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Welcome to the IMMOVALUE Expert Workshop

IMMOVALUE Expert Workshop (WP7), 4. December 2009, Wien

Introduction and Overview on established IMMOVALUE-methods

Dr. Sven Bienert

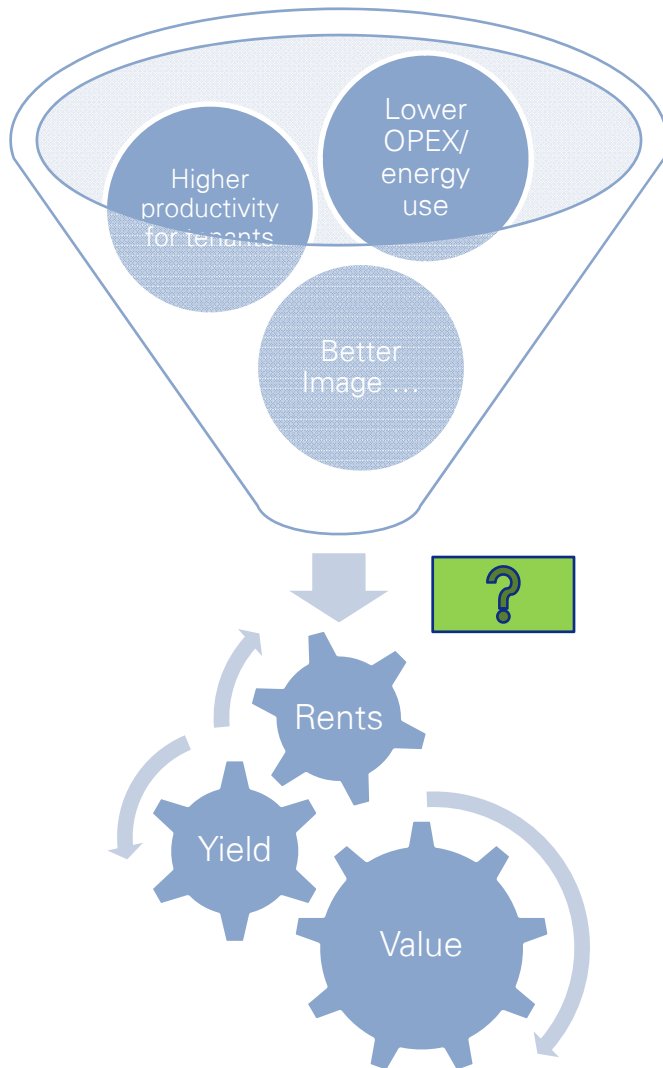
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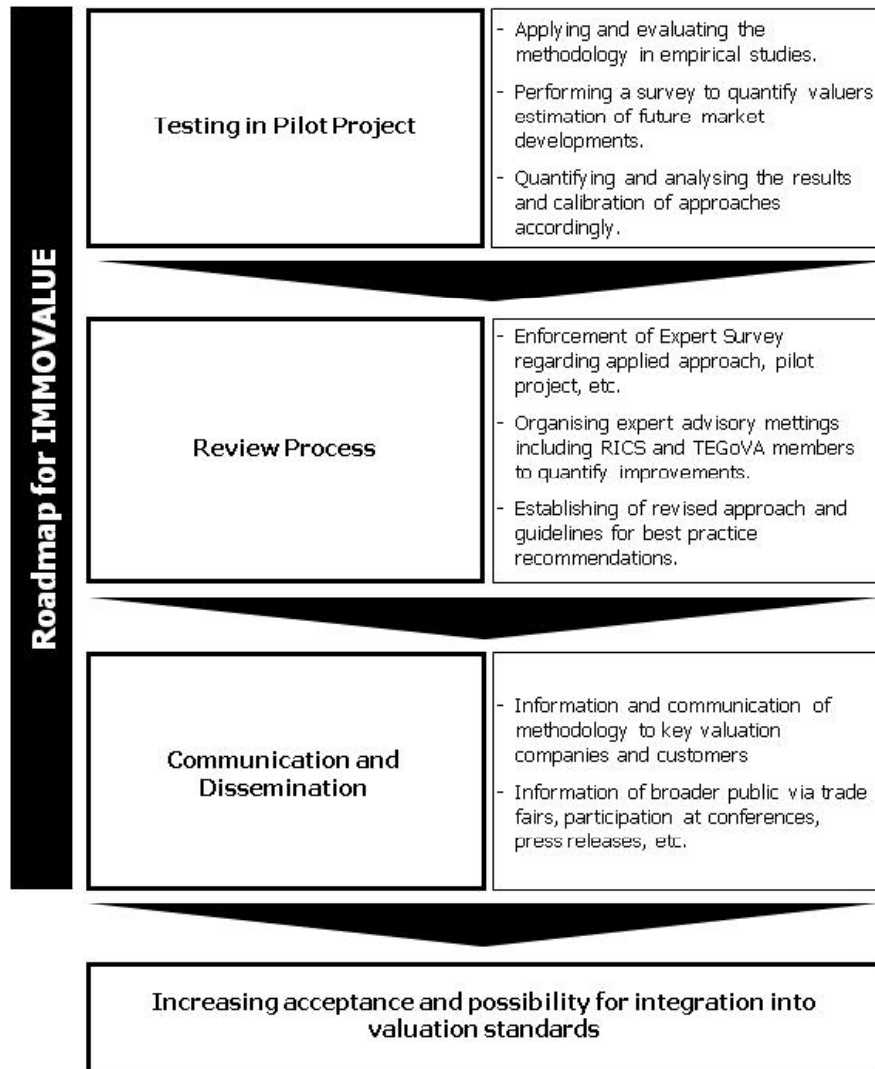


