



Integrating the Generations

FIG Working Group 2008

Stockholm, Sweden 14. – 19. June 2008

# **VALUATION OF RETAIL LOCATIONS AND PEDESTRIAN FLOW DATA**

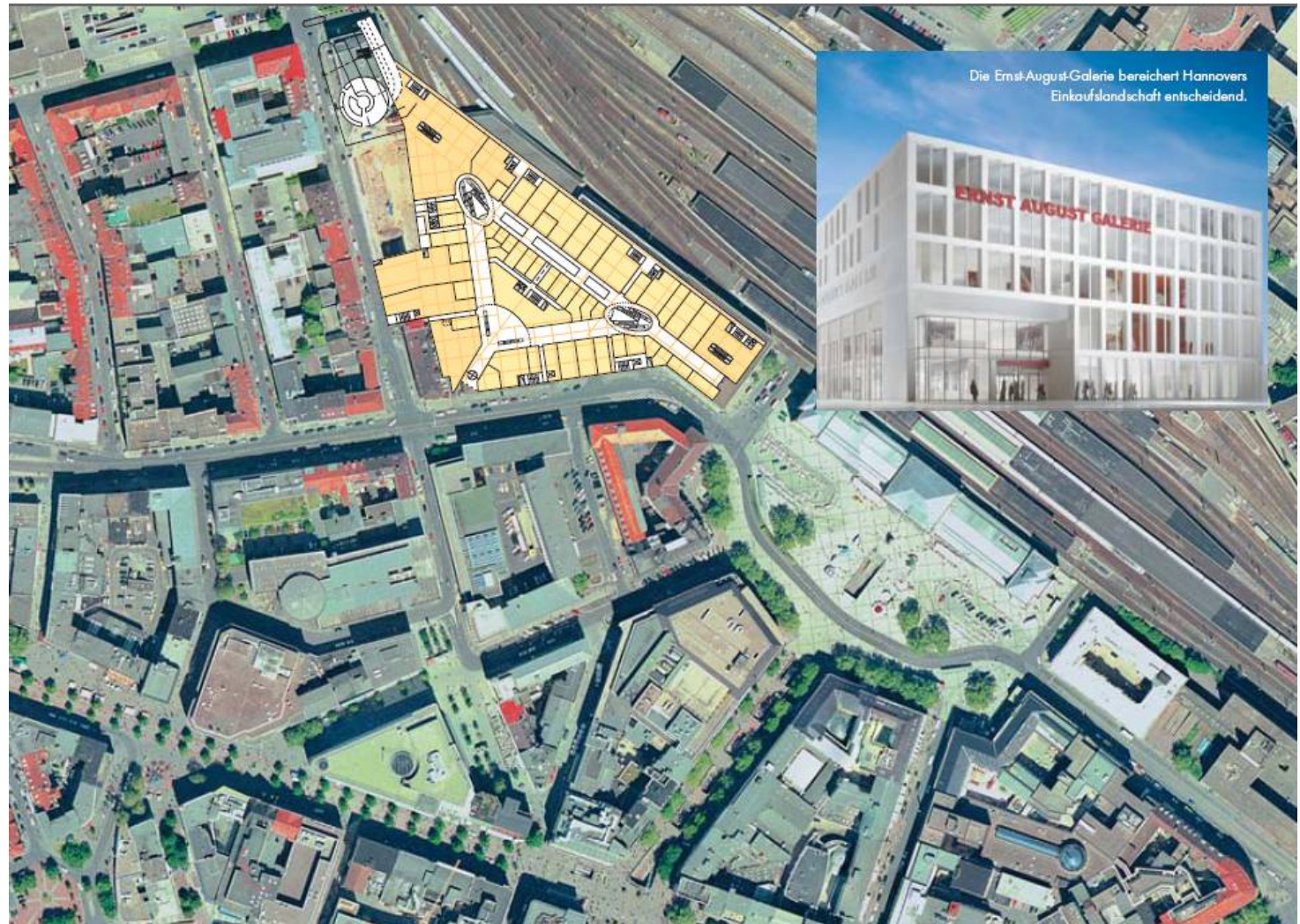
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## Contents

- Inner-city locations: A topic for valuation?
- Standard Ground Values
- Valuation methods
- Integrating pedestrian flow data
- Example
- Previous findings

- In Germany we feel a trend „back to the cities“
- In the focus are the inner cities and in many places they are in a process of change
- Big shopping developments at the edge of CBD, especially in higher order centres,
  - relocating the CBD,
  - not enlarging the CBD.



Source: ECE –  
Ernst-August-  
Galerie Hannover,  
Hamburg 2008  
([www.ece.de](http://www.ece.de))

Location is changing: Shopping center at the edge of the CBD



Example:

- Hanover next to main station
- 140 shops
- 30.000 sqm new sales floorspace

Source: ECE – Ernst-August-Galerie Hannover, Hamburg 2008 ([www.ece.de](http://www.ece.de))

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Result: The quality of the locations within the CBD is changing, some locations will be improved, while others decrease

- The Constitutional Court requires a more appropriate base for two property related taxes:
- Inheritance Tax (Erbschaftsteuer)
  - Plots: New tax base will be orientated according to the current value of land in each location (Standard Ground Value)
  - Bill is discussed in parliament, coming in force 2009
- Land and Property Tax (Grundsteuer)
  - It is discussed to tax the land according to the current value of land in each location (Standard Ground Value)

- In general:
  - Improving market transparency
  - Avoiding an overheating of the market
- Consequence:

We need reliable current land values, especially in inner cities!



