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The General Valuation 2013 in Cyprus: Experiences and Good Practices

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ABSTRACT

The General Valuation has a very significant role to play in Cyprus' economic environment because it forms the basis by which all property taxes are levied. It is considered as a very important land management tool, as it seems the only way of raising income both for the central and local governments. In addition, the revaluation procedure annually, or at short intervals can support fiscal decisions at a higher level as well as bringing about more transparency and minimizing externalities in the property market. The need to improve the efficiency and effectiveness of General Valuation Systems has been acknowledged nowadays than ever before, due the global economic crisis and the need to increase public and local finance.

The aim of this paper is to outline the experience and good practices that have already been adopted for the implementation of the New General Valuation 2013 for Cyprus. The paper will cover four major components of a general valuation process that are presented below:

(i) Methodologies adopted for the collection, maintenance, mass update and quality control of property data (land, buildings and their characteristics).

(ii) Legislative amendments and compliances to support the 2013 general valuation

(iii) Valuation methodologies in determining the assessment value of each property. This includes an analysis of the property market in terms of geographic stratification, planning zones and densities, property type and micro location. Further, comparable sales, rents, construction costs have also been analyzed. On the basis of the market analysis, the base value per sq.m. for land per geographical

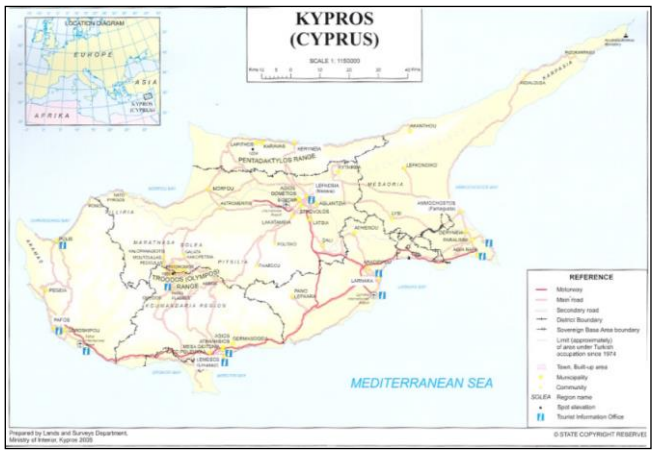
area, planning zone, property type and location has been determined as well as adjustment coefficients for individual property characteristics. A base value per sq.m has also been determined per property type as well as adjustment coefficients for building characteristics. The base value per sq.m. for every type of building and the individual building coefficient adjustments were applied at a district level. A development factor (D.F.) has also been applied in some instances. Time adjustment tool has also been applied to bring values on 01.01.2013. All the property parameters determined were imported into the CAMA where the "Base Value Models" have been applied to execute a new general valuation on 01.01.2013 prices for the Republic.

(iv) Methodologies adopted for quality control and assurance of assessed property values before the publication of values.

Finally, this paper concludes with major issues faced during the implementation of this project in terms of experiences (SWOT analysis form) and good practices that can be shared among governments, semi government and private organizations that have the responsibility to implement at regular intervals general valuations for their countries or local governments.

1. INTRODUCTION

Geography: Cyprus is situated in the northeastern corner of the Mediterranean basin at the crossroad of Europe, Asia and Africa. It lies at a distance of 800 km from mainland Greece to the west, 96 km west of Syria and 65 km south of Turkey. With an area of 9.251 sq. km, Cyprus is the third largest Mediterranean island after Sicily and Sardinia. It has a maximum length of 240 kms from east to west and a maximum width of 100 kms from north to south.



Map 1: A geographical map of Cyprus

Cyprus' population at the end of 1995 was 735.000. Population distribution by ethnic group was 84,7% Greek Cypriots, 12,3% Turkish Cypriots, and 3% foreigners residing in Cyprus. The Capital of the island is Nicosia and its major towns are Limassol, Larnaca, Paphos, Famagusta, Kyrenia and Morphou.

