INTERNATIONAL
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Cyprus

Implementation of the General Valuation for the Immovable Property Tax

December 2013

**John Norregaard, William McCluskey,
and Niall O'Hanlon**

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ABBREVIATIONS AND ACRONYMS

AV	Assessment Value
CAMA	Computer Assisted Mass Appraisal
CBC	Central Bank of Cyprus
CYSTAT	Statistical Office of Cyprus
CILIS	Cyprus Integrated Land Information System
DLS	Department of Lands and Surveys
EC	European Commission
GV	General Valuation
GVS	General Valuation Section
GIS	Geographic Information System
IPT	Immovable Property Tax
MoF	Ministry of Finance
MoI	Ministry of the Interior
MoU	Memorandum of Understanding
MRA	Multiple Regression Analysis
PM	Project Manager
RPPI	Residential Property Price Index
SMT	Social Media Technologies
TA	Technical Assistance
UPRN	Unique Property Reference Number
VS	Valuation Section

PREFACE

In response to a request from the Cypriot authorities, a technical assistance mission visited Nicosia during October 14-25, 2013, to provide advice and assistance with the design and implementation of a modern market-value-based property tax in order to strengthen revenue mobilization and improve fairness. The mission comprised Messrs. John Norregaard (head, FAD), William McCluskey, and Niall O'Hanlon (FAD External Experts). The project has been coordinated with the EC Support Group for Cyprus (SGCY).

The mission worked closely with staff of the Department of Lands and Surveys under the Ministry of the Interior, headed by Mr. Vassos Petrides, Director, and including Mr. Kyriakos Tsolakis, General Valuation and Management of State Land, Mr. Varnavas Pashoulis, General Valuation Section Leader, Ms. Efi Savvidou, Valuation Section Leader, Dr. Panayiotis Panayiotou, Land Officer; Mrs. Aristi Christofidou, General Valuation Co-ordinator; Mrs. Panatiota Flori, Data Capture Co-ordinator and Mr. Neoclis Neocleous, CILIS Support and Administration Section leader. It held discussions with Dr. Andreas Charalambous, Director of Economic Research and European Union Affairs, and Mr. George L. Panteli, Budget and Fiscal Control Directorate, both MoF. The mission also met with Ms. Dora Kyriakidou, and her staff at the Statistics Department (CYSTAT, MoF); Mr. George Gabriel Poufos, Commissioner, and Ms. Elina Symeonidou, both Inland Revenue Department (MoF); Professor Panos Pasiardes and his staff at the Economic Research Center of the University of Cyprus; Dr. Lazaros S. Savvides, Mayor of the municipality of Strovolos, and his staff; Mr. Nicholas Efstathiou, City treasurer, Nicosia Municipality; and Mr. Theodosios Sepos, Financial Controller/Acting General Manager, Sewerage Board of Nicosia.

The mission liaised closely with the SGCY before, during, and after its visit to Nicosia. The SGCY also provided partial funding for this mission.

The mission would like to express its sincere gratitude to the authorities for the effective assistance and excellent cooperation it received, and for the warm hospitality that was extended to the mission throughout its stay in Nicosia. In particular, the mission would like to thank Mr. Varnavas Pashoulis for his tireless and highly effective cooperation with the mission before, during, and after its stay in Cyprus.

EXECUTIVE SUMMARY

This report details the findings and recommendations of the IMF technical assistance mission to advise on the implementation of the General Valuation for the immovable property tax. The mission had three key tasks: firstly, to advise regarding the implementation of the island-wide General Valuation; secondly, to evaluate and advise on the development of a residential property price index that could be used to update existing property values; and thirdly, to outline the tasks and deliverables involved in a study on further refinement of valuation parameters and how to address cyclical fluctuations going forward. In relation to the first task the ToR referred to 'the feasibility of a unit tax base for individual dwellings'; given that the Department of Lands and Surveys (DLS) values properties on a unit basis (i.e., land plus buildings which represents a unit) this is in fact the current methodology.

Several taxes and charges are levied on the value of immovable properties in Cyprus. Still overall revenue raised is fairly modest—in part because property values for tax purposes have not been revisedsince 1980, with adverse impact on both fairness and revenue. The MoU lists property tax reform as one of the key tax measures needed to raise revenue and improve the fairness of the overall tax system, by levying recurrent property taxes on *current market values*. With about ½ million immovable properties (units) in Cyprus, a large number of which have not been properly revalued since 1980 (including many with new construction not being registered), the general revaluation project is an ambitious one.

The DLS initiated in September 2012 planning of (and data compilation for) a computer assisted mass appraisal (CAMA) project, and the Council of Ministers issued on September 4, 2013 a decision to implement a General Valuation. The MoU stipulates that the property revaluation must be completed by the end of June 2014 and form the basis for the property tax in 2014. The revenue from the re-based tax will depend on the tax rates that will be set at that time. Successful implementation of the project, which is highly data-intensive, will require strong political support and very careful and detailed planning.

The DLS and in particular the Valuation Section (VS) is well structured and has the required technical expertise, but there is a need for increased resources to implement the project over the next some 7-8 months. The project is both highly useful and doable, but the human resource allocation during critical periods of the project must be strengthened. To some extent these concerns have been mitigated by actions that the Department is currently taking.

The general valuation project as initiated by the DLS is based on automated mass appraisal which uses base (sq.m) values for different property categories, calculated on the basis of actual property transactions, which are then applied to all properties in the country using a specially designed software package. This is the right methodology, consistent with best international practice. A somewhat different methodology, but one that has the same objective, and is suggested in the MoU, is based on the calculation of property price indices

for different categories of property. Given the dramatic drop in the number of property transactions, this methodology may, however, not result in sufficiently statistically accurate property valuations, and is not consistent with standard international valuation practices. Inaccurate valuations also involve the risk of generating numerous legal objections, which could side-track the project. However, given the usefulness of property price indices for monitoring and analytical purposes, the mission provided extensive guidance on the development of accurate property price indices, including available methods to compile data, methods to separate pure price changes from the quality of property, and methodologies for calculating property price indices.

The core output of the TA activity was the development of a detailed Project Implementation Plan for the general valuation project for the duration of the revaluation project, including critical milestones (the implementation plan is reproduced as Annex D to the report). Also, follow-up technical assistance needs to ensure successful implementation of the project were identified, and would entail two expert visits of about one-week duration each, plus possibly a full mission in late spring to take stock of progress made.

I. OVERVIEW OF EXISTING IMMOVABLE PROPERTY TAXES IN CYPRUS

A. Present Taxes and Charges on Property

1.   **Several taxes and charges are levied on the value of immovable properties in Cyprus, but overall revenue raised is fairly modest—in part because property values for tax purposes have not been revised since 1980**. Present values obviously are outdated which creates large inequalities across taxpayers, adversely affects the potential for revenue mobilization, creates taxpayer resentment, and constrains the introduction of a new simplified property tax. A key commitment under the present economic program is to revalue properties in accordance with market values for future property tax purposes. This section provides a brief overview of the main property related taxes at present in force with regard to legislative basis, tax bases, tax rates, revenue, and administrative costs.

Immovable property tax (Law 24/1980)

2.   **This annual tax is levied on the aggregate value (i.e., by reference to their share of ownership in all real estate assets they own) of all real property of each person or entity as at January 1, 1980 property values**. The tax rates applied in 2013 are shown in Table 1:

Table 1. Tax Rates, 2013

S/N	Bands, €	Rates, ‰
1	Up to 12.500	0
2	Over 12.500 up to 40.000 (no allowance for the first 12.500)	6
3	From 40.001 up to 120.000	8
4	From 120.001 to 170.000	9
5	From 170.001 to 300.000	11
6	From 300.001 to 500.000	13
7	From 500.001 to 800.000	15
8	From 800.001 to 3.000.000	17
9	Over 3.000.001	19

Source: Inland Revenue Department, 2013.

3.   **Important changes to bands and tax rates were implemented in 2008, 2012, and 2013, and are also expected for 2014 when the results of the general valuation project are known**. A significant change took place in the rates and bands for 2013, when the tax free threshold was reduce from €120.000 to €12.500, and the highest marginal rate was increased from 8 percent to 19 percent.

4.   **The following categories of properties are tax exempt:**

- Cemeteries;

- Religious buildings (Church, chapel, etc.);

- Public Hospitals;

- Education establishments (secondary and high school);

- State government land;

- Embassy or Consulate and accommodation of Diplomatic agent, if the same regulation exists with the respective country abroad;

- Communal farms;

- Communal/village property;

- Municipal Authority properties or public corporations subject to the Council of Ministers decision. Not applicable in cases of profit making organizations;

- Properties inaccessible due to Turkish Occupation;

- Properties located near the buffer zone;

- Preserved (heritage) buildings subject to completion works.

5.   **The tax is payable by November 15th each year**. If the tax is paid by October 16th or before, there is a 10 percent discount (an amendment in mid-October extended the discount period to November 5, 2013), and if paid after November 15th, a penalty of 10 percent of the tax applies.

6.   **The tax collected by the Inland Revenue Department for the last years is shown in Table 2.**

Table 2. Revenue Statistics, 2005–12

Year	Amount, €	Change YoY, %
2005	10.348.506	--
2006	10.722.360	3,60
2007	12.512.883	16,70
2008	11.743.826	-6,15
2009	10.768.453	-8,30
2010	14.123.082	31,15
2011	12.314.736	-13
2012	23.453.664	90

Source: IRD annual report, 2012.

7.   **The revenue of the immovable property tax for 2013 is projected at about €100 million, or 0.57 percent of GDP**. This would constitute a substantial increase from the revenue of 0.13 percent of GDP collected in 2012. This in part can be explained by the broadening of the tax base to include a significant number of properties that were previously not included on the valuation roll.

8.   **The number of registered taxpayers is estimated at 359.200 as at mid-2013, following efforts over the year to enlarge the property tax base through selected valuations**. The average rate of compliance of the tax has been estimated by the IRD at about 71 percent. The administrative cost of collecting this tax is unknown.

Municipal rates (Municipalities Law, N.111/1985)

9.   **The annual rate is levied on each property (the DLS provides the data to each municipality for billing purposes) located within the administrative boundaries of a municipal authority to which the revenue accrues (there are 30 municipalities in Cyprus) of any owner or legal body, and applies to the January 1, 1980 property values**. The current rate is flat at 1.5 per thousand.

10.   **Exemptions are similar to those of the central government tax:**

- Cemeteries;

- Religious buildings (Church, chapel, etc.);

- Public Hospitals;

- Preserved (heritage) buildings and archaeological sites;

- Properties located in the occupied area of Cyprus;

- Education establishments (secondary and high school);

- Charity organizations;

- Property owned by government and Municipal Authorities;

- Sports club and its related land activities;

- Communal farms;

- Communal property.

11.   **The tax has to be paid by June 30th every year. It is collected by each municipal authority**. The administrative cost to collect the rates is not known but estimated to be quite

low. The rates can be paid through electronic banking. Almost all 19 municipal authorities are using electronic banking services for the payment of the rates.

Communal rates (The Communal Law, N.86 (I)/1999)

12. **The annual rate is levied on each property that is within the administrative boundaries of a communal authority which also receives the revenue** (there are more than 300 such entities in Cyprus outside the jurisdictions of existing municipalities) of any owner or legal body, and applies to January 1 1980 property values. Data for billing purposes is supplied by the DLS. The current maximum that can be imposed by the Communal Authority is 10 per thousand (0.01), but a common levy is 1.5 per thousand (0.0015).

13. **Properties exempt from the tax are:**

- Cemeteries;

- Religious buildings (Church, chapel, etc.);

- Public Hospitals;

- Preserved (heritage) buildings and archaeological sites;

- Located in the occupied area of Cyprus;

- Education establishments (secondary and high school);

- Charity organizations;

- Property owned by government and Communal Authorities;

- Sports club and its related land activities;

- Communal farms;

- Communal Property.

14. **The rate has to be paid by June 30th every year. The rate is levied and collected by the Communal Authorities**. The administrative cost to collect the rates is not known. The rate is collected by every communal authority. The administrative cost to collect the taxes is not known. The rates can be paid through electronic banking, where they are subscribers to electronic payment banking.

Property transfer tax (Lands and Surveys (fees and charges) Law 1959, Cap.219)

15.   **Transfer taxes are levied on the market value of the property at the contract-of-sale date or the date of the transfer, where no contract of sale exists.** The current rates (which have been lowered with effect until 2016) and brackets are shown in the Table 3.

Table 3. Transfer Tax Rates

s/n	Band, €	Rate, %
1	1 – 85.430	3
2	85.431 – 170.860	5
3	170.861	8

16.   **In case of transfer by gift (including inheritance), the transfer tax applies to the values on January 1 1980, and the rates vary according to the relation between the parties.**

17.   **The total annual amounts of the property transfer tax (fees) collected by the DLS at sales are shown in Table 4.**

Table 4. Transfer Tax Revenue

Year	Transfer taxes collected, €
2005	75.588.749
2006	130.357.099
2007	256.678.836
2008	181.356227
2009	77952162
2010	99.594.738
2011(Nov.)	73.664.226

Source: Department of Lands and Surveys.

