual transaction and accessibility of transaction data

The time-span ranges from a matter of days to 2 to 3 months. This very much depends on whether the data is known to the client. In general, standard property data is well documented by the client and, therefore, a valuation professional can expect to receive such information quickly. On the other hand, the speed with which a valuation professional receives energy efficiency data will vary depending on the client's sustainability agenda.

Sources of information:

- EGI (www.egi.co.uk) provides an all around view of the commercial property market about planning, analysis, availability, deals, occupiers, legal and building reports
- Property Week (www.propertyweek.com) is the leading news magazine in the commercial and residential property market
- Property Databank (www.ipd.com) is an independent provider of research-driven insight and tools for institutional investor
- Focus (www.focusnet.co.uk) UK's most comprehensive database of verified commercial property information
- PMA (www.pma.co.uk) provides regular forecast of commercial property market performance in key office, retail and industrial markets

Scope of property transaction and valuation data

The scope and breadth of property transaction and valuation data depends on its source. The scope can range from basic property details such as the address and price to energy consumption. Sometimes the data available only includes headline figures on a transaction such as the sale price of a building, the yield reflected by the deal or the headline rental amount. Furthermore, energy performance information requires much more elaborate and detailed data beyond the 'traditional' data on which valuation professionals used to rely.





the United Kingdom

Energy performance data

The UK has a common database of energy performance certificates (EPCs) as well as different ones for DEC (Display Energy Certificates)⁹, which are available in the public domain but difficult and time-consuming to access. They are also available via Landmark, a company that delivers property related data and analytics.

The quality of the certificates depends largely on the date of issue. More recent certificates tend to be of better quality than those issued some years ago. However, in the case of multi-tenanted buildings it is often difficult to ascertain which EPC refers to which building unit. Around 40% of all lettings have an EPC, however many short-term commercial leases are not captured by the land registry and, as such, EPCs are not attached.

It is not yet clear how the regulation regarding future rentability of F and G rated buildings will affect the value and valuation. Although the legislation states that F and G rated building will not be able to be rented out, it is not yet

clear how this provision will be implemented.

To have a more complex and accurate assessment of the energy performance of a building, valuation professionals would need to have access to energy consumption values and/or would need to know more about the technical details with regard to how energy efficiency is measured, with regard to use patterns, etc. The weight given to energy performance in valuation reports depends on the nature of the valuation, specifications given by the clients, types of owners and occupiers and geographical location. For example, the impact of service charges on value is different according to the respective market and geographical location. In London, rents are relatively high compared to the energy costs. Hence energy consumption has a relatively low proportion in the overall costs. In comparison, in a smaller town where rents are much lower, the impact of energy performance would be proportionally much higher.

With regard to renewable energy, larger valuation firms do income modelling for larger installations, especially for financial investors. Valuation professionals regularly do cash flow analyses of the income generated and the energy fed back to the grid by renewable energy installations and they are also requested to advise on the economic viability of renewable energy kits, the income it will generate or how the property will appreciate or depreciate in value when installing the measures. However, there is limited evidence so far in the market and the only available data refer to larger type renewable energy installations.

Quality assurance

The general consensus from the roundtable group was that there is no sufficient quality control of the publicly available data, regardless of whether these are transaction data or energy performance data. The larger firms only rely on data checked by their own agency and valuation teams. The group believed that, to a certain extent, it is part of the professional responsibility of the valuation professional to assess the quality and comparability of data as part of their due diligence. However, there are limitations to what extent and detail valuation professionals can realistically check the accuracy of energy performance data and measurement methodologies or information about occupancy patterns.

Linking transaction data and energy performance data

The participants at the roundtable were not aware of any currently existing databases which link transaction and building performance data.

3.2 Training needs

Given that the quality of energy performance certificates varies to a great extent, valuation professionals would need to be aware of what additional information they should gather as well as how to assess the coherence of this information. In addition, they should also be able to evaluate the value of EPCs in the context of increasing energy prices.

The group suggested that training modules should start with an overview of market drivers, including legislation and perception of the potential risks involved. A basic level of formal training on energy efficiency including aspects of how to measure it, how to interpret a measurement and how it could impact on value should also be included. Training should improve the valuation professional's skill-set and understanding of what a certain EPC band actually means and how it could translate into value. In this context, energy efficiency ought to be explained in terms of risk, future-proofing and resilience. It was also made clear by various roundtable participants that the focus should not be on energy performance alone.

Given the variance in levels of awareness, engagement and knowledge in relation to the subject amongst valuation professionals, the group felt that the best format for the training would be to design multi-levelled modules. This could include basic presentations and further reading notes and references with more detailed information that could be accessed if desired. This could also include simple guides for professionals with varying degrees of training and awareness to quickly find their level of knowledge.

