

# **Urban Indicators**

Methodology

INSTITUTO NACIONAL DE ESTADISTICA

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## I Introduction

## **1 PROJECT OBJECTIVES**

The publication of Urban Indicators is an adaptation at the national level of the EU Urban Audit project (currently called Data Collection for City and Sub-national Statistics), promoted by the Directorate-General of Regional and Urban Policy of the European Commission (DG Regio), in collaboration with Eurostat.

The objective of the project is to respond to the growing demand for information that allows the evaluation of living conditions in European cities through indicators obtained with a comparable methodology both nationally and internationally. Through a series of key indicators, the aim is to measure demographic, social, economic and educational aspects, among others, with a high level of territorial disaggregation to offer a detailed and comparable vision of the quality of life in the main urban areas of Spain.

## 2 TYPE OF OPERATION

This is an operation based on the compilation of indicators from different surveys and information from administrative records. Results of 40 indicators are offered on an annual basis, with information for different territorial areas, such as a series of selected cities, large cities, functional urban areas, municipalities with more than 20,000 inhabitants and submunicipal areas (Sub City Districts).

## **3 DEMAND SOURCE**

At the end of the 1990s, the European Urban Audit project began, with the aim of collecting statistical information that allows comparing the quality of life in the main European cities. Since then it has been developed in various phases or data collection cycles, which currently last 3 years, sending data annually. The project is sponsored by the Directorate General for Regional and Urban Policy of the European Commission (DG Regio) in collaboration with Eurostat. Throughout its 25 years of life, despite numerous methodological and territorial changes, it has gained maturity, consolidating and guaranteeing its continuity over time. The compilation of information corresponds fundamentally to the national statistical institutes of the member states that are involved in the project. Information is currently collected on more than 900 EU cities, for which it contains 145 indicators. The Urban Indicators publication presented here is a selection and adaptation of the content of the Urban Audit project, currently called "data collection for sub-national statistics". From the list of indicators compiled for the European project, a limited set of 40 indicators has been chosen that cover different domains, with information since 2010. Data is offered for the cities selected in the European project, the conurbations or areas where the urban environment of the city expands beyond its administrative limits, the supra-municipal zones defined by their labor influence (Functional Urban Areas) and for sub-municipal zones, equivalent to the administrative partition into districts. From the territorial point of view, the spatial units of the most updated edition of the Urban Audit project are used, agreed by the General Directorate of Regional and Urban Policy of the European Commission and the National Institute of Statistics and only the composition of the level is updated. sub-municipal according to the section as of January 1 of the year prior to the year of publication, as well as the list of municipalities greater than 20,000 inhabitants with reference to January 1 of the year prior to the year of publication.

## **1 POPULATION UNDER STUDY**

The population scope in this project will vary depending on the indicators. In section 4, each indicator will be exhaustively defined.

## 2 GEOGRAPHICAL AND TERRITORIAL SCOPE

The geographical scope covers the entire national territory. Indicators are provided at the national level, as well as for cities, conurbations, functional urban areas, submunicipal areas (Sub City Districts) and municipalities with more than 20,000 inhabitants. Each of these areas is explained in detail in section 3. The table in Annex 6.1 details the geographical scope in which the data for each indicator is published, given that some do not reach such a disaggregated territorial level. Section 4 offers a more detailed view of the availability of data in the different territorial areas.

## **3 DATA REFERENCE PERIOD**

The reference period for the data will generally be the year prior to the publication of the data. However, some indicators will have a different reference period due to the availability of data from different sources. Annex 6.2 shows the year of availability of each indicator compared to the year of publication, and section 4 offers a more detailed view of the reference period of each indicator.

## 4 LIST OF INDICATORS

In this project, a total of 55 indicators are presented, of which 40 are updated annually (73%). The list of indicators that is updated annually can be consulted in annex 6.1.

The indicators are presented in 7 blocks:

- Demographics.
  - Resident population.
  - Proportion of population aged 0-14 years.
  - Proportion of population aged 15-64 years.
  - Proportion of population aged >65 years.
  - Average age of the population.
  - Proportion of nationals with respect to the total population.
  - Proportion of native nationals with respect to the total population.
  - Proportion of those born abroad with respect to the total population.
  - Proportion of foreigners with respect to the total population.
  - Gross birth rate.
  - Gross mortality rate.

- Life expectancy at birth.
- Average number of children per woman.
- Social aspects.
  - Total number of households.
  - Average size of a household.
  - Proportion of one-person households out of total households.
  - Number of conventional homes according to cadastre.
  - Average annual rent per square meter.
  - Average monthly rent.
  - Median annual rent per square meter
  - Median monthly rent.
  - First quartile of annual rent per square meter.
  - First quartile of monthly rent.
  - Third quartile of annual rent per square meter.
  - Third quartile of monthly rent.
  - Number of conventional homes according to census.
  - Proportion of empty homes.
- Economic aspects.
  - Unemployment rate.
  - Proportion of employed people between 20-64 years of age over the active population.
  - Activity rate.
  - Proportion of employment in services (NACE Rev.2 G-U)
  - Proportion of employment in industry (NACE Rev.2 B-E)
  - Average annual household income.
  - Average annual income per inhabitant.
  - Average annual income per consumption unit.
- Training and education.
  - Proportion of children aged 0-4 years in daycare centres over the population aged 0-4 years.
  - Proportion of population between 25-64 years old with the highest level of education ISCED 0, 1 or 2
  - Proportion of population between 25-64 years old with the highest level of education ISCED 3 or 4

- Proportion of population between 25-64 years old with the highest level of education ISCED 5, 6, 7 or 8.
- Surface area and land use.
  - Total surface area.
  - Land use (%): Continuous residential urban fabric.
  - Land use (%): Discontinuous residential urban fabric.
  - Land use (%): Industrial, commercial, public, military and private units.
  - Land use (%): Transport infrastructure.
  - Land use (%): Other artificial areas.
  - Land use (%): Urban green space, sports and leisure facilities. (2014)
  - Land use (%): Farming areas.
  - Land use (%): Natural areas.
  - List of green, sports and leisure areas on continuous and discontinuous residential urban areas.
- Commuting to work.
  - Percentage of trips to work by car.
  - Percentage of trips to work on foot.
  - Percentage of trips to work by public transport.
  - Average duration of commuting to work.
- Tourism.
  - Number of annual tourist overnight stays.
  - Number of places available in tourist establishments.

### **1 DEGREE OF URBANIZATION**

The degree of urbanization (DEGURBA, from the English Degree of urbanisation) is a concept used to classify geographical areas according to their population density and the environment in which people live. The degree of urbanization will determine the cities, conurbations and functional urban areas that will participate in the Urban Audit project, and, by extension, in the Urban Indicators project.

The DEGURBA methodology classifies the degree of urbanization into three levels:

- Densely populated areas (cities): Areas with a high concentration of population and a highly developed urban environment. They have a population density of more than 1,500 inhabitants per square kilometre and a total of at least 50,000 inhabitants.
- Intermediate density areas (suburbs or towns): These areas include suburbs or towns where population density is moderate. They generally have between 300 and 1,500 inhabitants per square kilometre, with a minimum population of 5,000 inhabitants.
- Sparsely populated areas (rural): Areas with a low population density, typically less than 300 inhabitants per square kilometre. They predominate in rural environments, with less urban development and services.

For the determination of cities, conurbations and functional urban areas, only level 1 of the degree of urbanization (densely populated areas) is used. Level 1 is divided into three categories:

Urban centres (high-density clusters): defined as a group of contiguous cells of 1km<sup>2</sup>, with a population density of at least 1,500 inhabitants perkm<sup>2</sup>, and with a population of at least 50,000 inhabitants. In that case, the contiguity ratio considered between cells is four points, excluding the diagonals. Furthermore, in the case of gaps in the formation of the urban centre, the iterative majority rule is followed, in which if five or more of the eight cells surrounding a particular cell belong to the same urban centre, this cell will also belong to said urban centre.



Figure 1. Analysis of contiguity and population for the calculation of an urban centre.

 Urban clusters (moderate density clusters): defined as a group of contiguous cells with at least 300 inhabitants and a total population of at least 5000 inhabitants. In this case, the contiguity criterion is eight points, including the diagonals, that is, those that touch at a single point, at the vertex.



Figure 2. Analysis of contiguity and population for the calculation of an urban grouping.

 Rural cells (mostly low-density cells): rural cells are cells with populations that have not been classified either as urban centres or as *urban clusters*.



Figure 3. Rural cells in green.

The degree of urbanization classifies local administrative units (LAUs) into cities or densely populated areas, towns and semi-dense areas or semi-dense areas, and rural areas or sparsely populated areas. To classify the degree of urbanization of the municipalities (local administrative units), the DEGURBA level 1 classification of the population grid of 1 km2 cells is used.

For each municipality, the percentage of the population living in each type of cell is calculated: urban centre, urban cluster and rural cells. The criteria to classify municipalities in one category or another are the following:

- Cities or densely populated areas: municipalities in which at least 50% of the population resides in cells classified as urban centres.
- Semi-dense localities and areas, or intermediate-density areas: municipalities where at least 50% of the population lives in urban centres and less than 50% resides in rural areas.
- Rural or sparsely populated areas: municipalities where at least 50% of the population lives in rural cells.

Figure 4 shows, as an example, the population grid of 1 km<sup>2</sup> cells for the metropolitan area of Madrid, classified according to the DEGURBA level 1 methodology.



Figure 4. Classification of population cells in the metropolitan area of Madrid.

Cells in red correspond to urban centre cells, cells in yellow with urban groupings, and cells in green as rural cells.

The same area is shown below with the classification of the degree of urbanization of each of the municipalities. The same colour scale is used: in red the municipalities classified as cities, in yellow the localities and semi-dense areas, and in green the rural areas.



Figure 5. Classification of the degree of urbanization of the municipalities in the metropolitan area of Madrid.

### 2 CITIES

Municipalities in which at least 50% of their population resides in cells classified as urban centres according to level 1 of the degree of urbanization are classified as cities.

Cities are updated every several years when the Directorate General for Regional and Urban Policy of the European Commission (DG Regio), in collaboration with Eurostat and the National Institute of Statistics, starts a review process to update the degree of urbanization and the classification territory thereof.

Starting in 2021, Eurostat eliminated a series of cities from its classification, including those that make up a conurbation. However, in the publication of Urban Indicators, data from these cities have continued to be published until 2024. Table 1 shows the list of cities for which information is published in the Urban Audit project with their corresponding European codes and the municipal codes used at the national level.

Eurostat code	Municipal code	Name	Eurostat code	Municipal code	Name
ES001C1	28079	Madrid	ES064C1	08169	Prat de Llobregat, El
ES002C1	08019	Barcelona	ES065C1	11022	Línea de la Concepción, La
ES003C1	46250	València	ES066C1	08073	Cornellà de Llobregat
ES004C1	41091	Sevilla	ES067C1	28080	Majadahonda
ES005C1	50297	Zaragoza	ES068C1	29901	Torremolinos
ES006C1	29067	Málaga	ES069C1	08056	Castelldefels
ES007C1	30030	Murcia	ES070C1	20045	Irún
ES008C1	35016	Palmas de Gran Canaria, Las	ES071C1	08096	Granollers
ES009C1	47186	Valladolid	ES072C1	35004	Arrecife
ES010C1	07040	Palma	ES073C1	03066	Elda
ES011C1	15078	Santiago de Compostela	ES074C1	35022	Santa Lucía de Tirajana
ES012C1	01059	Vitoria-Gasteiz	ES075C1	08124	Mollet del Vallès
ES013C1	33044	Oviedo	ES501C1	18087	Granada
ES014C1	31201	Pamplona/Iruña	ES503C1	08015	Badalona
ES015C1	39075	Santander	ES504C1	28092	Móstoles
ES016C1	45168	Toledo	ES505C1	03065	Elx/Elche
ES017C1	06015	Badajoz	ES506C1	30016	Cartagena
ES018C1	26089	Logroño	ES507C1	08187	Sabadell
ES019C1	48020	Bilbao	ES508C1	11020	Jerez de la Frontera
ES020C1	14021	Córdoba	ES509C1	28058	Fuenlabrada
ES021C1	03014	Alacant/Alicante	ES510C1	20069	Donostia/San Sebastián
ES022C1	36057	Vigo	ES511C1	28005	Alcalá de Henares
ES023C1	33024	Gijón	ES512C1	08279	Terrassa
ES024C1	08101	Hospitalet de Llobregat, L'	ES513C1	28074	Leganés
ES025C1	38038	Santa Cruz de Tenerife	ES514C1	04013	Almería
ES026C1	15030	Coruña, A	ES515C1	09059	Burgos
ES027C1	48013	Barakaldo	ES516C1	37274	Salamanca
ES028C1	43123	Reus	ES517C1	28007	Alcorcón
ES029C1	35026	Telde	ES518C1	28065	Getafe
ES030C1	28106	Parla	ES519C1	02003	Albacete
ES031C1	27028	Lugo	ES520C1	12040	Castelló de la Plana
ES032C1	11031	San Fernando	ES521C1	21041	Huelva
ES033C1	17079	Girona	ES522C1	11012	Cádiz
ES034C1	10037	Cáceres	ES523C1	24089	León
ES035C1	03133	Torrevieja	ES524C1	38023	San Cristóbal de La Laguna
ES036C1	28115	Pozuelo de Alarcón	ES525C1	43148	Tarragona
ES037C1	11027	Puerto de Santa María, El	ES526C1	08245	Santa Coloma de Gramenet
ES038C1	28049	Coslada	ES527C1	23050	Jaén

ES039C1	33004	Avilés	ES528C1	25120	Lleida
ES040C1	45165	Talavera de la Reina	ES529C1	32054	Ourense
ES041C1	34120	Palencia	ES530C1	08121	Mataró
ES042C1	08200	Sant Boi de Llobregat	ES531C1	41038	Dos Hermanas
ES043C1	15036	Ferrol	ES532C1	11004	Algeciras
ES044C1	36038	Pontevedra	ES533C1	29069	Marbella
ES045C1	51001	Ceuta	ES534C1	28148	Torrejón de Ardoz
ES046C1	46131	Gandia	ES535C1	28006	Alcobendas
ES047C1	28127	Rozas de Madrid, Las	ES536C1	41004	Alcalá de Guadaíra
ES048C1	19130	Guadalajara	ES537C1	03009	Alcoi/Alcoy
ES049C1	08205	Sant Cugat del Vallès	ES538C1	05019	Ávila
ES050C1	08113	Manresa	ES539C1	29025	Benalmádena
ES051C1	48044	Getxo	ES540C1	11015	Chiclana de la Frontera
ES052C1	08184	Rubí	ES541C1	28047	Collado Villalba
ES053C1	13034	Ciudad Real	ES542C1	16078	Cuenca
ES054C1	03031	Benidorm	ES544C1	23055	Linares
ES055C1	52001	Melilla	ES545C1	30024	Lorca
ES056C1	08301	Viladecans	ES546C1	06083	Mérida
ES057C1	24115	Ponferrada	ES547C1	46220	Sagunt/Sagunto
ES058C1	28134	San Sebastián de los Reyes	ES548C1	39087	Torrelavega
ES059C1	49275	Zamora	ES549C1	28161	Valdemoro
ES060C1	29054	Fuengirola	ES551C1	46190	Paterna
ES061C1	08266	Cerdanyola del Vallès	ES553C1	46244	Torrent
ES062C1	11032	Sanlúcar de Barrameda	ES555C1	28123	Rivas-Vaciamadrid
ES063C1	08307	Vilanova i la Geltrú	ES558C1	03122	Sant Vicent del Raspeig/San Vicente del Raspeig

Table 1. List of Cities.



Figure 5. Map of Spain with the list of cities

## **3 CONURBATIONS OR LARGE CITIES**

A city will be called a conurbation or large city if more than 25% of the population of its urban centre is located outside the municipal area. The conurbation will be made up of the city and the surrounding municipalities where the urban centre extends. In these municipalities, at least 50% of the population must reside in the urban centre. This example can be seen in figure 5 of section 3.1.

Based on the classification of urban centres, all municipalities that contain cells within that urban centre are identified. For each of them, the resident population in the cells classified as urban center is calculated, and subsequently the percentage it represents with respect to the total population of the municipality is determined. If this percentage exceeds the 50% threshold, the municipality is considered part of the conurbation.

