



# Mass valuation in the Netherlands

**Date** May 23, 2023

**Name** Ruud M. Kathmann

# Intro

- Ruud Kathmann
- Netherlands council for real estate assessment
  - Waarderingskamer
  - Oversight agency
- Management team
  - Information technology
  - Valuation methods
  - Techniques for quality control



# Program

- Introduction of the Netherlands
  - General
  - System of property taxation
  - System of mass valuation
  - Future developments
- Q&A





# Introduction of the Netherlands

General

# Location



# Some facts

- Kingdom
- 17.3 million inhabitants
- Area: 41,526 km<sup>2</sup> (16,221 sq mi)
- 9 million real estate properties
  - 8 million residential
  - 1 million non-residential
- Total value: € 2,750 billion
- Yearly more than € 11 billion tax revenues based on the assessed value
- Total costs for appraisal and assessment:  
€ 180 million a year

# The Netherlands



- Amsterdam capital
- Government located in The Hague
- 12 ministries
- The Netherlands' Cadastre, Land Registry and Mapping Agency
- The Tax and Customs Administration

# Regional government



- 12 Provinces
- Layer between the national and the local government
- Responsibility for matters of subnational or regional importance
- To a large extent financed by the national government
- Discussions about a provincial property tax

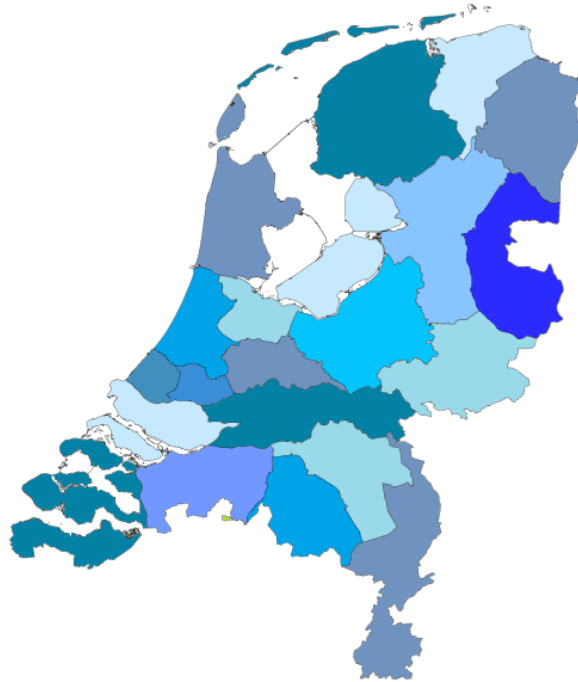


# Local government, municipalities



- 342 municipalities
- Municipal mergers have reduced the total number of municipalities
- Wide range of sizes
  - Smallest
    - 750 tax objects
    - 7.03 km<sup>2</sup> (2.71 sq mi)
  - Largest
    - 500,000 tax objects (Amsterdam)
    - 523.01 km<sup>2</sup> (201.94 sq mi)
- Ruled by a municipal council
- Finances
  - 80% from national government
  - 20% own taxes

# Local government, polderboards



- 21 polderboards
- Oldest forms of local government
- Spread over entire country
- Responsible for water management
  - Take care of dry feet
- Self-sufficient (levy their own taxes)
- Are becoming more important because of dry summers, sea level rise, etc.



# Introduction of the Netherlands

System of property taxation

# Property taxation in the Netherlands

- Municipalities, polderboards and national government levy property taxes
- Municipalities responsible for the annual valuation (formal assessment) of all real estate properties
  - All other organizations are obliged to use these assessed values for taxation purposes
- Assessed values are used for property taxes
  - Municipalities
  - Polderboards
  - Central government
    - Imputed income for owner occupied houses (Income tax)
    - Limits fiscal depreciation of real estate (Corporation tax)
    - Inheritance tax

