

# Single Integrated Metadata Structure (SIMS v2.0) (user oriented)

**Country:** Greece

**Compiling agency:** ELSTAT

**Domain name:** Statistical Business Register

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1. Contact <a href="#">Top</a>	
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## 2. Metadata update

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2.1 Metadata last certified	19/4/2018
2.2 Metadata last posted	19/4/2018
2.3 Metadata last update	19/4/2018

## 3. Statistical presentation

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### 3.1 Data description

The Statistical Business Register (SBR) includes information on the active population of:

- Enterprises carrying on economic activities contributing to the gross domestic product (GDP);
- Their local units;
- The legal units of which those enterprises consist;
- Enterprise groups (association of enterprises bound together by legal and/or financial links).

The most Important characteristics recorded in the registers for the units are:

- Identification characteristics: ID number, name, address, telephone, fax, e-mail;
- Demographic characteristics: Date of commencement/cessation of the unit;
- Economic/stratification characteristics: Economic activity (NACE), employment, turnover, legal form, geographical location code, institutional sector ;
- Information on control and ownership relations: Parent/subsidiary legal unit, shareholder information, country of global decision centre.

The purposes of the Statistical Business Register are:

- To provide a tool for the preparation and co-ordination of surveys;
- To be a source of information for statistical analysis of the business population and its demography;
- To establish links with administrative sources;
- To identify and delineate statistical units.

The Statistical Business Register includes all units that are active even one day in the reference year.

### 3.2 Classification system

The classifications used in the Statistical Business Register are:

- For the classification of economic activities, the national classification of the Branches of Economic Activity (STAKOD 08), which is fully identical to the corresponding EU (NACE Rev.2) classification, is used for the year 2008 onwards.  
Until 2007, the national STAKOD 03 classification was used, which is based on, and can be matched with, the NACE Rev.2 classification. 1.1 of the EU.
- Classification based on ESA2010 is used for institutional sectors classification
- The national classification for (economic) administration is used for legal forms.
- For the classification in territorial units for statistical purposes, the NUTS 2013 classification is used, with a further breakdown at NUTS 3 level.

<b>3.3 Sector coverage</b>
<p>The SBR covers all the units that, wholly or partially, exercise an economic activity. Any activity comprising the offer of goods and services on a given market is regarded as an economic activity. In addition, non-market services contributing to the GDP, as well as direct and indirect holdings of active legal units are regarded as economic activities for the purposes of business register. Economically inactive legal units are part of an enterprise only in combination with economically active legal units.</p> <p>All economic activities according to NACE Rev2 are covered.</p>
<b>3.4 Statistical concepts and definitions</b>
<p><b>Turnover:</b> Turnover includes the total net amount invoiced by the enterprise during the reference period, which corresponds to sales of goods or services supplied to third parties. Turnover includes all taxes and duties on goods or services invoiced by the unit, with the exception of the Value Added Tax( VAT).</p> <p><b>Number of persons employed:</b> is the total number of persons working in the enterprise, including worker owners, associates and members of the family working unpaid, as well as those working outside the enterprise but belong to it and are paid by it.</p> <p><b>Number of employees:</b> is the number of people working for an employer under an employment contract and receive wages in the form of wages, salaries, allowances, benefits, piecework or are paid in kind.</p>
<b>3.5 Statistical unit</b>
Local Unit, Enterprise and Enterprise Group, according to the Council Regulation (EEC) No 696/93.
<b>3.6 Statistical population</b>
<p>The Statistical Business Register (SBR) is a fully and comprehensive, regularly updated and structured list of legal and statistical units engaged in the production of goods and services, which is aimed at assisting the compilation of business statistics and particular as a (backbone) tool for the preparation and coordination of surveys, as a source of information for statistical analysis of the business population and its demography, for the use of administrative data, and for the identification and construction of statistical units.</p> <p>The statistical population of SBR according to the Regulation 177/2008 includes:</p> <ul style="list-style-type: none"> <li>• Legal units</li> <li>• Local units</li> <li>• Enterprises</li> <li>• All-resident enterprise groups</li> <li>• Truncated enterprise groups</li> <li>• Multinational enterprise groups</li> </ul> <p>It is noted that for the time being there is not distinction of the enterprises consisting of more than one legal units.</p>
<b>3.7 Reference area</b>
WHOLE COUNTRY- REGION-REGIONAL UNIT-MUNICIPALITY-MUNICIPAL UNIT
<b>3.8 Time coverage</b>
2000-2015
<b>3.9 Base period</b>

Not applicable

#### 4. Unit of measure

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**Turnover:** Thousands of euros

**Total Employment:** Annual average number of persons employed in an enterprise

**Employees:** Annual average number of employees of an enterprise or an employer

#### 5. Reference period

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The data refer to the relevant, each time, calendar year.

