

BATTERY OF INDICATORS

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1 INTRODUCTION

This document defines the series of indicators for the evaluation of the objectives established in the Strategic Framework of the city of València within the València 2030 Urban Strategy, the initiative that specifies the city's Urban Agenda. The series of indicators proposed stems from the analysis of reference documents and indicator systems, which comprehensively cover the localisation of the SDGs and the objectives of the Urban Agenda at territorial level. These sources also include methodologies from organisations such as the Sustainable Development Solutions Network (SDSN) and the Spanish Sustainable Development Network (SDSN), the Joint Research Centre (JRC) and Eurostat, which provide a broader perspective at European level.

2 GENERAL METHODOLOGY

For the selection of indicators to measure the fulfilment of the specific objectives associated with each of the strategic lines of the Strategic Framework of the City of València, the methodology detailed below was followed.

2.1

Localisation and alignment to SDG targets and the Spanish Urban Agenda

The identification of activities, projects and objectives derives from the review of the City of València's own strategic documents. The main source of information was the "STRATEGIC FRAMEWORK OF THE CITY OF VALÈNCIA. València 2030 Urban Strategy". The framework on which these activities have been aligned is based on the 169 targets of the Sustainable Development Goals. However, not all of them are applicable at local and/or city level, and they have therefore been filtered to produce a smaller set using 3 criteria:

- Targets valid at city level according to the methodology of the Joint Research Centre (JRC) of the European Commission, as defined in its manual "European Handbook for SDG Voluntary Local Reviews".
- The relationship between the SDG targets and the specific objectives of the Spanish Urban Agenda, as defined by the Spanish Ministry of Transport, Mobility and Urban Agenda itself in the document "Relationship between the Strategic Objectives of the Spanish Urban Agenda and the SDGs".
- The goals assumed and established by València City Council in its document "Definition of strategic axes, lines and objectives. Analysis of the strategic positioning of the city of València"

2.2



Definition of the series of indicators

The selection of indicators is based on different criteria. They should be applicable at city level, be established from official and open sources and, as far as possible, be comparable and focused on evaluating the fulfilment of the strategic objectives. For the latter reason, the indicators are grouped as follows:

Effort indicators: These are focused on measuring the implementation status of a project and/or an action. Examples could be indicators of budget expenditure or the percentage or number of resources used to implement a project. These indicators are usually developed by the City Council itself and, although they are comparable with those of other cities, their positive value does not automatically translate into objective impact or fulfilment.

Result/impact indicators: These are focused on measuring the fulfilment of an objective. Examples include the unemployment rate, the Gini Index or CO2 emissions, indicators related to the measurement of the quality of life of citizens. In order to assess impact, it is necessary to include these types of indicators.

The relationship between effort indicator and result indicator can help us to gain insight as to whether the project, action or public policy implemented has had or is having a positive effect. In the context of the València Strategic Framework, the effort indicators are those defined by the Spanish Urban Agenda itself, which will be associated with the projects, and the result/impact indicators are those that will be aligned with the objectives of the strategic framework. Most of the suggested indicators have been taken from European-level reference sources aimed at measuring the SDGs in the urban environment.

	Source	Authoring body
	Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development	United Nations
	Global Urban Monitoring Framework	United Nations
	European Handbook for SDG Voluntary Local Reviews	Joint Research Centre of the European Commission
	Report "The SDGs in 100 Spanish cities"	Spanish Network for Sustainable Development
	Monitoring and Evaluation Indicators of the 2019 Spanish Urban Agenda	Ministry of Transport, Mobility and Urban Agenda
	"Definition of strategic axes, lines and objectives. Analysis of the strategic positioning of the city of València"	València City Council

A series of 291 possible indicators was defined from these sources. This first selection was filtered according to its calculability, level of coherence with the strategic objectives and the pooling of the pre-selection with València City Council staff and with other teams that work alongside it on projects to monitor the sustainability of the City of València.

Finally, the most appropriate and relevant indicators for the city of València were identified. The ideal indicator may not be measurable in the short term or easy to interpret. In these cases, the use of more than one indicator is proposed to measure the same objective, one that has a higher capacity to measure the impact on the Strategic Objective, but that may be more difficult to obtain due to its complexity of calculation or availability of data sources, and another indicator from public and open sources that can be obtained immediately.

The series of indicators ultimately proposed consists of 114 indicators, whose methodology, origin and data source are outlined in the following section of this document.

In addition, in order to monitor the implementation of the Strategic Framework, the monitoring indicators of the Spanish Urban Agenda are incorporated. Most of these indicators measure the effort made for the implementation of the projects, although their improvement does not necessarily represent a positive impact on a specific SUA objective. Therefore, to perform a good impact analysis, it is advisable to always assess the trend of the result/impact indicators and their relation with the SUA monitoring indicators.

3 INDICATORS BY STRATEGIC OBJECTIVE

Below is a list of the result indicators associated with each of the strategic objectives of the Strategic Framework of the city of València. The information is structured according to the strategic lines and the correlation between the indicator and the Sustainable Development Goals and the Urban Agenda is indicated.

SDG SUA RESULT INDICATORS

SL1. Climate resilience, land use and city wilding

SO1 Spatially integrate the city through green and blue infrastructure at the metropolitan level

- 11.4. 1.2. Population with access to green spaces within less than a 5-minute walk
- 11.7. 1.3. Green spaces per capita
- 15.1. 2.4.

SO2 Adaptation to climate change

- 13.1. 3.2. Percentage of days with extreme temperatures
- 13.2. 3.3. Average temperature increase over the last 10 years

The following experimental indicators are suggested:

- 13.1. 3.2. People affected by disasters per 100,000 inhabitants and quantification of data,
- 13.2. 3.3. according to the EM-DAT methodology
- Excess deaths attributable to temperature

SO3 Reduce noise and air pollution

- 13.2. 3.2. Total greenhouse gas emissions by resident units per capita
- 13.2. 3.2. Total greenhouse gas emissions by resident units per unit of GDP
- 11.6. 2.4. Number of days exceeding air quality limits (PM10) according to WHO
- 11.6. 2.4. Number of days exceeding air quality limits (PM2.5) according to WHO
- 11 2.3. Quality of silence

SO4 Move towards a circular economy model

- 12.5. 4.3. Recycled municipal waste
- 12.5. 4.4. Waste generation per capita

SO5 Improve the efficient use and quality of water

- 14.1. 1.2. Percentage of beaches with blue flags
- 14.1. 1.2. Bathing water quality index

6.1. 4.2. Domestic water consumption per capita per day

SL2. Just and inclusive energy transition

SO6 Increase the production of renewable energies

7.2. 4.1. Share of renewable energies in the gross final consumption of energy
Local production of electricity with renewable energies

SO7 Change the energy culture: increase self-consumption, responsible energy consumption and energy efficiency in buildings

7.3. 4.1. Household consumption of electricity

7.3. 2.6. Proportion of buildings constructed or renovated after 2008
4.1.

SO8 Right to energy

7.1. 4.1. Impact of electricity expenditure on the average household income

SL3. Sustainable, inclusive and efficient urban and metropolitan mobility

SO9 Establish a non-polluting model based on active mobility and the use of public transport

11.2. 5.2. Bus journeys (EMT) per capita

11.2. 5.2. Population with access to a cycle path less than 5 minutes away

11.2. 5.2. Average use intensity of cycle paths

11.2. 5.2. Pedestrian streets per capita

SO10 Promote safe and autonomous mobility for all ages

11.2. 5.2. Population with an accessible public transport stop less than 5 minutes away
Number of city bus stops per capita

SO11 Improve connectivity at the metropolitan level

11.2. 5.2. Population with a public transport stop less than 5 minutes away
Number of intercity bus stops per capita

11.2. 5.2. Intercity travel density per capita and by neighbourhood
Average number of passengers transported by commuter train

SO12 Accelerate the decarbonisation of mobility

11.2. 5.2. Motorisation rate (polluting vehicles)

SO13 Increase the efficiency of the logistics system

- 9.1. 5.1. Sustainability of urban freight distribution (last mile)
5.2.

SO14 Boost strategic infrastructures

- 9.1. 5.1. People arriving or departing from the city of València by railway (RENFE)
5.2.

- 9.1. 5.1. People arriving or departing from the city of València by airport

SL4. Sustainable and local food

SO15 Promote the agro-ecological transition and revitalise the agricultural system of the city of València to strengthen local trade

- 2.3. 7.1. Percentage of surface area allocated to small producers in relation to the total surface area allocated to agriculture
Proportion of workers in the agricultural sector

SO16 Strengthen the physical, ecological and cultural links between La Huerta and the city

- 2.4. 1.1. Crop area by municipality

SO17 Guarantee the right to sustainable and healthy food

- 2.1. 6.2. Impact of food expenditure on the average household income

SL5. Inclusive and local city

SO18 Achieve a territorial balance in the distribution of the city's public facilities

- 3.4. 2.1. Proportion of the elderly population with access to elderly care services within less than a 5-minute walk
Number of nursing homes per 100,000 inhabitants over 65 years of age
- 4 2.1. Proportion of the population within less than a 5-minute walk to educational facilities
Number of schools per 100,000 inhabitants under 18 years old
- 3.4. 2.1. Proportion of the population within less than a 5-minute walk to sports facilities
Number of sports facilities per 100,000 inhabitants
- 3.8. 2.1. Proportion of the population within less than a 5-minute walk to healthcare facilities
Number of healthcare facilities per 100,000 inhabitants

SO19 Improve the provision of public and green spaces in neighbourhoods to encourage rewilding

- 11.7. 2.3. Population with access to green spaces within less than a 5-minute walk
Green spaces per capita

SO20 Consolidate urban multi-centrality in a 15-minute city model

- 8.10. Proportion of the population with access to banks and ATMs less than 5 minutes away
Number of banks per 100,000 inhabitants
- 11.4. Proportion of the population with access to cultural facilities within less than a 5-minute walk
Number of cultural facilities per 100,000 inhabitants
- Proportion of the population with access to entertainment facilities (hairdressers, cinemas, gyms, spas, amusement parks, playgrounds and cafes) less than 5 minutes away
Number of cinemas and theatres per 100,000 inhabitants
- Proportion of the population with access to commercial services (markets, supermarkets, shops and shopping centres) less than 5 minutes away
Number of commercial properties per 100,000 inhabitants

