

Barcelona

IN FIGURES 2021 / 2022

—
Main economic indicators for
the Barcelona area

Strategic sectors

Indicators

Businesses

Entrepreneurship

Digital talent



Ajuntament de
Barcelona

Barcelona, a renowned city

1st European city with the best strategy for attracting foreign investment
(FDi Intelligence, 2022-23)

1st urban tourism destination in the world to obtain Platinum Biosphere certification

City honoured with the European Entrepreneurial Region Award 2023
(Committee of the Regions, European Commission)

World Capital of Architecture and organiser of the UIA Congress 2026

Host city of the America's Cup 2024

3rd preferred European city to locate a startup
(Startup Heatmap Europe, 2022)

World Capital of Sustainable Food 2021

Best city in the world
(Telegraph Travel, 2022)

Permanent host city Mobile World Congress
(GSMA)

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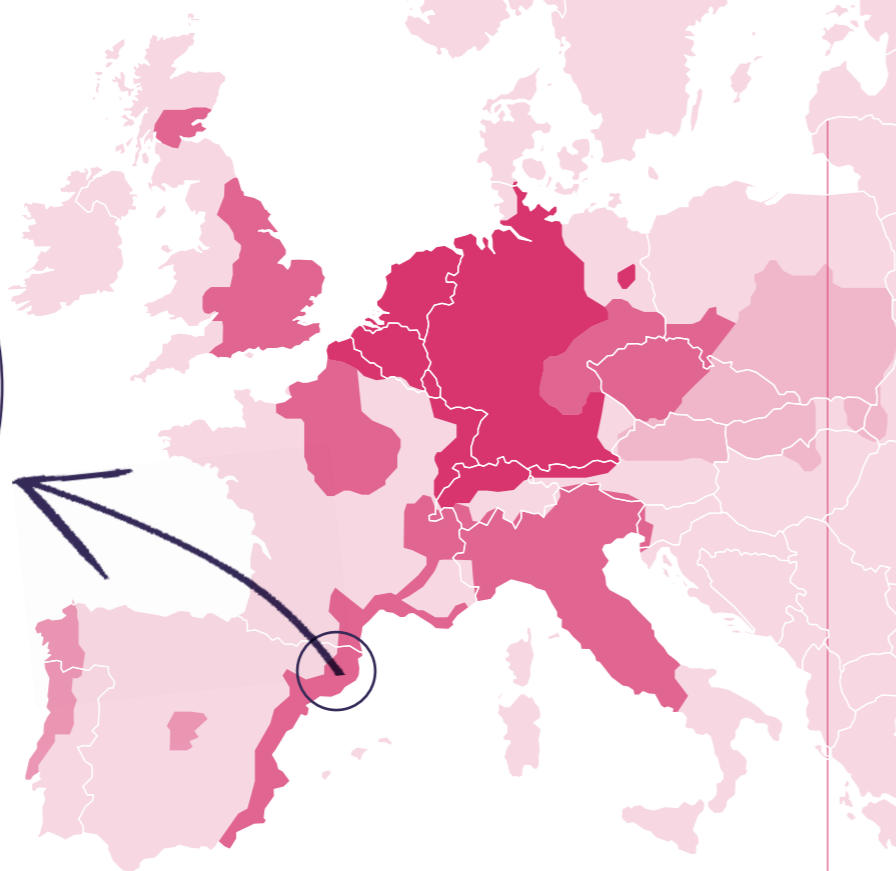
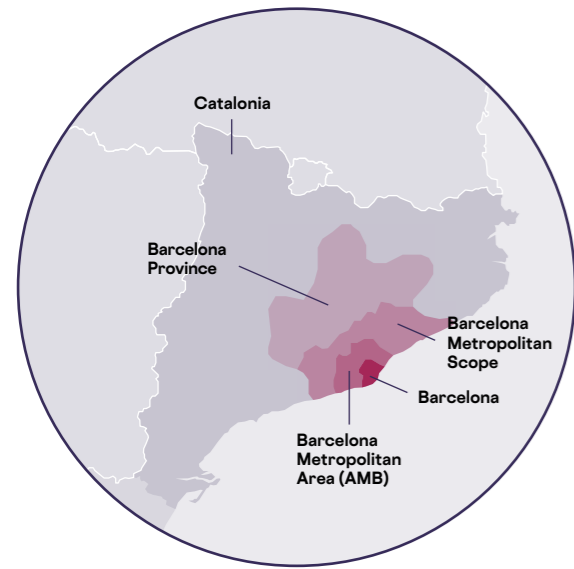
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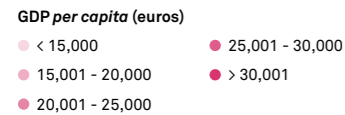
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European mega-regions



Privileged location

Barcelona, at the centre of a mega-region with 27 million inhabitants

• Barcelona, the capital of Catalonia, has more than 1,635,000 inhabitants. It is the core of a metropolitan region of about 2,500 square kilometres, with approximately 5,000,000 inhabitants, and represents 63.7% and 10.4% of the Catalan and Spanish population, respectively.

• In relation to consolidated metropolitan agglomerations, the population of the metropolitan region of Barcelona is approximately 25% that of New York, while it is greater than the areas of Seattle, Berlin and Stockholm.

• The cosmopolitan, diverse and multicultural spirit of Barcelona is reflected by the fact that 22.4% of the city's population are foreign nationals – the highest percentage in history – and that this group of more than 370,000 residents integrated by 179 different nationalities.

• The current development of metropolitan regions goes beyond their geographical area, creating mega-regions or polycentric agglomerations of cities as natural units of economic influence in a geographical area. Most notable is the Southern European mega-region formed by the Barcelona-Lyon corridor, which encompasses 27.3 million inhabitants and has a production of over €700,000 million, giving it a significant critical mass among the 12 European mega-regions.

• Barcelona has easy access to very dynamic large markets: the European Union's common market, which provides access to 510 million inhabitants. It is also part of the Mediterranean corridor, a Trans-European Network for transporting goods that has a direct impact on an area of 250 million inhabitants (50% of the European Union's population). Improving this connection would be a strategic opportunity for increasing the market share of the port traffic of goods coming from Asia. It also offers the strategic potential of relations with 43 countries that integrate the Union for the Mediterranean, including the territories of Eastern Europe, North Africa and the Middle East.

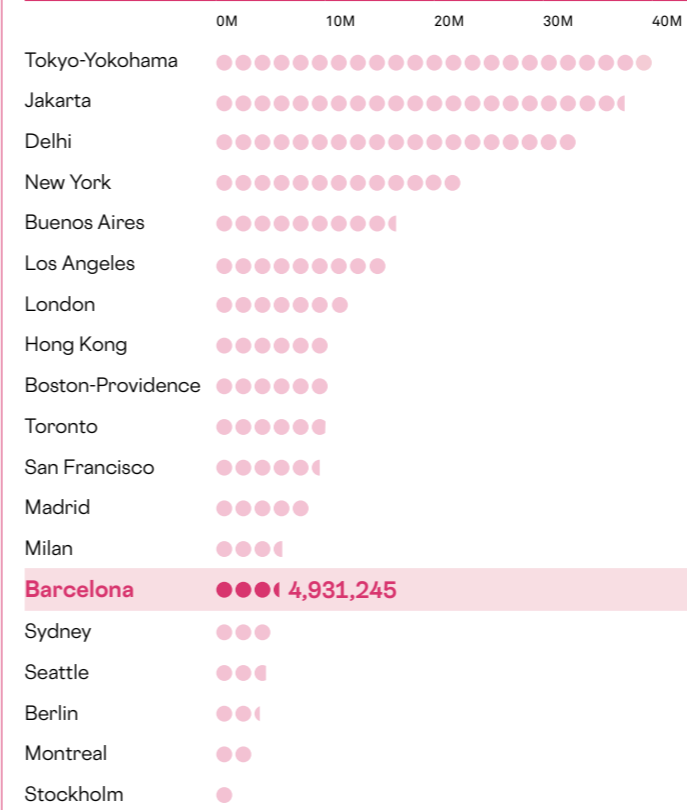
Population and area

Population and area. 2021

| | GENERAL POPULATION (INHABITANTS) | % OF SPANISH POPULATION | SURFACE AREA (KM ²) | DENSITY (PER/KM ²) |
|--------------------|----------------------------------|-------------------------|---------------------------------|--------------------------------|
| Barcelona | 1,636,732 | 3.5% | 102.2 | 16,021.3 |
| Metropolitan Area* | 4,931,245 | 10.4% | 2,464.4 | 2,001.0 |
| Catalonia | 7,739,758 | 16.3% | 32,108.0 | 241.1 |
| Spain | 47,398,695 | 100.0% | 505,968.4 | 93.7 |

* Barcelonès, Baix Llobregat, Maresme, Vallès Oriental and Vallès Occidental districts. Source: Barcelona City Council's Department of Statistics and Data Dissemination, Idescat, INE.

Population in 20 metropolitan agglomerations around the world. 2021



For Barcelona, Idescat data, 1 January 2021. Source: Demography World Urban Areas: 17th Annual Edition June 2021.