Europe





- 1** Could there be a general premium / discount rule? **NO**
(due to willingness to pay)
- 2** Do we need new valuation methods? **NO**
(since existing tools can display everything)
- 3** Could there be a pan-European approach/guidance to these aspects? **YES**
(since the fundamental challenge is the same)
- 4** Should we distinguish between developed and less transparent markets? **YES**
(since data input is required for proper calculation)
- 5** Do we also need to revise report structures accordingly? **YES**
(since the aspects need to be addressed in the text)
- 6** Since in principle things are not new. Are there already valuers who handle this aspect in the right way? **NO**
(since some training will be necessary for everyone)

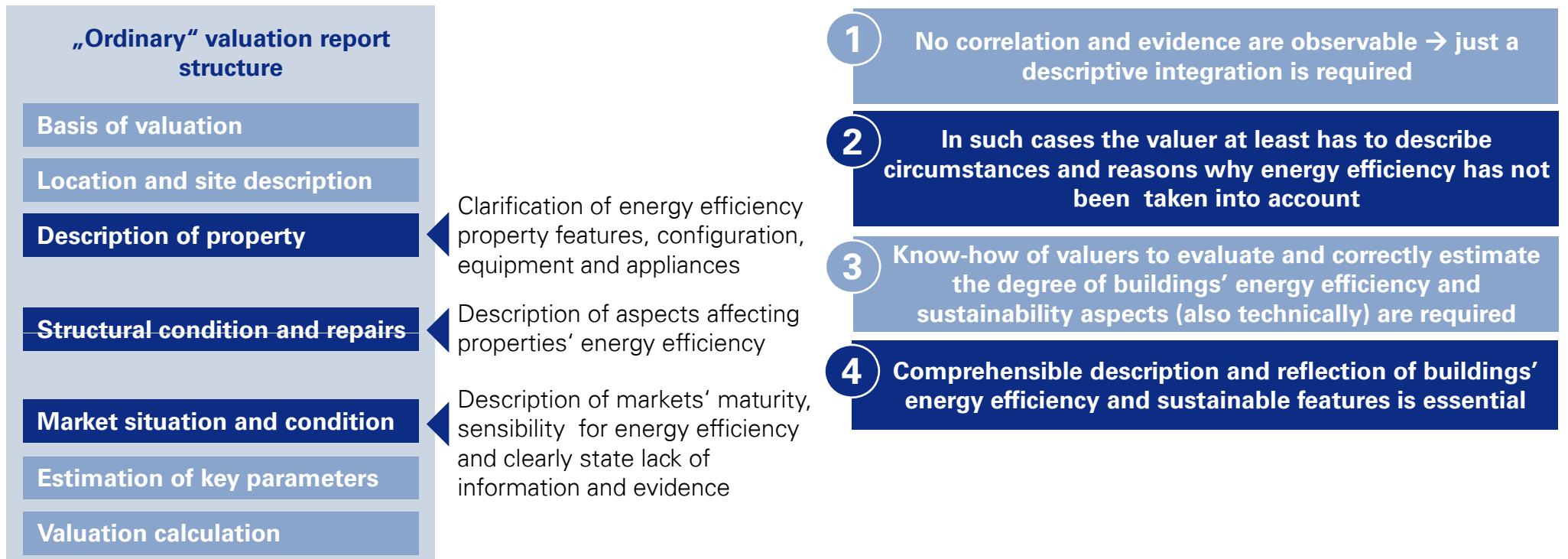


- 1 Preliminary works concentrated on quantifying existing approaches, background of LCC and EPC and ways for integration**
- 2 Current Pilot Projects and a survey which quantify the valuers expectation concerning the overall topic is underway**
- 3 The methodology will be reviewed by nominated international valuation experts in the next few month**
- 4 On the basis of the results from the expert review and pilot projects a revised methodology will be created**
- 5 To achieve a broad acceptance and influence – Approaches have been communicated to key decision makers in the property valuation society (e.g. TEGoVA, RICS)**
- 6 First results are expected in beginning of 2010 and will be available at www.immovaluelog.org**

Situation A:

No evidence for green value impact is observable

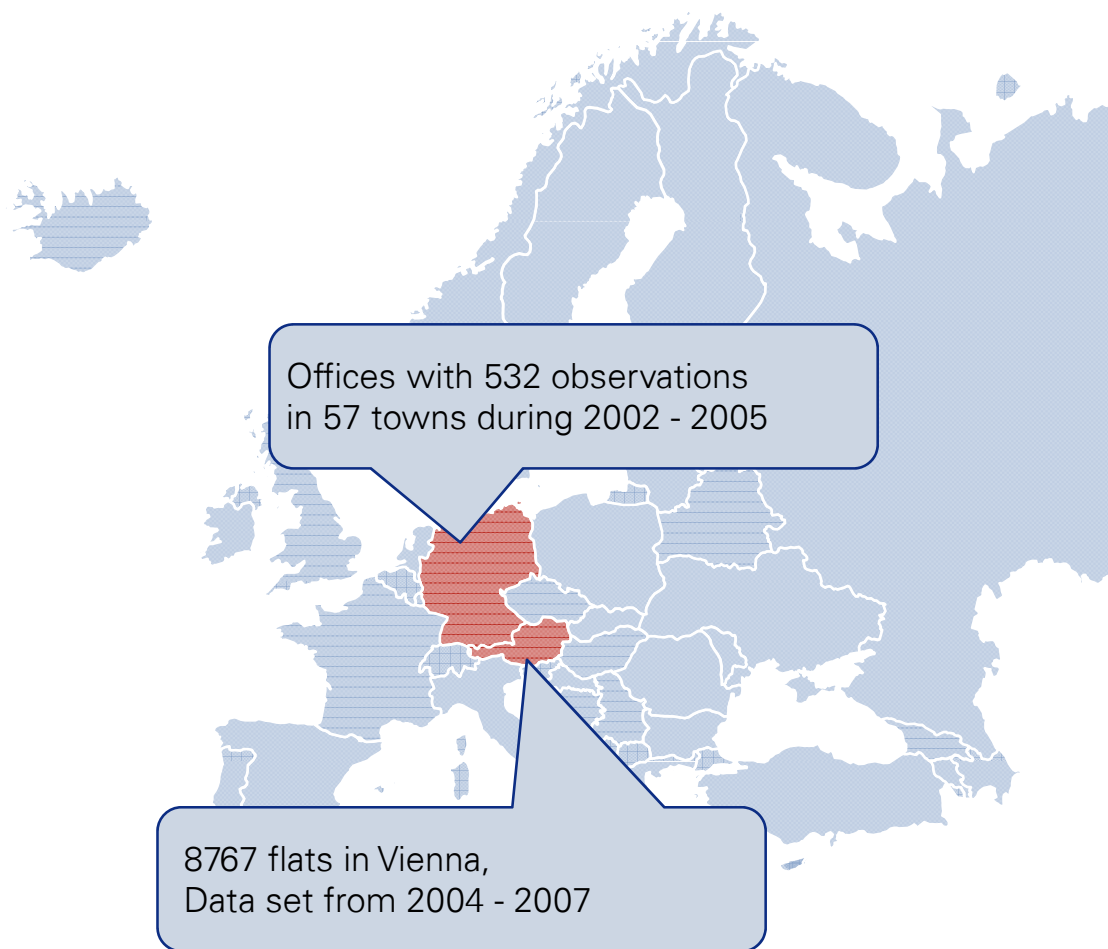
→ consequently no value impact within the calculation, but...



IMMOVALUE - Introduction and Overview on modified approaches

Published empirical research results on green value

Variable \ Country	USA (Mc Graw, Hill Construction 2005)	USA (Mc Graw, Hill Construction 2008)	USA (Miller et al. 2008, using CoStar Database)	USA (Fürst, McAllister. 2008, using CoStar Database)	USA (Eichholtz et al. 2009, using CoStar Database)	Australia (Bowman, Willis 2008)
Rental Growth for non-Green	-	-	-	-	-	-1.50%
Rent Premium for Green	3.00%	6.10%	-	-	3.00%	X
Energy Star	-	-	2.80%	-	-	
LEED	-	-	0.30%	-	-	
Energy Star/LEED	-	-	-	11.80%	-	
Effective Rent	-	-	-	-	6.00%	-
Decrease Operating Expenses	8.00-9.00%	13.60%	-	-	-	-
Reduction cap rate	-	-	-	-	-	0.25-0.50%
Improved ROI	6.60%	9.90%	-	-	-	-
Increase occupancy ratio	3.50%	6.40%	-	-	-	-
Market value	7.50%	10.90%	-	-	-	-
Selling price	-	-	-	-	16.00%	X
Energy Star	-	-	5.76%	10.00%	-	
LEED	-	-	9.94%	31.00%	-	
Energy Star/LEED	-	-	-	11.40%	-	



- 1 The „hard“ way: using advanced methods!
- 2 Question at the beginning: can a single valuer ever perform this for every valuation? - **NO**
- 3 Aim: Finding the proof for the connection between lower energy cost and higher rents
- 4 Log-Log and Log-Lin model
- 5 Semiparametric model / P(enalized)-splines (PLS)
- 6 Geoadditive model / Spatial effects

Situation B:

Evidence for green value impact due to EPC/energy efficiency can be observed

→ application of modified valuation approach

Additional report chapters

Markets sensitivity for energy-efficient properties

Description of property markets' maturity, sensitivity, situation and condition for energy-efficient properties

Energy efficiency and other sustainable features

Investigation on buildings energy efficiency due to property configuration, source of energy, building equipment and appliance, life-cycle-costs, green lease agreements, etc.

Description of key valuation parameters

Availability for data regarding markets willingness to pay for energy efficiency have to be reflected

Valuation calculation

Application of the modified method for quantification of valuation parameter adjustment due to energy efficiency

- 1 Evidence for green value → descriptive and quantitative integration of energy efficiency or sustainability
- 2 Integration of energy efficiency has to be stringently described and numerically quantified in a reliable and transparent manner
- 3 EPC might play a key role for quantifying numerical impacts (due to transparency of energy efficiency)
- 4 Beside "ordinary" report structure special subchapters for addressing main important energy efficiency issues are useful

Examples for descriptive report parts (1/2)

