



13 April 2022

2021 CENSUS

## PROVISIONAL RESULTS OF THE 2021 CENSUS BASE REFERENCE GEOGRAPHICAL INFORMATION (BRGI) GEOPACKAGE

Within the scope of the 2021 Census 2021, the Base Reference Geographical Information (BRGI 2021) was created, a geographic infrastructure that divides the national territory into small areas for statistical purposes.

In an innovative way, and still in the context of the dissemination of provisional Census results, Statistics Portugal developed a *geopackage* comprising the information from the 2021 provisional Census results at the level of the counting of buildings, dwellings, households, and individuals associated with the geographical component of BRGI 2021 (statistical section and subsection).

The availability of this information enables the study and portraying of realities at a detailed geographical level, with relevance in various areas of intervention such as the drafting of risk management plans within the scope of civil protection or the planning of basic infrastructures.

Access to this 2021 *geopackage* is provided on the Statistics Portugal website at:

[http://mapas.ine.pt/download/index2021.phtml\\_\(available only in Portuguese\)](http://mapas.ine.pt/download/index2021.phtml_(available%20only%20in%20Portuguese))

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The Population and Housing Census, by characterising the entire resident population and housing stock of the country, is a valuable instrument for diagnosis, planning, and intervention in various domains, both at the national level and regional and local level.

Within the scope of the 2021 Census, and to support its collection and dissemination, the Base Reference Geographical Information (BRGI 2021) a geographical infrastructure that divides the national territory into small areas for statistical purposes was created. In addition to observing the administrative boundaries set out in the Official Administrative Map of Portugal - districts, municipalities, and parishes - the BRGI 2021 divides the country into 10,401 territorial units referred to as statistical sections<sup>1</sup> and 210,170 statistical subsections<sup>2</sup>.

The 2021 Census, by collecting information at a level of identified territorial detail, safeguarding all matters related to statistical confidentiality, allow the study and characterization of realities that do not fit within the administrative boundaries and that require territorial management at a more refined level. When associated with geographic information systems, these data allow Municipalities, Public Entities in charge of Natural Space Protection and Environmental Enhancement, Regional Coordination Commissions, and other entities of Territorial Management and Planning, for example, to prepare risk management plans within the



scope of civil protection (floods, fires, earthquakes) or to plan infrastructures, such as water distribution, or the collection and recycling of solid urban waste.

To meet these needs, and for the first time - still during the release of provisional Census results – Statistics Portugal developed a *geopackage* (open format developed by the Open Geospatial Consortium - OGC), consisting of information from the provisional results of the 2021 Census at the level of the count of the 4 main statistical units: buildings, dwellings, households<sup>3</sup> and individuals, associated with the geographical component of BRGI 2021.

A QGIS plugin, called *downloadGeoStatPortugal*, was developed to make the download of the data more user-friendly. It is available in the QGIS modules repository.

Access to this 2021 *geopackage* is available on the Statistics Portugal website at:

<http://mapas.ine.pt/download/index2021.phtml>, (available only in portuguese) where the respective information and metadata from previous censuses are also accessible.

The information now available is meant to be used in different ways, representations and readings. For example, by calculating the population density (inhabitants per km<sup>2</sup>) in each of the 10,401 statistical sections, the distribution of the population across the national territory would be that represented in the following map, making it possible to identify in a very detailed manner where the population is concentrated.

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<sup>1</sup> **Statistical section** is the territorial unit that corresponds to a continuous area of a single parish with an average number of dwellings for habitation that varies between 550 and 650, depending on the typology of the urban areas (TIPAU) in which the parish is considered.

