

# Single Integrated Metadata Structure (SIMS)

**Country:** Greece

**Compiling agency:** ELSTAT

**Domain name:** 2011 BUILDINGS CENSUS

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1.1 Contact organisation	HELLENIC STATISTICAL AUTHORITY (ELSTAT)
1.2 Contact organisation unit	DIVISION OF POPULATION AND LABOUR MARKET STATISTICS, CENSUS SECTION
1.3 Contact name	PANAGIOTA POZIOU
1.4 Contact person function	HEAD OF THE CENSUS SECTION
1.5 Contact mail address	46, PEIRAIOS & EPONITON STR. 18510 PIRAEUS
1.6 Contact email address	<a href="mailto:p.poziou@statistics.gr">p.poziou@statistics.gr</a>

<b>1.7 Contact phone number</b>	0030 2131352171
<b>1.8 Contact fax number</b>	0030 2131352837

## 2. Introduction

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2011 BUILDINGS CENSUS

## 3. Metadata update

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<b>3.1 Metadata last certified</b>	21/7/2015
<b>3.2 Metadata last posted</b>	21/7/2015
<b>3.3 Metadata last update</b>	20/7/2015

## 4. Statistical presentation

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### 4.1 Data description

The Buildings Census collects statistical data on the number and main characteristics of buildings in Greece. The survey unit is the building. The Buildings census was conducted all over Greece. The aggregate results are published in statistical tables at the level of the Regional Unit (NUTS 3) and Municipal/Local Commune (LAU 2).

The information collected for each building refer to its geographical location, the number of floors, the period of construction, the surface area of the ground floor, whether the building is tangent to a neighboring one, the main material of construction, the type of roof, connection or not to sewage network, agency which owns the building, use of the building or destination of uses, agency that uses the building and number of conventional dwellings.

### 4.2 Classification system

EU Nomenclature of territorial units for statistics, NUTS, LAU.

### 4.3 Sector coverage

The Buildings Census was conducted all over Greece and it covered all the geographical divisions at the following levels: NUTS 1-3 and LAU 1-2

### 4.4 Statistical concepts and definitions

The main purpose of the Buildings Census is to provide a common list of characteristics which are recorded following common rules and procedures, thus ensuring the possibility to compare buildings over time.

Definitions of main variables:

**Building:** every permanent and independent structure, which has external walls and a roof and consists of one or more rooms or other complementary spaces, covering more than 4 square meters, irrespective of the purpose for which it was designed.

**Permanent building construction:** the building that was constructed to be stable for at least 10 years. Normally, buildings have four walls. However, building is also considered a permanent building construction open from one or both sides provided that it has a roof (e.g. garage).

**Basement:** the area of the building whose ceiling is not higher than 1.50 m above ground level.

**Ground floor:** the lower area of the building which is neither a basement nor a pilotis space, whose lower level is tangential to the ground.

**Pilotis space:** open ground floor area of a building that is supported by pilotis or pillars, at least 2,40m high, covering at least 50% of the surface area of the building.

**Conventional dwelling:** a structurally permanent and independent part of a building which consists of, at least, one conventional room and it is designed for habitation by a household for, at least, one year.

### 4.5 Statistical unit

The building.

### 4.6 Statistical population

The 2011 Buildings Census covered all the buildings all over Greece and by regions.

The statistical population is all the buildings of Greece.

<b>4.7 Reference area</b>
The 2011 Buildings Census was conducted all over Greece, pursuant to the administrative division of Kallikratis Plan (Law 3852/2010) at the following levels: 7 Decentralized Administrations, 13 Regions, 74 Regional Units, 325 Municipalities, 947 Municipal Units, 6,064 Municipal/Local Communes and 13,512 Settlements.
<b>4.8 Time coverage</b>
The latest buildings census refer to the year 2011. The census data are made available every ten years. The previous available census data are the data of the 2000 buildings census.
<b>4.9 Base period</b>
Not applicable.

<b>5. Unit of measure</b>	<a href="#">Top</a>
Number of buildings.	

