

**CENSUS\_INS21ES\_A\_BG\_2021\_0000**

National Reference Metadata in Euro SDMX Metadata Structure (ESMS)

Compiling agency: National Statistical Institute of Bulgaria



## Eurostat metadata

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For any question on data and metadata, please contact: [Eurostat user support](#)

## 1. Contact

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### 1.1. Contact organisation

National Statistical Institute of Bulgaria

	<b>Annexes:</b> <a href="#">National Statistical Institute of Bulgaria</a>
<b>1.1.1. Responsible party</b>	National Statistical Institute of Bulgaria
<b>1.1.2. Responsible party role</b>	Owner Author
<b>1.2. Contact organisation unit</b>	Multi-Domain Statistics and User Services Directorate
<b>1.5. Contact mail address</b>	National Statistical Institute 2, P.Volov Str. 1038 Sofia, Bulgaria

<b>2. Metadata update</b> <a href="#">Top</a>	
<b>2.1. Metadata last certified</b>	30/12/2022
<b>2.2. Metadata last posted</b>	30/12/2022
<b>2.3. Metadata last update</b>	30/12/2022

<b>3. Statistical presentation</b> <a href="#">Top</a>	
<b>3.1. Data description</b>	
Population data at 1 km <sup>2</sup> grid level, based on the results from the 2021 EU census collection, following Regulation (EC) 763/2008; Regulation (EU) 2017/543; Regulation (EU) 2017/712 and Regulation (EU) 2017/881 and Regulation EU 2017/1799.	
<b>3.1.1. Resource title</b>	
1 km <sup>2</sup> Population Grid 2021	
<b>3.1.2. Resource abstract</b>	
Total population from Census 2021 by grid cells.	
<b>3.1.3. Resource type</b>	
Spatial data set series	

<b>3.1.3.1. Additional information if 'spatial data set' is marked</b>
<a href="https://data.europa.eu/en">https://data.europa.eu/en</a>
<b>3.1.4. Resource locator</b>
<b>3.1.5. Unique resource identifier</b>
<a href="https://data.europa.eu/en">https://data.europa.eu/en</a>
<b>3.1.6. Coupled resource</b>
<a href="https://data.europa.eu/en">https://data.europa.eu/en</a>
<b>3.1.7. Resource language</b>
eng
<b>3.1.8. Keyword value</b>
Population Distribution
<b>3.1.9. Originating controlled vocabulary</b>
<a href="https://inspire.ec.europa.eu/theme/pd">https://inspire.ec.europa.eu/theme/pd</a>
<b>3.1.10. Metadata language</b>
eng
<b>3.2. Classification system</b>
1. Nomenclature of Territorial Units for Statistics (NUTS 2021)
<b>3.3. Coverage - sector</b>
Not applicable.
<b>3.3.1. Topic category</b>
Society
<b>3.3.2. Spatial data service type</b>
Download Service
<b>3.4. Statistical concepts and definitions</b>

total population; sex; age; employed person; place of birth; place of usual residence one year prior to the census.

#### **3.4.1. Statistical concepts and definitions - Total population**

For census purposes, the total population of the country consists of all the persons falling within the scope of the census in EU on usual residents.

Usual residence means the place where a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holidays, visits to friends and relatives, business, medical treatment or religious pilgrimage.

Persons usually resident in the place of enumeration but absent, or expected to be absent, at the time of the census for less than one year shall be considered as temporarily absent persons and thus included in the total usually population. In contrast, persons living or expected to live outside the place of enumeration for one year or more shall not be considered temporarily absent and shall therefore be excluded from the total population. This is regardless of the length of visits that they may pay to their families from time to time.

Persons who are enumerated but do not meet the criteria for usual residence in the place of enumeration, i.e. do not live or do not expect to live in the place of enumeration for a continuous period of at least 12 months, are considered temporarily present and are therefore not counted in the total usually resident population. Unless otherwise stated in this report.

#### **3.4.2. Statistical concepts and definitions - Sex**

‘Sex’ refers to the biological and physiological characteristics that define men and women.