- In general:
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We need reliable current land values, especially in inner cities!
- Could we improve valuation in inner-city areas?

Do we need additional indicators, e. g. data of the pedestrian flow in the shopping areas?

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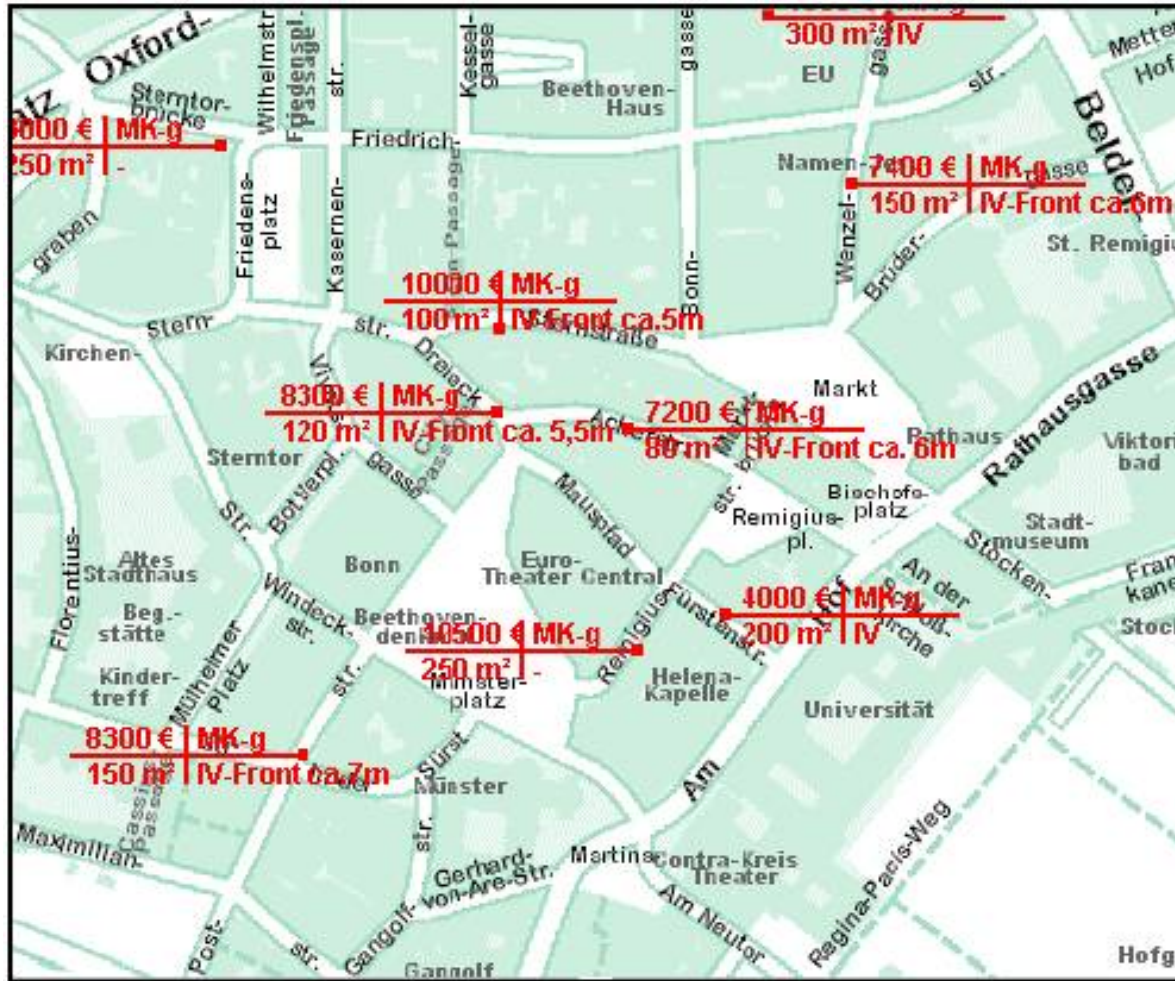
## Standard Ground Values

- Experts committees for valuation as public institutions (Gutachterausschüsse)
- Organized by the federal states, mainly at level of counties (Landkreise)
- Legal base in the Federal Building Code since 1960
- Advantage: complete collection of purchase prices

## Standard Ground Values

- Experts committees for valuation as public institutions (Gutachterausschüsse)
- Organized by the federal states, mainly at level of counties (Landkreise)
- Legal base in the Federal Building Code since 1960
- Advantage: complete collection of purchase prices
- Instrument to afford market transparency
- Derivation from current transactions (Comparative method)
- Duty: Publishing average land values at least each 2<sup>nd</sup> year (Standard ground values) in maps
- Two types of Standard ground values are established:

## Site-specific standard ground value



## City of Bonn City centre Standard Ground Values (2005)

Legend:

7.200: land value (€/m<sup>2</sup>)

MK: zoning (core area)

IV : number of floors

80 m<sup>2</sup>: shop floorspace

Source: Valuation Committee Bonn 2005

## Zonal standard ground value



## City of Hanover City centre Standard Ground Values (2008)

Legend:

9.200: land value (€/m<sup>2</sup>)

MK: zoning (core area)

3.0 : floorspace index

Source: Valuation Committee Hannover 2008

Problems in determining standard ground values in inner cities:

- Quality of locations vary strongly within short distances
- Number of transactions per year is rather small, esp. transactions of unbuilt land are very rare
- Transactions of built-up properties:
  - Properties are very heterogeous
  - Separation of the land's market value is difficult
- Which methods are appropriate?