SL6. Urban regeneration based on social cohesion, accessibility and sustainability**SO21 Develop a sustainable and gentrification-free urban regeneration model**

- 11.1. 8.1. Urban Vulnerability Index
- 11.1. 8.2. Housing Affordability Index
- 1.2. 6.1. Proportion of people at risk of poverty or social exclusion

SO22 Achieve València's status as a fully accessible and inclusive city for all people

- 11.3. 6.1. Percentage of facilities with suitable accessibility for people with disabilities
- 6.2. Percentage of people who have felt discriminated against on the basis of disability in the last 12 months

SL7. Accessible and sustainable housing**SO23 Ensure access to affordable and quality housing stock**

- 11.1. 8.2. Housing Affordability Index

SO24 Increase the quality of the built-up housing stock

- 7.3. 4.1. Percentage of dwellings with an A-rated energy certificate
- 7.3. 4.1. Proportion of buildings constructed or renovated after 2008
- 11.1. 8.1. Proportion of people living in households with housing deficiencies

SO25 Incentivise the sustainable use of empty housing in the city

11.1. 8.1. Empty housing

SL8. Associative fabric, and intergenerational and intercultural citizen networks

SO26 Strengthen the associative fabric and citizen and community networks

Number of partnerships

SL9. Well-being, education and health, at all stages of life

SO27 Strengthen and increase the resilience of the social care system for vulnerable people

1.2. 6.1. Proportion of people at risk of poverty or social exclusion

SO28 Reduce the gaps in socio-economic determinants of health

3.4. Life expectancy at birth

3.8. 2.1. Proportion of people living in households with large health expenditures, above 10% of total household expenditure Impact of health expenditure on the average household income

3.4. Premature mortality rate from non-communicable diseases

SO29 Promote healthy behaviours

3.4. Deaths due to alcohol and drug abuse

3.4. Mortality rate attributed to cardiovascular diseases

3.4. Suicide mortality rate

SO30 Develop València as an educating city

4.3. 6.2. Percentage of people with higher education degrees

4.1. Population aged between 5 and 18 in school

SO31 Increase access to early childhood education

4.2. Children aged between 0 and 4 in nursery schools

SO32 Ensure dignified and active ageing

6.2. Risk of poverty rate for people aged 65 and over

SO33 Reduce gender inequalities across the city

5.1. 6.2. Salary gap

5.1. 6.2. Gender employment gap

5.1. 6.2. Percentage of unemployed women

5.5. 6.2. Proportion of women in government

SL10. Inclusive and sustainable economic development

SO34 Develop new clusters of economic activity based on innovation, knowledge and the environment

8.3. 7.1. Number of technology-based SMEs per 1000 inhabitants

Companies in the industrial sector

SO35 Increase employment rates of women and labour market integration of young people and migrants

5.1. 6.2. Percentage of unemployed women

8.5. 7.1. Percentage of long-term unemployed

8.6. 7.1. Registered unemployment among young people with a low level of education

10.2. 6.2. Proportion of foreign workers affiliated to the Social Security system

SO36 Digitise the economy in order to reduce the risk of social, economic and gender exclusion caused by the digital transformation

9.c 6.2. Population with broadband internet coverage

4.4. 6.2. Proportion of 25–74-year-olds who have used a computer skill in the last 12 months

SO37 Promote entrepreneurship, self-employment and the consolidation of existing companies in the city

8.3. 7.1. Start-up attractiveness

SL11. Innovation, culture and sustainable tourism

SO38 Integrate R&D&I within the economic, social and environmental sectors

9.5. 7.1. Number of patent applications per 100,000 inhabitants

8.3. 7.1. Research, development and innovation expenditure

SO39 Consolidate València as a hub of culture, design and innovation

8.9. 7.2. Tourism intensity (visitors per inhabitant)

8.9. 7.2. Tourism intensity (number of overnight stays per hotel vacancy)

8.9. 7.2. Tourism seasonality rate

SO40 Invigorate and increase the resilience of the local and festive cultural sector

8.9. 7.2. Average stay at hotels and tourist apartments

SO41 Promote, maintain and strengthen the Fallas of València

11.4. 1.2. Number of visitors attracted by the Fallas of València

SO42 Make progress in the permanent improvement of the tourist destination in terms of sustainability and intelligence

8.9. 7.2. GHG emissions attributed to the direct consumption of energy in tourist establishments

8.9. 7.2. Water consumption in tourist establishments

8.9. 7.2. Waste generated by tourist establishments

SO43 Innovation and value creation in the design of the tourist offer

11.4. 1.2. Budget allocated to the improvement and maintenance of tourist sites

SO44 Consolidate the València brand in relation to innovation, culture and sustainable tourism

8.9. 7.2. Tourism intensity (number of visitors per inhabitant)

11 7.2. Cultural Creative City Index

SL12. Urban and metropolitan governance

SO45 Strengthen municipal administration as an instrument to deliver public policies that put people at their centre

4.4. 6.2. Staff training budget

SO46 Enhance open government, transparency and participation in the elaboration and implementation of public policies

16.6. 10.2. Economic and Financial Transparency Index

16.6. 10.2. Transparency and Open Data Indexes

16.7. 10.2. Public Participation and Collaboration Index

SO47 Develop a model of metropolitan governance

16.6. 10.3. Strength and autonomy of the municipal institution

SO48 Enhance digitalisation, modernisation and coordination for efficient municipal government

16.6. 9.2. Percentage of procedures and formalities carried out online by businesses and citizens

16.6. 9.2. Service Procurement Index

4 METHODOLOGY OF EACH INDICATOR BY STRATEGIC OBJECTIVE

SO1 Spatially integrate the city through green and blue infrastructure at the metropolitan level

Indicator	Population with access to green spaces within a 5-minute walk		
Origin	Joint Research Centre	Unit	%
Data source	Land use (Copernicus Land Cover, Urban Atlas, SIOSE, city council's own layers) https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/jardineria Road network (National Centre for Geographic Information) https://centrodedescargas.cnig.es/CentroDescargas/index.jsp Population/portals (Cadastral, via the Inspire download service)		
Description	<p>To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area function (from layer) is used (or the equivalent function for other software), taking urban green areas (understood as parks and gardens, as well as forests and meadows, within the urban core) with a surface area greater than one hectare as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.</p> <p>The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.</p> <p>To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastral portals or a population grid can be used for an approximation.</p> <p>The detailed methodology can be found in the paper "A short walk to the park? Describing the updated methodology" (Poelman et al., 2021)</p>		
Indicator	Green spaces per capita		
Origin	Spanish Network for Sustainable Development	Unit	m ² /inhab
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=12)		
Description	Land area of urban parks and green areas compared to the population of the municipality. Again, all parks and gardens, as well as meadows and forests within the study area are considered as urban green areas.		

SO 2. Adaptation to climate change

Indicator Percentage of days with extreme temperatures

Origin Joint Research Centre **Unit** %

Data source Ministry for the Ecological Transition and the Demographic Challenge (MITECO)
(https://public.tableau.com/views/SistemaIntegradodeDatosMunicipales/B6_MedioAmbiental)

Description Percentage of days per year with extreme temperatures, with reference to the 1981-2010 control period, for a global warming level of 2°C.

Indicator Average temperature increase over the past 10 years

Origin Joint Research Centre **Unit** °C

Data source València City Council (<https://www.valencia.es/es/cas/energias/energias-renovables-y-cambio-climatico>)

Description Average annual temperature increase between 2022 and 2012

Indicator People affected by disasters per 100,000 inhabitants and quantification of data, according to the EM-DAT methodology

Origin Joint Research Centre **Unit** %

Data source Spanish National Institute of Statistics (INE)
(<https://www.ine.es/dyngs/ODS/en/indicador.htm?id=4840>)

Description Number of deaths, missing and people directly affected by disasters per 100,000 people. Affected people include people who are in poor health, displaced or who have suffered direct damage to their livelihoods and economic, social, cultural and environmental assets.
The dataset is composed of various sources, such as the United Nations, governmental and non-governmental agencies, insurance companies, research institutes and press agencies.
The data are filtered and harmonised by the Centre for Research on the Epidemiology of Disasters (CRED), collected in the Emergency Events Database (EM-DAT) and provided at municipal level.

Indicator Excess deaths attributable to temperature

Origin Ministry of Health **Unit** %

Data source	All-cause daily mortality monitoring system (MoMo) (https://momo.isciii.es/panel_momo/#section-momo)
Description	Difference between observed and estimated base mortality attributable to excess temperature. ATO (accumulated thermal overcharge) is a synthetic variable that measures the temperature overcharge or undercharge. Its use is based (albeit with modifications) on the Portuguese model of Nogueira, Paixao N, 2007. There are thresholds for triggering mortality due to excess maximum temperature (cf. Díaz Jiménez J, Linares Gil C., Carmona Alférez R. 2015) that assign each province a critical maximum temperature above which mortality increases.

SO 3. Reducing noise and air pollution

Indicator	Total greenhouse gas emissions by resident units per capita		
Origin	Joint Research Centre Spanish Network for Sustainable Development United Nations	Unit	tCO ₂ eq/inhab
Data source	València City Council (https://www.valencia.es/dadesobertes/en/dataset/?id=gei-emissions-data-in-valencia)		
Description	Total GHG emissions are calculated as the sum of direct GHG emissions: carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃), measured in CO ₂ equivalent units, using a common weighting factor, the so-called global warming potentials (GWPs). According to the latest reporting guidelines for Annex I Parties under the UNFCCC, the GWP values to be used are those for the 100-year time horizon given in Table 2.14 of the IPCC Fourth Assessment Report (https://www.ipcc.ch/report/ar4/wg1/). However, non-Annex I Parties should use the GWP provided in the IPCC Second Assessment Report (https://www.ipcc.ch/report/ipcc-second-assessment-full-report/), based on GHG effects over 100 years. GHG emissions divided by the number of inhabitants.		

Indicator	Total greenhouse gas emissions by resident units per unit of GDP		
Origin	Joint Research Centre Spanish Network for Sustainable Development United Nations	Unit	tCO ₂ eq/€M
Data source	València City Council (https://www.valencia.es/dadesobertes/en/dataset/?id=gei-emissions-data-in-valencia)		
Description	Total GHG emissions are calculated as the sum of direct GHG emissions: carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃), measured in CO ₂ equivalent units, using a common weighting factor, the so-called global warming potentials (GWPs). According to the latest reporting guidelines for Annex I Parties under the UNFCCC, the GWP values to be used are those for the 100-year time horizon given in Table		

2.14 of the IPCC Fourth Assessment Report (<https://www.ipcc.ch/report/ar4/wg1/>). However, non-Annex I Parties should use the GWP provided in the IPCC Second Assessment Report (<https://www.ipcc.ch/report/ipcc-second-assessment-full-report/>), based on GHG effects over 100 years.