#### 6. Institutional mandate

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##### 6.1 Legal acts and other agreements

###### National Legislation

The legal framework concerning the organization and operation of ELSTAT is available at the following link:

<http://www.statistics.gr/en/legal-framework>

###### EU Sectoral legislation

- Commission Regulation (EEC) No 3037/90 on the statistical classification of economic activities in the Community

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- Commission Regulation (EC) No 1893/2006 of the European Parliament and of the Council establishing the statistical classification of economic activities NACE Revision 2 and amending Regulation (EEC) No 3037/90 and certain Regulations of the European Communities relating to specific statistical domains.

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- Council Regulation (EEC) No 696/93 on the statistical units for the observation and analysis of the production system in the Community.

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- Commission Regulation (EEC) No 2186/93 on Community co-ordination of the development of business registers for statistical purposes.

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- Commission Regulation (EC) No 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for statistical purposes and repealing Regulation (EEC) No 2186/93.

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- Commission Regulation (EC) No 1059/2003 of the European Parliament and of the Council on the establishment of a common classification of territorial units for statistics (NUTS).

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- Council Regulation (EU) 1319/2013 amending the Annexes to Regulation (EC) No. No 1059/2003 of the European Parliament and of the Council on the establishment of a common Nomenclature of Territorial Statistical Units (NUTS).

## 6.2 Data sharing

The data sharing concerning the Statistical Business Register is governed by the following European Regulations:

- Commission Regulation (EC) No 192/2009 implementing Regulation (EC) No 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for statistical purposes, as regards the exchange of confidential data between the Commission (Eurostat) and Member States
- Commission Regulation (EU) No 1097/2010 of 26 November 2010 implementing Regulation (EC) No 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for statistical purposes, as regards the exchange of confidential data between the Commission (Eurostat) and central banks.
- Decision of the European Central Bank on the transmission of confidential data under the common framework for business registers for statistical purposes (ECB / 2010/33).

## 7. Confidentiality

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### 7.1 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 (relevant link:

<http://www.statistics.gr/en/statistical-confidentiality>).

The Statistical Confidentiality Policy of ELSTAT includes the rules and principles implemented by ELSTAT for the observance of statistical confidentiality and is available at the following link:

[http://www.statistics.gr/documents/20181/1609796/ELSTAT\\_Statistical\\_Confidentiality\\_Policy\\_EN.pdf/29a02552-8b6f-4a3a-8c56-411c436aa61f](http://www.statistics.gr/documents/20181/1609796/ELSTAT_Statistical_Confidentiality_Policy_EN.pdf/29a02552-8b6f-4a3a-8c56-411c436aa61f)

### 7.2 Confidentiality - data treatment

The confidential data transmitted to ELSTAT by the agencies of the Hellenic Statistical System (ELSS) are used exclusively for statistical purposes. Right to access these data has exclusively only the staff of ELSTAT employed for that purpose and designated by act of the President of ELSTAT. The receipt, storage and processing of data by ELSTAT is carried out by implementing strict security and personal data protection rules, in accordance with ELSTAT's Circular on the Information Systems Security Policy and Digital Data Protection.

## 8. Release policy

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### 8.1 Release calendar

There is no specific release date of the tables containing data from the Statistical Business Register.

The tables are published as soon as the annual SBR data have been finalized.