- Return-orientated methods
  - The value of a location or property directly depends on the returns. The rents have to be appropriate for the typical land use in the location.
  - Rent column method:  
The average rent of all floors, related to the plot size, is used. Comparison to similar objects and their market prices.
  - Gross rent method:  
Comparison of the gross „ground floor“ rents related to the land prices and other influences, using regression analysis  
(cp. Dieter Kertscher, TS 7D)



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Comparison of the gross „ground floor“ rents related to the land prices and other influences, using regression analysis  
(cp. Dieter Kertscher, TS 7D)
- Problems: Rents represent the market at the time of the contract; it often is difficult to get reliable information about the rents.

- Interrelated expert method (Delphi-procedure)
  - Based on expert knowledge of the local market players
  - Separate questioning of the valuation experts
  - Minimum 10 experts should be involved
  - Opinions are merged by median formation
  - Procedure used first by Reuter (2007)

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- Problems:
  - Results mainly depend on the experience of the experts;
  - Difficult to get independent opinions of the experts
  - Results are not transparent.

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- Importance of pedestrian flow data
  - Turnover of a shopping location depends directly on the frequency of customers
  - The number of pedestrians is a key factor for a retail development in the inner city (e.g. shop at the corner)

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  - Turnover of a shopping location depends directly on the frequency of customers
  - The number of pedestrians is a key factor for a retail development in the inner city (e.g. shop at the corner)
- Availability of pedestrian flow data
  - The pedestrian frequency in about 150 German cities is measured regularly by private providers.
  - Counting takes place at the core location and at the most frequented time
  - Some cities or retail organisations instruct detailed countings, but without regular repetitions

## The 10 most frequented shopping streets in 2007

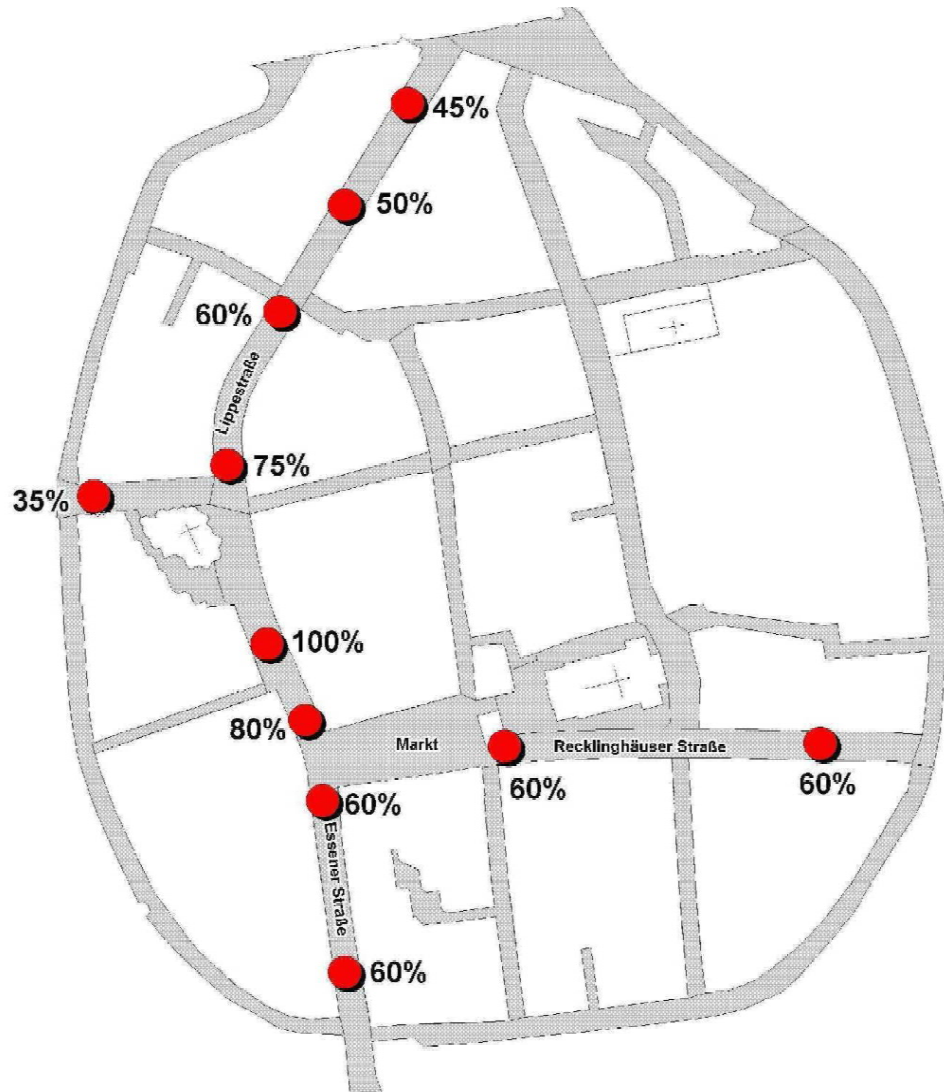
Rang	Stadt	Einkaufsstraße	Passantenfrequenz Samstag, 12. 5. 2007, 13.00 bis 14.00 Uhr	
			2007	Ø 2000 – 2006
1	Köln	Schildergasse	14 265	15 510
2	München	Kaufingerstraße	14 010	15 840
3	Frankfurt	Zeil	13 950	14 185
4	Stuttgart	Königstraße	10 870	11 275
5	Hamburg	Mönckebergstraße	10 485	6 630
6	Hannover	Bahnhofstraße	10 410	NEU
7	Mannheim	Planken	10 225	9 730
8	Berlin	Tauentzienstraße	9 540	8 565
9	Nürnberg	Karolinenstraße	9 520	6 625
10	Dortmund	Westenhellweg	9 250	12 980