# Municipal property tax

- Owner/user on January 1<sup>st</sup> pay tax for all year
- Yearly tax bill in January of February
- On this tax bill:
  - Formal notice of assessed value
  - Property tax
  - Fees for garbage collection and sewage charges
  - Other local taxes and fees
- Payments
  - For private persons (residential property) automatic monthly instalments
- Objections and appeals
  - Ownership (use) on January 1<sup>st</sup>
  - Not against assessed value



# Municipal property tax

- Owner of average house (market value € 400,000)
  - € 500 / year (0.12 %)
- Total revenue property tax
  - € 4,750,000,000
- Property tax as percentage of municipal budget
  - 8 %
- Other taxes (parking, tourist, dogs)
  - 3 %
- Local charges (waste collection, sewage system, permits)
  - 8 %
- Large part of budget is coming from central government
  - 80 %



# Property tax polderboards

- Property tax based on value
  - Only for owner
  - Only for built property
    - Land is taxed based on area
- Tax for average house
  - € 200 (0.05 %)
- Total revenue for polderboards
  - € 800.000.000 (25 % of total budget)
- Other taxes
  - Land (based on area) 6 %
  - Poll tax 23 %
- Charges for cleaning sewage water
  - 45 %
- No financial means from central government to polderboards



# Property tax central government

- Income tax (imputed income of owner occupied house)
  - 0.30% of value is added to your income
  - Tax for average house € 600
  - Total revenue € 4,700,000,000
- Capital gains tax (for other residential property, like recreation homes and rented out homes)
  - 4.4% of value is added to your income
  - tax for average recreation home € 2500
  - total revenue € 1,000,000,000
- Inheritance tax
  - for houses the assessed value is used
  - rates from 10% (children etc.) to 40 %
  - total revenue € 650,000,000
- Landlord tax for landlords with more than 10 houses (will be abolished)
  - rates 0.59% of value
  - total revenue € 1,6000,000,000



# Transfer tax central government

- Based on the price
- General rate
  - 8 % of price
- Rate for buyer of residential property for self occupancy
  - 2 % of price
- Rate for young first time buyers
  - 0 %
- Total revenue € 4,300,000,000

# Average tax bill for average house

• Assessed value		<b>€ 400,000</b>
	Tax rate	Tax bill
• Municipal property tax	0,12%	€ 500
• Property tax polderboard	0,05 %	€ 200
• Property tax central government	0,30% % * 50 %	€ 600
• Total		€ 1,300





# Introduction of the Netherlands

System of mass valuation

# Seven Key Principles to explain mass valuation

1. Market value
2. Valuation frequency
3. Layer of government responsible
4. The valuers and their tools
5. Data management
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. Not only for taxes



# Principle 1

1. **Market value**
2. Valuation frequency
3. Layer of government responsible
4. The valuers and their tools
5. Data management
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. Not only for taxes

# Possible Tax Bases

- Property taxes come in many types and forms:
  - Based on the land area/plot size
  - Based on surface area of building
  - Rental value
  - Capital value (market value)
  - Window tax
  - ....



# Tax Base in the Netherlands

- Total immovable property (land and improvements)
- Market Value (IVS/EVS)

*The estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without being under compulsion*



# Valuation Assumptions

- The value is determined in accordance with the value which would be allocated to the property if the **full and unencumbered ownership** thereof can be transferred and the acquirer is able to make **full and immediate use** of the property in the condition in which it was acquired.



# Advantages of Market Value as Tax Base

- Understandable for real estate owners
- (In most cases) correlates with ability to pay
- More accurate value, more equitable taxation
- More efficiency in a recurrent process of market analysis, valuation, appeals, etc.
- Appropriate to use for multiple purposes
- *IAAO: A market value system provides estimates of value that maximize uniformity, fairness, transparency, and understandability*

# Drawback of market value as tax base

- Need of a transparent and active market
- Market prices also influenced by subjective elements
- Changing market preferences affect the registration
- Market analysis require continuous attention
- Value disputes (objection and appeals)

