

Misbehaving of Markets and the FIG goal of transparency on property markets

This presentation examines the complexity of the property market and the need for transparency, particularly in the context of behavioural economics and the use of artificial intelligence.

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The Importance of the property market often underestimated

1 Economy

In 2022, the property market accounted for around 10% of Germany's GDP, with a monetary turnover of €340 billion. The construction industry and related sectors employ about 2.6 million people in Germany.

3 Financial stability

At the end of 2024, the volume of outstanding residential construction loans in Germany was around 1.8 trillion euros..

2 Housing Provision

According to current analyses, there is a shortage of between 550,000 and 800,000 homes in Germany.

4 Environmental and Energy

Buildings are responsible for about 30% of final energy consumption and about 15% of CO2 emissions in Germany. In 2022, around 14 billion euros were allocated to energy efficiency programmes.

5 Shortage of social housing

The stock of social housing in Germany fell from around 2.6 million in 1990 to around 1.1 million in 2020, highlighting the need for measures to create affordable housing.



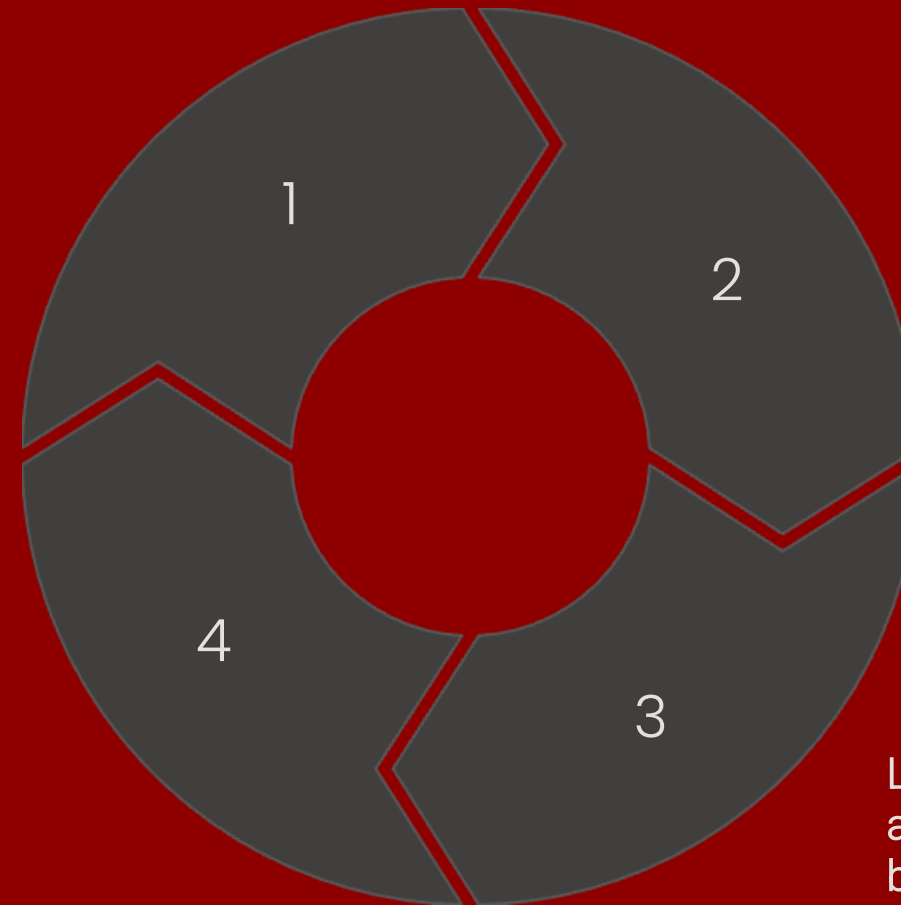
Real Estate Markets and Behavioural Economics

Prospect-Theory

Kahnemann and Tversky have shown that people exhibit effects in risky decisions that are not compatible with purely rational decisions based on expected utility.

Endowment Effect

Property owners regularly value their property higher than potential buyers.