Source: Kemper's 2007

## City of Dorsten City centre Pedestrian count

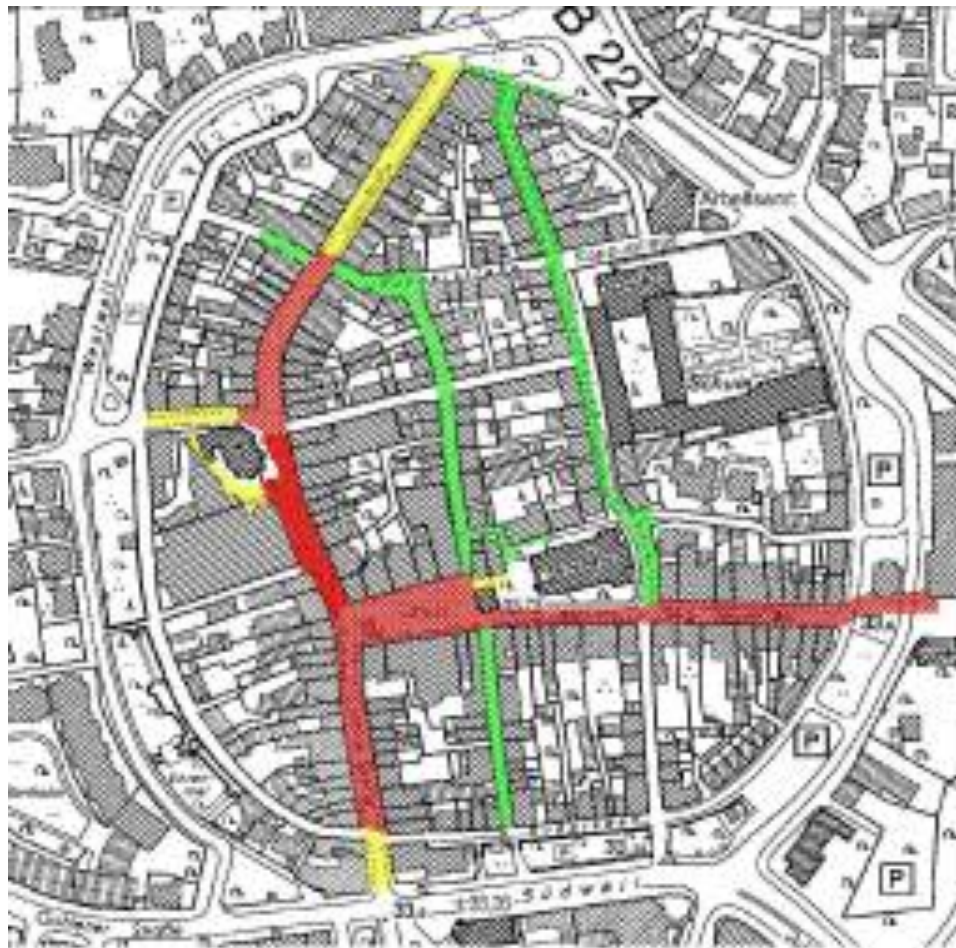
Legend:

- places of counting the pedestrian flow
- 60 % portion of max. pedestrian flow



Source: Valuation committee Dorsten 2006





## City of Dorsten City centre Location classification

Legend:

-  prime location
-  Ia location
-  Ib location
-  II location

Source: Valuation committee Dorsten 2006

- Advantages of pedestrian flow data
  - Appropriate indicator for the economical and urban aspects of a location
  - Pedestrian flow data is the key factor to determine location classifications; others are e. g. the density of retail business or the portion of chain-stores.
  - A detailed network of counting points including repetitions are possible.

- Advantages of pedestrian flow data
  - Appropriate indicator for the economical and urban aspects of a location
  - Pedestrian flow data is the key factor to determine location classifications; others are e. g. the density of retail business or the portion of chain-stores.
  - A detailed network of counting points including repetitions are possible.
- Problems of the indicator „pedestrian flow data“:
  - The daily, monthly and annual fluctuations in the pedestrian flow have to be considered.
  - In some roads, e. g. next to the railway station, the share of non-customers (commuters, tourists, pleasure-seekers) is to be mentioned
  - „Luxury-miles“ often are the best location, but may not represent the highest pedestrian frequency.
  - Expenditure in cost and time can be high for a detailed network of counting places

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## Map of Germany

City of Osnabrück:

South part of Lower Saxony



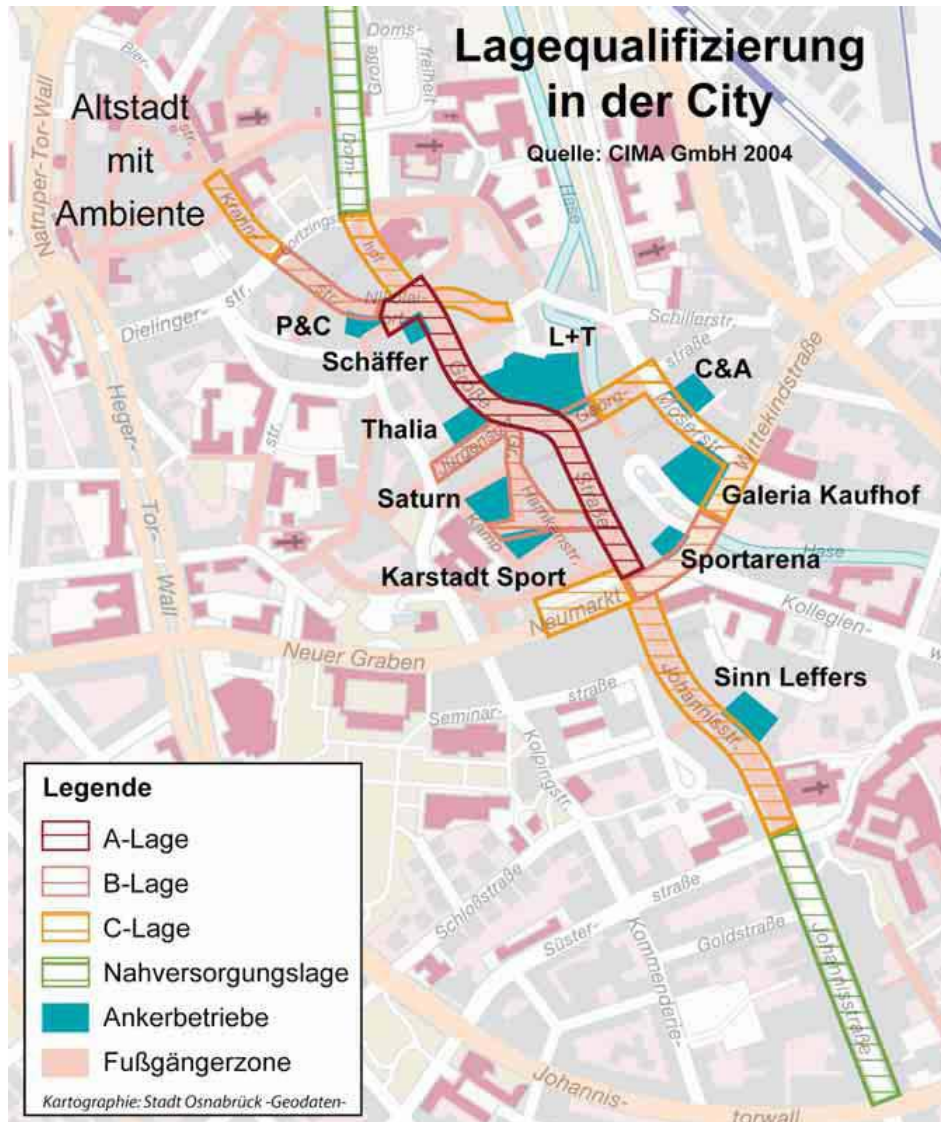
## Map of Osnabrück

City of Osnabrück:

163.000 inhabitants

Higher order centre

Source: [www.osnabrueck.de](http://www.osnabrueck.de)



## City of Osnabrück: Classification of retail locations in the city

Location classifications:

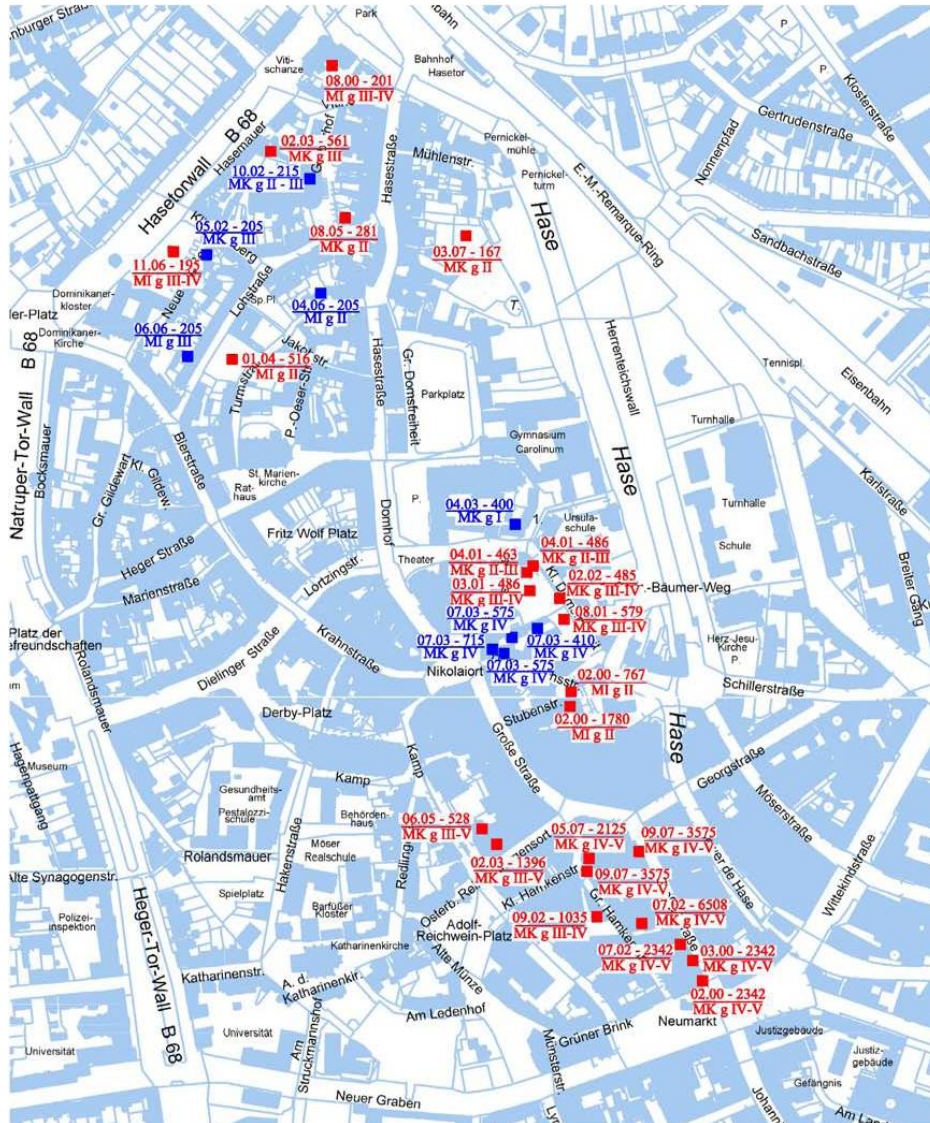
A-location (red)