Capital gains tax (Law N. 52/1980)

18.   **Capital Gains Tax is levied as a flat percentage which at present is 20 percent of the gain.** The base is calculated as the market value at the time of the sale reduced by the value of the property at the date of acquisition if it is after January 1 1980, or the
January 1st 1980 value if it is before this date. To the value of the property acquired, any improvements and costs are added, and the total is indexed until the date of disposal.

19.   **Capital gains exempt from tax are:**

•   For gains on land dedicated for agricultural purposes and the owner (not a legal body) is engaged in agriculture, there is an exemption of €25.862.

- For any owner, the exemption on the gain is €25.862 if the disposal of property is once and for all.

- For gains on the first residence (if owner occupation), where the owner holds it for a minimum of five years, there is an exemption with a ceiling of €85.430.

20.   **The tax is levied and collected by the IRD. The administrative cost to collect the taxes is not known**. The annual tax revenue collected by IRD in recent years is shown in Table 5.

Table 5. Capital Gains Tax Revenue

Year	CGT Revenue,€	% change
2005	98.955.376	------
2006	199.019.080	101
2007	467.127.479	135
2008	302.350.028	-35
2009	74.469.873	-75,37
2010	86.811.503	16,57
2011	68.563.659	-21
2012	54.426.870	-21

Source: IRD, 2013.

Sewerage rate (The Sewerage Law of 1971)

21.   **This tax is levied on each property that is within the administrative boundaries of a Sewerage Authority of any owner or legal body on January 1, 1980 property values**. There is a Sewerage Authority, which is a private entity, in each of the five Districts.

22.   **The typical tax rate is about 5 per thousand applied to January 1, 1980 property values, but varies according to type of property (e.g., residential, commercial, hotels).** The tax levy has to be paid by the September 30th each year. Also, a small levy is charged based on the consumption of the water and not on the market value of the property on January 1, 1980.

23.   **It is levied and collected by the Sewerage Authorities. The administrative cost of collection is not known.**

24.   **The rates can be paid electronically through internet banking (JCCSmart).** In each district, there is one major Sewerage Board that covers all municipal authorities, whereas in the countryside, individual Sewerage Boards are established consisting of two or more villages.

VAT on property

**In addition to these taxes and charges, the standard VAT at 18 percent
(19 percent as of 2014) applies to the cost of building construction**. There is no VAT on vacant land.

B. Summary and Plan of Report

25. **In summary, there are four taxes that apply to property values with
January 1, 1980 as their common base, the immovable property tax, municipal and
communal rates, and the sewerage charge**. When the general valuation project has been completed, there seems to be a substantial scope for consolidation and simplification of this multiplicity of taxes and charges all applying to the same base.

II. IMPLEMENTATION OF THE 2014 GENERAL VALUATION

A. Introduction

26. **The context to the 2014 GV is the decision of the Council of Ministers to order the GV of all immovable property in Cyprus**. See text below which reproduces the text of the Council decision:

> **"Council of Ministers Decision, dated 4.9.2013 as regards the publication Order under Section 69(I) of the Immovable Property (Tenure, Registration and Valuation) Law, Cap. 224, as amended, with reference to the General Valuation of Immovable Property**
>
> I have been instructed to inform you that the Council of Ministers at its sitting held on 04.09.2013 approved the proposal of the Ministry of Interior, No. 1008/2013 dated 28.08.2013, a copy of which is attached.
>
> Please proceed with all necessary actions for immediate implementation of the decision, as recommended in paragraph 3 of the proposal.
>
> The Order of the Council of Ministers was preceded by the following proposal.
>
> **PROPOSAL TO THE COUNCIL OF MINISTERS**
>
> In implementing the provisions of the Memorandum of Understanding (MoU) with Troika, the Republic of Cyprus is obliged, under Measure 3.10 to complete by the end of the first half of 2014, the General Valuation of properties throughout Cyprus. In addition to the obligation of the Republic to comply with the provisions of the MoU aforementioned measure, updating of the property prices becomes necessary, bearing in mind that the last General Valuation was made on 1.1.1980. Further, the update on prices will result in a fairer taxation of properties and will increase government revenues.
>
> For the implementation of the general valuation of all properties, it is required under the provisions of section 69 (I) of the Immovable Property (Tenure, Registration and Valuation) Law, to have a decision by the Council of Ministers, by an Order and instructs its publication in the Official Gazette of the Republic, for the implementation of a new General Valuation.
>
> The Interior Minister, who is the adviser for the proposal"

27. **The MoU (section 2.9) refers to a specific methodology using a residential property price index to essentially arrive at the General Valuation**. However, the

Mission found that the valuation methodology being adopted by the Department, given the existing circumstances prevailing in the real estate market, is the correct approach. Following on from this, the technical assistance supported the Department and the Valuation Section in its efforts.

28.   **While similar regression based techniques may be employed in property revaluations and the compilation of property price indices, the underlying methodologies and the desired outputs differ**. The "sales comparison approach" to property valuation uses information on recent open-market sale prices. The aim is to decide how differences in the characteristics of recently sold properties influence their prices. This information is then used to estimate what the properties being valued are worth. The time-space over which transaction prices are observed must be factored into the regression analysis and excluded, such that only the impact of property characteristics are considered in the comparison of sale prices. On the other hand, in the case of RPPIs, regression based hedonic techniques are applied to sales data from at least two periods such that the differing property characteristics that can influence prices are excluded - thereby giving a measure of price development. This fundamental difference means that the two objectives, property valuation and index calculation, cannot be met from a single process. Regression models for valuations and index compilation should be separately developed and applied.

29.   **The current property price indices should not be used to update individual valuations as they lack sufficient locational granularity**. Sub-indices are produced at the level of five administrative regions only and cannot account for differing price development trends within these regions. Furthermore, these sub-indices may suffer from some volatility as they are based on low - levels of transactional information. The authorities should investigate how micro-locational attributes might be accounted for in index calculation although it is recognized that further granularity will be extremely difficult to achieve in current market conditions. It was not possible to identify a currently available data source that could be used to adjust for micro-locational characteristics (such as quality of street or neighborhood) within the compilation of property price indices. It should also be noted that price indices for residential property should not be used to approximate changes in the price of commercial property as they have differing price determining characteristics and operate as distinct markets.

GV project achievements to date (October 21, 2013)

30.   **The GV 2014 was formally announced by the Council of Minister's Decision dated September 4, 2013 which gave approval for the Department of Lands and Surveys to undertake the General Valuation.** But certain aspects related to the GV had started much earlier (during 2012) than the announcement date which has provided an excellent start to the GV project. In that respect the the following actions have been undertaken:

1.   The Project manager and key members of the Project Team have been identified and appointed.

2.   The development of a project implementation plan has been started.

3.   Data capture within several of the districts has begun with specific reference to those buildings that have missing data.

4.   Evidence of transactions since 2008 are being collected and the analysis process is underway.

5.   The CILIS system for mass appraisal has been developed and will have the capacity to deliver the valuations for all properties.

6.   All land parcels in the Republic of Cyprus have been digitised and the data pertaining to land characteristics can be obtained on a mass assessment basis from the Geographic Information System (GIS).

7.   An agreement is being pursued between the Ministry/Department and the Planning and Building Control departments within municipalities to provide information on buildings accessed from submitted plans.

8.   The five District Administration Offices have been working with the Department to provide missing data on buildings.

Project issues and critical milestones

31.   **The following is an outline of the critical milestones of the GV project along with action points and an indication of the risks attached to the milestones**. This should be read in conjunction with the implementation plan. See Table 6 below.

Table 6. Project Issues and Critical Milestones

Ref:	Action	Start Date	Action Taken (As of October 21, 2013)	Action Required	Urgency – purpose	STATUS*
LEGISLATION						
1	**Immovable Property Tax legislation**	October 21, 2013	In place	Any changes to the legislation need to be identified for consultation / Parliamentary approval	*Critical* Failure will delay implementation	◉
PROJECT / RISK MANAGEMENT						
2	**Appoint a Project Manager**		PM appointed	As per the following actions in this section	*Critical* To oversee and control the project	◉
3	**Appoint a Project Team**	October 21, 2013	Some staff identified for Project Team. Formal allocation of key tasks has been done. However no meeting of the team has yet taken place.	Project Implementation Plan to be refined and team members brought together	*Critical* Ensure key personnel / skills are in place to take the project forward	◉
4	**Prepare implementation plan / timetable and assign key responsibilities**	October 21, 2013	Work begun as of October 15 with TA advisors to develop a detailed project planning document	Development of Project plan / Risk Management Strategy and formal allocation of key tasks	*Critical* Provides a road map & identifies what has to be done and who will be responsible for each	◉

			with milestones.	through April, 2014 (up finalization of valuations) Regular monitoring meetings required	element of the project	
5	**Develop and Initiate Communication / media Management Strategy**	November 1, 2013	Organized public information campaign to be finalized. Ad hoc news releases have taken place.	Pro-active media/Public information campaign must be developed	*Essential* To inform property owners/taxpayers regarding the new general valuation	⦿

DATA CAPTURE

6	**Data collection forms to include key parameters**	October 21, 2013	Draft collection forms have been prepared	Finalisation of data collection forms	*Critical* Data collection forms provide the consistent basis of data being collected	⦿
7	**Training of staff of completion of data collection forms**	October 21, 2013	Some limited training has started for staff in the District offices	Training needs to be completed	*Essential* Training will ensure consistency of approach	⦿
8	**Data – sourced from plans**	October 21, 2013	Staff have begun to access plans from the Planning Department.	Formalise delivery of plans from the Planning department	*Critical* Not having plans will slow down the data capture exercise	⦿

9	**Data – On-site inspections**	October 21, 2013	On-site inspections have begun in each District Office.	Strict monitoring of inspections in terms of numbers completed, numbers to be done and time limits adhered to.	*Critical* Failure to have inspections completed will delay the analysis and valuation sub-projects	
10	**Data – Quality control and checking**	October 21, 2013	Checking of data has started.	Checking of data collection forms needs to be formalized.	*Critical* Failure to maintain quality will impact on the valuations.	
11	**Data – entry into the CAMA system**	October 21, 2013	This has to some extent started.	This aspect needs to be strictly controlled to ensure there is no backlog of data that is not entered.	*Critical* The data in a timely way must be entered into the system to allow for testing and quality control.	
12	**Data – quality control**	October 21, 2013	Limited	Reports need to be delivered to check on the quality of the data entry and to identify any missing fields	*Essential* This will allow for an early warning of any data entry issues.	
	DATA ANALYSIS					
13	**Transaction data analysis**	October 21, 2013	Has begun in some districts as part of the Amnesty and State land projects	Need to formalize the analysis of transactions to obtain land and improvement base	*Critical* These values will form the basis of the GV going forward	

				values by planning zone.	
14	**Planning Zone base values**	October 21, 2013	Some analysis has started.	This work needs to be fully co-ordinated in a coherent manner. A systematic approach adopted to provide Planning zone base values	*Critical* These values will form the basis of the GV going forward.
15	**Parameter estimates**	October 21, 2013	Serious work on this has yet to be started.	The various parameters used to adjust the base values need to be calculated either by manual analysis or using a multiple regression model.	*Critical* These values will form the basis of the GV going forward.
16	**Quality analysis**	October 21, 2013	Not started yet.	Base values and parameter estimates need to be tested in pilot study areas.	*Critical* Fundamental to identifying any problems in value consistency and uniformity between planning zones and areas within districts.

VALUATION

17	**Valuation of units**	November – December 2013	Not yet started	Valuation by planning zone needs to be fully co-ordinated.	*Essential* The valuation process will follow quickly behind the establishing of the base

					values and parameter estimates.	
18	**Pilot testing**	January – March 2014	Not yet started	Valuation of districts.	*Critical* This exercise will identify any problems of consistency and uniformity across districts by property type.	⊙
19	**Special properties**	November 2013 – March 2014	Not yet started	These represent unique properties such as hotels, marinas, special industrial etc.	*Essential* A small team approach would be the ideal way to deal with these properties.	⊙
INFORMATION TECHNOLOGY						
20	**Designing changes required to the CAMA system.**	November, 2013	The current CAMA system will have to be designed to accommodate new parameters and adjustments.	User Requirements Specification to be written	*Critical* Software changes required to implement the GV	⊙
21	**User testing of software - completed**	December, 2014	None	Develop comprehensive testing plan to ensure comprehensive testing	*Critical* Comprehensive testing is required to ensure the software is fit for purpose	⊙
22	**Implement software changes**	January, 2014	None	Implement software	*Critical* Late implementation will delay the determination of the unit values.	⊙

ADMINISTRATION

23	**Review organizational structure, work procedures and staffing**	October 30, 2013	Redeployment of VS staff from non-urgent operational work within the District Offices.	Undertake a review of staffing requirements & procedures at the District offices	*Essential* Determine staffing and operational requirements for GV	◉
24	**Staff Training**	October 30, 2013	None	Training plan and procedure manuals developed	*Essential* To ensure first that staff can deal with taxpayer enquiries	◉

Key to Status Symbol

🟩　　Project action on time or completed

🟧　　Project action started or slightly delayed

🟥　　Project action behind schedule

⬜ Project action not yet due

B. The GV 2014 Project Team

32.   **A GV Project Team and Project Manager is already in place and the team is being further developed**. However, the senior General Valuation Officer has subsumed the role of Project Manager (PM). Given the scale of the GV it is essential that a separate PM be appointed. There are a number of constraints in allocating staff to the GV project such as other competing work, for example, the Valuation of State Land and legal appearances in court. Senior Department staff have been allocated various roles within the team such as data capture, data analysis and valuation (see Annex A). However, several of the staff also have their normal daily operational work to undertake which is a significant concern .