A Integration into usual descriptive parts

1.1.1.1.1.1 Building Equipment and Appliances

Heating and cooling:	The heating is provided by the local district heating system and installed fan-coil units and usual radiators.
Ventilation, air conditioning and indoor air quality:	The property is equipped with a controlled ventilation and air conditioning system and provides optimum indoor air quality for its occupiers. The heating, ventilation and air conditioning (HVAC) system is in accordance to fulfil current standards and energy efficiency requirements.
Lighting and day lighting:	Due to the buildings structure and the dominant use of glass facades the majority of lettable areas have access to natural lights . Artificial lighting is mostly just required in functional areas (e.g. restrooms, stairways, etc.) which are located in the inner part of the building. The high availability of natural daylight supports efficient use of energy source (electricity) .
Use of renewable energy resources:	The subject property is not equipped with a solar heating system nor a photovoltaic (PV) or other alternative energy supply system, and consequently do not directly use renewable energy resources . But anyways the property benefits from solar thermal energy gains due to dual-pane glass facade.
Plumbing and hot-water heating:	The subject property is equipped with up-to-date plumbing due to current building standards and therefore supports efficient use of water resources .
Other equipment:	The subject property is further equipped with fire protection appliances (automatic fire detection system, a sprinkler system) and emergency-power supply.

B Integration of „new“ additional descriptive parts (1/2)

1.1.1.1.1 Energy efficiency and other sustainable features of the property

Energy efficiency	According to the available EPC the subject property achieves an overall annual thermal energy demand of approx. 25 kWh/m².a respectively 6.5 kWh/m².a (energy efficiency class “B”) and ranges in-between current energy efficiency requirements for non-residential properties of <11 kWh/m².a (according to the guidance 6 of the ÖIB – “Österreichisches Institut für Bautechnik”). The overall energy efficiency of the subject property therefore can be evaluated as good, and ranges in comparison to the comparable building stock a bit below the observable energy efficiency in the market (see chapter 3.1.1.3.3).
Energy source:	The use of local district heating system for energy supply ensures long-term security of energy supplies . Further this energy source supports low CO2 emission of the subject property itself.
Green lease agreements	There are no green lease agreements with tenants/occupiers in force. The property as well does not have a green building certifications (LEED, BREEAM, DGNB, CEN, etc.). Further no environmental management systems such as EMAS or ISO 14001 or carbon reduction commitment (CRC) are in place and addressed by the owners' management.
LCC	No Life-Cycle-Costing analysis or investigations are available or have been carried out.
Property configuration:	The property's configuration supports and sets the basis for the possibility of efficient and flexible use of space (good A/V ratio of 0.13 according to the EPC) which as well positively influence the buildings energy efficiency. The thermal insulation of the building envelope can be evaluated as “good” even though the majority of buildings' facade is out of glass (due to use of dual-pane windows).

Examples for descriptive report parts (2/2)

B Integration of „new“ additional descriptive parts (2/2)

1.1.1.1.1.1 Observable property market sensitivity and maturity for energy-efficient or sustainable properties

Real estate market sensitivity: Beside the already given information about the current property market situation and condition (see chapter 3.1.1.2.1) following additional observations concerning the real estate markets' awareness, sensitivity and maturity regarding energy efficiency and sustainability are necessary. In general the Austrian property market so far start to recognise the importance of property's energy efficiency and sustainability. This was as well supported by the suffering economic situation and property market condition throughout the last year, which had lead the Austrian real estate market to pay more attention on efficiency in general and need for energy-efficient and sustainable developments. Although the awareness of property owners, tenants, occupiers, etc. for energy efficiency and sustainability is rising, such aspects are in most cases still not recognised within decision making process so far (e.g. in the course of leasing a property or part of it, etc.). This seems to be one of the main reasons why the market currently does not show price elasticity for energy-efficient buildings in comparison to non-energy-efficient ones. In addition as well no proven evidence for higher willingness to pay for energy-efficient properties can be observed in the market so far. But due to the fact that investigations on international level already show some examples, in which global acting, international companies already started to just focus and rent energy-efficient or sustainable properties, proven evidence just seems to be a matter of time and is expected in the short run.

Market information available:

Even though there exists a mandatory disclosure of property owners for EPC potential **tenants just get informed about the energy efficiency if they explicitly ask for it. In most cases** where lettings are offered **no EPC or other information about buildings' energy efficiency are available** or even exist.

In this valuation case **EPC for the comparable properties** being used (see chapter 3.1.1.2.3) **have been available** and can be summarised as follow:

Comps	GFA [m²]	Energy demand (accord. to EPC)	Rent [€/m² p.m.]
Comp 1	20,000	40 kWh/m².a	12.5
Comp 2	40,000	38 kWh/m².a	15.3
Comp 3	10,000	11 kWh/m².a	13.0
Average			14.2

Public awareness:

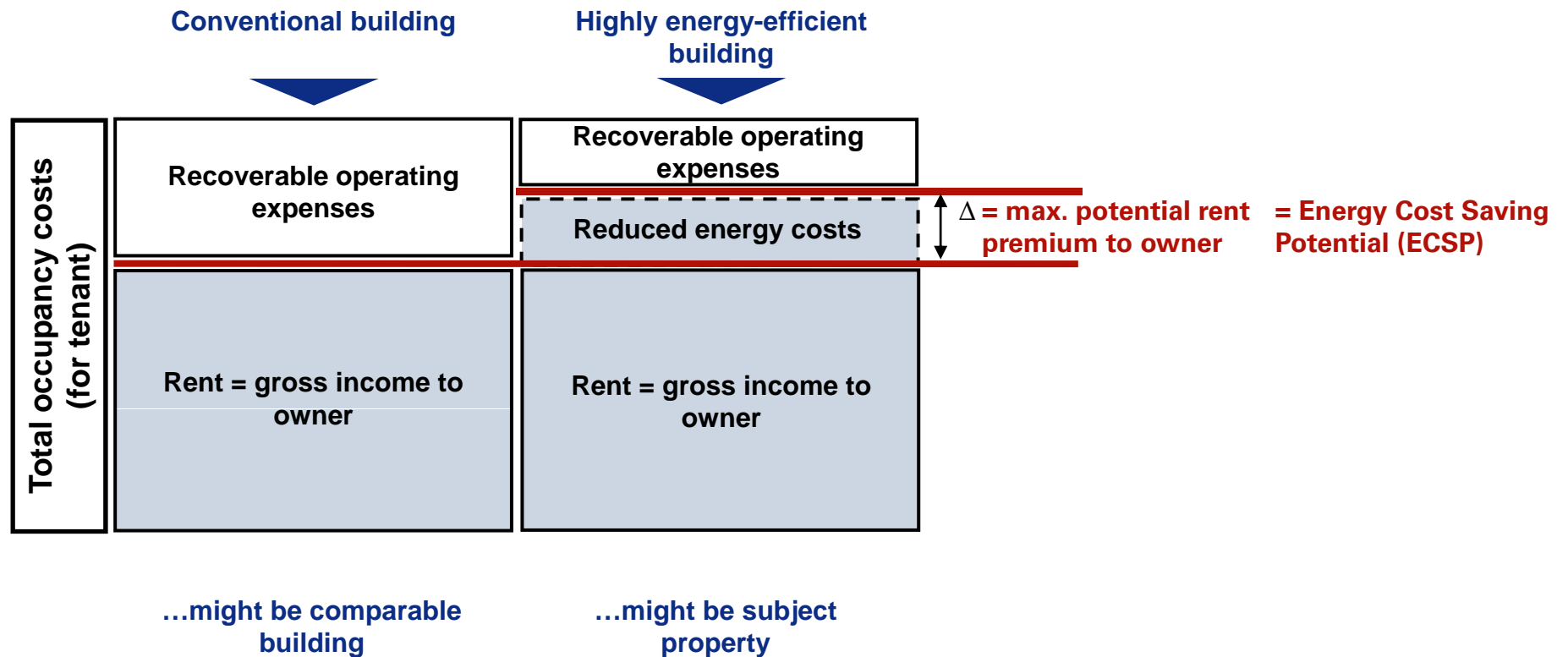
The **public media** in general already start to recognise the importance of sustainability and energy efficiency and **start to inform on a broader scale** about activities, etc. in the field of sustainability. This already had lead to increase of sensitivity and awareness for sustainability and energy efficiency of the society.

General circumstances and mandatory regulations:

Governmental institutions and policy makers already realised the importance of and **promote energy-efficient and sustainable developments**. Therefore mandatory regulations and directives on national as well European level have been established – e.g. EPBD (2002/91/EG), EN 15643 (sustainability assessment of buildings), etc. – to measure and strengthen the transparency of data and information about buildings energy efficiency.

On national level building standards and guidance (e.g. ÖIB-Guidance 6) already encompass energy efficiency requirements for new developments.

Further it is observable that **low-energy building (LEH) requirements** (energy demand below 25 kWh/m².a) are **on the way to become the general building standard**.



Estimation and derivation WAPEC

Weighted Adjustment for valuation Parameter Effecting Characteristics (WAPEC)					
Market maturity	Significant adjustment	Medium adjustment	Low adjustment	neutral	
Opaque (Emerging) Market → Premium for energy-efficient building (primarily in emerging market)	- high price elasticity	<input type="checkbox"/> - low price elasticity observable	<input type="checkbox"/> - market start to note price elasticity	<input checked="" type="checkbox"/> - market does not reflect price differences due to energy efficiency or sustainability at all	
	- high awareness of tenants for sustainability and energy efficiency	<input type="checkbox"/> - tenants partly start to focus on energy efficiency and sustainability aspects in their decision making process	<input type="checkbox"/> - tenants get informed about energy efficiency but it does not play a main role to the tenant yet	<input checked="" type="checkbox"/> - tenants do not pay attention on sustainability and energy efficiency at all	
	- omnipresence of green building issues in the broad media	<input type="checkbox"/> - sustainability and energy efficiency aspects are recognised by a broad media	<input checked="" type="checkbox"/> - just specific media start to address green building and energy efficiency aspects.	<input type="checkbox"/> - media does not recognise green buildings benefits at all	
	- property market is willing to pay rental premiums for green or energy-efficient buildings	<input type="checkbox"/> - high market sensitivity for operating expenses and energy costs (especially in gross rent-orientated property markets)	<input type="checkbox"/> - It is observable that few tenants start to just rent energy-efficiency or sustainable properties	<input checked="" type="checkbox"/> - majority of property market is not willing to pay rent premium for green buildings	
	- market pays attention to energy efficiency and sustainability independent of market condition.	<input type="checkbox"/> - suffering economic situation - lead market to pay attention on efficiency and need for energy-efficient or green buildings becomes a topic	<input checked="" type="checkbox"/> - just low attention on energy efficiency even though market situation lead to focus on efficiency in general	<input type="checkbox"/> - good general economic situation	
	- low-energy houses are quite rare and represents unique selling proposition	<input type="checkbox"/> - low-energy standards are on the way to become building standard	<input checked="" type="checkbox"/> - majority of building stock receive low-energy or passive house standard	<input type="checkbox"/> - zero-carbon house are required building standards	
	- monetary penalties/restrictions for non-energy-efficient properties	<input type="checkbox"/> - monetary restrictions for non-energy-efficient building are discussed by government and policy makers	<input type="checkbox"/> - government and policy makers realise importance and promote energy efficiency and sustainable developments	<input checked="" type="checkbox"/> - government and policy makers do not push market to focus on energy efficiency and sustainability	
	- subject property achieves low-energy (LEH) or passive house (PH) standards	<input type="checkbox"/> - subject property achieves better energy-efficiency than current standards	<input type="checkbox"/> - subject property achieves current energy-efficiency or sustainable standards and requirements	<input checked="" type="checkbox"/> - subject property does not achieve energy efficiency requirements and performance standards	
	Market adjustment rate	+/- 75-100 %	+/- 50-75 %	+/- 25-50 %	+/- 0-25 %
	Estimated MAR	+50 %			