B-location (pink)

C-location (yellow)

District location (green)

Source: Häder and Sieker 2007



## Appraisals and market transactions (2000 - 2007)

Legend:



9 appraisals

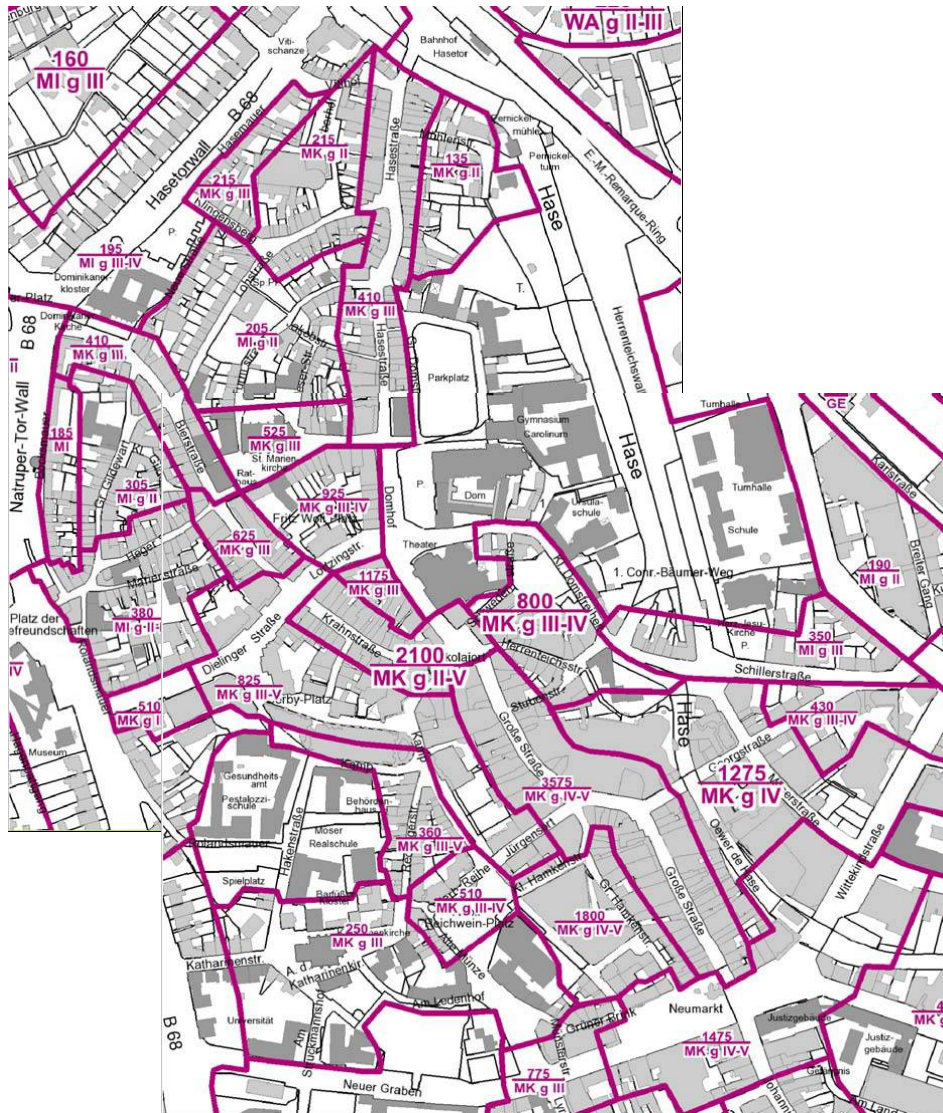


23 transactions

Source: GLL Osnabrück 2008; Alves, Jens: Diploma-Thesis 2008