GHG emissions divided by GDP

Indicator		Number of days on which air pollution exceeds the WHO limit (PM10)	
Origin	Joint Research Centre Spanish Network for Sustainable Development United Nations	Unit	Days
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/11-6-4/)		
Operations	Number of days during the year exceeding 45 µg/m ³ (daily limit set by the World Health Organisation) of PM10 particles (diameter less than 10 µm, coarse particulate matter).		

Indicator		Number of days on which air pollution exceeds the WHO limit (PM2.5)	
Origin	Spanish Network for Sustainable Development Urban Monitoring Framework	Unit	Days
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=12)		
Operations	Number of days during the year exceeding 15 µg/m ³ (daily limit set by the World Health Organisation) of PM2.5 particles (diameter less than 2.5 µm, fine particulate matter).		

Indicator		Quality of Silence	
Origin	Spanish Urban Agenda	Unit	%
Data source	València City Council. A geo-referenced noise map, a geo-referenced municipal street map and a geo-referenced population census are required for the calculation.		
Operations	Thanks to the geo-referenced noise map and the municipal street map, it is possible to establish the streets with a noise level higher than 65 dB during the day and 55 dB at night. Having obtained the list of streets, with the help of the geo-referenced population census, it is possible to establish the number of people exposed to a non-recommended noise level.		

SO4. Moving towards a circular economy model**Indicator** Recycled municipal waste

Origin Joint Research Centre **Unit** %
 Spanish Network for Sustainable
 Development
 Urban Monitoring Framework

Data source València City Council (<https://ods-valencia.github.io/estadistica/es/12/>)

Description Proportion of recycled waste in relation to total collected waste
 Recycling refers to any recovery operation by which the materials
 constituting waste are transformed back into products, materials or
 substances for their original purpose or for other purposes. It does not refer
 to the organic recovery of biodegradable municipal waste.
 Waste refers to any waste generated by households, as well as other waste
 that, by its nature or composition, is similar to household waste
 (assimilated).

Indicator Waste generation per capita

Origin Spanish Network for Sustainable **Unit** kg/inhab.
 Development
 Joint Research Centre
 Urban Monitoring Framework

Data source València City Council (<https://ods-valencia.github.io/estadistica/es/12/>)

Description Total amount of municipal waste (household and commercial) collected per
 capita in a year (in kg per capita).
 Municipal waste consists of waste collected by or on behalf of municipal
 authorities and disposed of through waste management systems. It is
 calculated by dividing the total amount of waste generated in the
 municipality per year by the total number of inhabitants living in the
 municipality on 1 January.

SO5. Improving the efficient use and quality of water

Indicator Percentage of beaches with blue flags

Origin Spanish Network for Sustainable Development **Unit** %

Data source Generalitat Valenciana (<https://pegv.gva.es/es/bdt>)

Description Number of blue flag beaches in relation to the total number of beaches in the municipality. The criteria for awarding the blue flag are agreed annually at international level by national operators. For more information on blue flags: <https://www.banderaazul.org/>

Indicator Bathing water quality index

Origin Spanish Network for Sustainable Development **Unit** Contents

Data source Generalitat Valenciana (<https://pegv.gva.es/es/bdt>)

Description Bathing waters are classified in the poor, sufficient, good or excellent quality categories when the percentile values for *Escherichia coli* (CFU/100 ml) and Intestinal Enterococci (CFU/100 ml) correspond to the different limits set by the Ministry of Health in the data series corresponding to the last assessment period (current season plus the three previous seasons) (<https://www.sanidad.gob.es/va/profesionales/saludPublica/saludAmbLaboral/calidadAguas/aguasBanno/>)

Indicator Domestic water consumption per capita per day

Origin Spanish Network for Sustainable Development, Joint Research Centre, Urban Monitoring Framework **Unit** L/inhab/day

Data source València City Council (<https://ods-valencia.github.io/estadistica/es/6-1-2/>)

Description Ratio between the water billed to domestic users during the reference year and the population on 1 July of the reference year, divided by the number of days in the reference year (365 or 366).

SO 6. Increase the production of renewable energies

Indicator	Share of renewable energies in the gross final consumption of energy
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Origin	Spanish Network for Sustainable Development	Unit	%
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Data source	València City Council
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Description	Energy consumed from renewable sources in relation to the total energy consumed in the municipality
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Indicator	Local production of electricity with renewable energies
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Origin	Spanish Network for Sustainable Development	Unit	kWh
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Data source	València City Council. First PACES 2030 monitoring report (pg. 9). https://www.valencia.es/documents/20142/424002/Primer+Informe+Seguimiento+PACES+ABRIL+2021-1.pdf/9df57815-2b04-1a56-3809-63fc2794f937?t=1623400809599
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Description	Amount of energy generated from renewable sources
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SO7 Change the energy culture: increase self-consumption, responsible energy consumption and energy efficiency in buildings

Indicator	Household consumption of energy		
Origin	Spanish Network for Sustainable Development Joint Research Centre	Unit	kWh/inhab/day
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/7-1-2/)		
Description	Ratio between the electricity billed to domestic users during the year and the population on 1 July of the reference year, divided by the number of days of the reference year (365 or 366).		
Indicator	Proportion of buildings constructed or renovated after 2008		
Origin	Spanish Network for Sustainable Development Joint Research Centre	Unit	%
Data source	Cadastre (https://www.catastro.minhap.es/esp/estadisticas.asp)		
Description	Calculated from cadastral information on buildings at municipal level. Proportion of buildings constructed or renovated after 2008 in relation to the total number of buildings in the municipality. NOTE: The indicator "Percentage of new dwellings" is available on the City Council's SDG statistics portal (https://ods-valencia.github.io/estadistica/es/7-1-4/). It follows the same methodology but is not updated: Proportion of buildings constructed or renovated after 1980 in relation to the total number of buildings in the municipality.		

SO8. Right to energy

Indicator	Impact of electricity expenditure on the average household income		
Origin	Spanish Network for Sustainable Development	Unit	%
Data source	INE - Household Budget Survey and Experimental INE (https://www.ine.es/dyngs/INEbase/es/categoria.htm?c=Estadistica_P&cid=1254735976608)		
Description	Average expenditure per household on electricity by Autonomous Community in relation to the average income per household in each municipality. The household budget survey has microdata files available for the calculation at municipal level for València City Council, but the regional value is sufficient to calculate the indicator.		

SO9. Establish a non-polluting model based on active mobility and the use of public transport

Indicator	Bus journeys (EMT) per capita		
Origin	Spanish Network for Sustainable Development Joint Research Centre	Unit	N
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3) and (https://ods-valencia.github.io/estadistica/es/11-2-6/)		
Description	Ratio of the number of bus journeys made during the year divided by the population on 1 July of the reference year.		
Indicator	Population with access to a cycle path less than 5 minutes away		
Origin	Urban Monitoring Framework Spanish Urban Agenda	Unit	%
Data source	Location of cycle lane centres: València City Council Road network (National Centre for Geographic Information) (https://centrodedescargas.cnig.es/CentroDescargas/index.jsp) Population/portals (Cadastre, via the Inspire download service)		
Description	<p>To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area function (from layer) is used (or the equivalent function for other software), taking the cycle lanes and cycle streets as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.</p> <p>The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.</p> <p>To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.</p>		
Indicator	Average use intensity of cycle paths		
Origin	València City Council	Unit	N

Data source València City Council. Sustainable mobility service
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3>)

Description Number of bikes detected per cycle path. This includes sections with measured traffic intensity and with an annual average daily traffic (ADT) of more than 1,500 bicycles.

Indicator	Pedestrian streets per capita		
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Origin	València City Council	Unit	m/inhab
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Data source València City Council. Sustainable mobility service
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3>)

Description Ratio of linear metres of pedestrian streets per street section and population.

SO10 Promote safe and autonomous mobility for all ages

Indicator Population with an accessible public transport stop less than 5 minutes away

Origin Urban Monitoring Framework
Joint Research Centre

Unit %

Data source EMT València (<https://www.emtvalencia.es/ciudadano/index.php>) (direct request for geographic data in GTFS format)
Generatitat Valenciana (<https://dadesobertes.gva.es/dataset/gtfs-itineraris-horaris-transport-public-interurba-autobus-comunitat-valenciana>)
Road network (National Centre for Geographic Information) (<https://centrodedescargas.cnig.es/CentroDescargas/index.jsp>)
Population/portals (Cadastre, via the Inspire download service)

Description To calculate this indicator, the network analysis functions of GIS software are used. To calculate the service area of each mode of transport, the QGIS service area function (from layer) is used (or the equivalent function for other software), taking bus, metro and train stops as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance. A bus stop that is less than a 5-minute walk from an entrance or building is considered to be accessible to the population, which is equivalent to a 400 m walk along the street layout from the service of origin to the entrance or building. In the case of metro and train stops, the distance used is 833 m along the street layout, equivalent to a 10-minute walk. The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool. To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation. Additionally, the population within the service area of the different means of transport is classified into 5 levels of accessibility, in accordance with the methodology proposed by the Joint Research Centre.
(https://proceedings.esri.com/library/userconf/euc14/papers/euc_44.pdf)

	Metro and suburban railway				
	Frequency (departures/h)	High (>10)	Medium (4-10)	Low (<4)	No service
Bus	High (>10)	Very high	High	High	High
	Medium (4-10)	High	Medium	Medium	Medium
	Low (<4)	High	Medium	Low	Low
	No service	High	Medium	Low	No service

Indicator	Number of city bus stops per capita		
Origin	Polytechnic University of València	Unit	N/inhab
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3)		
Description	Number of EMT stops per capita		

SO11 Improve connectivity at the metropolitan level

Indicator Population with a public transport stop less than 5 minutes away

Origin Urban Monitoring Framework
Joint Research Centre

Unit %

Data source EMT València (<https://www.emtvalencia.es/ciudadano/index.php>) (direct request for geographic data in GTFS format)
Generatitat Valenciana (<https://dadesobertes.gva.es/dataset/gtfs-itineraris-horaris-transport-public-interurba-autobus-comunitat-valenciana>)
Road network (National Centre for Geographic Information) (<https://centrodedescargas.cnig.es/CentroDescargas/index.jsp>)
Population/portals (Cadastre, via the Inspire download service)

Description To calculate this indicator, the network analysis functions of GIS software are used. To calculate the service area of each mode of transport, the QGIS service area function (from layer) is used (or the equivalent function for other software), taking bus, metro and train stops as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance. A bus stop that is less than a 5-minute walk from an entrance or building is considered to be accessible to the population, which is equivalent to a 400 m walk along the street layout from the service of origin to the entrance or building. In the case of metro and train stops, the distance used is 833 m along the street layout, equivalent to a 10-minute walk.