To classify the population in each of the cells, the census population is used, which in the case of Spain is completely geo-referenced. Pairs of coordinates are available for each individual that makes up the population, most of which come from the cadastral files, the result of assigning the main residence to the census households.

Table 2 shows the list of conurbations for which data is published. For more information about the municipalities that make up each conurbation, you can consult the <u>file of</u> territorial areas of the project for 2023.

Eurostat code	Name
ES001K1	Conurbation of Madrid
ES002K2	Conurbation of Barcelona
ES003K1	Conurbation of Valencia
ES004K1	Conurbation of Sevilla
ES014K1	Conurbation of Pamplona/Iruña
ES019K2	Conurbation of Bilbao
ES025K1	Conurbation of Santa Cruz de Tenerife
ES073K1	Conurbation of Elda
ES501K1	Conurbation of Granada



Figure 6. Map of Spain with the list of conurbations

Annex 6.8 shows all the existing changes in the conurbations over the years, which can be seen in map form in the <u>urban indicators infographic.</u>

## **4 FUNCTIONAL URBAN AREAS**

Functional urban areas are composed of a city and the municipalities that form its functional environment. For a municipality to belong to a functional urban area, at least 15% of its active population must travel to the city to work.

To calculate displacements between municipalities, the variable "Municipality of work" from the census file has been used. For more information on how this variable is generated, you can consult the <u>2021 census methodology</u>.

In the case of Large Cities, displacements are calculated for the set of municipalities that make up the Large City. In Spain, as was done with the 2011 census data, the 15% threshold is applied to all municipalities with more than 2,000 inhabitants. For municipalities with a smaller population, the following scale is used:

- From 1,000 to 2,000 inhabitants, if 25% of the employed population moves to the city.
- From 500 to 1,000 inhabitants, with a threshold of 35%.
- From 100 to 500 inhabitants, with a threshold of 45%.
- From 0 to 100 inhabitants, with a threshold of 50%.

Once the displacements have been calculated, the functional urban area will be made up of the set of municipalities that meet the displacement thresholds and the city to which they travel.

Finally, enclaves (municipalities completely surrounded by others that are part of the functional urban area) must be included and exclaves (non-contiguous municipalities) must be excluded.

Table 3 shows the list of functional urban areas for which data is provided in the publication:

Eurostat code Functional Urban Area Name		Eurostat code	Functional Urban Area Name
ES001L3	Madrid	ES046L1	Gandía
ES002L2	Barcelona	ES048L1	Guadalajara
ES003L3	Valencia	ES050L1	Manresa
ES004L3	Sevilla	ES053L1	Ciudad Real
ES005L2	Zaragoza	ES054L1	Benidorm
ES006L2 Málaga		ES057L1	Ponferrada
ES007L2	Murcia	ES059L1	Zamora
ES008L2 Palmas de Gran Canaria, Las		ES070L1	lrún
ES009L2	Valladolid	ES072L1	Arrecife
ES010L2	Palma de Mallorca	ES501L3	Granada
ES011L2 Santiago de Compostela		ES505L1	Elche/Elx
ES012L2	Vitoria-Gasteiz	ES506L1	Cartagena
ES013L2	Oviedo	ES508L1	Jerez de la Frontera

ES014L3	Pamplona/Iruña	ES510L1	Donostia/San Sebastián	
ES015L2	Santander	ES514L1	Almería	
ES016L2	Toledo	ES515L1	Burgos	
ES017L2	Badajoz	ES516L1	Salamanca	
ES018L2	Logroño	ES519L1	Albacete	
ES019L3	Bilbao	ES520L1	Castellón de la Plana/Castelló de la Plana	
ES020L2	Córdoba	ES521L1	Huelva	
ES021L2	Alicante	ES522L1	Cádiz	
ES022L2	Vigo	ES523L1	León	
ES023L2	Gijón	ES525L1	Tarragona	
ES025L3	Santa Cruz de Tenerife	ES527L1	Jaén	
ES026L2	Coruña, A	ES528L1	Lleida	
ES028L1	Reus	ES529L1	Ourense	
ES031L1	Lugo	ES532L1	Algeciras	
ES033L1	Girona	ES533L1	Marbella	
ES034L1	Cáceres	ES537L1	Alcoy	
ES035L1	Torrevieja	ES538L1	Ávila	
ES039L1	Avilés	ES542L1	Cuenca	
ES040L1	Talavera de la Reina	ES544L1	Linares	
ES041L1	Palencia	ES545L1	Lorca	
ES043L1	Ferrol	ES546L1	Mérida	
ES044L1	Pontevedra	ES547L1	Sagunto	

Table 3. List of Functional Urban Areas

In the following link you can access the <u>list of municipalities that make up each functional</u> <u>urban area.</u>

Annex 6.8 shows all the existing changes in the functional urban areas over the years, which can be seen in map form in the <u>urban indicators infographic.</u>



Figure 7. Map of Spain with the list of Functional Urban Areas

## 5 LARGE MUNICIPALITIES

Large Municipalities in Spain are those that, as of January 1 of the year prior to publication, exceed 20,000 inhabitants. This list is updated annually, but given that a municipality close to 20,000 inhabitants could enter and leave the list each year, the following criteria are used for inclusion or exclusion:

- To be included in the list of the reference year, they must meet at least one of the following criteria:
  - A population greater than 20,200 inhabitants.
  - Positive trend for three years and have more than 20,000 inhabitants.
- To be excluded from the list of the reference year, they must meet at least one of the following criteria:
  - A population of less than 19,800 inhabitants.
  - Negative trend during the last three years and population of less than 20,000 inhabitants.

The list of large municipalities is presented in Annex 6.3 and in more detail in the <u>list of</u> territorial areas of the project for 2023.



Figure 8. Map of Spain with the list of Large Municipalities

## 6 SUBMUNICIPAL AREAS (SCDs)

The submunicipal areas of the city (labelled as SCD, from the English Sub-City Districts) constitute a subdivision of the city that, in the case of Spain, are built by aggregating census sections, with the condition that each SCD has between 5,000 and 40,000 inhabitants. This is a division similar to that existing in districts, but since many of these do not meet the aforementioned condition, it is necessary to split or merge them.

These divisions are used to break down statistical information and better reflect variations in demographic, social, economic and urban aspects within the same city. Sub City Districts allow us to examine the differences between neighborhoods or areas of a city. The criteria determined by Eurostat for the creation of the SCD are the following:

- Submunicipal districts must be defined for all capital cities and for non-capital cities with more than 250,000 inhabitants at the city level.
- The definition of submunicipal districts for non-capital cities with less than 250,000 inhabitants at the city level is optional.
- Submunicipal districts must have a population between 5,000 and 40,000 inhabitants.
- Sub-municipal districts should be internally homogeneous in terms of social structure and built environment, to the extent possible.

- In several large cities there is already a city subdivision, but the units are larger in terms of population than the thresholds mentioned above. In these cases, an additional level of submunicipal district can be defined that corresponds to the already established districts of the city.
- Based on the above, submunicipal districts can be defined at two levels. Level 1 of the submunicipal districts corresponds to the established districts of the city, and level 2 follows the population criterion.
- For most cities only level 2 is defined, while for some cities both levels 1 and 2 are defined.
- If considered necessary, it is possible to define a submunicipal district without territory (unknown submunicipal district). This can be used for adjustments in the calculation of totals for all submunicipal districts.
- The territory not covered by a city, but covered by a Large City or Conurbation, can also be divided into submunicipal districts. The same guidelines mentioned above apply.

In this publication, only cities with more than 250,000 inhabitants have been taken into account for the creation of the SCD, that is, level 2 that follows the population criterion. The creation of the SCD corresponds to the city councils of the cities that exceed the population threshold, with the help and guidelines provided by the National Institute of Statistics.

Every year a review of the sections is carried out with a reference date of January 1 of the year prior to the publication of the data, with the aim of detecting changes in the sections, such as their creation or disappearance, either due to the merger of several sections. or the separation of any of them, which may affect the location of the section within each SCD. The next thing that is verified is that the SCD continue to comply with the established population threshold, between 5,000 and 40,000 inhabitants. In the event that these thresholds are significantly exceeded, contacts will be established with the corresponding town councils for a review, which could involve everything from the redistribution of the section to the creation of a new sub-municipal area.

The cities that exceed the threshold of 250,000 inhabitants and that therefore have submunicipal areas since 2011 are: Alicante, Barcelona, Bilbao, Córdoba, Gijón, Las Palmas, L´ Hospitalet de Llobregat, Madrid, Málaga, Murcia, Palma de Mallorca, Sevilla, Valencia, Valladolid, Vigo and Zaragoza. As of 2020, Vitoria-Gasteiz joined the list by exceeding the threshold of 250,000 inhabitants. Via the following link you can consult the <u>composition of SCD</u> of the different cities.

Annex 6.8 shows all the existing changes in the conurbations over the years, which can be seen in map form in the <u>urban indicators infographic.</u>

## **IV Indicators**

The indicators are presented in 7 blocks: demographics, social aspects, economic aspects, training and education, surface area and land use, travel and transportation and tourism. Of the total indicators, 70% are updated annually.

The following table presents a summary of all the indicators with the current sources and territorial units, which will be detailed in the following sections:

Dimension	Code	Label	Source	Measureme nt unit	Statistic	Territorial units
	4.1.1.	Resident population	Annual population census	Absolute figure	Sum	N+C+K+L+GM+ SCD
	4.1.2.	Proportion of population aged 0 to 14 years	Annual population census	%	Proportion	N+C+K+L+GM+ SCD
	4.1.3.	Proportion of population aged 15 to 64 years	Annual population census	%	Proportion	N+C+K+L+GM+ SCD
	4.1.4.	Proportion of population over 65 years	Annual population census	%	Proportion	N+C+K+L+GM+ SCD
	4.1.5.	Average age of the population	Annual population census	Absolute figure	Median	N+C+K+L+GM
ніс	4.1.6.	Proportion of nationals with respect to the total population	Annual population census	%	Proportion	N+C+K+L+GM+ SCD
EMOGRAF	4.1.7.	Proportion of native nationals with respect to the total population	Annual population census	%	Proportion	N+C+K+L+GM+ SCD
Ω	4.1.8.	Proportion of those born abroad with respect to the total population	Annual population census	%	Proportion	N+C+K+L+GM+ SCD
	4.1.9.	Proportion of foreigners with respect to the total population	Annual population census	%	Proportion	N+C+K+L+GM+ SCD
	4.1.10.	Gross birth rate	MNP. IDB	‰	Rate	N+C+K+L
	4.1.11.	Gross mortality rate	IDB	‰	Rate	N+C+K+L
	4.1.12.	Life expectancy at birth	Mortality Tables	Absolute figure	Ratio	N+C
	4.1.13.	Average number of children per woman	IDB	Absolute figure	Ratio	N+C
CIAL	4.2.1.	Total number of households	Annual population census	Absolute figure	Sum	N+C+K+L+GM
SOC	4.2.2.	Average size of households	Annual population census	Absolute figure	Average	N+C+K+L+GM

	4.2.3.	Proportion of one- person households with respect to total households	Annual population census	%	Proportion	N+C+K+L+GM
	4.2.4.	Number of conventional homes according to cadastre	Cadastre	Absolute figure	Sum	N <sup>1</sup> +C+K+L+GM
	4.2.5.	Average annual rent per m <sup>2</sup>	AEAT	€/ m²	Average	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.6.	Average monthly rent	AEAT	€	Average	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.7.	Median annual rent per m²	AEAT	€/ m²	Median	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.8.	Median monthly rent	AEAT	€	Median	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.9.	First quartile of annual rent per m <sup>2</sup>	AEAT	€/ m²	Quartile	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.10.	First quartile of monthly rent	AEAT	€	Quartile	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.11.	Third quartile of annual rent per m <sup>2</sup>	AEAT	€/ m²	Quartile	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.12.	Third quartile of monthly rent	AEAT	€	Quartile	N <sup>1</sup> +C+K+L+GM +SCD
	4.2.13.	Number of conventional homes according to census	Population and Housing Census 2021 and 2021	Absolute figure	Sum	N+C+K+L+GM+ SCD
	4.2.14.	Proportion of empty homes	Population and Housing Census 2021 and 2021	%	Proportion	N+C+K+L+GM
	4.3.1.	Unemployment rate	EPA. SEPE.	%	Rate	N+C+K+L
cTS	4.3.2.	Proportion of employed people between 20-64 years of age with respect to the active population.	EAPS job- seeker	%	Proportion	N+C+K+L
ASPE	4.3.3.	Activity rate	EAPS job- seeker	%	Rate	N+C+K+L
ECONOMIC	4.3.4.	Proportion of employment in services (NACE Rev.2 G-U)	DIRCE	%	Proportion	N+C+K+L
	4.3.5.	Proportion of employment in industry (NACE Rev.2 B-E)	DIRCE	%	Proportion	N+C+K+L
	4.3.6.	Average annual net income of the households	AEAT. Population Census	€	Ratio	N+C+K+L+GM+ SCD

	4.3.7.	Average annual net income per inhabitant	AEAT. Population Census	€	Ratio	N+C+K+L+GM+ SCD
	4.3.8.	Average net annual income per consumer unit	AEAT. Population Census	€	Ratio	N+C+K+L+GM+ SCD
	4.4.1.	Proportion of children aged 0-4 years in daycare centres with respect to the population aged 0-4 years	MEFD. Annual Population Census.	%	Proportion	C+K+L+GM + N
D EDUCATION	4.4.2.	Proportion of population between 25-64 years old with the highest level of education ISCED 0, 1 or 2	Annual Population Census.	%	Proportion	C+K+L+GM + N
TRAINING ANE	4.4.3.	Proportion of population between 25-64 years old with the highest level of education ISCED 3 or 4	Annual Population Census.	%	Proportion	C+K+L+GM + N
	4.4.4.	Proportion of population between 25-64 years old with the highest level of education ISCED 5, 6, 7 or 8.	Annual Population Census.	%	Proportion	C+K+L+GM + N
	4.5.1.	Total surface area	Eurostat. National Geographic Institute.	Km <sup>2</sup>	Absolute figure	N+C+K+L+GM + SCD
) USE	4.5.2.	Land use (%): Continuous residential urban fabric	SIOSE. National Geographic Institute.	%	Sum	C+N
AND LAND	4.5.3.	Land use (%): Discontinuous residential urban fabric	SIOSE. National Geographic Institute.	%	Sum	C+N
ACE AREA	4.5.4.	Land use (%): Industrial, commercial, public, military and private units	SIOSE. National Geographic Institute.	%	Sum	C+N
SURF	4.5.5.	Land use (%): Transport infrastructure	SIOSE. National Geographic Institute.	%	Sum	C+N
	4.5.6.	Land use (%): Other artificial areas	SIOSE. National Geographic Institute.	%	Sum	C+N

	4.5.7.	Land use (%): Urban green space, sports and leisure facilities	SIOSE. National Geographic Institute.	%	Sum	C+N
	4.5.8.	Land use (%): Farming areas	SIOSE. National Geographic Institute.	%	Sum	C+N
	4.5.9.	Land use (%): Natural spaces	SIOSE. National Geographic Institute.	%	Sum	C+N
	4.5.10.	Relation between green, sports and leisure areas on continuous and discontinuous residential urban areas.	SIOSE. National Geographic Institute.	%	Sum	C+N
COMMUTING TO WORK	4.6.1.	Percentage of trips to work by car	2011 Census. ECEPOV 2021	%	Proportion	N+C+K+L
	4.6.2.	Percentage of trips to work on foot	2011 Census. ECEPOV 2021	%	Proportion	N+C+K+L
	4.6.3.	Percentage of trips to work by public transport	2011 Census. ECEPOV 2021	%	Proportion	N+C+K+L
	4.6.4.	Average duration of commuting to work	2011 Census. ECEPOV 2021	Absolute figure	Average	N+C+K+L
TOURISM	4.7.1.	Number of annual tourist overnight stays	EOH. EOTR. Tourism complex occupancy survey. Camping occupancy survey.	Absolute figure	Sum	N+C+K+L
	4.7.2.	Number of places available in tourist establishments	EOH. EOTR. Tourism complex occupancy survey. Camping occupancy survey.	Absolute figure	Sum	N+C+K+L

Note: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).

<sup>1</sup>: The Basque Country and Foral Community of Navarra are excluded from the national total.