# Example: Osnabrück

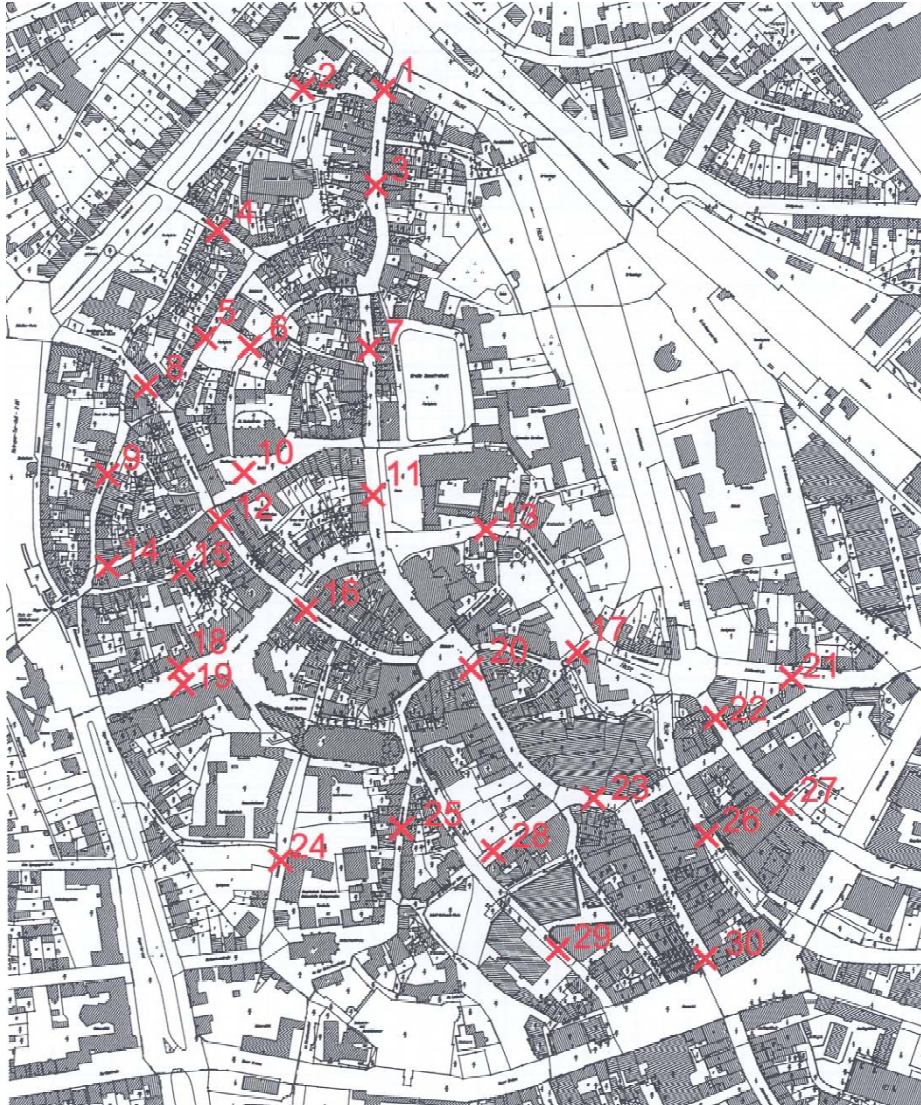


City of Osnabrück  
 City centre  
 Standard ground values  
 Osnabrück (2007)

Legend:

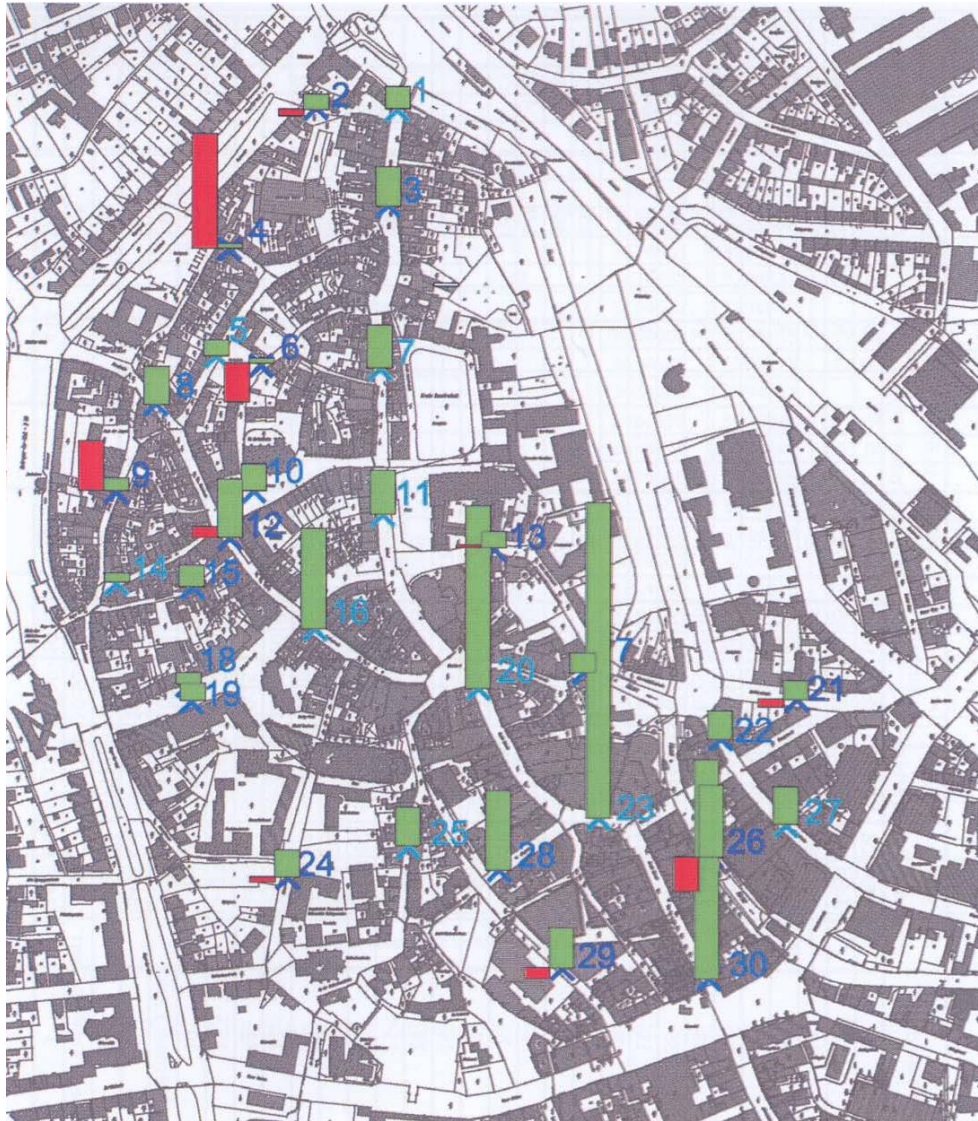
- MK: core area
- MI : mixed use
- IV : number of floors
- g : closed type of coverage