## 8.2 Release calendar access

## 8.3 User access

The data from the Statistical Business Register are disseminated in accordance with ELSTAT's Dissemination Policy, which is available at the following link:

[http://www.statistics.gr/documents/20181/1609796/Dissemination\\_Policy\\_of\\_ELSTAT\\_gr.pdf/b0657f76-1c19-4d66-bfa1-bb516eb37b6b](http://www.statistics.gr/documents/20181/1609796/Dissemination_Policy_of_ELSTAT_gr.pdf/b0657f76-1c19-4d66-bfa1-bb516eb37b6b)

ELSTAT protects and does not disseminate the data it has obtained, or it has access to, which enable the direct or indirect identification of the statistical units 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 which 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 specifically set out in the Regulation on the Statistical Obligations of the ELSS agencies, in such a way that their dissemination does not prejudice the statistical confidentiality
- b) the statistical unit has given its consent, without any reservations, for the disclosure of data.

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 legitimate purpose of the research, the set of data to be accessed, the methods of analyzing them, the persons who will have access to the data 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.

Information on the access to confidential data for scientific purposes is available at the following link:  
[http://www.statistics.gr/en/scientific\\_provision\\_data](http://www.statistics.gr/en/scientific_provision_data).

## 9. Frequency of dissemination

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Yearly

## 10. Accessibility and clarity

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<b>10.1 News release</b>
<b>10.2 Publications</b>
The Tables of the Statistical Business Register are available at the following link: <a href="http://www.statistics.gr/en/statistics/-/publication/SBR01/">http://www.statistics.gr/en/statistics/-/publication/SBR01/</a>
<b>10.3 On-line database</b>
<b>10.4 Micro-data access</b>
See also Section 8.3, above.
<b>10.5 Other</b>
<b>10.6 Documentation on methodology</b>
The Statistical Business Register is established in accordance with Regulation (EC) No 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for statistical purposes. <a href="http://eur-lex.europa.eu/legal-content/EL/TXT/HTML/?uri=CELEX:32008R0177&amp;from=EN">http://eur-lex.europa.eu/legal-content/EL/TXT/HTML/?uri=CELEX:32008R0177&amp;from=EN</a>  The methodology followed takes into account international practices and, in particular, Eurostat's guidelines and standards, mainly the Business Register Recommendations Manual:  «Business Registers- recommendations manual» 2010 edition.  <a href="http://ec.europa.eu/eurostat/documents/3859598/5915609/KS-32-10-216-EN.PDF/398ebf46-64b6-4204-b209-f29357a341d4?version=1.0">http://ec.europa.eu/eurostat/documents/3859598/5915609/KS-32-10-216-EN.PDF/398ebf46-64b6-4204-b209-f29357a341d4?version=1.0</a>
<b>10.7 Quality documentation</b>
A quality report is sent to Eurostat on an annual basis when the compilation of the Statistical Business Register is completed.

<b>11. Quality management</b>	<a href="#">Top</a>
<b>11.1 Quality assurance</b>	
The methodology followed is in line with the relevant decisions taken in the meetings of the Business Registers Working Group (BRWG), as well as with the recommendations of the Task Forces set up by Eurostat for the examination of particular topics concerning the statistical business registers. Quality controls are carried out at all stages of the compilation of the SBR. The data used are mainly derived from administrative sources and as a result audits include, in principle, completeness checks and identification of incorrect data transmitted from administrative sources. Then logical checks for data consistency over time and comparability with other sources take place. At a later stage, statistical checks are carried out to identify the extreme values and the time-domain comparability of the basic variables.	
<b>11.2 Quality assessment</b>	
Quality assessment is carried out by ELSTAT as well as by Eurostat on the coverage of the variables of the Statistical Business Register. Once the compilation of SBR has been completed, the quality report and the	

statistical analysis of the Register are sent to Eurostat.

The SBR is set up primarily on the basis of business tax data transmitted by the Independent Authority for Public Revenues (IAPR) and employment data transmitted by the Social Insurance Institution (IKA).

The agreement signed in June 2016 between ELSTAT and the former General Secretariat for Public Revenues allowed ELSTAT to have access to tax data coming from more tax forms and this resulted to the improvement of quality of SBR on the coverage of legal units and their key variables. However, further improvement of the quality of the SBR is required as the coverage of the other statistical units of the Register, which are provided for in the European Regulation 177/2008, is not sufficient.