The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.

To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

Additionally, the population within the service area of the different means of transport is classified into 5 levels of accessibility, in accordance with the methodology proposed by the Joint Research Centre (https://proceedings.esri.com/library/userconf/euc14/papers/euc_44.pdf)

Metro and suburban railway					
Bus	Frequency (departures/h)	High (>10)	Medium (4-10)	Low (<4)	No service
	High (>10)	Very high	High	High	High
	Medium (4-10)	High	Medium	Medium	Medium
	Low (<4)	High	Medium	Low	Low
	No service	High	Medium	Low	No service

Indicator	Number of city bus stops per capita		
Origin	Polytechnic University of València	Unit	N/inhab
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3)		
Description	Number of EMT stops per capita		
Indicator	Intercity travel density per capita and by neighbourhood		
Origin	Polytechnic University of València	Unit	%
Data source	Ministry of Urban Agenda (https://www.mitma.gob.es/ministerio/covid-19/evolucion-movilidad-big-data/opendata-movilidad)		
Description	The mobility Big Data portal. The content is structured, on a first level, in two folders corresponding to the two master matrices, the journey matrix (master 1) and the journey per person matrix (master 2). Each folder, in turn, is structured on a second level by days and by full months of both the study period (from 29 February 2020 onwards) and the reference period (from 14 to 20 February 2020). It also includes information on the zoning used and its geographical representation. The methodology is available at: https://opendata-movilidad.mitma.es/README%20-%20formato%20ficheros%20movilidad%20MITMA%2020201228.pdf		
Indicator	Average number of passengers transported by commuter train		
Origin	United Nations	Unit	N
Data source	INE (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3)		
Description	The number of passengers is calculated on the basis of information supplied by the railway operators, taking into account the average annual number of passengers transported by commuter trains.		

SO12. Accelerate the decarbonisation of mobility

Indicator	Motorisation rate (polluting vehicles)
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Origin	Spanish Network for Sustainable Development	Unit	Per 1,000 inhab.
Data source	INE (https://www.ine.es/dyngs/INEbase/es/categoria.htm?c=Estadistica_P&cid=1254735976608)		
Description	Number of motorised vehicles registered for road tax and the number of inhabitants, expressed in vehicles per 1,000 inhabitants, with the desirable trend being a decrease. The following types of vehicles are taken into account: passenger cars, motorbikes and mopeds.		

SO13 Increase the efficiency of the logistics system

Indicator	Sustainability of urban freight distribution (last mile)
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Origin	Spanish Urban Agenda	Unit	Km*CEU
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Data source	Spanish Ministry of Transport, Mobility and Urban Agenda (MITMA) (https://apps.fomento.gob.es/BoletinOnline2/?nivel=2&orden=53000000)
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Operations	<p>The indicator reflects cargo break-down facilities, enabling the distribution of goods with small-sized vehicles. This requires warehousing and cargo consolidation centres in urban areas.</p> <p> Cargo distribution centre density (centres no./km²) $= \frac{\text{No. of centres in the city}}{\text{Urban area (km}^2\text{)}} \times 100$ </p>
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SO14 Boost strategic infrastructures

Indicator	People arriving or departing from the city of València by railway (RENFE)
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Origin	València City Council	Unit	N
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Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3)
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Description	Number of high-speed and medium-distance passengers arriving or departing from the city of València.
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Indicator	People with arriving or departing from the city of València by airport
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Origin	València City Council	Unit	N
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Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=3)
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Description	Number of tickets per airport arriving or departing from the city of València.
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SO15 Promote the agro-ecological transition and revitalise the agricultural system of the city of València to strengthen local trade

Indicator Percentage of surface area allocated to small producers in relation to the total surface area allocated to agriculture

Origin Polytechnic University of València **Unit** %

Data source València City Council (<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=6>)

Description Small primary producers are considered to be small-scale farmers, herders and forest caretakers who manage plots of land of up to 10 hectares. Sum of the area of holdings belonging to small producers in relation to the total area used for primary production in the municipality.

Indicator Proportion of workers in the agricultural sector

Origin Spanish Network for Sustainable Development **Unit** %

Data source General Treasury of the Social Security (TGSS) (<https://www.seg-social.es/wps/portal/wss/internet/EstadisticasPresupuestosEstudios/Estadisticas/est8/est10/est305/c43ad8ea-fe79-4329-ac8e-e5758f3c4d7a>)

Description Percentage of employees in the primary sector (Activity Group A) in relation to the total number of employees in all sectors.

SO16 Strengthen the physical, ecological and cultural links between La Huerta and the city

Indicator	Crop area		
Origin	Spanish Network for Sustainable Development Spanish Urban Agenda	Unit	%
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=6)		
Description	Percentage of productive crop area in the municipality in relation to the total area		

SO17 Guarantee the right to sustainable and healthy food

Indicator	Annual expenditure by individuals on food
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Origin	Spanish Network for Sustainable Development	Unit	%
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Data source	INE (https://www.ine.es/dyngs/INEbase/operacion.htm?c=Estadistica_C&cid=1254736176806&menu=resultados&secc=1254736194790&idp=1254735976608)
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Description	Ratio of total annual expenditure of persons residing in private households in main family dwellings in the city of València on food or non-alcoholic beverages in relation to total annual expenditure during the reference year.
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SO18 Achieve a territorial balance in the distribution of the city's public facilities

Indicator Proportion of the elderly population with access to elderly care services (nursing homes, apartments for the elderly, schools for the elderly) within less than a 5-minute walk

Origin Urban Monitoring Framework
Spanish Urban Agenda **Unit** %

Data source Location of care centres for the elderly: València Geoportal (<https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/>)
Road network (National Centre for Geographic Information) (<https://centrodedescargas.cnig.es/CentroDescargas/index.jsp>)
Population/portals (Cadastre, via the Inspire download service)

Description To calculate this indicator, the network analysis functions of GIS software are used. To calculate the service area, the QGIS service area function (from layer) is used (or the equivalent function for other software), taking the elderly care services (understood as nursing homes, apartments for the elderly, schools for the elderly) as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.
The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.
To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

Indicator Number of nursing homes per 100,000 inhabitants over 65 years of age

Origin Urban Monitoring Framework **Unit** N/100,000 inhabitants

Data source València City Council (<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=16>)

Description Number of nursing homes per 100,000 inhabitants over 65 years of age

Indicator Proportion of the population within less than a 5-minute walk to educational facilities

Origin	Urban Monitoring Framework Spanish Urban Agenda	Unit	%
Data source	Location of educational centres: València Geoportal (https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/) Road network (National Centre for Geographic Information) (https://centrodedescargas.cnig.es/CentroDescargas/index.jsp) Population/portals (Cadastre, via the Inspire download service)		
Description	To calculate this indicator, the network analysis functions of GIS software are used. To calculate the service area, the QGIS service area (from layer) function (or the equivalent function for other software) is used, taking the early childhood, primary and secondary schools (ISCED 0, 1 and 2) as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework. The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool. To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.		

Indicator	Number of schools per 100,000 inhabitants under 18 years old		
Origin	Urban Monitoring Framework	Unit	N/100,000 inhabitants
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=9)		
Description	Number of early childhood, primary and secondary schools (ISCED 0, 1 and 2) per 100,000 inhabitants under 18 years of age.		
Indicator	Proportion of the population within less than a 5-minute walk to sports facilities		
Origin	Urban Monitoring Framework Spanish Urban Agenda	Unit	%
Data source	Location of sports facilities: València Geoportal (https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/) Road network (National Centre for Geographic Information) (https://centrodedescargas.cnig.es/CentroDescargas/index.jsp)		

Population/portals (Cadastre, via the Inspire download service)

Description To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area (from layer) function (or the equivalent function for other software) is used, taking the sports facilities (sports centres, sports fields and outdoor fitness parks) as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework. The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool. To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

Indicator	Number of sports facilities per 100,000 inhabitants		
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Origin	Urban Monitoring Framework	Unit	N/100,000 inhabitants
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Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=14)		
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Description	Number of sports facilities (sports centres, playing fields and outdoor fitness parks) per 100,000 inhabitants.		
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Indicator	Proportion of the population within less than a 5-minute walk to healthcare facilities		
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Origin	Urban Monitoring Framework Spanish Urban Agenda	Unit	%
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Data source	Location of healthcare facilities: València Geoportal (https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/) Road network (National Centre for Geographic Information) (https://centrodedescargas.cnig.es/CentroDescargas/index.jsp) Population/portals (Cadastre, via the Inspire download service)		
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Description To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area (from layer) function (or the equivalent function for other software) is used, taking the healthcare services (hospitals, health centres and speciality clinics) as the starting point layer and the road network of the National Centre for

Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.

The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.

To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

Indicator	Number of healthcare facilities per 100,000 inhabitants		
Origin	Urban Monitoring Framework	Unit	N/100,000 inhabitants
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=5)		
Description	Number of residences of healthcare service centres (hospitals, health centres and speciality clinics) per 100,000 inhabitants.		

SO19 Improve the provision of public and green spaces in neighbourhoods to encourage rewilding

Indicator Population with access to green spaces within less than a 5-minute walk

Origin Joint Research Centre **Unit** %

Data source Land use (Copernicus Land Cover, Urban Atlas, SIOSE, city council's own layers)
(<https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/jardineria>)
Road network (National Centre for Geographic Information)
(<https://centrodedescargas.cnig.es/CentroDescargas/index.jsp>)
Population/portals (Cadastre, via the Inspire download service)

Description To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area function (from layer) is used (or the equivalent function for other software), taking urban green areas (understood as parks and gardens, as well as forests and meadows, within the urban core) with a surface area greater than one hectare as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.