- 1 WAPEC is an appropriate approach to quantify markets' sensitivity and degree of willingness to pay for buildings' energy efficiency / sustainability
- 2 Aspects can be extended or exchanged with other features in valuers opinion and relation to specific valuation parameters or market maturity and transparency
- 3 On the basis of observable market situation an MAR of 50 % can be estimated

Estimation and derivation of AAP and VPA

Parameters	Subject Property	Reference building	Comp 1	Comp 2	Comp 3
(1) Observable rent [€/m ² p.m.]	-	-	12.5	15.3	13.0
(2) Energy demand - EPC [kWh/m ² .a]	25	-	40	38	11
(3) Weighting	-	-	0.29	0.57	0.14
(4) Market rent $\Sigma(1)-(3)$ [€/m ² p.m.]	-	14.2			
(5) Energy demand $\Sigma(2)-(3)$ [kWh/m ² .a]	25	35			
(6) Recoverable OPEX [€/m ² p.m.]	2.3	-	3.8	3.5	-
(7) Share of overall energy costs (heating, electricity, etc.)	20 %	-	20 %	20 %	20 %
(8) Gross Floor Area [m ²]	30,000	-	20,000	40,000	10,000
(9) Overall energy cost (6)-(7):(8)·12 [€/p.a.]	165,600	-	182,400	336,000	-
(10) Energy demand (2)-(8) [kWh]	750,000	-	800,000	1,520,000	-
(11) Average energy price per kWh (9):(10) [€/kWh]	0.22	0.22	0.23	0.22	-

I. Apply WAPEC to quantify markets degree of willingness to pay

II. Observe comparables

III. Derivate reference metrics r_{market} und E_{ref} , $p_{e,ref}$, etc.

IV. Calculate "Energy cost saving potential" resp. Average Adjustment Parameter

$$AAP_{rent} = ECSP = \frac{(E_{ref} \cdot p_{e,ref}) - (E_{subj} \cdot p_{e,subj})}{r_M \cdot 12} = \frac{(35 \cdot 0.22) - (25 \cdot 0.22)}{14.2 \cdot 12} = +1.3\%$$

V. Estimate "Weighted adjustment factor" (WAF)

$$WAF_{rent} = MAR_{rent} \cdot AAP_{rent} \cdot VEA = 50\% \cdot 1.3\% \cdot 100\% = +0.7\%$$

VI. Derivate "Valuation parameter adjustment" (VPA)

$$VPA_{rent} = WAF_{rent} \cdot r_{market} = 0.7\% \cdot 14.2 \text{ €/m}^2 \text{ p.m.} \approx +0.1 \text{ €/m}^2 \text{ p.m.}$$

Modified income approach – implementation

Input Parameter	Term	Reversion
Lettable Area	21,421 m ²	21,421 m ²
Current Rent	13.3 €/m ² p.m.	-
Market Rent	-	14.2 €/m ² p.m.
VPA_{rent}	-	+0.1 €/m² p.m.
Estimated Rental Value	-	14.3 €/m ² p.m.
Annual Gross Rental Income	3,418,792 €	3,675,844 €
Total non-recoverable OPEX	229,738 €	214,210 €
Applied yield	6.60 %	6.50 %
Average residual term of contract	2.43 years	-
Annuity factor	$\frac{(1 + 6.6\%)^{2.43} - 1}{(1 + 6.6\%)^{2.43} \cdot 6.6\%}$	2.18
Investments	-	-
Net Present Value (Term)	6,952,138 €	
Net Present Value (Reversion)	-	46,303,770 €
Total Net Present Value		53,255,908 €
Revised Value		53,250,000 €

VII. Insert VPA into usual valuation methodology

- 1 Adjustment for energy efficiency can be integrated as additional parameter within the valuation
- 2 In addition as well adjustments of other parameters might make sense (e.g. adjustment of yield,...)
- 3 Avoidance of redundancies is most important aspect when quantifying green value

Modified income approach – conclusion

Results of Pilot Project	
Market value (ordinary valuation)	52,860,000 EUR
Revised value (modified approach)	53,250,000 EUR
Rental impact (nominal)	Premium of +0.1 EUR/m ² p.m.
Rental impact (percentaged)	Premium of +0.65 %
Value impact (percentaged)	Premium of +0.75 %

Results shows that impact of energy efficiency / sustainability aspects on property value is currently still at a negligible insignificant scale

- 1 Application of IMMOVALUE's modified approach as one possibility leads to reliable and valid results
- 2 It seems that the applied method reflects the current market situation in an appropriate and plausible manner
- 3 Pitfalls are → market transparency, availability of data and information, informations' quality