33.   **The PM needs to be given sufficient authority within the Department to manage the implementation of the GV and to lead discussions and negotiations both within the Department and with other key government departments including municipalities** (e.g., Inland Revenue Department (IRD) and other stakeholders who will be impacted by the implementation of the GV). The PM will report directly to the Director of the Department.

34.   **The PM is supported by an implementation team comprising the following:**

- The Senior General Valuation Manager

- A Data Capture Co-ordinator: Responsible for the technical aspects of the project related to the collection, recording, checking and reporting on data within the five districts.

- General Valuation Co-ordinator: Responsible for developing the data analysis procedures and valuation models/methods.

- IT Co-ordinator: Responsible for the integration of the data into the CILIS platform to generate the valuations. Responsibility for ensuring that the IT system has the software algorithms to run the valuations.

35.   **There are some concerns about several of the key aspects of the project**.

36.   **In terms of data capture there is a need to increase the number of personnel involved if this sub-component is to be completed on time**. Data capture is a short but very intensive exercise, but central to the whole project. It is imperative that resources be targeted to this area.

37.   **Similarly, there are concerns about the number of experienced staff being allocated to the key task of transaction analysis.** This has been identified as a key component given the overall scale of the project, and derives from the lack of a General Valuation Section (GVS) established with expert staff.

38.   **General Valuation Section currently lacks institutional support at Central and District level.** To meet the timelines associated with the GV the GVS needs to

be property organized with a clear organizational structure and supported by appropriate staff. The existing GVS was created as an emergency measure in an effort to accomplish the new GV within the timeline set by the MoU. However, it is critical that the GVS/project team be fully developed in the next few weeks and have the highest level of support and full commitment to the GV project.

Recommendations

- A Project Manager be appointed; this is seen as a critical position in delivering the GV.

- The GVS and project team needs to be finalized as soon as possible with staff identified in specific roles.

- A full project team meeting must take place as soon as possible to ensure that all participants are made fully aware of their roles and responsibilities and the timelines involved in meeting their targets for this project.

- Theproject team should meet on a regular basis at least once per two weeks up until December 31, 2013 and then on a weekly basis until June 30, 2014. Recording of key progression data on a weekly basis on such matters as inspections and transaction analysis is essential.

- Key project team personnel should devote 100 percent of their time to the GV.

- As the other MoU project on the valuation of state land is due for completion in Mid-November 2013 all staff should be re-allocated to the GV project.

- Additional human resources should be allocated to the data capture sub-component as soon as possible.

C. Project Management

39.   **All project participants should have a clearly defined role within the project structure and a clear understanding of their role and responsibility, as well as their impact on other aspects of the project**.

40.   **It is essential that the implementation of the GV is managed closely in order to ensure a timely issuance of the tax bills after the publication of the values on June 30, 2014**.

41.   **Ideally a formal project management approach should be undertaken, with full project management briefs prepared**. However, this is not practical given the severe time constraints placed on the Department to implement the GV.

D. Project Variables

42. **As with any project there are six variables involved and, therefore, six aspects of project performance to be managed**. These variables provide the mechanism by which it is possible to measure the success or failure of project. The same variables provide management control and flexibility by specifying the amount of latitude available.

43. **These variables are:**

- *Timescales:* This is a critical element of the GV project, particularly as the timescale for implementation in June 2014 is extremely tight and needs to be closely controlled.

- *Quality:* Finishing on time and within budget is not much consolation if the result of the project does not work. However, it is recognized that quality, at least initially, may be an issue if there is insufficient time programmed in to allow for quality control at various stages of the project.

- *Scope:* Exactly what will the project deliver? On a large-scale project such as this, with in excess of €100m at stake, there must be full agreement among those in authority on the project's scope. The Project Manager must be given (if not already done) a detailed understanding regarding what is and what is not within the scope of their responsibility and authority in order to function effectively.

- *Benefits:* The PM have to be given a clear understanding of the project as an investment in order to make sure that what the project delivers is consistent with achieving the desired return.

- *Risk:* All projects entail risks and these should be identified and monitored and managed.

- *Costs:* The project has to have an adequate budget to reflect what is required and the scale of the project.

Recommendations

- A broad high level implementation plan/timeline was developed by the PM and with the assistance of the Mission revised the implementation plan for the GV. However, this needs to be more granular and have hard time limits established.

- Set out at Annex D is a more widely based and detailed implementation / timeline plan developed in discussion with the PM covering overall implementation.

- A public information project / media plan for the life of the project should bedeveloped and put in place.

- Set out at Annex B is an outline Communications / media plan for consideration

by the PM and a communication matrix is included at Annex C.

- A full risk assessment should be undertaken.

E.   Implementation Plan and Timetable

44.   **The timescale for implementing this complex project is extremely tight**. It is essential, therefore, that the implementation/timeline plan is fully developed in order to enable the Project Manager to effectively manage and monitor the wide range of tasks that have to be undertaken and to identify risks and issues as and when they arise. Ultimately, the MoU requires the publication of all property values on June 30, 2014. The implementation plan incorporates, and expands upon an earlier version developed by the Project Manager.

45.   **Annex D includes the implementation/timeline plan as at October 24, 2013**. This plan is based on a number of key milestone dates as shown in the Table 7. For a more detailed breakdown of the tasks refer to the implementation plan. The plan shows the key milestone dates and the tasks that have to be undertaken, and their interdependencies. There is little scope for slippage in the projected dates.

Table 7. Key Milestone Dates

Key Milestone	Start Date	End date	Comments
Data capture, data entry and analysis project.	This work has already started within the Department. However, systems need to be in place and strictly monitored to ensure on time completion.	March 21, 2014	A period of 5 months has been allocated to this significant task.
Valuation Project	This work has already started within the Department.	May 31, 2014	Whilst only two months has been allocated the application of the CAMA approach should allow for the delivery of preliminary values.
Pilot studies and review of preliminary values	May 31, 2014	June 29, 2014	Intensive reviews of the preliminary values.
Publication of values		June 30, 2014	Completion of GV Project

Recommendations

- It is essential that the implementation plan is officially agreed and used as the primary monitoring tool for the project. All members of the project must understand the timescales involved.

- The implementation plan should be circulated throughout all relevant Departments and Ministries.

F.   Human Resources

46.   **The level of staffing support that has been given to the GV may be too low.** As has already been noted current VS staff are involved in other day-to-day operational work. It is essential that a staffing review be undertaken and a redeployment plan developed to ensure that both headquarters and the District Offices have the appropriate number of staff to deal with the GV. It is very clear that substantial additional staff time will need to be devoted to the operation of the GV. This will involve significant periods of over-time.

47.   **No specific/formal planning has yet been undertaken in respect of the resource requirements for the GV but rather a more ad hoc approach has been adopted**. However, there will likely be a re-deployment of staff on a temporary basis to assist with the data collection and the employment of additional staffing resources. It would be important to go ahead with this in accordance with the implementation plan.

48.   **The additional work that is likely to be generated by the GV has not been specifically taken into account.** The DLS is involved in two other major projects with very tight deadlines (Issuance of titles and the Valuation of State Lands). These projects plus normal daily operational work is having a serious impact on the delivery of the GV. There is a real and pressing need that all non-essential work be set aside and professional valuation staff be re-deployed into GV work. If this does not occur, it represents a major risk to the whole GV project.

Recommendations

- The Department must initiate a review of the organizational structure of the Valuation Section including District Offices, the work procedures and staffing of the project team and develop a plan identifying the staff resources required specifically to deal with the additional workload that will be generated by the implementation of the GV.

- Additional staffing resources for the data capture sub-component be put in place.

- The deployment of relevant professional staff in other departments of the Ministry of Interior (MoI) should be seriously considered.

- Professional valuation staff involved in all non-essential normal operational work be redeployed to the GV project.

- A training plan / materials must be produced and appropriate training delivered to new and existing staff.

III. IMPLEMENTATION ISSUES

A. Introduction

49.   **The delivery of the GV for the Republic of Cyprus is important for creating a tax base that represents all property.** This provides the basis for the fair and equitable taxation of all immovable property.

50.   **The Department of Lands and Surveys (DLS) within the Ministry of the Interior has been charged with preparing the GV within the time limits as noted in the MoU.** The Council of Minister's Decision dated September 4, 2013 provides the authority to implement a General Valuation of all property within the Republic of Cyprus under Section 69 of the Immovable Property (Tenure, Registration and Valuation) Law, Cap. 224, 1.9.1946.

51.   **The DLS was established in 1858 and currently is structured around six District land Offices** (one Headquarters office and five district offices). The initial responsibility of the Department was the registration of immovable property however, over time the range of functions of the Department has increased to include:

- Administration;

- Title Registration;

- Tenure;

- Management of State Lands;

- Valuation/General Valuation;

- Survey;

- Cartography;

- Geodesy and Special Surveys and Mapping;

- Transfers, Mortgages, Forced Sales and Encumbrances;

- IT Support and CILIS Administration.

52.   **The DLS is uniquely positioned to undertake the GV as it already covers valuation, titles (transaction details), digitized land cadaster for the whole of the Republic of Cyprus.** The key task of providing an assessed value on every taxable property will largely fall on the Valuation Section (VS) of the DLS with important supporting roles from the other sections.

B.   Organization of the Valuation Section

53.   **The VS is structured similarly to the DLS in that it has sub-sections in headquarters and in each of the five districts**. The VS has important roles several of them statutory in terms of providing a valuation service to the general public and to the government. In particular, the main operational responsibilities of the VS concern:

- Compulsory acquisition;

- Preparation of valuation reports;

- Court cases;

- Payments of compensation;

- Registration of ownership after acquisition;

- Special Valuations;

- General Valuation;

- Valuation of Leases;

- Valuation for the Rent Control Court;

- Valuation for the rent paid by the Ministry of Defence;

- Statistical Analysis and Market Research;

- Valuations fo immovable Property Tax.

54.   **Table 8 illustrates the number and position/description of staff within the VS**.

Table 8. Valuation Section: Staff Profile

	Q	Nicosia	Limassol	Larnaka	Paphos	Famagusta	Kyrenia	Total
Valuation Section Leaders	1	1	1	1	1	1	1	7
Valuation checkers	5	3	3	2	2	0	2	17
Valuers	1	8	7	4	4	3	4	31
Officers	2	9	7	1	2	0	2	23
Law 81/70 Valuers	0	1		1	1	1	0	5
Administration	1	3	2	2	1	1	2	12
Total	10	25	21	11	11	6	11	95

Source: DLS, October 2013.

55. **Given the operational workloads of the VS it appears considerably stretched**. As noted above the VS has important roles in providing normal operational valuations and advice on a range of matters. In addition, they have been given specific projects that must be completed during the time that the GV must be prepared. For example:

- The Amnesty Project relating to the legalization of unapproved buildings, structures, refurbishments, density breaches etc. This project has been completed.

- To establish an inventory of State owned assets including land. The valuation of these assets (for those exceeding 1m by Q3-2013; and the full inventory by Q4-2013) as prescribed under the MoU. This should be completed by mid-November 2013.

56. **These major ongoing projects** call into question whether the GV can be delivered on time. The additional pressures from the MoU (valuation of state land) and the GV will further stretch this finite resource. However, the VS has a very professional attitude to the tasks given to it and with adequate additional resources in key areas the VS should be able to complete the GV within the time constraints. However, the human resource risk has to be mitigated so as to ensure the GV is completed and implemented on time. This will require revisiting the work priorities of the VS with a view to redeploying the scarce valuation resource to where it is needed most, i.e., to the GV. By implication other operational work of the VS will have to be 'set-aside' until the key milestones of the GV have been met.

57. **An important strength of the VS is related to the fact that it is represented in each district of the country which brings valuable local knowledge in respect to real property, location and the determination of values**. However, a key weakness is that no staff within the VS has experience of implementing a GV due to the fact that the last GV was in 1980. Whilst the VS are clearly very professional in their approach to their work, not having the experience of implementing a major project like an island-wide general valuation is a major concern. A GV which will involve the valuation of some 500,000 properties (units) is a huge task with several sub-components that require close coordination to ensure the completion deadline is achieved.