Demographic indicators for Barcelona

Age structure 2021

0-15: **12.9%** 16-64: **66.1%** 65 and over: **21.1%**

Life expectancy (2018)

84.4 Men: **81.3** Women: **87**

Birth rate (2020)

7.1‰

Fertility rate (2019)

31.9‰

Mortality rate (2020)

11.4‰

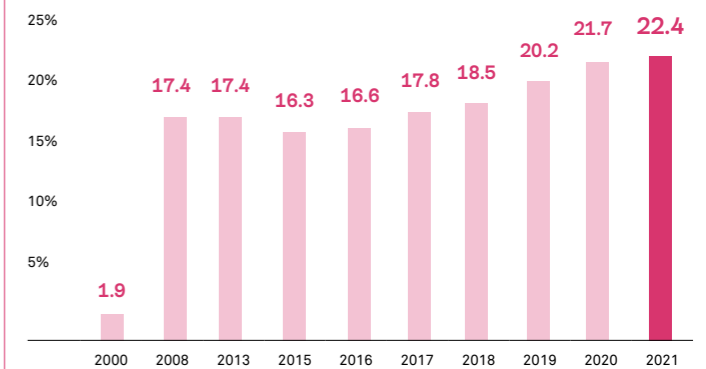
(Births per 1,000 women aged between 15 and 49)

Source: Department of Statistics and Data Dissemination, Barcelona City Council.



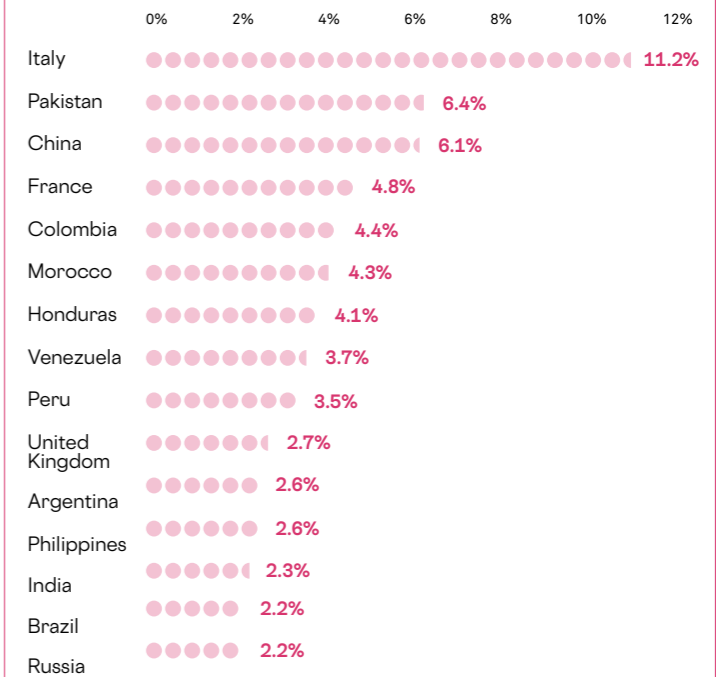
Foreign-resident population

Percentage of foreigners over the total population



NB: data from 1 January of each year. Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Population of foreigners in Barcelona by country of origin. 2021



Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Accessible and well-connected

Great potential as a logistics hub for the Mediterranean

• With regard to access and economic infrastructure, the city offers an international airport, one port, a fair trade, the Zona Franca and a logistics platform, all within an area with a diameter of less than 5 kilometres, a combination that offers huge potential as a Mediterranean logistics centre.

• In 2021, 18.8 million passengers passed through El Prat airport, which is an increase of 48.2% on the previous year. International passenger traffic at El Prat regained momentum and in 2021 accounted for three-fifths (59.6%) of the total. In the first months of 2022, the number of people passing through the airport accelerated its recovery and placed El Prat - Josep Tarradellas in the eight position among the main airports in Europe in terms of traffic volume, according to Airport Council International.

• The Port of Barcelona is the main transport and services infrastructure in Catalonia and a major port of reference in the Euro-Mediterranean region. It has over one hundred regular lines that have direct connections to more than two hundred ports on five continents. It is the leading port in Spain for international traffic and specialises in general cargo and high-value goods.

• Port activity recorded 3.5 million TEUs and 65 million tonnes transported in 2021, which represents a significant increase in year-on-year terms (+19.3% and +11.3%, respectively) and places it at similar values to 2019 after the fall in 2020. The cruise liner market is also recovering its position and the port has become the second largest in Europe in terms of the number of people passing through.

Mediterranean Corridor

- Mediterranean Corridor
 - FERRMED Network
 - Transport by ferry
 - Ports
- Source: FERRMED.



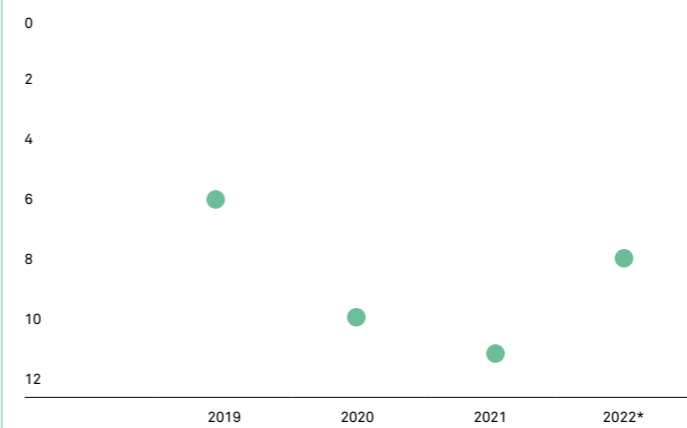
Airport

Barcelona Airport

| | 2019 | 2020 | 2021 |
|-------------------|------------|------------|------------|
| Passengers | 52,686,314 | 12,738,769 | 18,874,896 |
| Goods (in tonnes) | 177,271 | 114,450 | 136,107 |

Source: Spanish Airports and Air Navigation (AENA).

Barcelona's position among the leading European airports by passenger volume. 2019 - 2022



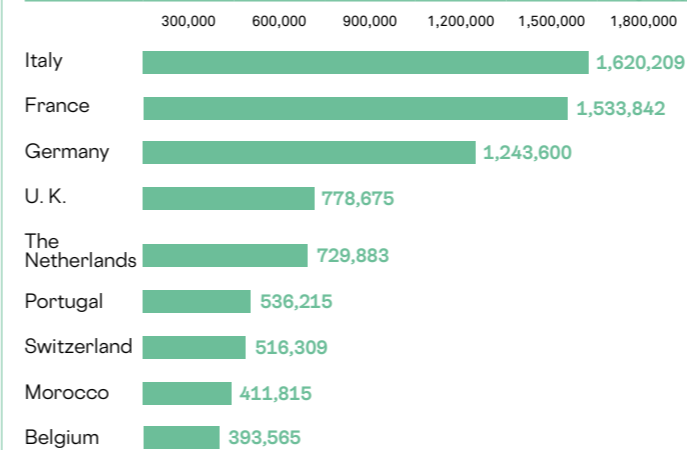
* Data as at May 2022.
Source: Airports Council International. Airport Traffic Report.

Trend in the number of passengers by origin. 2021

| | NUMBER OF PASSENGERS | YEAR-ON-YEAR VARIATION 21/20 |
|--------------------------|----------------------|------------------------------|
| Domestic tourism | 7,615,390 | 58.2% |
| European Union tourism | 8,040,324 | 33.8% |
| Intercontinental tourism | 1,298,575 | 13.8% |
| Rest of Europe | 1,886,011 | 153.9% |

Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Main countries of origin of international passengers. 2021



Source: Barcelona Airport and Spanish Airports and Air Navigation (AENA).

AVE high-speed train, Barcelona-Madrid

| | 2020 | 2021 |
|-----------------------|--------------------|------|
| Passengers (millions) | 1.2 | 2.4 |
| Journey duration | 2 hours 30 minutes | |

Source: Renfe (national rail network).

Port

Traffic (data in millions)

| Traffic (data in millions) | 2020 | 2021 | Year-on-year variation 21/20(%) |
|----------------------------|------|------|---------------------------------|
| Goods (tonnes) | 58.4 | 65.0 | 11.3% |
| Containers (TEU*) | 3.0 | 3.5 | 19.3% |
| Passengers | 0.9 | 1.5 | 74.7% |

Infrastructures

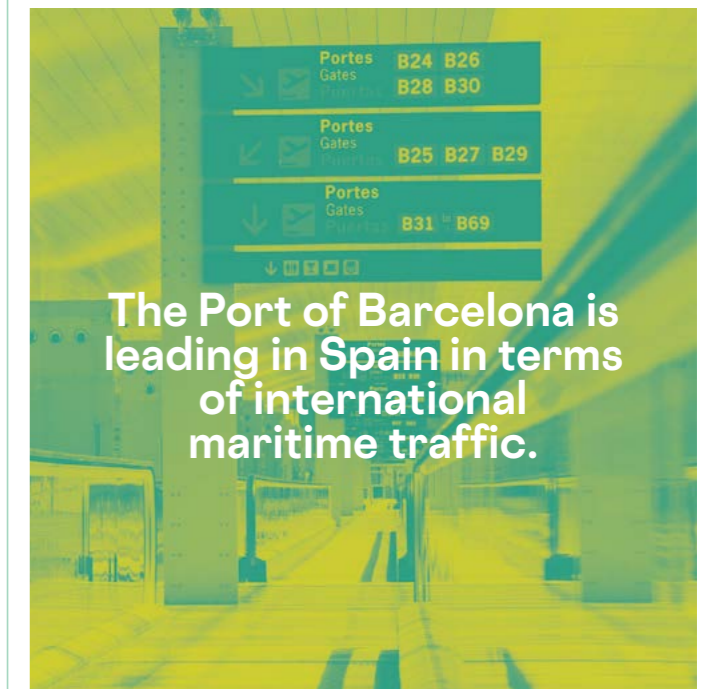
Land surface area: **1081ha**
Wharfs and moorings: **22km**

*TEU: Measure of sea transport capacity equivalent to a 20-foot container.
Source: Barcelona Port Authority.