ANNEX II

Survey questionnaire

Main information regarding the respondents

- Number of respondents: 88
- Country of practice of the respondents: 7
UK, IT, DE, PL, NL, RO, SE
- Type of valuations typically carried out by the respondents:

74% National
16% Regional
10% Local
- Type of building typically assessed by the respondents:

32% mainly residential
43% mainly commercial
14% mainly office
7% mainly retail
4% mainly public building

Please state your country of practice:

What type of valuations do you carry out? National / Regional / Local

What building type do you typically assess?

Mainly residential / Mainly commercial / Mainly office / Mainly retail / Public buildings

Part A: Transaction and Market Data

1. What is your primary source of market information when carrying out a valuation?
2. Is the collection and publication of property/real estate transaction data and/or valuation data organised by a public authority in your country?
Yes
If yes, please provide details, i.e. name and website reference of authority data base
No
3. If the collection and publication of property transaction data and/or valuation data is not organised by a public authority, who else is collecting the data, i.e. estate agents' associations, private service providers, real estate firms, etc?
Please provide details regarding the respective data sources, i.e. organization name, website reference, title of real estate firm market report, etc.
4. What is the scope/breadth of property transaction data and/or valuation data (either registered in a public data base or of any other source)?
Please provide a detailed list of variables in addition to the actual transaction price, i.e. quality of location, floor size, age, structural condition, etc?
5. How do you access operational data, such as use / occupancy characteristics, service charge levels, maintenance costs, etc.? In how far is this type of data being provided by the client?
6. Is the data published in the public domain or alternatively how can it be accessed by valuation professionals?
Yes, data is published in public domain
If yes, please provide details of where this is published, i.e. website reference.
No, data is not published in the public domain
Alternative data access for valuation professionals:
7. Is there a process in place that ensures quality assurance, i.e. that only reliable and trustworthy data enters the transaction data base?
Yes, process in place
If yes, please describe this process as detailed as possible.
No process in place
8. What is the time-span between an actual transaction and the transaction data showing up in a database or being accessible by valuation professionals respectively?
9. Are there any general property market reports taking into account market conditions (e.g. rent levels, economic and social developments, such as demographic developments, etc.) in your country?
Yes
If yes, please list the most important reports with title and website reference.
No

PART B: Energy Performance Data

1. Is there a public register for Energy Performance Certificates (EPCs) in your country and how is this accessible?
Yes, public register for EPCs exists
Accessibility:
If yes, please provide the source, i.e. name, website reference, etc. and what is required to access the EPC register, such as location, registration number, etc.?
No, public register for EPCs does not exist
If not, please explain how valuation professionals can access these EPCs:
2. Are there any plans and / or pilot initiatives to extend existing market transaction data bases (see also question 3 in Part A regarding the scope of data collection) by adding data related to the energy performance of buildings?
Yes, there are plans and / or pilot initiatives
If yes, please provide details about these plans and / or pilot initiatives.
No plans and / or pilot initiatives
3. Which green label(s) / certification scheme(s) are relevant in your country and is there a possibility for valuation professionals to access and to make any use of these certification results?
4. Are there any country / local market specific studies that show a relationship between EPCs and / or labels / certification schemes and transaction prices or any other economic factors, such as tenant retention times, rent levels, letting or sale speed, void periods etc?
Yes, studies exist
If yes, please provide details, i.e., title of study, author and website reference
No studies

PART C: Energy Performance Data

1. Do valuers in your country typically receive dedicated training regarding these green labels and / or certification schemes?
Yes
No
2. Are you typically actively requesting energy performance data / information from the building owner?
Yes
If yes, please specify what type of information you are receiving.
No
3. Does the legal valuation regime in your country require the consideration of energy performance in a valuation report and does thus the lack of data represent a risk factor?
Yes
No

End notes

1. These emission levels are calculated with respect to 1990 levels. See: Roadmap for moving to a competitive low carbon economy in 2050 (COM(2011) 112 final), available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52011DC0112>
2. The Business Case for Green Building. A Review of the Costs and Benefits for Developers, Investors and Occupants. World Green Building Council, 2013, available at: <http://www.worldgbc.org/activities/business-case/>
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4. More information on TEGoVA is available at: <http://www.tegova.org/en/>
5. Note: there were no responses to the Belgian survey; content of report is solely based on the roundtable discussions
6. It should be noted that Belgian roundtable participants used a variety of terms when referring to energy efficient and renewable energy building features, or other sustainable building features. For the purpose of this report we have used the word 'sustainable' as a label for all of this terminology.
7. Based on face-to-face interviews with market participants that were organised as part of the WBCSD Energy Efficiency Laboratory in Poland and the RenoValue roundtable debate.
8. Examples of self-made EPCs were mentioned.
9. More information on: www.voa.gov.uk
10. Public authorities must have a DEC for a building if all of the following criteria are met:
 - the building is at least partially occupied by a public authority (e.g. council, leisure centre, college, NHS trust, etc.)
 - the building has a total floor area of over 500 square metres
 - the building is frequently visited by the public

More information is available at:

www.gov.uk/check-energy-performance-public-building

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