58. In **delivering the GV on time there are a number of inter-related sub-components that have to be undertaken, each having their own risk profile and potential to delay the on time delivery of the GV.** This section of the report looks at each of the sub-components and identifies the key areas of concern.

C. Project Components

59. **The delivery of the GV will involve the timely completion of several distinct but inter-related sub-components**. These will include:

1. REAL PROPERTY DATA

- DATA CAPTURE

- o On-site inspections

- o Extraction of data from building permit plans and approved planning permission documents

- o Reviewing data provided by third parties

- o Overall quality control checks

- DATA ENTRY

  - o Attributes entered in the CILIS mass appraisal system

  - o Running quality control reports

  - o Checking on the level of coverage by municipality/district

  - o Quality control

2. VALUATION

- DATA ANALYSIS

  - o Determining base values for land and building by planning zones

  - o Quality control

  - o Determining the attribute adjustments by property type

- VALUATION

  - o Pilot testing of the base values by planning zone

  - o Pilot testing of the adjustment factors by parameters

  - o Special property analysis and valuation

  - o Quality Control

  - o CAMA software changes / implementation and testing of changes

3. MEDIA CAMPAIGN

- MEDIA STRATEGY

  - o Develop a discrete web page on the GV within the Department's home page

  - o Provide timely information to key stakeholders

  - o Adopt a proactive approach to informing the media about progress and good news stories.

4. OBJECTION AND APPEALS

- OBJECTION AND APPEALS STRATEGY

  - o Legislative timelines

      o   Consider a short period of time for example six weeks for an informal review by owners/taxpayers before the formal period commences

      o   Develop a process to handle queries from the owners/taxpayers

Real property data

60.   **The foundation of any real property tax is the accuracy of data in the data base. It is essential to have captured information on all taxable and indeed exempt properties**. At its simplest level you need to have information on the taxpayer, the location of the property, a range of attributes that will be used to calculate the assessment value (AV) and transaction prices and/or other value related evidence such as building/construction costs and revenue turnover.

61.   **Within the Republic of Cyprus there are over 1 million land parcels and in the region of 512,000 units (land and buildings) of which some 90 percent are residential** (see Table 9). This data demonstrates the scale of the valuation task facing the VS and reinforces the Mission Teams view about the critical nature of several of the key sub-components.

62.   **Data has to be collected and recorded for both land and buildings in a systematic and logical manner.** This data when verified is then entered into the mass valuation system (CILIS) for each and every property.

63.   **Currently, the DLS has almost 100 percent coverage of data on land parcels including attributes such as extent, shape, slope and access**. This information is held with the GIS and Land Information System and readily available for valuation purposes.

64.   **The data held on buildings is considerably more patchy**. There are approximately 312,000 buildings with incomplete data. The collection of this data represents a major task within the GV. Within the implementation plan the data capture sub-project will run from October 21, 2013 until March 31, 2014. However, this work has already begun and has benefitted from sporadic work already done on other large scale projects such as the Amnesty Project and Valuation of State Land. Strict monitoring of how this sub-project is progressing will have to be enforced by the GV Section leader. Table 10 illustrates the scale of the data capture and inspection task. The Mission Team is concerned that adequate resources and Department/VS plans designed to meet the milestone date are in place. Monitoring progress via weekly inspection reports from the data manager responsible for collection is essential.

Table 9. Number of Land Parcels and Units in Cyprus

DISTRICTS	NICOSIA	LARNAKA	FAMAGUSTA	LIMASSOL	PAPHOS	TOTAL
No. of Municipalities	10	6	4	6	4	30
No. of Communal Authorities	104	50	5	106	122	387
Total number of land parcels[1]	374,674	149,047	43,107	270,853	193,457	1,031,138
Total number of units (est.)[2]	157,500	96,753	33,929	143,385	80,487	512,054
Total number of Planning zones	1,643	936	191	1,755	1,579	6,104

Source: DLS, October 2013.

1. Land parcels include forest land, public land, land bequeathed to the state, land under roads etc which is not valued for the IPT.

2. The total number of residential units is approximately 433,212 (according to the 2011 Census of Population). Non-residential units are approximately 78,842.

65.   **The Amnesty Project which has been completed provides useful data and valuations on an island-wide basis**. Whilst the values are at 2011 it would be possible to apply an adjustment factor to move the values to January 2013. In addition, the MoU to have all state land valued by the 3Q 2013 will also provide very useful data that can be directly used in the GV.

Table 10. Data Capture: Inspection Task

DISTRICTS	NICOSIA	LARNAKA	FAMAGUSTA	LIMASSOL	PAPHOS	TOTAL
Number of inspections completed as at October 21, 2013	55,092	25,134	20,327	54,876	24,913	180,342
Total number of units that need local inspection	102,408	71,619	13,602	88,509	55,574	331,712
Total estimated number of staff required to complete local inspections	80	40	16	64	40	240
Existing number of staff in districts involved in inspections	17	10	4	14	6	51
Additional staff required to complete local inspections[1]	63	30	12	50	34	189
Estimated number of staff required in other stages of data capture[2]	75	40	20	61	36	232

Source: DLS, October 2013.
1.   On the assumption that all inspections to be completed by March 31, 2014
2.   This reflects the additional staff due to in-office preparation; measurement from plans; quality control checks; data entry into CILIC; and checking of data entry

66.   **To meet the hard time constraint a number of initiatives have been put in place by the Department. These include**:

- An agreement that planning and building control departments should provide information on the size of properties that they have given approvals and permits is currently being negotiated.

- The municipal authorities are providing data on buildings that they have identified as completed where data is not available in the DLS. This relationship should be formalised with all municipalities to ensure the continuity of information.

- The Department is considering a request to the Electricity Company of Cyprus to see if there is any opportunity of the Department receiving information on buildings that have an electricity supply.

- The Department is considering the potential of using self-declaration of data from all property owners. This has been a very successful data capture exercise in several other countries. The authority to request information from owners is contained within the legislation.

Recommendations

- The Department needs as a matter of urgency to work with the PM to ensure the re-allocation of key staff to the GV project.

- Professional staff from other sections within the Department should be seconded to the GV project as a matter of priority.

- Weekly inspection completion reports to be submitted to the PM.

- All non-essential day-to-day operational work of the VS to be set aside to ensure adequate staff resourcing of the GV.

- The ministerial agreement between the Department and planning and building control departments within municipalities needs to be formalized and be in place as soon as possible.

- The district sewerage boards co-operation in providing data should be formalized.

- The PM should make contact with the electricity company to investigate if they would participate in supplying data on electricity connections.

- The Department should consider the use of self-declaration as a means to collect data given the express legislative authority accorded to the Department.

Valuation

67.   **The Department has the sole responsibility to determine land and building values for in excess of 512,000 properties (units) across Cyprus which includes residential, commercial, industrial and special properties.** The implementation plan is suggesting that all preliminary values be completed by May 31, 2014 with final approved values being published on June 30, 2014. The four week period between the May 31 and June 29, 2014 will allow for any final checking and corrections that may need to be done. It will also allow for any possible slippage in the timelines.

68.   **The basis of GVs in Cyprus has been capital value .** The valuation approach adopted for previous GVs was to determine the value of the land separately to the value of the improvements on the land (i.e., the buildings). The approach is to derive base land values per square metre for a standard parcel of land and base building values per square metre for a standard building for each planning zone and where necessary at a level lower than planning zone to reflect specific location characteristics. These base values are derived from comparable market evidence (i.e., actual market transactions). This is the

methodology currently being adopted for the 2013 GV and is a standardized valuation approach used in many other countries (such as Denmark, Indonesia, Jamaica, Netherlands, New Zealand and Slovenia).

69.   **Once the standardized base values (derived from market evidence) have been determined the basis of valuation for 'units' is the value of the land (derived from the base value) which is then adjusted for several factors plus the value of the building again derived from the base value appropriately adjusted to reflect several factors such as size, property type, age.**

70.   **The separation of the capital value into the two components can to some extent be artificial since for residential property it is the whole property that is sold, i.e., land and buildings together as one declared value.** This is also the situation in Cyprus for residential property therefore, valuing to obtain one value should be considered as a future development. The VS should as a priority after the completion of the 2014 GV consider the application of a whole value approach for residential property. The 'whole value' approach is based on actual sale prices which is a price that includes both elements i.e. land and building value. For non-residential property there are fewer sales that can be analyzed and equally few open market rents that can be capitalized. For commercial property it will be necessary to expand the geographic area from which such evidence can be extracted. The rationale for using this valuation methodology is that since 2008 the number of sales transactions for all property types has fallen considerably.

71.   **The number of transactions for all property types within the five districts has fallen significantly since 2007.** For example, between 2007 and 2013 the number of transactions has fallen by some 80 percent and the market value of the annual transactions over the same period has fallen by 70 percent.

72.   **The Department has excellent coverage on all land parcels within planning zones and has transaction data which can be analyzed to derive the key adjustment factors for the parameters.** There are two main ways to analyze the transaction prices firstly, a standard manual based approach or, secondly, using multiple regression analysis (MRA) based on a set of transactions to statistically derive the adjustments. Both methods are traditionally used and should be applied in this project. Declared values on transactions are scrutinized by the VS and adjusted to the market where there is solid evidence that the price has been under-declared. Sales of land are recorded within the GIS by planning zone. Given the fact that land is more homogeneous such evidence can be more readily analyzed and extrapolated across a wider geographic area.

73.   **The key information derived from the data analysis must be properly recorded and filed.** Analysis should be in a prescribed format using standardized templates. This data will be central to any objection/appeal process.

74.   **The methodology used to value buildings is essentially to derive from the value of the whole property less the land value, the residual value which is the value of the building plus an element to cover developers' profit**. The direct cost method is often used to value those properties for which there is no market and hence no market

evidence such as hospitals, swimming pools etc. Whilst accepting that cost does not always equal value it is a standard valuation approach that the VS is following.

75.   **While the base values are derived from market evidence it will be important particularly in relation to residential property where there are transactions to ensure that the 'value' determined by the land plus buildings is in line with the transaction price (where the prices are time adjusted to January 2013).**

Recommendations

- Data analysis to be completed in accordance with the implementation plan, in order to allow for the valuation exercise to be completed within the agreed milestone dates.

- Weekly valuation analysis completion reports to be submitted to the PM.

- All analysis sheets/templates to be kept and filed for subsequent use in any objection/appeal.

- A small team of two valuers be set up to deal with specialized property such as hotels, resort property, golf courses, marinas, hospitals etc. These property types will be valued manually and typically by reference to the cost method, this information to be obtained as soon as possible.

- Comparisons between assessed values derived from CILIS to be compared to transaction prices to ensure close approximations to market values.

- For the residential sector a ratio study to be undertaken to measure accuracy between assessed values and market prices.

- All preliminary values to be completed by May 31, 2014.

- Pilot projects to be undertaken to ensure that uniformity and consistency of assessed values are not compromised.

- Procedures to include valuer review must be adopted at pilot study stages.

Media campaign

Public Information Project (PIP) and media plan

76.   **The engagement with key stakeholders early in the GV should be part of the overall project**. International experience demonstrates that such engagement reduces the many fears that owners/taxpayers have surrounding the updating of property values. The positive outcome of this can be significantly reduced levels of objections and formal appeals and ultimately less court proceedings.

77.   *A good communication plan will*: (1) provide all owners/taxpayers with open and transparent access to all policy decisions and information relevant to the GV on a timely basis; and (2) develop a citizen service plan that will give owners/taxpayers access to the VS for the resolution of queries following the publication of values. This will greatly assist in minimizing the number of formal objections and appeals and increase the credibility of the GV. Multi-channel access for taxpayers to tax officials and information following the publication of the bills must be effectively managed.

78.   **Informing citizens and taxpayers about their duties and rights prior to the publication of the values will help to**: (1) Improve tax compliance, by ensuring that open and clear information is provided to owners/taxpayers; and (2) Improve the credibility of the Department/VS, by promoting concepts such as openness, efficiency, integrity, service quality and professionalism.

Internal / external communication

79.   **This section provides an outline of the various tools that can be used in the communication process**. It is important also for the Department/VS to develop a plan for internal communication:

- *Internal communication* is communication with staff, which is an essential to ensure that staff is kept up to date and aware of what is happening within the organization in regard to the GV.

- *External communication* is communication with customers using a variety of tools and mechanisms.

Political perspectives

80.   **Government business is conducted under the control and guidance of politicians and political coverage in the press, radio or on television can attract widespread attention.** It is, therefore, essential to ensure that procedures exist for notifying politicians of news releases, TV and radio appearances, etc. - some of the more sensitive issues worthy of attention should, in any event, be presented by the leading politicians.

Dealing with the media

81.   **Making contact with the media should be done through the Department's/Ministry Press Office, as planned, as they have specialist staff experienced in dealing with the media**. Annex B provides an indication of the channels that can be used to disseminate the GV messages and Annex C sets out a Communication Matrix.