## 1 DEMOGRAPHIC

- 1.1 RESIDENT POPULATION
  - **Description:** People with habitual residence in Spain on the reference date.
  - Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
  - Reference period: 1st January of every year.
  - Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
  - Available series: 2010-2023.
  - Preparation procedure: The population indicator is obtained directly from the publication of the INE's Annual Population Census. An aggregation process is carried out at the national level, city, conurbation, functional urban areas, large municipalities and SCDs. The methodology used to prepare the resident population is available in the methodological document of the Annual Population Census.

#### 1.2 PROPORTION OF POPULATION AGED 0-14 YEARS

- Description: it is the quotient between the population aged 0-14 and the total population residing in Spain on the reference date.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- Reference period: 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2010-2023.
- Preparation procedure: To calculate the indicator, population data are collected by five-year age groups, and an aggregation process is carried out at the national, city, conurbation, functional urban areas, large municipalities and SCD levels. Subsequently, the quotient between the population aged 0 to 14 years and the total population residing in Spain is calculated.

- Description: it is the quotient between the population aged 15 to 64 years and the total population residing in Spain on the reference date.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- **Reference period:** 1st January of every year.

<sup>1.3</sup> PROPORTION OF POPULATION AGED 15-64 YEARS

- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2010-2023.
- Preparation procedure: The procedure is similar to that described in indicator 4.1.2, but using the population between 15 and 64 years old. The aggregate data is calculated for the territorial units and the quotient between the population of this age group and the total population residing in Spain is obtained.

1.4 PROPORTION OF POPULATION OVER 65 YEARS OF AGE

- **Description:** it is the quotient between the population over 65 years of age and the total population residing in Spain on the reference date.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- Reference period: 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2010-2023.
- Preparation procedure: The same procedure is followed as in indicator 4.1.2, but in this case, the population over 65 years of age is used. After aggregating the data for the different territorial units, the quotient between this age group and the total population residing in Spain is calculated.

- Description: It is defined as the exact age that divides the age distribution of the population belonging to a given area on January 1 of year t into two numerically equal groups, that is, half of the population is less than or equal to the median age and the other half is older than or equal to the median age.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- **Reference period:** 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2010-2023.
- Preparation procedure: To obtain this indicator, Spanish population data is used, obtained from the annual population census, where a classification of the population

EMediana<sup>t</sup>=EDAD<sub>med</sub>+ 
$$\left(\frac{\left(\frac{P^{01-01-t}}{2}\right) - P^{01-01-t}_{[0,med-1]}}{P^{01-01-t}_{med}}\right)$$

<sup>1.5</sup> MEDIAN AGE OF THE POPULATION

is carried out by the corresponding territorial units. The objective of the calculation is to obtain the exact age that divides the age distribution of the population belonging to the different territorial areas on January 1 of year t into two numerically equal groups, that is, half of the population is younger than or equal to the age than the median and the other half is older than or equal to the median. It is calculated using the following formula:

1.6 PROPORTION OF NATIONALS OVER THE TOTAL POPULATION

- Description: It is defined as the percentage that the population of Spanish nationality belonging to a certain area represents over the total population of said area on January 1 of year t.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- **Reference period:** 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2010-2023.
- Preparation procedure: To calculate this indicator, population data by nationality is collected, and an aggregation process is carried out at the national, city, conurbation, functional urban areas, large municipalities and SCD levels. Finally, the quotient between the population with Spanish nationality and the total population residing in Spain is calculated, for each of the territorial units. The methodology used to prepare the resident population is available in the methodological document of the Annual Population Census.

1.7 PROPORTION OF NATIONAL NATIVES OVER THE TOTAL POPULATION

- Description: It is defined as the percentage that the population of Spanish nationality belonging to a certain area represents over the total population of said area on January 1 of year t.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- **Reference period:** 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2010-2023.
- Preparation procedure: This indicator follows the same procedure as that described in 4.1.6, but using data on the population born in Spain. After aggregating the data by territorial unit, the quotient between the population born in Spain and the total population residing in Spain is calculated.

- Description: It is defined as the percentage that the population belonging to a certain area born abroad represents over the total population of said area as of January 1 of year t.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- Reference period: 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2010-2023.
- Preparation procedure: Similar to the procedure for indicator 4.1.6, this indicator is calculated using data on the foreign-born population. The aggregation is carried out for the corresponding territorial units and, subsequently, the quotient between the population born abroad and the total population residing in Spain is calculated.

1.9 PROPORTION OF FOREIGNERS OVER THE TOTAL POPULATION

- Description: It is defined as the percentage that represents the population of foreign nationality belonging to a certain area, over the total population of said area as of January 1 of year t.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- Reference period: 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2010-2023.
- Preparation procedure: The procedure is the same as that of indicator 4.1.6, but in this case the population with foreign nationality is used. The data is collected, aggregated by territorial unit and the quotient between the foreign population and the total population residing in Spain is calculated.

#### 1.10 GROSS BIRTH RATE

- Description: It is defined as the total number of births to mothers residing in Spain belonging to a certain area in year t per 1,000 inhabitants of that area.
- Source: <u>Statistics of the Natural Movement of the Population of the INE (MNP)</u> and <u>Basic Demographic Indicators (BDI)</u>.
- **Reference period:** the calendar year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
- Available series: 2010-2021.

- **Preparation procedure:** To prepare the gross birth rate indicator, at the city level, the indicators are obtained directly from the IDB publication. For the rest of the

$$TBN^{t} = \frac{N^{t}}{P^{t}}.1000$$

territorial groupings, the calculation is carried out using birth information from the MNP birth statistics. To carry out the calculation, the number of births registered during year t of mothers belonging to a certain territorial area is obtained and divided by the average resident population in the study area. The following formula is used:

#### 1.11 GROSS MORTALITY RATE

- Description: It is defined as the total number of deaths throughout year t of people belonging to a certain area per 1,000 inhabitants of that area.
- Source: Basic Demographic Indicators (IDB).
- Reference period: the calendar year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
- Available series: 2010-2021.
- Preparation procedure: To prepare the gross mortality rate indicator, at the city level the rate is obtained directly from the IDB publication, specifically from the mortality indicators. For the rest of the territorial groupings, the calculation is carried out using mortality information from the MNP death statistics. To carry out the calculation, the number of deaths registered during year t of people belonging to a certain territorial area is obtained and divided by the average resident population in the study area. The following formula is used:

$$TBM^{t} = \frac{D^{t}}{P^{t}} \cdot 1000$$

#### 1.12 LIFE EXPECTANCY AT BIRTH

- Description: It is defined as the average number of years that the components of a
  generation of individuals would live at each age subject to the mortality pattern
  observed for people in a given area throughout year t.
- Source: INE mortality tables.
- **Reference period:** the calendar year.
- Territorial units: National total (N), Cities (C).
- Available series: 2010-2021.

 Preparation procedure: Its value is extracted directly from the results corresponding to that year from the INE Mortality Tables. For more information, consult the <u>mortality</u> <u>tables methodology.</u>

#### 1.13 AVERAGE NUMBER OF CHILDREN PER WOMAN

- Description: It is defined as the average number of children that a woman belonging to a given area would have throughout her fertile life if she maintained the same fertile intensity by age as that observed in year t, in that area. It is calculated as the sum of the fertility rates by age (expressed in terms of one), extended to the range of fertile ages (15 to 49 years).
- Source: Basic Demographic Indicators (IDB).
- Reference period: the calendar year.
- Territorial units: National total (N), Cities (C).
- Available series: 2010-2021.
- Preparation procedure: Its value is extracted from the results corresponding to that year of the IDB publication. For more information, consult the <u>IDB methodology</u>.

## 2 SOCIAL ASPECTS

#### 2.1 TOTAL NUMBER OF HOUSEHOLDS

- Description: It is defined as the number of homes in the national territory in which at least one person resides in the reference year.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- **Reference period:** 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2010-2023
- Preparation procedure: Its value is extracted from the population file of the Annual Population Census of the INE. This file contains detailed information about the people residing in Spain and the households to which they belong within each census section.

From this variable, an aggregation process is carried out, adding the households in each census section, obtaining the total number of households in each section. Subsequently, these data can be grouped by larger territorial areas (National Total, Large Municipalities, Cities, Conurbations and Functional Urban Areas) providing the number of households corresponding to each of these geographical levels.

- Description: It is defined as the result of dividing the total number of people living in households by the total number of households in the national territory, corresponding to the reference period.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- Reference period: 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2010-2023
- Preparation procedure: Its value is extracted from the population file of the Annual Population Census of the INE, as is indicator 4.2.1.

To obtain the average household size, we determine how many people make up each household using the variable that identifies each individual within their household. Then, the average household size per census tract is obtained by calculating the average number of people per household. Finally, this calculation can be added to obtain the average size of households in the different territorial areas.

#### 2.3 PROPORTION OF ONE-PERSON HOUSEHOLDS WITH RESPECT TO TOTAL HOUSEHOLDS

- Description: It is defined as the quotient between the number of single-person households and the total number of households in the national territory, corresponding to the reference period.
- Source: <u>Continuous Register Statistics</u>, for the period 2014-2022. <u>Annual population</u> <u>census</u>, from 2023.
- **Reference period:** 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2010-2023
- Preparation procedure: Its value is extracted from the population file of the Annual Population Census of the INE, as is indicator 4.2.1.

To obtain the indicator, first, single-person households (those made up of a single person) are identified within each census section. The total number of homes in that section is then counted. To obtain the proportion, divide the number of single-person households by the total number of households and multiply by 100. Finally, this calculation can be added to obtain the average size of households in the different territorial areas.

 Description: It is defined as the number of real estate properties for residential use in the national territory.

<sup>2.4</sup> NUMBER OF CONVENTIONAL HOMES ACCORDING TO CADASTRE

- Source: <u>Cadastre.</u>
- Reference period: 31st December of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2010-2023
- Preparation procedure: The number of conventional homes according to the cadastre is obtained from the statistical operation of urban real estate of the General Directorate of the Cadastre. This statistic prepares for each year the main cadastral variables of properties and plots. For more information you can consult the methodology of cadastre statistics.

The file that provides this statistic is disaggregated at the municipal level and the variable used to determine the number of conventional homes is UU\_RES, which corresponds to residential properties. Based on the number of conventional homes obtained by municipalities, it can be added to the rest of the higher territorial areas. Given that the cadastre does not have information from the Basque Country or the Foral Community of Navarra, there will be no information at any level in these communities and the national level data excludes data from these territories.

#### 2.5 AVERAGE ANNUAL RENT PER SQUARE METER

- Description: It is defined as the average of the annual income from leasing the habitual residence of the real estate divided by the square meters of surface of the premises with the cadastral purpose of housing the real estate.
- Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.
- **Reference period:** fiscal year.
- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: To obtain this indicator, the INE receives the file with all the corresponding information for all territorial areas from the State Tax Administration Agency (AEAT), without the need for data processing. The indicators come from the Real Estate Statistics in Tax Sources (partially disseminated by the Ministry of Housing, the INE Rental Price Index and reports from the Bank of Spain). This indicator is calculated for real estate with buildings rented for primary residence:
  - Real estate with buildings is defined as the plot that delimits the property rights of one or more owners, together with the buildings located in said area (a real estate can have one or more buildings), or the different private elements that are susceptible of independent use, subject to the special regime of horizontal property, as well as the group made up of different private elements mutually linked and acquired in unity of act, or the storage rooms and parking spaces in "pro indiviso". It is identified through the cadastral reference to 20 positions. Real

estate of very different types fits under this identification; Thus, a real estate property can be a home, a garage, a storage room, a home + garage + storage room, a complete residential building that does not have a horizontal division, a commercial premises...

• The real estate properties rented for habitual residence will be those that have been declared by their owners in Form 100 with rental income, some of their owners have declared that the rental is for habitual residence and the information complies with a series of basic validations of coherence and atypical.

To obtain the rental price of the home, the rental income is obtained from the personal income tax declaration of the real estate of the Common Fiscal Territory. For comparative purposes, all the data collected is normalized assuming complete information on all owners and rentals during all days of the year.

The average annual rent per square meter is obtained by calculating the average of the annual income from leasing the habitual residence of the real estate divided by the square meters of surface of the premises with cadastral destination of housing of the real estate.

#### 2.6 AVERAGE MONTHLY RENT

- **Description:** It is defined as the average annual income from renting the primary residence of the real estate divided by the 12 months of the year.
- Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.
- Reference period: fiscal year.
- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: The procedure follows the same steps as in indicator 4.2.5, with the difference that, in this case, the annual rent is divided by the 12 months of the year to obtain the average monthly rent.

- Reference period: fiscal year.

<sup>2.7</sup> MEDIAN ANNUAL RENT PER SQUARE METER

Description: It is defined as the median of the annual income from leasing the habitual residence of the real estate divided by the square meters of surface of the premises with the cadastral purpose of housing the real estate.

Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.

- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: The procedure follows the same steps as indicator 4.2.5, with the difference that, in this case, the median is calculated instead of the average. The median represents the central value of the annual income from renting a primary residence divided by the square meters of the properties, that is, the value that separates the lower half of the data from the upper half.

#### 2.8 MEDIAN MONTHLY RENT

- **Description:** It is defined as the median annual income from renting a primary residence divided by the 12 months of the year.
- Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.
- Reference period: fiscal year.
- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: Similar to indicator 4.2.5, but in this case, the median annual income from renting a primary residence is calculated, divided by the 12 months of the year to obtain the median monthly rent.

#### 2.9 FIRST QUARTILE OF ANNUAL RENT PER SQUARE METER

- Description: It is defined as the first quartile, which represents the value that separates the lower 25% of the data from the upper 75%, of the annual income from renting a habitual residence divided by the m2 of surface area of the residential property.
- Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.
- **Reference period:** fiscal year.
- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: The procedure is the same as described in 4.2.5, but instead of calculating the average, the first quartile is obtained. This value represents

the point that separates the lower 25% of the data from the upper 75%, that is, it is the value below which 25% of the annual rental income per square meter is found.

#### 2.10 FIRST QUARTILE OF MONTHLY RENT

- Description: It is defined as the first quartile, which represents the value that separates the lower 25% of the data from the upper 75%, of the annual income from renting a habitual residence divided by the 12 months of the year.
- Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.
- **Reference period:** fiscal year.
- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: Similar to the procedure in 4.2.5, but applying the quartile calculation on the annual income divided by the 12 months of the year, to obtain the first quartile of the monthly rent.

#### 2.11 THIRD QUARTILE OF ANNUAL RENT PER SQUARE METER

- Description: It is defined as the third quartile, which represents the value that separates the lower 75% of the data from the upper 25%, of the annual income from renting a primary residence divided by the m2 of surface area of the residential property.
- Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.
- **Reference period:** fiscal year.
- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: Similar to the procedure in 4.2.5, but applying the quartile calculation on the annual income divided by the 12 months of the year, to obtain the third quartile of the monthly rent.

<sup>2.12</sup> THIRD QUARTILE OF MONTHLY RENT

Description: It is defined as the third quartile, which represents the value that separates the lower 75% of the data from the upper 25%, of the annual income from renting a habitual residence divided by the 12 months of the year.

- Source: Real estate statistics in tax sources (BIFUET) prepared by the State Tax Administration Agency (AEAT) and the General Directorate of the Cadastre based on the declarations of Personal Income Tax Form 100 and the Cadastre database.
- **Reference period:** fiscal year.
- Territorial units: National total of the common fiscal territory (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2022.
- Preparation procedure: Similar to the procedure in 4.2.5, but applying the quartile calculation on the annual income divided by the 12 months of the year, to obtain the third quartile of the monthly rent.

2.13 NUMBER OF CONVENTIONAL HOMES ACCORDING TO CENSUS

- **Description:** It is defined as the number of family homes that meet the requirements to be inhabited.
- **Source:** Population and housing census 2011 and 2021.
- **Reference period:** 1st January of the data reference year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2011 and 2021.
- Preparation procedure: Its value is extracted from the population file of the 2011 and 2021 Population and Housing Censuses. This file contains detailed information about the people residing in Spain and the households to which they belong within each census section. The data on conventional homes is extracted directly from the housing tables at the municipal level, specifically the variable conventional family homes from the table "Total conventional family homes by type of home". To obtain the data at the submunicipal level, a file is obtained with the information at the census section level and the data is aggregated to obtain the number of conventional homes by SCDs. For more information consult the methodology of the Population and Housing Census 2011 and Population and Housing Census 2021.