The Cyprus' Political Status Quo: On July 15, 1974 a coup was staged in Cyprus by the Greek military Junta, then in power, for the overflow of President Makarios and Turkey used this pretext to launch an invasion on July 20, with a full-fledged army against defenceless Cyprus. Eventually, the Turkish Troops occupied the 37% of the territory of Cyprus, since 1974. Two hundred thousands Greek Cypriots, 40% of the total Greek Cypriot population, were forced to leave their homes in the occupied area and were turned into refugees. 1619 Greek Cypriots are missing since 1974. Thousands of Cypriots, many of them civilians, were killed, raped and maimed during the invasion. Turkey continues to occupy part of Cyprus in utter disregard of repeated UN resolutions, and maintains an occupation army of 35.000 soldiers, colonizing the occupied part of Cyprus with 80.000 settlers from Anatolia. Despite a humanitarian agreement (known as the Vienna III Agreement) reached in 1975 that would have allowed 20,000 Greek Cypriots and Maronites to stay and live a normal life in the occupied Karpasia Peninsula and the Maronite villages, less than 500 enclaved Greek Cypriots and 160 Maronites remain in the occupied area today. This is the result of a systematic campaign of harassment and intimidation and continuing massive violations of their most basic rights and freedoms, including those guaranteed by Turkey in the Vienna III

Agreement. In addition, since the invasion there is a systematic destruction and alteration of the historic and cultural character of the part of Cyprus under Turkish occupation.

Map 2: Administrative map of Cyprus

Modern Times: Nicosia, the capital of Cyprus is the only divided city in Europe. The Republic of Cyprus is a member of European Union as from May 1, 2004 and has entered the Eurozone as from January 1st of 2008.

2. THE GENERAL VALUATION

General valuation is performed on a regular basis (is recurrent) in most countries in the world, because is used as the basis for property taxation, at central and at local government organizations or authorities.

The valuation for taxation purposes is usually covering whole geographical areas, towns or communal authorities and the only feasible way to implement this in terms of reasonable cost, time and quality, is by doing it in mass. The term 'mass appraisal' is a long established terminology, or general valuation that means doing an appraisal in mass rather than single or one by one. This is only possible to be carried out using Computer Mass Appraisal Systems (CAMAs), which are very popular all over the world.

There are various bases of assessment in a general valuation, according to the pre-historic or institutional or administrative system of every country, the most important being the following:

- the Annual Rental Value
- the Site Value
- the Capital Value

The **capital value basis**, as its name suggests, is the value of land and all buildings or structures or other properties standing on the plot. In Cyprus, the property taxation system, is based on the Capital Value of properties, which is the market value of the property at a specific point in time. The same principle applies in many other countries around the world. It is believed that this kind of system is offering a just and equitable basis of taxation and can also be used to serve a number of other purposes in the national economy, both at micro and macro level environment.

3. THE HISTORY OF GENERAL VALUATION (from 1920 to 1980)

The first coherent General Valuation in Cyprus dates back to 1920s, when the first legislation was introduced under the Immovable Property (Registration and Valuation) Law, No. 12/1907. This law was introduced in order to carry out compulsory registration and valuation of all properties on the island for the purpose of imposing property tax as well as to raise revenue through transfer fees. The General Registration on the island has been completed it in 1929 and it has followed the Cadastral Survey.

After the completion of the new cadastral survey work on the island, each propery was registered with its own owner in a record known as the property register. At the same time, the valuation of each property was carried out and the valuation was recorded on every registration of title. The General Valuation based on 01.01.1920 was implemented in about 20 years period (1909-1929).

In 1980 a new General Valuation was ordered by the Council of Ministers only for the government controlled area. The general valuation has been carried out manually with no assistance of any computerized mass appraisal system. In terms of human resource engagement, about 50 employees have worked to accomplish this task that it was completed

in 12 years' time. Every property was inspected and recorded in specific forms (N314) in this general valuation.

4. MILESTONE IN THE CYPRUS CADASTRAL SYSTEM – THE NEW IMMOVABLE PROPERTY LAW PASSED ON 01.09.1946

The major driving force that has led to the introduction of the aforementioned law was that the previous system of land tenure failed to adapt or realign with the socioeconomic and cultural developments of the island over the years, especially after the transformation of the Cyprus economy from a pure agricultural to a more industrialized and service oriented economy. The problem was composite and it caused three major problems, namely:

- multiple ownership (different owners for land and trees)
- co ownership in shares (system of inheritance –all children inheriting a share in the parents' estate
- fragmentation (this was the most series defect of the tenure system due to irrational subdivisions, lack of access, bad shapes)

The aforementioned new 'revoluationary' legislation together with the 'Wills and Succession Law', were the major legal instruments that have been introduced in an attempt to resolve the so called defective "land tenure system". In an attempt to introduce the aforementioned law, namely, the **Immovable Property Law (Tenure, Registration and Valuation)**, **Cap. 224**, special provisions were also enacted as regards General Valuations. Additional amendments have been introduced for the new General Valuation dated 01.01.2013 which are described in the next Chapter.