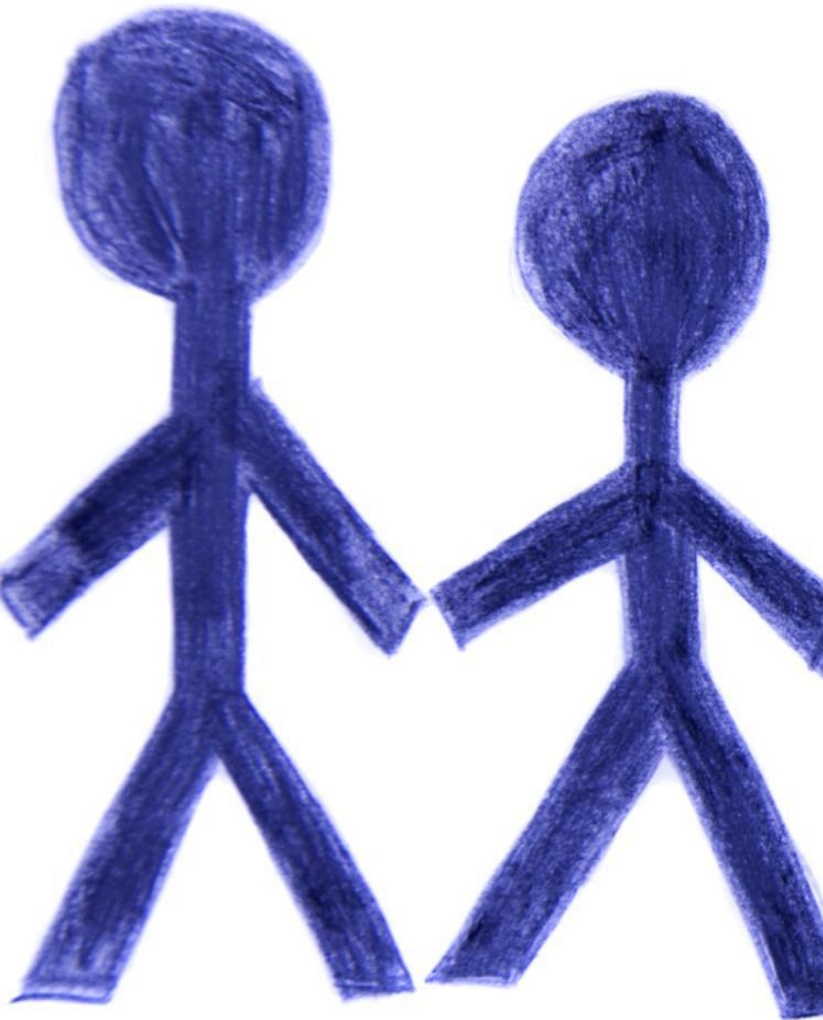
Risk Aversion

Leads to excessive risk avoidance in the property market, especially in periods of falling prices

Loss Aversion

Losses are felt more keenly than gains of a comparable size, which can lead to biases in market prices.

Further Behavioural Economic Phenomena



1

Anchoring Heuristic

The first asking price or a expertise report of a property serves as an anchor that influences the subsequent price negotiations..

2

Optimism Bias

Can lead to speculative bubbles if buyers and investors overestimate future increases in value and underestimate risks.

3

Selection Bias

Biased selection of a sample for data analysis, critical for assessing representativeness..