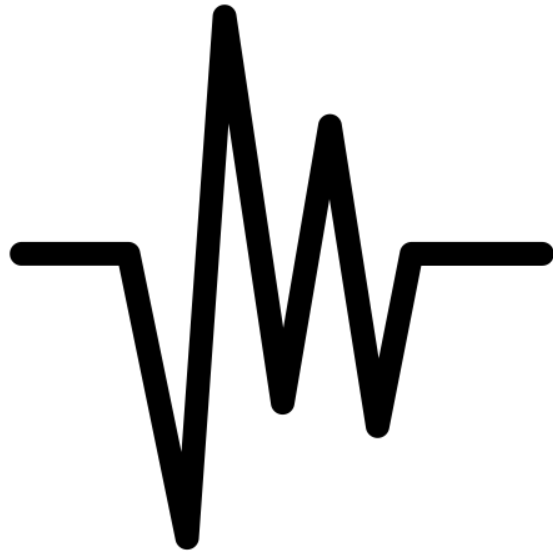
# Not always Market Value

- Sometimes market value is not a good choice
- Depreciated replacement cost for non-marketable properties
- Exemptions for instance for churches, nature reserves
- Polderboards use mixed tax system
  - For built properties: tax base is value
  - For unbuilt properties: parcel size
- Mixed system of property taxation should be considered when
  - the real estate properties have low values (or only small differences)
  - the real estate market is non-transparent
  - there is a low availability of property characteristics

# Principle 2

1. Market value
2. **Valuation frequency**
3. Layer of government responsible
4. The valuers and their tools
5. Data management
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. Not only for taxes

# Valuation Frequency



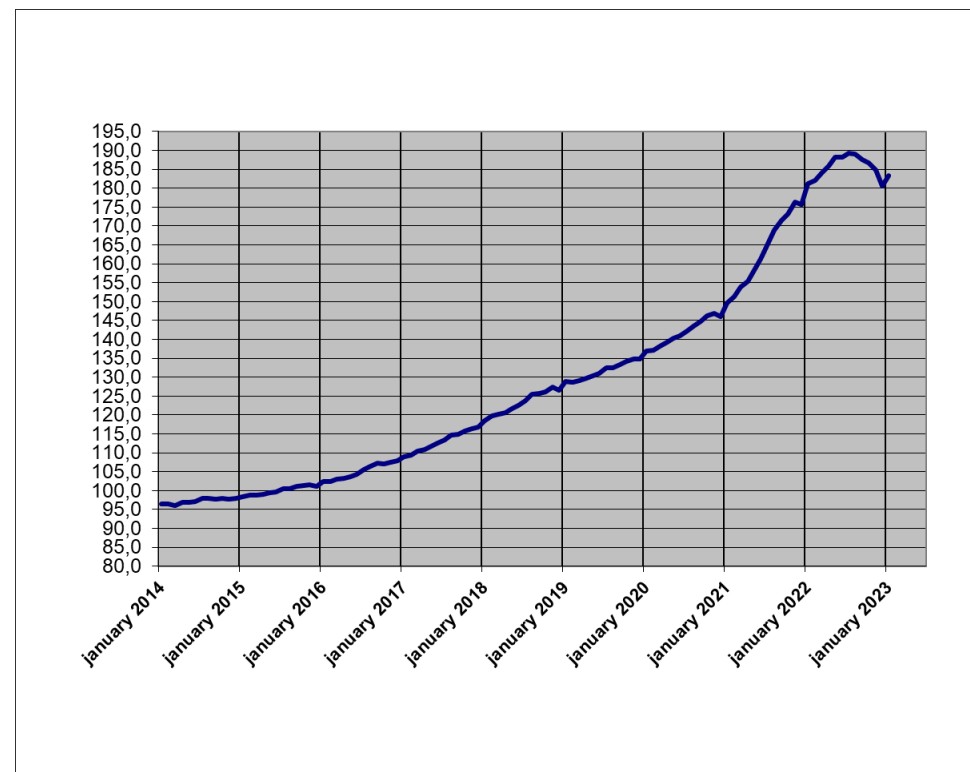
- Different approaches possible
  - For instance
    - Belgium, France: annual indexation of value
    - Romania: no fixed frequency
    - Other countries: no reassessments, fixed valuation date (UK for example)
- We started with a four-yearly valuation
- We gradually accelerated to an annual valuation with the valuation date one year in the past
- Assessed value “follows” market
- There are discussions on further acceleration