#### **3.4.3. Statistical concepts and definitions - Age**

The age reached at the reference date (in completed years).

#### **3.4.4. Statistical concepts and definitions - Employed person**

‘Employed’ persons comprise all persons aged 15 years or over who during the reference week: (a) performed at least one hour of work for pay or profit, in cash or in kind, or (b) were temporarily absent from a job in which they had already worked and to which they maintained a formal attachment, or from a self-employment activity.

#### **3.4.5. Statistical concepts and definitions - Place of birth**

The place of birth for persons born within the country is the civil division in which the person was born; for those born in other countries, it is the country of birth. For persons born in the country (the native-born population), the concept of place of birth usually refers to the geographic unit where the mother of the individual resided at the time of the person’s birth.

#### 3.4.6. Statistical concepts and definitions - Place of usual residence one year prior to the census

The relationship between the current place of usual residence and the place of usual residence one year prior to the census.

For all persons that have changed their usual residence more than once within the year prior to the reference date, the previous place of usual residence is the last usual residence from which they moved to their current place of usual residence.

#### 3.5. Statistical unit

Persons.

#### 3.6. Statistical population

The persons enumerated in the 2021 census are those who were usually resident in the territory of the reporting country at the census reference date.

#### 3.7. Reference area

Data are available at different levels of geographical detail: national, NUTS2/NUTS3 regions and local administrative units (LAU), grids.

##### 3.7.1. Geographic bounding box

West Bound Longitude:	22.348494
South Bound Latitude:	41.227327
East Bound Longitude:	28.636203
North Bound Latitude:	44.219690

##### 3.7.2. Spatial resolution

1000

Unit:m

##### 3.7.3. Coordinate Reference System

EPSG:3035 - ETRS89 / LAEA Europe

#### 3.8. Coverage - Time

Data refer to the situation in the reporting country at the census reference date.
<b>3.9. Base period</b>
Not applicable.

<b>4. Unit of measure</b>	<a href="#">Top</a>
Counts of statistical units.	

<b>5. Reference Period</b>	<a href="#">Top</a>
2021-09-07 T00:00:00	
<b>5.1. Temporal extent</b>	
2021-09-07 T00:00:00	

<b>6. Institutional Mandate</b>	<a href="#">Top</a>
<b>6.1. Institutional Mandate - legal acts and other agreements</b>	
<div>1. European legislation - Regulation (EC) 763/2008; Regulation (EU) 2017/543; Regulation (EU) 2017/712 and Regulation (EU) 2017/881 and Regulation EU 2017/1799;</div> <div>2. National legislation - Population and Housing Census 2021 in the Republic of Bulgaria Act</div>	
<b>6.2. Institutional Mandate - data sharing</b>	
Data sharing is arranged according to the 'Rules for dissemination of statistical products and services of the National Statistical Institute': <a href="https://nsi.bg/en/node/564">https://nsi.bg/en/node/564</a>	

<b>7. Confidentiality</b>	<a href="#">Top</a>
<b>7.1. Confidentiality - policy</b>	
Dataset is not confidential.	
<b>7.2. Confidentiality - data treatment</b>	

No observation values are suppressed.

## 8. Release policy

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### 8.1. Release calendar

The schedule of census release dates.

### 8.2. Release calendar access

<https://www.nsi.bg/bg/node/19795>

### 8.3. Release policy - user access

Data on Population and Housing Census 2021 are published on the website of NSI in accordance with the European Statistics Code of Practice, respecting professional independence and aiming for objectivity and transparency, in which all users are treated fairly.

#### 8.3.1. Conditions applying to access and use

<https://inspire.ec.europa.eu/metadata-codelist/ConditionsApplyingToAccessAndUse/noConditionsApply>

#### 8.3.2. Limitations on public access

<https://inspire.ec.europa.eu/metadata-codelist/ConditionsApplyingToAccessAndUse/noConditionsApply>

## 9. Frequency of dissemination

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Decennial.

## 10. Accessibility and clarity

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### 10.1. Dissemination format - News release

News releases by Census topics are available on [NSI webpage](#) and the webpage of [Census 2021 in Bulgaria](#).