#### 2.14 PROPORTION OF EMPTY HOMES

- **Description:** It is defined as the number of family homes that meet the requirements to be inhabited.
- **Source:** Population and housing census 2011 and 2021.
- **Reference period:** 1st January of the data reference year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Large Municipalities (GM).
- Available series: 2011 and 2021.
Preparation procedure: Its value is extracted from the population file of the 2011 and 2021 Population and Housing Censuses. This file contains detailed information about the people residing in Spain and the households to which they belong within each census section. To calculate the proportion of empty homes for 2021, first of all, it is extracted directly from the tables of homes by intensity of use based on electricity consumption at the municipal level, specifically the variable empty homes from the table "Homes according to their intensity of use". The proportion is obtained by dividing the number of empty homes by the total number of homes. For more information consult the methodology of the Population and Housing Census 2011 and Population and Housing Census 2021.

## **3 ECONOMIC ASPECTS**

- 3.1 UNEMPLOYMENT RATE
  - **Description:** It is defined as the quotient between the number of unemployed and the number of active people.
  - **Source:** <u>Active Population Survey (EPA)</u>. Registry of unemployed people by municipalities of the State Public Employment Service.
  - Reference period: See EPA methodology.
  - Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
  - Available series: 2010-2023
  - **Preparation procedure:** See annex 6.4.

- **Description:** It is defined as the ratio between employed people aged 20-64 and the active population in that age range.
- Source: Active Population Survey (EPA).
- Reference period: See EPA methodology.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
- Available series: 2010-2023
- **Preparation procedure:** See annex 6.4.

- **Description:** It is defined as the quotient between total assets and the population aged 16 or over.
- **Source:** Active Population Survey (EPA).

<sup>3.2</sup> PROPORTION OF EMPLOYED PEOPLE BETWEEN 20-64 YEARS OF AGE WITH RESPECT TO THE ACTIVE POPULATION

<sup>3.3</sup> ACTIVITY RATE

- **Reference period:** See <u>EPA methodology</u>.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
- Available series: 2010-2023
- **Preparation procedure:** See annex 6.4.
- 3.4 PROPORTION OF EMPLOYMENT IN SERVICES (NACE REV.2 G-U)
  - Description: It is defined as the percentage of jobs held in the service sector (NACE Rev.2 G-U) with respect to total jobs.
  - Source: Central Business Directory (DIRCE).
  - Reference period: The DIRCE information has as a temporal reference that of the primary input sources (Tax or Social Security Records mainly) as well as that corresponding to each movement provided by other supply sources of the system (Basically INE Surveys). As a general rule, the successive versions of the DIRCE generated and available in the third quarter of each year have January 1 of that year as their temporal reference, given that practically all of the information comes from declarations or active registrations on that date.
  - Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
  - Available series: 2010-2022
  - Preparation procedure: To prepare the employment proportion indicator in services, a file is obtained from the statistical exploitation of the Central Business Directory (DIRCE). The files received are the total number of employed persons in Spain, the local units and those employed for the service sector and industrial sector disaggregated into cities, conurbations and functional urban areas. In this case, there is no processing of the information since the DIRCE files contain the aggregated information for each territorial area. To obtain information on the operation of the DIRCE, you should consult the methodology of the DIRCE exploitation statistics.

Note: Due to the entry into force of EBS Regulation 2019/2152 and its Implementation Act 2020/1197, the statistical exploitation of the Central Business Directory (DIRCE) has adopted some methodological changes for 2022. The new definition of economically active company, implemented in 2022, affects the count of the number of active companies, so the data are not comparable with those of previous years.

- Description: It is defined as the percentage of jobs held in the industrial sector (NACE Rev.2 B-E) with respect to total jobs.
- Source: Central Business Directory (DIRCE).
- Reference period: The DIRCE information has as a temporal reference that of the primary input sources (Tax or Social Security Records mainly) as well as that corresponding to each movement provided by other supply sources of the system (Basically INE Surveys). As a general rule, the successive versions of the DIRCE

<sup>3.5</sup> PROPORTION OF EMPLOYMENT IN INDUSTRY (NACE REV.2 B-E)

generated and available in the third quarter of each year have January 1 of that year as their temporal reference, given that practically all of the information comes from declarations or active registrations on that date.

- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
- Available series: 2010-2022
- Preparation procedure: The procedure is similar to that indicated in 4.3.4 but with data from the services sector instead of the industrial sector.

#### 3.6 AVERAGE ANNUAL NET HOUSEHOLD INCOME

- Description: It is defined as the net income received during the reference period by the members of a household in a certain geographic area.
- **Source:** Annual income tax return.
- Reference period: fiscal year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2011-2022
- **Preparation procedure:** The construction of this indicator is carried out based on the collaboration that the INE has been carrying out with the Tax Agency (AEAT) for the use of tax data for statistical purposes. It is part of the so-called ERGEO project, through which the AEAT provides gross and net income data at the census section level. The frequency of this request is annual, meeting the needs of the Urban Audit project. To obtain this information, the INE carries out an exploitation of the Continuous Register (population file of the population census since 2021) and provides the AEAT with a list of the people, with their NIF, the housing code and the geographic section. For its part, the AEAT estimates income based on the joint exploitation of the annual withholding or information models and the annual personal income tax return. Annex 6.5 shows the definitions used and the origin of the information: for each variable, the model (declaration or informative) and the box or key and subkey of said models are indicated (first, the model appears and, after the point, the box, key or combination of them). The specific content of each model can be consulted in Annex 6.6. Each of the people included in the Register (population census since 2021) is assigned an income calculated in this way, differentiating between filers and non-filers. In the former, priority is given to the information on subject income that appears in their annual declaration (form 100). The information is completed with the exempt income obtained from the information models. For nonfilers, the information is exclusively adjusted to the information models. The variables are obtained by adding the household income of each territorial area.

3.7 AVERAGE ANNUAL NET INCOME PER INHABITANT

- Description: It is defined as the net income received during the reference period per person in a certain geographical area.
- **Source:** Annual income tax return.

- **Reference period:** fiscal year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2015-2022
- Preparation procedure: The procedure is similar to that of indicator 4.3.6, but in this case, the calculation of income per person is obtained, for each household, by dividing the net income of the household by the number of members of said household.

- **Description:** It is defined as the net income received during the reference period per consumption unit in a certain geographic area.
- **Source:** Annual income tax return.
- Reference period: fiscal year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2015-2022
- Preparation procedure: The procedure is similar to that of indicator 4.3.6, but in this case, the calculation is adjusted to take into account economies of scale within the household. Net household income is divided by the number of consumption units, calculated using the modified OECD scale. This scale assigns a weight of 1 to the first adult, 0.5 to other members over 13 years old, and 0.3 to those under 14 years old. Once the income per unit of consumption has been calculated, it is awarded to each member of the household.

## 4 TRAINING AND EDUCATION

- Description: It is defined as the quotient between the number of children aged 0-4 years enrolled in daycare centres and the population aged 0-4 years in a given area.
- Source: Ministry of Education, Vocational Training and Sports (MEFD). <u>Continuous</u> <u>Register Statistics</u>, until 2021. <u>Annual population census</u>, from 2022.
- Reference period: 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2010-2022
- Preparation procedure: To prepare this indicator, the numerator (children from 0 to 4 years old in daycare centres) is obtained from data provided by the MEFD and the

<sup>3.8</sup> AVERAGE ANNUAL NET INCOME PER CONSUMPTION UNIT

<sup>4.1</sup> PROPORTION OF CHILDREN AGED 0-4 YEARS IN DAYCARE CENTERS OVER THE POPULATION AGED 0-4 YEARS

The INE receives a first file with information on children from 0 to 6 years old enrolled in early childhood education at the provincial level. In addition, you receive another file showing the total number of students enrolled in the first and second cycle of early childhood education at the municipal level. The preparation procedure follows the following steps:

- **Census data extraction:** Census data are extracted by municipality for age groups 0-2, 3-4. To do this, the population is classified according to these groups. The information is grouped by municipality and sex, and the population is counted by age. Subsequently, a matrix is created, adding the population for each municipality and age cycle, thus obtaining the population totals by municipality and cycle.
- **Calculation of proportions by province:** In this step, the total population of each cycle in the province is calculated and the population percentages by municipality with respect to the province are derived. Values are generated that represent the proportion of population in each municipality compared to the total of the province for each age group.
- **Construction of the final data table:** A table is created that combines the municipal population information from the census with that of students from 0 to 4 years old. The table contains:
  - $\circ~$  Population from 0 to 2 and 3 to 4 years old by municipality.
  - Population proportions with respect to the province.
  - Number of students per educational cycle (first and second cycle of early childhood education).
  - Total students by province and by municipality.
- Preparation of indicators: Several key indicators are built:
  - TE1001V\_mec: This indicator estimates the number of students in each municipality based on the first cycle and a corrected proportion of the second cycle with respect to the province.
  - TE1001V\_est: This indicator assigns students to municipalities based on population proportions by age group in the province.
- **Indicator reset:** In municipalities where the TE1001V\_mec indicator is zero (due to the absence of educational centres), the value of TE1001V\_est is assigned. TE1001V\_mec is then recalculated to maintain total student consistency at the provincial level.
- **Generation of output files:** The indicators calculated for each municipality are added to obtain the proportion of students from 0 to 4 years old for the different territorial areas.

- Description: It is defined as the quotient between the number of residents in Spain aged 25-64 with an ISCED education level 0, 1 or 2 and the population aged 25 to 64.
- Source: <u>Continuous Register Statistics</u> until 2021. <u>Annual Population Census</u> of the INE since 2022.
- **Reference period:** 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2011, 2016, 2018-2022
- Preparation procedure: To prepare this indicator, a file is received from the annual population census with aggregated information at the municipal level of the educational levels in CNED-A classification. The level of education achieved is broken down based on an adaptation of the CNED-A with a maximum detail of twelve categories:
  - Illiterate persons.
  - Incomplete primary education.
  - Primary education.
  - First stage of secondary education and the like.
  - Second stage of secondary education, with general orientation.
  - Second stage of secondary education, with professional orientation.
  - Non-higher post-secondary education.
  - Vocational training, visual arts and design and sports training of a high level and equivalents.
  - University degrees of up to 240 ECTS credits, university diplomas and equivalent qualifications.
  - University degrees with more than 240 ECTS credits and equivalent qualifications.
  - Specialities in Health Sciences for the residence system and similar.
  - University PhD.

The CNED-A encompasses formal education programs, both current and noncurrent. It should be noted that we do not have full coverage of all the categories of the CNED-A, since, for example, there is no information available on universityspecific degrees (CNED-A 52, 63, 75). In addition, there is partial coverage of nontertiary post-secondary education (CNED-A 41), as well as lower levels of professional certificates (CNED-A 23, 24).

These data at the municipal level of 12 categories are grouped into ISCED 2011 of 8 categories. For this indicator, ISCED 2011 0, 1 and 2 are grouped together, corresponding to the first four categories of level of study achieved (illiterates, incomplete primary studies, primary education and first stage of secondary education

and similar). Once grouped, the data is added to obtain information from the different territorial areas and divided by the total population aged 25 to 64, obtaining the proportion of people with ISCED level 0, 1 and 2. For more information on educational level classifications, consult the <u>National Education Classification 2014</u>.

- 4.3 PROPORTION OF POPULATION BETWEEN 25-64 YEARS OLD WITH THE HIGHEST LEVEL OF EDUCATION ISCED 3 OR 4
  - Description: It is defined as the quotient between the number of residents in Spain aged 25-64 years with an ISCED education level 3 or 4 and the population aged 25 to 64 years.
  - Source: <u>Continuous Register Statistics</u> until 2021. <u>Annual Population Census</u> of the INE since 2022.
  - **Reference period:** 1st January of every year.
  - Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
  - Available series: 2011, 2016, 2018-2022
  - Preparation procedure: The procedure is similar to that described in indicator 4.4.2. In this case, ISCED categories 3 and 4 are grouped together, which correspond to the second stage of secondary education with general and professional orientation. Once the data is grouped, they are divided by the total population aged 25 to 64 to obtain the proportion of people with ISCED 3 or 4 education level.

- Description: It is defined as the quotient between the number of residents in Spain aged 25-64 years with an ISCED education level 5, 6, 7 or 8 and the population aged 25 to 64 years.
- Source: <u>Continuous Register Statistics</u> until 2021. <u>Annual Population Census</u> of the INE since 2022.
- Reference period: 1st January of every year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM).
- Available series: 2011, 2016, 2018-2022
- Preparation procedure: The procedure is similar to that described in indicator 4.4.2. In this case, ISCED categories 5, 6, 7 and 8 are grouped together, which include nonhigher post-secondary education, higher-level vocational training, university degrees, master's degrees and doctorates. The aggregate data is divided by the total population aged 25 to 64 years to calculate the corresponding proportion.

<sup>4.4</sup> PROPORTION OF POPULATION BETWEEN 25-64 YEARS OLD WITH THE HIGHEST LEVEL OF EDUCATION ISCED 5, 6, 7 OR 8

# 5 SURFACE AREA AND LAND USE

#### 5.1 TOTAL SURFACE AREA

- Description: It is defined as the surface area of a certain area in Spanish territory on the reference date.
- **Source:** National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L), Large Municipalities (GM), Submunicipal Areas (SCD).
- Available series: 2011, 2013, 2015-2023
- Preparation procedure: At the level of cities and large municipalities, the indicator is obtained from the <u>Eurostat Local Administrative Units (LAU)</u> file in the reference year, whose data is provided by the National Geographic Institute (IGN). Using the data from the same file, an aggregation process is carried out at the conurbation and functional urban areas level.

Likewise, at the national level, the data is provided directly by the IGN. At the submunicipal area level, the aggregate surface area of the sections that make them up has been considered based on the use of the R software and the sf library. The geometric surface of the elements (polygons) is obtained directly from their topological relationship. The elements used are contained in the <u>digitized cartography</u> <u>of census tracts</u> of the INE reference year.

For all territorial areas the units of measurement are adjusted to km<sup>2</sup>.

- Description: It is defined as the percentage of urban fabric with a type of development where buildings are organized compactly and without significant interruptions on the total land surface.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- Territorial units: National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: The information for this indicator is obtained from the Copernicus Urban Atlas product through its equivalence with the classification of the Land Occupation Service in Spain (SIOSE), which can be seen in Annex 6.7. With this information, the percentage of continuous residential urban fabric is obtained at the national level and in the geographic scope of Cities.

<sup>5.2</sup> LAND USE (%): CONTINUOUS RESIDENTIAL URBAN FABRIC

5.3 LAND USE (%): DISCONTINUOUS RESIDENTIAL URBAN FABRIC

- Description: It is defined as the percentage of urban fabric with a type of development in which residential buildings are not organized continuously, but are distributed in areas separated by empty spaces, unbuilt land, or areas of different use on the surface of total ground.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- Territorial units: National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: The procedure is similar to that described in indicator 4.5.2, but in this case, the percentage of discontinuous residential urban fabric is calculated instead of continuous, using the same source and equivalences of the Copernicus Urban Atlas.

5.4 LAND USE (%): INDUSTRIAL, COMMERCIAL, PUBLIC, MILITARY AND PRIVATE UNITS

- **Description:** It is defined as the percentage of land dedicated to industrial, commercial, public, military and private units over the total land area.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- **Territorial units:** National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: Following the same scheme as in indicator 4.5.2, the percentage of land dedicated to industrial, commercial, public, military and private units is obtained at the national level and in cities, using the Copernicus Urban Atlas and the SIOSE classification.

- **Description:** It is defined as the percentage of land dedicated to transportation infrastructure over the total land area.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- **Territorial units:** National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: Similar to indicator 4.5.2, but the percentage of land dedicated to transport infrastructure is calculated, using the same data and equivalences from the Copernicus Urban Atlas and SIOSE.

<sup>5.5</sup> LAND USE (%): TRANSPORT INFRASTRUCTURE

- 5.6 LAND USE (%): OTHER ARTIFICIAL AREAS
  - Description: It is defined as the percentage of land dedicated to artificially created areas over the total land area.
  - Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
  - **Reference period:** 1st January of the data reference year.
  - Territorial units: National total (N), Cities (C).
  - Available series: 2014
  - Preparation procedure: The same procedure described in 4.5.2 is followed, but applying the calculation to the percentage of other artificial areas, using the equivalence with the Copernicus Urban Atlas and SIOSE.