Europe's main ports according to the number of cruise passengers. 2021

| 2021 POSITION | 2019 POSITION | PORT | PASSENGERS 2021 |
|---------------|---------------|------------------------------------|-----------------|
| 1 | 4 | Genoa, Savona | 591,391 |
| 2 | 1 | Barcelona | 520,854 |
| 3 | 3 | Civitavecchia, Fiumicino and Gaeta | 490,344 |
| 4 | 5 | Marseille | 351,887 |
| 5 | 2 | Balearic Islands | 345,065 |
| 6 | 9 | Ports of Tenerife | 304,407 |

Source: Medcruise.



The Port of Barcelona is leading in Spain in terms of international maritime traffic.



Driving force of a large, diversified economic area

Barcelona is a dynamic economic driving force with a diversified structure and internationally recognised

- Barcelona continues to work on strengthening its capacity for attracting companies, jobs, talent and foreign investment, with the support of the city's good international positioning.

- In 2020, Barcelona's gross domestic product (GDP) was €42,600 per inhabitant. As regards the distribution of gross added value by sector – according to the 2021 estimate – the most notable factor is the weighting of business

services (14.8%), education, healthcare and social services (14.1%), trade and repairs (10.9%), ICT services (8.7%) and hospitality (6.1%).

- In 2021, Catalonia generated a GDP of €244,172 million, which represents 20.3% of the Spanish total (with a population weight of 16.3%). In the same year, the GDP per employed person in terms of purchasing power parity of the region was 5.7% higher than that of the European Union.

- In 2021, the GDP of Barcelona city and Catalonia grew by 5.5% and 5.8%, respectively in real terms, which is a higher increase than that of Spain (5.1%). Barcelona's GDP accounts for about a third (31.3%) of the Catalan economy.

Barcelona has an open economy connected to the world

Barcelona's attractiveness for foreign investment is confirmed by various prestigious rankings: firstly, Barcelona generates confidence in the field of international investment, as shown by its ranking as the 9th main urban area of the world for attracting foreign investment projects in 2020, and 2nd for research centre projects, according to KPMG's *Global Cities Investment Monitor 2021*. Furthermore, the city has reaffirmed itself as a leading technology hub in Europe, ranking 7th as the most promising city for technology startups, moving upward place since the previous edition, and 5th in foreign direct investment (FDI) for technology projects in the second edition of fDi Intelligence's *Top Tech Cities of the Future 2021*.

- According to the *EY Attractiveness Survey Europe 2022*, Barcelona is ranked as the 10th most attractive city for international investment, in a context in which the impacts of Brexit, the pandemic and the conflict in Ukraine are affecting the volume of foreign investment in Europe. Moreover, Barcelona is the European city with the best strategy for attracting foreign investment, according to the *European Cities and Regions of the Future 2022/23* report by fDi Intelligence (Financial Times Group).

- Between 2017 and 2021, Catalonia was the leading destination for foreign direct investment in Spain, with 876 projects, with an invested capital of €18,018 million and 94,578 jobs created, according to a report released by Acctio based on data from FDi Markets (Financial Times Group). This figure represents an increase of 51.3%, 37.4% and 132.0%, respectively, compared to the period 2012-2016, placing Catalonia as the third region in Western Europe in terms of jobs created through foreign investment. The ICT sector is the leading sector in foreign investment in Catalonia due to the number of projects.

- Catalonia was home to the headquarters of approximately 8,900 foreign companies in 2019. The main countries of origin were France (13.1%), Germany (13.0%) and the United States (12.3%).

- In 2021, exports from the province of Barcelona reached €61,655.6 million, achieving a new record, according to available historical data series. In comparison with the previous year, the Barcelona area's external sales grew by 21.7%, in a context of economic recovery after the Covid crisis. Between 2009 and 2021, the growth of exports was intense, with an accumulated increase of 90% in current values, which is proof of the open and competitive nature of Barcelona's economy.

- The Barcelona area continues at the top of the Spanish export ranking, with almost one-fifth (19.5%) of the total international sales and 55,393 exporting companies, which represent more than one-fifth (23.5%) of those in Spain. Moreover, it should be noted that 58.5% of Barcelona's exports are of a high and medium-high technological level and represent 25.3% of the Spanish total.

Economic activity

Gross Domestic Product at market prices* (GDP). 2020 (current prices in millions of €)

| | GDP | | GDP PER INHABITANT | |
|--------------------------------------|-------------------|--------------------|---------------------|--|
| | MILLIONS OF EUROS | THOUSANDS OF EUROS | INDEX CATALUNYA-100 | |
| Barcelona (a) | 70,248.1 | 42.6 | 146.7 | |
| Barcelona Metropolitan Region (2019) | 173,334.9 | 35.4 | 108.6 | |

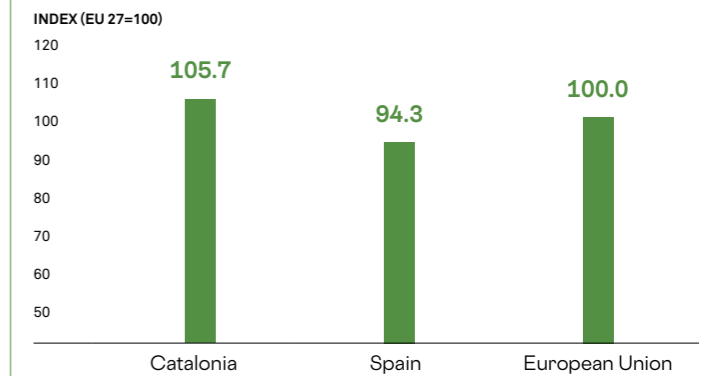
* Statistical Review 2019. Valuation at market prices. Source: Catalan Institute of Statistics.

Gross Domestic Product. (Value at current prices in millions of €)

| | CATALUNYA | SPAIN | (%) CAT/SP |
|----------|-----------|-----------|------------|
| 2017 | 232,187 | 1,161,867 | 20.0% |
| 2018 | 242,434 | 1,203,259 | 20.1% |
| 2019 | 251,417 | 1,244,375 | 20.2% |
| 2020 (p) | 225,055 | 1,121,948 | 20.0% |
| 2021 (o) | 244,172 | 1,205,063 | 20.3% |

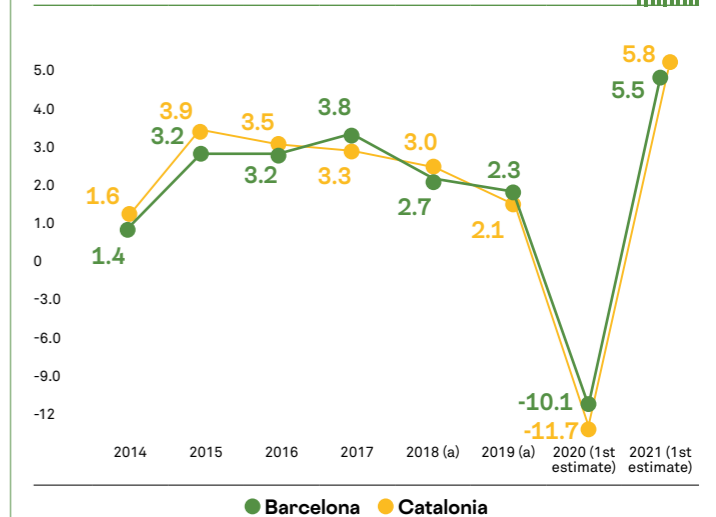
Source: Statistical Institute of Catalonia and INE (National Statistics Institute).

GDP per employed person in terms of purchasing power parity. 2020



Source: Catalan Institute of Statistics.

GDP trend in Barcelona and Catalonia. 2014-2021. YOY variation rate in volume (%)



Source: Barcelona City Council's Department of Statistics and Data Dissemination, and the Catalan Institute of Statistics.