<b>6. Reference period</b>	<a href="#">Top</a>
15/1/2011	

<b>7. Institutional mandate</b>	<a href="#">Top</a>
<b>7.1 Legal acts and other agreements</b>	
<p>The legal framework concerning the organization and operation of ELSTAT is as follows:</p> <ul style="list-style-type: none"> <li>➤ <b>Law 3832/2010</b> (Government Gazette No 38, Issue A): "<i>Hellenic Statistical System Establishment of the Hellenic Statistical Authority (ELSTAT) as an Independent Authority</i>", as amended by article 90 paragraphs 8 and 9 of the Law 3842/2010 (Government Gazette No 58, Issue A): "<i>Restoration of fiscal justice, confrontation of tax evasion and other provisions</i>", by article 10 of the Law 3899/2010 (Government Gazette No 212, Issue A): "<i>Urgent measures for the implementation of the assistance program of the Greek Economy</i>", by article 45 of the Law 3943/2011 (Government Gazette No 66, Issue A): "<i>Combating tax evasion, staffing of auditing services and other provisions falling within the competence of the Ministry of Finance</i>", by article 22 paragraph 1 of the Law 3965/2011 (Government Gazette No 113, Issue A): "<i>Operations Reform of the Consignment and Loan Fund, Public Debt Management Agency, Public Enterprises and Government bodies, the establishment of the General Secretary of Public Property and other provisions</i>", by article first of the Law 4047/2012 (Government Gazette No 31, Issue A): "<i>Ratification of the Act of Legislative Content "Very urgent measures for the implementation of the Medium-term Fiscal Strategy 2012-2015 and of the State Budget for 2011" and of the Act of Legislative Content "Regulation of very urgent issues for the implementation of law 4024/2011 "Pension provisions, uniform pay scale - grading system, labour reserve and other provisions for the implementation of the Medium-term Fiscal Strategy Framework 2012-2015" and of issues falling within the competence of the Ministries of Administrative Reform and E-Governance, Interior, Finance, Environment, Energy and Climate Change, and of Education, Lifelong Learning and Religious Affairs and related to the implementation of the Medium-term Fiscal Strategy Framework 2012-2015" and other provisions</i>", by article 323 of the Law 4072/2012 (Government Gazette No 86, Issue A): "<i>Improvement of the business environment New corporate form - Trade Marks - Realtors - Regulating maritime, port and fishing matters and other provisions</i>" and by article 7 paragraph 1 of the Act of Legislative Content dated 18/11/2012 (Government Gazette No 228, Issue A): "<i>Financial rules and other provisions</i>", by Article 93 of the Law 4182/2013 (Government Gazette No 185, Issue A): "<i>Code of charitable estate, inheritances in abeyance and other provisions</i>", by Article 6 paragraph 8 of the Law 4244/2014 (Government Gazette 60, Issue A): "<i>Integration in Greek law of the Council Directive 2013/1/EU of 20 December 2012 amending Directive 93/109/EC as regards certain detailed arrangements for the exercise of the right to vote and stand as a candidate in elections to the European Parliament for citizens of the Union residing</i>"</li> </ul>	

*in a Member State of which they are not nationals and amendment of law 2196/1994 (A´ 41) and other provisions”, by Article first subparagraph C.3 of the Law 4254/2014 (Government Gazette No 85, Issue A): “Measures for the support and development of the Greek economy, in the context of the implementation of Law 4046/2012, and other provisions of law” and by Article 33, paragraphs 5a and 5b of the Law 4258/2014 (Government Gazette No 94, Issue A): “Demarcation process and arrangements of matters for streams - arrangements of Urban Planning legislation and other provisions”.*

