

FIG - Working Week 2009 in Eilat/Israel

TS 1E – Valuer’s Profession and Real Estate Taxation



Transparency with the Online-Real-Estate-Price-Calculator in Lower Saxony (3221)

Dipl.-Ing. **Dieter Kertscher**

Head of Agency for Geoinformation, Land Development and Management of Real Estate (Braunschweig (GLL Braunschweig))

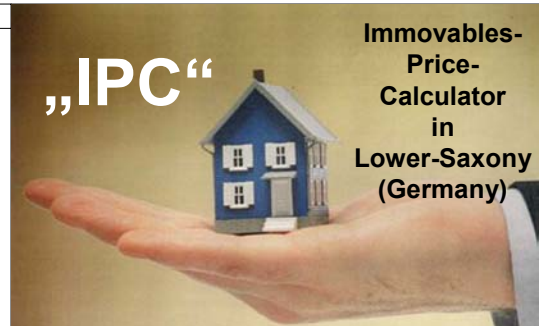
Member of Advisory Committee for Valuation of Real Estate in GLL Braunschweig/Lower Saxony/Germany

Chair of Working-Group 6 „Valuation of Real Estate“ from DVW (Deutscher Verein für Vermessungswesen e.V. – Gesellschaft für Geodäsie, Geoinformation und Landmanagement) in Germany

Member of Commission 9 FIG (Fédération Internationale des Géomètres „Valuation and Management of Real Estate“)

TS 1E – Valuer’s Profession and Real Estate Taxation;
Dieter Kertscher: Transparency with the Online-Real-Estate-Price-Calculator in Lower Saxony (3221)

1



The youngest Online-Product of Advisory Committees in Lower Saxony:

Calculate the Price of your Property

TS 1E – Valuer’s Profession and Real Estate Taxation;
Dieter Kertscher: Transparency with the Online-Real-Estate-Price-Calculator in Lower Saxony (3221)

4

Structure of my Paper: 6 Points

1. Law and Organisation of Valuation in Germany: Advisory Committees and private Valuers
2. Digital Purchase Prices Collections and the Analysis
3. Standard Ground Values – derived annual
4. Reports of Real Estate Markets – derived annual
5. The best German Way to find Market Values: Comparison Method with Conversion-factors
6. Looking in Today and in Future: The new Online-Price-Calculator for Standard-objects and Presentation in Internet for everybody, for all user !! And the German Project „VBORIS“

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2



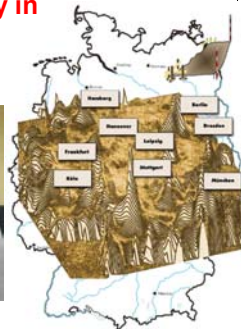
Rough Valuation and Precision Works of build-on / developed properties, of „Standard-Objects“

TS 1E – Valuer’s Profession and Real Estate Taxation;
Dieter Kertscher: Transparency with the Online-Real-Estate-Price-Calculator in Lower Saxony (3221)

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Aim of our works:

Providing Transparency in Markets of Real Estate:



TS 1E – Valuer’s Profession and Real Estate Taxation;
Dieter Kertscher: Transparency with the Online-Real-Estate-Price-Calculator in Lower Saxony (3221)

3

Point 1:


- Law and Organisation of German Valuation,
- Advisory Committees and private Valuers
- Purchase Price Collection

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6

Legality - the base by law and following instructions

- § 194 Federal Building Code (BauGB): With Definitions
- „Verkehrswert“ **Law in Germany**
- (Market Value)
- WertV
- WertR



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The official Valuation of Real Estate in Germany – the base and all products

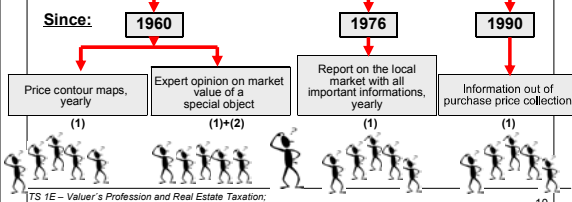
Purpose of all valuations in Germany =
Establish transparency for everybody for each property market

Base:
All contracts of sale
In Germany about 1 Million contracts per annum
1.000 to 15.000 per valuation board

Products of valuation committees (1) and independent valuers (2)

Since:

- 1960: Price contour maps, yearly (1)
- 1976: Expert opinion on market value of a special object (1)+(2)
- 1990: Report on the local market with all important informations, yearly (1)
- Information out of purchase price collection (1)




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The Law – base of the official Valuation in Germany

BauGB
Baugesetzbuch
BauNVO
PlanzV
WertV u. -Richtlinien
Raumordnungsgesetz

Essential task:
Provide Transparency for all markets of Real Estate by Purchase Price Collections

38. Auflage
2005
Beck-Texte im dtv




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Point 2:

1. Law and Organisation of German Valuation, Advisory Committees and private Valuers, Purchase Price Collection
2. Digital Purchase Prices Collections and the Analysis

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Valuation of Real Estate in Germany



Independent valuers
Approx. 50 000

Valuation committees
Approx. 300

Gutachterausschuss für Grundstückswerte für den Bereich des Landkreises Northeim
Geschäftsstelle beim Katasteramt Northeim

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Valuation of Real Estate in Germany

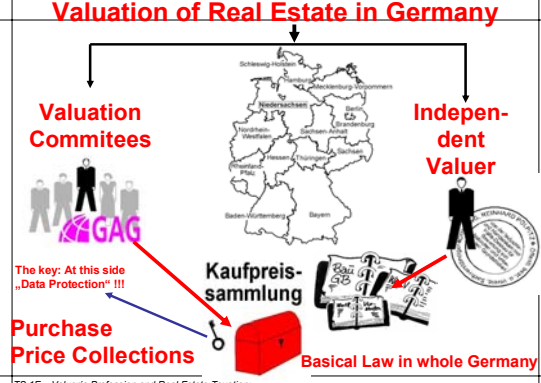
Valuation Committees (KGAG)