Exports

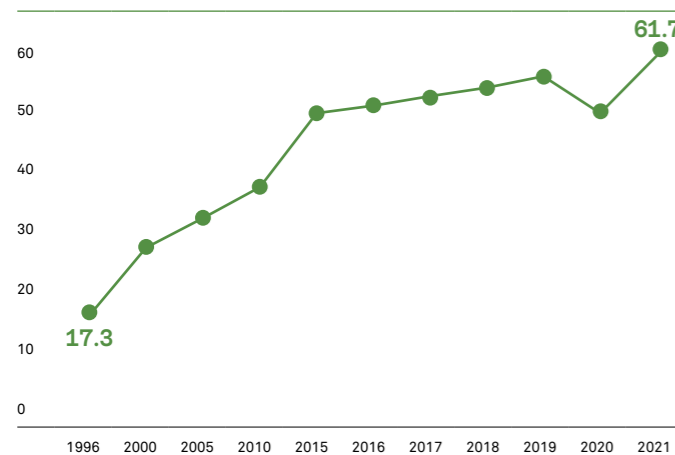
Exports. (in millions of €)

| | 2020 | 2021 | PERCENTAGE OF SPAIN 2021 | YEAR-ON-YEAR VARIATION 2020/2021 |
|-------------------|-----------------|-----------------|--------------------------|----------------------------------|
| Barcelona* | 50,673.0 | 61,655.6 | 19.5 | 21.7% |
| Catalonia | 66,496.1 | 80,538.3 | 25.4 | 21.1% |
| Spain | 263,628.3 | 316,609.2 | 100.0 | 20.1% |

* Provincial data.
Source: Ministry of Industry, Commerce and Tourism.

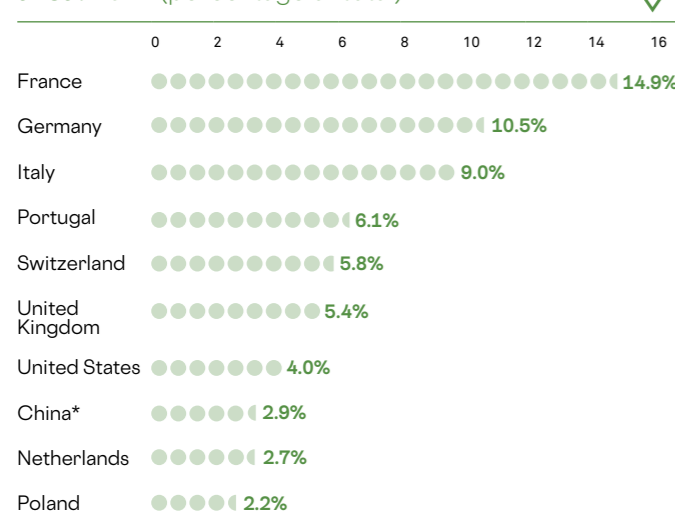
Trend in exports from the province of Barcelona.

1996 - 2021*(in thousands of millions of €)



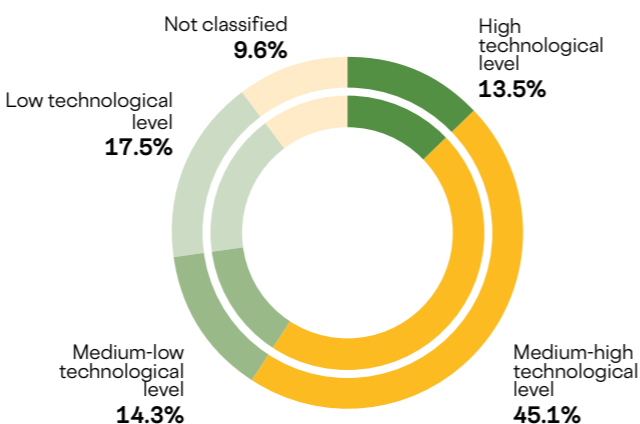
* Provisional data.
Source: Ministry of Industry, Commerce and Tourism.

Main export countries for the Barcelona area. 2021 (percentage of total)



*Includes China, Hong Kong and Macau.
Source: Ministry of Industry, Commerce and Tourism.

Distribution of exports from the province of Barcelona by technological content. 2021*



* Provisional data.
Source: Compiled by the Department of Studies at the Manager's Office for Economy, Resources and Economic Promotion, Barcelona City Council, based on data from the Ministry of Industry, Commerce and Tourism.



Commitment to strategic sectors

A territory with a powerful industrial base

• In 2021, industry generated 20.3% of Catalonia's total gross value added (GVA), a figure that exceeds that of Spain (17.0%) and is very similar to that of the European Union (20.2%), making it the autonomous community with the most industrial development in Spain.

• Catalonia is the 6th region in Europe in terms of employment in high- and medium-high technology manufacturing, with 202,000 people employed in these activities in 2020, and exceeds the records of regions such as Piedmont (Turin), Veneto (Venice), Darmstadt (Frankfurt) and the Ile de France (Paris). In the same year Catalonia was also ranked the 5th region in the continent for female employment in these activities.

• Barcelona has an important industrial sector and the province – with 19.3% of GVA coming from industry – accounts for three quarters (75.3%) of this employment in Catalonia. Of particular note are the chemical/ pharmaceutical, automotive, food, paper and graphic arts and waste treatment clusters.

• Barcelona and its area are working to develop industry 4.0, using features such as the impetus of Big Data, the rising number of companies and organisations involved in initiatives related to 3D printing and the work of Fab Labs to introduce digital manufacturing to schools, companies, entrepreneurs and community projects. In 2021, the Barcelona province had over 511,000 jobs in activities potentially associated with industry 4.0, after creating more than 73,800 jobs in these areas since 2010, which represents an accumulated percentage increase of 16.9%.



Commitment to digital technology and ICTs

• The city, with over 72,100 jobs and more than 2,700 companies with staff working in ICTs, is the central core of the sector in Catalonia. Moreover, the number of people employed in this sector has increased by 116.1% compared to 2012, and the number of companies with salaried employees has increased by 54.5% in the same period, much higher than those recorded in all sectors of the city, a sign of the sector's dynamism. It is calculated that in 2021, the information and communications sector, which encompasses ICTs, generated 8.7% of GAV in Barcelona.

• According to the report *Digital Talent Overview 2022*, by Barcelona Digital Talent, Catalonia is approaching 100,000 digital professionals and Barcelona continues to account for 95% of all digital talent in Catalonia and 97% of job offers.

• Web/app development, interface and user experience design, and business software implementation (CRM and ERP) account for 67% of digital talent and 60% of the demand for profiles. In terms of growth, the demand for UX/UI design profiles has grown strongly (53%), along with that for cloud professionals (66%).

• This recovery in the demand for profiles led to an increase in salaries in 2021. The average salary for digital professionals in Barcelona is €41,704 gross, 11% more than in 2020, and in recent years it has remained 25-30% above the average salary in the city.

• *The Tech Cities of the Future 2021* ranking by the prestigious magazine fDi Intelligence, lists Barcelona in 7th place among the European tech cities of the future and in 5th place in terms of better prospects for attracting investments in innovation, technology and startups, just behind London, Paris, Dublin and Amsterdam.

• Furthermore, according to the *Tech Cities 2020* report by Savills, Barcelona is the 5th most attractive city in the world for digital nomads, taking into account technological infrastructures, the offer of flexible work spaces, environmental quality and other aspects related to well-being that place it among the benchmark Tech Lifestyle Cities on a global scale, also according to Savills.

Towards the transformation of the productive model

• Barcelona city is advancing towards a plural, innovative and socially inclusive economic model, based on sustainability at all its levels: economic, social and environmental. To this end, it prioritises the promotion of seven strategic sectors that are the backbone of all municipal policy and the transformation of the production model: manufacturing, the visitor economy, trade, the digital economy, the creative sectors, the green and circular economy, health and bio, the blue economy and, as a cross-cutting element of all these sectors, the social and solidarity economy.

• The city is working to move towards an economic model that is efficient in the use of resources and has the capacity for innovation based on the promotion of the green and circular economy. These activities together account for more than 170,000 jobs in Catalonia, with waste management and treatment, renewable energies and wastewater treatment and purification as the most important areas.

• Barcelona City Council, through Barcelona Activa, is committed to the Blue Economy as one of the city's economic engines, a leading area in innovation and the creation of wealth and employment, which in the coming years will receive a new boost with the organisation of the America's Cup 2024 and the agreement signed with the World Ocean Council. These events will allow the city to project itself locally and internationally as a leader in this field, and represent a great opportunity for the local blue ecosystem in terms of jobs, talent and positioning linked to innovation and sustainability.

• In the fourth quarter of 2021, the health and bio sector accounted for 99,933 jobs and 2,894 companies with salaried staff in Barcelona, representing 8.7% and 4.1%, respectively, of the city's total.

• The BioRegion of Catalonia – the Catalan ecosystem of life and health sciences – represents 8.7% of the gross domestic product (GDP) and 8% of employment in Catalonia. The Financial Times considered it one of the best European regions for investment in 2020 and 2021. It offers unique capabilities in genetics and structural biology, and stands out in areas such as medicinal chemistry, nanomedicine, omic sciences, bioinformatics and big data.

• Barcelona has an important presence in the social and solidarity economy – with people and collectives at the centre of the activity – with a total of 1,096 cooperatives distributed throughout the city (more than half of which are concentrated in the districts of Eixample, Sant Martí and Sants-Montjuïc – and a significant number of associations, workers' cooperatives and community economies that promote over 4,500 initiatives. Between 2016 and 2021, 357 new cooperatives were set up in Barcelona, and those created annually during this period doubled those set up in 2015 (27).