The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.

To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

The detailed methodology can be found in the paper "A short walk to the park? Describing the updated methodology" (Poelman et al., 2021)

Indicator Green spaces per capita

Origin Spanish Network for Sustainable Development **Unit** m²/inhab

Data source València City Council (<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=12>)

Description Land area of urban parks and green areas compared to the population of the municipality. Again, all parks and gardens, as well as meadows and forests within the study area are considered as urban green areas.

SO20 Consolidate urban multi-centrality in a 15-minute city model

Indicator Proportion of the population within less than a 5-minute walk to banks and ATMs

Origin Urban Monitoring Framework
Spanish Urban Agenda **Unit** %

Data source Location of banks or ATMs: València Geoportal
(<https://valencia.opendatasoft.com/explore/?sort=modified>)
Road network (National Centre for Geographic Information)
(<https://centrodedescargas.cnig.es/CentroDescargas/index.jsp>)
Population/portals (Cadastre, via the Inspire download service)

Description To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area (from layer) function (or the equivalent function for other software) is used, taking the banking institutions (bank branches, ATMs) as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.
The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.
To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

Indicator Number of banks per 100,000 inhabitants

Origin Urban Monitoring Framework **Unit** N/100,000 inhabitants

Data source València City Council (<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=6>)

Description Number of bank branches per 100,000 inhabitants.

Indicator Proportion of the population within less than a 5-minute walk to cultural facilities (museums, libraries, cultural centres, etc.)

Origin Urban Monitoring Framework
Spanish Urban Agenda **Unit** %

Data source	<p>Location of cultural facilities: València Geoportal (https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/cultura-educacion-deportes)</p> <p>Road network (National Centre for Geographic Information) (https://centrodedescargas.cnig.es/CentroDescargas/index.jsp)</p> <p>Population/portals (Cadastre, via the Inspire download service)</p>
Description	<p>To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area (from layer) function (or the equivalent function for other software) is used, taking the places of cultural interest (museums, libraries, civic and cultural centres, monuments and historic buildings) as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.</p> <p>The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.</p> <p>To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.</p>

Indicator	Number of cultural facilities per 100,000 inhabitants		
Origin	Urban Monitoring Framework	Unit	N/100,000 inhabitants
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=6)		
Description	Number of places of cultural interest (museums, libraries, civic and cultural centres, monuments and historic buildings) per 100,000 inhabitants.		
Indicator	Proportion of the population within less than a 5-minute walk to entertainment venues (playgrounds, cinemas, theatres, gyms, amusement parks, etc.)		
Origin	Urban Monitoring Framework, Spanish Urban Agenda	Unit	%
Data source	<p>Location of entertainment venues: València Geoportal (https://geoportal.valencia.es/apps/GeoportalHome/es/inicio/callejero)</p> <p>Road network (National Centre for Geographic Information) (https://centrodedescargas.cnig.es/CentroDescargas/index.jsp)</p>		

Population/portals (Cadastre, via the Inspire download service)

Description To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area (from layer) function (or the equivalent function for other software) is used, taking the leisure centres (cinemas and theatres, as well as shopping centres, amusement parks and playgrounds if information is available) as the starting point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.

The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.

To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

Indicator	Number of cinemas and theatres per 100,000 inhabitants		
Origin	Urban Monitoring Framework	Unit	N/100,000 inhabitants
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=13)		
Description	Number of cinemas and theatres per 100,000 inhabitants		
Indicator	Proportion of the population within less than a 5-minute walk to commercial services		
Origin	Urban Monitoring Framework Spanish Urban Agenda	Unit	%
Data source	Location of entertainment venues: València Geoportal (https://valencia.opendatasoft.com/explore/) Road network (National Centre for Geographic Information) (https://centrodedescargas.cnig.es/CentroDescargas/index.jsp) Population/portals (Cadastre, via the Inspire download service)		
Description	To calculate this indicator, the network analysis functions of a GIS software are used. To calculate the service area, the QGIS service area (from layer) function (or the equivalent function for other software) is used, taking the commercial services (markets, supermarkets, shops and shopping centres) as the starting		

point layer and the road network of the National Centre for Geographic Information, excluding motorways and dual carriageways, as they are not considered to be pedestrianised, as the vector layer representing the network, using the shortest path method with the selected distance, 400 m along the road network, equivalent to a 5-minute walk as established by the Joint Research Centre and the Global Urban Monitoring Framework.

The population reached (whether polygons or portals) is determined with a tolerance of 25 m with the select within distance tool.

To determine the population reached, the population can be associated to the portal if municipal census data is available from the cadastre portals or a population grid can be used for an approximation.

Indicator	Number of commercial properties per 100,000 inhabitants		
Origin	Urban Monitoring Framework	Unit	N/100,000 inhabitants
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=8)		
Description	Number of commercial properties per 100,000 inhabitants		

SO21 Develop a sustainable and gentrification-free urban regeneration model

Indicator Urban Vulnerability Index

Origin	Spanish Network for Sustainable Development Joint Research Centre	Unit	%
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=8)		
Description	<p>Proportion of the population living in vulnerable census tracts in relation to the total population of the territory.</p> <p>A census tract is considered vulnerable when:</p> <ul style="list-style-type: none"> • More than 21% of its population has income per consumption unit below 40% of the national median (vulnerable population) • The proportion of the population below this threshold in the census tract is more than double the vulnerable population average in the city. 		

Indicator Housing Affordability Index

Origin	Spanish Network for Sustainable Development Joint Research Centre	Unit	%
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=4)		
Description	Ratio of private housing prices in relation to gross income per household.		

Indicator Proportion of people at risk of poverty or social exclusion

Origin	Spanish Network for Sustainable Development Joint Research Centre Urban Monitoring Framework	Unit	%
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=8)		
Description	<p>The population at risk of poverty or social exclusion is that which is in one of the following situations:</p> <ul style="list-style-type: none"> • At risk of poverty. • In severe material deprivation (with deprivation in at least 4 items out of 9). • In unemployed households or households with low employment intensity (households in which their working-age members worked less than 20% of their total working potential during the reference year). 		

SO22 Achieve València's status as a fully accessible and inclusive city for all people

Indicator Percentage of facilities with suitable accessibility for people with disabilities

Origin Polytechnic University of València **Unit** %

Data source València City Council

Description Future indicator to be developed

Alternative indicator Percentage of people who have felt discriminated against on the basis of disability in the last 12 months

Origin IDENCITY **Unit** %

Data source València City Council (<https://ods-valencia.github.io/estadistica/es/10/>)

Description Ratio between the number of people who have suffered discrimination on grounds of disability in the reference year and the total number of people in the València municipality.

SO23 Ensure access to affordable and quality housing stock

Indicator	Housing Affordability Index
Origin	Spanish Network for Sustainable Development Joint Research Centre
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=4)
Description	Ratio of private housing prices in relation to gross income per household.

SO24 Increase the quality of the built-up housing stock

Indicator Percentage of dwellings with an A-rated energy certificate

Origin Spanish Network for Sustainable Development
Joint Research Centre **Unit** %

Data source València City Council
Valencian Institute for Business Competitiveness
Cadastre

Description Proportion of dwellings with the best energy certificate rating with respect to the total number of dwellings in the territory. In its work with the JRC, València City Council has created an experimental indicator for its calculation. It can be developed as an indicator of the efficiency and energy consumption of buildings in the municipality classified by building type (residential, commercial, others), through geolocation.

An example of the potential application of this approach, namely Quart de Poblet (València), is published in the journal Sustainability: it can be used to develop a variety of indicators to monitor specific problems (Lorenzo-Sáez et al. 2020). The Valencian Institute for Business Competitiveness (IVACE) has energy certificates for 24,557 dwellings in the municipality of València. It is possible to develop a monitoring indicator by using IVACE information and INSPIRE data from the cadastre (plots, building and part of the building).

Indicator Proportion of buildings constructed or renovated after 2008

Origin Spanish Network for Sustainable Development
Joint Research Centre

Data source Cadastre (<https://www.catastro.minhap.es/esp/estadisticas.asp>)

Description Calculated from cadastral information on buildings at municipal level. Proportion of buildings constructed or renovated after 2008 in relation to the total number of buildings in the municipality.

Indicator Proportion of people living in households with certain housing deficiencies

Origin Joint Research Centre
Urban Monitoring Framework **Unit** %

Data source València City Council
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=2>)

Description Proportion of the population living in the following material conditions: high housing costs, structural problems in the dwelling (leaks, dampness in walls, floors, roofs, etc.) or problems of lack of space in the dwelling (over-occupied dwelling), with respect to the total population of the territory.

SO25 Incentivise the sustainable use of empty housing in the city**Indicator** Empty housing**Origin** Joint Research Centre**Unit** %**Data source** València City Council
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=4>)**Description** Percentage of empty dwellings compared to the total number of dwellings. The availability of the indicator depends largely on the national census. The new data will be available by the end of 2022.

SO26 Strengthen the associative fabric and citizen and community networks**Indicator** Number of partnerships**Origin** Polytechnic University of València**Unit** N**Data source** València City Council
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=16>)**Description** Number of partnerships. The data can be disaggregated by neighbourhood.

SO27 Strengthen and increase the resilience of the social care system for vulnerable people

Indicator	Proportion of people at risk of poverty or social exclusion
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Origin	Spanish Network for Sustainable Development, Joint Research Centre, Urban Monitoring Framework	Unit	%
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Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=8)
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Description	<p>The population at risk of poverty or social exclusion is that which is in one of the following situations:</p> <ul style="list-style-type: none"> • At risk of poverty (60% median income per consumption unit). • In severe material deprivation (with deprivation in at least 4 items out of a list of 9). • In unemployed households or households with low employment intensity (households in which their working-age members worked less than 20% of their total working potential during the reference year).
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SO28 Reduce the gaps in socio-economic determinants of health

Indicator Life expectancy at birth

Origin Spanish Network for Sustainable Development, Urban Monitoring Framework **Unit** Years

Data source València City Council
(<https://ods-valencia.github.io/estadistica/es/3/>)

Description Average number of years an individual is expected to live from the time of their birth, if the mortality pattern of the observed period is maintained. Life expectancy at birth assigned to year t refers to the pattern of mortality associated with the four-year period from 1 January of year t-3 to 31 December of year t. The level of disaggregation is by district.