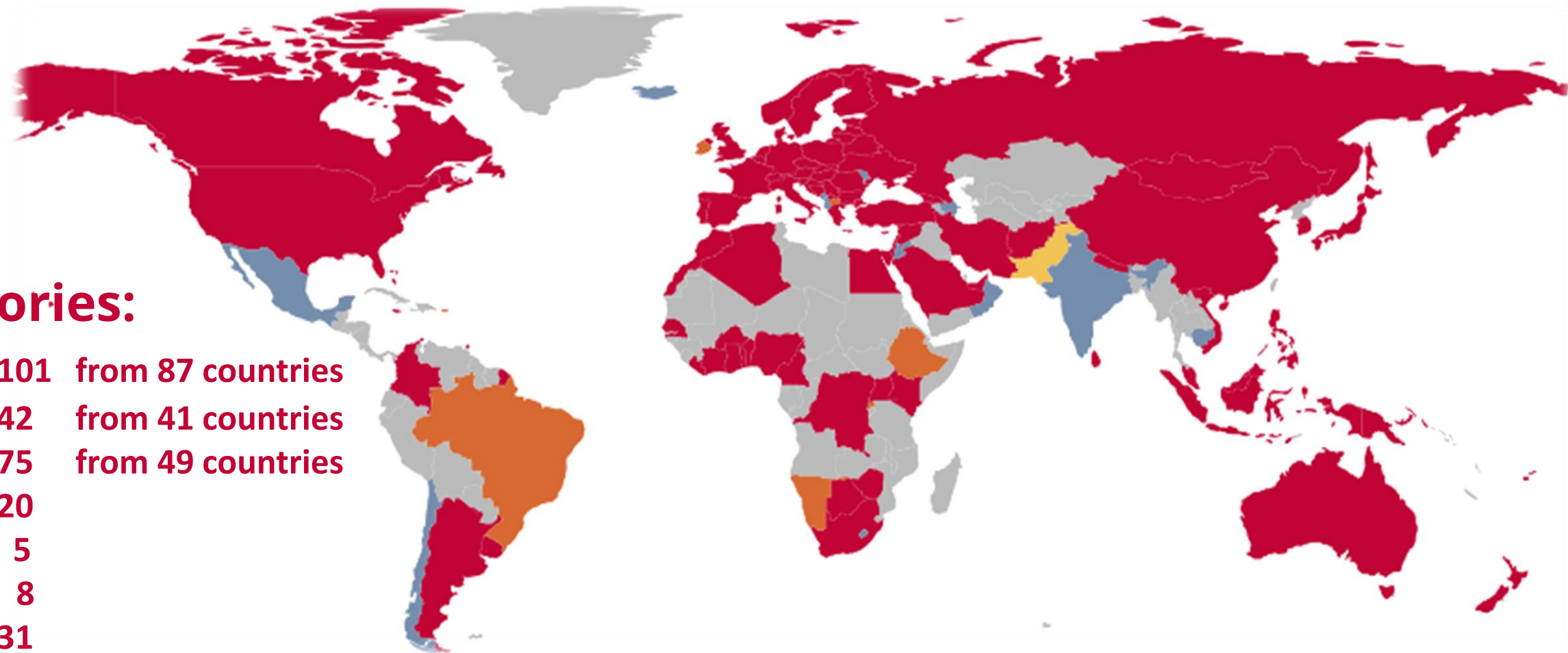
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Confirmation Bias

Tendency to select information in such a way that already existing hypotheses are confirmed.

FIG: A global actor

Over 120 countries represented in 2022 – more than 300,000 individuals



Membership categories:

Member associations	101	from 87 countries
• Affiliate members	42	from 41 countries
• Academic members	75	from 49 countries
• Corporate members	20	
• Correspondents	5	
• Honorary presidents	8	
• Honorary members	31	
• Honorary ambassadors	2	

Transparency in the Real Estate Markets

FIG's definition

The International Federation of Surveyors calls for a new and contemporary definition of 'transparency' in the context of real estate markets

Basic categories for defining transparency

1. Type of access to property market information
2. Availability of property market information
3. Quality of property market information

Purpose

Enabling well-informed and long-term investment decisions through the free flow of information and good data according to today's standards

Transparency in the context of AI-supported valuation

Representativeness of the Sample

It must be ensured that sample surveys are neither geographically biased nor represent a distorted submarket; they must correspond to the population of interest for the valuation

Transparency as a Quality Criterion

Ensuring that models do not operate as 'black boxes', but that their functioning remains open and verifiable