• According to the Municipal Omnibus Survey (carried out from 2 -20 December, 2021), more than a third (35.6%) of Barcelona's citizens participate in the social and solidarity economy, 12.4 points higher than the previous year.

Barcelona is committed to local, high-quality commerce

• Local commerce is one of the strategic lines of work of Barcelona City Council. Over the years, Barcelona has gradually consolidated its commercial model based on the values of proximity, responsibility and sustainability. Thanks to Barcelona's more than 61,000 shops and restaurants, the city's streets are full of activity. They are organised into shopping centres, associations and guilds, which work together to offer a better service.

• With 14,433 companies and 150,122 jobs, commerce is one of the major sectors in Barcelona's economic structure. At the end of 2021, the sector accounted for 20.6% of companies with employees and 13.5% of employment in the city. There were 22,010 establishments in the retail sector in 2019, which represents 35.8% of the city's active ground-floor premises.

• Municipal markets, with a surface area of over 124,561 m² and 2,072 establishments, are one of the benchmarks of Barcelona's trade model, due to their economic and social significance in the city's neighbourhoods, and they represent the largest network of food markets in continental Europe.

International reference for urban tourism and the organisation of meetings

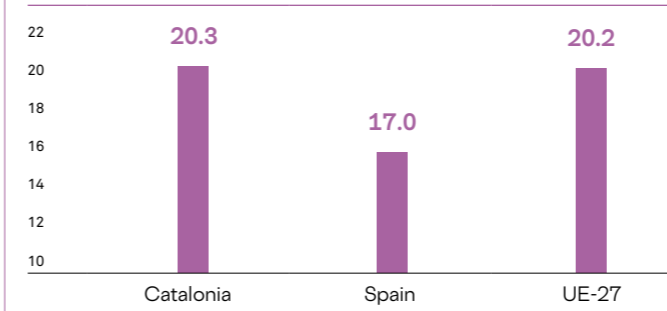
• Barcelona is an urban destination clearly specialised in international tourism: despite the restrictions, 67% of tourists in 2021 were of international origin, and for the first half of 2022 the figure is already close to 80%. Moreover, Barcelona has a high quality tourist accommodation offer, almost 70% of the hotel accommodation is four stars or higher, not to mention Barcelona's commitment to sustainable tourism, which in 2022 led it to receive Biosphere Platinum certification and to become the first destination in the world to obtain this distinction for sustainable tourism management.

• Various rankings highlight Barcelona's attractiveness to foreign visitors: Euromonitor International's *Top 100 City Destinations Index* report ranks Barcelona as the 4th European city in terms of international visitors in 2020; the *European Cities Marketing Benchmarking Report 2020* ranks Barcelona in 8th place in Europe in international overnight stays, and the *Saffron City Brand Barometer 2020* ranks Barcelona as the 7th city in the world with the best city brand.

• One of Barcelona's strengths is its importance in congress and trade fair activity. Fira de Barcelona hosts more than 150 professional events with more than 30,000 exhibitors and 2.5 million visitors, with an economic impact of more than €4.7 billion. Moreover, some of the fairs held in the city are also international benchmarks.

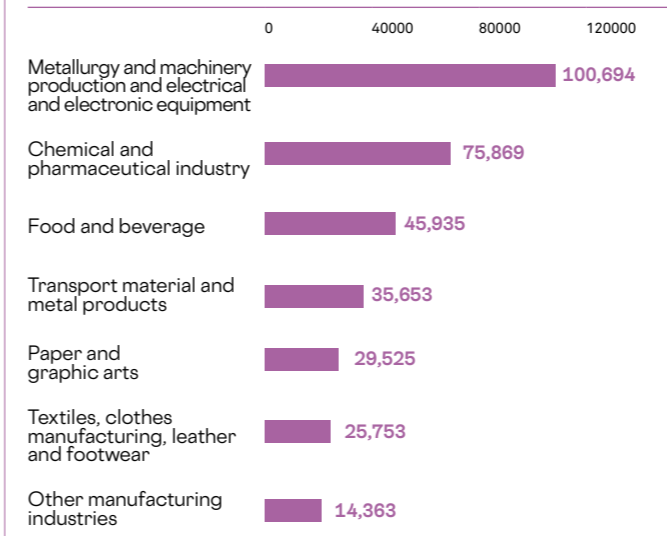
Manufacturing and industry 4.0

Weighting of industry in the GVA (%). 2021



Source: Idescat.

Main industrial branches in jobs* in the Barcelona area. 2021



* Those registered with the Social Security system, including self-employed workers, in the fourth quarter of the year. Provincial data.

Source: Produced by the Studies Department of the Manager's Office for Economy, Resources and Economic Promotion, Barcelona City Council, based on data from Barcelona City Council's Statistics and Data Dissemination Department.

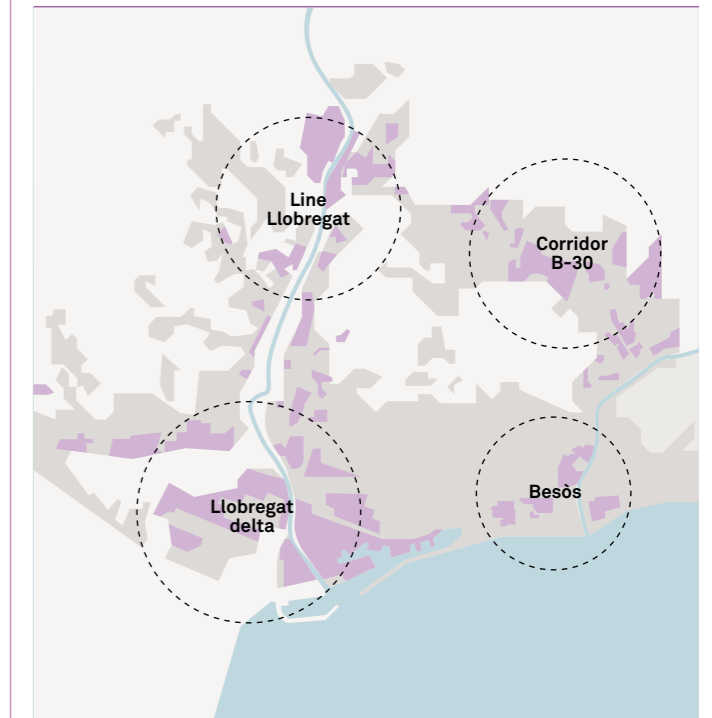
Potential jobs associated with Industry 4.0 in the Barcelona area



Note: Provincial data.

Source: Produced by the Studies Department of the Manager's Office for Economy Resources and Economic Promotion, Barcelona City Council, based on data from Barcelona City Council's Statistics and Data Dissemination Department.

Development areas for new industry



Source: AMB.

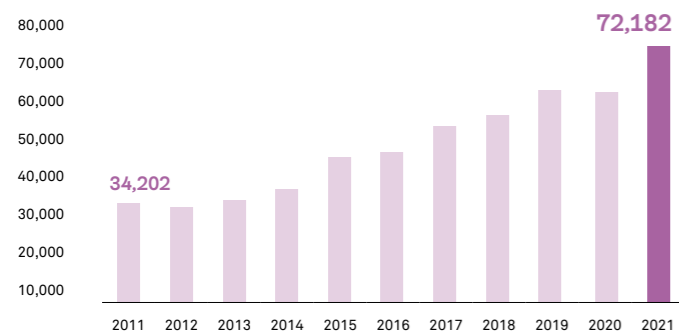
People employed in high and medium-high tech manufacturing. 2020

| REGION (CITY) | % PEOPLE EMPLOYED /TOTAL | WOMEN EMPLOYED (THOUSANDS) | TOTAL PEOPLE EMPLOYED (THOUSANDS) |
|------------------------------|--------------------------|----------------------------|-----------------------------------|
| Stuttgart (STUTT GART) | 20.4 | 107 | 452 |
| Lombardy (MILAN) | 9.3 | 111 | 410 |
| Upper Bavaria (MUNICH) | 12.3 | 72 | 306 |
| Istanbul (ISTANBUL) | 4.9 | 65 | 261 |
| Emilia-Romagna (BOLOGNA) | 10.5 | 54 | 208 |
| Catalonia (BARCELONA) | 6.1 | 62 | 202 |
| Piedmont (TURIN) | 11.1 | 50 | 198 |
| Karlsruhe (KARLSRUHE) | 13.1 | 39 | 196 |
| Tübingen (TÜBINGEN) | 18.6 | 39 | 192 |
| Veneto (VENICE) | 8.7 | 47 | 184 |
| Darmstadt (FRANKFURT) | 8.8 | 47 | 181 |
| Île-de-France (PARIS) | 3.2 | 59 | 176 |
| Bursa, Eskişehir, Bilecik | 12.0 | 33 | 175 |

Source: Eurostat.