## 12. Relevance

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### 12.1 User needs

The Statistical Business Register is mainly used as a sampling frame for the conduct of ELSTAT's statistical surveys in enterprises. Data of the SBR are also provided to users for the satisfaction of their requests, in accordance with the Statistical Confidentiality Policy and the Dissemination Policy of ELSTAT. The main national users of SBR data are Public Bodies and Local Authorities, Banks, Businesses, Researchers and Economic Analysts, Doctoral Candidates and Students.

At international level, the SBR data are used by Eurostat, the United Nations, the World Bank, etc.

### 12.2 User satisfaction

The degree of satisfaction of users is assessed by their comments and remarks expressed: a) at the annual Users' Conferences organized by ELSTAT, b) at the meetings of the Advisory Committee of the Hellenic Statistical System (SYPELSIS), in which participate representatives of bodies using statistics and c) through the User Satisfaction Survey conducted by the competent Statistical Data Dissemination Section of ELSTAT:

<http://www.statistics.gr/en/user-satisfaction-survey>

### 12.3 Data completeness

The SBR covers most of the variables defined by the relevant European Union Regulations at the level of legal unit. However, there is insufficient coverage of the variables of the other statistical units (local units, enterprises, enterprise groups) that must be included in the SBR in accordance with the European Regulation 177/2008.

## 13. Accuracy and reliability

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### 13.1 Overall accuracy

The data of the Statistical Business Register are largely based on administrative data, so the accuracy and reliability of the SBR data depends on the accuracy and completeness of the data provided by the administrative sources. However, the data contained in administrative sources are not always sufficient to accurately and fully update the SBR since they are intended to cover administrative and not statistical needs.

The combination of administrative and statistical sources covers the gap in a sufficient number of cases without solving the problem, and as a result in some cases imputation takes place obligatorily.

### 13.2 Sampling error

There are no sampling errors.

### 13.3 Non-sampling error



### **13.3.1 Coverage error**

The SBR includes those legal units that have completed tax forms electronically and / or have submitted a declaration to IKA. Legal entities that have completed a tax return in printed form or have not submitted a declaration to tax authorities and / or to IKA are not included in the SBR.

### **13.3.2 Measurement error**

The update of the SBR is based on the data obtained from the administrative sources and the data collected from statistical surveys that ELSTAT conducts on large enterprises. The logical checks performed on the above data are intended to correct any erroneous data in tax forms and other administrative files and registers, as well as erroneous data of statistical surveys.

### **13.3.3 Processing error**

Errors resulting from data processing are identified by logical and statistical checks and corrected.

## **14. Timeliness and punctuality**

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### **14.1 Timeliness**

The time elapsed between the reference period of the SBR data and the availability of its data is about two (2) years.

### **14.2 Punctuality**

## **15. Coherence and comparability**

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### **15.1 Comparability - geographical**

The Statistical Business Register is established in accordance with the European Regulation No. 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for statistical purposes and in accordance with the Manual of Recommendations on Business Registers for Statistics. This ensures the comparability of the SBR data with the data of the statistical registers of the other EU Member States. The above Regulation requires the implementation of common methodological principles, taking into account specific circumstances that may apply in each country, which may dictate slight, but acceptable, deviations.

### **15.2 Comparability over time**

The time series of the statistics in the Statistical Business Register starts from the reference year 2000.

#### **a. Discontinuity of comparability over time due to revision of classifications**

For specific tables, which provide information per economic activity, the time series is interrupted. In particular, in the series of tables from the reference year 2000 to 2007, the statistical classification STAKOD 03 is used for the classification of SBR units by economic activity. The classification STAKOD 03, which is based on the corresponding European classification NACE Rev. 1.1, was repealed by the adoption of Regulation No. No 1893/2006 of the European Parliament and of the Council establishing the statistical

classification of economic activities NACE Rev.2, which imposed the use of the revised classification from the reference year 2008 onwards.

In order to address the discontinuity between the time series due to the use of the different statistical classifications STAKOD (NACE), the tables of the SBR were also compiled with the classification STAKOD 08 (identical to NACE Rev. 2) from the reference year 2004 onwards.

Also, according to Law 3852/2010, on the "New Architecture of the Local Government and of the Decentralized Administration-Kallikratis Program", the new classification for the administrative division of the Country is applied from the reference year 2010. The tables of the Statistical Business Register for the reference years 2008-2010 were drawn up on the basis of both the Kallikratis Project and the Kapodistrias project, which was in force until the year 2010.