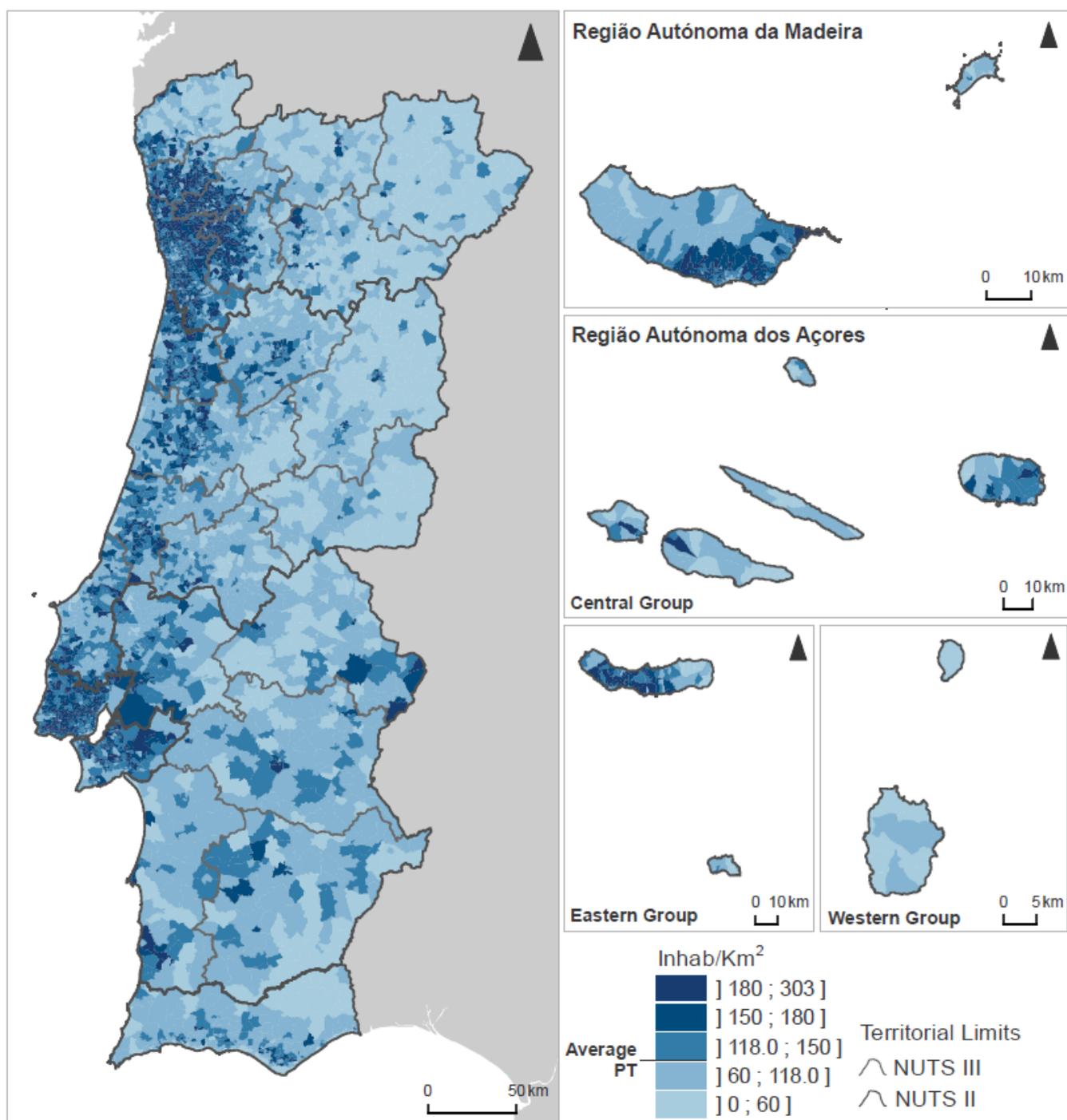
<sup>2</sup> **Statistical subsection** is the basic BRGI territorial unit and identifies a portion of the territory delimited, wherever possible, by road axes with toponymy or other elements easily identifiable on the ground.

<sup>3</sup> **Households**: includes private households and institutional households.



# DIÍSTAQUE

Population density (inhab/km<sup>2</sup>)  
by statistical section, 2021 Census



2021 CENSUS (Provisional results)



## METHODOLOGICAL REFERENCES

### **Base Reference Geographical Information (BRGI) and territorial units**

The BRGI is the statistical sectioning of the national territory through a hierarchical polygonal structure made up of statistical sections and subsections, supporting the direct collection of Census data and the dissemination of geo-referenced census statistical information.

In the context of the 2021 Census, the BRGI 2021 fully observes the administrative boundaries set out in the Official Administrative Map of Portugal (CAOP) in force on the census date, the CAOP2020, produced and made available annually by the Directorate General of Territory (DGT).

In terms of the territorial units that make up the BRGI, the statistical section is the territorial unit that corresponds to a continuous area of a single parish with an average number of dwellings for habitation that varies between 550 and 650, depending on the typology of the urban areas (TIPAU) in which the parish is part of. According to the TIPAU classification, the statistical section of a parish classified as a Predominantly Rural Area (APR) has 550 dwellings, that of a parish classified as a Medium Urban Area (AMU) has 600 and that of a parish classified as a Predominantly Urban Area (APU) has 650. Criteria such as geographical contiguity, the number of dwellings and the Census collection methodology itself lead, however, to the creation of sections that may not present the exact reference values and may oscillate towards preconceived minimum and maximum values for each type of area. The statistical subsection, which is the basic territorial unit of the BRGI, is a territorial unit that identifies a portion of the territory delimited, whenever possible, by road axes with toponymy or other elements easily identifiable on the ground.

More information is available at: <http://mapas.ine.pt/download/index2021.phtml> (available only in portuguese)