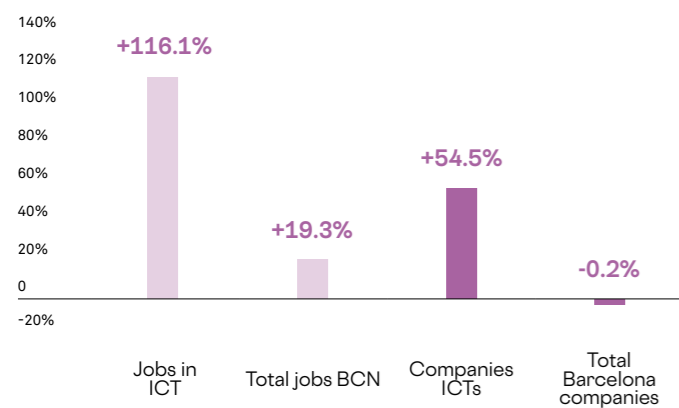
ICT Sector / Information and Communication

Jobs* in ICT activities in Barcelona



* Those registered with the general Social Security system, including self-employed workers.
 Source: Compiled by the Department of Studies at the Management Office for Economy, Resources and Economic Promotion of Barcelona City Council, based on data from Barcelona City Council's Statistics and Data Dissemination Department.

2012-2021 trend in jobs* and companies with employees in Barcelona (%)



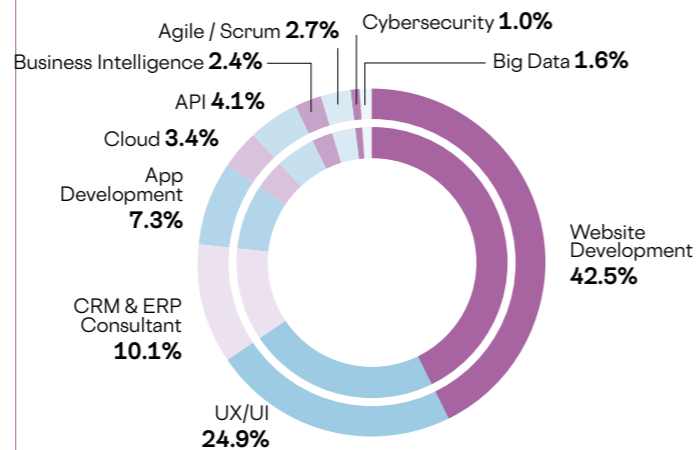
* Those registered with the Social Security system, including Self-employed Workers (jobs) and Social Security contribution centres (companies).
 Source: Compiled by the Department of Studies at the Management Office for Economy, Resources and Economic Promotion of Barcelona City Council, based on data from Barcelona City Council's Statistics and Data Dissemination Department.

Top Tech cities of the future in Europe. 2021

| POSITION | CITY | COUNTRY |
|----------|------------------|----------------|
| 1 | London | United Kingdom |
| 2 | Paris | France |
| 3 | Dublin | Ireland |
| 4 | Berlin | Germany |
| 5 | Amsterdam | Netherlands |
| 6 | Madrid | Spain |
| 7 | Barcelona | Spain |
| 8 | Munich | Germany |
| 9 | Stockholm | Sweden |
| 10 | Bucharest | Romania |
| 11 | Belfast | United Kingdom |
| 12 | Helsinki | Finland |
| 13 | Zurich | Switzerland |
| 14 | Moscow | Russia |
| 15 | Frankfurt | Germany |

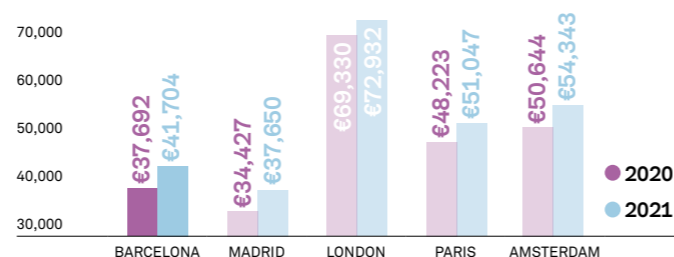
Source: fDI Intelligence, Top Tech Cities of the Future 2021.

Demand for digital professionals according to profile. 2021 (% of total)



Source: Barcelona Digital Talent, Digital Talent Overview 2022.

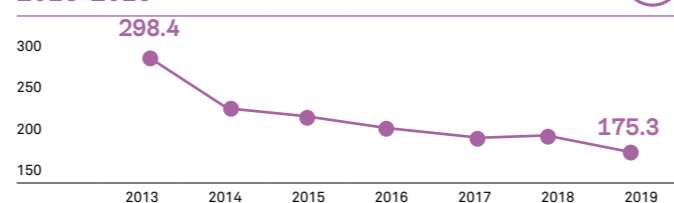
Salaries of digital professionals by city. 2020-2021 (€/year)



Source: Barcelona Digital Talent, Digital Talent Overview 2022.

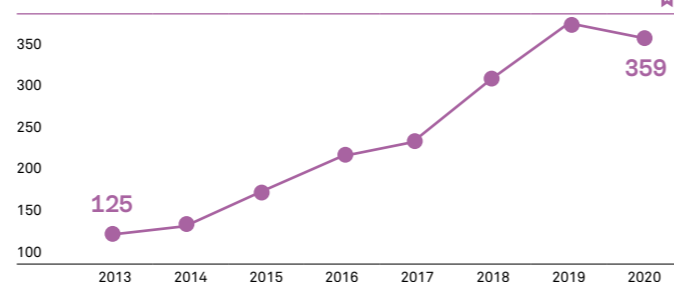
Green and circular economy

Energy intensity* (Mwh/Meuro). 2013-2019



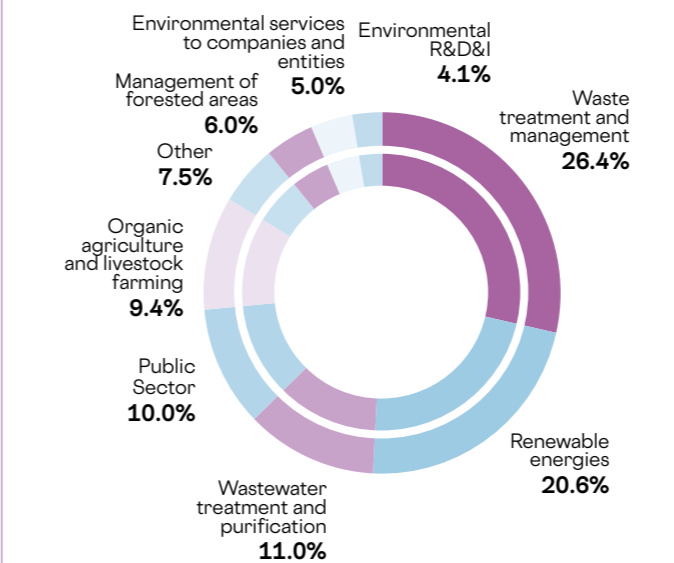
* Energy consumption per unit of GDP.
 Source: Barcelona City Council's Department of Statistics and Data Dissemination, City of Barcelona Statistics Yearbook, 2021.

Number of environmental Certifications*. 2013-2020



* Summary of EMAS (Eco-Management and Audit Scheme), responsible tourism, sustainable construction, ecological products and business and organisational management certifications.
 Source: Barcelona Sustainability Indicators Report, 2020. Urban Ecology, Barcelona City Council.

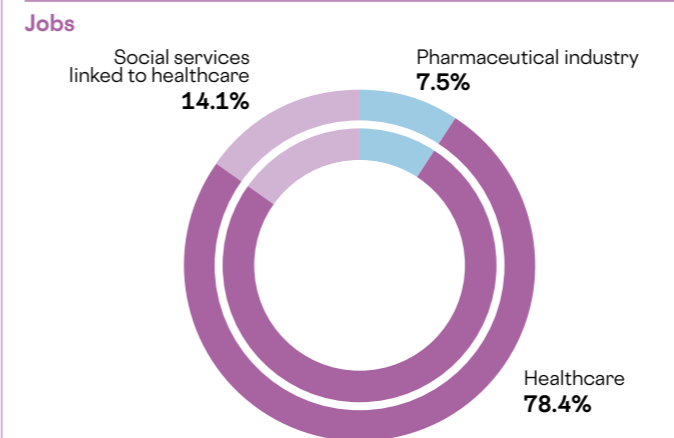
Jobs linked to the Green Economy by sector. 2021 (%)



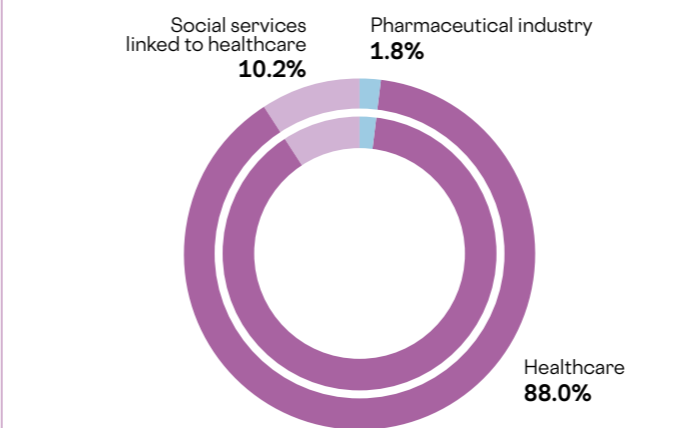
Source: GENERALITAT OF CATALONIA (2022), Women and the environment: The role of women in green employment in Catalonia.

