



State Land Service
Republic of Latvia

Importance of Cadastral Data in Mass Appraisal (Cadastral valuation) process

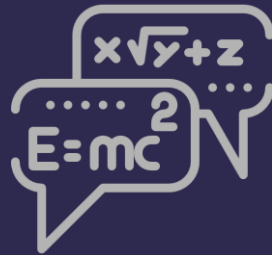
Anete Māra Harkeviča
Mass appraisal data scientist

Rīga, 2024

CADASTRAL VALUATION PROCESS



Cadastral values are calculated automatically



Formulas approved by the government



Data registered in the Cadastre

Valuation models (formulas)

- building land;
- rural land;
- individual residential housing;
- multifunctional buildings;
- other non - residential buildings.

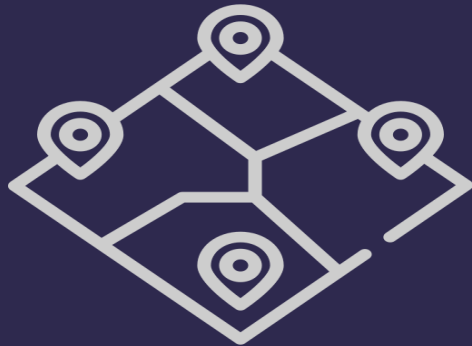
Development of cadastral valuation base

- value zoning;
- value base indicators (base values, standard area, correction coefficients).

Market based valuation approach

WHAT TYPE OF DATA IS IS USED FOR MASS APPRAISAL?

+ Location - value zone -> base value



Land

- area,
- use,
- encumbrances,
- land cover,
- qualitative assessment of agricultural land and forest land.



Buildings

- area/volume,
- type of use,
- depreciation,
- construction period,
- the material of external walls,
- encumbrances,
- amenities,
- number of floors.



Apartments/ groups of premises

- area,
- use,
- amenities,
- floor,
- distribution of areas (residential/non residential/outdoor),

HOW IS CADASTRAL DATA USED?

EXAMPLE - *building land and rural land in cities*

$$KV = (\Sigma (BV \times P_{LM} \times K_{samaz} \times K_{apgr})) \times K_p$$

- KV - cadastral value (EUR);
- BV - base value for land use (EUR/m²);
- P_{LM} - area corresponding to the land use (m²);
- K_{samaz} - area correction coefficient (used for land areas above the standard area);
- K_{apgr} - encumbrance correction coefficient;
- K_p - pollution correction coefficient.

TWO CADASTRAL VALUES FOR EACH CADASTRAL OBJECT IN 2025



Fiscal cadastral value - will be used for calculating real estate tax payments and fees.

In 2025, it will remain at the current level, based on real estate market data for 2012 - 2013.