1

2

3

4

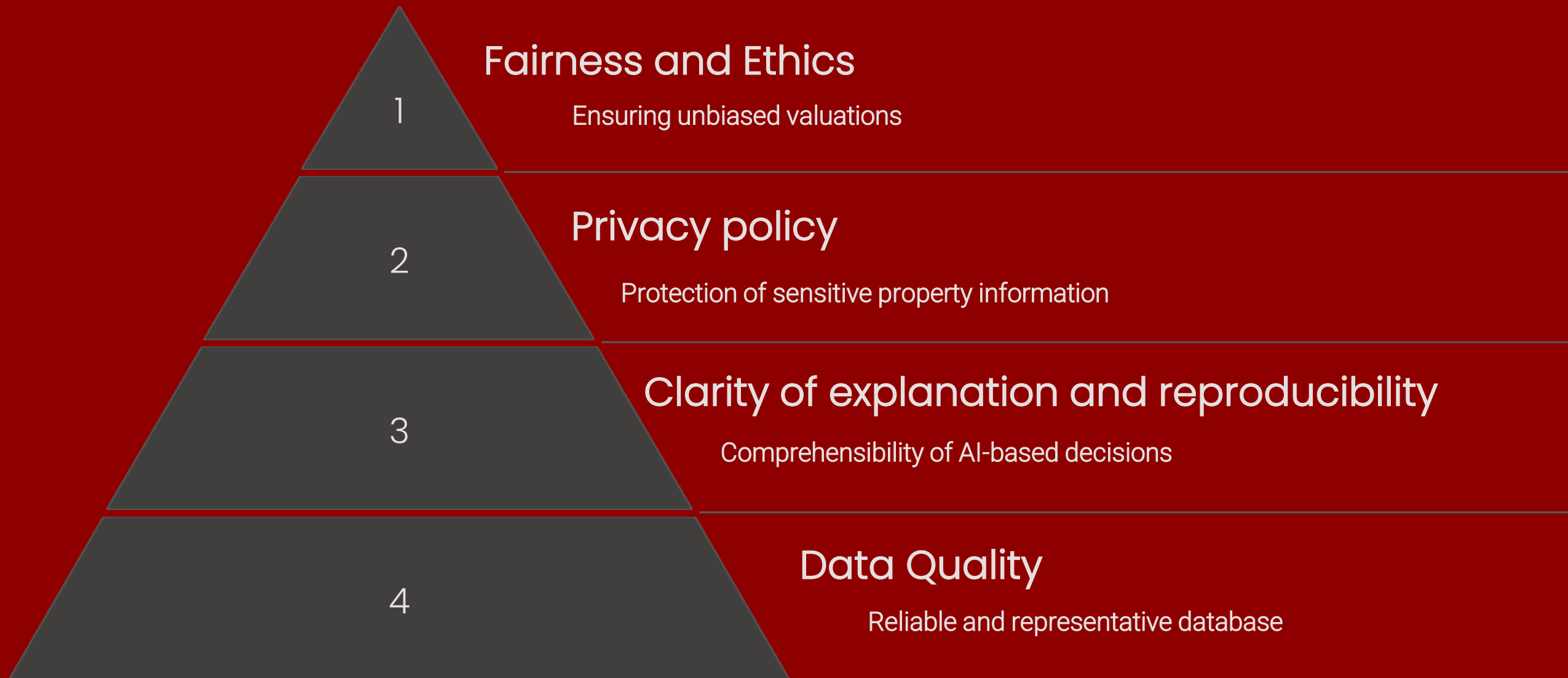
Modell-Performance

Ability of an algorithm to provide consistent and unbiased results that reflect reality

Accuracy of Results

Precision of the results provided by a model in relation to the actual values

Challenges of AI-assisted valuation



Conclusion

1 Multidimensional view on Markets

Transparency requires a free flow of information, consistency and objectivity of data, and robust valuation models

2 Standardisation

Necessity of unified criteria for measuring and operationalising transparency

3 Good AI-Integration is to take seriously

Development of transparent AI-based valuation models as an essential prerequisite for a good valuation according to today's demands and challenges

The Presenter



Peter Ache is editor-in-chief of the German Real Estate Market Report and heads the working group for property valuation of the German Association for Geodesy, Geoinformation and Land Management (DVW). He is an expert in property valuation and market observation. Ache is committed to the development of national and international valuation standards and is a sought-after speaker at specialist events.

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