Recommendations

- A communications and media plan must be developed in cooperation with the Departmental/Ministry media/press office.

- Members of the press office must participate in project team meetings.

- The media plan as shown in the implementation plan should run from October 21, 2013 until the values have been published on June 30, 2014.

- A discrete web page should be set up linked through from the Departmental website.

- A section on frequently asked questions must be provided.

- Information leaflets must be prepared and available in all government offices, district offices and municipal offices.

Objections and appeals

82. **Providing individual property values on each of approximately 512,000 + units has the potential for a significant number of objections and appeals**. Updating values which were determined some 33 years ago will create a redistribution of the revenue by geographic space and by property type even under a revenue neutral scenario.

83. **The communication and media plan will be of fundamental importance in conveying information to owners/taxpayers.** Frequently asked questions can address many of the issues of concern. The initial notification that a GV is underway must be widely circulated. Under Section 70 (a) of The Immovable Property (Tenure, Registration and Valuation) Law, Cap. 224:

"..the Director shall publish in the official gazette …and in such newspaper … a notice informing the public that a General Valuation will be made giving particulars of the area in respect of which the notice is given… and of the date in which it shall commence…"

84. **Information should be given via the web page and through information leaflets on how owners/taxpayers can contact the Department and how an objection can be submitted.**

85. **The main objective of the communication and media strategy is to minimize the number of objections and appeals**. Having too many objections can result in a serious impact on the Department in fulfilling their statutory authority in dealing with them.

86. **The administrative cost in dealing with objections should also be determined.**

87. **The Department and PM must put into place an objection and appeal strategy to deal with the number of informal enquiries, objections and appeals following the publication of the values on June 30, 2014.**

88. **The Department should make an estimate of the number of objections they are likely to receive and appropriately plan to deal with these.** This may involve:

- Additional telephone lines to accommodate the number of callers;

- Redeployment of additional staff to answer queries;

- The setting up of a call centre as the first line in dealing with queries.

Recommendations

- The notice of the government to begin a GV must be published to inform owners/taxpayers that the project has begun.

- Information that the VS of the DLS will be inspecting property and requiring owners to provide information must be circulated in the media.

- The objections and appeals component should be closely aligned to the communication and media campaign.

- Information on how informal queries can be made. How formal objections can be made and where relevant forms can be obtained.

- The Department/VS should put into place an objection and appeal strategy to deal with the number of informal enquiries, objections and appeals following the publication of the values on June 30, 2014.

- The primary legislation needs to be reviewed to ensure that the objections and appeal procedures as written are currently fit for purpose.

IV. REVIEW OF RESIDENTIAL PROPERTY PRICES INDICES

A. Introduction

89. **The mission met with authorities from the national statistical office CYSTAT and the Central Bank of Cyprus (CBC) to discuss their respective residential property price indices (RPPIs).** This mission also discussed with the authorities the RPPIs in the context of the Memorandum of Understanding on Specific Economic Policy Conditionality (MoU) and the potential linkages between the indices and the planned revaluation of properties in Cyprus for the purposes of implementing a revised system of recurrent immovable property taxation. The mission discussed these linkages with the DLS, which is responsible for the registration of property transactions and the valuation of properties in Cyprus. It is understood, however, that the overarching priority in the short term is successful implementation of the GV.

90. **Authorities from each of the agencies provided complete access to all requested data, methodologies and publications, for review and discussion and engaged positively with the mission.**

91. **The transactions based quarterly RPPI for Cyprus compiled by CYSTAT since Q1 2005 is compromised by the lack of an appropriate dataset containing sufficiently rich data on transacted property prices and characteristics**. The index is likely to suffer a significant and systematic bias as it cannot adequately control for the changing mix of properties transacted from period to period. The mission discussed with the authorities how the index might be redeveloped if access to more complete data can be secured, and made a number of recommendations in this regard. The mission also made a number of recommendations for improving the compilation of the index on the basis of the currently available data.

92. **The valuations based quarterly RPPI for Cyprus compiled by CBC is based on data compiled by the monetary financial institutions for the purposes of granting of mortgages to fund the acquisition of property and restructuring existing mortgages.** While the broad methodology for the index is well developed the mission recommended a number of improvements and discussed these with the authorities.

B. Overview of the Uses of Residential Property Price Indices

93. **The Handbook on RPPIs identifies a number of important uses of these indices**:[1]

• as a macro-economic indicator of economic growth;

• for use in monetary policy and inflation targeting;

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[1] This note draws heavily on Eurostat (2013),"Handbook on Residential Property Price Indices (RPPIs)"

- as an input into estimating the value of housing as a component of wealth;

- as a financial stability or soundness indicator to measure risk exposure;

- as a deflator in the national accounts;

- as an input into an individual citizen's decision making on whether to buy (or sell) a residential property;

- as an input into the consumer price index;

- for use in making inter-area and international comparisons.

94. **Fenwick (2006) notes the importance of defining precisely what individual property price indices aim to measure and also the user requirements of them.**[2] The mission recommended that compilers of each of the residential property price indices in Cyprus ensure that both the target measures and the user requirements of their respective indices are adequately described.

95. **More generally, RPPIs do not appear to be typically used in the design and implementation of market-value-based property tax systems**. In fact, often the opposite can be observed.

96. **In several countries (such as the Netherlands, Denmark, Sweden and New Zealand) where information on assessed values (property tax) or open market valuations of residential properties is available, these can be used as proxies for selling prices or, more generally, market values**. By combining sales (current price) and valuation (base price) data, a matched model methodology can be employed. In other words, price relatives for individual properties can be calculated and these can be aggregated to produce price indices.

97. **Alternatively, data on the physical and locational characteristics of properties collected for the valuation of property values could be used to supplement taxation or property registration data which may not include detailed descriptors of properties, as in the case of Cyprus**. This would facilitate the compilation of transactions based price indices using hedonic regression methods.

98. **The mission recommended that the compilation of property price indices in Cyprus could be improved by combining data from a future valuation of property values with sales data**. This is particularly relevant given the very low levels of property transaction in the current market and the limited property characteristics descriptors captured as part of the process for registering transactions.

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[2] Fenwick, D. (2005), "Statistics on Real Estate Prices: The Need for a Strategic Approach", pp. 368-372 in *Real Estate Indicators and Financial Stability*, BIS Papers No 21, Bank for International Settlements, Washington DC: The International Monetary Fund.

Recommendations

- Compilers of each of the residential property price indices in Cyprus ensure that both the target measures and user requirements of their indices are adequately described.

- Consideration should be given to supplementing sales data with data from a future valuation of property values in order to improve the compilation of property price indices.

C. Summary of Methods Used to Compile Residential Property Price Indices

99.   **Constructing RPPIs is challenging for a number of reasons. In particular, because residential properties are highly heterogeneous (no two dwellings are identical), it is difficult to compare the prices of matched properties over time**. Furthermore, there is often a lack of suitable data with sufficient characteristics of properties to allow for quality adjusting observed price change. These problems can be compounded in very small or illiquid markets.

100.   **The mission noted that the total number of property transactions (including land and commercial building sales) in Cyprus fell from almost 25,000 in the first nine months of 2007 to less than 5,000 in the same period of 2013**. These greatly reduced levels of transactions make the calculation of robust transaction based property price indices, and in particular more granular indices for individual market segments, difficult. In the case of the RPPI compiled by CYSTAT, this difficulty is exacerbated by the exclusion of a significant portion of reported transactions due to incompleteness of records.

101.   **The challenge in compiling any price index is to separate pure price change from changes in the quality of the products being bought over time**. This is done by comparing the prices of exactly the same products, the method typically used in price indices, such as in the Consumer Price Index. However, in the case of residential properties, price is determined by many characteristics (location, size, build type etc.), the reason being that no two properties are exactly identical. Furthermore, only a small portion of the total housing stock will be sold in any given period. The combination of these factors means that the matching process that would typically be used to calculate a price index cannot be used in the case of dwellings. Therefore, a form of quality adjustment must be introduced which allows us to estimate pure price change from highly heterogeneous and rarely transacted goods. This form of quality adjustment is somewhat unique to property price indices. Typically, in price indices for other goods quality adjustment is used to remove quality improvement as products evolve.

102.   **It is important to distinguish between indices that measure price change for the stock of residential housing and those measuring the price change for residential property sales that took place in a particular period.** Stock based measures are more suited to the calculation of *real wealth by component* within the system of national accounts, while sales based measures are appropriate to the calculation of the *Consumer*

Price Index and to estimate *real output of the residential real estate services industry*. As previously noted compilers should clearly identify what their target measures are.

103.   **The Handbook on Residential Property Prices identifies four main methods prevalent in the literature to control for changes in the amount of property characteristics**:

- *Stratification* of transactions according to price determining characteristics in order to adjust for changes in the mix of properties transacted in different periods;

- The *repeat sales method* compares properties that have sold more than once over a sample period, thereby removing the problem of changes in the quality mix of properties sold from period to period;

- *Hedonic regression methods* in which a number of property characteristics that influence prices are analysed so that the part of the price change that can be attributed to them can be estimated and excluded. This results in an index of pure price change for a consistent set of characteristics - or more simply - a property price index;

- *Assessment-based methods*, which combine data from valuations of market values of properties with sales data to calculate price relatives and control for the quality mix of properties sold from period to period by comparing sales prices to valuations performed in a base period.

104.   **The choice of method used is largely determined by the availability of data (both in terms of coverage and detail) and country specific market conditions**. It should be noted however, that the use of hedonic or assessment bases methods, when combined with fine stratification, are classified by Eurostat (the European Statistical Agency), as the most appropriate method of mix-adjustment.[3]

105.   **RPPI compilation in Cyprus generally suffers from low levels of transactions and the lack of a suitable dataset containing detail on both transaction prices and property characteristics.**

D.   The CYSTAT Residential Property Price Index

106.   **The CYSTAT Residential Property Price Index is compiled using data from two main sources**. Firstly, from quarterly data on property transactions provided by the Department of Lands and Surveys (DLS) and secondly, from data collected directly from developers. The DLS data include detail on the location, property type (house or apartment), size (in m[2)] and declared sale price of dwellings sold in the quarter.

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[3] Eurostat (2012), *Technical Manual on Owner-Occupied Housing for Harmonised Index of Consumer Prices*, Draft 2.0, March 2012

107.   **The authorities noted that in a large number of transaction records, size or building type is not recorded and that consequently these records cannot be used in the calculation of indices**. Of some 5,300 transaction records reported to CYSTAT by DLS in 2012, over 3,000 could not be used due to missing values. The reduced number of observations available for analysis exacerbates the challenges presented by the low levels of transactions in the current market.

108.   **The mission discussed with CYSTAT and DLS current efforts to obtain additional property characteristics, and to secure better reporting of size and also the age of properties (to be used as a proxy for the physical condition of properties), to enable better mix-adjustment in index compilation**. DLS confirmed that it is in the process of enhancing the process for registering property transactions to ensure better quality data is recorded. The mission emphasized the importance of securing better quality data, including additional property characteristics in order to increase the robustness of the indices.

109.   **Secondly, due to the absence of the size variable for records of transactions of new dwellings, CYSTAT conducts a quarterly survey of newly built dwelling prices with information collected from developers**. Approximately 400 developers and construction companies provide detail on the location, property type, m^2 of covered area, and sale price of new dwellings sold in the quarter. However, response rates for the survey have fallen in recent periods and only around 200 price observations are collected in each quarter.

110.   **Indices for second hand and new dwellings are compiled using the stratification method**. This is a relatively simple measure of property price change. Firstly, the total sample of properties for which prices are observed are separated into a number of sub-samples or strata, in order to control (at least to a limited extent) for changes in the composition of properties sold from period to period. Stratification is also necessary if price indices for different market segments are required.   As the primary purpose of the CYSTAT index is to ensure compliance with European legislative requirements in respect of Owner Occupied Housing, separate indices a compiled for new and second hand dwellings, as required by the legislation.

111.   **Next, a measure of central tendency from the distribution of dwelling prices sold in each stratum for a period is calculated and these are compared to those of an earlier period, the difference giving an estimate of the change in property prices.** The mission noted that the mean of prices is used by CYSTAT as the measure of central tendency. However, as property prices are generally positively skewed, the mission emphasized that the median is a more appropriate measure of central tendency.[4]

112.   **The mission discussed with the authorities the treatment of prices that appear to deviate widely from typical prices in each stratum**. The authorities

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[4] Eurostat (2013), "Handbook on Residential Property Price Indices (RPPIs)" page 38

confirmed that some prices are removed from the analysis on the basis of subjectively set upper and lower limit bounds. CYSTAT noted that it removes as few observations as possible due to the very low level of transactions available for analysis. The mission emphasized the importance of dealing with erroneously reported data and outliers in a systematic manner. A number of different methods can be used to employ statistical checks on the price data. Some examples include z scores, and the use of median and quartile values. All outliers flagged for review should be verified and corrected as necessary.