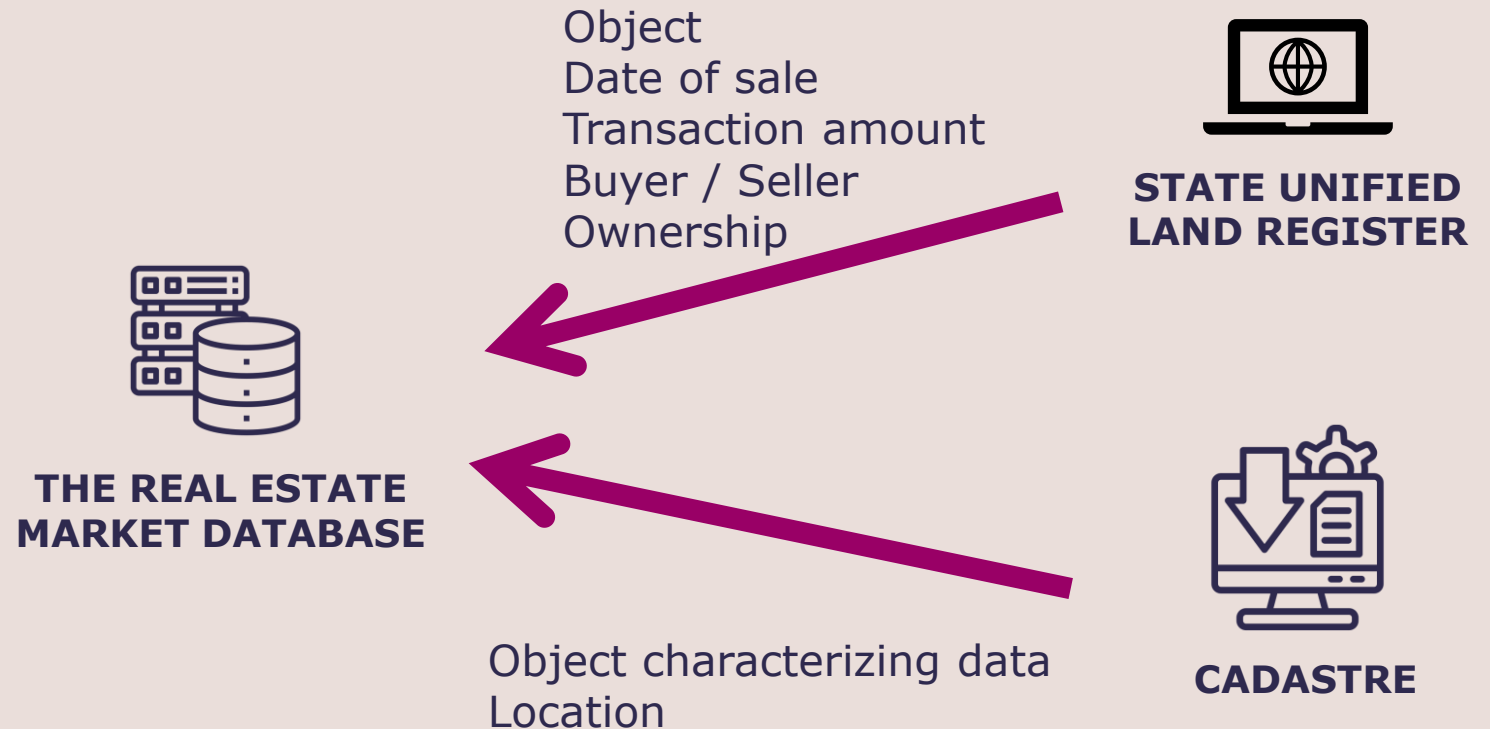


Universal cadastral value - will provide a fairer and more truthful picture of the value of the property. It will be used to determine the legal land use fee and in accounting and financial statements.

Calculated based on the real estate market situation on July 1st, 2022, not exceeding 80% of the average price level.

THE REAL ESTATE MARKET DATABASE

The data from the Real Estate Market Database is open for the public **since 2022** and available on the Latvian Open Data Portal [here](#).