# Valuation Frequency in the Netherlands

<b>Tax year / period</b>	<b>Valuation date</b>
1997 – 2000	January 1 <sup>st</sup> , 1995
2001 – 2004	January 1 <sup>st</sup> , 1999
2005 – 2006	January 1 <sup>st</sup> , 2003
2007	January 1 <sup>st</sup> , 2005
2008	January 1 <sup>st</sup> , 2007
2009	January 1 <sup>st</sup> , 2008
2010	January 1 <sup>st</sup> , 2009
.....	.....
2023	January 1 <sup>st</sup> , 2022
2024	January 1 <sup>st</sup> , 2023

# Price Index Residential Property 2012-2023

- Assessed values are used to determine our national price index
  - Cooperation between Cadastre and Netherlands Bureau of Statistics



# Advantages of annual valuation

- More up-to-date value, more equitable taxation
- Annual opportunity to appeal gives confidence
- Appropriate to use for multiple purposes
- More efficiency in a recurrent process of market analysis, valuation, appeals, etc.
- No large changes in value each year
- Higher level of acceptance by taxpayers



# Point of attention for annual valuation

- Small disruptions of the process may lead to major delays
  - Objections and appeals
  - IT problems
- Less stability in tax income in rapidly changing markets
  - Flexibility in rates
- Less time for calibrating valuation models
- Difficult to implement improvements in an ongoing process

# Principle 3

1. Market value
2. Valuation frequency
- 3. Layer of government responsible**
4. The valuers and their tools
5. Data management
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. Not only for taxes

# Layer of government responsible

- Different choices have to be made:
- Who is responsible for legislation?
- Who is responsible for registration activities?
- Who is responsible for valuation?
- Who is responsible for taxation? (setting the rates)
- Who is responsible for centralized oversight and quality control?
- Central vs decentral
- National, regional or local
- All have pros and cons

# Decentralized when possible

- So
  - Municipalities are responsible for valuation process
  - Municipalities, polderboards and the national revenue office use (the same) assessed value to levy (different) taxes
  - Municipalities and polderboards decide on their budgets and on the rate for their taxes.
- But
  - Central administration is responsible for legislation
  - Registration is based on national system of key registers
  - The Netherlands Council for Real Estate Assessment is responsible for the quality control
  - Central system for valuation for not-marketable properties

# Advantages of decentralized system

- Valuation takes place close to taxpayer
- Extensive local (market) knowledge
- Close to relevant (spatial) data
  - Municipalities responsible for
    - Planning and building permits
    - Key register of addresses, buildings and large scale base map
  - Municipalities have access to key register of Cadastre
- More innovative power / more market competition
- No large national IT-projects that can fail



MUNICIPALITY

# Point of attention for decentralization

- Some municipalities too small for specialized task
  - Municipalities cooperate in regional partnerships
  - Union of municipalities supports in specialized valuation activities
- Lack of uniformity between municipalities
  - Standardization of working procedures and definitions of registrations
  - Quality control
  - Position of the Netherlands Council of Real Estate Assessment
- Fast- and slow adaptors of new developments
  - Stimulating role in new innovations

# Principle 4

1. Market value
2. Valuation frequency
3. Layer of government responsible
- 4. The valuers and their tools**
5. Data management
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. Not only for taxes