113.   **Separate indices are compiled for new and second-hand dwellings in each of the five administrative districts of Cyprus and these are aggregated to a national index.**

114.   **The stratification employed by CYSTAT is relatively coarse (especially as no mix-adjustment can be made for micro-location or age of property), and where there is a large degree of heterogeneity within strata significant unit-value bias is likely**. This bias will impact negatively on the robustness of the indices. The mission discussed the possibility for redesigning the stratification by grouping locations according to long-term average price levels rather than administrative districts in order to increase homogeneity within strata.[5] The usefulness of age of property, as a proxy for its general condition, was also discussed. The mission recommended that the authorities should test the impact of including age (perhaps in bands) in the mix-adjustment of process, should the variable become available in the future. While it is unlikely that any mix adjustment could be made for micro-location under the current methodology, the mission recommended that CYSTAT give consideration to how it might derive qualitative indicators for micro-location that could be incorporated into a hedonically mix-adjusted model.

115.   **The mission discussed with the authorities the challenges presented by the low number of transaction records available for inclusion in index calculation**. CYSTAT has recently had to reduce the number of strata used to mix-adjust from over 100 to the current 20. Decreasing the number of strata increases the average number of observations available for each stratum (perhaps thereby decreasing the standard error of the overall index). However, in doing so the quality of the mix-adjustment is reduced. There is therefore a trade-off between keeping the average number of transactions per stratum sufficiently large, and increasing the homogeneity within strata by making them finer.

116.   **The mission discussed with the authorities the possibility of pooling data over a number of periods, say four or eight quarters, to increase the average number of transactions per stratum**. This could be implemented using a rolling-window regression, utilizing the same property characteristics and a time-dummy to control for the pooling of data.

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[5] As discussed in the Handbook on Residential Property Prices (page 39).

Recommendations

- The median, rather than the mean, should be used as the measure of central tendency in the stratification methodology employed by CYSTAT.

- Statistical tests for errors and outliers should be used instead of more subjective approaches.

- The authorities should test the impact of including age in the mix-adjustment of process, should the variable become available in the future.

- CYSTAT should test the potential for replacing locational strata based on administrative districts with groupings by long-term average price levels.

- CYSTAT should give consideration to testing the pooling of data over periods in the calculation of the stratum indices with reference to the rolling window method.

E. The Central Bank of Cyprus Residential Property Price Index

117.   **The mission discussed with the authorities the main uses of residential property price indices.** Explicitly identifying the primary purpose and main user requirements of the index will help to clarify the conceptual basis of the index. The mission recommended that the authorities update the methodological note for the CBC RPPI to explain its primary purpose and conceptual basis.

118.   **The CBC RPPI is a hedonically mix-adjusted index compiled using data collected by the monetary financial institutions for the purposes of granting of mortgages to fund the acquisition of property and restructuring existing mortgages**. Results are available from 2002 onwards, although the full range of characteristics used in the hedonic model were only available from 2010.

119.   **While an independent valuation obtained by mortgage lending institutions for the purpose of approving a loan can be considered to approximate actual transaction prices, the mission noted that the appropriateness of including valuations generated for the restructuring loans is questionable as they may not be representative of current market transactions.**

120.   **The authorities cannot, at present, distinguish between valuations obtained for the purpose of approving loans and those valuations generated for the restructuring of loans**. The mission recommended that the authorities should seek to have an indicator differentiating between the two sources of valuations included in the data. This would allow the authorities to test for potential bias resulting from the inclusion of valuations relating to the restructuring of loans.

121.   **Furthermore, the authorities cannot currently ascertain how much of the residential property market is cash (non-mortgage) based which should be an**

important consideration in accessing the quality of the current index. The mission suggested that aggregate mortgage lending data or even market intelligence collected from estate-agents could be used to estimate the size of the cash market.

122.   **The authorities were of the opinion that the inclusion of valuations generated from restructuring of loans increases the number of valuations available for analysis thereby allowing for the inclusion of a larger number of explanatory variables in the hedonic regression model**. Almost 28,000 records were used in the compilation of the index in 2010, while almost 33,000 were used in 2012. The increase in the number of observations over a period when the residential market contracted perhaps reflects increasing levels of mortgage restructuring – although this cannot be proven at this time.

123.   **The mission noted that even if only valuations relating to new mortgages were used, the number of available records could be increased by pooling data over a number of periods, and that this be applied by using for example the rolling-window regression model.** The mission discussed this method in detail with the authorities who agreed that it would be a useful exercise to test its application.

124.   **The quality of the mortgage valuation data is generally good, as rigorous data checks and edits are applied.** The data also contain a rich set of property characteristics (a total of 97 characteristics covering the physical, locational and use characteristics of residential, commercial (office, shops, warehouses etc.), land and other (hotels, golf courses etc.)

125.   F**or the calculation of the residential property price indices, 14 characteristics are used in the mix-adjustment of apartments and 22 in the mix-adjustment of housing.** The authorities provided detail on the methodology used in the selection of characteristics and it appears to be well developed.

126.   **Although an indicator for "tourist location" is used under the current methodology, the mission recommended that CBC give consideration to how it might derive an additional qualitative indicator for micro-location that could be incorporated into a hedonically mix-adjusted model.**

127.   **The authorities discussed with the mission the validation of data received from the monetary financial institutions**. Data quality is generally good and a series of non-parametric and parametric techniques are employed to validate data and remove outliers. In total around 10 percent of records are currently excluded from the analysis and data quality is improving over time.

128.   **The index compilation methodology can generally be described as a stratified hedonic approach.** Firstly, the observed transactions are stratified separately for both apartments and houses into the five administrative districts of Cyprus, giving 10 individual strata. The "characteristics price" variant of the hedonic mix-adjustment is then employed in the compilation of sub-indices for each of the strata, which in turn are weighted to calculate a national index. The mission encouraged the authorities to make

explicit reference to the use of the "characteristics price" method in the methodological note that accompanies the index.

129.   **Under the "characteristics price" approach, separate regressions are run for all periods (quarters) and the index is constructed by making use of a predicted set of prices, based on the regression coefficients**. The predicted prices are applied to a set (or basket) of property characteristics derived from the most commonly observed properties in both the base and current periods (giving a Fisher-type characteristics price index.)

130.   **The mission noted that a complication within the characteristics approach arises where dummy variables for certain characteristics are used, for example for number of rooms or bathrooms, since the average dwelling will have a fractional number of rooms and bathrooms.** The mission discussed with the authorities the treatment of dummy variables within the index models and found the treatment to be unsatisfactory. The predicted prices are applied to one bound of the average value only— rather than a weighted average of both bounds. The mission referred to Hill (2011) for an explanation as to how this issue can be overcome.[6] The authorities agreed to give consideration to adjusting the index methodology to address this issue.

131.   **The higher level weighting of the RPPI (between strata to give the national index) was discussed.** The index is weighted using volumes of properties observed in each of the strata in the database of mortgage valuations. The mission noted two issues with the current weighting design. Firstly, weights should be value rather than volume based. Secondly, in conceptual terms, the index should be either a stock or sales weighted measure.

132.   **However, due to the inclusion of observations generated for mortgage restructures, the index cannot be considered to approximate a sales weighted measure**. The inclusion of observations generated for mortgage restructures in the weighting scheme could introduce a significant bias into the national index. The mission recommended that the authorities apply value weights based on the registration of property sales as recorded by DLS. The index would then approximate a "sales weighted" measure. These weights could be updated each year to provide a representative index.

133.   **Alternatively, if a stock weighted measure is considered preferable, it may be possible to derive stock weights from a future appraisal of property values**.

Recommendations

- Update the methodological note for the CBC RPPI to explain its primary purpose and conceptual basis.

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[6] Hill, R. (2011), "Hedonic Price Indexes for Housing", OECD Statistics Working Papers, 2011,01, OECD Publishing

- Seek to include an indicator differentiating between the two sources of valuations included in the data.

- Increase the number of available records by pooling data over a number of periods, and the mission recommended that the authorities test this approach.

- CBC should give consideration to how it might a derive qualitative indicator for micro-location that could be incorporated into a hedonically mix-adjusted model.

- The treatment of dummy variables in the application of the "characteristics prices" approach should be refined.

- The authorities should apply value weights based on the registration of property sales as recorded by DLS, so as to approximate a "sales weighted" measure.

V. MOVING FORWARD – 2014 TO 2016

134.   **There are a number of ways the Department/VS can improve its functions on the immovable property tax**. These are not imperatives at the present time but should be viewed as matters to be considered after the publications of values in June 30, 2014 in line with the suggestions for further methodological refinements as laid out in the MoU.

A. Real Property Database

135.   **Fundamental to the immovable property tax is the underlying real property database**. This must represent a full and comprehensive database of all real property within the country. It would be an extensive relational database that contains relevant information including both qualitative and quantitative attribute data on each property. This would also require the categorization of property by use, such as residential (apartment, detached, row house, urban, rural, etc.), commercial (retail, office, storage, warehousing, etc.), industrial (light industry, manufacturing, etc.), specialized property (hotel, leisure, ports, harbors, telecommunication, etc.) and agricultural land and buildings. The current CILIS system may well have the capacity to handle this and the capability to extract data, but it is, however, based on 1999 technology. The existing system needs to be evaluated and a new design specification developed in order to provide a basis for upgrading.

136.   **There needs to be an extensive program to code all properties by type/use/location.** It must enable a detailed interrogation of the data base to produce a range of reports on matters such as the number of detached residential dwellings in a specific location; the number of retail properties; the total assessment value of all hotels; etc. This capability is currently international best practice and one the Department needs to adopt.

137.   **At present there is a unique property reference number (UPRN, known as the "internal id") for all properties in Cyprus.** This should be maintained as a core function of the Department.

B. Valuation

138.   **On completion of the 2014 GV, some consideration should be given to reviewing the Planning Zones with the possible creation of value based neighborhoods**. This can be achieved through the existing GIS system. These neighborhoods would then become one of the main value attributes in any future valuation modeling.

139.   **All transactions including sales and rentals should be recorded in a standard format to allow for easy extraction of data.** In addition, all properties that have transacted should be inspected at least on an external basis as this information is used in developing valuation models.

140.   **The Department should undertake a Reflective Review of the GV in terms of lessons learnt, what was done well, and what could have been done better**. This Review should outline in detail all the procedures and processes that were adopted, forms that were developed and a comprehensive lesson learnt. This could be used as a resource manual for any future GV.

141.   **The VS should consider the possibility of reviewing the methodology of valuation of specialized properties such as hotels, resort properties, petrol filling stations, shopping malls and golf courses.** International best practice would suggest the use of the expenditure and receipts method (income approach) for properties of this type.

142.   **The VS should expand its knowledge and expertise in statistical analysis and in the application of multiple regression analysis (MRA)**. This would have a number of benefits in future general valuations. In respect of this a suggestion would be to have a small in-house research team of two to three people who would undertake analysis of property transactions and begin to develop more robust MRA models. A training programme could be developed that would provide the necessary skills in MRA analysis and model building.

C. Future Studies

143.   **The following two studies were included in the Department's ToR which expanded upon the MoU.** Both studies refer to a property price index that would have been developed as prescribed under the MoU to uplift the 1980 property values to January 2013. The application of such an index, even if one could be developed, would compromise in a significant way the fairness and equity of the General Valuation. In addition, as already mentioned, the current state of the property market in Cyprus is such that to develop the number of indices that would be required is an impossible task. The two existing indices developed by the Central Bank of Cyprus (CBC) and the Statistics Office of the Ministry of Finance (CYSTAT) are of limited practical use to this project due to their lack of granularity in terms of property type and geographic location. It should also be noted that the Central Bank of Cyprus index extends back only as far as 2002, while the CYSTAT is from 2005 onwards. The mission is not aware of any residential property price index for Cyprus dating back to 1980 and the use of any other price index to proxy property price change entails a risk of being highly inaccurate.

144.   **The approach adopted to address the following studies is a pragmatic one and in accordance with international standards and best practice.** In addition, the work on the following studies will represent an ongoing process undertaken by the Department in parallel with the GV up until Q2 2014 and thereafter to refine the existing parameters and in identifying others. The planned follow-up technical assistance (short-term expert visits) is aimed at assisting the authorities in carrying these studies forward.

STUDY 1:   Refining the parameters of the CAMA model

This study has two key objectives:

- To refine the use and application of the current parameters which are being used within the CAMA models for the GV.

- To identify for future CAMA development which other parameters would have a significant value influence on property value.

In relation to the first objective the following are the currently prescribed parameters.
For Land:

- Area in sq.m
- Accessibility
- Road access relation
- Shape
- Slope

For the buildings:

- Property type
- Enclosed area in sq.m
- Covered verandah in sq.m
- Uncovered verandah in sq.m
- Year built
- Category of unit (Luxury, V. good, good, bad, obsolete)
- Condition (Very good, good, fair, bad)
- Type of Structure (reinforced concrete, Wood/Steel structure)

145.   **The current analytical approach to determine the value adjustments for each of the above parameters adopted by the Department is largely based on traditional manual methods.** While this is an accepted approach a more objective approach would be to use Multiple Regression Analysis (MRA). This is a powerful analytical tool that is data hungry but if applied correctly can identify the market adjustments required for the CAMA exercise.