5. THE LEGISLATIVE AMMENDMENTS INTRODUCED FOR THE 2013 GENERAL VALUATION

The Immovable Property (Tenure, Registration and Valuation) Law, Cap. 224, provides for the carrying out of General Valuations or Revaluations under Sections 66 to 74 of Part VII and lays down the legal provisions on the procedure to be followed. The new provisions that have been introduced to improve the legislation as well as being fairer and equitable to the citizens are described below. The existing legislation before the new amendments have been

introduced can be found at FIG library under the title "The General Valuation Law and the CAMAS in the Lands and Surveys Department in Cyprus" (FIG Working Week 2011).

5.1 Interpretation {S.2}

Under Section 2 of this law, **"value"** means

"the amount which the immovable property, if sold in the open market by a willing seller to a willing purchaser, might be expected to realize"

The aforementioned definition was not amended but a new definition has been introduced that has replaced the term "value" in S. 67-74, namely "value of general valuation". Under the same Section, in relation to immovable property, this means

"the amount which results from performing a general valuation or revaluation or revising a general valuation, which is as closer as possible to the value"

There are a number of reasons for introducing this definition, although the target has always been the market value. In any case for many jurisdictions, market value is not an exact number but it can be a range of values that can be close to the 'market value'. Another reason was the short period of time that the Department was forced to complete this task in order to meet the compliance of the financial assistance provisions of EC/ECB/IMF (12 months). One other was that sale transactions have been reduced dramatically from 2008 to 2013 by 56% due to the economic crisis and the uncertainty created on the island and the valuers tasks were even much more difficult in terms of performing market analysis and assessing all types of properties. Furthermore, the new definition is expected to discourage owners to lodge an application for valuation objection, if they realize that this kind of valuation was only for property tax purposes. Last but not least, taxpayers will acknowledge that there are certain limitations to the system and that is as fair and equitable as possible under the revised legislation.

5.2 Revaluation {S. 67}

This section provides that *"any property valued at any time, whether before or after the operation of this law, may be revalued at any time being not less than 5 years from the date of the last general valuation, either at the instance of the Director or on the application of the registered owner*". There is an exception to this provision, where a property may be revalued at a time less than 5 years, if there is a change in the physical or legal characteritics of the property.

The period of 5 years mentioned in the above paragraph has been replaced to 1 year.

The following new subsections have been introduced after the aforementioned paragraph:

S.67 (β1) provides that *"from the last general valuation, any property that its physical and legal characteristics have increased or decreased substantially the value of general valuation" or*

S.67 (β2) provides that *"from the last general valuation, an error or omission has been ascertained in the property characteristics, that has been used to determine the value of general valuation":*
"Provided that no charges are payable for any such application or"

S.67(β3) *"due to error or omission the value of general valuation has not been determined"*

The previously described new subsections were introduced so that the owner could have the right to lodge an application for correction or error or omissions for the physical and legal characteristics of the property, which such right was not available until recently. This can be considered as a mechanism of self-declaration of verifying property characteristics. Similar mechanisms exist in Spain and Ireland. Further, under S.67(β3), the DLS has the right to implement a single general valuation, if by an error or omission a specific property has not been valued for any reason.

5.3 Deposits by persons objecting to valuation or revaluation {S.74}

The previous valuation objection fee was only 17 euro per property to lodge an application at the District Lands Office. This has been amended to cover the administrative costs to process such applications. The new fee is based on a progressive scale according to the value of general valuation as shown below:

GV Value From (€)	GV Value To (€)	Objection Fee (€)
1	100.000	37,5
101.000	500.000	75
500.001	1.000.000	150
1.000.001	∞	375

Table 1: Objection fees per property

In addition the property owner who objects is required to present a valuation report from a registered valuer. The cost of this report is paid from the property owner.

6. THE LATEST GENERAL VALUATION IN CYPRUS

The latest general valuation for the whole island (free government area) dates back to 01.01.2013, after an Order was issued by the Council of Ministers in the Gazette of the Republic, by a Public Instrument Number 405/22.11.2013. The Department has completed the aforementioned project in a period of 12 months. The valuation date of all properties was based on 1st January 2013 values, covering the whole island and but until today the general valuation on 01.01.1980 forms the basis for all property taxes on the island. It is expected though that for the tax year assessment 2015, the 2013 general valuation will be applied.