5.7 LAND USE (%): URBAN GREEN SPACE, SPORTS AND LEISURE FACILITIES

- **Description:** It is defined as the percentage of land dedicated to green areas within the urban fabric, sports and leisure facilities over the total land area.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- **Territorial units:** National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: The procedure is the same as that of indicator 4.5.2, but the percentage of land dedicated to urban green areas, sports and leisure facilities at the national level and in cities is calculated, using the Copernicus Urban Atlas and the SIOSE classification.

- Description: It is defined as the percentage of land in agricultural areas over the total land area.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- **Territorial units:** National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: As in the previous indicators, information from the Copernicus Urban Atlas and SIOSE is used to obtain the percentage of land dedicated to agricultural areas.

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<sup>5.8</sup> LAND USE (%): FARMING AREAS

- Description: It is defined as the percentage of land in natural spaces over the total land area.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- **Territorial units:** National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: Following the same procedure as in 4.5.2, the percentage of land dedicated to natural areas is calculated, using the information from the Copernicus Urban Atlas and its equivalence with SIOSE.

- Description: It is defined as the ratio between green, sports and leisure areas over continuous and discontinuous residential urban areas.
- Source: Land Occupation Information System in Spain (SIOSE) of the National Geographic Institute.
- **Reference period:** 1st January of the data reference year.
- **Territorial units:** National total (N), Cities (C).
- Available series: 2014
- Preparation procedure: This indicator is prepared in a similar way to the previous ones, using data from the Copernicus Urban Atlas and SIOSE. In this case, the relationship between green, sports and leisure areas, and continuous and discontinuous urban residential areas is calculated.

## **6 COMMUTING TO WORK**

- 6.1 PERCENTAGE OF TRIPS TO WORK BY CAR
  - Description: It is defined as the quotient between the number of trips from the place of residence to work made in private vehicles and the total number of trips to work by any means of transport in a given area.
  - Source: Population Census 2011. ECEPOV 2021.
  - **Reference period:** 1 November 2011. Central months of the year 2021.
  - Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
  - Available series: 2011 and 2021.

<sup>5.9</sup> LAND USE (%): NATURAL SPACES

<sup>5.10</sup> LIST OF GREEN, SPORTS AND LEISURE AREAS ON CONTINUOUS AND DISCONTINUOUS RESIDENTIAL URBAN AREAS

- Preparation procedure: The data in the different territorial areas are obtained from the 2011 Population Census of the INE and the ECEPOV in 2021. The number of trips to work by car is calculated by aggregating the number of trips to work by car in the different territorial areas and dividing by the number of total trips to work by any means of transport aggregated for each territorial area. For more information, consult the <u>Census methodology 2011</u> and the <u>ECEPOV methodology 2021</u>.
- 6.2 PERCENTAGE OF TRIPS TO WORK ON FOOT
  - Description: It is defined as the quotient between the number of trips from the place of residence to work made on foot and the total number of trips to work by any means of transport in a given area.
  - Source: Population Census 2011. ECEPOV 2021.
  - **Reference period:** 1 November 2011. Central months of the year 2021.
  - Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
  - Available series: 2011 and 2021.
  - Preparation procedure: The procedure is similar to that of indicator 4.6.1, but in this case, the percentage of trips to work made on foot is calculated. Travel on foot in the different territorial areas is added and divided by the total number of trips to work by any means of transport.
- 6.3 PERCENTAGE OF TRIPS TO WORK BY PUBLIC TRANSPORT
  - Description: It is defined as the quotient between the number of trips from the place of residence to work made by public transport and the total number of trips to work by any means of transport in a given area.
  - Source: Population Census 2011. ECEPOV 2021.
  - **Reference period:** 1 November 2011. Central months of the year 2021.
  - Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
  - Available series: 2011 and 2021.
  - Preparation procedure: The procedure is the same as described in 4.6.1, but the percentage of trips made by public transport is calculated. Trips by public transport are added and divided by the total trips to work by any means of transport, in each territorial area.

- **Description:** It is defined as the average time, in minutes, spent traveling between the place of residence and the place of work (one way).
- Source: Population Census 2011. ECEPOV 2021.
- **Reference period:** 1 November 2011. Central months of the year 2021.

- Territorial units: National total (N), Cities (C), Conurbations (K), Functional Urban Areas (L).
- Available series: 2011 and 2021.
- Preparation procedure: The data is obtained from the 2011 Population Census of the INE and the ECEPOV 2021. The average commute duration is calculated as a weighted average, where each time interval has an associated number of trips. Multiply the number of moves in each interval by the class mark (the midpoint of the interval) to obtain a weighted value. For the last interval of 90 minutes or more, the class mark of 104.5 minutes is used. Then, these weighted values are added and divided by the total number of trips, thus obtaining the average duration of trips for each territorial area.

## 7 TOURISM

7.1 NUMBER OF ANNUAL TOURIST OVERNIGHT STAYS

- Description: It is defined as the number of annual nights of stay, whether for business or pleasure, by a client or tourist (resident or non-resident) that is made in a tourist or non-rented accommodation establishment.
- Source: National Statistics Institute: <u>Hotel occupancy survey (EOH)</u>, <u>Occupancy survey in tourist apartments</u>, <u>Occupancy survey in rural tourism accommodation (EOTR)</u>, <u>Campsite occupancy survey</u>.
- Reference period: the calendar year.
- Territorial units: National total (N), Cities (C), Conurbations (K) and Functional Urban Areas (L).
- Available series: 2010-2022.
- Preparation procedure: Tourist accommodation establishments (see Regulation (EU) No 692/2011) are defined as a local unit of economic activity (as defined in the Annex to Regulation (EEC) No 696/93 of 15 March 1993, relating to statistical units) that provides a paid service - although the price may be partially or fully subsidized short-term accommodation services, described in groups 55.1 (hotels and similar accommodation). 55.2 (Tourist accommodation and other short-stav accommodation) and 55.3 (campsites, recreational vehicle parks and caravan parks) of NACE Rev. 2. Until 2014, in the context of Urban Audit, tourist accommodation establishments refer only to NACE Rev. 2 categories 55.1 and 55.2. Since 2015, category 55.3 has been included.

The data in the different territorial areas are provided by the unit responsible for the INE in the preparation of the different tourist accommodation surveys following the corresponding methodology. The total number of overnight stays is calculated from the aggregation of the number of overnight stays in the different types of tourist accommodation corresponding to the results of the four occupancy surveys.

The methodology used in each of the surveys can be found in:

• Hotel Occupancy Survey.

- Tourism Complex Occupancy Survey.
- Rural Tourism Accommodation Occupancy Survey.
- <u>Camping Occupancy Survey</u>.

7.2 NUMBER OF PLACES AVAILABLE IN TOURIST ESTABLISHMENTS

- Description: It is defined as the number of annual fixed beds in tourist establishments, determining the number of people who can stay overnight in the beds installed in the establishment.
- Source: National Statistics Institute: <u>Hotel occupancy survey (EOH)</u>, <u>Occupancy survey in tourist apartments</u>, <u>Occupancy survey in rural tourism accommodation (EOTR)</u>, <u>Campsite occupancy survey</u>.
- Reference period: the calendar year.
- Territorial units: National total (N), Cities (C), Conurbations (K) and Functional Urban Areas (L).
- Available series: 2010-2022.
- Preparation procedure: The procedure is similar to that described in indicator 4.7.1. The data on the number of beds available comes from the aforementioned surveys, and the total is calculated by adding the number of beds available in each type of tourist accommodation.

# **V DISSEMINATION PLAN AND FREQUENCY**

## **1 DISSEMINATION PLAN**

The dissemination of the information prepared is configured in 7 tables (6 of them updated annually) for each geographical area. Each of these tables is made up of its corresponding indicators. The geographical areas are:

- National Results.
- Cities.
- Conurbations.
- Functional Urban Areas.
- Submunicipal areas (SCDs).
- Large municipalities.

The list of tables for each geographical area is:

- Demographics.
- Social aspects.
- Economic aspects.
- Training and education.
- Surface area and land use.
- Commuting to work.
- Tourism.

Additionally, the information is presented in the form of an infographic.

## 2 FREQUENCY

The results shall be disseminated annually in October.

# **VI ANNEX**

# 1 GEOGRAPHICAL AREAS OF THE PROJECT INDICATORS

Reader topulation (People)         YEs         YES </th <th>Chapter</th> <th colspan="2">Indicator</th> <th>Conurbations</th> <th>Functional Urban Areas</th> <th>SCD</th> <th>Large Municipalitie s</th> <th>Domestic</th>	Chapter	Indicator		Conurbations	Functional Urban Areas	SCD	Large Municipalitie s	Domestic
Proportion of population aged 54 years (Percentage)         YEs         Y		Resident population (People)	YES	YES	YES	YES	YES	YES
Propertion of population aged 5-64 years (Percentage)         YES         YES <th< td=""><td></td><td>Proportion of population aged 0-14 years (Percentage)</td><td>YES</td><td>YES</td><td>YES</td><td>YES</td><td>YES</td><td>YES</td></th<>		Proportion of population aged 0-14 years (Percentage)	YES	YES	YES	YES	YES	YES
Proportion of population app 3-56 years (Parcentage)         YES		Proportion of population aged 15-64 years (Percentage)		YES	YES	YES	YES	YES
Average age of the population         YES         YE		Proportion of population aged >65 years (Percentage)	YES	YES	YES	YES	YES	YES
DEMOGRAPHIC         Proportion of nationals with respect to the total population (Percentage)         YES		Average age of the population	YES	YES	YES	NO	YES	YES
DEMOGRAPHIC         Proportion of native nationals with respect to the total population (Percentage)         YES         YES <td></td> <td>Proportion of nationals with respect to the total population (Percentage)</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td>		Proportion of nationals with respect to the total population (Percentage)	YES	YES	YES	YES	YES	YES
Proportion of forease non alroad with respect to the total population (Percentage)         YES	DEMOGRAPHIC	Proportion of native nationals with respect to the total population (Percentage)	YES	YES	YES	YES	YES	YES
Proportion of foreigness with respect to the total population (Percentage)         YES         YES <th< td=""><td></td><td>Proportion of those born abroad with respect to the total population (Percentage)</td><td>YES</td><td>YES</td><td>YES</td><td>YES</td><td>YES</td><td>YES</td></th<>		Proportion of those born abroad with respect to the total population (Percentage)	YES	YES	YES	YES	YES	YES
Gross birth rate (Per thousand people)         YES         YES         YES         NO         NO         YES           Gross mortality rate (Per thousand people)         YES         YES         NO         NO         NO         NO         NO         YES           Life expectancy at birt (Yara)         YES         NO         NO         NO         NO         YES           Average size of households (Number)         YES         YES         YES         NO         NO         YES         YES           Average size of households (Number)         YES		Proportion of foreigners with respect to the total population (Percentage)	YES	YES	YES	YES	YES	YES
Gross mortality rate (Per thousand people)         YE3         YE6         YE6         NO         VO         YE5           Life expectancy at birth (Years)         YE5         NO         YES		Gross birth rate (Per thousand people)	YES	YES	YES	NO		YES
Life expectancy at birth (Years)         YE3         NO         NO         NO         NO         NO         NO         YE3           Average number of childron per woman         YE5		Gross mortality rate (Per thousand people)	YES	YES	YES	NO	NO	YES
Average number of children per woman         YES         No.         No.         No.         No.         No.         No.         No.         YES           Total number of households (Humber)         YES         YES <td></td> <td>Life expectancy at birth (Years)</td> <td>YES</td> <td>NO</td> <td>NO</td> <td></td> <td></td> <td>YES</td>		Life expectancy at birth (Years)	YES	NO	NO			YES
Total number of households (Number)         YES		Average number of children per woman	YES	NO	NO	NO	NO	YES
Average size of households (Number)         YES		Total number of households (Number)	YES	YES	YES	NÖ	YES	YES
Proportion of one-person households with respect to total households (Percentage YES         YES         YES         VES         YES         VES         YES         VES         YES		Average size of households (Number)	YES	YES	YES	NO	YES	YES
Number of conventional homes according to Cadastre (Number)         YES		Proportion of one-person households with respect to total households (Percentage		YES	YES	NO	YES	YES
SOCIAL ASPECTS         Average Annual Rent per square meter (Euros)         YES         <		Number of conventional homes according to Cadastre (Number)		YES	YES	NO	YES	YES1
SOCIAL ASPECTS         Average monthly rent (Euros)         YES		Average Annual Rent per square meter (Euros)		YES	YES	YES	YES	YES1
SUCHL ASPECTS     Median annual rent per square meter (Euros)     YES     YES <td></td> <td>Average monthly rent (Euros)</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES1</td>		Average monthly rent (Euros)	YES	YES	YES	YES	YES	YES1
Median monthly rent (Euros)       YES	SOCIAL ASPECTS	Median annual rent per square meter (Euros)	YES	YES	YES	YES	YES	YES1
First quartile of annual rent per square meter (Euros)       YES       YES <td></td> <td>Median monthly rent (Euros)</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES1</td>		Median monthly rent (Euros)	YES	YES	YES	YES	YES	YES1
First quartile of monthly rent (Euros)       YES       YES<		First quartile of annual rent per square meter (Euros)	YES	YES	YES	YES	YES	YES1
Third quartile of annual rent per square meter (Euros)     YES     YES <td></td> <td colspan="2">First quartile of monthly rent (Euros)</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES<sup>1</sup></td>		First quartile of monthly rent (Euros)		YES	YES	YES	YES	YES <sup>1</sup>
Third quartile of monthly rent (Euros)       YES       YES<		Third quartile of annual rent per square meter (Euros)		YES	YES	YES	YES	YES1
ECONOMIC ASPECTS         Unemployment rate (Percentage)         YES         YES         YES         YES         YES         NO         NO         YES           ECONOMIC ASPECTS         Proportion of employed people between 20-64 years of age with respect to the act YES         YES         YES         YES         NO         NO         YES           Activity rate         Proportion of employment in services (NACE Rev.2 G-U) (Percentage)         YES         YES         YES         NO         NO         YES           Proportion of employment in industry (NACE Rev.2 B-E) (Percentage)         YES         YES         YES         NO         NO         YES           Average annual net income of the households (Euros)         YES         YES <td< td=""><td></td><td colspan="2">Third quartile of monthly rent (Euros)</td><td>YES</td><td>YES</td><td>YES</td><td>YES</td><td>YES1</td></td<>		Third quartile of monthly rent (Euros)		YES	YES	YES	YES	YES1
Proportion of employed people between 20-64 years of age with respect to the act YES       YES       YES       NO       NO       YES         Activity rate       YES       YES       YES       YES       NO       NO       YES         Activity rate       YES       YES       YES       YES       NO       NO       YES         Proportion of employment in services (NACE Rev.2 G-U) (Percentage)       YES       YES       YES       NO       NO       YES         Proportion of employment in industry (NACE Rev.2 B-E) (Percentage)       YES       YES       YES       NO       NO       YES         Average annual net income of the households (Euros)       YES       YE		Unemployment rate (Percentage)		YES	YES	NO	NO	YES
Activity rateYESYESYESYESNONUYESProportion of employment in senices (NACE Rev.2 G-U) (Percentage)YESYESYESNONUYESProportion of employment in industry (NACE Rev.2 B-E) (Percentage)YESYESYESYESNONUYESAverage annual net income of the households (Euros)YESYESYESYESYESYESYESYESAverage annual net income per inhabitant (Euros)YESYESYESYESYESYESYESYESAverage net annual income per consumer unit (euros)YESYESYESYESYESYESYESYESProportion of children aged 0-4 years in daycare centres with respect to the popul YESYESYESYESYESYESYESProportion of population between 25-64 years old with the highest level of educatic YESYESYESYESYESYESYESProportion of population between 25-64 years old with the highest level of educatic YESYESYESYESYESYESYESSURFACE AREA AND LAND USETotal surface area (Km2)YESYESYESYESYESYESYESYESTOURISMNumber of annual tourist overnight stays (Number)YESYESYESYESYESYESYESNumber of places available in tourist establishments (Number)YESYESYESYESYESYESYESNumber of places available in tourist establishments (Number)		Proportion of employed people between 20-64 years of age with respect to the act		YES	YES	NO	NO	YES
ECONOMIC ASPECTS       Proportion of employment in senices (NACE Rev.2 G-U) (Percentage)       YES       YES       YES       NO       NO       YES         Proportion of employment in industry (NACE Rev.2 B-E) (Percentage)       YES       YES <t< td=""><td></td><td>Activity rate</td><td>YES</td><td>YES</td><td>YES</td><td>NO</td><td></td><td>YES</td></t<>		Activity rate	YES	YES	YES	NO		YES
ASPECTS       Proportion of employment in industry (NACE Rev.2 B-E) (Percentage)       YES	ECONOMIC	Proportion of employment in services (NACE Rev.2 G-U) (Percentage)	YES	YES	YES	NO	NO	YES
Average annual net income of the households (Euros)       YES	ASPECTS	Proportion of employment in industry (NACE Rev.2 B-E) (Percentage)	YES	YES	YES	NO		YES
Average annual net income per inhabitant (Euros)       YES		Average annual net income of the households (Euros)	YES	YES	YES	YES	YES	YES
Average net annual income per consumer unit (euros)       YES		Average annual net income per inhabitant (Euros)	YES	YES	YES	YES	YES	YES
Proportion of children aged 0.4 years in daycare centres with respect to the popul YES       YES       YES       NO       YES       YES         TRAINING AND EDUCATION       Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educatio Proportion of population between 25-64 years old with the highest level of educati		Average net annual income per consumer unit (euros)	YES	YES	YES	YES	YES	YES
TRAINING AND EDUCATION       Proportion of population between 25-64 years old with the highest level of educatio YES       YES       YES       NO       YES       YES         Proportion of population between 25-64 years old with the highest level of educatio YES       YES </td <td></td> <td>Proportion of children aged 0-4 years in daycare centres with respect to the popul</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>NO</td> <td>YES</td> <td>YES</td>		Proportion of children aged 0-4 years in daycare centres with respect to the popul	YES	YES	YES	NO	YES	YES
EDUCATION         Proportion of population between 25-64 years old with the highest level of educatio YES         YES         YES         NO         YES         YES           Proportion of population between 25-64 years old with the highest level of educatio YES         YES<	TRAINING AND	Proportion of population between 25-64 years old with the highest level of education	YES	YES	YES	NO	YES	YES
Proportion of population between 25-64 years old with the highest level of educatio       YES       YES       YES       NO       YES       YES         SURFACE AREA AND LAND USE       Total surface area (Km2)       YES	EDUCATION	Proportion of population between 25-64 years old with the highest level of education	YES	YES	YES	NO	YES	YES
SURFACE AREA AND LAND USE       Total surface area (Km2)       YES       NO       NO       YES         TOURISM       Number of places available in tourist establishments (Number)       YES       YES       YES       NO       NO       YES         YES       YES       YES       YES       YES       YES       YES       YES       YES         YES		Proportion of population between 25-64 years old with the highest level of education	YES	YES	YES	NO	YES	YES
Number of annual tourist overnight stays (Number)         YES         YES         YES         NO         NO         YES           TOURISM         Number of places available in tourist establishments (Number)         YES         YES         YES         NO         NO         YES           YES         YES         Publishable         NO         NO         YES         YES <td>SURFACE AREA AND LAND USE</td> <td>Total surface area (Km2)</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td> <td>YES</td>	SURFACE AREA AND LAND USE	Total surface area (Km2)	YES	YES	YES	YES	YES	YES
TOURISM     Number of places available in tourist establishments (Number)     YES     YES     YES     NO     NO     YES       YES     Publishable     Not publishable     Not publishable     Not publishable     Not publishable	(hereite and hereite and	Number of annual tourist overnight stays (Number)	YES	YES	YES	NO	NO	YES
YES Publishable NO Not publishable	TOURISM	Number of places available in tourist establishments (Number)	YES	YES	YES	NO	NO	YES
YES Publishable NO Not publishable								
NO Not publishable			YES	Publishable				
			NO	Not publishable				