Indicator Proportion of people living in households with high health expenditures, above 10% of total household expenditure.

Origin United Nations **Unit** %

Data source València City Council
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=8>)

Description Proportion of the population with an expenditure of over 10% of their total household expenditure on health in relation to the total population.

Indicator Impact of health expenditure on the average household income

Origin Spanish Network for Sustainable Development **Unit** %

Data source València City Council
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=8>)

Description Proportion of household expenditure on health services

Indicator Premature mortality rate from non-communicable diseases

Origin Spanish Network for Sustainable Development, Joint Research Centre, Urban Monitoring Framework **Unit** %

Data source València City Council
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=5>)

Description Mortality rate attributed to cardiovascular diseases, cancer, diabetes or chronic respiratory diseases

SO29 Promote healthy behaviours

Indicator Deaths due to alcohol and drug abuse

Origin Spanish Network for Sustainable Development **Unit** Per 100,000 inhab.

Data source València City Council
(<https://ods-valencia.github.io/estadistica/es/3-5-4/>)

Description Deaths attributed to mental disorders due to alcohol and drug abuse per 100,000 inhabitants.

Indicator Mortality rate attributed to cardiovascular diseases

Origin Spanish Network for Sustainable Development **Unit** Per 100,000 inhab.

Data source València City Council
(<https://ods-valencia.github.io/estadistica/es/3-4-1/>)

Description Deaths attributed to diseases of the circulatory system per 100,000 inhabitants.

Indicator Suicide mortality rate

Origin Spanish Network for Sustainable Development **Unit** Per 100,000 inhab.

Data source València City Council
(<https://ods-valencia.github.io/estadistica/es/3-4-8/>)

Description Deaths attributed to suicide and self-inflicted injuries per 100,000 inhabitants.

SO30 Develop València as an educating city

Indicator	Proportion of the population with higher education
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Origin	Spanish Network for Sustainable Development, Joint Research Centre	Unit	%
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Data source	EUROSTAT (https://ec.europa.eu/eurostat/web/cities/data/database)
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Description	Proportion of the population aged between 25 to 64 with a maximum education level ISCED 5 or 6.
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Indicator	Population aged between 5 to 18 years in school
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Origin	Spanish Network for Sustainable Development	Unit	%
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Data source	EUROSTAT (https://ec.europa.eu/eurostat/web/cities/data/database)
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Description	Proportion of the population aged between 5 to 18 years enrolled in formal education
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SO31 Increase access to early childhood education

Indicator	Children aged between 0 and 4 in nursery schools
Origin	Spanish Network for Sustainable Development, Joint Research Centre, Urban Monitoring Framework
Data source	EUROSTAT (https://ec.europa.eu/eurostat/web/cities/data/database)
Description	Children aged between 0 to 4 years enrolled in nursery or early childhood education (ISCED 0)

SO32 Ensure dignified and active ageing

Indicator	Risk of poverty rate for people aged 65 and over
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Origin	Spanish Network for Sustainable Development	Unit	%
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Data source	INE (https://www.ine.es/experimental/atlas/exp_atlas_tab.htm)
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Description	Proportion of people aged over 65 with income per consumption unit below 60% of the national median income per consumption unit (modified OECD scale)
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SO33 Reduce gender inequalities across the city

Indicator Salary gap

Origin	Spanish Network for Sustainable Development, Joint Research Centre, Urban Monitoring Framework	Unit	%
Data source	Ministry of Public Finance and Administration (MHFP) (https://sede.agenciatributaria.gob.es/Sede/datosabiertos/catalogo/hacienda/Mercado_de_Trabajo_y_Pensiones_en_las_Fuentes_Tributarias.shtml)		
Description	Division between the difference in the average wage earned by men and that earned by women.		

Indicator Gender employment gap

Origin	Joint Research Centre	Unit	%
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=7)		
Description	Difference between male and female employment rates		

Indicator Percentage of unemployed women

Origin	Spanish Network for Sustainable Development, Joint Research Centre	Unit	%
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=7)		
Description	Registered unemployment rate for women.		

Indicator Proportion of women in government

Origin	Spanish Network for Sustainable Development, Joint Research Centre, Urban Monitoring Framework	Unit	%
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/5/)		
Description	Number of women in government (elected officials) in respect to the total		

SO34 Develop new clusters of economic activity based on innovation, knowledge and the environment

Indicator	Number of technology-based SMEs per 1000 inhabitants
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Origin	Joint Research Centre	Unit	N/1000 inhab.
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Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=6)
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Description	Ratio of the number of small technology-based companies to the number of companies registered in the INE's Central Companies Directory on 1 January of the reference year.
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Indicator	Companies in the industrial sector
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Origin	Joint Research Centre	Unit	%
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Data source	València City Council (https://ods-valencia.github.io/estadistica/es/9-2-1/)
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Description	Ratio of the number of companies whose main activity is industry to the number of companies registered in the INE's Central Companies Directory on 1 January of the reference year.
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SO35 Increase employment rates of women and labour market integration of young people and migrants

Indicator	Percentage of unemployed women		
Origin	Spanish Network for Sustainable Development, Joint Research Centre	Unit	%
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=7)		
Description	Registered unemployment rate for women.		
Indicator	Percentage of the population in long-term unemployment		
Origin	Spanish Network for Sustainable Development	Unit	N/inhab
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/8/)		
Description	Percentage of unemployed people seeking their first job or having left their last job more than one year ago		
Indicator	Registered unemployment among young people with a low level of education		
Origin	Spanish Network for Sustainable Development	Unit	%
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/8-6-1/)		
Description	It is calculated as the average of the number of people aged between 16 to 34 seeking employment on the last day of each month registered by the Valencian Employment and Training Service with a low level of training for the months of the reference year.		
Indicator	Proportion of foreign workers affiliated to the Social Security system		
Origin	Spanish Network for Sustainable Development	Unit	%
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/10-2-11/)		
Description	Ratio of people affiliated to the Social Security system of foreign nationality in relation to the total number of people affiliated to the Social Security system.		

SO36 Digitise the economy in order to reduce the risk of social, economic and gender exclusion caused by the digital transformation

Indicator	Population with broadband internet coverage		
Origin	Spanish Network for Sustainable Development	Unit	% inhab./total
Data source	Ministry for the Ecological Transition and the Demographic Challenge (MITECO) (https://www.miteco.gob.es/es/reto-demografico/temas/analisis-cartografia/)		
Description	Internet coverage >100MbS. Coverage provided by fixed networks at speeds of at least 100 Mbps, comprising HFC and FTTH coverage (two of the main types of fibre optic networks deployed in Spain).		

Indicator	Proportion of people aged between 16 to 74 who have used a computer skill in the last 12 months		
Origin	United Nations	Unit	N/inhab
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/4/)		
Description	Percentage of the adult population (aged between 16 to 74) living in the city who have done computer-related work in the last 12 months.		

SO37 Promote entrepreneurship, self-employment and the consolidation of existing companies in the city
Indicator Start-up attractiveness

Origin Joint Research Centre

Unit

Contents

Data source StartupBlink
 (<https://www.startupblink.com/startups/valencia+spain>)

Description The composite indicator measures the attractiveness and creation of start-ups in the city. Attractiveness is calculated as the sum of a score attributed to a city based on three different aspects:

1. Number measuring the number of start-ups, coworking spaces, accelerators, incubators, makerspaces and meetups;
2. Number measuring the presence of R+D branches and International Technology Corporation centres; total investment in start-ups; number of employees per start-up;
3. Business Environment that measures the ease of doing business, internet speed, investment in R+D, availability of various technological services, number of patents per capita and level of English proficiency.

SO38 Integrate R&D&I within the economic, social and environmental sectors

Indicator	Number of patent applications per 100,000 inhabitants		
Origin	Spanish Network for Sustainable Development, Joint Research Centre	Unit	N/100,000 inhab
Data source	València City Council (https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=6)		
Description	Ratio between the number of patent and trademark applications registered at the Spanish Patent and Trademark Office and the number of inhabitants on 1 July of the reference year.		

Indicator	Research, development and innovation expenditure		
Origin	Spanish Network for Sustainable Development	Unit	%
Data source	Ministry of Finance. Settlement of municipal budgets		
Description	Municipal budget for the R&D&I expenditure policy (Expenditure Policy 46. Research, development and innovation) in relation to total expenditure		

SO39 Consolidate València as a hub of culture, design and innovation

Indicator Tourism intensity (Visitors per inhabitant)

Origin Spanish Network for Sustainable Development **Unit** N/100,000 inhab

Data source València City Council
(<https://www.valencia.es/cas/estadistica/indicadores-sociales>)

Description Arriving travellers per 100,000 inhabitants

Indicator Tourist intensity (Overnight stays per hotel vacancy)

Origin Spanish Network for Sustainable Development **Unit** N/vacancy

Data source València City Council
(<https://www.valencia.es/cas/estadistica/indicadores-sociales>)

Description Overnight stays per hotel vacancy

Indicator Tourism seasonality rate

Origin United Nations World Tourism Organization **Unit** %

Data source València City Council
(<https://www.valencia.es/cas/estadistica/indicadores-sociales>)

Description The indicator is calculated by adding up the arrivals during the 3 busiest months of the year, expressed as a percentage of the annual total. For example, if a destination has a seasonality of 50%, its international arrivals in the 3 most active months represent 50% of the annual total.

SO40 Invigorate and increase the resilience of the local and festive cultural sector

Indicator	Average stay at hotels and tourist apartments		
Origin	València City Council	Unit	days
Data source	València City Council (https://ods-valencia.github.io/estadistica/es/12-b-2/)		
Description	Ratio between overnight stays (nights a traveller stays in an establishment) and the number of travellers.		