Independent Valuer

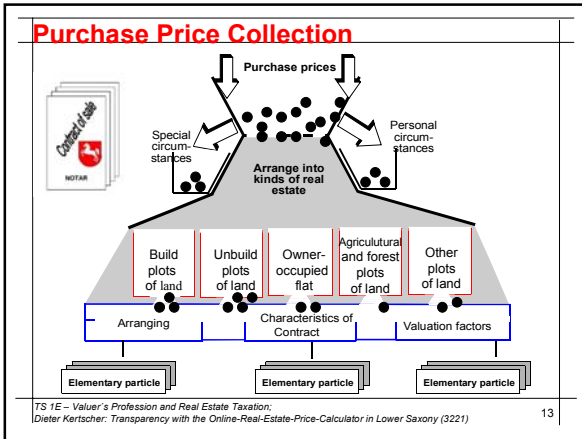
Purchase Price Collections (Kaufpreissammlung)

Basical Law in whole Germany

The key: At this side „Data Protection“ !!!



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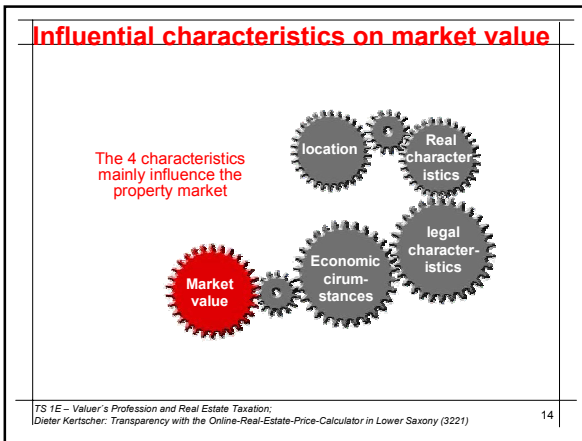


Collection of Contracts of Sale

Registration of the sold built object in 3 files

Index card	in the map	File card with picture
1960	1960	1960
	2000/Today digital	Today: digital

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First steps in 1961 in Lower Saxony with the automatically managed Purchase Price Collection

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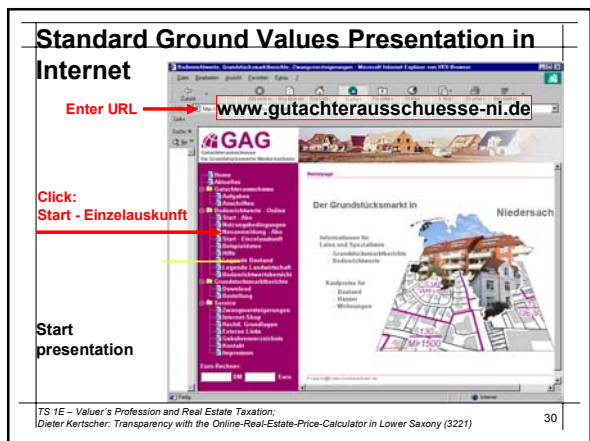
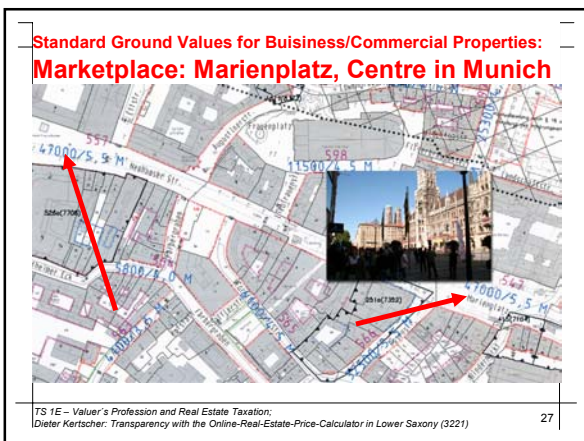
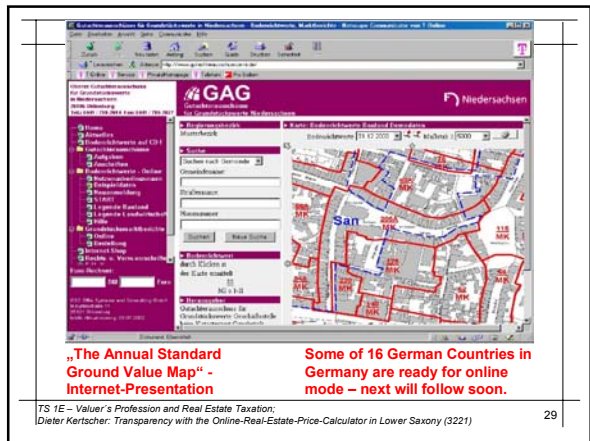
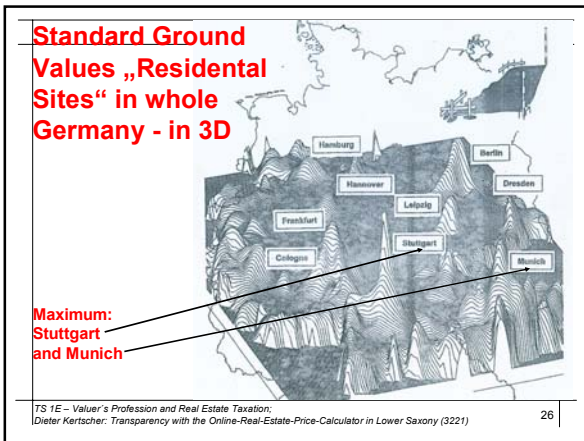
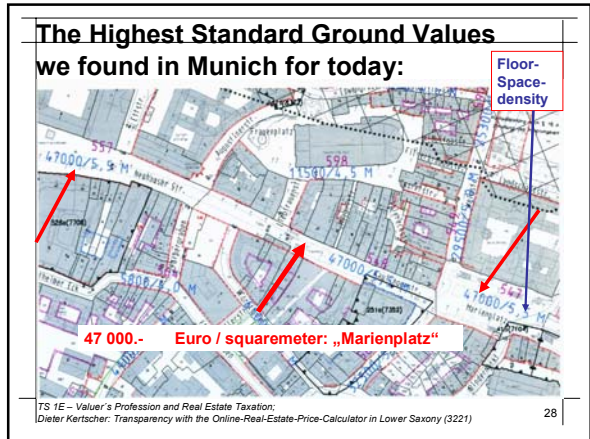
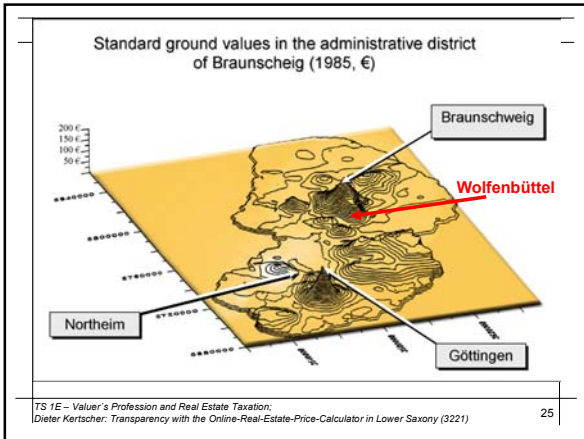
Collection of contracts of Sale for a build on Real Estate