<sup>1</sup> National total except the Basque Country and the Foral Community of Navarra. Note: Only indicators that are updated annually appear.

# 2 YEAR OF DATA AVAILABILITY FOR EACH INDICATOR

Chapter	Indicator	Period			
APHIC .	Resident population (People)	T-1			
	Proportion of population aged 0-14 years (Percentage)	T-1			
	Proportion of population aged 15-64 years (Percentage)	T-1			
	Proportion of population aged >65 years (Percentage)	T-1			
	Average age of the population	T-1			
API	Proportion of nationals with respect to the total population (Percentage)	T-1			
8 B	Proportion of native nationals with respect to the total population (Percentage)	T-1			
WO	Proportion of those born abroad with respect to the total population (Percentage) T-				
DEN	Proportion of foreigners with respect to the total population (Percentage)				
	Gross birth rate (Per thousand people)	T-3			
	Gross mortality rate (Per thousand people)	T-3			
	Life expectancy at birth (Years)	T-3			
	Average number of children per woman				
	Total number of households (Number)	T-1			
	Average size of households (Number)	T-1			
	Proportion of one-person households with respect to total households (Percentage)	T-1			
TS	Number of conventional homes according to Cadastre (Number)	T-1			
EC	Average Annual Rent per square meter (Euros)				
ASF	Average monthly rent (Euros) T				
AL	Median annual rent per square meter (Euros)	T-2			
oci	Median monthly rent (Euros)	T-2			
ŝ	First quartile of annual rent per square meter (Euros)	T-2			
	First quartile of monthly rent (Euros)	T-2			
	Third quartile of annual rent per square meter (Euros)	T-2			
	Third quartile of monthly rent (Euros)				
s	Unemployment rate (Percentage)				
CT	Proportion of employed people between 20-64 years of age with respect to the active population (Percentage)	T-1			
SPE	Activity rate	T.1			
CA	Proportion of employment in services (NACE Rev.2 G-U) (Percentage)	T-2			
W	Proportion of employment in industry (NACE Rev.2 B-E) (Percentage)	T-2			
NO	Average annual net income of the households (Euros)	T-2			
ECC	Average annual net income per inhabitant (Euros)	T-2			
	Average net annual income per consumer unit (euros)	T-2			
TDAINING	Proportion of children aged 0-4 years in daycare centres with respect to the population aged 0-4 years (Percentage)	T-2			
AND	Proportion of population between 25-64 years old with the highest level of education ISCED 0, 1 or 2 (Percentage)	T-2			
EDUCATION	Proportion of population between 25-64 years old with the highest level of education ISCED 3 or 4 (Percentage)	T-2			
	Proportion of population between 25-64 years old with the highest level of education ISCED 5 or 6 (Percentage)	T-2			
LAND USE	ויטלמו שנוומטים מובים (ולוווב)	T-1			
	Number of annual tourist overnight stays (Number)	T-2			
TOURISM	Number of places available in tourist establishments (Number)	T-2			
	T is equal to the year in which the data is published				

Note: T is equal to the year in which the data is published. Only indicators that are updated annually appear.

Municipal Code	Municipal name	Municipal Code	Municipal name	Municipal Code	Municipal name
01059	Vitoria-Gasteiz	14042	Montilla	31232	Tudela
02003	Albacete	14049	Palma del Río	32054	Ourense
02009	Almansa	14055	Priego de Córdoba	33004	Avilés
02037	Hellín	14056	Puente Genil	33016	Castrillón
02081	Villarrobledo	15002	Ames	33024	Gijón
03009	Alcoi	15005	Arteixo	33031	Langreo
03011	Alfàs del Pi, l'	15017	Cambre	33037	Mieres
03014	Alacant	15019	Carballo	33044	Oviedo
03015	Almoradí	15030	Coruña, A	33066	Siero
03018	Altea	15031	Culleredo	34120	Palencia
03019	Aspe	15036	Ferrol	35002	Agüimes
03031	Benidorm	15054	Narón	35004	Arrecife
03047	Calp	15058	Oleiros	35006	Arucas
03050	Campello, el	15073	Ribeira	35009	Gáldar
03059	Crevillent	15078	Santiago de Compostela	35011	Ingenio
03063	Dénia	16078	Cuenca	35012	Mogán
03065	Elx	17015	Banyoles	35014	Oliva, La
03066	Elda	17023	Blanes	35015	Pájara
03079	lbi	17066	Figueres	35016	Palmas de Gran Canaria, Las
03082	Xàbia	17079	Girona	35017	Puerto del Rosario
03090	Mutxamel	17095	Lloret de Mar	35019	San Bartolomé de Tirajana
03093	Novelda	17114	Olot	35022	Santa Lucía de Tirajana
03099	Orihuela	17117	Palafrugell	35024	Teguise
03104	Petrer	17155	Salt	35026	Telde
03119	Sant Joan d'Alacant	17160	Sant Feliu de Guíxols	35028	Tías
03121	Santa Pola	18017	Almuñécar	36008	Cangas
03122	Sant Vicent del Raspeig	18021	Armilla	36017	Estrada, A
03133	Torrevieja	18022	Atarfe	36024	Lalín
03139	Vila Joiosa, la	18023	Baza	36026	Marín
03140	Villena	18087	Granada	36038	Pontevedra
03902	Pilar de la Horadada	18122	Loja	36039	Porriño, O
04003	Adra	18127	Maracena	36042	Ponteareas
04013	Almería	18140	Motril	36045	Redondela
04053	Huércal-Overa	18905	Gabias, Las	36057	Vigo

# 3 LIST OF LARGE MUNICIPALITIES

04066	66 Níjar <b>19046</b> Azuqueca de Hepares		36060	Vilagarcía de Arousa	
04079	Roquetas de Mar	19130	Guadalaiara	37274	Salamanca
04102	Vícar	20030	Eibar	38001	Adeje
04902	Ejido, El	20040	Hernani	38006	Arona
05019	Ávila	20045	Irun	38011	Candelaria
06011	Almendralejo	20055	Arrasate	38017	Granadilla de Abona
06015	Badajoz	20067	Errenteria	38019	Guía de Isora
06044	Don Benito	20069	Donostia	38020	Güímar
06083	Mérida	20071	Tolosa	38022	Icod de los Vinos
06153	Villanueva de la Serena	20079	Zarautz	38023	San Cristóbal de La Laguna
07003	Alcúdia	21002	Aljaraque	38024	Llanos de Aridane, Los
07011	Calvià	21005	Almonte	38026	Orotava, La
07015	Ciutadella de Menorca	21010	Ayamonte	38028	Puerto de la Cruz
07026	Eivissa	21021	Cartaya	38031	Realejos, Los
07027	Inca	21041	Huelva	38035	San Miguel de Abona
07031	Llucmajor	21042	Isla Cristina	38038	Santa Cruz de Tenerife
07032	Maó	21044	Lepe	38043	Tacoronte
07033	Manacor	21050	Moguer	39016	Camargo
07036	Marratxí	22125	Huesca	39020	Castro-Urdiales
07040	Palma	23002	Alcalá la Real	39052	Piélagos
07046	Sant Antoni de Portmany	23005	Andújar	39075	Santander
07048	Sant Josep de sa Talaia	23050	Jaén	39087	Torrelavega
07054	Santa Eulària des Riu	23055	Linares	40194	Segovia
08015	Badalona	23060	Martos	41004	Alcalá de Guadaíra
08019	Barcelona	23092	Úbeda	41017	Bormujos
08051	Castellar del Vallès	24089	León	41021	Camas
08056	Castelldefels	24115	Ponferrada	41024	Carmona
08073	Cornellà de Llobregat	24142	San Andrés del Rabanedo	41034	Coria del Río
08076	Esparreguera	25120	Lleida	41038	Dos Hermanas
08077	Esplugues de Llobregat	26036	Calahorra	41039	Écija
08086	Franqueses del Vallès, Les	26089	Logroño	41053	Lebrija
08089	Gavà	27028	Lugo	41058	Mairena del Alcor
08096	Granollers	28005	Alcalá de Henares	41059	Mairena del Aljarafe

08101	Hospitalet de Llobregat, L'	28006	Alcobendas	41065	Morón de la Frontera
08102	Igualada	28007	Alcorcón	41069	Palacios y Villafranca, Los
08112	Manlleu	28009	Algete	41081	Rinconada, La
08113	Manresa	28013	Aranjuez	41086	San Juan de Aznalfarache
08114	Martorell	28014	Arganda del Rey	41091	Sevilla
08118	Masnou, El	28015	Arroyomolinos	41093	Tomares
08121	Mataró	28022	Boadilla del Monte	41095	Utrera
08123	Molins de Rei	28040	Ciempozuelos	42173	Soria
08124	Mollet del Vallès	28045	Colmenar Viejo	43014	Amposta
08125	Montcada i Reixac	28047	Collado Villalba	43037	Calafell
08147	Olesa de Montserrat	28049	Coslada	43038	Cambrils
08163	Pineda de Mar	28058	Fuenlabrada	43123	Reus
08169	Prat de Llobregat, El	28061	Galapagar	43148	Tarragona
08172	Premià de Mar	28065	Getafe	43155	Tortosa
08180	Ripollet	28074	Leganés	43161	Valls
08184	Rubí	28079	Madrid	43163	Vendrell, El
08187	Sabadell	28080	Majadahonda	43171	Vila-seca
08194	Sant Adrià de Besòs	28084	Mejorada del Campo	43905	Salou
08196	Sant Andreu de la Barca	28092	Móstoles	44216	Teruel
08200	Sant Boi de Llobregat	28096	Navalcarnero	45081	Illescas
08205	Sant Cugat del Vallès	28104	Paracuellos de Jarama	45161	Seseña
08211	Sant Feliu de Llobregat	28106	Parla	45165	Talavera de la Reina
08217	Sant Joan Despí	28113	Pinto	45168	Toledo
08219	Vilassar de Mar	28115	Pozuelo de Alarcón	46005	Alaquàs
08221	Sant Just Desvern	28123	Rivas- Vaciamadrid	46013	Alboraia
08231	Sant Pere de Ribes	28127	Rozas de Madrid, Las	46017	Alzira
08238	Sant Quirze del Vallès	28130	San Fernando de Henares	46021	Aldaia
08245	Santa Coloma de Gramenet	28132	San Martín de la Vega	46022	Alfafar
08252	Barberà del Vallès	28134	San Sebastián de los Reyes	46029	Algemesí
08260	Santa Perpètua de Mogoda	28148	Torrejón de Ardoz	46070	Bétera
08263	Sant Vicenç dels Horts	28152	Torrelodones	46078	Burjassot

08266	Cerdanyola del Vallès	28161	Valdemoro	46083	Carcaixent
08270	Sitges	28176	Villanueva de la Cañada	46094	Catarroja
08279	Terrassa	28181	Villaviciosa de Odón	46102	Quart de Poblet
08298	Vic	28903	Tres Cantos	46105	Cullera
08301	Viladecans	29007	Alhaurín de la Torre	46110	Xirivella
08305	Vilafranca del Penedès	29008	Alhaurín el Grande	46131	Gandia
08307	Vilanova i la Geltrú	29015	Antequera	46145	Xàtiva
09018	Aranda de Duero	29025	Benalmádena	46147	Llíria
09059	Burgos	29038	Cártama	46159	Manises
09219	Miranda de Ebro	29042	Coín	46169	Mislata
10037	Cáceres	29051	Estepona	46171	Moncada
10148	Plasencia	29054	Fuengirola	46181	Oliva
11004	Algeciras	29067	Málaga	46184	Ontinyent
11006	Arcos de la Frontera	29069	Marbella	46186	Paiporta
11007	Barbate	29070	Mijas	46190	Paterna
11008	Barrios, Los	29075	Nerja	46194	Picassent
11012	Cádiz	29082	Rincón de la Victoria	46202	Pobla de Vallbona, la
11014	Conil de la Frontera	29084	Ronda	46205	Puçol
11015	Chiclana de la Frontera	29091	Torrox	46213	Requena
11020	Jerez de la Frontera	29094	Vélez-Málaga	46214	Riba-roja de Túria
11022	Línea de la Concepción, La	29901	Torremolinos	46220	Sagunt
11027	Puerto de Santa María, El	30003	Águilas	46235	Sueca
11028	Puerto Real	30005	Alcantarilla	46244	Torrent
11030	Rota	30008	Alhama de Murcia	46250	València
11031	San Fernando	30009	Archena	47010	Arroyo de la Encomienda
11032	Sanlúcar de Barrameda	30015	Caravaca de la Cruz	47076	Laguna de Duero
11033	San Roque	30016	Cartagena	47085	Medina del Campo
12009	Almassora	30019	Cieza	47186	Valladolid
12027	Benicarló	30022	Jumilla	48013	Barakaldo
12032	Borriana	30024	Lorca	48015	Basauri
12040	Castelló de la Plana	30026	Mazarrón	48020	Bilbao
12084	Onda	30027	Molina de Segura	48027	Durango
12126	Vall d'Uixó, la	30030	Murcia	48036	Galdakao

12135	Vila-real	30035	San Javier	48044	Getxo
12138	Vinaròs	30036	San Pedro del Pinatar	48054	Leioa
13005	Alcázar de San Juan	30037	Torre-Pacheco	48078	Portugalete
13034	Ciudad Real	30038	Torres de Cotillas, Las	48082	Santurtzi
13071	Puertollano	30039	Totana	48084	Sestao
13082	Tomelloso	30041	Unión, La	48902	Erandio
13087	Valdepeñas	30043	Yecla	49275	Zamora
14013	Cabra	31060	Burlada	50297	Zaragoza
14021	Córdoba	31086	Valle de Egüés	51001	Ceuta
14038	Lucena	31201	Pamplona	52001	Melilla

### 4 ESTIMATION METHODS ON LABOUR MARKET VARIABLES

#### Estimation of the municipal active population

The variables that we have to calculate in this domain present a certain complexity since, in most cases, they require estimates of assets, employees and unemployed, which, being provided by the INE Active Population Survey, do not reach the levels of desired spatial disaggregation. Thus, while for the previously specified variables the URBAN AUDIT project requires disaggregation at the city level, the EPA is only capable of providing direct estimates at the provincial level. In order to perform the required task, we propose the following estimation procedure. We begin with the active population variable and later propose a procedure for calculating unemployed and employed.