Deliverable 1: This deliverable should therefore apply MRA techniques to quantify the adjustment factors for each of the current parameters being applied to land and buildings. These parameters will also have a spatial element and the MRA model specification will have to be cognizant of this. In addition, the MRA derived adjustment factors should be compared with the same adjustment factors derived from manual analysis.

Deliverable 2: This deliverable should investigate supplementing the current parameters with other value influence parameters. The research should consider mechanisms to collect this data, its recording and measurement of their significance in terms of model improvement.

The prerequisites of the deliverables are the following:

- It will be essential that sufficient transaction data is made available in a suitable format to allow analysis. Given the paucity of usable data transactions (full and clean records) at present the Department should provide data over at least 3 years for residential and possibly 5 years for non-residential property. The Department should also aggregate planning zones which have similar property types and economic factors to allow for location modeling effects.

This study should be completed by the 31st July 2014.

STUDY 2: Report on mechanisms to measure the variance between GV assessed values and open market values

The 2014 GV has a valuation date of 1st January 2013. Therefore, all property is given a value as of that date. However, property markets are dynamic and as economic conditions continue to improve in Cyprus the real estate market will begin to reflect these conditions. Market prices and assessed values will vary over time and it becomes important to measure this degree of variance as it can act as a trigger for a future GV.

This study has the key objective of:

- To measure the variance between GV assessed values on residential and non-residential property.

Deliverable: This deliverable should provide evidence on price variability by considering the following methods. Firstly, a sales ratio analysis should be undertaken for all main residential property types by geographic location. This analysis will give an indication as to what extent the market has moved in comparison to the GV values. Secondly, a series of standard beacon properties that cover all residential property types within those areas of limited sales evidence be identified and their value determined at specific dates. This approach will also give an objective view on market movements over time.

The prerequisites for the deliverable are the following:

- The Department to provide sales information in an appropriate format for analysis.
- The DLS will explore the possibility that additional data to be provided by the CBC.
- Any other information that the experts will request for the completion of their study and the DLS is capable of providing this information.

This study should be completed by the July 31, 2014 bearing in mind that the property price index shall be operational by Q2 2014. It will concentrate on dwellings.

ANNEX A. GV Section Structure at District Level

Structure of General Valuation and Data Capture Section

Nicosia District	Larnaka District	Famagusta District	Limassol District	Paphos District
Section Leader Maria Economidou	Section Leader Demetris Sitarenos	Section Leader Panayiota H' Yianni	Section Leader Lenia Georgiou	Section Leader Lenia Demetriou

- Nicosia District — Section Leader Maria Economidou
  - General Valuation Sector (only 1.1.1900)
  - Data Capture Sector Jnna Zid
    - Preliminary Work Sub-Sector Nicolas Chrisodoulou
    - Local Enquiry Sub-Sector Emion Karaoil
    - Data Registration Sub-Sector Argiroulla Adronicou

- Larnaka District — Section Leader Demetris Sitarenos
  - Data Capture Sector Thekla Filaretidou
  - General Valuation Sector (only 1.1.1900)

- Famagusta District — Section Leader Panayiota H' Yianni
  - General Valuation Sector (only 1.1.1900)
  - Data Capture Sector Panayiota H' Yianni
    - Preliminary Work Sub-Sector Elena Zamba
    - Local Enquiry Sub-Sector Ef Tampouridou
    - Data Registration Sub-Sector Maria Gregoriou

- Limassol District — Section Leader Lenia Georgiou
  - Data Capture Sector Barbara Jugoud
  - General Valuation Sector (only 1.1.1900)

- Paphos District — Section Leader Lenia Demetriou
  - Data Capture Sector Andri Chrisophorou
  - General Valuation Sector (only 1.1.1900)
    - Preliminary Work Sub-Sector Skavi Kokkinou
    - Local Enquiry Sub-Sector Constantina Sgyriou
    - Data Registration Sub-Sector Myria Michael

ANNEX B. Communications and Media Plan

Purpose

The purpose of the Communications / Media Plan is to define the communication requirements for the GV project and how information will be distributed. The plan defines:

- What information will be communicated—to include the level of detail and format. Frequently asked questions (FAQs).

- How the information will be communicated— email, telephone, web portal, etc.

- When information will be distributed—the frequency of project communications both formal and informal.

- Who is responsible for communicating project information.

- Communication requirements for all project stakeholders.

- What resources the project allocates for communication.

- How any sensitive or confidential information is communicated and who must authorize this.

- How changes in communication or the communication process are managed.

- The flow of project communications.

- Any constraints, internal or external, which affect project communications.

- Any standard templates, formats, or documents the project must use for communicating.

Communication channels

In developing a media / communications plan the key deliverables include:

- *Publicity*

  - An information leaflet should be sent to all property owners/taxpayers informing them the GV is being undertaken.

  - Posters should be designed and placed in prominent sites throughout Cyprus, including all government offices including municipal offices, providing a clear, simple message about the forthcoming GV.

  - Information packs for politicians, press and other interest groups should be prepared.

- *Website*

A specific web page for the GV should be developed and regularly updated with the latest news and messages that the Department wishes to convey to property owners/taxpayers.

- *Radio*

Few areas of Cyprus are not served by a radio station and they are particularly useful for letting property owners/taxpayers know about the GV. It may be helpful to offer an invitation for representative of the radio stations to visit the PM / press office, in order to familiarize themselves with the organization.

There are a variety of ways in which the message can be heard.

> Issuing a news bulletin together with a briefing note for the reporters;

> Taking part in a phone-in;

> Recordings of stories can be prepared for news bulletins, often as a result of a news release issued by the Department.

- *Advertising on radio*

All radio stations will have data showing the breakdown of their listeners, and they should be able to identify peak times, likely clientele, etc., in order to provide an indication of how many people can be reached with an advertising campaign

- *Television*

Providing news releases for television provides another useful channel for getting out the message that the Department wants to portray. Early morning and evening news programs appear to be particularly useful and are watched by many people.

Appearing on television programs can also provide a "face" of the Department to the public / taxpayers but specialist training is advisable before launching into television appearances.

- *Press Releases*

Perhaps the most useful way of getting the Department's message out is through the press in the form of press releases. Writing a press release is an art and requires specialist training; the Department/Ministry Press Office can use their knowledge and expertise.

The timing of press releases is important and it is sometimes appropriate to consider inviting journalists for a briefing to ensure the Department gets its message over and it provides the journalists the opportunity to ask questions.

- *Press conferences*

As an alternative or a supplement to a news release, the Department may wish to invite the local media to a press conference. If so, use the contacts that are already established by the press office.

- *Advertising in the press*

The most obvious and direct way getting the Department's message out to property owners/taxpayers is by advertising in local and / or national newspapers. Advertisements provide the Department with the opportunity to give a message that is clear and unambiguous,

- *Social Media*

Social media technologies (SMT) are the personalized face of the Internet. They enable personal contact and new forms of communication and interaction with potentially large and growing numbers of taxpayers at minimal cost.

A report from the OECD[7] in 2011 concluded that those tax offices that had used social media found the experience overwhelmingly positive: they offer (1) virtually free online word-of-mouth marketing; (2) they enable positive dialogue; and (3) they can contribute to revenue administration image building.

Like any relatively new technology, there are challenges and risks to be managed, e.g., provision of misleading information. However, the risks can be managed by adopting a properly considered and coordinated plan.

According to the OECD report the incidence of negative experiences with SMTs reported to date by revenue bodies had, for the most part, been minimal and of relatively little consequence; much of what has been experienced can be linked to weaknesses in setups, challenges in resource availability, and negative feedback (some tax policy-related).

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[7] OECD Report – "Social Media Technologies and Tax Administration" (October 2011)

ANNEX C. Public Information Project / Media Matrix

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable
Set up Meeting	Introduce the project. Review project objectives and management approach.	• Face to Face	Once	• Project Team • Stakeholders	Project Manager	• Agenda • Meeting Minutes
Project Team Meetings	Review status of the project with the team.	• Face to Face • Conference Call	Weekly	• Project Team	Project Manager	• Agenda • Meeting Minutes • Project schedule
Technical Design Meetings	Discuss and develop technical design solutions for the project.	• Face to Face	As Needed	• Project Technical Staff	Project Manager	• Agenda • Meeting Minutes
Project Status Meetings	Report on the status of the project to management.	• Face to Face • Conference Call	Two weekly	• Project Team	Project Manager	• Project schedule
Project Status Reports	Report the status of the project including activities, progress, costs and issues.	• Email	Two weekly	• Project Team • Stakeholders	Project Manager	• Project Status Report • Project schedule
Radio	Report on the status of the project	• News releases • Briefings • Personal contact	Weekly	• General Public • Taxpayers	Project Manager	• Project status

Television	Report on the status of the project	• News releases • Personal briefings • Personal contact	Weekly	• General Public • Taxpayers	Project Manager	• Project status
Newspapers	Report on the status of the project	• News releases • Press briefings	Weekly	• General Public • Taxpayers	Project Manager	• Project status
Social Media	Report on the status of the project	• News releases	As required	• General Public • Taxpayers	Project Manager	• Project status

Annex D. Project Implementation Plan

ID	ACTIONS	Duration	Start	Finish	TOTAL VOLUME	COMPLETED WORK	PENDING WORK	HR Needed to Accomplish the Project	Existing HR in Project	Additional HR Required
1	GENERAL VALUATION PROJECT PLANNING (1.1.2013)	430 days?	Fri 10-05-13	Thu 01-01-15	0	0	0			
2	PREPARATORY TASKS	116 days?	Fri 10-05-13	Fri 18-10-13	0	0	0			
3	Evaluation of existing options for Data Capture and Data Entry into CILIS	110 days?	Mon 20-05-13	Fri 18-10-13	0	0	0			
6	iii. Evaluatie exisiting Data from other organizations (e.g Statistics Dept., CBC) or methodologies	40 days	Mon 17-06-13	Fri 09-08-13	0	0	0		GV Section	
7	iv. Preparation of Organization Review of the new General Valuation Section	90 days	Mon 20-05-13	Fri 20-09-13	0	0	0		GV Section	
4	i. Consider developing a light application on porable PC for Field Data Capture	73 days?	Mon 10-06-13	Wed 18-09-13	0	0	0		GV Section - CILIS Section	
5	ii. Evaluation of out of the shelve Mass Appraisal Software	60 days	Mon 29-07-13	Fri 18-10-13	0	0	0		GV Section - CILIS Section	
8	Training for Data Capture purposes	5 days	Fri 10-05-13	Thu 16-05-13	0	0	0			
9	Nicosia District	1 day	Fri 10-05-13	Fri 10-05-13	0	0			Complete	
10	Larnaka District	1 day	Tue 14-05-13	Tue 14-05-13	0	0			Complete	
11	Famagusta District	1 day	Tue 14-05-13	Tue 14-05-13	0	0			Complete	
12	Limassol District	1 day	Mon 13-05-13	Mon 13-05-13	0	0			Complete	
13	Paphos District	1 day	Thu 16-05-13	Thu 16-05-13	0	0			Complete	
14	DATA CAPTURE PROJECT	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
41	LAND DATA CAPTURE (Mass Update)	40 days	Thu 24-10-13	Wed 18-12-13	1031138	115008	616130	10	10	0
42	NICOSIA DISTRICT	40 days	Thu 24-10-13	Wed 18-12-13	374674	38889	35785	2	2	2
43	Sample Data Quality checks after Mass Update	40 days	Thu 24-10-13	Wed 18-12-13	0	0	0			
44	LARNAKA DISTRICT	40 days	Thu 24-10-13	Wed 18-12-13	149047	17348	131699	2	2	2
45	Sample Data Quality checks after Mass Update	40 days	Thu 24-10-13	Wed 18-12-13	0	0	0			
46	FAMAGUSTA DISTRICT	40 days	Thu 24-10-13	Wed 18-12-13	43107	12215	30892	2	2	2
47	Sample Data Quality checks after Mass Update	40 days	Thu 24-10-13	Wed 18-12-13	0	0	0			
48	LIMASSOL DISTRICT	40 days	Thu 24-10-13	Wed 18-12-13	270853	30708	240145	2	2	2
49	Sample Data Quality checks after Mass Update	40 days	Thu 24-10-13	Wed 18-12-13	0	0	0			
50	PAPHOS DISTRICT	40 days	Thu 24-10-13	Wed 18-12-13	193457	15848	177609	2	2	2
51	Sample Data Quality checks after Mass Update	40 days	Thu 24-10-13	Wed 18-12-13	0	0	0			
15	DATA CAPTURE OF BUILDINGS	113 days	Thu 24-10-13	Mon 31-03-14	512054	155270	356284	484	161	323
16	NICOSIA DISTRICT	113 days	Thu 24-10-13	Mon 31-03-14	157500	55092	102408	160	59	101
17	Preparatory work at the office	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
18	Local Inspection (field DC)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
19	Data Entry into the System (cilis)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
20	Data Entry checks (Quality control)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
21	LARNAKA DISTRICT	113 days	Thu 24-10-13	Mon 31-03-14	96753	25134	71619	84	28	56
22	Preparatory work at the office	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
23	Local Inspection (field DC)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
24	Data Entry into the System (cilis)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
25	Data Entry checks (Quality control)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
26	FAMAGUSTA DISTRICT	113 days	Thu 24-10-13	Mon 31-03-14	33929	20327	13602	32	11	21
27	Preparatory work at the office	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
28	Local Inspection (field DC)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
29	Data Entry into the System (cilis)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
30	Data Entry checks (Quality control)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
31	LIMASSOL DISTRICT	113 days	Thu 24-10-13	Mon 31-03-14	143385	54876	88509	128	40	88
32	Preparatory work at the office	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
33	Local Inspection (field DC)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
34	Data Entry into the System (cilis)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
35	Data Entry checks (Quality control)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
36	PAPHOS DISTRICT	113 days	Thu 24-10-13	Mon 31-03-14	80487	24913	55574	80	23	57
37	Preparatory work at the office	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
38	Local Inspection (field DC)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
39	Data Entry into the System (cilis)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
40	Data Entry checks (Quality control)	113 days	Thu 24-10-13	Mon 31-03-14	0	0	0			
52	GENERAL VALUATION PROJECT	418 days?	Tue 28-05-13	Thu 01-01-15	0	0	0			
53	Preparatory tasks	350 days?	Tue 28-05-13	Mon 29-09-14	0	0	0			
54	Intenral testing of valuation models under cilis	90 days	Tue 28-05-13	Mon 30-09-13	0	0	0			
55	Preparation of a Valuation Manual	80 days	Thu 24-10-13	Wed 12-02-14	0	0	0			
56	Evaluate exisiting ciriculars	80 days	Thu 24-10-13	Wed 12-02-14	0	0	0			
57	MoU- Establish the Legal Basis for annual Upadates	341 days?	Mon 10-06-13	Mon 29-09-14	0	0	0			
58	Analysis of sales data and other information	100 days	Mon 30-09-13	Fri 14-02-14	0	0	0			
59	CORRECTION OF SALES AND DATA CHARACTER	60 days	Thu 24-10-13	Wed 15-01-14	0	0	0			
60	Correction of Sales Data	60 days	Thu 24-10-13	Wed 15-01-14	0	0	0			
61	Complete sales characteristics Data	60 days	Thu 24-10-13	Wed 15-01-14	0	0	0			
62	ANALYSIS OF SALES AND PARAMETER DETERMINATION (LAND AND BUILDINGS)	102 days	Thu 24-10-13	Fri 14-03-14	1031138	0	031138			
63	Nicosia District - 1643 Planning Zones	96 days	Fri 01-11-13	Fri 14-03-14	374674	0	374674		5	
64	19 Municipal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
65	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
66	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
67	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
68	104 Communal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
69	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
70	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			