#### **b. Discontinuity of comparability over time due to the use of new sources**

New sources (tax forms and records) of administrative data have been used since the reference year 2011, which makes variations in the comparability over time of SBR data. Also, from the reference year 2014, a new source for employment, the Electronic Earnings Attestations (EEA) was used, whose data are provided by the IAPR. The use of new sources for the SBR results in a break in data comparability between the years 2010 and 2011, and the years 2013 and 2014.

#### **15.3 Coherence cross-domain**

The Statistical Business Register is the basis for the estimates of National Accounts data and the sampling frame for statistical business surveys. The cross-checking of the data of administrative sources with data of statistical surveys conducted and satellite statistical registers data, to update the SBR, ensures the cross-domain coherence.

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

The Statistical Business Register is compiled on annual basis

##### **15.3.2 Coherence – National Accounts**

There is cooperation between the Registers and Classifications Section and the relevant Sections of the National Accounts Division, through the exchange of information both at the level of economic data (turnover, employment) at national and regional level and at institutional sectors level.

#### **15.4 Coherence - internal**

Since the reference year 2015, when the SBR updating system was fully adopted by the use of administrative data in conjunction with small-scale statistical surveys, the impact on internal coherence was evident. Using more than one administrative source makes more data available. The data available from different sources for the same variables provides the possibility of checking and crossing SBR data, resulting in improved internal coherence. The selection of the most reliable sources for each variable and the comparison between the sources contributes significantly to the above purpose.

## **16. Cost and burden**

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ELSTAT's access to the data of administrative sources used to update the SBR is free of charge. Also, using administrative sources data to update the SBR does not cause a burden on the surveyed legal units.

The use by ELSTAT of automated logical and statistical checks for the processing of the above data results in saving time and resources in updating the SBR.

<b>17. Data revision</b>	<a href="#">Top</a>
<b>17.1 Revision policy</b>	
<p>The Revision Policy of ELSTAT is available at the following link:</p> <p><a href="http://www.statistics.gr/documents/20181/a49dca9a-dacf-4b52-b5df-b156216cb354">http://www.statistics.gr/documents/20181/a49dca9a-dacf-4b52-b5df-b156216cb354</a></p>	
<b>17.2 Revision practice</b>	

<b>18. Statistical processing</b>	<a href="#">Top</a>
<b>18.1 Source data</b>	
<p>The data included in the Statistical Business Register are mainly derived from administrative sources data in combination with data of statistical business surveys conducted by ELSTAT.</p> <p>The main administrative sources are the Independent Authority for Public Revenues (IAPR) and the Social Insurance Institute (IKA).</p> <p>From IAPR the following data are obtained: a) data on legal units concerning identification information, demographic characteristics, legal form, economic activity and relations with enterprise groups b) financial data of businessmen who are obliged by law to submit periodic VAT declarations, income tax declarations of natural and legal persons, as well as financial statements from business activity and c) employment data from Electronic Earnings Attestations, that employers are obliged to submit for their employees.</p> <p>IKA provides data on workers who provide paid employment. Employment from IKA accounts for about a quarter of all legal businesses in the register.</p> <p>For the set up of the SBR, data from other sources, such as private companies collecting legal entities, statistical satellite registers (means of transport, educational institutions, general government bodies, etc.) are also used.</p> <p>The Statistical Business Register is also informed by the results of structural statistical surveys (SBS) conducted by ELSTAT in enterprises.</p>	
<b>18.2 Frequency of data collection</b>	
Yearly	
<b>18.3 Data collection</b>	
Administrative data sources are transmitted from the sources in accordance with the Annex to the Memorandum of Understanding signed in 2014 between ELSTAT, the General Secretariat for Public Revenues, the General Secretariat for Information Systems (GIS) and the Social Insurance Institution (IKA) .	
<b>18.4 Data validation</b>	
The data obtained from the sources used are subject to a series of preliminary checks on completeness, accuracy and relevance to similar data from previous years. The data are checked for extreme or unusual values and for logical and longitudinal consistency between the variables. If large deviations or inconsistencies are identified, further investigation is being carried out.	
<b>18.5 Data compilation</b>	
<p>The sources used for updating the Statistical Business Register, are assessed at the level of variable (economic activity, turnover and employment) in terms of their completeness and reliability.</p> <p>Based on the above mentioned assessment, a priority list of sources is compiled for each variable. If the first source in that list does not provide the requested information, the next source is used, etc.</p>	

After the preliminary checks are carried out, the primary data are entered into the Statistical Business Register and a preliminary draft of the SBR is compiled in accordance with the priority of the sources and the rules set.