The sample information used for the estimation is the microdata from the Active Population Survey prepared by the National Institute of Statistics (INE) for each quarter of the reference year object of the estimation. The variables used in the EPA are the individual's willingness to participate in the labour market, the sex and age of the respondent, X. With these variables, the parameters of interest in the equation were estimated

$$P\left(\begin{array}{c} y = 1 \\ X = x, \theta_d \end{array}\right) = \frac{\exp\left(\theta_d + \sum_p \beta_p x^p + \sum_k \delta_k (x - \tau_k)_+^p\right)}{1 + \exp\left(\theta_d + \sum_p \beta_p x^p + \sum_k \delta_k (x - \tau_k)_+^p\right)},$$

where the quantity denotes the probability or rate for an individual in the EPA sample of participating in the labour market having the age and residing in province d. The parameters of interest of this model are estimated through the penalized maximum likelihood estimation technique (see Ruppert, Wand and Carroll, 2003). The function

$$f(x) = \theta_d + \sum_p \beta_p x^p + \sum_k \delta_k (x - \tau_k)_+^p$$

consists of a polynomial spline of order P that incorporates a random effect, that varies at the provincial level (see Opsomer, Claeskens, Ranalli and Kauermann, 2008). In it we will distinguish a polynomial part of order 3 (P=3) and then a part that will vary with the values  $\{1, 2, \dots, \}$  called nodes that must be chosen by the user.

Once the participation rate is calculated, the number of assets per municipality can be calculated through the following expression

$$\hat{Y}_m = \sum_{i=1}^N \mathbb{1}_{\{X=x_i,m\}} \hat{P}\left( \frac{y=1}{X=x_i,\theta_d} \right),$$

where N is the number of inhabitants over 16 years of age in municipality m, and 1{=,} is an indicator function that takes the value 1 if the i-th individual has age and 0 if y is not

$$\hat{P}\left(\frac{y=1}{X=x,\theta_d}\right) = \frac{\exp\left(\theta_d + \sum_p \hat{\beta}_p x^p + \sum_k \hat{\delta}_k (x-\tau_k)_+^P\right)}{1 + \exp\left(\theta_d + \sum_p \hat{\beta}_p x^p + \sum_k \hat{\delta}_k (x-\tau_k)_+^P\right)},$$

This estimator, intuitively, reflects the following: if the activity rate of the inhabitants of a municipality (their probability of being active) can be correctly approximated through their age, then if we know the age distribution of the residents of a municipality we will have enough information to calculate the number of assets in that municipality.

To deal with the sex variable, we chose to use two separate models, given that we will intuitively assume that both genders present different behaviour with regard to participation. We will treat the age variable as the main variable of the specified model. The parametric part will consist of a polynomial of degree three, which is enough to have precision in the approximation and not lose smoothness in it. The nodes are chosen equal to the age ranges presented in the estimation results. It is evident that many other variables that appear in the EPA could appear as explanatory of the decision to participate in the labor market (see Fernández and Rodríguez-Poo, 1997), however, the choice we make here is conditioned by the objective of the prediction of the number of assets per municipality. As can be seen in the last equation, in order to make the prediction at the municipal level we need to know the population over 16 years of age in each municipality, N, stratified by sex and age, and this data is not provided to us by the EPA, which It only gives population estimates at the provincial level. It is therefore necessary to search for an administrative record that allows us to complement and at

the same time enrich the information provided by the EPA. The Municipal Register of Inhabitants (Annual Population Census based on 2023 data) has much less information than the EPA, but among this information we find all citizens registered in Spain characterized by sex and age. Variables that have in common with the EPA.

Finally, with the aim of giving coherence to the results with respect to previous domains, we will use the Population Figures data 'distributed' at the municipal level using the municipal registry of inhabitants (Annual Population Census based on 2023 data) stratified by sex and age.

#### **Unemployment estimate**

#### INTRODUCTION

The available methodology uses information from the EPA microdata file and the data provided by the SEPE.

This methodology is based on the distribution among the municipalities of each province of the provincial EPA estimates by age groups and sex (8), according to SEPE data. In this way it is guaranteed that in the end, the sum of the municipal estimates thus obtained coincides with the EPA estimates.

For each age and sex group, the general expression of the estimate in a municipality i is:

$$\widehat{Y}_i = \frac{SEPE_i}{SEPE} \cdot \widehat{EPA}$$

However, this general form may be more precise when calculated at the stratum level, that is, for each age and sex group in stratum h of a province, the expression is:

$$\widehat{Y_{i,h}} = \frac{SEPE_{i,h}}{SEPE_h} \cdot \widehat{EPA_h}$$

In relation to this formula, see the methodology in more detail in the annex to this document.

#### PROBLEMS

According to the previous formula, two types of problems arise:

- In some large municipalities, there are important differences between the EPA estimate and the one thus obtained.
- The order of the municipalities of a province established based on the number of unemployed is not the same with the estimates as when using the SEPE data.

In view of these problems, the following considerations arise:

- 1. In the EPA estimates by strata, three aspects must be considered:
  - They may have some instability derived from small samples and two-stage sampling (cluster effect)
  - When estimating by grouping the municipalities into strata, it is possible to change the order according to unemployment of the municipalities of a province, with respect to that provided by the SEPE.
  - As the EPA is a continuous survey, the stratum to which a municipality is associated does not change until the information from a new census is available. Therefore, some outdated status of the stratum is possible in some municipalities.
- It is not obvious that the variable measured by the EPA, unemployed according to place of residence, is the same as that provided by the SEPE, registered in the unemployment registry possibly according to place of work.

#### PROPOSAL

Given that the only variable available to distribute the EPA provincial unemployment among the municipalities is that from the SEPE, consideration 2 is ignored, and the final proposal focuses on the grouping of strata.

Taking into account that, in the provincial capitals with the largest population, the EPA sample is sufficiently large, the following is proposed:

1. In the provinces of Madrid, Barcelona, Sevilla, Zaragoza, Valencia and Málaga, two strata are considered: Capital and rest of municipalities, and the available formula is used:

$$\widehat{Y_{i,h}} = \frac{SEPE_{i,h}}{SEPE_h} \cdot \widehat{EPA_h}$$

2. In the rest of the provinces, strata are dispensed with, and therefore the expression is used:

$$\widehat{Y}_i = \frac{SEPE_i}{SEPE} \cdot \widehat{EPA}$$

This last expression ignores the strata and simply distributes the EPA unemployment of each age group and sex between municipalities according to the SEPE data.

The most positive aspects of this method are:

- The method is simple to apply, and in many cases replicable
- The municipal order of the unemployed is not altered, except in what refers to the six capitals indicated.

## Municipal employed population

The employed population is obtained by the difference between the active population and the unemployed or unemployed population.

### Annex

The estimate of unemployed at the municipal level will be carried out through registered unemployment, data from the State Public Employment Service. The fundamental idea is to consider as a starting point the estimates of unemployment at the autonomous community and stratum level from the Active Population Survey and using these, distribute the EPA unemployment data by municipality using registered unemployment as an auxiliary variable. The strata we use for calibration are:

Stratum 1	Provincial capital municipality
Stratum 2	Important, self-represented municipalities in relation to the capital
Stratum 3	Other important, self-represented municipalities in relation to the capital or municipalities with more than 100,000 inhabitants
Stratum 4	Municipalities between 50,000 and 100,000 inhabitants
Stratum 5	Municipalities between 20,000 and 50,000 inhabitants
Stratum 6	Municipalities between 10,000 and 20,000 inhabitants
Stratum 7	Municipalities between 5.000 and 10,000 inhabitants
Stratum 8	Municipalities between 2,000 and 5,000 inhabitants
Stratum 9	Municipalities with fewer than 2,000 inhabitants

The estimation procedure is as follows. We are going to consider that we have unemployed people registered in public employment offices nationwide for a certain period of time. Of these unemployed we have information on a set of characteristics such as sex, age and municipality of residence. We are going to denote all these characteristics by the vector X. In this way, the i-th registered unemployed person will have the characteristic vector and those characteristics can be combined forming

different strata that we will call {X1, X2, ..., XJ} Likewise, we are going to define as  $n_E(X_j)$  the number of unemployed people estimated through the active population survey that

are assigned to the j-th stratum. For example,  $n_{E}(X_{1})$  it could consist of the number of unemployed EPA males, aged between 16 and 25, who reside in the provincial capitals

of a certain autonomous community. Following the same logic, we are going to define by  $n_P(X_j)$  the number of unemployed people registered in public employment offices assigned to the j-th stratum.

Finally we denote by

$$w(X_j) = \frac{n_E(X_j)}{n_P(X_j)}$$

for =  $1, \dots, strata$ .

We propose the following estimator to calculate the total number of unemployed in the municipality:

$$\hat{y}_{m} = \sum_{i=1}^{N} \sum_{j=1}^{J} w(X_{j}) \mathbf{1}(X_{j} = X_{i}) \mathbf{1}_{i}(m),$$

Where (Xj = Xi) is a function that takes the value 1 if the characteristics of the i-th individual coincide with those of the j-th stratum and 0 otherwise. That is, if the individual is male, is between 16 and 25 years old, and resides in a certain autonomous community (all of these characteristics of one of the strata), then this indicator function will take a value of 1. The function 1() takes the value 1 if the i-th individual resides in municipality and 0 otherwise.

As can be seen from its construction, this estimator presents interesting properties in terms of coherence with the direct estimates of the Labour Force Survey (EPA). Thus, it can be verified that the unemployment estimates made at the municipal level coincide with the EPA unemployment figures stratified by sex and age group at the autonomous community level and at the national level.

# 5 INCOME TABLE

Table A1.2 Income table					
	Respondents	Non-respondents			
0.1 GROSS INCOME	1+2+3+4+5				
0.2 NET INCOME	0.1 - 6				
· · · · · · · · · · · · · · · · · · ·					
	1.1 to 1.5				
1.1 Salaries		190.A+E+F + CON/0.0425			
1.2 Pensions	100.1+5	190.B			
1.3 Unemployment taxed benefits		190.C			
Employer contributions to pension plans and	100 6 17 18				
1.4 group insurance	100.04748	545.C+G+J9+L			
1.5 Exempt income	1.5.1 to 1.5	.3			
1.5.1 Severance payments	190.L5				
1.5.2 Exempt unemployment benefits	190.L13				
1.5.3 Jobs abroad	190.L15				
2 MOVABLE CAPITAL INCOME	2.1 to 2.4				
2.1 Interests	100.22	193.B1+B2+B3+B5+B6 +196			
2.2 Dividends	100.24	193.A1+A2+A3+A4+A5+A7+A8			
2.3 Other not exempt income	100.31+44-22-24	188 + 192 + 193.rest + 194 + 198			
2.4 From entities on income allocation	100,222+223+224	184.A1+A2			
	24.22				
3 INCOME FROM REAL ESTATE PROPERTY RENTAL	3.1 + 3.2	180			
3.1 From individuals	100.80	180			
	100.225	184.0			
4 ECONOMIC ACTIVITIES RETURN	4.1 to 4.4				
4.1 In direct estimation	100.121				
4.2 In objective non-agricultural estimation	100.148				
4.3 In objective agricultural estimation	100.177				
4.4 In entities on income allocation	100.226				
5 OTHER INCOME	5.1 + 5.2				
5.1 Taxed	5.1.1 to 5.1	.3			
5.1.1 Emancipation income	100.268	DGA			
5.1.2 Imputed real estate income	100.75				
5.1.3 Other Special Regime income	100.240 +244+248+252				
5.2 Exempt	5.2.1 to 5.2.6				
5.2.1 Disability benefits	190.L6+L7				
5.2.2 Employee benefits	190.119				
5.2.3 Family benefits	190.L8				
5.2.4 Exempt grants	190.L10				
5.2.5 Other exempt benefits	190.L2+L3+L4+L9+L11+L12+L14+L16+L1	8+L20+L21+L22+L23+L24+L25			
5.2.6 Family deductions	100.551+562+575+589+591	140+143			
6 TAXES AND CONTRIBUTIONS	6.1 + 6.2 + 6	.3			
		180+184+187+188+190			
6.1 Accrued income tax	100.537	+193+194+196			
Social security contributions for employed and					
6.2 unemployed individuals	100.11	190.A+C + CON			
6.3 Accrued wealth tax	714.055				
9 AGGREGATE CONCEPTS (**)		. 4 5 2			
9.1 Salaries	1.1 + 1.4 + 1.5.1	+ 1.5.3			
9.2 Benefits	9.2.1 + 9.2.2 + 9.2.3				
9.2.1 Pensions	1.2				
9.2.2 Unemployment	1.3 + 1.5.2				
9.2.3 Other benefits	5.1.1 + 5.2				
9.3 Movable capital income	2				
9.4 Income from real estate property rental	3				
9.5 Economic activities return	4				
9.7 Imputed and other income	5.1.2 + 5.1.	3			

(\*) The reference of each income is expressed with the number of the statement model and, after the dot, the box of the item or the code and subkey.

CON are the contributions of the employees of the household, DGA indicates that the data come from the Governmental Aid database.