SO41 Promote, maintain and strengthen the Fallas of València

Indicator	Number of visitors attracted by the Fallas of València
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Origin	València City Council	Unit	N
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Data source	València City Council (specific data request) INE (https://www.ine.es/dyngs/INEbase/es/categoria.htm?c=Estadistica_P&cid=1254735576863)
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Description	Number of tourists in March
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SO42 Make progress in the permanent improvement of the tourist destination in terms of sustainability and intelligence

Indicator GHG emissions attributed to the consumption of energy in tourist establishments

Origin United Nations World Tourism Organization **Unit** tCO₂eq

Data source Visit València Foundation
(<https://fundacion.visitvalencia.com/sostenibilidad>)

Description Carbon footprint of hotel establishments

Indicator Water consumption in tourist establishments

Origin United Nations World Tourism Organization **Unit** tCO₂eq

Data source Visit València Foundation
(<https://fundacion.visitvalencia.com/sostenibilidad>)

Description -

Indicator Waste generated by tourist establishments

Origin United Nations World Tourism Organization **Unit** t

Data source Visit València Foundation
(<https://fundacion.visitvalencia.com/sostenibilidad>)

Description -

SO43 Innovation and value creation in the design of the tourist offer

Indicator	Budget allocated to the improvement and maintenance of tourist sites		
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Origin	Polytechnic University of València (UPV)	Unit	€ per room
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Data source	València City Council (https://www.valencia.es/es/cas/ayuntamiento/cuenta-general/-/content/presupuesto-cuenta-general?uid=9598969)		
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Description	Ratio between the expenditure on the improvement and maintenance of tourist sites in relation to the total population		
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SO44 Consolidate the València brand in relation to innovation, culture and sustainable tourism

Indicator Tourism intensity (Visitors per inhabitant)

Origin Spanish Network for Sustainable Development **Unit** N/100,000 inhab

Data source València City Council
(<https://www.valencia.es/cas/estadistica/indicadores-sociales>)

Description Arriving travellers per 100,000 inhabitants

Indicator Cultural Creative City Index

Origin Joint Research Centre **Unit** Contents

Data source Joint Research Centre - European Commission
(<https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor>)

Description Index composed of 3 sub-indices (Cultural Vibrancy, Creative Economy and Enabling Environment) and 9 dimensions. Methodology available at: <https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor/docs-and-data>

SO45 Strengthen municipal administration as an instrument to deliver public policies that put people at their centre

Indicator	Service Procurement Index
Origin	Spanish Network for Sustainable Development
Data source	DYNTRA (https://www.dyntra.org/poi/ayuntamiento-de-valencia/)
Description	DAM index (Dynamic Transparency Index of City Councils and Municipalities) of service procurement developed by Dyntra at municipal level. It evaluates service procurement procedures, operations and relations with suppliers and contractors, as well as procurement processes, through several questions.

SO46 Enhance open government, transparency and participation in the elaboration and implementation of public policies

Indicator Economic and Financial Transparency Index

Origin Spanish Network for Sustainable Development **Unit** %

Data source DYNTRA (<https://www.dyntra.org/poi/ayuntamiento-de-valencia/>)

Description DAM index (Dynamic Transparency Index of City Councils and Municipalities) of economic and financial transparency developed by Dyntra at municipal level.

Indicator Transparency and Open Data Indexes

Origin Spanish Network for Sustainable Development **Unit** %

Data source DYNTRA (<https://www.dyntra.org/poi/ayuntamiento-de-valencia/>)

Description DAM index (Dynamic Transparency Index of City Councils and Municipalities) of municipal transparency developed by Dyntra
DAM index (Dynamic Transparency Index of City Councils and Municipalities) of open data developed by Dyntra at municipal level.

Indicator Public Participation and Collaboration Index

Origin Spanish Network for Sustainable Development **Unit** %

Data source DYNTRA (<https://www.dyntra.org/poi/ayuntamiento-de-valencia/>)

Description DAM Index (Dynamic Transparency Index of City Councils and Municipalities) of public participation and collaboration developed by Dyntra at municipal level.

SO47 Develop a model of metropolitan governance

Indicator	Strength and autonomy of the municipal institution		
Origin	Spanish Network for Sustainable Development	Unit	%
Data source	Ministry of Public Finance and Administration (MHFP) (https://serviciostelematicosext.hacienda.gob.es/SGFAL/CONPREL)		
Description	Budgetary ratio between own resource revenue in relation to total revenue. Direct taxes, indirect taxes, property taxes, duties and others are counted as own revenue.		

SO48 Enhance digitalisation, modernisation and coordination for efficient municipal government

Indicator Percentage of procedures and formalities carried out online by businesses and citizens

Origin Spanish Urban Agenda **Unit** %

Data source València City Council
(<https://www.valencia.es/cas/estadistica/anuario-estadistica?capitulo=11>) It is necessary to supplement the information available on the website with a specific data request to the city council

Description Proportion of procedures and formalities that can be carried out online, with respect to the total number of procedures and formalities of the city council.
(<https://cdn.mitma.gob.es/portal-web-drupal/Agenda Urbana Española/04 doc. indicadores de seguimiento y evaluacion 0.pdf>)

Indicator Percentage of satisfaction with the ease of carrying out procedures and formalities online

Origin Spanish Urban Agenda **Unit** %

Data source València City Council

Description It requires the existence or implementation of a survey of online service users.

5 INDICATORS OF THE SPANISH URBAN AGENDA

This section includes the monitoring indicators listed in the Spanish Urban Agenda (SUA).

The monitoring and evaluation indicators are associated with each of the specific objectives in which the strategic objectives of the Spanish Urban Agenda are developed, and they are designed to follow up and monitor them.

The Spanish Urban Agenda itself has a document¹ that specifies the basic methodology and some of the sources of information and operations that can be used to determine the monitoring and evaluation indicators. While some can be constructed from official databases (and are therefore comparable), most must be calculated from data generated exclusively by the municipality.

It is therefore necessary to adapt the series of indicators proposed by the Spanish Urban Agenda to the Strategic Framework for the City of València. To this end, in some cases, associated indicators (proposed in the Spanish Urban Agenda methodology itself) have been added to improve the measurement of the specific city objective or indicators have been added that coincide in certain cases with the proposed outcome indicators.

The selected indicators have been compiled in a table below, where the strategic and specific objectives of the Spanish Urban Agenda are listed in the heading.

The first column contains the Strategic Objectives (SO) of the Strategic Framework of the City of València aligned to each specific objective of the Urban Agenda. In cases in which there is no Strategic Objective aligned to the Urban Agenda objective, the section has been marked with grey text. Each of the monitoring indicators of the Spanish Urban Agenda (with its official code) has been listed in the second column. In the event that the monitoring indicator defined in the SUA does not have a clear and/or applicable methodology (which is the case on only 3 occasions), it is underlined in the table.

Alternative indicators suggested by the same document of the Spanish Urban Agenda or among the impact indicators of the València strategic framework are also indicated in the table with a black arrow (→). Under the "RES" column, all cases in which the Spanish Urban Agenda indicator or the associated indicator coincides with the outcome indicator of the València SO have been marked with an "X".

As for the methodology for calculating these indicators, in the case of impact indicators, it can be found in the previous section of this document as part of the indicators of the València 2030 Urban Strategy. As mentioned above, the methodology of the official monitoring indicators and the associated indicators can be found in the document published by MITMA².

¹https://cdn.mitma.gob.es/portal-web-drupal/AUE/04_doc_indicadores_de_seguimiento_y_evaluacion_0.pdf

²https://cdn.mitma.gob.es/portal-web-drupal/AUE/04_doc_indicadores_de_seguimiento_y_evaluacion_0.pdf



1 TERRITORY, LANDSCAPE AND BIODIVERSITY

1.1. MANAGE LAND IN A WAY THAT IS COMPATIBLE WITH ITS LOCAL ENVIRONMENT.

València Strategic Objective	SUA monitoring indicator	RES
SO15 Promote the agro-ecological transition and revitalise the agricultural system of the city of València to strengthen local trade	1.1.2. Correlation between land development, population dynamics, employment and economic activities. → Ratio between the land consumption rate in relation to the population growth rate	
SO16 Strengthen the physical, ecological and cultural links between La Huerta and the city	1.1.3. Budget for the planned actions to promote agriculture, livestock farming and sustainable rural development on land preserved from urban transformation. → Proportion of agricultural land on which X productive and sustainable agriculture is practised in the municipality and neighbouring municipalities	

1.2. CONSERVE AND ENHANCE NATURAL AND CULTURAL HERITAGE AND PROTECT THE LANDSCAPE.

València Strategic Objective	SUA monitoring indicator	RES
SO5 Improve the efficient use and quality of water	1.2.2. Budget for the planned actions for the improvement and/or conservation of the natural and cultural heritage, including those aimed at improving the connection between urban and rural areas. 1.2.3. Area of rehabilitated or improved buildings or cultural heritage sites	

1.3. IMPROVE GREEN AND BLUE INFRASTRUCTURES AND LINK THEM TO THE NATURAL AREAS

València Strategic Objective	SUA monitoring indicator	RES
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<p>SO1 Spatially integrate the city through green and blue infrastructure at the metropolitan level</p>	<p>1.3.2 Land area allocated to urban green infrastructures on which recovery, improvement and interconnection actions will be carried out for their functioning in the network</p>
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SO19 Improve the provision of public and green spaces in neighbourhoods to encourage rewilding



2. AVOID URBAN SPRAWL AND REVITALISE THE EXISTING CITY

2.1. DEFINE AN URBAN MODEL THAT PROMOTES COMPACTNESS, URBAN BALANCE AND THE PROVISION OF BASIC SERVICES.

València strategic objective	SUA monitoring indicator	RES
SO 18 Achieve a territorial balance in the distribution of the city's public facilities	2.1.2. Percentage of the population close to the main basic services.	
	→Proportion of the elderly population with access to elderly care services within less than a 5-minute walk	X
	→Proportion of the population with access to educational facilities within less than a 5-minute walk	X
	→Proportion of the population with access to sports facilities within less than a 5-minute walk	
	→Proportion of the population with access to post offices within less than a 5-minute walk	X
	→Proportion of the population with access to healthcare service facilities within less than a 5-minute walk	X
		X
	2.1.3. Surface area of public buildings and municipal facilities on which actions will be carried out to improve their quality and adapt them to existing demand.	

2.2 ENSURE FUNCTIONAL COMPLEXITY AND DIVERSITY OF USES

València strategic objective	SUA monitoring indicator	RES
SO20 Consolidate urban multi-centrality in a 15-minute city model	2.2.2. Urban land area on which improvement and use restructuring actions will be carried out, in order to favour proximity and diversity of uses in the city.	