- **Regulation on the Operation and Administration of the Hellenic Statistical Authority** (ELSTAT), 2012, (Government Gazette No 2390, Issue B, 28-8-2012)
- **Regulation (EC) No 223/2009 of the European Parliament and of the Council**, on the European statistics (Official Journal of the European Union L 87/164).
- **Article 14 of the Law 3470/2006** (Government Gazette No 132, Issue A): *“National Export Council, tax regulations and other provisions”.*
- **Article 3, paragraph 1c, of the Law 3448/2006** (Government Gazette No 57, Issue A): *“For the further use of information coming from the public sector and the settlement of matters falling within the responsibility of the Ministry of Interior, Public Administration and Decentralization”.*
- **European Statistics Code of Practice** adopted by the Statistical Programme Committee on 24 February 2005 and promulgated in the Commission Recommendation of 25 May 2005 on the independence, integrity and accountability of the national and Community statistical Authorities, after its revision, which was adopted on 28 September 2011 by the European Statistical System Committee.
- **Presidential Decree 226/2000** (Government Gazette No 195, Issue A): *“Organization of the General Secretariat of the National Statistical Service of Greece”.*
- **Articles 4, 12, 13, 14, 15 and 16 of the Law 2392/1996** (Government Gazette No 60, Issue A): *“Access of the General Secretariat of the National Statistical Service of Greece to administrative sources and administrative files, Statistical Confidentiality Committee, settlement of matters concerning the conduct of censuses and statistical works, as well as of matters of the General Secretariat of the National Statistical Service of Greece”.*

The legal framework governing the 2011 Buildings Census is as follows:

- Presidential Decree 168 (Government Gazette 223, issue A/2008) concerning the “Conduct of general censuses of buildings and population-housing during 2010-2011”.
- Joint Ministerial Decision 1524/Γ5-473/2011 (Government Gazette 425/B/17.03.2011 concerning the “Proclamation of the conduct of the general censuses of buildings and population-housing for the years 2010-2011”.
- Joint Ministerial Decision 3794/Γ5-1070/2011 (Government Gazette 783/B/9.05.2011) concerning the “Amendment and completion of the Decision 1524/Γ5-473/14.02.2011 (Government Gazette 425/B/17.03.2011) concerning the “Proclamation of the conduct of the general censuses of buildings and population-housing for the years 2010-2011”.
- Law 3852/2010 concerning the “New Architecture of the Local Government and the Decentralized Administration- Kallikratis Plan” (Government Gazette 87/A/7.06.2010) as in force on 15 January 2012, reference day of the 2011 buildings census, which replaced the law 2539/1997 concerning the “Establishment of the First-level Local Government” (Government Gazette 244/A/4.12.1997)

## 7.2 Data sharing

Not applicable.

## 8. Confidentiality

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### 8.1 Confidentiality policy

The issues concerning the observance of statistical confidentiality by the Hellenic Statistical Authority (ELSTAT) are arranged by articles 7, 8 and 9 of the Law 3832/2010 as in force, by Articles 8, 10 and 11(2) of the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System and by Articles 10 and 15 of the Regulation on the Operation and Administration of ELSTAT.

More precisely:

ELSTAT disseminates the statistics in compliance with the statistical principles of the European Statistics

Code of Practice and in particular with the principle of statistical confidentiality.