### 10.2. Dissemination format - Publications

No publications available.
<b>10.3. Dissemination format - online database</b>
1. EU CENSUS HUB 2. <a href="#">Information system Infostat</a> (NSI Bulgaria)
<b>10.4. Dissemination format - microdata access</b>
<p>Census data should be accessible as microdata, as part of the requirements of Regulation 2017/881, Annex point 3.4</p> <p>Microdata access is provided according to the following:</p> 1. <a href="#">Rules for Provision of Anonymised Individual Data for Scientific and Research Purposes</a> 2. <a href="#">Rules for Dissemination of Statistical Products and Services</a>
<b>10.5. Dissemination format - other</b>
Other dissemination formats are listed in ' <a href="#">Rules for dissemination of statistical products and services of the National Statistical Institute</a> '
<b>10.6. Documentation on methodology</b>
In Bulgarian only. <a href="https://census2021.bg/">https://census2021.bg/</a>
<b>10.7. Quality management - documentation</b>
<p>The quality report will be published later.</p> <p>.</p>

<b>11. Quality management</b>	<a href="#">Top</a>
<b>11.1. Quality assurance</b>	
<p>The National Statistical Institute as an authority responsible for Census 2021 data collection in Bulgaria is working to ensure that the statistical practices used to compile the required data are in compliance with all EU legislative and methodological requirements and that good practices in the field are being followed.</p> <p>Integrated quality and security management system has been implemented in accordance with the requirements of BDS EN ISO 9001: 2015 and BDS EN ISO 27001: 2017. The certificate fully meets all international requirements and guarantees the quality of the processes and information security of the entire statistical and information infrastructure of the NSI, both at national and regional levels.</p>	



<b>11.1.1. Lineage</b>
The total Census 2021 population for Bulgaria is 6519789 and is considered final. On the other hand, the total population values by grid cells in this dataset are provisional. The number of unallocated on map persons (105330) is not final as the process of geocoding population data from administrative sources is not complete. This will affect the total population data in a number of grid cells. It may affect grid cells that currently have '0' as observation value.
<b>11.1.2. Conformity, specification</b>
Population distribution
<b>11.1.3. Conformity, degree</b>
Conformant
<b>11.2. Quality management - assessment</b>
Information about quality management will be published later. .

<b>12. Relevance</b>	<a href="#">Top</a>
<b>12.1. Relevance - User Needs</b>	
The census data are addressed to policymakers, researchers, media and the general public.	
<b>12.2. Relevance - User Satisfaction</b>	
No user satisfaction surveys are carried out. User inquiries are handled by the Eurostat User Support service.	
<b>12.3. Completeness</b>	
The dataset contains data on the total population.	

<b>13. Accuracy</b>	<a href="#">Top</a>
<b>13.1. Accuracy - overall</b>	

Total population: There are no particular reasons for data unreliability for this topic.
<b>13.2. Sampling error</b>
not applicable
<b>13.3. Non-sampling error</b>
not applicable

<b>14. Timeliness and punctuality</b> <a href="#">Top</a>
<b>14.1. Timeliness</b>
Dataset is provisional. The time lag from the reference period will be calculated with the delivery of all data items according to the requirements of Reg. (EU) 2018/1799
<b>14.1.1. Date of publication</b>
2022-12-31
<b>14.1.2. Date of last revision</b>
31/03/2024
<b>14.1.3. Date of creation</b>
31/12/2022
<b>14.2. Punctuality</b>
No time lag between the actual delivery of the data on total population and the target date for delivery (2022-12-31).

<b>15. Coherence and comparability</b> <a href="#">Top</a>
<b>15.1. Comparability - geographical</b>
No deviations in respect of definitions and units.
<b>15.1.1. Geographic information - data quality</b>

Total Census 2021 population for Bulgaria: 6519789.

Total population in the grid dataset: 6414459.

Values for the total population in grid cells are obtained by aggregating from geocoded individual census records.

Point locations of dwelling units collected by NSI during pre-enumeration and enumeration activities are on top of national cadastral data and high-resolution national imagery.