Unfortunately, due to the invasion of Turkey in 1974 and its continues occupation for 37 years of the 34% of the territory of the island, it has caused tremendous economic distortions, one of those being the inability to have a uniform general valuation that integrates fiscally the whole of the island. Also, there is a great distortion of values for those properties that abut or are close to the buffer zone.

The strategies and methodologies adopted to implement the new general valuation in Cyprus are described below:

6.1 Project Organization Structure

The time horizon for implementing the new G.V. based on 01.01.2013, was enforced under the MoU (Memorandum of Understanding) Financial Assistance signed on 30.04.2013 between EC/ECB/IMF and the Government of Cyprus. The obligation by the government was to publish the results by end of June 2014, approximately a 12 months project.

For that reason, on 13.05.2013 under the Department of Land and Surveys, a new Section was decided to be created under the name "General Valuation and Taxation". In the last 33 years, these processes were under the Valuation Section with separate staff, but no new general valuation was ordered since then, other than concentrating on a daily updating of new developments based on 01.01.1980 prices. At the same time a senior officer was also appointed to be the head of the section together with two coordinators. One of them has undertaken the task of the G.V Analysis and the other the Data Capture Project.

The General Valuation Coordinator has undertaken the task in cooperation with the property valuers at central and district level to analysis the market transactions and to determine market values by geographical area, planning zone, property type and micro-locations were needed. This analysis was performed in cooperation with the Valuation Section, since the newly created Valuation and Taxation Section had no certified valuers or other trained staff at that point in time.

The Data Capture Coordinator was responsible for the data capture characteristics of all parcels on the island as well as for all buildings that were not recorded in the database.

At each District, a Section leader under the General Valuation and Taxation was appointed and under this structure a lower hierarchy level was created to support the processes.

6.2 Project Planning and Monitoring

A Gantt chart through the MS Project Software was prepared for the purpose of monitoring the tasks to be accomplished on specific timelines and human resources. This included the following major tasks:

I	Preparatory work	XI	Run the valuation models under CAMAS
II	Legislation Changes	XII	Evaluation of results and Ratio Studies. Application of GIS tools and visualization of results
III	Preparation of training manuals	XIII	Correction of results and final run by CAMAS
IV	Trainings (Data Capture, Valuation, CAMAS, Quality Control)	XIV	Publication of Results
V	Data capture project (land & buildings)	XV	Web application access to the public
VI	Valuation - Sales analysis, spot values, internal valuations and parameter determination	XVI	Set up of call center environment
VII	Define and digitize micro-locations and mass update into DB	XVII	Objections and Appeals Plan
VIII	Model testing	XVIII	Public Relations and media Plan
IX	Preliminary Pilot Runs	XIX	Communication Strategy
X	Preparation of Data Input and import parameter values into DB	XX	

Table 2: Main Tasks of the new General Valuation

6.3 Data Capture Methodologies Applied

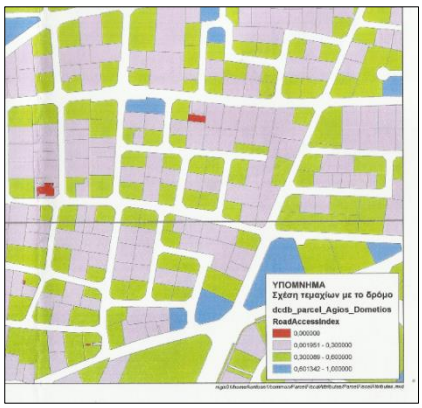
Due to the restricted time frame that the DLS had to accomplish this task, the data capture project was actually subdivided into two subprojects as follows:

1st subproject – Data Capture of Land Characteristics

The major land characteristics that have been decided to be used by the valuers were the accessibility, road side relation and shape. Since this information was available through the Digitized Cadaster Database (DCDB) of the Department, it was possible to characterize all 1,1 million parcels with their respective attribute. This was possible by applying the mass update tools of the GIS that is currently operating within the Department.

The DLS has developed a special algorithm for road side relation (standard/premium accessibility) calculation as well as for the shape. A map for each output calculation is shown below:

Road Site relation (standard/premium)