## 8.2 Confidentiality – data treatment

- ELSTAT protects and does not disseminate data it has obtained or it has access to, which enable the direct or indirect identification of the statistical units that have provided them by the disclosure of individual information directly received for statistical purposes or indirectly supplied from administrative or other sources. ELSTAT takes all appropriate preventive measures so as to render impossible the identification of individual statistical units by technical or other means that might reasonably be used by a third party. Statistical data that could potentially enable the identification of the statistical unit are disseminated by ELSTAT if and only if:
  - a) these data have been treated, as it is specifically set out in the Regulation on Statistical Obligations of the agencies of the Hellenic Statistical System (ELSS), in such a way that their dissemination does not prejudice statistical confidentiality or
  - b) the statistical unit has given its consent, without any reservations, for the disclosure of data.
- The confidential data that are transmitted by ELSS agencies to ELSTAT are used exclusively for statistical purposes and the only persons who have the right to have access to these data are the personnel engaged in this task and appointed by an act of the President of ELSTAT.
- ELSTAT may grant researchers conducting statistical analyses for scientific purposes access to data that enable the indirect identification of the statistical units concerned. The access is granted provided the following conditions are satisfied:
  - a) an appropriate request together with a detailed research proposal in conformity with current scientific standards have been submitted;
  - b) the research proposal indicates in sufficient detail the set of data to be accessed, the methods of analyzing them, and the time needed for the research;
  - c) a contract specifying the conditions for access, the obligations of the researchers, the measures for respecting the confidentiality of statistical data and the sanctions in case of breach of these obligations has been signed by the individual researcher, by his/her institution, or by the organization commissioning the research, as the case may be, and by ELSTAT.
- Issues referring to the observance of statistical confidentiality are examined by the Statistical Confidentiality Committee (SCC) operating in ELSTAT. The responsibilities of this Committee are to make recommendations to the President of ELSTAT on:
  - the level of detail at which statistical data can be disseminated, so as the identification, either directly or indirectly, of the surveyed statistical unit is not possible;
  - the anonymization criteria for the microdata provided to users;
  - the granting to researchers access to confidential data for scientific purposes.
- The staff of ELSTAT, under any employment status, as well as the temporary survey workers who are employed for the collection of statistical data in statistical surveys conducted by ELSTAT, who acquire access by any means to confidential data, are bound by the principle of confidentiality and must use these data exclusively for the statistical purposes of ELSTAT. After the termination of their term of office, they are not allowed to use these data for any purpose.
- Violation of data confidentiality and/or statistical confidentiality by any civil servant or employee of ELSTAT constitutes the disciplinary offence of violation of duty and may be punished with the penalty of final dismissal.
- ELSTAT, by its decision, may impose a penalty amounting from ten thousand (10,000) up to two hundred thousand (200,000) euro to anyone who violates the confidentiality of data and/or statistical confidentiality. The penalty is always imposed after the hearing of the defense of the person liable for the breach, depending on the gravity and the repercussions of the violation. Any relapse constitutes an aggravating factor for the assessment of the administrative sanction.
- The Hellenic Personal Data Protection Authority issued Decision No 52/2011 concerning the General Censuses of Buildings and Population-Housing of 2011, giving its approval for the census questionnaires and setting out confidentiality during data collection and processing, as well as the

duration of the time period for their safe keeping.

## 9. Release policy

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### 9.1 Release calendar

On 29/12/2014 the Hellenic Statistical Authority (ELSTAT) published an announcement informing users that the processing of the 2011 buildings census was still under way and therefore the Press Release scheduled for 31/12/2014 would be released within the first quarter 2015.

### 9.2 Release calendar access

Through the official website of ELSTAT:

[http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/release\\_calendar\\_en.pdf](http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/release_calendar_en.pdf)

### 9.3 User access

Users have immediate access to the published results of the 2011 Buildings Census through the official website of ELSTAT, at the following link:

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-census2011>

## 10. Frequency of dissemination

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The results of the Buildings Census are published every 10 years.

## 11. Dissemination format

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### 11.1 News release

On 18 May 2015 ELSTAT announced the results of the 2011 Buildings Census.

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-census2011>

### 11.2 Publications

ELSTAT has not planned to issue a publication with the results of the 2011 Buildings Census.

### 11.3 On-line database

There are no available data on the buildings census on the online database of ELSTAT.

#### 11.3.1 Data tables - consultations

Since the release of the results (May 2015) 7,098 users visited the webpage of the Buildings Census on the website of ELSTAT.

### 11.4 Micro-data access

Users are not allowed to have access to Census microdata.