Health & Bio

Distribution by branches of the Health and Bio sector in Barcelona. 2021 (% of total)



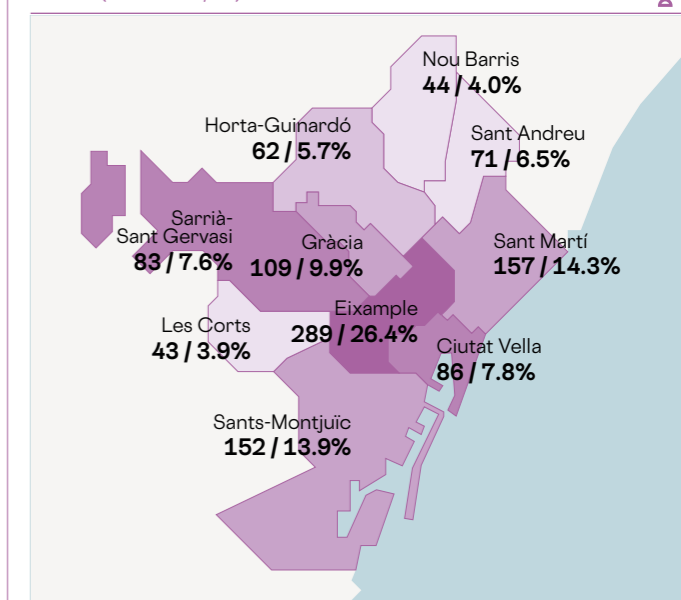
Companies and salaried employees



* Those registered with the general Social Security system, including Self-employed Workers (jobs) and Social Security contribution centres (companies). Source: Produced by the Studies Department of the Manager's Office for Economy, Resources and Economic Promotion, based on data from Barcelona City Council's Statistics and Data Dissemination Department.

Social economy

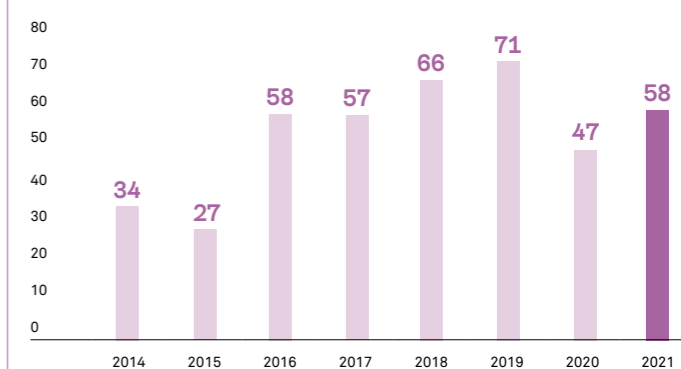
Cooperatives in Barcelona by district. 2021 (Number/%)



Source: Directorate for Social and Solidarity Economy and Sustainable Food, Barcelona City Council.



Number of cooperatives established in Barcelona. 2014-2021



Source: Directorate for Social and Solidarity Economy and Sustainable Food, Barcelona City Council.

Commerce

Commerce in Barcelona* 2021

Commerce

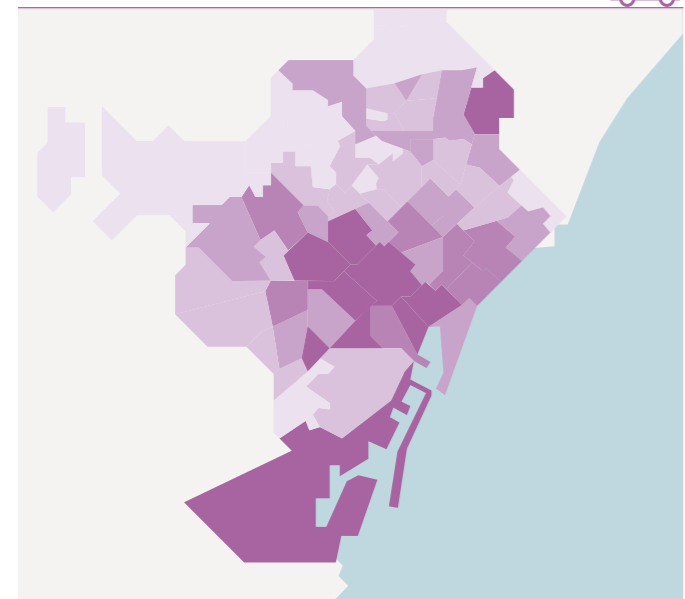
Number of companies with salaried employees: **14,433**
Jobs: **150,122**

Municipal markets

Food: **39** Special: **4**
Number of establishments: **2,072** Commercial area: **124,561m²**
Food: 1,405 Non-food: 667 Number of visitors: **51,080,658**

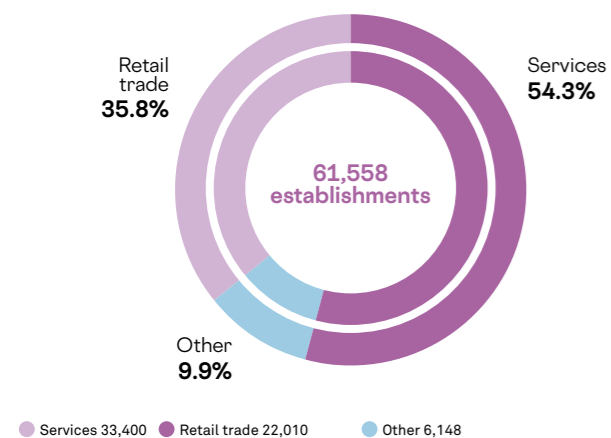
Source: Barcelona City Council's Department of Statistics and Data Dissemination and the Municipal Institute of Markets.

Commercial Supply Index in the neighbourhoods of Barcelona. (No. premises/100 inhabitants)



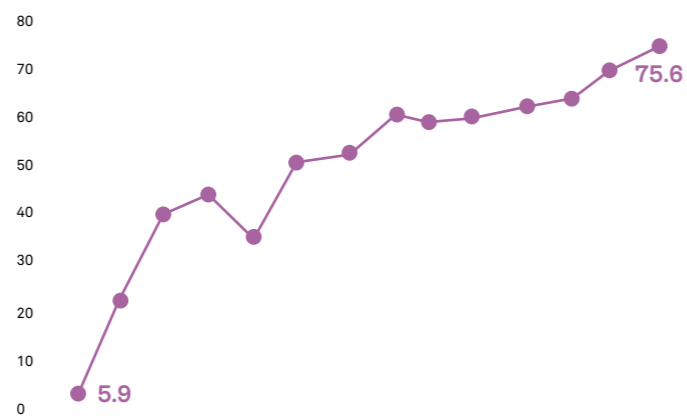
Source: Barcelona City Council. 2019 Census of Commercial Premises.

Ground-floor premises according to activity in Barcelona. 2019



Source: Barcelona City Council. Census of Commercial Premises.

Trend in online shopping in Barcelona. 2000-2021 (Consumers in %)



* From 2017 onwards, data from June.

Source: Municipal Omnibus Survey. Barcelona City Council's Department of Commerce, Catering and Consumer Affairs.

Tourism

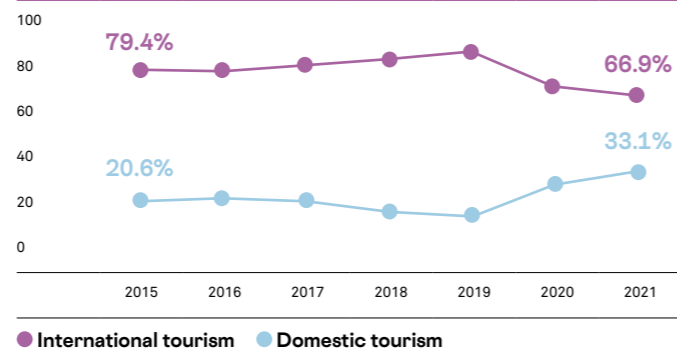
Tourists and overnight stays in Barcelona

| | 2020 | 2021 | VARIATION 2020/21 |
|----------------------------|-----------|-----------|-------------------|
| Tourists staying at hotels | 1,888,705 | 3,238,273 | 71.5% |
| Overnight stays at hotels | 4,354,006 | 8,153,624 | 87.3% |
| Tourists staying in HUTs* | 820,548 | 1,262,629 | 53.9% |
| Overnight stays in HUTs | 4,136,025 | 7,144,233 | 72.7% |

* Tourist-use flats.

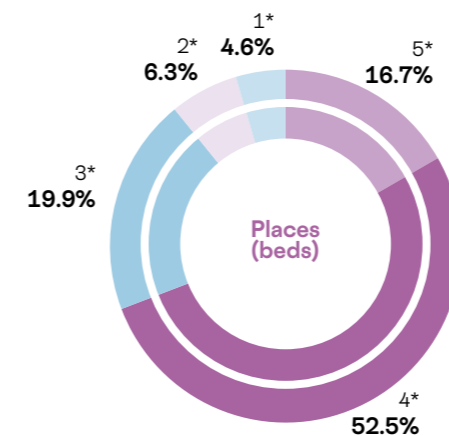
Source: Barcelona Tourism Observatory.