Evaluation of contracts of sale

Supplementation remaining influences like living space, sanitary facilities,

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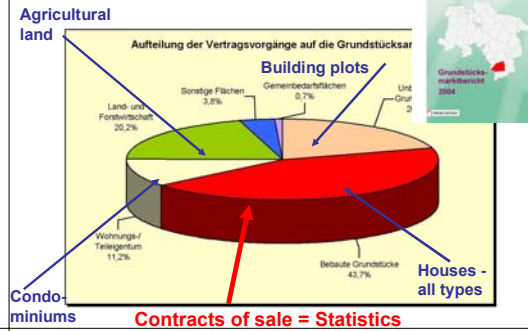


Point 4:

1. Law and Organisation of German Valuation Advisory Committees and private Valuers
2. Digital Purchase Prices Collections and the Analysis
3. Standard Ground Values – derived annual
4. Reports of Real Estate Markets – derived annual by Advisory Committees

„Market Report“

Report of the local market with all important informations

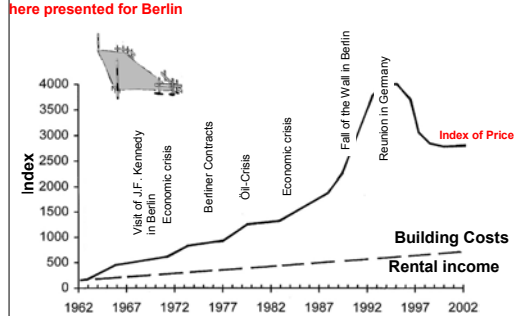


„Market Report“

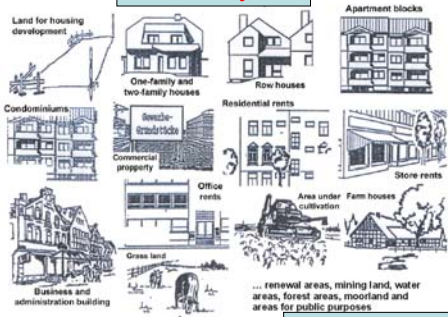
Report of the local market with all important informations to 01. January



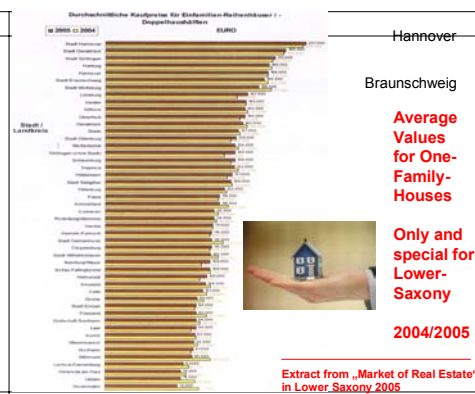
Price development of Real Estate individual for one-family-houses here presented for Berlin



Evaluated objects ...



... for all types you must know



Report of Real Estate Market in Lower Saxony

Was kostet ein Einfamilienhaus in Niedersachsen?



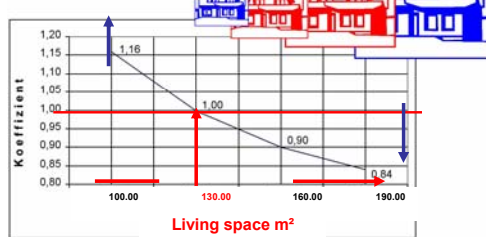
Pyramid of Prices of One-Family-Houses

Point 5:

1. Law and Organisation of German Valuation Valuation Committees and private Valuers
2. Digital Purchase Prices Collections and the Analysis
3. Standard Ground Values – derived annual
4. Reports of Real Estate Markets – derived annual
5. The best of all German Ways to find out Market Values: Comparison Method with Conversionfactors

Conversion - Coefficients for different living-spaces

Umrechnungskoeffizienten für abweichende Wohnflächen



Valuation of build on / developed properties

Reports of Real Estate

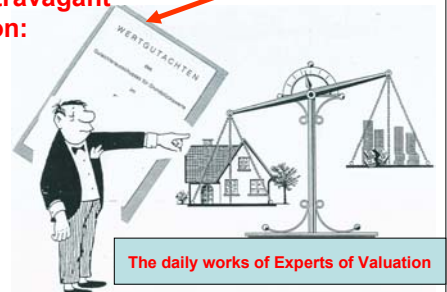


This is the first Report of whole Germany – produced by EuroHypo

In English !!