ID	ACTIONS	Duration	Start	Finish	TOTAL VOLUME	COMPLETED WORK	PENDING WORK	HR Needed to Accomplish the Project	Existing HR in Project	Additional HR Required
71	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
72	Larnaka Disitrict - 936 Planning Zones	96 days	Fri 01-11-13	Fri 14-03-14	149047	0	149047		5	
73	6 Municipal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
74	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
75	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
76	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
77	50 Communal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
78	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
79	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
80	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
81	Famagusta District - 191 Planning Zones	96 days	Fri 01-11-13	Fri 14-03-14	43107	0	43107		3	
82	4 Municipal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
83	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
84	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
85	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
86	5 Communal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
87	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
88	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
89	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
90	Limassol District - 1755 Planning Zones	96 days	Fri 01-11-13	Fri 14-03-14	270853	0	270853		8	
91	6 Municipal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
92	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
93	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
94	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
95	106 Communal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
96	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
97	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
98	Checking and Approval	10 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
99	Paphos District - 1579 Planning Zones	102 days	Thu 24-10-13	Fri 14-03-14	193457	0	193457		3	
100	4 Municipal Authorities	86 days	Thu 24-10-13	Thu 20-02-14	0	0	0			
101	Residential Properties	86 days	Thu 24-10-13	Thu 20-02-14	0	0	0			
102	Non Residential Properties	86 days	Thu 24-10-13	Thu 20-02-14	0	0	0			
103	Checking and Approval	10 days	Thu 24-10-13	Wed 06-11-13	0	0	0			
104	122 Communal Authorities	96 days	Fri 01-11-13	Fri 14-03-14	0	0	0			
105	Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
106	Non Residential Properties	86 days	Fri 01-11-13	Fri 28-02-14	0	0	0			
107	Checking and Approval	10 days	Mon 03-03-14	Fri 14-03-14	0	0	0			
108	PREPARATION AND DATA INPUT OF PARAMETERS IN CILIS	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
109	Nicosia District	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0		5	
110	19 Municipal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
111	104 Communal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
112	Larnaka Disitrict	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0		5	
113	6 Municipal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
114	50 Communal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
115	Famagusta Disitrict	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0		3	
116	4 Municipal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
117	5 Communal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
118	Limassol District	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0		8	
119	6 Municipal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
120	106 Communal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
121	Paphos District	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0		3	
122	4 Municipal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
123	122 Communal Authorities	15 days	Mon 17-03-14	Fri 04-04-14	0	0	0			
124	APPLICATION OF COMPUTERIZED MASS APPRAISAL SYSTEMS (In Pilot and Life)	20 days	Mon 07-04-14	Fri 02-05-14	0	0	0			
125	Nicosia District	20 days	Mon 07-04-14	Fri 02-05-14	0	0	0		5	
126	Larnaka Disitrict	20 days	Mon 07-04-14	Fri 02-05-14	0	0	0		5	
127	Famagusta Disitrict	20 days	Mon 07-04-14	Fri 02-05-14	0	0	0		3	
128	Limassol Disitrict	20 days	Mon 07-04-14	Fri 02-05-14	0	0	0		8	
129	Paphos District	20 days	Mon 07-04-14	Fri 02-05-14	0	0	0		3	
130	CHECKING AND PREPARATION OF RATIO STUDIES	15 days	Mon 05-05-14	Fri 23-05-14	0	0	0			
131	Nicosia District	15 days	Mon 05-05-14	Fri 23-05-14	0	0	0		5	
132	Larnaka Disitrict	15 days	Mon 05-05-14	Fri 23-05-14	0	0	0		5	
133	Famagusta Disitrict	15 days	Mon 05-05-14	Fri 23-05-14	0	0	0		3	
134	Limassol Disitrict	15 days	Mon 05-05-14	Fri 23-05-14	0	0	0		8	
135	Paphos District	15 days	Mon 05-05-14	Fri 23-05-14	0	0	0		3	
136	CORRECTIONS AND FINAL APPROVAL OF MARKET VALUES	10 days	Mon 26-05-14	Fri 06-06-14	0	0	0			
137	Nicosia District	10 days	Mon 26-05-14	Fri 06-06-14	0	0	0		5	
138	Larnaka Disitrict	10 days	Mon 26-05-14	Fri 06-06-14	0	0	0		5	
139	Famagusta Disitrict	10 days	Mon 26-05-14	Fri 06-06-14	0	0	0		3	
140	Limassol Disitrict	10 days	Mon 26-05-14	Fri 06-06-14	0	0	0		8	
141	Paphos District	10 days	Mon 26-05-14	Fri 06-06-14	0	0	0		3	
142	PREPARATION AND PUBLICATION OF MARKET VALUES	15 days	Mon 09-06-14	Fri 27-06-14	0	0	0			
143	Nicosia District	15 days	Mon 09-06-14	Fri 27-06-14	0	0	0			
144	Larnaka Disitrict	15 days	Mon 09-06-14	Fri 27-06-14	0	0	0			
145	Famagusta Disitrict	15 days	Mon 09-06-14	Fri 27-06-14	0	0	0			
146	Limassol Disitrict	15 days	Mon 09-06-14	Fri 27-06-14	0	0	0			
147	Paphos District	15 days	Mon 09-06-14	Fri 27-06-14	0	0	0			
148	PUBLIC RELATIONS PLAN (Media)	237 days	Mon 03-02-14	Tue 30-12-14	0	0	0			

ID	ACTIONS	Duration	Start	Finish	TOTAL VOLUME	COMPLETED WORK	PENDING WORK	HR Needed to Accomplish the Project	Existing HR in Project	Additional HR Required
149	Preparation of leaflet	30 days	Mon 03-02-14	Fri 14-03-14	0	0	0			
150	Press Publications	30 days	Mon 03-02-14	Fri 14-03-14	0	0	0			
151	Organization of presentations per District	30 days	Mon 03-03-14	Fri 11-04-14	0	0	0			
152	Preparation of media video explaining the proccess	30 days	Mon 03-03-14	Fri 11-04-14	0	0	0			
153	Set Up call centers per District	217 days	Mon 03-03-14	Tue 30-12-14	0	0	0			
154	**OBJECTIONS AND APPEALS**	########	Thu 24-10-13	Fri 25-04-14	0	0	0			
155	Preparation of Objection Forms	40 days	Mon 03-03-14	Fri 25-04-14	0	0	0			
156	Preparation of Explanation leaflet	40 days	Mon 03-03-14	Fri 25-04-14	0	0	0			
157	Nicosia District - Set up Valuation teams to deal with objections	1 day?	Thu 24-10-13	Thu 24-10-13	0	0	0			
158	Larnaka Disitrict - Set up Valuation teams to deal with objections	1 day?	Thu 24-10-13	Thu 24-10-13	0	0	0			
159	Famagusta Disitrict - Set up Valuation teams to deal with objectio	1 day?	Thu 24-10-13	Thu 24-10-13	0	0	0			
160	Limassol Disitrict - Set up Valuation teams to deal with objections	1 day?	Thu 24-10-13	Thu 24-10-13	0	0	0			
161	Paphos District - Set up Valuation teams to deal with objections	1 day?	Thu 24-10-13	Thu 24-10-13	0	0	0			
162	**MoU Studies**	414 days?	Mon 03-06-13	Thu 01-01-15	0	0	0			
163	EU Technical Assistance through Support Group	111 days	Mon 28-07-14	Mon 29-12-14	0	0	0			
164	Preparatory Work of MoU Studies	86 days?	Mon 03-06-13	Mon 30-09-13	0	0	0			
165	MoU Studies (Refinement of parameters)	394 days?	Mon 01-07-13	Thu 01-01-15	0	0	0			
166	MoU Study (Assess a feasib. on Dwellings+ cyclical variations)	394 days?	Mon 01-07-13	Thu 01-01-15	0	0	0			

Week 73 | Week 72 | Week 71 | Week 70 | Week 69 | Week 68 | Week 67 | Week 66 | Week 65 | Week 64 | Week 63 | Week 62 | Week 61 | Week 60 | Week 59 | Week 58 | Week 57 | Week 56 | Week 55 | Week 54 | Week 53 | Week 52 | Week 51 | Week 50 | Week 49 | Week 48 | Week 47 | Week 46 | Week 45 | Week 44 | Week 43 | Week 42 | Week 41 | Week 40 | Week 39 | Week 38

18-10

20-09
18-09
18-10

24-10 — 31-03
24-10 — 18-12
24-10 — 18-12
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24-10 — 31-03
24-10 — 31-03

30-09

24-10 — 12-02
24-10 — 12-02
30-09 — 14-02

| Week 73 | Week 72 | Week 71 | Week 70 | Week 69 | Week 68 | Week 67 | Week 66 | Week 65 | Week 64 | Week 63 | Week 62 | Week 61 | Week 60 | Week 59 | Week 58 | Week 57 | Week 56 | Week 55 | Week 54 | Week 53 | Week 52 | Week 51 | Week 50 | Week 49 | Week 48 | Week 47 | Week 46 | Week 45 | Week 44 | Week 43 | Week 42 | Week 41 | Week 40 | Week 39 | Week 38 |

30-09

2014																																				
Week 37	Week 36	Week 35	Week 34	Week 33	Week 32	Week 31	Week 30	Week 29	Week 28	Week 27	Week 26	Week 25	Week 24	Week 23	Week 22	Week 21	Week 20	Week 19	Week 18	Week 17	Week 16	Week 15	Week 14	Week 13	Week 12	Week 11	Week 10	Week 9	Week 8	Week 7	Week 6	Week 5	Week 4	Week 3	Week 2

2014
Week 37	Week 36	Week 35	Week 34	Week 33	Week 32	Week 31	Week 30	Week 29	Week 28	Week 27	Week 26	Week 25	Week 24	Week 23	Week 22	Week 21	Week 20	Week 19	Week 18	Week 17	Week 16	Week 15	Week 14	Week 13	Week 12	Week 11	Week 10	Week 9	Week 8	Week 7	Week 6	Week 5	Week 4	Week 3	Week 2

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