# 6 MODELS USED AND DECLARED INCOME

Mode	ls use	ed and inc	come declared, year 2016 (*)
Model	Кеу	Subkey	Income / Declared withholdings
100		-	All income taxed (annual statement)
140	1		Deduction due to maternity leave
143			Deduction due to large families and disability
180	1		Urban rental of real estate subject to taxing
184	1		Return on entities on income allocation
	А		Return on movable capital
	С		Return on rented real estate
	к	01 to 05	Withholdings
187			Capital gains and losses on investment funds (withholding taxes)
188	t		Income from capitalisation transactions and life insurance policies
100			
190			Income from work and business activities, prizes and certain capital gains and income allocations
	А		Salaries
	В	01 to 03	Pensions
	С		Unemployment benefits or allowances
	Е		Directors and Managers
	F	01 and 02	Courses, conferences, literary work productions, etc.
	G	01 to 03	Return on professional activities
	н		Return on agricultural, stockbreeding and forestry activities and business activities in objective
		01 to 04	estimation
	1	01 10 04	Return on intellectual and industrial property, technical assistance, renting of real estate
		01 and 02	property, businesses or mines that involve economic activities
		01 010 02	property, business of mines that money economics during a signature of the second statements of
			income impaced nom the assignment of image rights
		01 and 02	Neighbours' conital gains and awards derived from forestry evaluation within national forests
	<u> </u>		Neighbours capital gains and awards derived from forestry exploitation within national forests
	L L	01	Per diems and traver allowances
			Extraordinary public benefits due to acts of terrorism and pensions derived from medals and
		02	nonours awarded in relation to acts of terrorism
		03	Aid received by persons affected by human immunodeficiency virus (HIV/AIDS)
		04	Pensions for injuries or mutilations suffered during or as a result of the Civil War
		05	Severance payments or termination of employment allowances
		06	Benefits due to absolute permanent disability or severe infirmity
		07	Pensions due to disability or permanent incapacity under the special civil service regime
			Family benefits and pensions and pension assets for orphans, grandchildren and siblings under
			22 years of age or incapacitated for work, received from the public social security and
		08	pensioners' schemes
			Financial benefits from public institutions for the care of disabled persons aged 65 and over or
			minors, and financial aid granted by public institutions to disabled persons or persons aged 65
		09	and over to subsidise their stay in residences or day centres
		10	Grants
		11	Relevant literary, artistic or scientific awards
		12	Financial aid for top-level sportsmen and sportswomen
		13	Unemployment benefits paid in the form of lump-sum payments
			Extraordinary bonuses paid by the Spanish Government for participation in international peace
		14	or humanitarian missions
		15	Job returns on work carried out abroad
		16	Burial or funeral benefits
			Benefits for people who have developed hepatitis C as a result of having received treatment in
		17	the public health system
			Income benefits received by disabled individuals corresponding to contributions to social security
		18	schemes set up for the benefit of disabled people
		r	Public economic benefits linked to the service for care in the family environment and
			personalised assistance deriving from the Law for the Promotion of Personal Autonomy and Care
		19	for people in situations of dependency
		20	Public family benefits and aids linked to the birth, adoption, fostering or care of minor children
		21	Income from the work of the holder of a protected estate
		22	Minimum job seeker incomes of the Autonomous Regions and the like
		23	Aid to victims of violent crime
		24	Income from work in kind exempted by article 42.3 sections a) to f).
1		25	Other exempt income

192			Income from Treasury Bills
193	193		Withholdings and on-account payments on certain types of income from movable capital
	А	01	Bonuses for meeting attendance
			Dividends and profit participations in any type of entity, except if included in sub-clauses 07 or
02			08
			Income or revenue from any kind of assets, except the delivery of bonus shares, involving
		03	remuneration other than from work
			Income or revenue deriving from the constitution or transfer of rights or powers of use or
			enjoyment over the securities or shares representing the participation in the funds of the
		04	institution
		05	Any other income from an entity as a partner, shareholder, associate or participant.
		07	Dividends and profits distributed by Collective Investment Funds
		08	Dividends not subject to withholding or on-account payment
	В	01	Interest from debentures, bonds, certificates of deposit or other private securities
		02	Interest on bonds, debentures, notes, public debt or other public securities
		03	Interest on non-bank loans
		04	Income or revenue benefiting from a transitional profit rules on financial transactions
			Income or revenue paid by a financial institution as a result of the total or partial transmission,
		05	assignment or transfer of a claim
		06	Other income from movable capital or income not included in the previous numbers.
	С	01	Income or revenue from intellectual property where the recipient is not the author
			Income or revenue from industrial property which is not linked to economic activities carried out
		02	by the recipient
			Income or revenue from the provision of technical assistance, unless such assistance is provided
		03	in the course of an economic activity
			Income or revenue from the letting or subletting of real estate, businesses or mines which are
		04	not involved in economic activities
			Income, either life-long or temporary, arising from the taxation of capital, provided that it has
			not been acquired by inheritance, beguest or any other succession document not derived from
		05	capitalisation operations and life or disability insurance contracts.
			Income deriving from the transfer of the right to the exploitation of the image or from the
		06	consent or authorisation to use it
		07	Income from the subletting of urban real estate not constituting an economic activity
		12	Other income from movable capital or income not included in other numbers of this code
	D		Income from the transfer to third parties of own capital from related entities when the recipient
			is a personal income taxpaver (same subkeys as in A)
194			Interest on securities with implicit yield
196			Income from bank accounts
198			Income on transactions with financial assets and other transferable securities
345			Pension plans, pension funds and alternative systems
	С	01 and 02	Pension scheme promoters: deductible promoter contributions
	G		Mutual benefit societies: amounts paid by the promoter
	J	9	Company pension schemes: contributions paid by policyholders
	L		Collective dependency insurance: premiums paid by policyholders
714			Wealth tax
CON			Contributions to the Household Employees' Scheme
			Direct aid from the State aimed at financial support for the payment of rent for the dwelling that
DGA			constitutes a habitual and permanent residence.
<u> </u>			

(\*) Only the codes and subkeys that affect the definition of income in terms of Personal Income Tax are detailed.

# 7 URBAN ATLAS-SIOSE EQUIVALENCES

CODE	Label	Required	Unit of measurement	Urban Atlas classes	Clases SIOSE
EN5200V	Share of land (%): Continuous residential urban fabric	Centrally collected	Percentage	1.1.1	Suma de:
					101 EDF Edificación
					111 OCT Otras Construcciones
					Mientras sumen un % >=80%
					Y estén dentro de las calses compuestas:
					811 UCS Casco
					812 UEN Ensanche
ENIS2011/	Share of land (%): Discontinuous residential urban fabric	Controlly collected	Percentage	1121	Suma da:
1132011	share of tana (x). Siscontinadas restaential arban fabrie	centrally concercu	i citemage	1.1.2.2	101 EDE Edificación
				1.1.2.3	111 OCT Otras Construcciones
				1.1.2.4	Mientras sumen un % <80%
				1.1.3	Y estén dentro de las calses compuestas:
					811 UCS Casco
					812 UEN Ensanche
					813 UDS Discontinuo
EN5202V	Share of land (%): Industrial, commercial, public, military and private units	Centrally collected	Percentage	1.2.1	Suma de:
					821 IPO Poligono Industrial Ordenado
					922 IAS Industrial Aiclada
					841 TCO Comercial v Oficinas
					842 TCH Complete Hotelero
					843 TPR Parque Recreativo
					851 EAI Administrativo Institucional
					852 ESN Sanitario
					853 ECM Cementerio
					854 EDU Educación
					855 EPN Penitenciario
					856 ERG Religioso
					891 NEO Eólica
					892 NSL Solar
					893 NCL Nuclear
					894 NEL Eléctrica
					895 NTM Térmica
					896 NHD Hidroeléctrica
					897 NGO Gaseoducto Oleoducto
					900 NTC Telecomunicaciones
					911 NDP Depuradoras y Potabilizadoras
					912 NCC Conducciones y Canales
ENE2021/	Chara of land (0/). Transport infranctouture	Controlly collocted	Demontone	1221	913 NDS Desaimizadora
EINJ2USV	Share of fand (%). Hansport fill aestructure	Centrally collected	reitentage	1,2,2,1	Sunia de. 881 NRV Red Viaria
				1.2.2.3	882 NRE Red Eerroviaria
				1.2.3	883 NPO Portuario
				1.2.4	884 NAP Aeroportuario
					Y clase simple viales no presente en redes viarias anteriores:
					104 VAP Vial, Aparcamiento o Zona Peatonal sin Vegetación
EN5204V	Share of land (%): Other artificial areas	Centrally collected	Percentage	1.3.1	Suma de:
				1.3.2	921 NVE Vertederos y Escombreras
				1.3.3	922 NPT Plantas de Tratamiento
					r clases simples artificiales no incluidas en clases ENS anteriores:
					101 EDF Editicación 102 LAA Lámina de Aqua Artificial
					111 OCT Otras Construcciones
					121 SNE Suelo No Edificado
					131 ZEV Zonas de Extracción o Vertido
EN5205V	Share of land (%): Green urban areas and sport and leisure facilities	Centrally collected	Percentage	1.4.1	Suma de:
				1.4.2	844 TCG Camping
					858 EDP Deportivo
					859 ECG Campo de Golf
					860 EPU Parque Urbano
					Y la clases simple de zona verde no incluida en las clases de parques anteriores:
EN5206V	Share of land (%): Agricultural areas	Centrally collected	Percentage	21	Suma de:
				2.2	211 CHA Arroz
				2.3	212 CHL Cultivos Herbáceos distintos de Arroz
				2.4	222 LFC Frutales Cítricos
				2.5	223 LFN Frutales No Cítricos
					231 LVI Viñedo
					232 LOL Olivar
					241 LUC UTOS LENOSOS 200 PPD Prador
EN5207V	Share of land (%): Natural areas	Centrally collected	Percentage	3.1	Suma de:
L/43207 V	Share or fond (70). Natural areas	contrainy conected	- creentage	3.2	300 PST Pastizal
				3.3	312 FDC Frondosas Caducifolias
				4	313 FDP Frondosas Perennifolias
				5	316 CNF Coniferas
					320 MTR Matorral
					331 PDA Playas, dunas y arenales
					333 SUN Suelo Desnudo 224 ZOM Zonas Quemadas
					335 GNP Glaciares y Nieves permanentes
					336 RMB Ramblas
					351 ACM Acantilados Marinos
					352 ARR Afloramientos Rocosos y Roquedos
					353 CCH Canchales
					354 CLC Coladas Lávicas
					411 HPA Zonas Pantanosas
					412 HTO HUBBERS
					421 HMA Marismas
					422 HSM Salinas Marinas
					511 ACU Cursos de Agua
					513 ALG Lagos y Lagunas
					514 AEM Embalses
					521 ALC Lagunas Costeras
					522 AES Estuarios
					523 AMU Mares y Oceanos
http://www.siese	200				nequísito: las estadísticas de todas las clases EN5 deben sumar todo el territorio
http://www.siose	es/SIOSEtheme-theme/documentos/pdf/Man_Eotointerpretacion_SIOSE_v4	1.odf			
http://land.copern	icus.eu/local/urban-atlas				
http://ec.europa.e	u/regional_policy/sources/tender/pdf/2012066/appexe2.pdf				

# 8 CHANGES IN THE TERRITORIAL AREAS OVER THE YEARS

The indicator years refer to the T-1 period with respect to the year of publication.

#### HIGH CITIES

Cities	First year available
Alcalá de Guadaíra	2015
Alcoi/Alcoy	2015
Benalmádena	2015
Chiclana de la Frontera	2015
Collado Villalba	2015
Cuenca	2015
Linares	2015
Lorca	2015
Mérida	2015
Paterna	2015
Rivas-Vaciamadrid	2015
Sagunt/Sagunto	2015
Sant Vicent del Raspeig/San Vicente del Raspeig	2015
Torrelavega	2015
Torrent	2015
Valdemoro	2015
Ávila	2015

#### REGISTRATIONS LARGE MUNICIPALITIES

Large Municipalities	First Year Available	Last Year Available
Alcúdia	2020	2023
Alfàs del Pi, l'	2018	2023
Archena	2023	2023
Arroyo de la Encomienda	2020	2023
Atarfe	2023	2023
Banyoles	2020	2023
Burlada/Burlata	2023	2023
Cartaya	2020	2023
Franqueses del Vallès, Les	2020	2023
Güímar	2020	2023

Huércal-Overa	2023	2023
Mogán	2019	2023
Porriño, O	2020	2023
Puçol	2023	2023
Pájara	2018	2023
San Martín de la Vega	2023	2023
San Miguel de Abona	2020	2023
Sant Just Desvern	2023	2023
Sant Quirze del Vallès	2020	2023
Tolosa	2023	2023
Torrox	2023	2023
Tías	2018	2023
Unión, La	2020	2023

#### DE-REGISTRATIONS LARGE MUNICIPALITIES

Large Municipalities	First Year Available	Last Year Available
Barañáin/Barañain	2017	2022
Calatayud	2017	2022

REGISTRATIONS AND DE-REGISTRATIONS CONURBATIONS

BARCELONA (changes 2014-2015)			
DE-REGISTRATIONS REGISTRATIONS		REGISTRATIONS	
Code	Name	Code	Name
172	Premià de Mar	19	Barcelona
214	Vilassar de Dalt	56	Castelldefels
		89	Gavà
		200	Sant Boi de llobregat
		279	Terrassa
		282	Tiana
		301	Viladecans

BILBAO (changes 2014-2015)	
REGISTRATIONS	
Code	Name
16	Berango
29	Etxebarri

MADRID (changes 2014-2015)			
DE-REG	DE-REGISTRATIONS		REGISTRATIONS
Code	Name	Code	Name
122	Ribatejada	19046	Azuqueca de Henares
		45021	Borox
		28029	Cabanillas de la Sierra
		45025	Cabañas de la Sagra
		28031	Cadalso de los Vidrios
		45031	Camarena
		28035	Carabaña
		45047	Cedillo del Condado
		28037	Cenicientos
		45056	Chozas de Canales
		45064	Esquivias
		45085	Lominchar
		28100	Nuevo Baztán
		45127	Palomeque
		45128	Pantoja
		45129	Paredes de Escalona
		28109	Pelayos de la Presa
		28116	Pozuelo del Rey
		45143	Quismondo
		45145	Recas
		28121	Redueña
		28133	San Martín de Valdeiglesias
		28135	Santa María de la Alameda
		05241	Tiemblo, El
		28154	Torres de la Alameda
		28165	Valdilecha
		45188	Villaluenga de la Sagra
		28179	Villar del Olmo

#### REGISTRATIONS AND DE-REGISTRATIONS FUNCTIONAL URBAN AREAS

	BARCELONA (changes 2014-2015)		
DE-RE	DE-REGISTRATIONS REGISTRATIONS		REGISTRATIONS
Code	Name	Code	Name
306	Vilalba Sasserra	08252	Barberà del Vallès
		08053	Castellbell i el Vilar
		08061	Castellgalí
		08162	Hostalets de Pierola, Els
		08242	Marganell
		08122	Mediona
		08146	Olesa de Bonesvalls
		08179	Rellinars
		08236	Sant Quintí de Mediona
		08262	Sant Vicenç de Castellet

BILBAO (changes 2014-2015)		
REGISTRATIONS		
Code	Name	
48017	Bermeo	

GRANADA (changes 2014-2015)	
R	EGISTRATIONS
Code	Name
18059	Chauchina
18071	Dúrcal
18905	Gabias, Las
18143	Nigüelas

PAMPLONA (changes 2014-2015)		
	REGISTRATIONS	
Code	Name	
31007	Adiós	
31017	Anue	
31018	Añorbe	
31039	Artazu	
31040	Atez/Atetz	
31052	Belascoáin	

31056	Biurrun-Olcoz
31089	Enériz/Eneritz
31085	Etxauri
31136	Juslapeña
31147	Legarda
31156	Lizoáin-Arriasgoiti
31172	Monreal/Elo
31183	Obanos
31186	Odieta
31188	Olaibar
31228	Tiebas-Muruarte de Reta
31234	Ucar
31246	Uterga

SANTA CRUZ DE TENERIFE (changes 2014-2015)		
REGISTRATIONS		
Code	Name	
38039	Santa Úrsula	
38051	Victoria de Acentejo, La	

SEVILLA (changes 2014-2015)		
REGISTRATIONS		
Code	Name	
41023	Cantillana	
41027	Castilblanco de los Arroyos	
41069	Palacios y Villafranca, Los	
41904	Palmar de Troya, El	
41092	Tocina	
41095	Utrera	
41101	Villaverde del Río	

Valencia (changes 2014-2015)				
REGISTRATIONS				
Code	Name			
46015	Alcàsser			
46051	Benaguasil			
46065	Beniparrell			
46067Benisanó46114Domeño46136Godelleta46136Godelleta46147Llíria46148Loriguilla46176Montroi/Montroy46172Montserrat46182Olocau46230Silla46233Sollana46256Vilamarxant				
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46114Domeño46136Godelleta46136Godelleta46147Llíria46148Loriguilla46176Montroi/Montroy46172Montserrat46182Olocau46230Silla46233Sollana46256Vilamarxant				
46136Godelleta46147Llíria46148Loriguilla46176Montroi/Montroy46172Montserrat46182Olocau46230Silla46233Sollana46256Vilamarxant				
46147Llíria46148Loriguilla46176Montroi/Montroy46172Montserrat46182Olocau46230Silla46233Sollana46256Vilamarxant				
46148Loriguilla46176Montroi/Montroy46172Montserrat46182Olocau46230Silla46233Sollana46256Vilamarxant				
46176Montroi/Montroy46172Montserrat46182Olocau46230Silla46233Sollana46256Vilamarxant				
46172Montserrat46182Olocau46230Silla46233Sollana46256Vilamarxant				
46182Olocau46230Silla46233Sollana46256Vilamarxant				
46230Silla46233Sollana46256Vilamarxant				
46233Sollana46256Vilamarxant				
46256 Vilamarxant				