The expensive, the extravagant solution:

Write „Expert Opinion“, for example: 1000 Euro fee

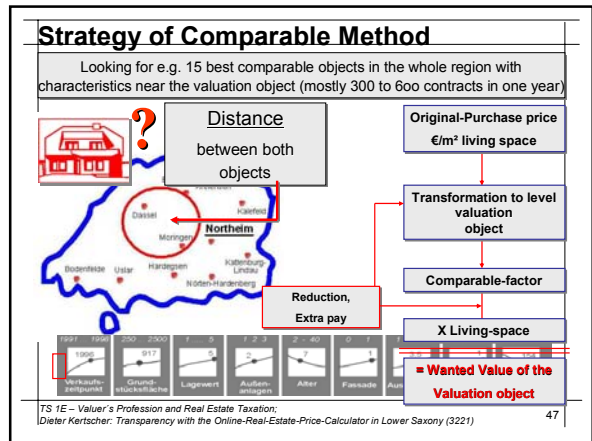
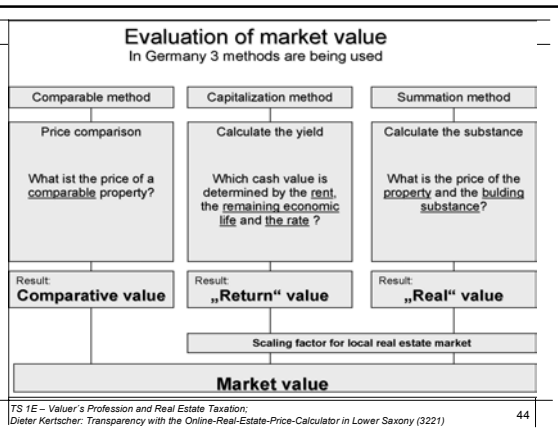
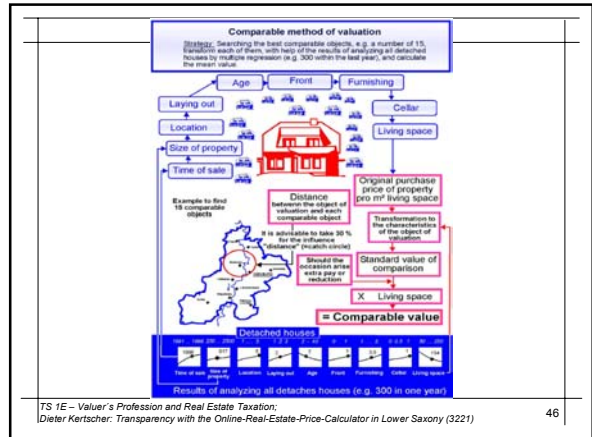


The daily works of Experts of Valuation

Valuation of build-on Properties in Germany

German Valuers knows 3 Methods to find out the Market value of a build – on property, written down in German Law:

1. **Comparable method of valuation** („Vergleichswertverfahren“) **← „the best !!“**
2. **Income approach to valuation** („Ertragswertverfahren“)
3. **Depreciated replacement cost approach or Asset value method** („Sachwertverfahren“)



The very best Strategy: Comparable Method

Location of all objects

Digital „Site plan“ with all comparable objects:
 - Yellow: Picture existing
 - Red: No picture prepared

Comparable objects - digital pictures, registered in the Purchase Price Collection

Registration numbering

Carry out a spot check for an „Expert opinion“:
 The best 15 comparable objects with there 9 characteristics are be found by AKS and are written down

Look: „Data-protection is kept!!“
 Only „Municipality is written

Living-size

Lage	jahr	Fläche	Lage	Außen	Stufen	Feis.	Aus	Keller	Wohn	Grund	Umsatz
Bezeichnung	1999	107	3	1,5	3	1	3,25	0	168	168	888
Bronn	2003	881	3	1	2	1	3,5	0	180	664	843
Stapelberg	2002	920	4	2	7	1	3,25	0	180	1036	943
Zornell	2002	771	4	2	2	1	3,5	0	124	1813	1003
Stapelberg	2000	826	4	2	5	1	3,25	0	160	887	826
Walle	2000	804	2	2	5	1	3,5	0,6	130	1231	1022
Bronn	2002	7147	4	3	2	1	3,75	0	180	1628	1050
Stapelberg	2001	761	4	2	15	1	3,75	0,6	180	817	754
Lohndorf	2001	814	4	3	2	1	3,75	0	160	1018	911
Walle	1999	1322	2	2	3	1	3,5	1	180	834	731
Lohndorf	2001	963	3	2	1	3,25	0,5	180	868	950	
Stapelberg	1998	807	4	3	4	1	3,5	0	150	867	804
Hersberg	2001	763	1	3	1	3,25	0	111	869	776	
Lohndorf	1998	1171	3	2	17	1	3,5	1	166	1106	983
Lohndorf	2001	821	3	2	16	1	4,25	0,5	145	1262	956
Stapelberg	1997	395	3	2	16	1	3,5	0	143	700	727
Walle	2001	81	3	2	3	1	3,5	0	168	700	727

Result: 887 X 168 = rd. 149 000 Euro = Wanted Value of valuation object !