### 11.5 Other

Users can have further information after submitting a relevant request to the:  
Division of Statistical Information and Publications, 46, Peireos and Eponiton Str., 18510 Piraeus  
Tel: +30 213 135 2310, Fax: +30 213 135 2312  
e-mail: [data\\_dissem@statistics.gr](mailto:data_dissem@statistics.gr) and [census@statistics.gr](mailto:census@statistics.gr)

Moreover, users can submit their request electronically through the official website of ELSTAT, at "Statistical

Data Request”:

<http://www.statistics.gr/pls/apex/f?p=106:1030:3597155239038893::NO::>

Tabulated data are available on the official website of ELSTAT, at “2011 Census”, by clicking on “Buildings Census”:

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-cencus2011tables>

Furthermore, users can visit the digital Library of ELSTAT at the following link :

<http://dlib.statistics.gr/portal/page/portal/ESYE/>

### **11.5.1 Metadata – consultations**

The special application for the production of statistics can provide information only on the total access of users (total hits) to the pages of each survey; it does not make a distinction between access to data tables and access to methodological documents (metadata).

## **12. Accessibility of documentation**

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### **12.1 Documentation on methodology**

The methodology implemented for the 2011 Building Census was set out by a Circular of ELSTAT ( “Circular 1 – General guidelines on the preparations, organization and conduct of the General Censuses”), available (only in the Greek language) at the following link:

[\[intra/DocLib1/ΓΕΝΙΚΕΣ%20ΑΠΟΓΡΑΦΕΣ%20ΟΙΚΟΔΟΜΩΝ\\\_ΚΤΙΡΙΩΝ%20ΚΑΙ%20ΠΛΗΘΥΣΜΟΥ\\\_ΚΑΤΟΙΚΙΩΝ%202010\\\_2011/ΕΓΚΥΚΛΙΟΙ\\\_ΟΔΗΓΙΕΣ\\\_ΔΙΑΒΙΒΑΣΤΙΚΑ/ΕΓΚΥΚΛΙΟΣ%201.pdf\]\(http://athens-intra/DocLib1/ΓΕΝΙΚΕΣ%20ΑΠΟΓΡΑΦΕΣ%20ΟΙΚΟΔΟΜΩΝ\_ΚΤΙΡΙΩΝ%20ΚΑΙ%20ΠΛΗΘΥΣΜΟΥ\_ΚΑΤΟΙΚΙΩΝ%202010\_2011/ΕΓΚΥΚΛΙΟΙ\_ΟΔΗΓΙΕΣ\_ΔΙΑΒΙΒΑΣΤΙΚΑ/ΕΓΚΥΚΛΙΟΣ%201.pdf\)](http://athens-</a></p></div><div data-bbox=)

#### **12.1.1 Metadata completeness - rate**

The Single Integrated Metadata Structure (SIMS) is fully updated.

### **12.2 Quality documentation**

Quality is documented through the quality report, in the form of Single Integrated Metadata Structure (SIMS), on the 2011 Buildings Census, which is posted on the official website of ELSTAT.

## **13. Quality management**

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### **13.1 Quality assurance**

During the 2011 Buildings Census ELSTAT implemented for the first time new quality requirements and as a result, the 2011 Census involved more and stricter quality assurance procedures and quality checks than any other Census conducted before in Greece.

In order to convert the data of the Buildings Census in the paper questionnaires into a digital format, so that they become processable and can undergo the necessary multiple quality checks and crosschecks, the Optical Character Recognition (OCR) method was implemented with the use of scanners. After the scanning, the correctness of the data entered for each questionnaire had to be optically verified (data verification) and the necessary corrections or additions were made, where appropriate. During this procedure, some first-stage logical checks took place (verification) as well, followed by more detailed checks (e.g., completeness checks, correlations of variables, etc.) in order to identify and correct any errors. All these checks were conducted very thoroughly despite the big volume of data.

After the aforementioned processes, the processing of the census questionnaires was completed and the results were published after having ensured that they meet quality standards of European statistics.

Furthermore, the “Quality Policy” of ELSTAT is available at the following link:

[http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/ELSTAT\\_Quality\\_Policy\\_EN.pdf](http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/ELSTAT_Quality_Policy_EN.pdf)

### 13.2 Quality assessment

**First stage:** The questionnaires that had been completed by the Chiefs of Census Sections were collected by ELSTAT staff (Census Supervisors and Assistant Supervisors) in the local branches of ELSTAT (Supervision Areas) that had been established during the Census. These questionnaires were checked in order to identify any errors. Logical checks, completeness and correctness checks were carried out (in order to identify any cases of non-enumeration of buildings listed in the “frame-list O1”). Subsequently, the questionnaires were sent to the central offices of ELSTAT.