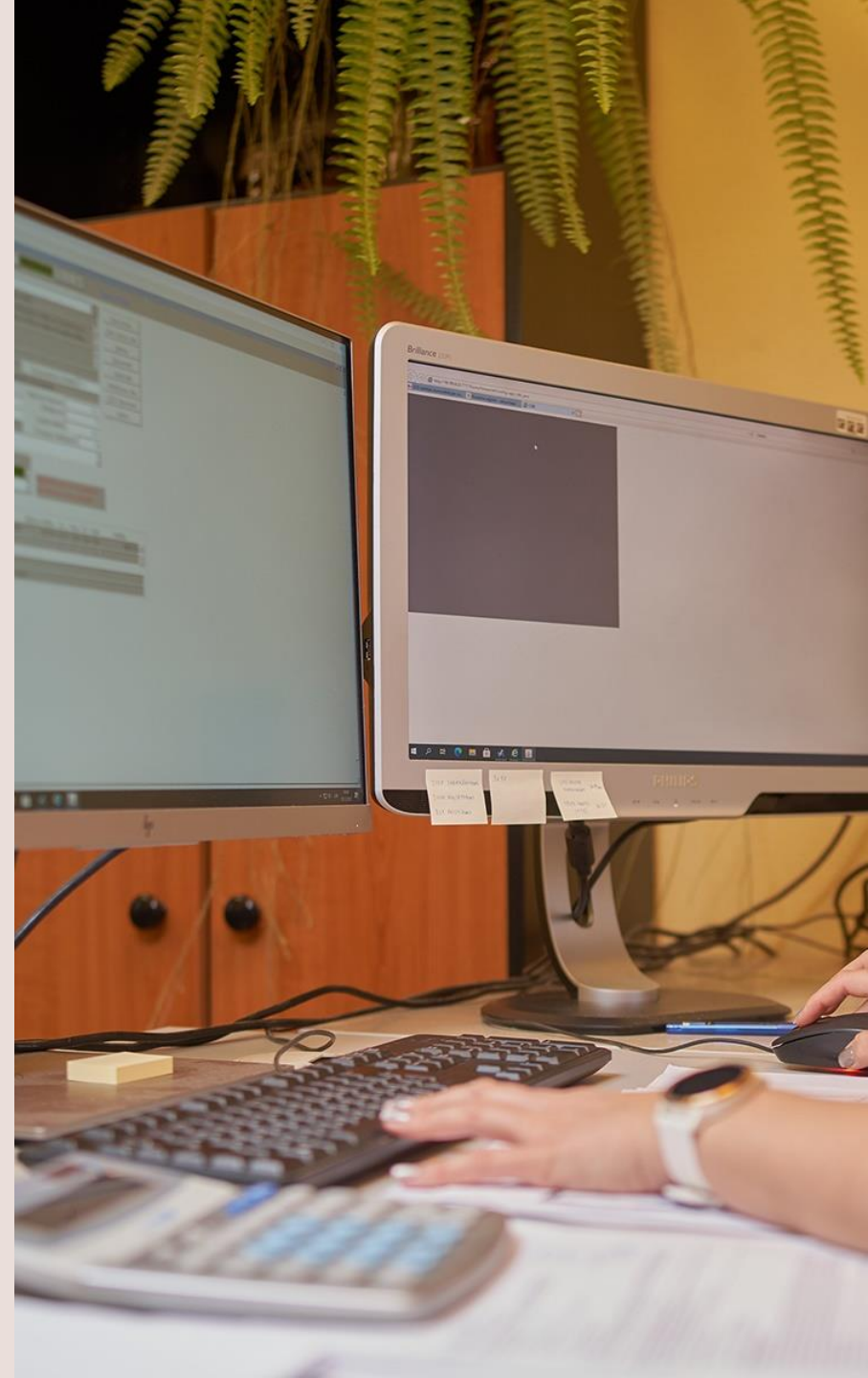


PUBLIC INVOLVEMENT IMPROVING DATA QUALITY

Provided public access to new layers of maps on www.kadastrs.lv: **1 m² assessed (cadastral) value maps for buildings and land units.**

Differences in the assessed value per square meter, help to identify **discrepancies in the data.**

The maps have asterisks ("*" or "**") which indicate that the cadastral value is affected by a **value reducing factor**, e.g., building depreciation, encumbrances, etc.



PUBLIC INVOLVEMENT

THE MAP OF ASSESSED VALUES OF BUILDINGS

Includes information about:

- Building construction period
- Depreciation
- Main use
- Distribution of area
- Amenities
- Encumbrances

The detached house highlighted in the figure has a much larger depreciation compared to similar houses around it.



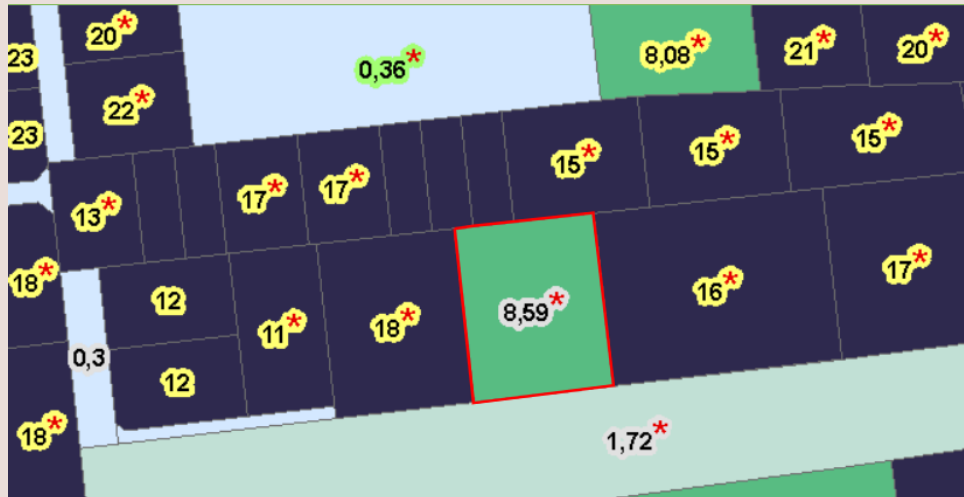
PUBLIC INVOLVEMENT

THE MAP OF ASSESSED VALUES OF LAND UNITS

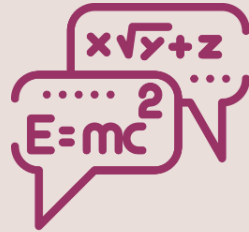
Includes information about:

- Area
- Land use
- Qualitative assessment of agricultural and forestry land
- Encumbrances

The land unit highlighted in the figure has an agricultural land use as one of the land uses, although it is in fact building land.

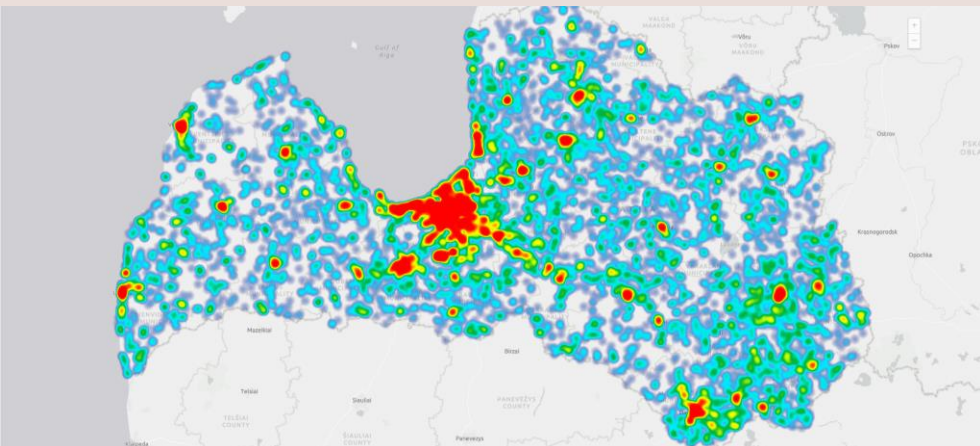


MICROSTRATEGY BI TOOL

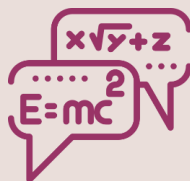


Changing calculation formulas and forecasting new cadastral values.

Data analysis - building dashboards and reports, adding different conditions, and comparing results by territory, time or segments, etc.



MICROSTRATEGY BI TOOL



LAPPUSES: Versija: 34:Ver-34:1 Atvk1: Augšdaugavas novads Atvk2: 22200:Ilūkste

Datu rindas: 510 | Datu kolonnas: 9

Būves kadastra apzīmējums			Būvju tips		Zona	Metrikas	SAVR - ebv, Ēkas bāzes vērtība	SAVR - a, Apjoma rādītājs kvadrātmetros	SAVR - klab, Labiekārtojumu koeficients	SAVR - ks, Būves nolietojuma kor. Koef.	SAVR - kli, Apgrūtinājumu kor. Koef.	SAVR - kam, Materiāla ietekmes kor. Koef.	SAVR - kbp, Perioda kor. Koef.	SAVR - kkor, Apjoma ietekmes kor. Koef.	SAVR - kve, Kadastrālā vērtība ēkai
44070010006001	11100102	1110	11100102	Individuālās dzīvojamās mājas un vasarnīcas ar koka ārsienām, un dārza mājas ar kopējo platību, lielāku par 40 m2	3-0022200-001		210,00	64,00	1,00	0,45	1,00	0,80	1,00	1,00	4 838
44070010007001	11100102	1110	11100102	Individuālās dzīvojamās mājas un vasarnīcas ar koka ārsienām, un dārza mājas ar kopējo platību, lielāku par 40 m2	3-0022200-001		210,00	73,42	0,80	0,40	1,00	0,80	1,00	1,00	3 947
44070010010001	11100102	1110	11100102	Individuālās dzīvojamās mājas un vasarnīcas ar koka ārsienām, un dārza mājas ar kopējo platību, lielāku par 40 m2	3-0022200-001		210,00	58,00	1,00	0,45	1,00	0,80	1,00	1,00	4 385
44070010011001	11100102	1110	11100102	Individuālās dzīvojamās mājas un vasarnīcas ar koka ārsienām, un dārza mājas ar kopējo platību, lielāku par 40 m2	3-0022200-001		210,00	42,60	1,00	0,60	1,00	0,80	1,00	1,00	4 294
44070010018009	11100102	1110	11100102	Individuālās dzīvojamās mājas un vasarnīcas ar koka ārsienām, un dārza mājas ar kopējo platību, lielāku par 40 m2	3-0022200-001		210,00	118,00	1,00	0,60	1,00	0,80	1,00	1,00	11 894
44070010020001	11100102	1110	11100102	Individuālās dzīvojamās mājas un vasarnīcas ar koka ārsienām, un dārza mājas ar kopējo platību, lielāku par 40 m2	3-0022200-001		210,00	127,00	1,00	0,70	1,00	0,80	1,00	1,00	14 935
44070010021001	11100102	1110	11100102	Individuālās dzīvojamās mājas un vasarnīcas ar koka ārsienām, un dārza mājas ar kopējo platību, lielāku par 40 m2	3-0022200-001		210,00	60,40	0,70	0,45	1,00	0,80	1,00	1,00	3 196
44070010022001	11100103	1110	11100103	Individuālās dzīvojamās mājas un vasarnīcas ar mūra vai mūra –koka ārsienām	3-0022200-001		210,00	104,17	1,00	0,80	1,00	1,00	1,00	1,00	17 501
44070010023001	11100103	1110	11100103	Individuālās dzīvojamās mājas un vasarnīcas ar mūra vai mūra –koka ārsienām	3-0022200-001		210,00	155,00	1,00	0,70	1,00	1,00	1,00	1,00	22 785

MICROSTRATEGY BI TOOL



DATASETS

All

Zemes KV_kop...

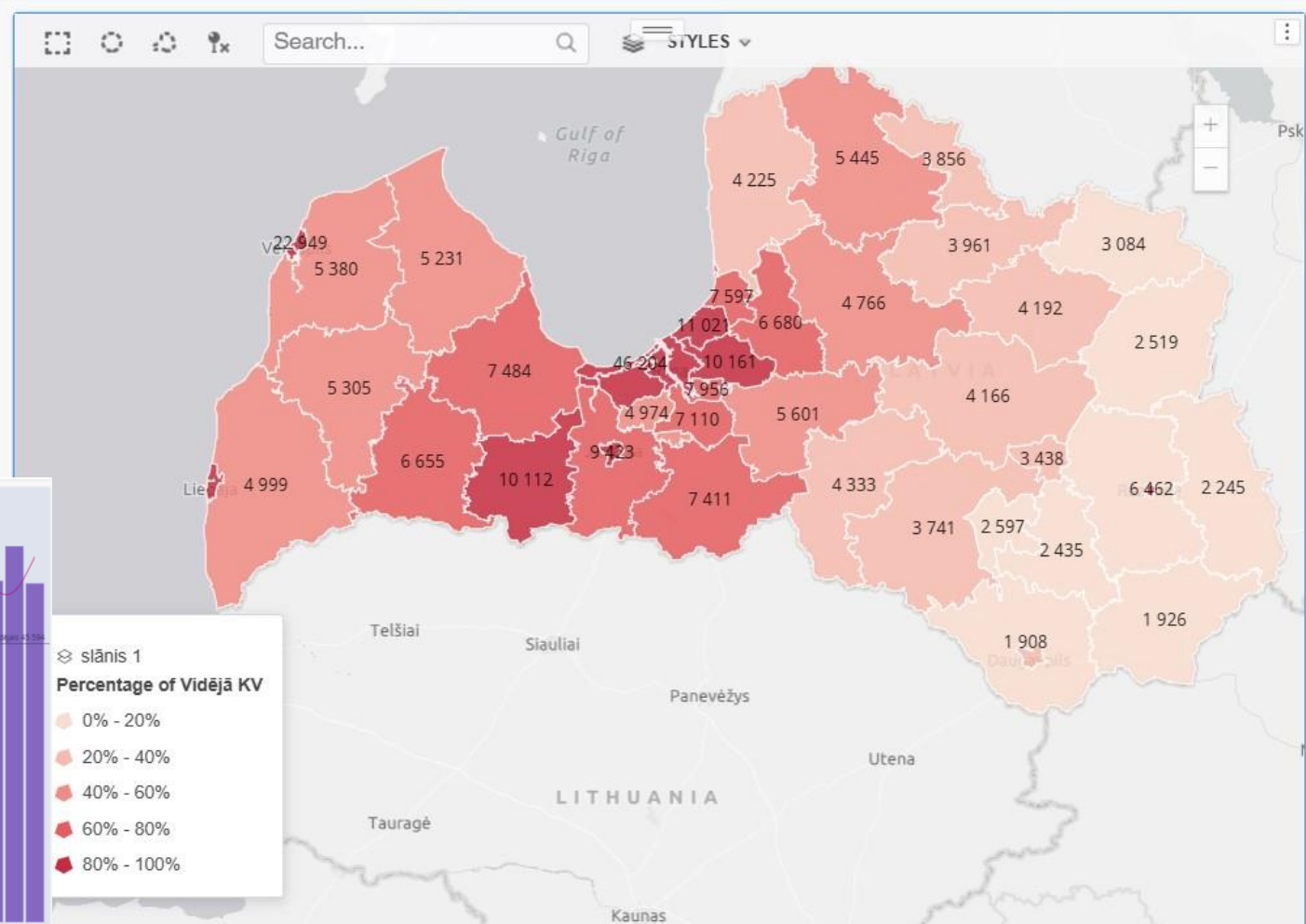
In memory

- Atvk1
- Atvk2
- Versija
- ZV/ZVD Kadastr...
- Row Count
- Vidējā KV
- ZV/ZVD Kadastr...

Visualization 1

- Map Layout
- Zoom Behavior
- Data Points

Legend



THANK YOU FOR ATTENTION!

Real estate valuation department

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ANY QUESTIONS?