Report of Real estate market

Influential factors and their quantity of influence

One-family houses

in region Landkreis Musterort, written down in €/m²-living-space of an object to a deadline of 01.01.2003

5 characteristics are influential on market value of real estate:

- Year of construction
- Living space
- Furnishing of the building and
- Dimensions and plot and
- Site, location

Object: Constructed: 1975, Living-space: 100 m², Furnishing: normal, Dimension of plot: 830 m², Value of plot: 60€/m² without development

Look right into graphics: ca. 1850,- €/m² * Factor 1,16 * 100 m² living space

Comparable Value: round 225.000,- Euro

Example of use:
In red in graphics

Value-level for an object with 130 m² living-space, 830 m² site and of middle Furnishing

Correlation between other living-spaces

Differences in furnishing, workflow and so on will guide to values of more and less

max. +/- 20 %

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A short view to North Rine Westphalia and to the Product BORIS.NRW

Description of Parcel

Main-Functions

Choose Adresse

Extract of Map with Valuation Object

First step, Standard Ground Values in Internet, the same like Lower Saxony (one year later)

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Point 6:

1. Law and Organisation of German Valuation Valuation Committees and private Valuers
2. Digital Purchase Prices Collections and the Analysis
3. Standard Ground Values – derivated annual
4. Reports of Real Estate Markets – derivated annual
5. The best German Way to find out Market Values: Comparison Method with Conversion-factors
6. Looking for Today and in Future: Writing an Online-Price-Calculator for Standard-objects and present it in Internet for everyone, for all users
Here: For build-on Objects !!!
We have seen a solution with „BORIS“, realized for NRW (Presentation Wanzke this day)

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Informations about Values of Standard-houses via Internet in IRIS.NRW

North-Rhine Westphalia

Pilot-project in NRW

Target: Average Values of site for

- One- and two-family-houses
- Condominiums
- More-family-houses
- Row houses

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Survey of Stages of Development during the last 40 years: Valuation of Real Estate: The German Approach

Technological development

Internet, e- and m- Commerce

Networking GIS - Support

Electronic data processing

1960 1980 2000 Time / Years

Stage 1: Analogue Management of the schedule of purchase prices

Stage 2: Switch to Computer - based evaluations

Stage 3: Network and GIS - aided evaluations

Online-Products
e.g. Online - Informations

Digital products:
- Presentation of purchase prices
- Digital maps of recommended approximate values for land
- Digital Reports on Local Real Estate Markets
- Detailed report: Collection of market value

Analogue separated products:
- Index card
- Map of purchase prices
- Reports on Real Estate Markets
- Special analysis of local markets

Analogue Products (Paper-based):
- Index card
- Map of purchase prices
- Map of recommended approximate values for land

Situation of public-authority Valuation in Germany, specially in Lower-Saxony

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Informations about prices of condominiums from Purchase Price Collection

Allg. Preisauskunft: Eingabe

Allgemeine Preisauskunft
Eigentumswohnungen

Bitte wählen Sie aus:

Stadt/Kreis Solingen 1980 Baujahr Neubau (Erstverkauf)

Wohnlage mittlere 75 Wohnfläche (m²)

Ausstattung mittlere Zimmer (optional)

Aim of research:
10 transactions or more !!
Not found 5 transactions:
No information !!

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IRIS-NRW

- vom Browser gratis
- als PDF-Dokument
- oder als Karte

Ergebnis der Recherche

Aufgrund Ihrer Recherche wurden 11 Kaufpreise der letzten 4 Jahre gefunden. Die Stichprobe umfasst Wohnungen mit:

- einer Wohnfläche von 50 bis 66 m² (Mittelwert 61 m²),
- Baujahren von 1966 bis 1982 (Mittelwert 1972).

Der mittlere Kaufpreis beträgt 1.263 €/m² mit einer Streuung von +/- 8,8 %. An Hand der gewählten Parameter ergibt sich ein mittlerer Kaufpreis von ca. **75.800 €**.

Bitte bedenken Sie, dass weitere Einflussfaktoren, wie der Objektzustand, die Größe der Wohnanlage, die Geschosslage, besondere Einbauten, Erbbaurechte, Wiederaufrechte, Altlasten u.a.m. den Wert beeinflussen können. Diese Faktoren konnten bei der Recherche nicht berücksichtigt werden. Diese Auskunft ersetzt keine qualifizierte Kaufpreisanalyse.

Ausgabe der Recherche:

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IRIS NRW Immobilienrichtwert-Informationssystem NRW

Das Richtwertinformationssystem für Grundstücke und mit Grundstücke verbundene Immobilien in Nordrhein-Westfalen

Testbetrieb

Immobilienwerte-Online

View in future:
One entrance in whole Germany: BORIS.Deutschland

BORIS NRW

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BORISplus – Inquiries of Price-level

Der Online-Güterwertkatalog für Grundstücke und mit Grundstücke verbundene Immobilien in Land Nordrhein-Westfalen

Allgemeine Preisauskunft

ETW- Condominiums

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Outlook of all 16 Countries in Germany:

VBORIS
(Vereinigtes BodenRichtwertInformationssystem)
German-wide tuning in an ADV - Project

- VBORIS-Modell is GDI-conform
- Link up to a network, named:
- Bodenrichtwertinformationssysteme der Bundesländer and their network (VBORIS)
- Integration with other products of Advisory Committees are intended (Report of Real Estate, Influential factors, ...)

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BORISplus Allgemeine Preisauskunft

Ausgabe der Recherche

Auf Grund Ihrer Recherche wurden 11 Kaufpreise aus den Jahren 2007 bis 2007 gefunden. Die Stichprobe umfasst Wohnungen mit:

- einer Wohnfläche von 90 bis 105 m² (Mittelwert 96 m²)
- Baujahren von 1971 bis 1985 (Mittelwert 1976).