**Second stage:** After optical reading, the questionnaires underwent electronically further logical checks and completeness checks. It was found that the material of 56 settlements and 26 census sections being part of 12 settlements was missing. The number of the buildings of the above settlements/sections was estimated on the basis of data from the Survey on Private Legal Construction Activity, on the basis of the number of buildings in similar, neighbouring settlements and through “Google earth». Subsequently, the corresponding number of questionnaires was created and entered into the database.

Finally, quality checks and cross-checks of variables were carried out in the database, and when errors were identified, they were duly corrected by using the necessary auto-correction rules. The data of the 2011 Buildings Census were compared with the data of the previous 2000 Census in order to identify the trend over time and to assess the produced results.

## 14. Relevance

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### 14.1 User needs

The main users of the Buildings Census are the entities of General Government, the academic community, research institutes, international organisations, local government and individual users. Moreover, the census results are the basis for conducting many research projects.

The biggest part of user requests concern census results at a lower geographical level than the level at which the results are published.

### 14.2 User satisfaction

The Buildings Census is conducted taking into account users’ need at national level.

Moreover, ELSTAT conducts a User Satisfaction Survey every semester. The latest report on this survey, as well as the relevant user questionnaire can be found at the following link:

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-conferences>

### 14.3 Completeness

The data of the 2011 Buildings Census cover all the characteristics of the buildings that had been surveyed during the previous census and in addition some other characteristics, taking into consideration the relevant requests submitted by interested parties.

## 15. Accuracy and reliability

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### 15.1 Overall accuracy

The main sources of errors are: 1) not enumeration of buildings or incomplete filling in of questionnaires either on account of the refusal of the surveyed person to respond to the questions or to the incorrect filling in of the questionnaire by the Chief of census section (such errors were corrected using imputation), 2) loss of the questionnaire during the transportation (such errors were also corrected by using imputation).

The imputed values amount to 0.2% of the total values for Greece.



## **15.2 Sampling error**

The survey is a census survey, therefore there are no sampling errors.

## **15.3 Non-sampling error**

The non-sampling errors of the 2011 Buildings Census are as follows: 1) Errors due to the incomplete filling in of questionnaires. These errors were identified through logical checks and were duly corrected by applying the imputation method. The imputation rate for each variable did not exceed 10%. This process minimized bias resulting from non-response. 2) Errors due to the loss of questionnaires, which were corrected by imputation. More specifically, the number of buildings was imputed and the corresponding number of questionnaire was created and integrated in the database. The share of units completed by this method amounted to 0.2% of the total units all over Greece.

### **15.3.1 Coverage error**

Not applicable

#### **15.3.1.1 Over-coverage – rate**

Not applicable.

#### **15.3.1.2 Common units – proportion**

Not applicable.

### **15.3.2 Measurement error**

Measurement errors may occur during data collection and as a result the recorded values of variables are different from the actual ones. These errors are due to reasons that may be categorized as follows:

- Census tools: the questionnaires or other measurement tools (e.g. maps) used for data collection may lead to erroneous recording of values;
- Enumerated persons: the surveyed persons may, unintentionally or on purpose, provide erroneous information;
- Chiefs of census sections: the external statistical interviewers may influence the answers given by the surveyed persons.

The data were collected by means of personal interviews by filling in printed questionnaires. This data collection method ensured high quality of collected information, since the Chiefs of census sections assisted the surveyed persons in filling in the questionnaire and checked thoroughly the filled in questionnaires before returning them.