# Valuers for mass valuation

- Mass valuation is not the work of a valuer
- Mass valuation is done by a team of experts:
  - Data collectors and data specialists
  - Modelling specialists (econometrists)
  - Statisticians
  - Communication experts
  - Legal staff
  - And valuers (mostly for market analysis, final check of assessed value and communication with taxpayer)
- Valuation team:
  - Within municipality (civil servants)
  - Within shared service centres
  - Hired in from private firms





# Tools for mass valuation

- External datasets and data collected in the organization
- Systems for mass valuation
  - Calibrating valuation models (MRA, Clustering, AI)
  - Ratio studies and other techniques for quality control
  - Using different types of models to check quality
  - Support explaining the assessed value (valuation report)
- Systems for communication with taxpayers
  - Check quality of data
  - Informal contact on assessed values
  - Formal notification and formal objection and appeal





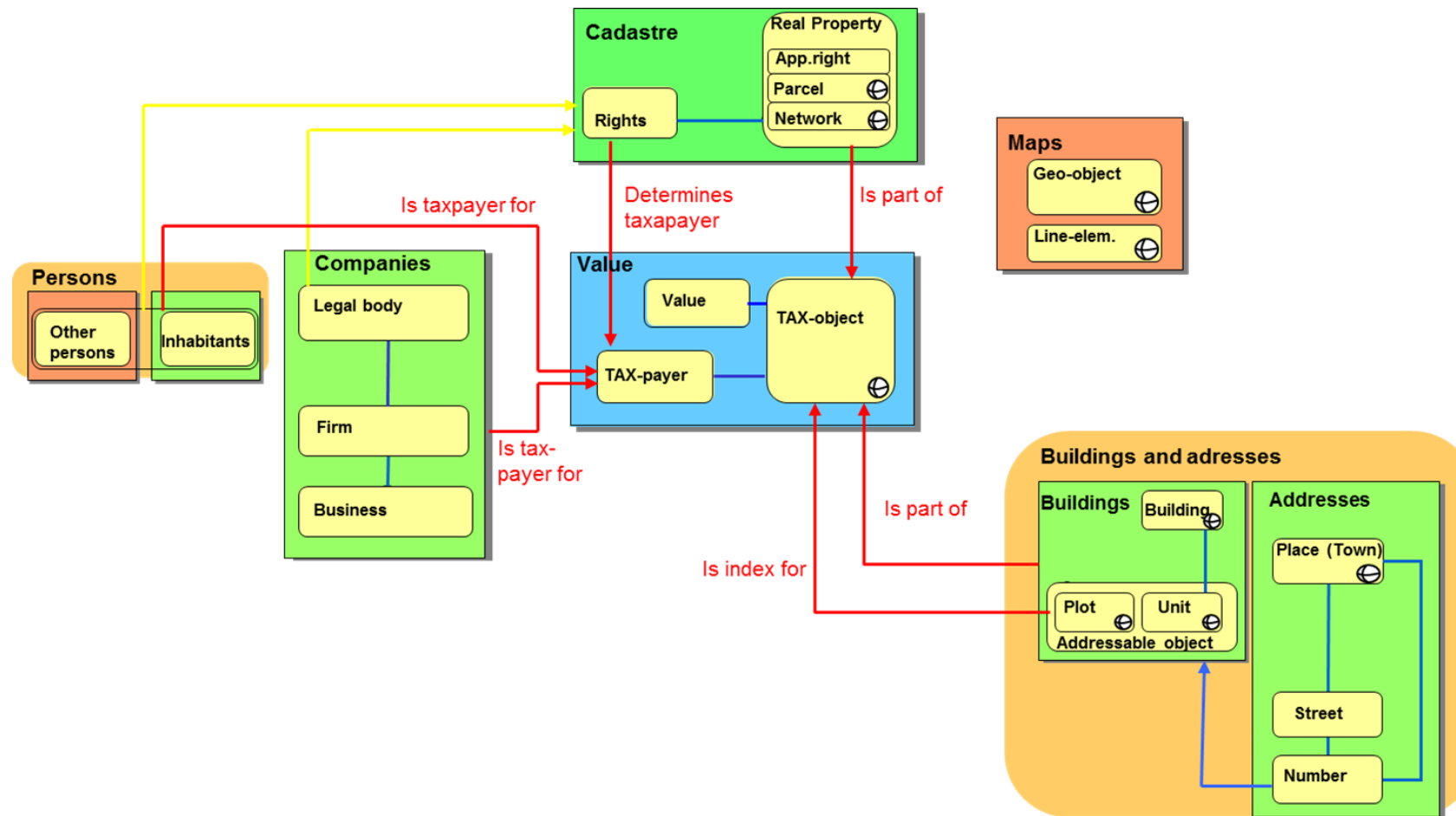
# Principle 5

1. Market value
2. Valuation frequency
3. Layer of government responsible
4. The valuers and their tools
- 5. Data management**
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. Not only for taxes

# Datamanagement

- The most important element of the valuation process
  - Data quality, data quality, data quality
- Properties completeness / demarcation / taxpayers
  - Key registers (Cadaastre, Addresses, Persons and Companies)
- Object characteristics
  - Key registers (Cadaastre: plot size, Buildings: building size, age)
  - Aerial photographs (annual), “streetview” images
  - Special data collection
  - Automatic change detection
- Market data
  - How to assess the market value without transparency of transactions?

# Key registers important for mass valuation



# Importance of data management

- Data collection and quality control of data is one of the most expensive parts of the valuation process (25% of the total costs)
- Data quality management one of the toughest parts of property valuation and taxation (leads to large part of objections)
- Single registration, multiple use of data
- Recurrent process forces municipalities to keep data up-to-date
- Sharing data has a positive influence on the efficiency
  - Win-win situation: also quality of key-registers improve
  - Sharing data: beneficial for taxpayer's trust in government
- High quality of data is one of the goals of the Netherlands Council of Real Estate Assessment

# Object characteristics for mass valuation

- Location