Parcel Shape classification

Maps 3 & 4: Categorization by road access and shape

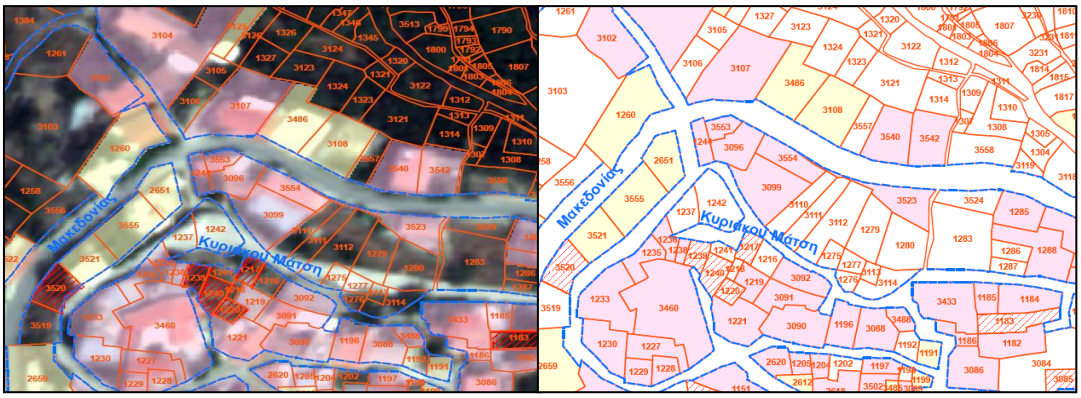
2nd subproject – Data Capture of Building Characteristics

This was considered to be one of the most difficult tasks for a number of reasons. The total volume of units estimated to be 0,5 million and only 120.000 units were updated in the database from the previous years. For the remaining 380.000 units, the DLS has mobilized the majority of its resources to accomplish this task, by taking the following actions.

The methodology adopted to identify the 380.000 units, and to assign a code for every unit standing on a parcel using the existing aerial and satellite images superimposed on the digitized cadastral database. The second step was to match the parcels that a code was assigned that a building existed with the legal/fiscal unit data kept in the Land Information System in order to identify the missing units. In the final step, the DLS has produced hard copy of maps per district, delineating in different colors those parcels that their buildings and/or their characteristics were missing. A specimen of these maps is presented below:

Digitized Cadastral Map superimposed with Satellite Images

Digitized Cadastral Map



Maps 5 & 6: Remote Sensing and GIS analysis

Map Legend

Yellow color = Fiscal units without characteristics

Pink color = Registered Units without characteristics

Orange color = Horizontally divided Units, without characteristics

Lineal red color = demolished units

It should be noted that the DLS has also applied the latest google maps in some geographical areas of the island where the existing satellite images were not up-to-date.

Each District Lands Office has organized its own data capture teams per geographical area and has inspected every building within their administrative boundaries. Specific forms were used to record the basic external building characteristics during the local inspection process. These characteristics were the following:

Type of Property	Unit Category (Luxury, Category A, B, C, D)
Unit address and no.	Condition (v. good, good, fair, poor)
Total number of storeys	View (standard, sea, panoramic)
No of storeys per unit	Shop frontage
Year built and substantial refurbishment year	Unit areas in sq.m as well as other ancillary buildings
Frame construction description	Photo were captured where possible

Table 3: Property Data

Due to the very limited time constrain, it was very difficult to develop applications on tablet pcs both for locating the building units on site by GPS as well as direct electronic recording of data characteristics. Some electronic devices already available in the DLS were used by some data capturing teams, but not in all of them.

Floor space Measurement

One of the most important characteristic of the units was the floor area and all the available methodologies have been used to extract this information as follows:

I. The floor area (sq.m) of all registered units other than the horizontally divided units, were extracted from hard copy files and imported into the database

II. For horizontally divided units existed before 1969, floor areas were not available, thus the Survey Section has undertaken the responsibility to provide the measurement.

III. The basic source of information for extracting floor area, were the floor plans available in the DLS archives, the Town Planning Department/District Offices building permits and the municipal authority's archives.

IV. Information about units characteristics were also extracted from the previous property forms used in the 1980 general valuation and thereafter validated during local inspection or otherwise.

V. In some cases, land surveyors within the Survey Section were assigned the task to measure units on site.

VI. Where floor plans were not available, these units were measured by the data capturing teams during local inspection. The floor area measurement was a process step before any local inspection.