Source: GLL Osnabrück 2007



## Places of counting the pedestrian flow

1 - 30    Number of counting points

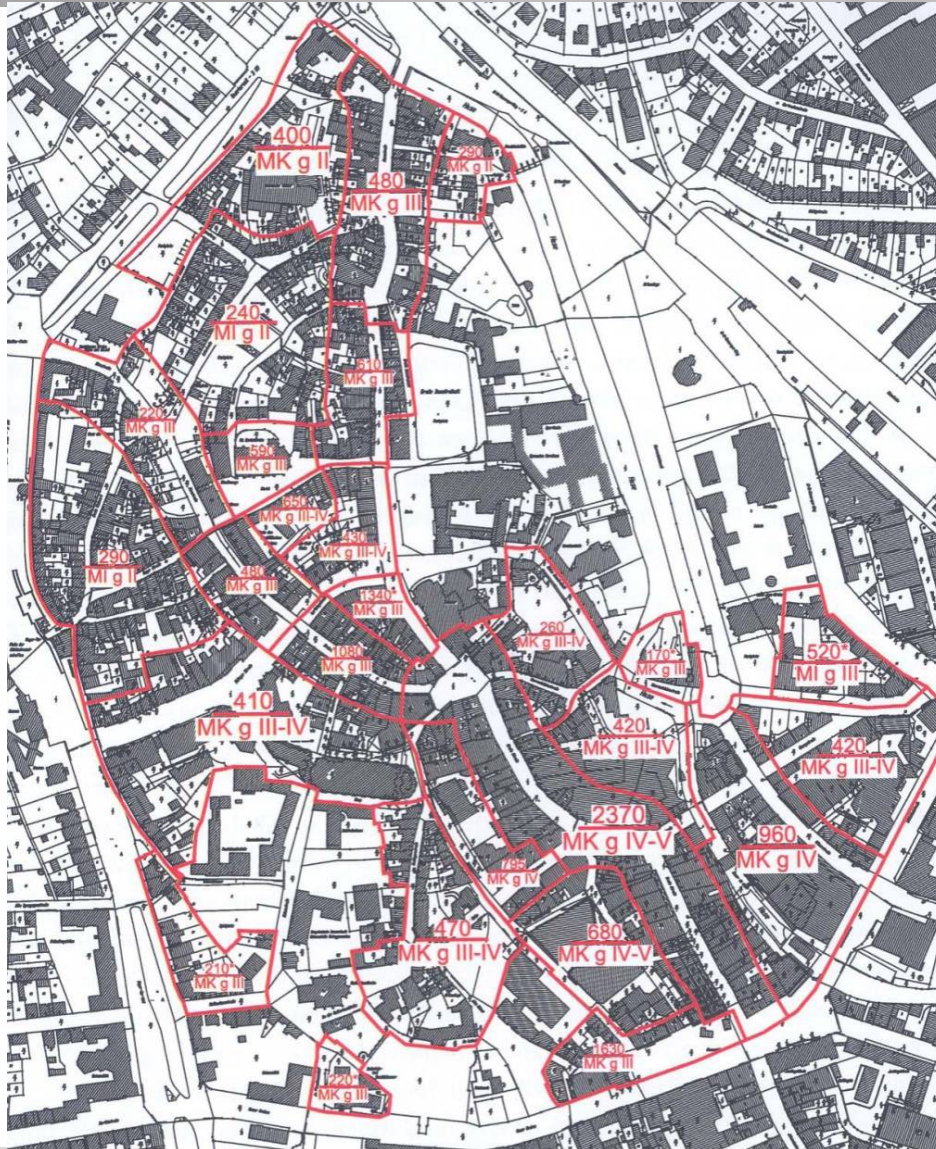


## Results of the count

Legend:

- persons per hour  
(max. 2.570)
- special count

Source: GLL Osnabrück 2008; Alves, Jens:  
Diploma-Thesis 2008



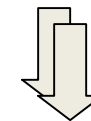
## Advice for new standard land values

(combination of 3 approaches)

Zones vary in detail only

Tendency of the values compared to 2007:

South part of city:



North part of city:



Source: Alves, Jens: Diploma-Thesis 2008

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### First results

- Standard ground values are suitable for describing the value of locations.
- None of the valuation approaches is optimal; each has advantages and disadvantages.
- Pedestrian flow data are a market-orientated additional indicator.
- Pedestrian flow data are an appropriate pattern to derive zones of comparable locations (relative values).
- Absolute values can be determined in combination with other approaches.
- An automatic counting process for pedestrian flows would help to use them widespread.



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**THANKS FOR YOUR ATTENTION!**