  - Coordinates, or neighborhood etc.
- Data on land
  - Size of plot
- Data on main building
  - Type of property
  - Size and age (often parts of building valued separately)
- Data on outbuildings
  - Garage, shed, etc.
- Data on specific features
  - Fences, parking spot on the plot, etc.

# Quality and maintenance condition hardest

Size: 120 m<sup>2</sup>

Year of construction: 1850

Size parcel: 600 m<sup>2</sup>



Size: 120 m<sup>2</sup>

Year of construction: 1850

Size parcel: 600 m<sup>2</sup>



# Importance of market data

- Official registration of sales prices
  - Central Cadastre in Netherlands
  - Sales prices (over 120,000 sales each year)
  - Base for transfer tax
  - Base for all valuation projects
- Additional market data
  - Real estate listings
    - (asking) price
    - object characteristics like size, age, type, outbuilding like garage etc.
    - but also characteristics as building quality, maintenance
    - pictures
  - Rent prices (for commercial real estate, income approach)
    - Collected by municipalities especially for mass valuation
  - Building costs (for not-marketable property, cost approach)
    - Collected by municipalities especially for mass valuation)



# Principle 6

1. Market value
2. Valuation frequency
3. Layer of government responsible
4. The valuers and their tools
5. Data management
- 6. Accuracy market analysis and valuation**
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. Not only for taxes

# Accuracy of valuation

- For taxation main demand: equity
  - Horizontal equity
    - Individuals with property with similar assets (value of property) should pay the same amount in taxes.
  - Vertical equity
    - Individuals should pay an equitable share of the property tax burden, regardless of the market value of their property, so lower value properties must be valued on the same percentage of market value as high value property.
- Demands for other purposes
  - Up to date
  - Real market value



# Market analysis as base for accuracy

- Mass valuation and market analysis
  - All market sales transactions are analysed
  - Conclusions market analysis are used for calibrating model
  - Model based valuations plays an important role in market analysis
  - Each sale price compared to assessed value
- Tax court decision:
  - “Municipality must be able to explain and defend each valuation with (market) data.
  - A statistical check of a valuation model is not enough.”
- Taxpayers in general are familiar with market prices
- Increasing demand to use formal assessed value
  - Assessment must be accurate estimation of market value