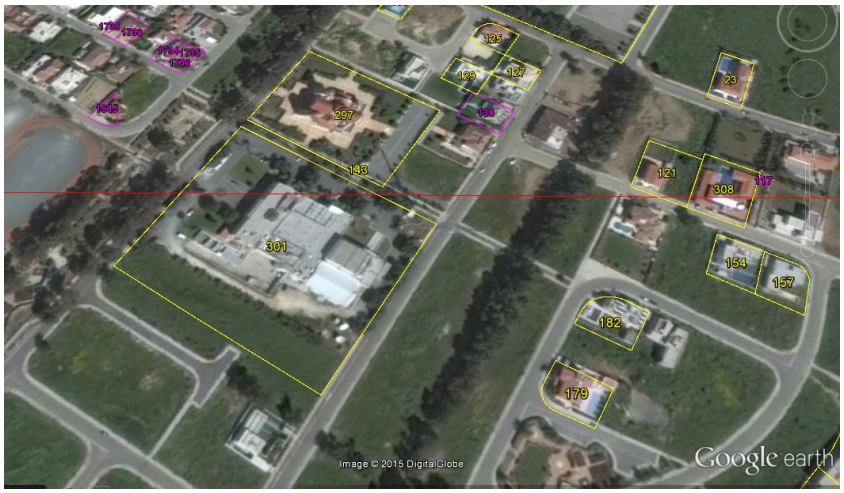
VII. In some cases, owners were also requested to provide copies of their floor plans.

VIII. For a very small number of units (about 2%), satellite images in combination with aerial photography and orthophotos were used to measure or validate floor areas especially ground floor-detached houses.

IX. The software namely "Visat" has also been applied to measure or externally describe unit characteristics, which is similar with "google street map". This application is operating together with GIS application, where at the same time the boundaries of the parcel are identified and its respective photo is visualized by the system. A unit photo

or empty land can be observed from different angles. Unfortunately, the geographical extent of this project was only for one district and for 30% of the total number of municipalities/communal authorities.

One of the applications that have been used in support of all the aforementioned approaches is the identification of missing units, using google maps. A map is shown below identifying missing units colored in yellow and pink.



Map 7: Identification of not declared units

With regard to human resource management the following actions have been taken:

- The number of staff was increased from 32 to 294, which counted for about half the personnel of the Department.
- A data capture manual was prepared and all staff existing and rotated ones were trained.
- About 50 unskilled staff was also transferred from another Ministry/Department to the DLS.
- About 20 university graduates were employed for the period of six months under a special unemployment scheme monitored by the Cyprus Human Resource Development Authority. Also, students from the Real Estate Department of Neapolis University, Paphos were also engaged in the data capture process, which formed part of their total teaching credit hours for the degree award in Real Estate.

- Furthermore, the Ministry of Interior in cooperation with the DLS has mobilized all District Town Planning Departments, the District Offices, as well as all the Municipal Authorities. Their major task was to extract all planning permissions and building permits from paper archives in order to record on specific forms all footprints of the buildings as well as their respective building uses. The Town Planning Department has engaged about 61 employees in order to extract and record the information required. Also, some Sewerage Boards have supported the activities of the DLS providing their automobiles to support local inspections.
- The DLS has also engaged a number of Land Surveyors in all Districts that have undertaken the task of local inspection and measurement of buildings.

6.4 Valuation Methodologies Adopted

The new general valuation was based on international recognized methodologies that are also applied in Cyprus, namely the Direct Comparison, Residual Method and Depreciated Replacement Cost. These methodologies are also coded in the International Valuation Standards, RICS Valuation Standards, the European Valuation Standards as well as the Guidance on International Mass Appraisal and related Tax Policy (IAAO).

For the new G.V the following property characteristics have been used:

Land Characteristics	**Building Characteristics**
Property type	Property type
Extent (sq.m)	Unit Extent (enclosed, covered, uncovered)
Planning zone	Year built
Valuation location (micro-location)	Refurbishment Year (substantial)
Access	Category (Luxury, A.B,C,D)
Road site relation	Condition
Shape	View

Table 4: Property Attributes

A crucial parameter for implementing a new G.V was the determination of values per sq.m for all geographical areas in Cyprus, by planning zone, property type and micro-locations.

The determination of values was based on the following data:

I. Comparable sales of the last 3 years in the DLS archives and time adjustment was made where needed
II. Internal valuations close to the G.V date as well as valuations made for state land for the whole island.
III. Market research was made for buildings as well as their respective cost of construction. Information was also gathered from developers, construction firms, Quantity Surveyors as well as other professionals in the construction industry.
IV. Market research was also made in cooperation with the Quantity Surveying Section of the Public Works Department.
V. Annual Construction and Housing Statistics have also been taken into consideration.
VI. Finally, various studies and reports as well as the two property prices indices (central bank and RICS Cyprus) have been taken into consideration.