Statistical checks are then carried out to identify the outliers and any erroneous data.

The basic procedures applied for the examination of the turnover and the employment are summarized below.

### **1. Identification of Enterprises with legal form “natural persons”**

An initial examination of the SBR, regarding the identification of possible erroneous data, involves the identification of enterprises with legal form “natural persons”, and with number of employees greater than 50 persons. Enterprises with such combination of characteristics should be further examined.

### **2. Identification of Enterprises with outlier values in Turnover and Employment**

With regard to the identification of outlier values (and therefore possible erroneous administrative data) of Turnover and Total Employment, we apply **3 different methodological approaches**, in each stratum (combination of 3-digit- NACE code and employment class). In the present study, five employment classes are used (1: 0-4 employees, 2: 5-9 employees, 3: 10-19 employees, 4: 20-99 employees, 5: 100 plus employees).

All methods applied here examine the (logarithmic transformation of the) ratio:

$$R2_{2014} = \frac{\text{Turnover}}{\text{Employment}}$$

calculated as such to correspond to one calendar year.

The methods used are based on:

- a. Interquartile Range
- b. Asymmetric Fence Method (for stratum with more than 100 records)
- c. Median Absolute Deviation (MAD)

It should be noted that the methods used for the identification of the outliers in the present investigation gives reliable results if the following conditions are satisfied:

- a) To have enough enterprises in every stratum, where stratum is defined by the combination of NACE (3-digit code) and employment class (5 levels), i.e., at least 3.
- b) The enterprises that are identified as having outlier values, should be active during the two consecutive years of examination (in the present study the relative years are 2014 and 2015).

The above mentioned methods result in a large number of enterprises with outliers in turnover or employment. In order to restrict the number of enterprises that should be further examined we continue to narrow down the resulted cases by examining only the enterprises where:

- The absolute percentage difference of the Ratio between two consecutive years (2014-2015) is greater than 50%, and

- The absolute difference in turnover and employment between the two years is considered significant.

### 3. Identification of Enterprises affected by influential errors

Additionally, the method of Selective Editing has also been performed (M. Di Zio, U. Guarnera, 2013<sup>1</sup>), with the use of the package **SeleMix**, in the programming language **R** (U. Guarnera & M. T. Buglielli, 2013<sup>2</sup>). This method allows us to identify enterprises affected by influential errors. In this analysis the variable of Turnover was used as the variable subject to measurement error, and the variable of total Employment as covariate. The examination is performed for each 2-digit NACE code, provided that there is sufficient number of enterprises.

The results of the Selective Editing procedure were compared with the results of the above mentioned methods in order to identify additional enterprises affected by influential errors.

In addition to the above-mentioned methods, control over the evolution of the key variables over time at 2-digit and 4-digit NACE is performed in order to identify the big changes.

The list of enterprises derived by the previously applied methods were transmitted to the competent ELSTAT's Sections for further examination of the accuracy of turnover and employment values.

Where prices are not available for some variables, these are estimated from the corresponding previous years' variables, with the help of the short-term indicators for the particular economic sector.

After completion of the checks and the necessary corrections, the final SBR and the data tables for the reference year are drawn up.

#### **18.5.1 Imputation – rate**

The percentage of imputed variables is about 1.06% for the 1-digit level of NACE Rev2: B-N except K and part of S.

### **18.6 Adjustment**

#### **18.6.1 Seasonal adjustment**

The data of the Statistical Business Register are not seasonally adjusted.

## **19. Comment**

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<sup>1</sup> M. Di Zio, U. Guarnera (2013). A contamination model for selective editing, *Journal of Official Statistics*, Vol.29(4), 539-555.

<sup>2</sup> U. Guarnera, M.T. Buglielli (2013). SeleMix: an R package for Selective editing, <https://cran.r-project.org/web/packages/SeleMix/vignettes/SeleMix-vignette.pdf>