Der mittlere Kaufpreis beträgt 1663 €/m² mit einer Streuung von +/- 14 %. An Hand der gewählten Parameter ergibt sich ein mittlerer Kaufpreis von ca. **166310 €**.

Einzeltableau anzeigen

Diese Preisauskunft ersetzt keine qualifizierte Verkehrsermittlung nach § 134 BauOö. Bitte bedenken Sie, dass weitere Einflussfaktoren wie der Objektzustand, die Größe der Wohnanlage, die Geschosslage, besondere Einbauten, Erbbaurecht, Wiederaufrechte, Altlasten u.a.m. den Wert beeinflussen können. Diese Faktoren konnten bei der Recherche nicht berücksichtigt werden.

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Immovables-Price-Calculator in Lower-Saxony (Germany)

„IPC“

The youngest Online-Product of Advisory Committees in Lower Saxony.
Calculate the Price of your Property

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Products of Advisory Committees of Lower Saxony

Standard Ground Values (Maps, DVD, Internet)

Report of Real Estate

Expert-Opinions

... And now: A new way to provide Transparency in Real Estate Markets -
Something like „BORIS“ in NRW ...

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Result: Nothing comparable found =
No Result !!!!

With influence-factors of Location and other simple factors will be checked up, whether a Solution is possible

Standardized Influencing Factors are possible:
 Location, Time of Valuation, Living size, Year of Construction, Squaremetres of plot, other Influence factors must be normed!

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Who will be the users for „IPC“?

We think, like users of Standard Ground Values in Internet?

LOGIN by Standard Ground Values all the time:

2. Administrative Bodies = 80% !!

1. Banken

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Example

Charge, fee:
round about 20 Euro per question (like NRW)

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Projekt 2006 in Lower Saxony (Germany)

A rough Calculation of Market-values of One-Family-Houses and Condominiums

... based on Models of the local Advisory Committees of Valuation

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Products of Advisory Committees in Lower Saxony

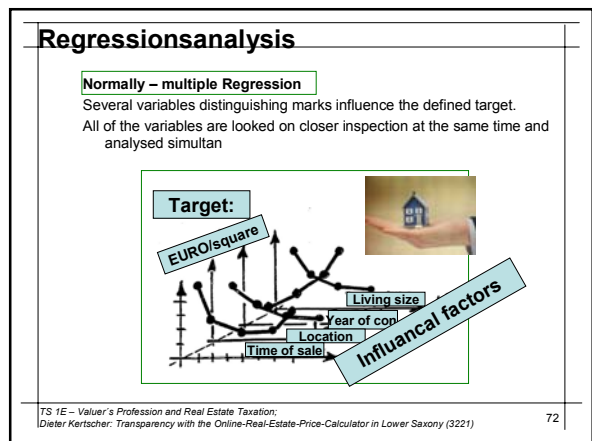
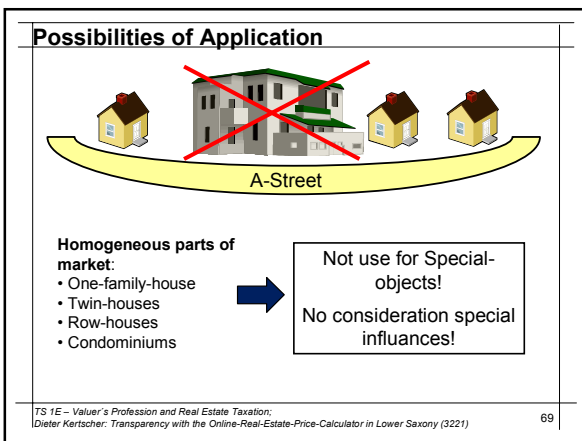
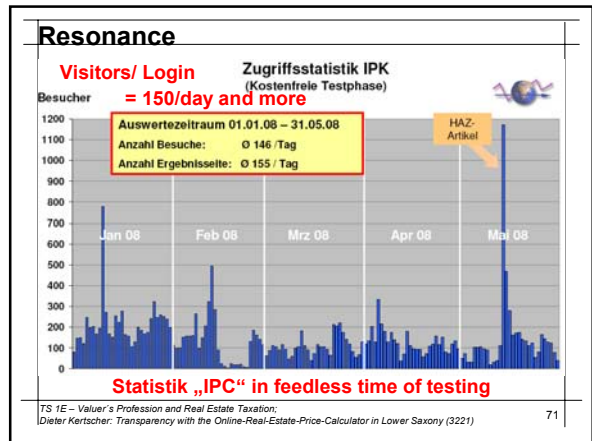
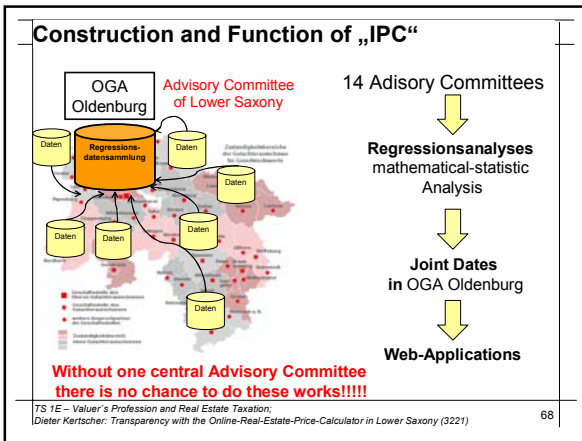
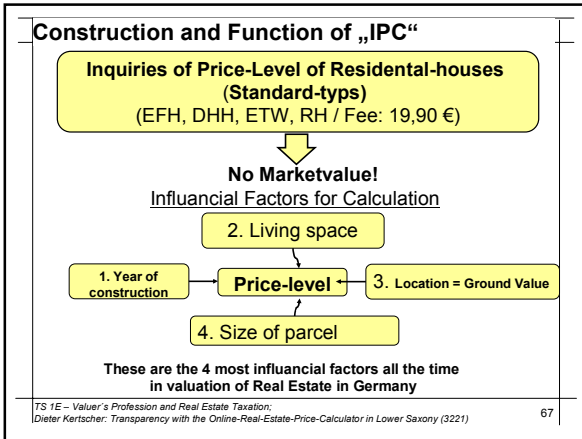
New Product since 2007:
 Immobilien-Preis-Kalkulator („IPK“) – named here „IPC“