The basic values per sq.m. were determined by valuers at district level and approved by the approval valuers at central level. No statistical methodology or special statistical software was used for the determination of these values (MRA or other). On the other hand GIS tools have been used to visualize sales and planning zones as well as other characteristics to support in decision - making by valuers. The determination of base values per sq.m. as well as their respective adjustments were recorded into specific parameter tables and then imported into the CAMAS for the execution of the final results.

The G.V for 1,1 million properties was possible only by applying a Computer Assisted Mass Appraisal System which was developed within the DLS since1999. The CAMA consists of a number of models but because of the limited time constrain the only available models in operation were the base models. These models are flexible, simple and fast in their application. The basic principle behind is the need to determine the base value per sq.m. of each group of properties (homogenous or similar properties) that are to be valued and there after a positive or a negative adjustment is adopted according to the physical and legal characteristics of each property according to the base or standard property. In other words, an algorithm is applied that is additive/multiplicative to the base value in order to arrive at the

value of each property. The basic principle under this model is that it calculates the land value and buildings separately and adds the two in order to arrive at the value of general valuation. As regards the value of the buildings, the model is applying depreciation factors according to its age, in addition to the remaining attributes that have been described above.

6.5 Methodologies adopted for Quality Control and Assurance of G.V

Before the publication of results the DLS Valuers have performed a number of checks in order to assess the validity of values in comparison to the market. Various approaches have been used. One of those was to compare the assessed values with a number of single valuations that have already been prepared for this purpose. Also, sale transactions have been used against the assess values in order to validate the new G.V. There was a very strict time limit for this quality control, however the DLS valuers have reviewed the values of some geographical areas by property type after this assessment.

A comprehensive quality assessment of the G.V has been performed after the publication of results and a report has been issued of the findings as well as recommendations to improve the quality of the G.V. The quality assessment was a ratio study (assessment/sales value), that used about 10.000 sales of various property types. These sales selected were for the period one year before and after the G.V date. Three major statistical indicators have been examined in this study, namely the Level of values (Median), Uniformity (COD- horizontal equity) and Price Related Differential (vertical equity). The statistical results were benchmarked against the IAAO standards, as follows:

i. Uniformity (COD)

General Property Class	Jurisdiction Size/Profile/Market Activity	COD Range
Residential improved (single family dwellings, condominiums, manuf. housing, 2-4 family units)	Very large jurisdictions/densely populated/newer properties/active markets	<=10%
	Large to mid-sized jurisdictions/older & newer properties/less active markets	<=15%
	Rural or small jurisdictions/older properties/depressed market areas	<=20%
Income-producing properties (commercial, industrial, appartments)	Very large jurisdictions/densely populated/newer properties/active markets	<=15%
	Large to mid-sized jurisdictions/older & newer properties/less active markets	<=20%
	Rural or small jurisdictions/older properties/depressed market areas	<=25%
Residential vacant land	Very large jurisdictions/rapid development/active markets	<=15%
	Large to mid-sized jurisdictions/slower development/less active markets	<=20%
	Rural or small jurisdictions/little developments/depressed market	<=25%
Other (non-agricultural) vacant land)	Very large jurisdictions/rapid development/active markets	<=20%
	Large to mid-sized jurisdictions/slower development/less active markets	<=25%
	Rural or small jurisdictions/little development/depressed market	<=30%

Table 5: COD Range by Property Class

Based on statistical analysis, the study has proved that the COD assessment is very good, which purports that the recent general valuation has achieved a very good level of uniformity (horizontal equity) to the taxpayers. In other words, assessed values are spread at equal distances between the median value.

ii. Median

The values under this statistical indicator should fall between 0,9 <= Median=>1,1.

In respect to the median ratio, the study has proved that the assessed values are located within the lower limits of the standard or fall just below the lower limits as defined by the IAAO standard. In other words, the median overall assessment values fall within the lower limit or are very close to the lower limit and this is very much neutralized for the taxpayer when combining the results with the good COD assessment results. The tendency of the median assessment indicates that the GV prices are relatively lower than the market values or are very close to the lower limits defined by the IAAO standard.

iii. Price Related Differential (PRD)

PRD	Interpretation	Favour	Type of valuation bias
0,98 to 1,03	Low- and high- value properties are appraised equally.	Neither	None
<0,98	High value properties are over appraised	Low value properties	progressive
>1,03	High value properties are under appraised	High value properties	regressive
<0,98	Low value properties are over appraised	High value properties	progressive
>1,03	Low value properties are under appraised	Low value properties	regressive

Table 6: Price Related Differential

The third indicator which is the PRD (vertical equity), the study has proved that the overall tendency is that the ratio is concentrated within the upper limit or close but above the upper limit as compared with the standard. There is an inherent limitation of a small number of observations in this study and as noted by the IAAO standard, this tends to show that PRD is high. Furthermore, as in our case the PRD indicator is concentrated on the upper level of the standard limit, regressivity can be observed. This means that high value properties are under-appraised or lower value properties are under-appraised. Further, investigation and analysis

should be a continuous process of improving the quality of the data and the quality of appraisal by the DLS.