2.3. ENSURE THE QUALITY AND ACCESSIBILITY OF PUBLIC SPACES.

València strategic objective	SUA monitoring indicator	RES
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SO10 Promote safe and autonomous mobility for all ages	2.3.2. Land area allocated to urbanised public spaces on which actions to improve accessibility and eliminate architectural barriers will be carried out	
SO22 Achieve València's status as a fully accessible and inclusive city for all people		
SO3 Reduce noise and air pollution	2.3.3. Land area allocated to public spaces on which actions to reduce noise and improve acoustic comfort will be carried out →Quality of silence	
		X

2.4. IMPROVE THE URBAN ENVIRONMENT AND REDUCE POLLUTION.

València strategic objective	SUA monitoring indicator	RES
SO1 Spatially integrate the city through green and blue infrastructure at the metropolitan level	2.4.2. Percentage of the population close to urban green spaces or recreation areas →Population with access to green areas within less than a 5-minute walk	X
SO21 Develop a sustainable and gentrification-free urban regeneration model	2.4.3. Urban land area subject to reclamation, rehabilitation or improvement actions	

2.5. PROMOTE URBAN REGENERATION.

València strategic objective	SUA monitoring indicator	RES
SO21 Develop a sustainable and gentrification-free urban regeneration model	2.5.2. Budget for planned urban regeneration actions in socially, economically or environmentally vulnerable neighbourhoods	
SO21 Develop a sustainable and gentrification-free urban regeneration model	2.5.3. Budget for urban regeneration actions covered under public housing plans	

2.6. IMPROVE THE QUALITY AND SUSTAINABILITY OF BUILDINGS.

València strategic objective	SUA monitoring indicator	RES
SO24 Increase the quality of the built-up housing stock	2.6.2. Surface area of buildings subject to rehabilitation actions. 2.6.3. Number of dwellings subject to rehabilitation actions.	



3. CLIMATE CHANGE

3.1. ADAPT THE SPATIAL AND URBAN MODEL TO EFFECTS OF CLIMATE CHANGE AND MAKE PROGRESS IN ITS PREVENTION.

València strategic objective	SUA monitoring indicator	RES
SO2 Adaptation to climate change	3.1.2. Urban land area on which actions for improvement or the prevention of natural hazards are planned, including fire and flood risk	

3.2. REDUCE GREENHOUSE GAS EMISSIONS.

València strategic objective	SUA monitoring indicator	RES
SO3 Reduce noise and air pollution	3.2.2. Estimated annual reduction in greenhouse gas (GHG) emissions and in the number of days on which air quality limits are exceeded	
SO12 Accelerate the decarbonisation of mobility	→Total greenhouse gas emissions by resident units per capita	X

3.3. IMPROVE RESILIENCE TO CLIMATE CHANGE.

València strategic objective	SUA monitoring indicator	RES
SO2 Adaptation to climate change	3.3.2. Urban land area on which improvement actions or actions to create green areas and/or open spaces based on autochthonous models and bioclimatic criteria are planned	



4. SUSTAINABLE RESOURCE MANAGEMENT AND CIRCULAR ECONOMY

4.1. BE MORE ENERGY EFFICIENT AND SAVE ENERGY

València strategic objective	SUA monitoring indicator	RES
SO6 Increase the production of renewable energies	4.1.2. Consumption of energy by buildings, infrastructures and public services	
SO7 Change the energy culture: increase self-consumption, responsible energy consumption and energy efficiency in buildings		
SO8 Right to energy		
SO21 Develop a sustainable and gentrification-free urban regeneration model		
SO24 Increase the quality of the built-up housing stock		

4.2. OPTIMISE AND REDUCE WATER CONSUMPTION

València strategic objective	SUA monitoring indicator	RES
SO5 Improve the efficient use and quality of water	4.2.2. Percentage of water self-sufficiency → Domestic water consumption per capita and per day	X

4.3. PROMOTE THE CYCLE FOR MATERIALS

València strategic objective	SUA monitoring indicator	RES
SO4 Move towards a circular economy model	4.3.2. Budget spent on actions that use local and easily recyclable materials → Proportion of recycled municipal waste in relation to total municipal waste generated and treated	X

4.4. REDUCE WASTE AND ENCOURAGE RECYCLING.

València strategic objective	SUA monitoring indicator	RES
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SO4 Move towards a circular economy model	4.4.2. Waste generation per capita	X
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5. MOBILITY AND TRANSPORT

5.1 PROMOTE A COMPACT CITY

València strategic objective	SUA monitoring indicator	RES
SO14 Boost strategic infrastructures	5.1.2. Modal distribution of journeys (all reasons) in the urban area.	
SO13 Increase the efficiency of the logistics system	5.1.3. Sustainability of urban freight distribution (last mile). → Evolution of the fleet for the transport of goods	X

5.2. PROMOTE SUSTAINABLE MODES OF TRANSPORT

València strategic objective	SUA monitoring indicator	RES
SO12 Accelerate the decarbonisation of mobility	5.2.2. Fleet of low-emission or "clean" fuel buses dedicated to urban public transport	
SO10 Promote safe and autonomous mobility for all ages		
SO11 Improve connectivity at the metropolitan level		
SO9 Establish a non-polluting model based on active mobility and the use of public transport	5.2.3. Number of journeys by public transport → Motorisation rate	X
SO10 Promote safe and autonomous mobility for all ages	→ Population with access to public transport within less than a 5-minute walk	X
SO11 Improve connectivity at the metropolitan level		



6. SOCIAL COHESION AND EQUAL OPPORTUNITIES

6.1. REDUCE THE RISK OF POVERTY AND SOCIAL EXCLUSION IN DISADVANTAGED URBAN SETTINGS.

València strategic objective	SUA monitoring indicator	RES
SO21 Develop a sustainable and gentrification-free urban regeneration model	6.1.2. Budget spent on actions in socially, economically or environmentally vulnerable neighbourhoods	
SO27 Strengthen and increase the resilience of the social care system for vulnerable people		

6.2. SEEK EQUAL OPPORTUNITIES FROM A GENDER, AGE AND DISABILITY PERSPECTIVE.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SO26 Strengthen the associative fabric and citizen and community networks	6.2.3. Budget spent on actions to ensure equal opportunities from a social, economic and environmental perspective	
SO17 Guarantee the right to sustainable and healthy food		
SO32 Ensure dignified and active ageing		
SO33 Reduce gender inequalities across the city		
SO35 Increase employment rates of women and labour market integration of young people and migrants		



7. PROMOTE AND FOSTER THE URBAN ECONOMY

7.1. SEEK LOCAL PRODUCTIVITY, EMPLOYMENT GENERATION AND THE REVITALISATION AND DIVERSIFICATION OF ECONOMIC ACTIVITY.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SO34 Develop new clusters of economic activity based on innovation, knowledge and the environment	7.1.2. Budget for the actions planned for the revitalisation of local business and industry and the promotion of sustainable tourism activity	
SO37 Promote entrepreneurship, self-employment and the consolidation of existing companies in the city		
SO43 Innovation and value creation in the design of the tourist offer		
SO44 Consolidate the València brand in relation to innovation, culture and sustainable tourism		

7.2. PROMOTE SMART, SUSTAINABLE AND QUALITY TOURISM AND KEY SECTORS OF THE LOCAL ECONOMY.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SO39 Consolidate València as a hub of culture, design and innovation	7.2.2. Number of visitors attracted by cultural, natural and landscape heritage assets. → Tourism intensity (number of visitors / population)	X
SO40 Invigorate and increase the resilience of the local and festive cultural sector	→ Tourism intensity 2 (number of overnight stays / hotel vacancies)	X
SO41 Promote, maintain and strengthen the Fallas of València		
SO42 Make progress in the permanent improvement of the tourist destination in terms of sustainability and intelligence		



8. ENSURE ACCESS TO HOUSING

8.1. PROMOTE THE AVAILABILITY OF ADEQUATE AND AFFORDABLE HOUSING STOCK.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SL7. Accessible and sustainable housing	8.1.2. Number of protected dwellings included in local housing plans	
	8.1.3. Number of affordable social rented dwellings	

8.2. ENSURE ACCESS TO HOUSING, ESPECIALLY FOR THE MOST VULNERABLE GROUPS.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SL7. Accessible and sustainable housing	8.2.2. Number of people benefiting from programmes included in public housing schemes → Proportion of social housing	



9. LEAD AND FOSTER DIGITAL INNOVATION

9.1. FOSTER THE KNOWLEDGE SOCIETY AND MOVE TOWARDS THE DEVELOPMENT OF SMART CITIES.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SO38 Integrate R&D&I within the economic, social and environmental sectors	9.1.2. Number of users who are covered by a particular Smart Cities e-public service. → Number of patents per capita → Number of technology-based SMEs	 X X

9.2. PROMOTE E-GOVERNMENT AND REDUCE THE DIGITAL DIVIDE.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SO36 Digitise the economy in order to reduce the risk of social, economic and gender exclusion caused by the digital transformation SO48 Enhance digitalisation, modernisation and coordination for efficient municipal government	9.2.2. Percentage of procedures and formalities carried out online by businesses and citizens.	X X



10. IMPROVE INSTRUMENTS FOR INTERVENTION AND GOVERNANCE

10.1. ACHIEVE AN UPDATED, FLEXIBLE AND SIMPLIFIED PLANNING AND REGULATORY FRAMEWORK THAT ALSO IMPROVES MANAGEMENT.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
	There is no quantitative monitoring indicator listed in the Spanish Urban Agenda	

10.2. ENSURE PUBLIC PARTICIPATION, TRANSPARENCY AND PROMOTE MULTI-LEVEL GOVERNANCE.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SO46 Enhance open government, transparency and participation in the elaboration and implementation of public policies	There is no quantitative monitoring indicator listed in the Spanish Urban Agenda →Open Data index →Transparency index	X
SO47 Develop a model of metropolitan governance	→Level of satisfaction with the city's administrative services	X

10.3. BOOST LOCAL CAPACITY BUILDING AND IMPROVE FUNDING.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
SO47 Develop a model of metropolitan governance	There is no quantitative monitoring indicator listed in the Spanish Urban Agenda →Strength and autonomy of the municipal institution	X

10.4. DESIGN AND IMPLEMENT TRAINING AND AWARENESS-RAISING CAMPAIGNS ON URBAN ISSUES, AS WELL AS INFORMATION EXCHANGE AND DISSEMINATION.

València strategic objective	Spanish Urban Agenda monitoring indicator	RES
	10.4.2. Number of people benefitting from training and awareness-raising activities in the areas covered by the urban agenda	

VALÈNCIA 2030+ Estratègia Urbana