- 90% of census microdata is georeferenced to the point locations at the time of collection by the enumerators or during the self-enumeration campaign via tools provided by the e-census platform.
- 10% of census microdata is subject of address processing and geocoding to obtain the accurate point location on map.

For the current dataset, the population unallocated on map is 105330 (1.62%) - mainly imputed from administrative sources with non-geocoded addresses.

#### 15.2. Comparability - over time

The Census 2011 population grid data was produced using a combination of aggregation and disaggregation techniques, while the Census 2021 grid data is entirely aggregated from point locations. The two datasets are not fully comparable.

#### 15.3. Coherence - cross domain

NA

#### 15.4. Coherence - internal

NA

### 16. Cost and Burden

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NA

### 17. Data revision

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#### 17.1. Data revision - policy

National policy allows the revision of already published data if there are serious reasons for doing so.

#### **17.2. Data revision - practice**

National policy allows the revision of already published data if there are serious reasons for doing so.

### **18. Statistical processing**

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#### **18.1. Source data**

1. Population data - Conventional Census and data from administrative sources.
2. Location data - geographical coordinates of dwelling units collected by NSI, cadastral data from the National Agency for Geodesy, Cartography and Cadastre, and digital orthophoto imagery from the Ministry of Agriculture.

#### **18.2. Frequency of data collection**

Decennial.

#### **18.3. Data collection**

1. Population data - collected during the census period (07 September 2021 - 10 October 2021) via online self-enumeration and door-to-door interviews.
2. Location data in terms of geographic coordinates (longitude and latitude) of dwelling units were collected by NSI. Dedicated census fieldwork and in-office activities were carried out (using mobile devices and desktop applications) to cover the gaps in the cadastral data and provide a point reference base for the whole territory. Census data were georeferenced to the point locations at the time of collection by the enumerators or during the self-enumeration campaign via tools provided by the e-census platform.

#### **18.4. Data validation**

Data validation performed:

for population data: at data collection - proper application of criteria for place of usual residence, preliminary checking and processing; at data processing- criteria for doubling, correctness, validation rules and checks for coverage of the data source by comparison with administrative data and application of records imputation and deletion.

for location data - data collected on the field is validated for coherence with available spatial reference data and imagery; the location of the place of usual residence collected via self-

enumeration is subject to additional verification procedures carried out by the enumerators; at data processing- checks for conformity of address descriptions and location

#### 18.5. Data compilation

Data processing was carried out by a designed-for-the-purpose information system and online applications.

**Data entry:** Data from the traditional census questionnaires were entered by operators and from the e-census - by persons themselves. There were clear and strict rules for the data entry: uniqueness of registration; uniqueness of the census units; the existence of possible values for each topic and its elements; compliance checks in the address part; logic and intra-compliance checks between the separate topics into the different questionnaire parts. Data entry control was the same for both data collection methods. Information from the e-census was validated and added to the database through the introduction of a unique electronic code and validation by an operator during the data entry process.

**Data coding:** Coding of the census questionnaires was done using predefined by name and code nomenclatures.

**Data editing:** The initial data editing was done during the data entry of printed questionnaires/online questionnaires. The following rules were applied: non-admission of values outside the defined; non-admission of inconsistent data.

**Estimation:** Procedures for records deletion and addition and applied to solve the data coverage problems.

Records addition was done by linking the micro database records with records from administrative sources. The procedure was performed after a preliminary analysis of the registers used with respect to their coverage and structure, the uniqueness of the records and the classifications used. The records identified as missing are added to the 2021 Census micro database following predefined criteria and according to the variables defined and census population categories. Records deletion was done after checking for double counting records based on unique personal identification.

**Compilation of 1 km<sup>2</sup> grid data:** Values for the total population in grid cells aggregated from point locations of individual census records. Census data is georeferenced to the point locations at the time of collection by the enumerators or during the self-enumeration campaign via tools provided by the e-census platform.

#### 18.6. Adjustment

NA

#### 19. Comment

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The total population values by grid cells in this dataset are provisional.

**Related metadata**

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**Annexes**