Sales comparison approach

$V_{ESP} = MAR \cdot ESP \cdot (C_E) \cdot \left(\frac{(1+i)^T - 1}{(1+i)^T \cdot i} \right) \quad (1)$	Value [EUR]	Comparing to the market value, the calculated value of the thermal rehabilitated apartment is:
$V_{ESP}^* = MAR \cdot ESP \cdot (C_E) \cdot T \quad (2)$		
Market value	54,932	<ul style="list-style-type: none"> ➤ 6.2% lower, if added value generated by thermal rehabilitation is not taken into consideration; ➤ 1.37% lower, if costs of thermal rehabilitation are taken into consideration as correction; ➤ 2.2% lower, if the tested new methodology based on Equation 1 is used as correction, instead of costs of thermal rehabilitation; ➤ 0.06% lower if the tested new methodology based on Equation 2 is used as correction, instead of costs of thermal rehabilitation.
Value calculated by using classic methodology, without taken into consideration thermal rehabilitation of the subject property	51,484	
Value calculated by using classic methodology. Costs of thermal rehabilitation are taken into consideration as correction.	54,177	
Value calculated by using Equation (1)	53,721	
Value calculated by using Equation (2)	54,967	

IMMOVALUE - Introduction and Overview on modified approaches

First evidence and status quo of Austrian property valuation practice

Results of investigation per region

	EPC available		EPC not mentioned		EPC mentioned (not available)		EPC own chapter		Energy aspects mention in calculation	
	income	other	income	other	income	other	income	other	income	other
Burgenland			1		1					
Carinthia			9							
Lower Austria	1		22	2	5	9			1	2
Upper Austria			4	1		3	1			1
Salzburg			2	3	4	1				
Styria			4	3	3	8	4	3		
Tyrol			11	9	8	1				1
Vorarlberg	1		5		4					
Vienna			21	9	20	7	12			
Total	1	1	79	27	45	29	17	3	1	4
	2		106		74		20		5	

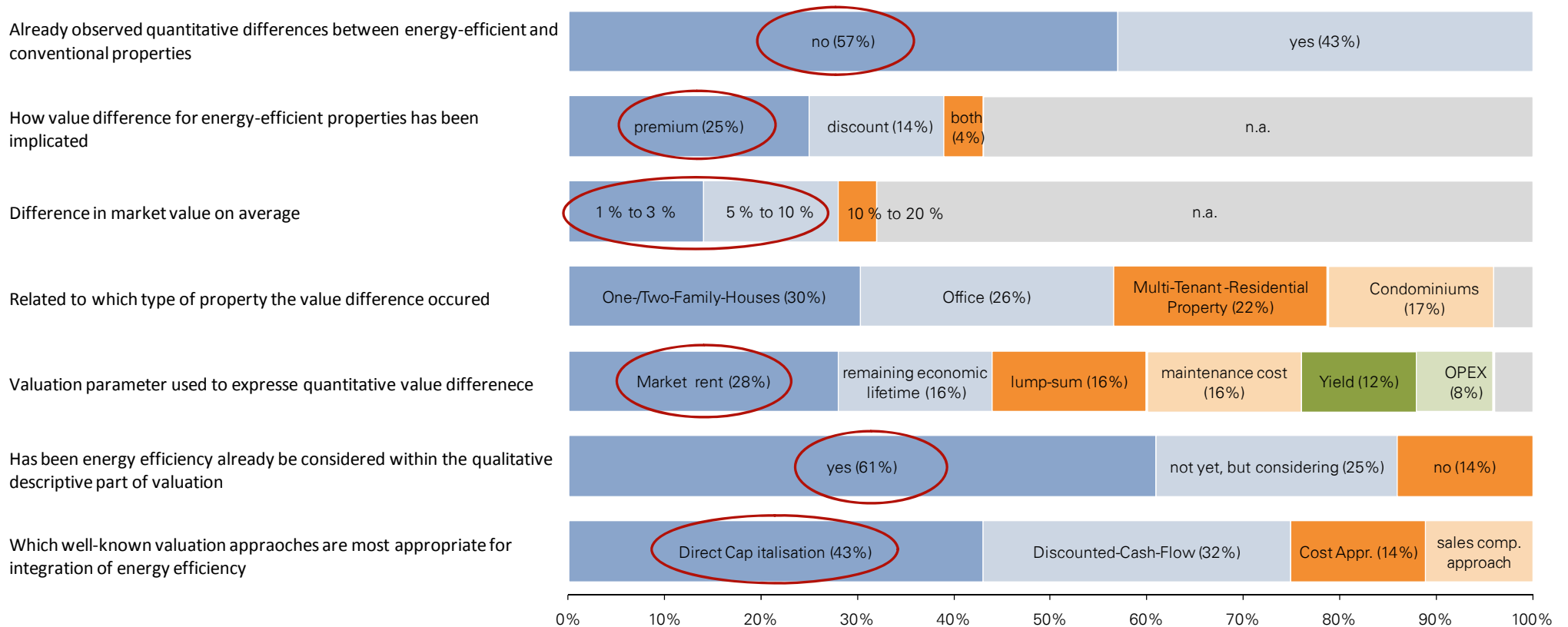
Results of investigation per type of property

	EPC available		EPC not mentioned		EPC mentioned (not available)		EPC own chapter		Energy aspects mention in calculation	
	income	other	income	other	income	other	income	other	income	other
Condominiums	1	1	65	22	35	27	14	3	1	3
Lettable flats	0	0	0	0	2	0	1	0	0	0
Commercial real estate	0	0	14	5	8	2	2	0	0	1
Total	1	1	79	27	45	29	17	3	1	4
	2		106		74		20		5	