# Principle 7

1. Market value
2. Valuation frequency
3. Layer of government responsible
4. The valuers and their tools
5. Data management
6. Accuracy market analysis and valuation
- 7. Quality audits by oversight agency**
8. Interaction with taxpayer
9. Not only for taxes

# Quality audits by oversight agency

- Netherlands council for real estate assessment
  - In Dutch: Waarderingskamer
  - Checks quality of assessed values before announcing to taxpayer
  - Using international standards (ratio studies)
  - Also sampling of valuation reports
- Oversight is important to guarantee quality
- Oversight also important to improve trust of taxpayers
- Oversight also provides
  - Clear guidelines
  - Clear quality demands
  - Total system of quality control

# Principle 8

1. Market value
2. Valuation frequency
3. Layer of government responsible
4. The valuers and their tools
5. Data management
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
- 8. Interaction with taxpayer**
9. Not only for taxes

# Interaction with taxpayer

- International standard ((IAAO):
  - Both valuation and taxation programs need to be visible and transparent and include controls on the incidence and burden of property taxes.
- Informal interaction can improve trust of tax payer
  - And owner knows it's property best!
- Low trust can lead to more complaints and appeals
- Complaints and appeals are time- and money consuming
- Most municipalities try to have informal interaction before sending out the tax bills:
  - primarily to ask to check registered property characteristics
  - secondarily to present the pre-assessed value
  - thirdly to involve the taxpayer in the valuation process

[Totstandkoming WOZ-waarde](#)
[Veelgestelde vragen](#)
[Werking](#)
[Uitleg gegevens](#)

Oude IJsbaan 64, 2612NG Delft

^ Filteren op de kaart  
 v Geselecteerd resultaat ✕

**Adres**  
 Oude IJsbaan 64  
 2612NG  
 Delft

**WOZ-waarde**

Peildatum	WOZ-waarde
01-01-2022	489.000 euro
01-01-2021	428.000 euro
01-01-2020	373.000 euro

[> Alles weergeven](#)

**WOZ-gegevens**

Identificatie: 050300046437  
 Grondoppervlakte: 139m<sup>2</sup>

**Kenmerken**

Bouwjaar: 1992  
 Gebruiksdoel: woonfunctie  
 Oppervlakte: 149m<sup>2</sup>  
 Adresseerbaar object: [0503010000048260](#) [🔗](#)  
 Nummeraanduiding: [0503200000098185](#) [🔗](#)

[PDF genereren](#)



# Principle 9

1. Market value
2. Valuation frequency
3. Layer of government responsible
4. The valuers and their tools
5. Data management
6. Accuracy market analysis and valuation
7. Quality audits by oversight agency
8. Interaction with taxpayer
9. **Not only for taxes**

# Not only for taxation

- Assessed value is also officially used for:
  - Setting maximum rent price for “social housing”.
  - Regulations for owner occupancy of residential property
  - Preventing real estate fraud (Notary office uses assessed value)
  - Preventing mortgage fraud
    - Bank uses assessed value
    - Validating valuation for mortgage
- And without formal regulation
  - Transparency of market
  - Apply for lower mortgage interest rate because of lower risk

# Advantages of broader use of assessed values

- Taxpayer looks at “reasonable value” instead of “low tax”
- Objections against “value below market value”
- Signals to improve quality
- Assessed value is already available (sharing of costs)



# Q&A

You are also welcome to use:

[Ruud.Kathmann@waarderingskamer.nl](mailto:Ruud.Kathmann@waarderingskamer.nl)



T +31 70 311 05 55

E [info@waarderingkamer.nl](mailto:info@waarderingkamer.nl)

[www.waarderingskamer.nl](http://www.waarderingskamer.nl)