Inquiries-System for Build-on properties

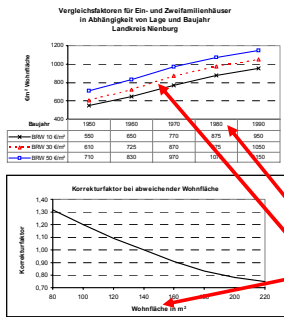
Kriterions to find out Transparency of Market-Values ?

- User-friendly
- Price/Output
- Availability
- Simple
- Global, overall

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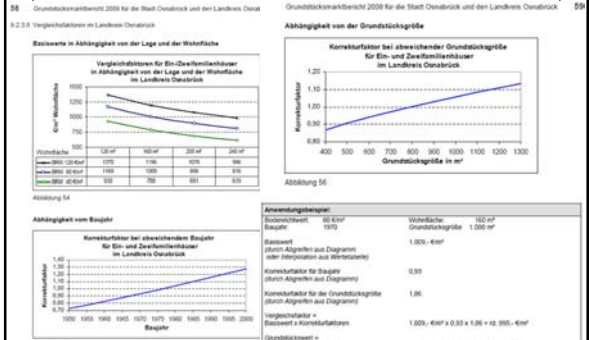
Construction and function of „IPC“



Results of yearly analysed Multiple Regressions are presented in Reports of Advisory Committees – standardized for the whole country and related to

- Year of construction,
- Location (in form of Standard Ground Values)
- and Living space.

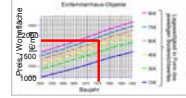
Dates from Market-Report of Advisory Committee



Freistehende Ein- und Zweifamilienhäuser Im Bereich des Landkreises Muenster; angegeben in €/m²-Wohnfläche des Objektes zum Stichtag 01.01.2003

Nachweisbar nehmen fünf Merkmale Einfluss auf den Wert derartiger Grundstücke: Baujahr, Wohnfläche und Ausstattung des Gebäudes sowie Größe und Lage (in Form des Bodenrichtwertes) des Grundstücks.

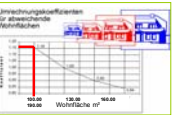
Example in Market-Report:



Wertverhältnisse für ein Objekt mit 130 m² Wohnfläche, 830 m² Grundstücksfläche und mittlerer Ausstattungsqualität

Anwendungsbeispiel

Objekt: Baujahr 1975, Wohnfläche 100 m², Ausstattung normal, Grundstücksgröße 830 m², Bodenrichtwert 60€/m² ohne Erschließung.



Umrechnungskoeffizienten für abweichende Wohnflächen

Nach den Grafiken: ca. 1850,- €/m² * Faktor 1,16 * 100 m² Wohnfläche
Vergleichswert: rund 225.000,- € inkl. Bodenwert

Abweichungen in Ausstattung und Unterhaltung führen zu Mehr- oder Minderwerten von bis zu 20 %.

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Opening Presentation:

Put in the Address

Make Inquiries for build-up-objects. Start

Start Presentation



Construction and Function of „IPC“

Calculation of „multiple Regressions“ (Formular-Example: Referring to a special Condominium in Region of Wolfenbüttel)

$$\text{Zielgröße}^{E_z} = A + K_{1D} \cdot \text{DATU}^{E_{1D}} + K_{2D} \cdot \text{DATU}^{E_{2D}} + K_{3D} \cdot \text{DATU}^{E_{3D}} + K_{1B} \cdot \text{BAUJ}^{E_{1B}} + K_{2B} \cdot \text{BAUJ}^{E_{2B}} + K_{3B} \cdot \text{BAUJ}^{E_{3B}} + K_{1L} \cdot \text{LAGE}^{E_{1L}} + K_{2L} \cdot \text{LAGE}^{E_{2L}} + K_{1F} \cdot \text{FLAC}^{E_{1F}} + K_{2F} \cdot \text{FLAC}^{E_{2F}} + K_{1W} \cdot \text{WOFL}^{E_{1W}}$$

Time of Valuation: DATU
 Year of Construction: BAUJ
 Standard Ground Value: LAGE
 Ground size: FLAC
 Living space: WOFL

K_{ij} : Regressionskoeffizient i der Einflußgröße j
 E_{ij} : Exponent i der Einflußgröße j
 A: Absolutglied

Example IPC I



Example IPC II

Example IPC: Step 3

Example IPC: Step 1

Example IPC: Step 4

Example IPC: Step 2

Example IPC: Details

Summary „IPC“

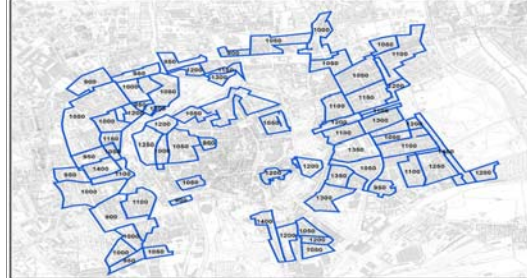
- With IPC you will find informations about level of prices of standard-objects of residential buildings:
- Free standing One-Family-House (and Two-Family-House)
- Row-Houses and
- Twin-Houses
- Condominiums
- Written-down dates/grafics from the Valuation-Report (analysed with all prices of real estates from the Advisory Committees) are prepared:
- in Online-Station
- possible for Standard-Objects without specific qualities
- Target are not MARKETVALUES, but rough values
- Free for everybody in Internet – Fee: 19,90 Euro

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New: Analysed and published in 2009 by Advisory Committee of Brunswik (with Master-Student), in continue Works in Düsseldorf of Advisory Committee:

Standard Market-Values of Condominiums/ Apartments for the City of Brunswik



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Online-Offer of the 16 German Countries

	Bodenrichtwerte	Marktbericht	Erforderliche Daten	Auskunft Kaufpreissammlung	Sonstiges
Baden-Württemberg	Nein ¹	Nein ¹	Nein	Nein	*Karlsruhe ja
Bayern	Ja (tlw.); im Aufbau	Nein	Nein	Nein	
Berlin	Ja	Nein ² ; Teilzusätze ja	Ja	Ja; anonymisierte Vergleichsobjekte	
Brandenburg	im Aufbau (siehe PPP), f.w. Ausschnitte	Nein ²	Nein	Nein	
Bremen	Nein	Nein	Nein	Nein	
Hamburg	Ja	Nein ²	Nein	Nein	
Hessen	Nein	Nein	Nein	Nein	
Mecklenburg-Vorpommern	BRW typ. Orte bis 2004	Nein	Nein	Nein	
Niedersachsen	Ja (für BRW)	Ja (PDF)	Nein	Nein	IPK
NRW	Ja (BORISplus NRW)	Ja (PDF)	Nein	Nein	Allg. Preisauskunft
Rheinland-Pfalz	Ja (BORIS.RLP)	Ja (PDF)	Nein	Nein	
Saarland	Nein	Nein	Nein	Nein	
Sachsen	Nein	Nein	Nein	Nein	
Sachsen-Anhalt	Ja, ähnlich wie Nds.	Nein (nur LMB)	Nein	Nein	
Schleswig-Holstein	Ja (tlw.), auf Seiten der jeweiligen örtl. GAG	Nein	Nein	Nein	Verlinkung auf Seiten GAG
Thüringen	Nein	Nein	Nein	Nein	

¹Nur Online-Antragsformular
Quelle: www.gutachterausschuesse-online.de Stand: Juni 2008
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Standard Market-Values for Condominiums/Apartments in Brunswik

City of Brunswik – Explanations:

Die Karte gibt einen Überblick über das Preisgefüge von Eigentumswohnungen innerhalb des Stadtgebietes Braunschweig.
Die hier dargestellten Marktrichtwerte wurden aus Kaufpreisen der Jahre 2000 bis 2007 abgeleitet.

Es wird der Kaufpreis pro m² Wohnfläche in der entsprechenden Lagezone dargestellt.

Die Marktrichtwerte präsentieren das Preisniveau für Eigentumswohnungen, f. d. gilt:
Wohnfläche [qm]: 70
Bauzeitklasse: 3

Die Marktrichtwerte sind nicht geeignet, unmittelbar auf den konkreten Verkehrswert einer Eigentumswohnung zu schließen.

Hinweise:

Die Marktrichtwerte können für Eigentumswohnungen mit einer Größe v. 30 qm bis 125 qm berechnet werden.

Als Bauzeitklasse können gewählt werden:

- Baujahrsklasse 2: 1920 =< Baujahr < 1945
- Baujahrsklasse 3: 1945 =< Baujahr < 1970
- Baujahrsklasse 4: 1970 =< Baujahr < 1985
- Baujahrsklasse 5: 1985 =< Baujahr < 1995
- Baujahrsklasse 6: 1995 =< Baujahr

Für Gebäude, die vor 1920 errichtet wurden (Baujahrsklasse 1) ist keine Berechnung möglich.

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Online-Information in Berlin – perfect!

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Our actual aim:
One Report

- for all Countries of Germany
- for Plots and Buildings
- with indices,
- with Comparables Factors
- with Standard Ground Values

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Results in Germany today

Summary: With our concept to analyse Collections of contracts of sale Germany is going a good and successful way to make transparency on Real Estate Markets in Germany.

Today we offer the **Immobilie-Preis-Calculator for Standard-Objects in Lower Saxony**

NRW and AdV Arbeitsgemeinschaft der Vermessungsverwaltungen der Länder) work out **VBORIS for Standard Ground Values in Internet and BORISplus for immovable properties**

In whole Germany we write one Report for all types of **German Immobiles**, written by 16 Committees of Valuations of the 16 countries

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Hand over „GIS Best Practice Award 2008“ for Advisory Committees in Lower Saxony to „IPC – Lower Saxony“ - on INTERGEO 2008 in Bremen by this Union of Authorities of Valuation of Real Estate and GIS



„Immobilien-Preis-Kalkulator“

Other institutions are looking with great interest in German „IPC“!!!

Der GIS Best Practice Award des DVW wird unterstützt von:



- AdV - Arbeitsgemeinschaft der Vermessungsverwaltungen der Länder der Bundesrepublik Deutschland
- BDVI - Bund der Öffentlich bestellten Vermessungsingenieure
- CEFGI - Center for GeoInformation
- DINGI - Deutscher Dachverband für GeoInformation
- DGK - Deutsche Gesellschaft für Kartographie
- GIN - GeoInformation Norddeutschland
- IKGIS - Institut für Kommunale GeoInformationssysteme
- Runder Tisch GIS e.V.
- VDV - Verband Deutscher Vermessungsingenieure

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A last view to Lower-Saxony:



Informations of Valuation Committees via Internet – here Standard Ground Values - that is a very successful way !
Please visit us:

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Providing Transparency in Valuation of Markets of Real Estate – we are going a successful way



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