- 1 Valuation reports from www.edikte.at (valuation dates from Jan. 09 until Sep. 09 → EPC mandatory since 1.1.2009)
- 2 Total 182 valuation reports have been analyzed → 58 % haven't mentioned EPC at all and only in 1 % of cases an EPC was available
- 3 Significantly low perception of EPC in the valuation reports → The topic "Energy" plays a secondary role
- 4 EPC per se did not change the value
- 5 It was not possible to derive any experiences concerning integration and quantification of the EPC from the existing valuation reports
- 6 EPC needs more time to gain acceptance by customers and to be relevant for valuers

IMMOVALUE - Introduction and Overview on modified approaches

Interim results – European property valuation practice (IMMOVALUE-Survey)



A) Publications

- Book „Immobilienbewertung Österreich“ (2nd edition)**
 „Green Value – Paradigmenwechsel im Rahmen der Immobilienbewertung“
 Schützenhofer/Bienert (11/2009)
- Environmental Engineering and Management Journal**
 „Methodology For Real Estate Appraisal of Green Value“
 Popescu/Mladin/Boazu/Bienert (06/2009)
- Paper for 15th PRRES Conference Sydney**
 „Integration of energy efficiency and LCC into property valuation practice – Transforming green features into values“
 Bienert/Steixner/Koch (01/2009)
- Paper for ERES Conference Stockholm**
 „Valuation and Sustainability are Rating Tools Enough?“
 Warren-Myers/Bienert/Warren (06/2009)
- Paper for 8th PassiveHouse Conference**
 „Property Valuation and Energy Performance of Buildings – Approaches for integrating Energy Performance into Valuation Practice“
 Bienert/Leopoldsberger/Schützenhofer/Steixner (09/2009)
- Paper for ENOVA Forum**
 „Energieeffizienz – Immobilienwert: Quo vadis?“
 Koch/Madrtsch (11/2009)

B) Newsletter

- | | |
|--|------------------|
| KPMG – Global Sustainability Services Newsletter (Global) | Aug. 2009 |
| RICS Germany Newsletter (Germany) | Oct. 2009 |
| RICS Europe Newsletter – EU Connect (Europe) | Nov. 2009 |
| ANEVAR Newsletter (Romania) | Oct. 2009 |
| Newsletter des Bundesanzeiger (Germany) | Nov. 2009 |
| gif Newsletter (Germany) | Dec. 2009 |

C) Conferences & Events

- | | |
|---|--------------------------|
| PRRES – 15th PRRES Conference, Sydney | Jan. 2009 |
| „Integration of energy efficiency and LCC into property valuation practice – Transforming green features into values“ | Mr. Bienert |
| 8th PassiveHouse Symposium, Belgium | Sep. 2009 |
| „Energy Performance and Property Valuation – Approaches for integration energy performance into valuation Practice - Interims results of the EU research project IMMOVALUE“ | Mr. Leopoldsberger |
| ANEVAR Conference Tulcea (Romania) | Oct. 2009 |
| Presentation of IMMOVALUE project | Mrs. Popescu |
| TEGoVA Autumn General Meeting, Brussels | Nov. 2009 |
| „Methodologies for integration of energy performance into property Valuation practice (IMMOVALUE –project) – Transforming Green Features into Values“ | Mr. Bienert |
| ENOVA – Null Emissions Gebäude, Burgenland | Nov. 2009 |
| „Der Einfluss von energieeffizienten, optimierten Gebäuden auf den Verkehrswert einer Immobilie – Eine wirtschaftliche Betrachtung“ | Mr. Koch / Mr. Madritsch |
| RICS Germany Valuation Seminar | Dec. 2009 |
| „Results of IMMOVALUE Project – The Consideration of Energy-efficiency, Sustainability and Life-Cycle-Costs in Property Valuation“ | Mr. Leopoldsberger |

Planned activities

Conferences & Events

BBA & RICS 5th Valuation Conference, Berlin <i>„Fokus Nachhaltigkeit: Bedeutung für die Immobilienbewertung“</i>	10th Dec. 2009 <i>Mr. Bienert</i>
ANEVAR – Annual Meeting 2009 <i>„Introduction and results of the IMMOVALUE project“</i>	12th Dec. 2009 <i>Mrs. Popescu</i>
LuxReal – New Years Reception & Forum <i>„Energising Valuation in Europe – How does costs of energy effect your Real estate business?“</i>	20th Jan. 2010 <i>Mr. Bienert</i>
FH Kufstein - 12th International FM & REM-Conference <i>„Valuation and Sustainability“</i> <i>„Life Cycle thinking using BIM for improved FM“</i>	27-29th Jan. 2010 <i>Mr. Koch</i> <i>Mr. Dag Fjeld Edvardsen</i>
BauZ! – Vienna Congress for future-proofed buildings <i>xxx</i>	18-19th Feb. 2010 <i>Mr. Hüttler / Mr. Leutgöb</i>
MIPIM Horizons, Cannes (France) <i>Xxx</i>	16-19th March 2010 <i>Mr. Bienert</i>
RICS EU Policy Platform „EU Sustainable Energy Week 2010“ <i>IMMOVALUE face-to-Face seminar</i>	22nd-26th March 2010 <i>Mr. Bienert / Mr. Leopoldsberger</i>
ERES Conference Milano <i>IMMOVALUE Final Conference</i>	23rd-26th June 2010 <i>Mr. Bienert / Mr. Leopoldsberger</i>

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Project supported by:

