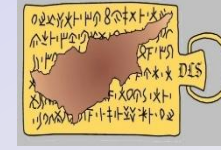




Updating Property Valuation in Cyprus- The case of DLS and Mass Property Valuation



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2. Valuation Section
3. Existing General/Mass Valuation System
4. Analysis for the 2026 General Valuation
5. Future of Mass Valuation Internationally
6. DLS Mass Valuation Strategy and Moving Forward
7. Benefits for the public interest



2. VALUATION SECTION



The efficient and effective fiscal land management, both at macro and micro level in order to achieve the basic principles of sustainable development

Three Business Streams

- I. Compulsory Purchase, Requisition & Compensation
- II. Advisory Valuations
- III. **General/Mass Valuations**



3. EXISTING GENERAL/MASS VALUATION SYSTEM



History and Evolution of General Valuation System in Cyprus

General Valuation Dates	1920	1980	2013	2018	2021
Official Real Estate Prop. Registration and cadastral plans. (1902-1928)	Book registers	Book registers	CILIS operable since in 2000 and CAMA since 2013.		
Manual/CAMA	Manual	Manual	CAMA	CAMA	CAMA
Administrative Coverage	Whole island	Government Controlled Area			
Required Period to complete a GV	Approx. 27 Yrs	Approx. 12 Yrs	1,5 Yrs	1,5 Yrs	1,5 Yrs
Legislation	Immovable Prop. Registr. & Valu. Law, No. 12/1907	Immovable Prop. (Tenure, Registr. & Valu.) Law, Cap. 224 (1946)	Same legislation with some amendments in 2014, 2015 and 2017		
Basis of Valuation	Market Based (land and buildings)				
Valuation Methods	Direct Comparison	Direct Comparison, costs and statistical models (additive & multiplicative models)	Base land and building Models (Additive/Multiplicative models) (sales and cost analysis)		
Data Capture Methodology	Local Inspection!	All buildings inspected (forms N314)	Combination of local inspection/satellite imagery/google maps/internal and external sources (Planning Authorities)		
Right for Objection and appeals to Court	Yes				
Publication of GV Results	Yes		Yes- website		
Quality Control of Results	Yes-sales	Yes-sales	Ratio studies (IAAO standards)		
ISO Certif.: 9001:2015				Yes -2019 onwards	



3. EXISTING GENERAL/MASS VALUATION SYSTEM

The basis for all Property Taxes in Cyprus

- **Immovable Prop. Tax (Central-abolished 1.1.2017)**
- **Municipal/Communal Tax**
- **Sewerage Tax**

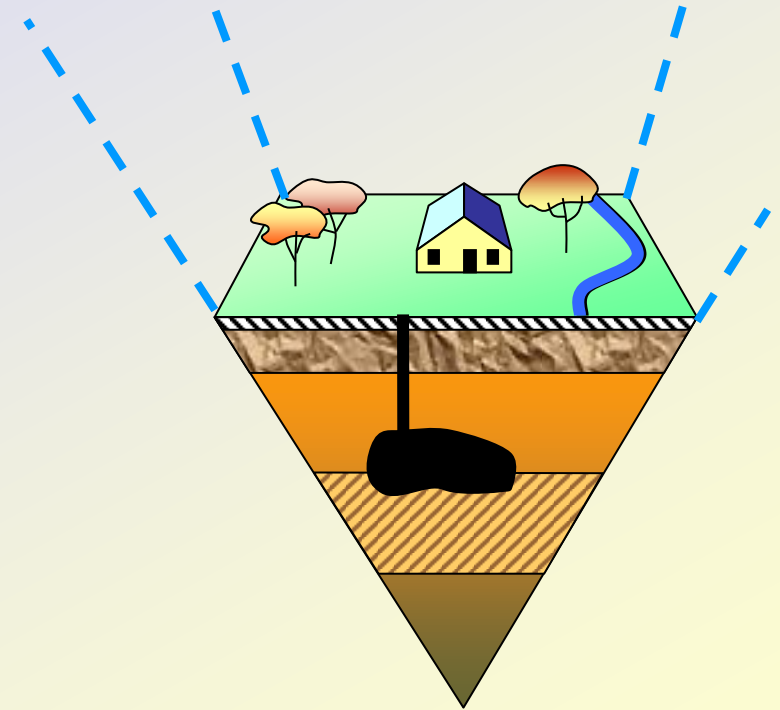




3. EXISTING GENERAL/MASS VALUATION SYSTEM

Immovable Property Law {S.2 (1)}

- **land**
- **Buildings and other erections**
- **Water rights**



Section 69:

The Council of Ministers may order a new general valuation for the purpose of securing **Up-to date and Uniform Valuation that do not exceed 5 yrs from 2021.**



3. EXISTING GENERAL/MASS VALUATION SYSTEM



Under S.2 of Cap. 224

Value of General Valuation – A general valuation, which is as closer
“as possible to the market value”

“

S. 74 – Owner can object by an application that must be supported with evidence or a valuation report by a private valuer

If the value is corrected by Director or Court, Tax Authority makes a refund and vice versa



3. EXISTING GENERAL/MASS VALUATION SYSTEM

Applications for correction of errors or objections can be done only electronically through the DLS Portal

The screenshot displays the website header with the following elements:

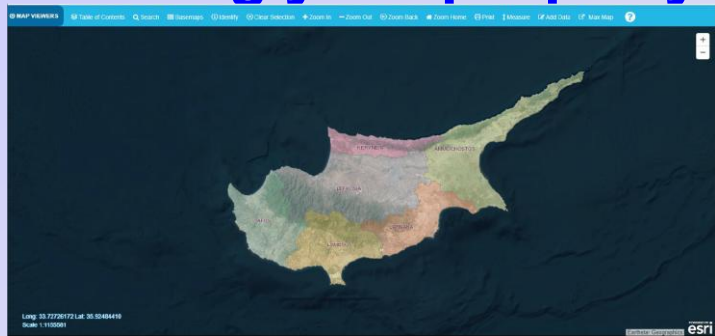
- Logo: REPUBLIC OF CYPRUS | MINISTRY OF INTERIOR DEPARTMENT OF LANDS AND SURVEYS
- Navigation Menu: HOME, THE DEPARTMENT, GENERAL INFORMATION, COMMUNICATION, EN (with a search icon)
- Main Content Area: A large image of a coastal town with the text "HOW CAN WE HELP YOU?" overlaid. To the right, a vertical menu lists: APPLICATIONS, INTERACTIVE MAPS, e - SERVICES (circled in red), and OTHER SERVICES.
- Footer: LATEST ANNOUNCEMENTS, 17100, Applications, Interactive Maps, e-Services, Other Services, and INSPIRE Geoportal.



3. EXISTING GENERAL/MASS VALUATION SYSTEM



Viewing your property data & G. V. – DLS Portal



REPUBLIC OF CYPRUS | MINISTRY OF INTERIOR
DEPARTMENT OF LANDS AND SURVEYS

HOME e-CADASTRE INTERACTIVE MAPS INSPIRE GEO-PORTAL EN -

MAP VIEWERS Table of Contents Search Basemaps Identify Clear Selection Zoom In Zoom Out Zoom Back Zoom Home Print Measure Add Data Max Map

Search

Cadastral Reference Coordinates

LEFKOSIA
DIMOS STROVOLOU
AGIOS DIMITRIOS

Registration No. Map Reference Street

Registration Block...
Registration No.

Zoom

Long: 33.37049357 Lat: 35.15105954
Scale 1:564

Identification Results

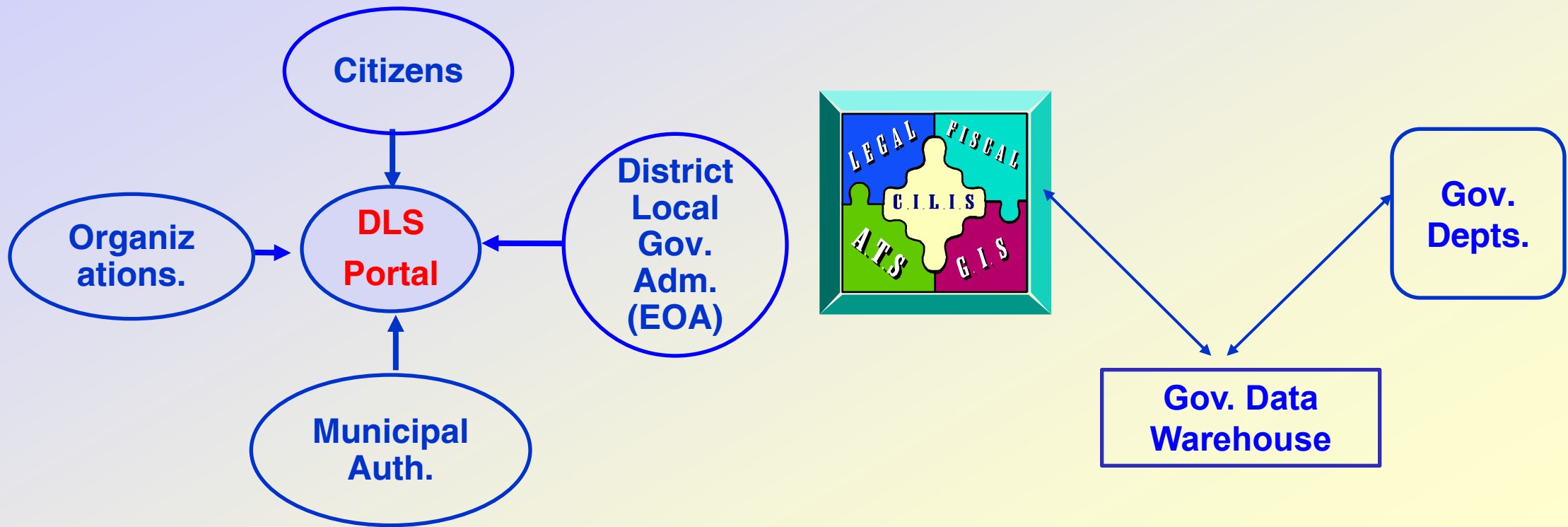
DISTRICT	LEFKOSIA	PARCEL AREA (Sq.m)	549
MUNICIPALITY/COMMUNITY	DIMOS STROVOLOU	PARCEL PERIMETER	
QUARTER	AGIOS DIMITRIOS	General Estimation Value 1.1.2021	€1,089,300.00
BLOCK/REGISTRATION NUMBER	13/1936	General Estimation Value 1.1.2018	€1,046,000.00
BLOCK	13	PARCEL NUMBER	1737
SHEET/PLAN	21/63W1	SCALE	1:2500
LOCATION	ΣΑΡΑΝΤΑΣΠΗΛΙΟΥΣ		



3. EXISTING GENERAL/MASS VALUATION SYSTEM

DLS Portal and interoperability with other Gov. Depts.

Citizens, organizations and District Local Gov. Admin. can lodge an application for updating the characteristics of their property or information regarding the issuance of building permits including plans (operable since March 2016).





3. EXISTING GENERAL/MASS VALUATION SYSTEM

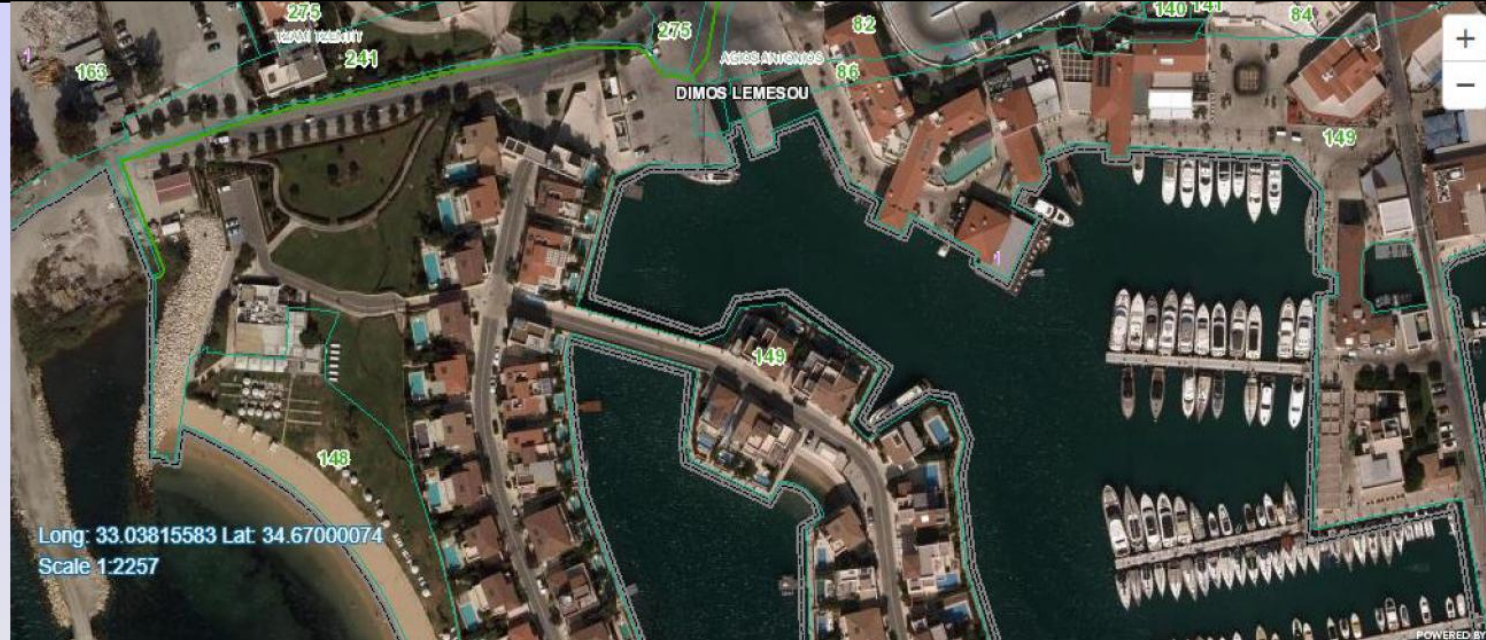
Data Capture Process (Big Data!)

- Work **is minimized** after the introduction of DLS Portal (web application) interconnecting Building Authorities
- **Update** or **verification** of prop. characteristics are made during the **transfer** process
- When **applications are lodged** by owners e.g. (updating title, horizontal and vertical division, correction of error etc.)
- **Acquisition** of property by government or rented properties
- **Informed** by external partners
- **Detection** through **satellite imagery** for high value properties and **oblique aerial photos**

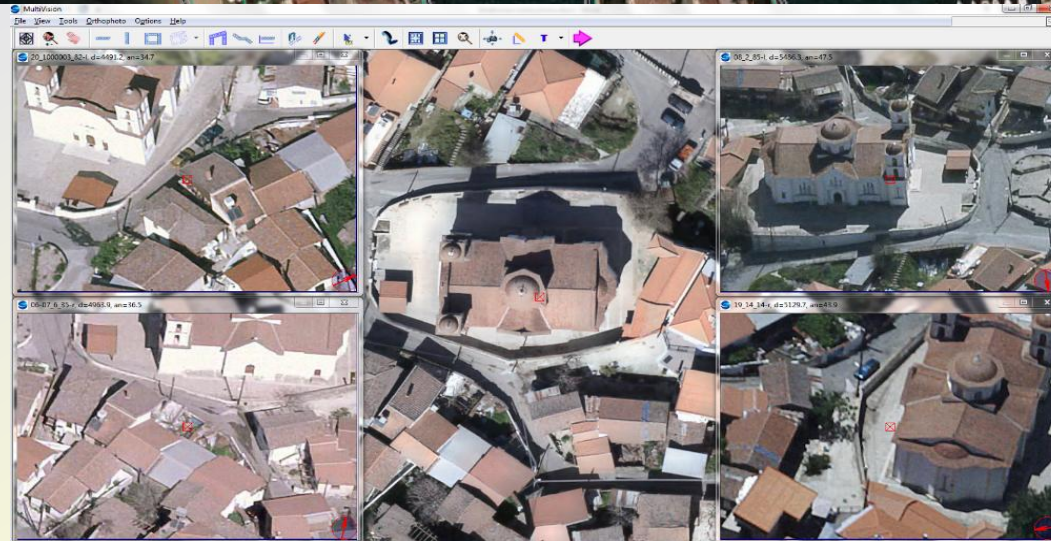


3. EXISTING GENERAL/MASS VALUATION SYSTEM

Satellite imagery



Oblique aerial photos





3. EXISTING GENERAL/MASS VALUATION

Cyprus Integrated Land Information System (CILIS)



The **Fiscal component** accommodates:

- **Mass Automated Valuation Models (CAMA)**
- Single Valuation applications/Advisory valuations
- Compulsory purchase valuations and processes & other internal applications
- Maintenance, enquiry, reporting, export functions
- Sales information, Rentals, planning zones, photos, etc.



3. EXISTING GENERAL/MASS VALUATION

GENERAL VALUATION METHODOLOGY

11 Base Models applied as developed in CILIS

Market value = L.value + {B.value * Depreciation factors} * Development Factor

Land Models

1. Base Residential/Commercial building site
2. Base industrial building site
3. Base Undeveloped field
4. Base Agricultural/Livestock fields

Unit Models

1. Base Residential/Commercial
2. Base Hotels/Tourist Establishments
3. Base Schools/Hospitals/Clinics
4. Base Livestock Units
5. Retail Cost model
6. Office Cost model
7. Industrial Cost model



3. EXISTING GENERAL/MASS VALUATION SYSTEM



VALUATION ANALYSIS

- A. **Direct Comparison Method** - Comparable sales/market evidence
- B. **Investment Method** – Basically for validating MV
- C. **DRC** - Construction costs – Contractors/PWD Dept/Stats Dept.
(Analysis of depreciation factors is also performed)
- D. **Residual Analysis** for land (fields/building sites) and buildings

SUMMARY OF THE LATEST GENERAL VAL. 01.01.2021

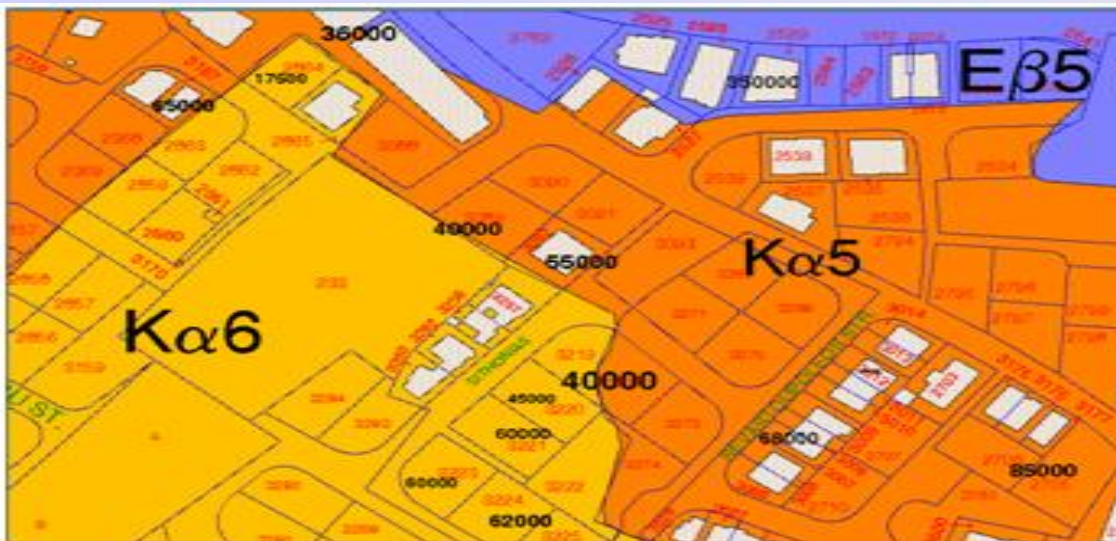
No. of Plots	Plots Value 2021	No. of Units	Units Value 2021	Total Value 2021
1,093,495	125,899,099,678	566,553	60,225,868,795	186,124,968,473

566.000 buildings = 450.000 residential + 166.000 commercial



3. EXISTING GENERAL/MASS VALUATION SYSTEM

Analyze and determine values/sq.m for 12.690 planning zones and microlocations



Planning Zone Code (Residential)	One Base Value by category	Planning Zone Value	Proposed Base Value
Kα2			
Kα3			
Kα4			
Kα5			
Kα6			
Kα7			
Kα7α			
Kα8			
Kα8*			
Kα8γ			
Kα10			
Kα11			



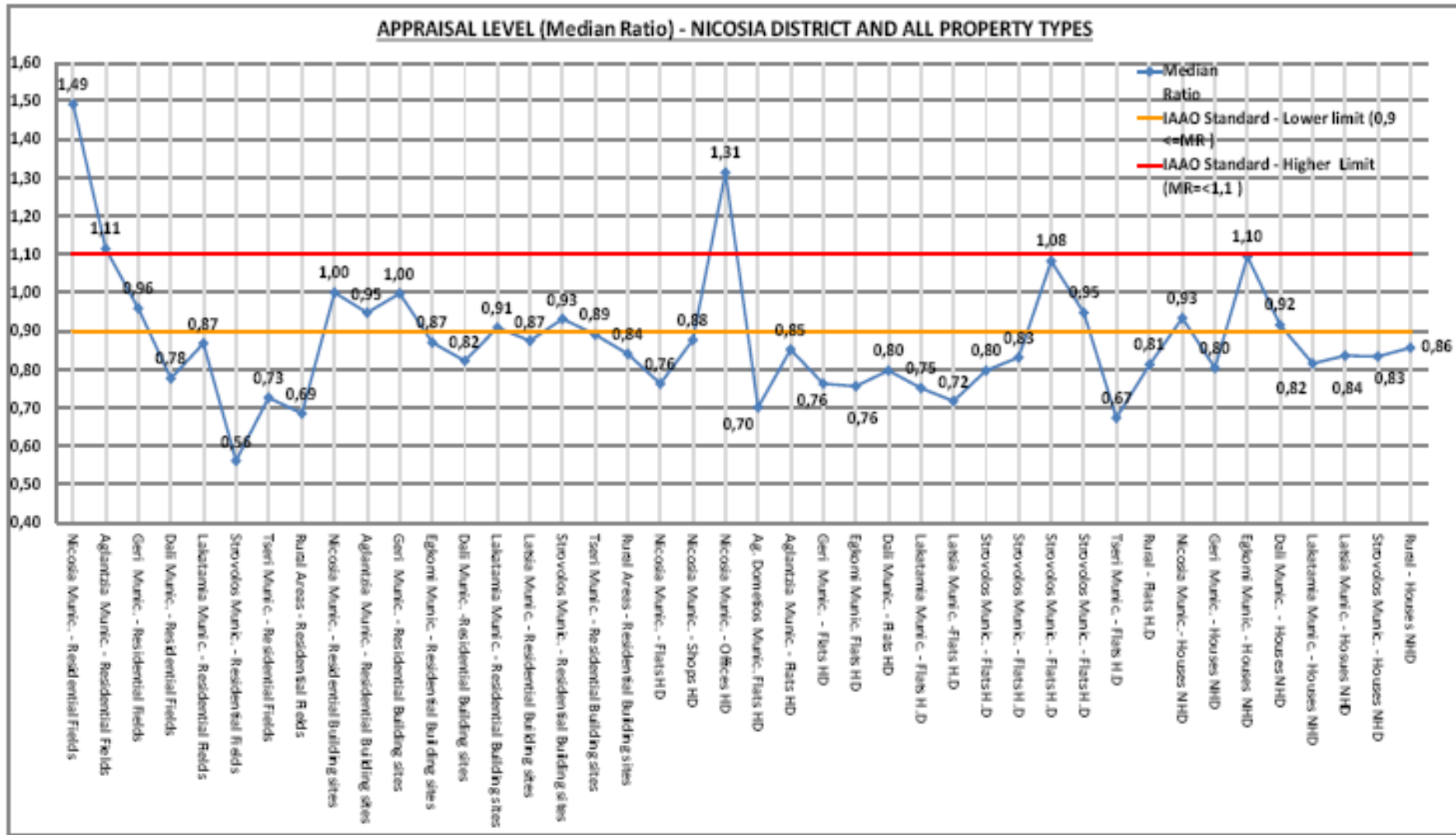
3. EXISTING GENERAL/MASS VALUATION SYSTEM (Quality Control – Ratio Studies)

QUALITY CONTROL OF THE GENERAL VALUATION RESULTS OF 01.01.2021- (RATIO STUDIES)					
DISTRICT	PROPERTY TYPE	NO. OF OBSERVATIONS	AVERAGE RATIO	MEDIAN RATIO IAAO Standard 0.9<=R=>1.1	COEFFICIENT OF DISPERSION - COD IAAO Standard <=0.30
NICOSIA DISTRICT	PLOTS	4586	1.05	1.04	0.22
NICOSIA DISTRICT	UNITS	3257	0.94	0.91	0.16
LARNAKA DISTRICT	PLOTS	2230	0.99	0.98	0.21
LARNAKA DISTRICT	UNITS	2983	0.93	0.93	0.18
AMMOCHOSTOS DISTRICT	PLOTS	789	0.91	0.92	0.19
AMMOCHOSTOS DISTRICT	UNITS	1096	0.85	0.85	0.18
LIMASSOL DISTRICT	PLOTS	2761	0.95	0.95	0.21
LIMASSOL DISTRICT	UNITS	3229	0.87	0.85	0.22
PAFOS DISTRICT	PLOTS	1347	1.01	0.98	0.25
PAFOS DISTRICT	UNITS	4552	0.94	0.92	0.17

Note: Observations (plots/units) relating to loan restructurings, historic and temporary properties and Turkish-occupied plots that set the value to zero at 01.01.2021 have been removed. In addition, plots that were marked "There are buildings" were removed from the record for sales of land.



3. EXISTING GENERAL/MASS VALUATION SYSTEM (Quality Control – Ratio Studies)

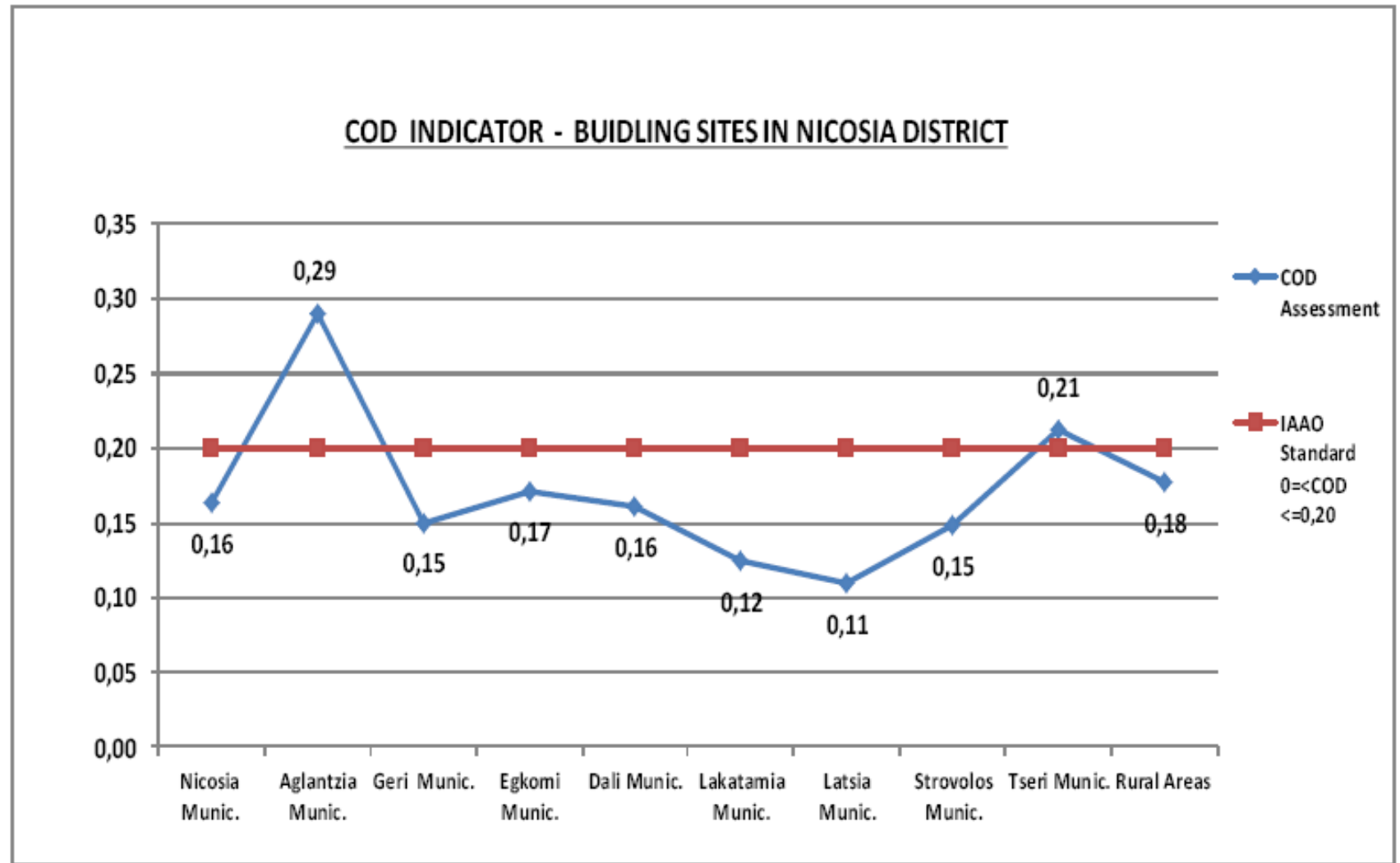




3. EXISTING GENERAL/MASS VALUATION SYSTEM (Quality Control – Ratio Studies)



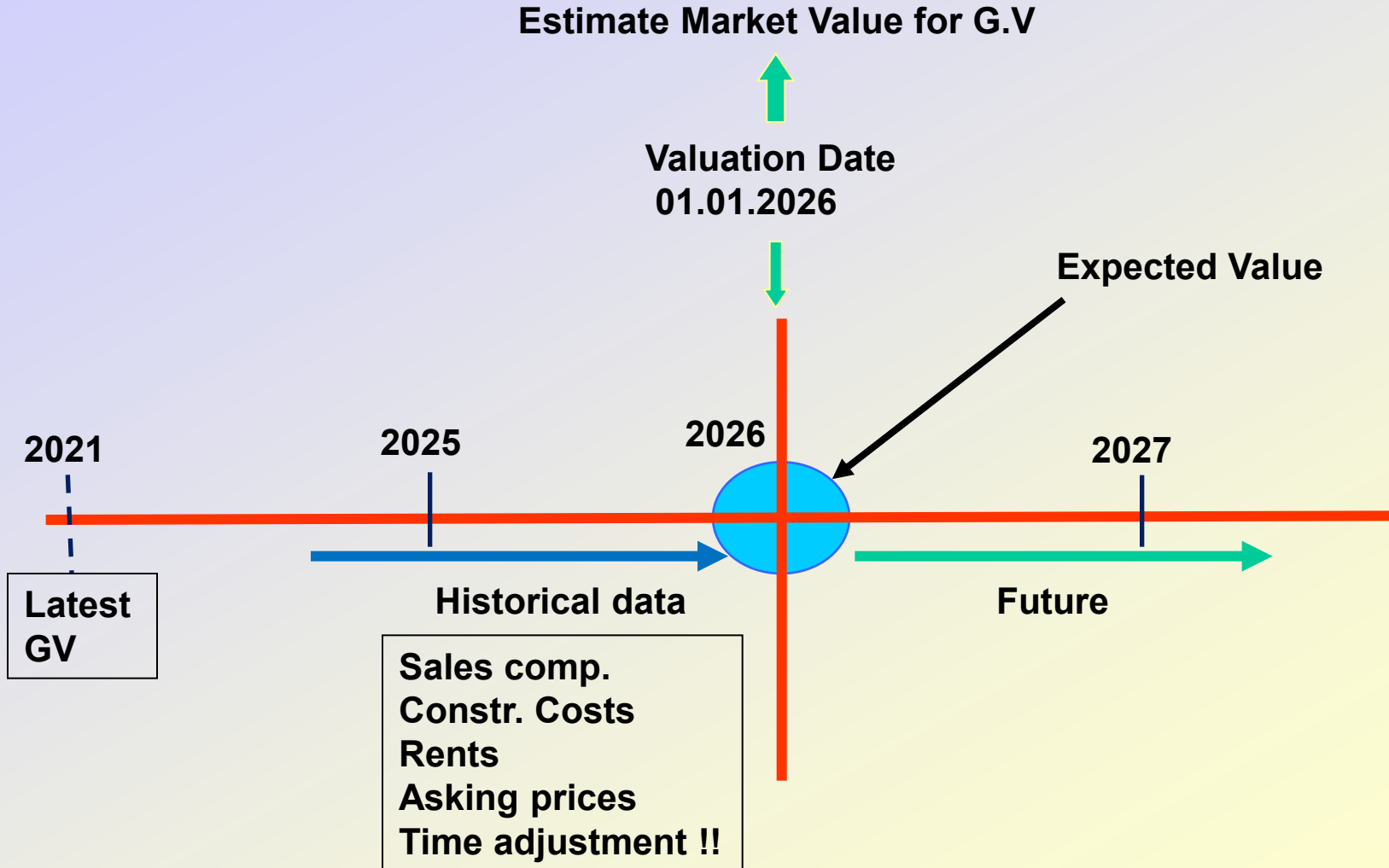
7.4.1.1 Building Sites





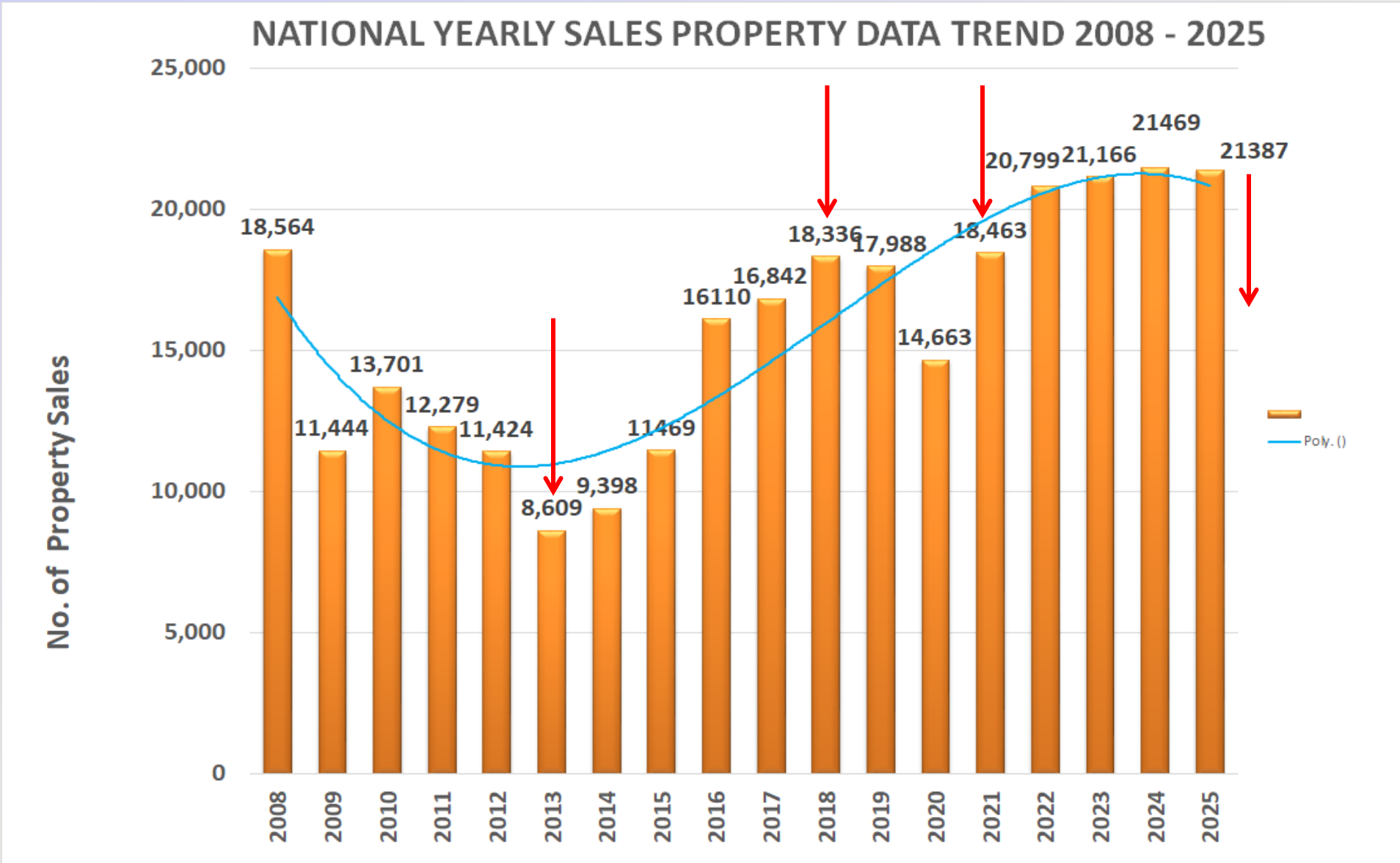
4. ANALYSIS FOR THE NEW 2026 GENERAL VALUATION

Comparable Sales Analysis (Before and After 01.01.2026)





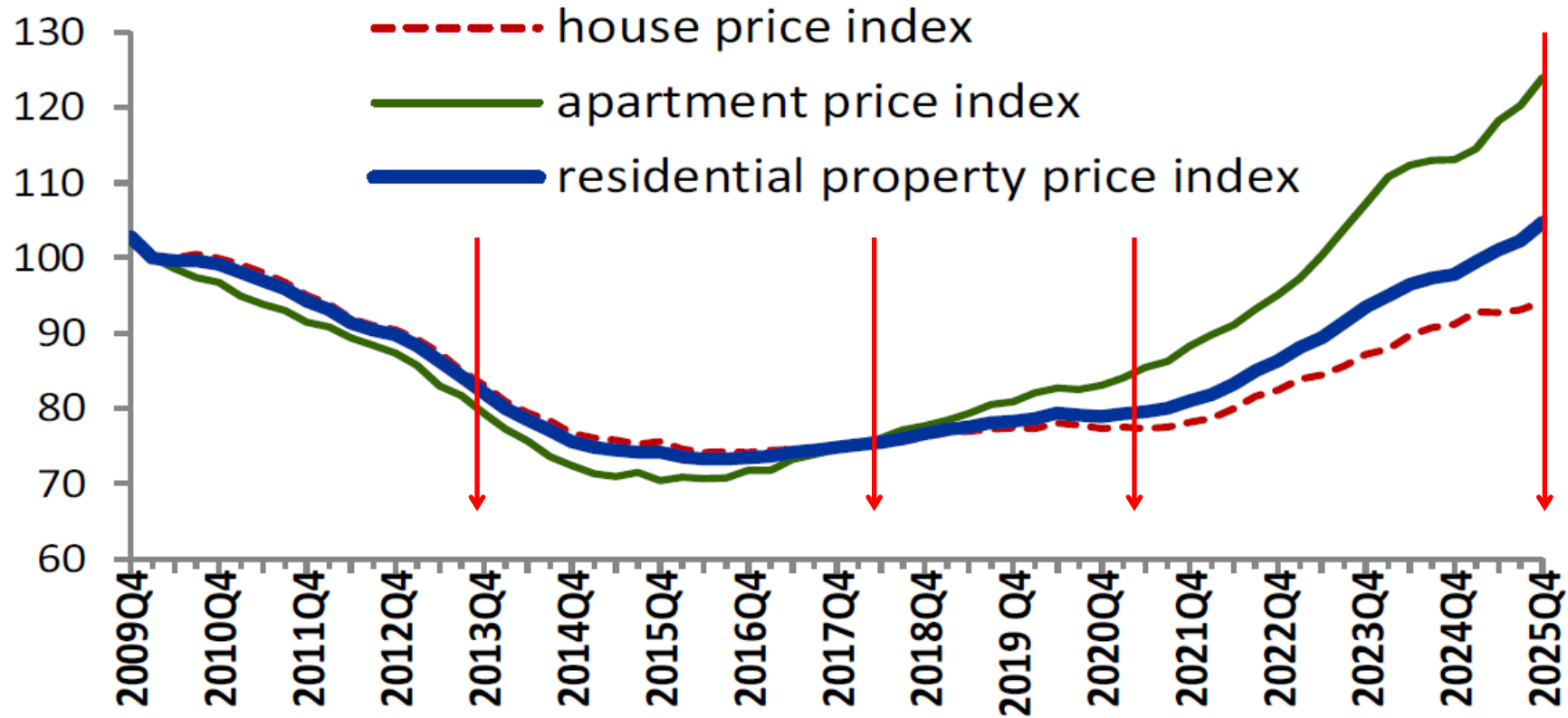
4. ANALYSIS FOR THE NEW 2026 GENERAL VALUATION





4. ANALYSIS FOR THE NEW 2026 GENERAL VALUATION

CHART 1 House and apartment price indices (2010 Q1 =100)

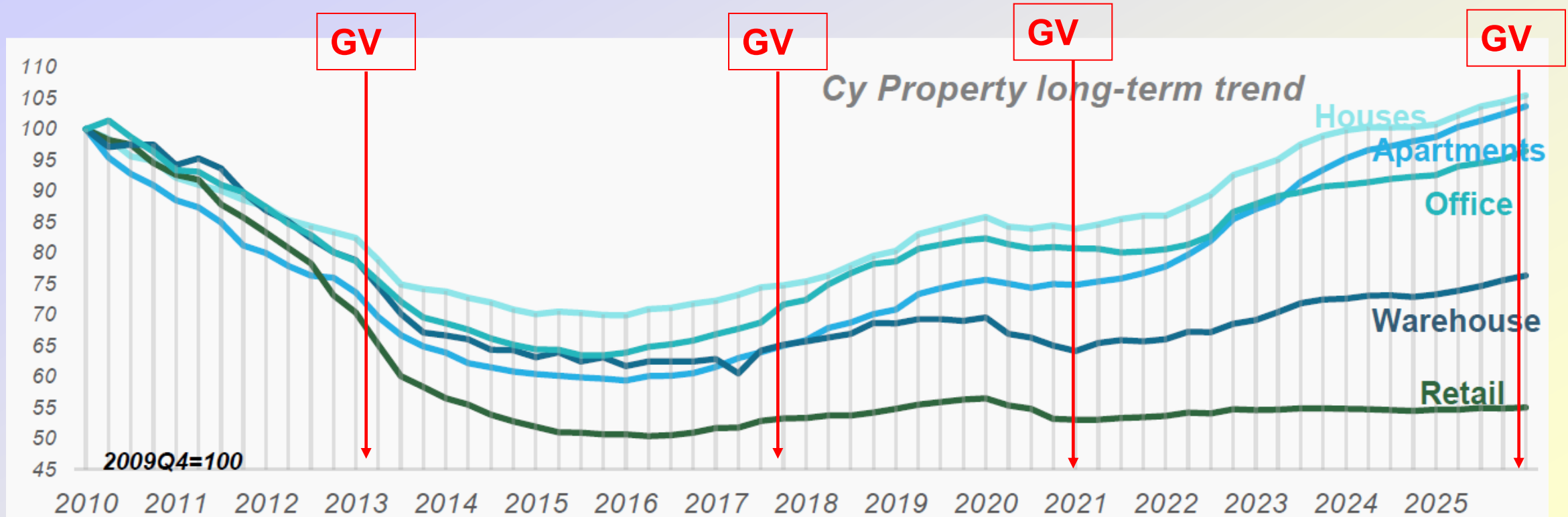


Source: CBC.



4. ANALYSIS FOR THE NEW 2026 GENERAL VALUATION

RICS Cyprus Property Index with KPMG in Cyprus 2010-2025Q4 Av. Price Index (all types)





5. FUTURE OF MASS VALUATION INTERNATIONALLY

A. Strategy

- Shift from periodic updates → Continuous valuation
- Powered by data, analytics, and AI
- Align with IAAO, IVS standards and best practices

B. Why Technology is the Next Step

- Market moves faster than valuation cycles
- Manual or semi-automated processes cannot keep pace
- Need for real-time insights

C. Automated Valuation Models (AVMs)

- Use statistical & machine learning models
- Estimate values at scale instantly
- Continuous need to improve quality of existing/new data

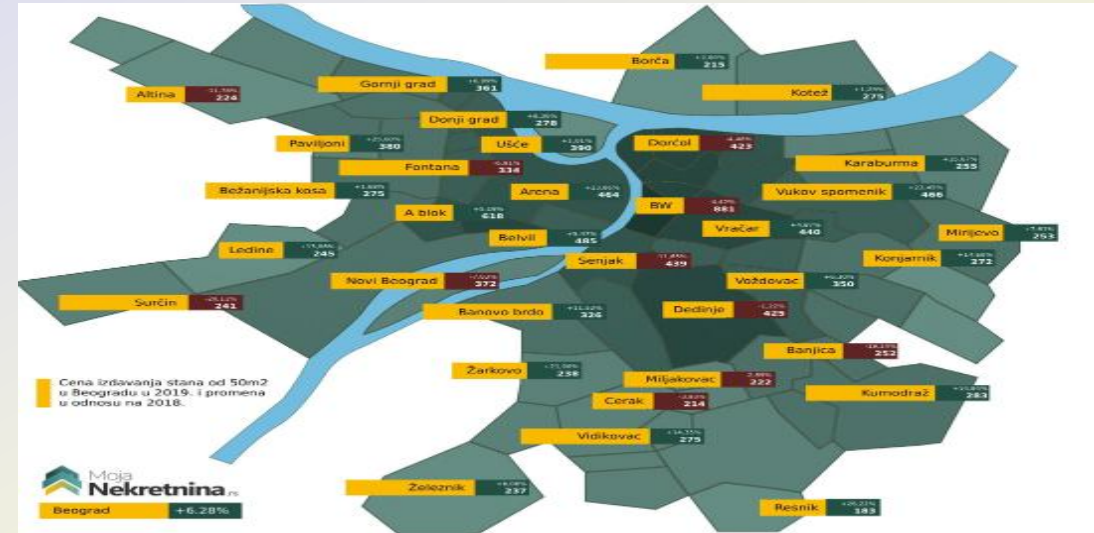


5. FUTURE OF MASS VALUATION INTERNATIONALLY

D. Data Analytics in Valuations

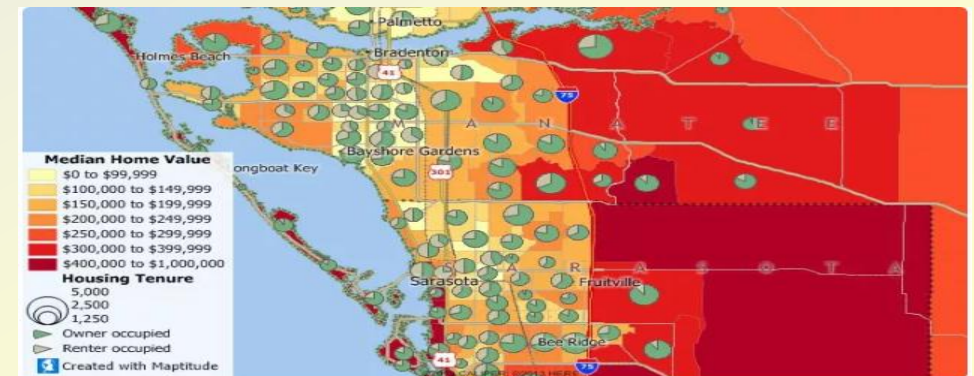
- Large datasets (sales, rents, costs, asking prices/rents, permits)
- Identify patterns and trends
- Support evidence-based decisions

Belgrade Apartment Asking Prices



E. GIS & Spatial Intelligence

- Location-based value drivers
- Heatmaps of price changes
- Better segmentation of sub-markets
- Satellite imagery and street maps

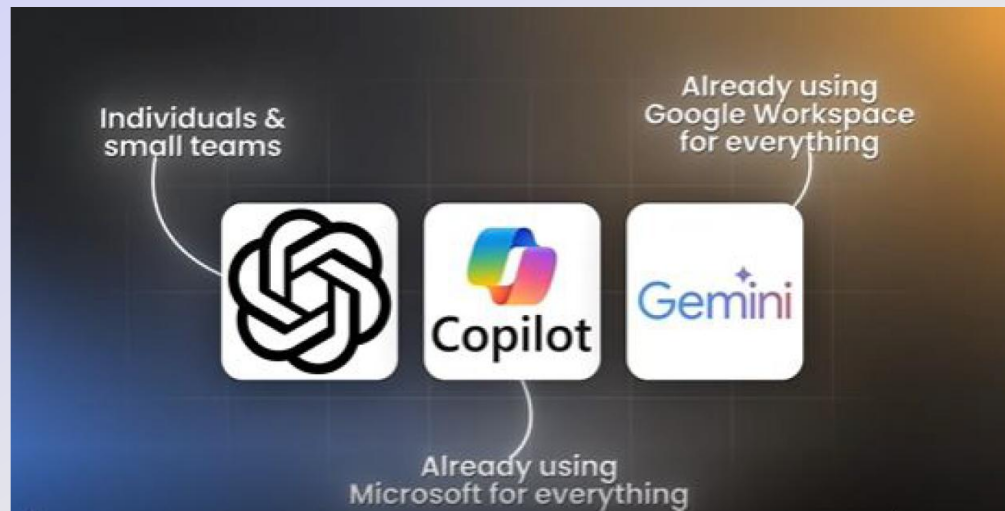




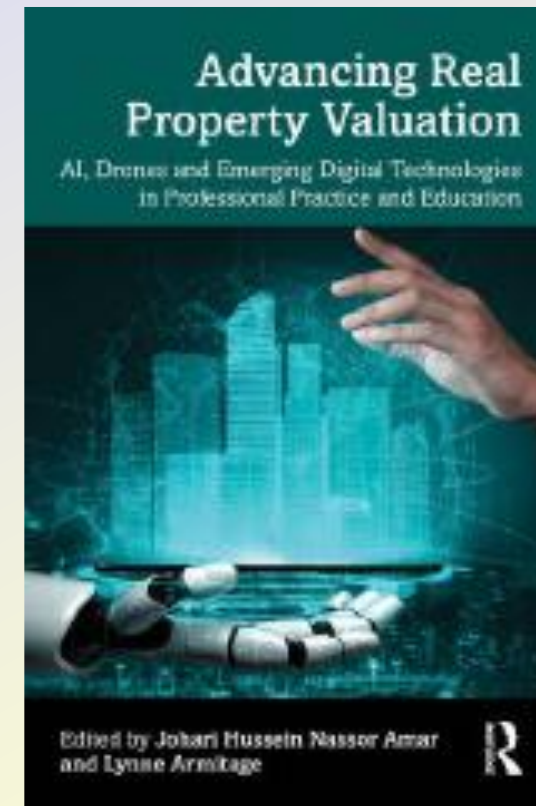
5. FUTURE OF MASS VALUATION INTERNATIONALLY

F. Artificial Intelligence Applications

- Machine learning for price prediction
- Anomaly detection (outliers, errors)
- Adaptive models that learn over time



Why AI: → Technology Advantage
→ Speed of Information
→ Solve problems faster



Australian Authors



5. FUTURE OF MASS VALUATION INTERNATIONALLY

G. Real-Time Market Monitoring

- Continuous inflow of transaction data
- Early detection of market shifts
- Dynamic price/rent index creation

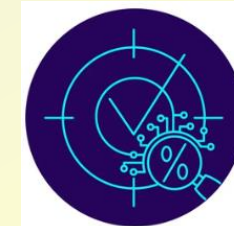


H. Integration of Systems

- Land Registry + Planning Auth.+ Other Gov.Depts.+ Market data
- Centralized data ecosystem (ESGs)



I. Improved transparency, accuracy and efficiency



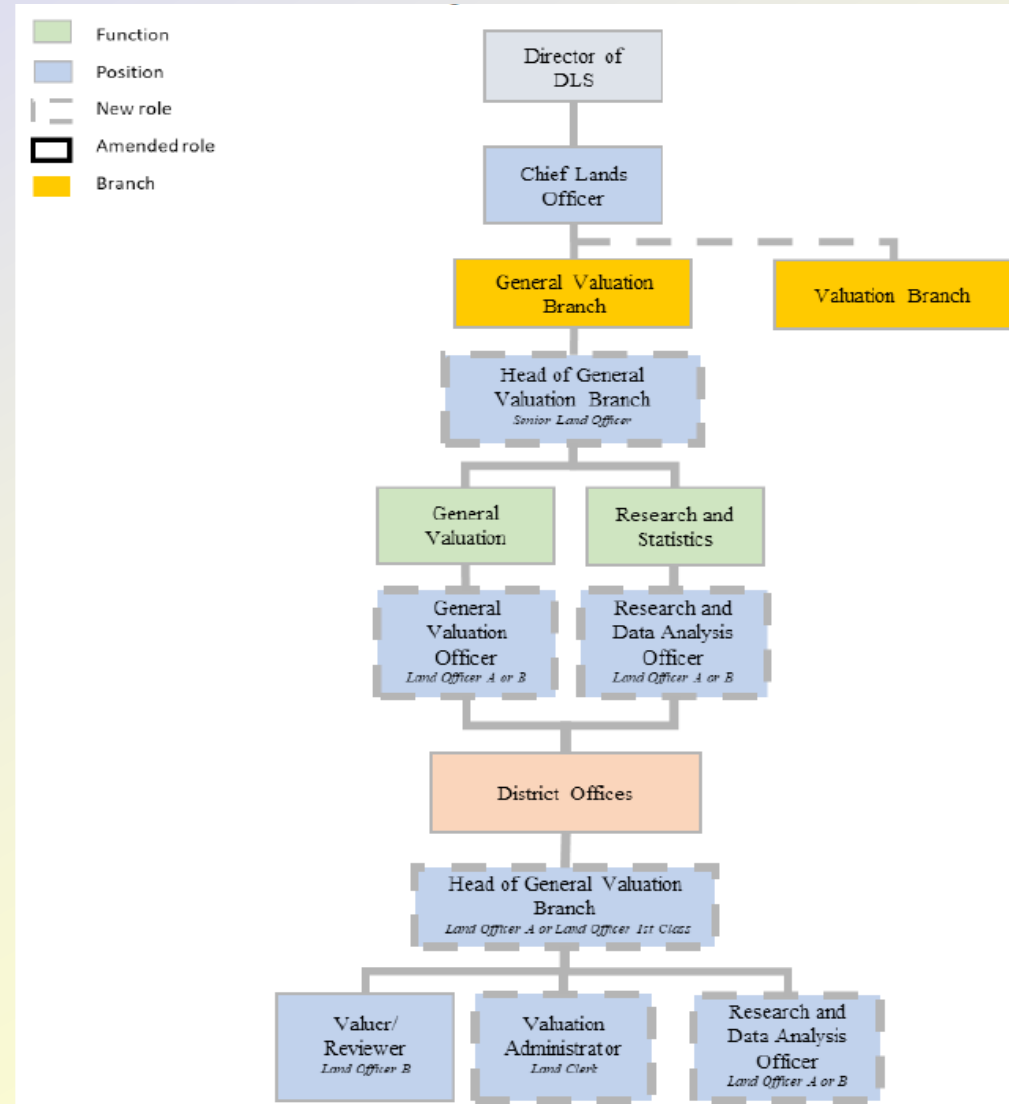


6. DLS MASS VALUATION STRATEGY AND MOVING FORWARD

A. Reorganization

- Organizat. Structure and functional capabilities (Central and 5 District Offices)
- Staffing and HR
- Governance framework
- Processes and Operations
- Technology and digital landscape

Technical Assistance was provided by the EU in 2022.





6. DLS MASS VALUATION STRATEGY AND MOVING FORWARD

B. Data Capture Issues

- Introduce **tablets** for data capture purposes with GIS applications and **GPS tracking** as well as **drone videos** where needed (Record of condition- Akamas- Road acquisition).
- **Satellite images- Lidar - 3D city maps**
- Collaboration with Stats Dept. for the latest population census 2021



Application software Visat with GIS





6. DLS MASS VALUATION STRATEGY AND MOVING FORWARD

C. Mass Valuation

- The Val. Section is at the **development stage of a new CAMAS**, which is more user friendly, flexible, dynamic, **Multifunctional/Multipurpose** and GIS integrated. Fully utilize statistical analysis tools/software and data analytics.
- Capability for **single or mass valuation** at any given date.
- Introduce **geographical analysis** for valuation (VIC and GWR)
- Exploring and testing with **AI** and **machine learning** methodologies and block chain technologies.



6. DLS MASS VALUATION STRATEGY AND MOVING FORWARD

Single Valuation of Industrial land prepared by **Valuers** vs **A.I.**

Inputs in A.I.

1. Nicosia, Tseri, Reg.no. 6/125, S/P 30/38W2, plot no. 634
2. Industrial field/B. site
3. 2.290 sq.m.
4. Road access
5. Planning zone: Light Industrial
6. Asked to use any information including asking prices

A.I. output



Listings suggest between **€112/sq.m** - **€120/sq.m**. No transactions (sales) were found by A.I. to be more accurate.

DLS Valuer's appraisal: € 105/sq.m. using actual comparable sales



6. DLS MASS VALUATION STRATEGY AND MOVING FORWARD

- **Improving** the current mass commercial valuation methodology
- Hotels are reviewed by applying the **Profits Method** (DCF) vs the existing Base Cost Model.
- (400 Tourist establishments)
- New legislation for **obligatory deposit** of tenancy contracts

Figure 51 DCF template

Year	1E	(Up to year n)	Exit Year
Drivers			
Number of Rooms			
Days Open			
Annual Occupancy rate			
Occupancy Rate % change			
Occupied Days			
Occupied Rooms			
Average Room Rate (incl. breakfast)			
F&B - extra Contribution to revenue (%) & Other Income ('000s EUR)			
Revenue			
Rooms (B&B)	(A)		
F&B & Other Income	(B)		
Total Revenue	=(A)+(B)		
Expenses			
Suppliers and F&B costs	(C)		
Salaries & Wages	(D)		
Marketing	(E)		
Utilities	(F)		
Repairs & Maintenance	(G)		
Other	(H)		
Total Expenses	=(C)+(D)+(E)+(F)+(G)+(H)		
Gross Operating Profit (GOP)	Total Revenue less Total Expenses		
General expenses			
Management fee	(I)		
EBITDA	GOP less General Expenses		
EXIT Value			NOI/ Exit yield
Net CF	Sum of EBITDA		Sum of EBITDA & Terminal Value
NPV	Sum of Net CF @ discount rate (%)		



6. DLS MASS VALUATION STRATEGY AND MOVING FORWARD

- Work in progress to build a DLS sales transaction and rental based Property Index

Figure 4 Cyprus Residential Index -Flats

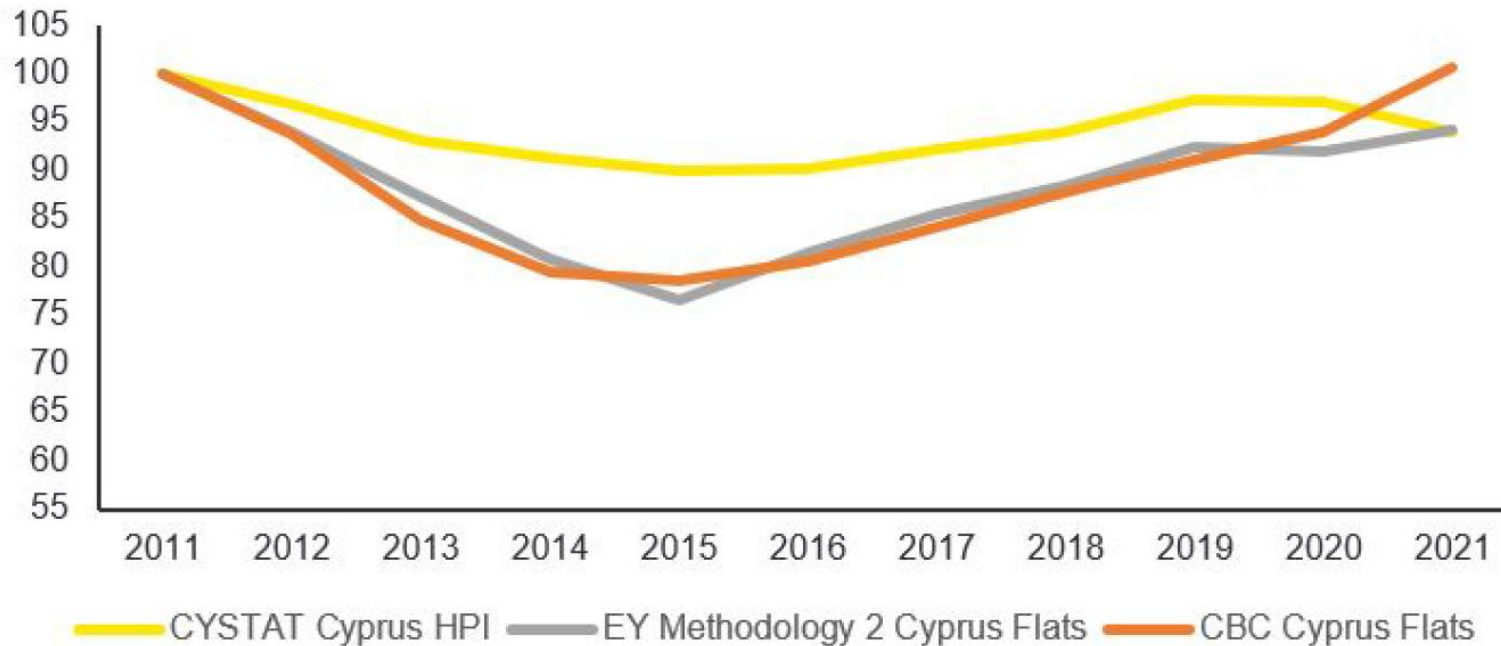


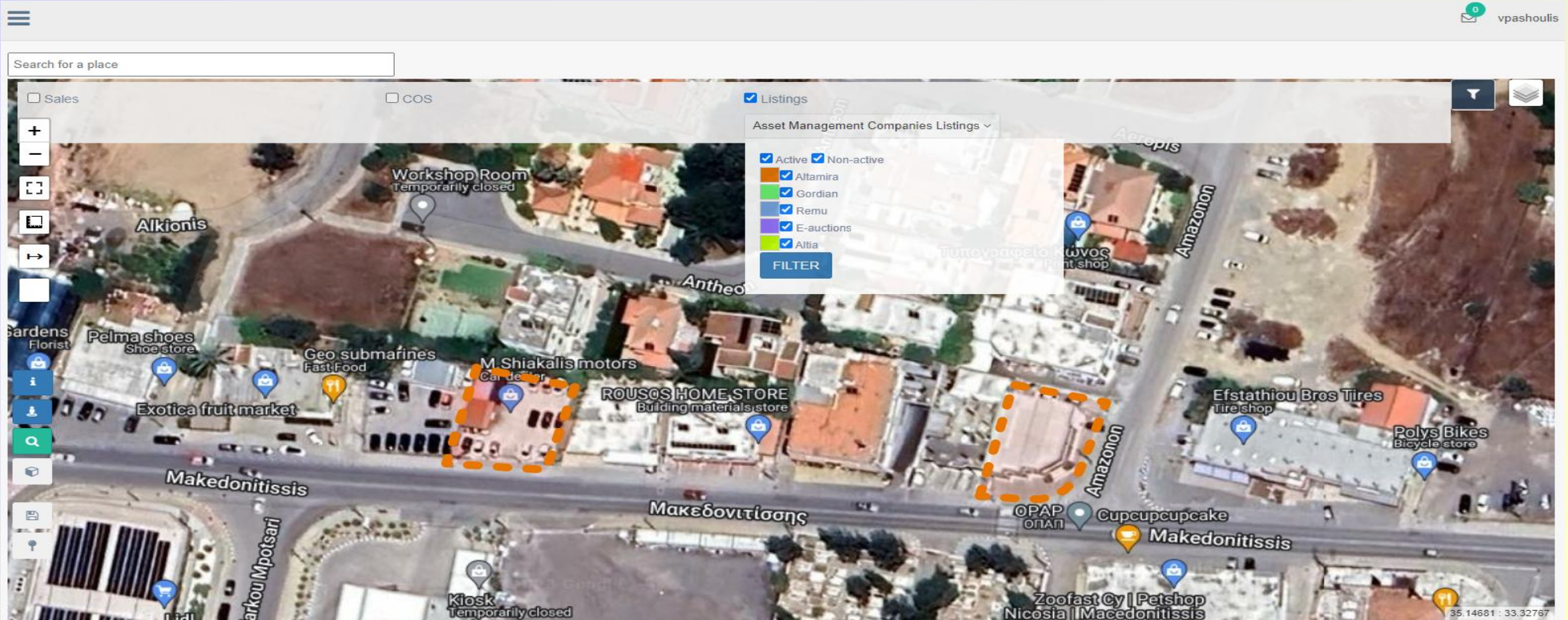
Table 4 Comparison of Indexes

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
CYSTAT - HPI	100	96.9	93.0	91.4	90.0	90.3	92.3	93.9	97.4	97.2	93.9	97.0
CBC - Flats	100	93.8	84.9	79.5	78.5	80.7	84.2	87.8	91.2	94.1	100.7	105.7
EY Method 2 - Flats	100	93.9	87.3	80.9	76.6	81.4	85.6	88.4	92.4	91.9	94.1	96.5



6. DLS MASS VALUATION STRATEGY AND MOVING FORWARD

➤ Evaluation of a third party software regarding published **Asking Prices**



Selected comparables

Applied filters:



7. BENEFITS FOR THE PUBLIC INTEREST

1. Budget Effects

- **Primary source of revenue** for local governments
- How much should we pay? OECD 1–2% of GDP is broadly aligned with international norms.

2. Market Impact

- **Improve information and minimize inefficiencies** of the Property Market
- **Secure transparent and efficient investment property market**
- **Administrative tool** in monitoring trends of the property market, exposure to mortgage risks
- **Provide data/service** to the economy, investors, real estate players and public
- Improve market transparency



7. ***BENEFITS FOR THE PUBLIC INTEREST***

3. Extend the use of general valuation towards a multipurpose fiscal cadaster

- **Assist the Accountant General** regarding the valuation of the State Fixed Assets for Public Accounting Compliance (GV values)
- **Subsidies for minimum wage guarantee** (operational)
- **Verification of declared price** at transfer through GV (exploring)
- Estimation of **state land rentals** or management of state land (operational for industrial land)
- **Rough estimates for budgeting** purposes for compulsory purchase projects (operational).
- Use of GV for **Urban Consolidation** at the initiation stage



7. **BENEFITS FOR THE PUBLIC INTEREST**

4. Fairness and Equity

- **Secure Uniform Tone** of the Valuations to achieve just and fair Property Tax for all
- **Fairer and equitable valuation** estimates for other purposes





THANK YOU FOR YOUR ATTENTION



WELCOME TO CYPRUS