The Chiefs of census sections were external survey workers. Before the Census, they attended a special training seminar. The purpose of the seminar was to help the Chiefs of census sections to: a) fully understand the definitions of the census characteristics in order to avoid bias from the surveyed persons, b) fill in correctly the questionnaire and c) to check thoroughly the questionnaires in order to detect any errors by conducting logical checks.

The structure and the size of the questionnaire were properly designed so as to be user-friendly for the Chiefs of census sections and the questions were written in a simple language and in a clear manner by using the appropriate vocabulary. Furthermore, relevant circulars were elaborated containing useful information, analyzing all the questions of the questionnaire. All these actions were aiming at enhancing the collection of complete, filled in questionnaires without any missing values.

Most of the measurement errors which were detected through the multiple quality checks were corrected (see 15.3 and 21).

### **15.3.3 Non response error**

No non-response errors.

### **15.3.4 Processing error**

Once collected, the data are subject to a series of statistical processes before the production of final

estimations (e.g., codification, data processing, etc.). Errors that may occur during these stages are called processing errors. Processing errors may be considered as random errors and they increase variation. The variation due to processing errors is integrated in the variation of the parameters estimation.

The errors due to the processing of the questionnaires of the 2011 Buildings Census are considered negligible due to the use of specialized software applications.

#### **15.3.5 Model assumption error**

Not applicable.

### **16. Timeliness and punctuality**

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#### **16.1 Timeliness**

There was no commitment on the date of release of the census data, nevertheless ELSTAT timely informed users on the date of the release of the results (see 9.1).

#### **16.2 Punctuality**

There was no time constraints, nevertheless ELSTAT made all the necessary efforts in order to release the results during the first months of 2015.

### **17. Comparability**

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#### **17.1 Comparability - geographical**

The results are geographically compared with the corresponding results of the previous buildings censuses.

##### **17.1.1 Assymetry for mirror flows statistics – coefficient**

Not applicable.

#### **17.2 Comparability over time**

The methodology implemented during the 2011 Buildings Census is similar with the methodology implemented during the previous censuses and therefore the results are comparable.

### **18. Coherence**

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#### **18.1 Coherence cross-domain**

There is no cross-domain coherence between the Buildings Census data and the data from other surveys conducted by ELSTAT.

##### **18.1.1 Coherence – sub annual and annual statistics**

Not applicable.

##### **18.1.2 Coherence – National Accounts**

Not applicable.

#### **18.2 Coherence - internal**

Same variables are coherent at all the geographical levels.

### **19. Cost and burden**

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On the basis of calculations for estimating the cost and the burden for the collection and processing of the data of the 2011 Buildings Census, it is estimated that all these procedures lasted 10 months and encompassed the work and participation of ELSTAT staff and external survey workers. The cost for the

conduct of the 2011 Buildings Census has been taken into account in the total cost of the 2011 General Censuses( approximately 66,2 million Euro, see SIMS for 2011 Population-Housing Census).

## 20. Data revision

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### 20.1 Revision policy

The first data, which are released, are provisional data. They are validated and become final data when all the collected data are finalized. The data are validated by ELSTAT on the basis of strict checking rules. Furthermore, the final aggregate data are checked again. However, the final data may undergo some revisions at a later stage, if any errors are identified. More details on the revision policy of ELSTAT can be found on the portal of ELSTAT, at the following link:

[http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/ELSTAT\\_Revisions\\_Policy\\_22\\_5\\_2013\\_EN.pdf](http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/ELSTAT_Revisions_Policy_22_5_2013_EN.pdf)

### 20.2 Revision practice

The data, which are published and released as final data, may be revised in case where it is deemed necessary. There is no time schedule for the revision of the Census data.

The data of the 2011 Buildings Census were not revised.

## 21. Statistical processing

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### 21.1 Source data

Traditional Census without using any data from administrative sources or registers from other surveys. The census was conducted using a questionnaire and personal interview.

The Questionnaire of 2011 Buildings Census can be found on the portal of ELSTAT, at the following link:

<http://www.statistics.gr/portal/page/portal/ESYE/PAGE-apograf4>

### 21.2 Frequency of data collection

The conduct of general censuses at specific time intervals is provided for in article 10 of the Law 3832/2010 "*Hellenic Statistical System (ELSS), Establishment of the Hellenic Statistical Authority (ELSTAT)*".