A major issue which is under investigation by the DLS, is the accuracy of sale transactions. These need to be fully investigated at the date of sale. The better the quality of the sales, the higher the level of GV accuracy.

6.6 Conclusions: Experiences and Good Practices

Having described briefly the major project steps which have been taken in implementing a new G.V for Cyprus, an attempt is made to outline the experiences and good practices of this project through a strategic planning system often so called **SWOT analysis**, which identifies the **S**trengths, **W**eaknesses, **O**pportunites and **T**hreats and can be an extremely useful tool for decision makers.

The **S**trengths, **W**eaknessnes, **O**pportunities, **T**hreats (SWOT) of this project are presented below in a table:

In terms of describing **S**trengths and **W**eaknesses, the rank below was made in order of strategic significance. A simple **A**, **B**, **C** classification where A=critical strategic importance, B= Is of strategic importance and C=Not of corporate significance

As with **O**pportunities and **T**hreats, a similar rank was made using a High, Medium or Low classification (H,M,L).

STRENGTHS	**WEAKNESSESS**
• Top Management Commitment – A • Middle Management Commitment – A • Employees Commitment - A • Legislation – A • Central Government Commitment – B	• Human Resources for the project- A • Facilities Management (Premises, equipment, hardware and software) - A • New product Development (need for IT upgrade) – B • Finance (restricted funded) – B • Property Market Climate – A
OPPORTUNITIES	**THREATS**
• Collaborations with other organizations and Local Authorities - M • International Technical Assistance – M • Alternative approaches to Data Capture - M • Utilizing existing open source data - M	• Political decisions - H • Taxpayers - H • Communication and Media Planning- H • Economic Climate - M • Technological Changes – M

Table 7: SWOT analysis of the NGV

Summarizing and assessing the most important critical success factors for the project

Based on the above analysis, it can be summarized that the major strengths of this project were the top and medium management commitment as well as the commitment of the employees. Also, the current legislation which has been tested for many years was positive in avoiding any complications for the project. Central Government Commitment was rated as B, which meant that the project needed more support from the Central Government to minimize the risk of not completing the project within the limited time constrains.

The major weaknesses that has let the project into high risk or not meeting the deadlines were the provision of adequate human resources at all organization/project levels. Also, another important constrain to the project was the inadequate facilities to support the processes. This includes additional office space to accommodate additional staff as well as IT equipment, which were essential to support the business process of data capture. To a lesser extent was the need for upgrading or continues upgrading of the existing CAMAS and its capabilities to support more dynamic and integrated functionalities required for the project. Also, another weakness for the project was the limited finance available to support specific needs due to the economic crisis. The DLS could not easily outsource any activities due to limited finance in the budget. Finally, another important business weakness was the limited market information to perform the required analysis.

The dynamic collaboration between the DLS and the Local Authorities was an opportunity that the DLS has fully exploited, although this was reinforced at a late stage of the project. Furthermore, the DLS has adequately utilized the opportunity to use technical assistance through the EU. Also, the DLS had the opportunity to explore and apply alternative approaches to data capture as well as using open source data to implement the project.

Finally, the project was at risk because it was not popular to politicians, but this was safeguarded after the government was forced to sign the MoU regarding the financial assistance under EU/ECB/IMF and was committed to radical reforms in the Country. Another threat to this project was the acceptability of the market values by the taxpayers. A great threat was coming from some taxpayers who believed that values were not fair and equitable. Also, the lack of adequate communication to the public has posed a major thread against the introduction of new G.V. Further, the economic climate was also another thread because without adequate financial assistance the implementation of the project could have

been impossible. Although technological changes could have threatened the project, this factor was not considered so significant bearing in mind the existing capabilities and infrastructure of the Land Information System.

The concluding remarks are that despite the strict time limit to accomplish the new G.V on 2013 values in almost less than a year as well as all other constrains, this project is considered successful. This is supported by the ratio studies conducted in the DLS, which have statistically proved that the values are fair and equitable. Also, the applications for correction of errors and valuation objections to the new G.V are 1,7% in comparison with other countries which fall between 3% to 5%.