The previous Census had been conducted from 1 December 2000 to 31 January 2001.

The 2011 Buildings Census was conducted pursuant to the legal framework stipulated in paragraph 7.1

### 21.3 Data collection

The data of the Buildings Census were collected through personal interviews taking place between the chief of census section and the manager or other tenant of the building, on the basis of a specially designed questionnaire. The design of the census questionnaire was covering national requirements for statistical information covering variables of national interest. The design of the questionnaire took also into consideration users' needs and suggestions of interested parties. In order to ensure effective collection of data, several training seminars were organised for the staff that participated in the Census.

- Training of Seniors Supervisors and of Census Supervisors: a two-day training seminar was organised in the premises of ELSTAT with the participation of seven (7) Senior Supervisors and of ninety-four (94) Census Supervisors. The Senior Supervisors were Directors of Statistical Divisions of ELSTAT and the Census Supervisors were mostly Head of Sections or employees with experience in the conduct of censuses. The trainers were skilled and qualified employees with experience in the conduct of Population-Housing Censuses. Among the issues studied during the seminar were the organisation and the conduct of the census and their competencies. The census questionnaire was also presented and analyzed and some special cases were discussed.
- Training of Assistant Supervisors: they were trained by the competent Census Supervisors and they were working under their guidelines and directions. The Census Supervisors amounted to 543

persons who were either permanent personnel of ELSTAT (343 persons) or employees who were recruited on a temporary basis for a time interval of 8 months (200 persons).

- Training of Chief of Census Sectors: the Chiefs of Census Sectors (approximately 12,000) were trained by the local competent Supervisors during one-day training seminars. During the seminars the census questionnaire was presented, their competencies and tasks were explained and other issues were discussed, such as issues concerning the filling in of the questionnaire and specific issues concerning the cases of refusals. The Chiefs of Census Sectors were employees working in the private or public sector (except ELSTAT) who were selected on the basis of a specific selection procedure.

The Senior Supervisors were supervising and monitoring all the census tasks in a geographic area, which included a big number of Supervision Areas. In every Supervision Area the Supervisor was responsible for the census tasks and he was assisted by the Assistant Supervisors. Each Supervision Area was divided into Census Sectors. The competent person in every Sector - which included four (4) enumeration sections- was the Chief of Census Sector whose main responsibility was to compile a frame-list of buildings and the enumeration of the buildings in its census section.

#### **21.4 Data validation**

The data were validated as follows:

1. Logical checks and completeness checks were conducted in every Supervision Area in order to ensure correctness of data and to dully correct any errors. Before the delivery of data to the Supervision Areas, the Chiefs of Census Sectors had already conducted the appropriate checks.
2. Optical Reading of Data (OCR) on the paper questionnaires and data verification process.
3. Verification of data: validation of data after a series of electronic checks. The errors, which were identified by these checks or reminders, were dully corrected.
4. Quality checks: the variables were correlated and logical checks were conducted in the database by using specific rules and in case of inconstancies the errors were auto-corrected. The results of the 2011 Buildings Census were compared with the results of the 2000 census in order to assess the produced data.

#### **21.5 Data compilation**

After the collection of questionnaires and their optical reading the data were finally introduced and saved in an electronic file. Then, in the database the variables were correlated and several logical checks were conducted using specific rules and there were also auto-corrections in cases of inconsistencies . An imputation procedure was implemented in cases of incomplete fillign in of questionnaire (more details can be found in paragraphs 13.2, 15.1, 15.3). Finally, the final database with the Buildings Census microdata was compiled from where the tabulated results were produced.

##### **21.5.1 Imputation – rate**

Less than 10% for each variable.

#### **21.6 Adjustment**

No adjustment.

##### **21.6.1 Seasonal adjustment**

No seasonal adjustment.

## **22. Comment**

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