Origin of tourists visiting Barcelona



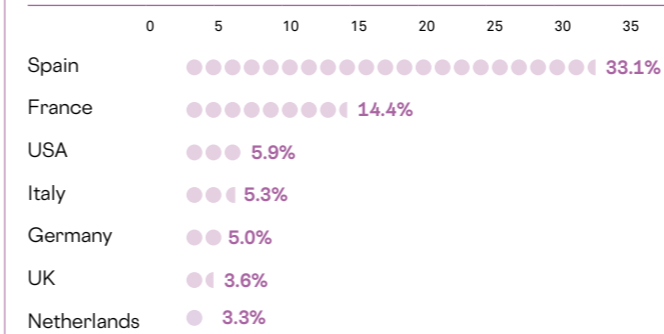
Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Hotel accommodation offer by star level



Source: Barcelona Tourism Observatory.

Main countries of origin of tourists. 2021



Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Meetings

Activity indicators for meetings. 2019

| | | | |
|-------------------------------------|--------------|------------------------------|----------------|
| Total meetings | 1,733 | Conventions and incentives | 1,214 |
| Congresses, conferences and courses | 519 | Total number of participants | 664,607 |

Source: Barcelona Tourist Consortium and Department of Statistics of Barcelona City Council.

World's main cities in number of meetings and participants. 2019

| CITIES | PARTICIPANTS | CITIES | PARTICIPANTS |
|------------------|--------------|------------------|----------------|
| Paris | 237 | Barcelona | 156,754 |
| Lisbon | 190 | Paris | 124,063 |
| Berlin | 176 | Madrid | 91,900 |
| Barcelona | 156 | Lisbon | 91,406 |
| Madrid | 154 | Vienna | 89,009 |
| Vienna | 149 | Berlin | 85,089 |
| Singapore | 148 | London | 76,114 |

Source: International Congress and Convention Association (ICCA).

Indicators from Barcelona Trade Fair and CCIB

| | | | |
|---|--------------------|--|----------------------|
| Fairs, congresses and events held every year | Over 150 | Direct and represented exhibitors | 30,000 |
| Visitors | 2.5M | Activities, speeches/talks and seminars organised in the halls each year | Over 1,100 |
| Visitors from more than 200 countries and regions | Over 200 | Economic impact on Barcelona and its surroundings | Over €4,700 M |
| Direct/indirect jobs generated | Over 35,000 | Unique enclosures | 2 |
| | | Large venues for congresses | 2 |

Source: Fira de Barcelona.

Main trade fair/congress events held in Barcelona. 2021

Mobile World Congress
World benchmark in mobile technology

4YFN (Four Years From Now)
International benchmark in the field of startups

Integrated Systems Europe - ISE
The world's leading trade fair for the professional audiovisual sector. 1st edition to be held in Barcelona

Smart City Expo World Congress
The leading event, and the first, with a focus on smart technologies to improve the lives of cities and citizens.

BforPlanet
Event created to promote the UN Sustainable Development Goals (SDGs) in the private sector.

EXPOQUIMIA / EQUIPLAST / EURISURFAS
Expoquimia / Equiplast / Eurosurfas sectors

Piscina&Wellness Barcelona
International trade fair for the swimming pool, wellness and spa sector.

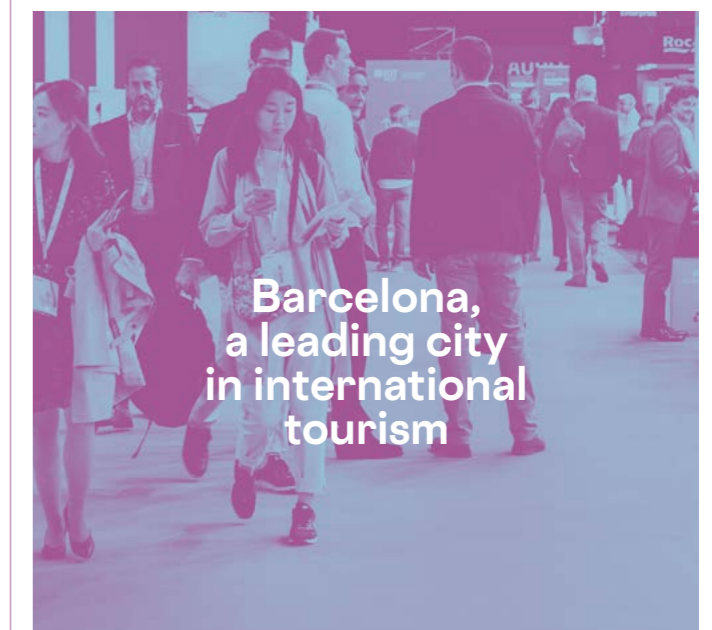
IOTSWC
International IOT Technology Congress

IBTM
The Global Meetings & Incentives Exhibition

EAS IAAPA EXPO EUROPE
Premier Event in Europe on the leisure industry

SBS SUMMIT
Second Annual Summit of C.

Source: Fira de Barcelona.



Barcelona,
a leading city
in international
tourism

Digital city, creativity, research and innovation

Barcelona leads Spain's advance towards a knowledge economy

• Barcelona aims to become a leader in the field of technology, in order to improve quality of life in a global context in which mobile technology is a key vector for the growth of the economy as a whole. In this context, Barcelona's role as Mobile World Capital represents a strategic opportunity to position the city in this area; an example of this commitment is the recent announcement that the Mobile World Congress will be hosted in Barcelona until 2030.

• Barcelona now offers one of the most dynamic ecosystems for technological entrepreneurship in Europe and the *2022 Startup Heatmap Report* ranks it as the 3rd most preferred city in Europe to establish a startup company for the fifth consecutive year, after Berlin and London, while according to *Atomico's State of European Tech 2021* report, it is the 7th hub for technological investment received and has moved up nine positions compared to the previous edition after quadrupling the investment attracted compared to the previous year.

• Catalonia is the region with the highest number of innovative companies in Spain (**22.9%**) and accounts for more than a fourth (**26.4%**) of Spain's total expenditure on innovative activities.

• Barcelona retained its 5th position in Europe and was ranked 20th worldwide in scientific production in **2020**,

gaining three positions compared to 2019, according to the data produced by the Polytechnic University of Catalonia based on the Science Citation Index.

• Expenditure in R&D in Catalonia was 1.61% of GDP in 2020, lower than the average in the European Union but higher than that of Spain and regions such as Lombardy and London. There are 50,776 employees dedicated to research and development in Catalonia. In addition, there are more than 10 unique scientific and technical facilities of international reference, such as the ALBA Synchrotron, Mare Nostrum, MinoTauro and Pirineus (CSUC), to mention a few.

• Creative industries in Barcelona accounted for over 160,132 jobs potentially linked to this sector in 2021, representing 14.3% of employment in the city and half (52.2%) of the creative jobs in Catalonia. The core of the creative industry in the city generates a turnover of more than €10,000 million in the city and more than 43,000 jobs. According to the most recent urban research, there is a strong correlation between a higher percentage of people employed in creative industries and a higher production per inhabitant. Festivals such as Sonar and Primavera Sound are intimately related to Barcelona and are a catalyst of opportunities for the city. It is estimated that the fairs, festivals and major events held in Barcelona have an impact of around €5,100 million a year.

• The European Commission's *Cultural and Creative Cities Monitor Report 2019* lists Barcelona as the 9th large city with the most creative vibrancy.



Business innovation and research

Companies and innovation

| | NUMBER OF INNOVATIVE COMPANIES | | TOTAL EXPENDITURE ON INNOVATIVE ACTIVITIES | |
|-----------|--------------------------------|------------|--|------------|
| | 2020 | % OF SPAIN | 2020 (THOUSANDS OF €) | % OF SPAIN |
| Catalonia | 4,797 | 22.9 | 4,512,494 | 26.4 |
| Spain | 20,976 | 100.0 | 17,074,397 | 100.0 |

Source: INE.



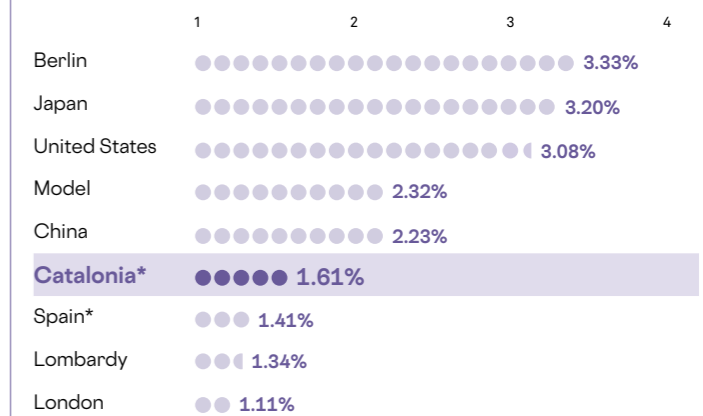
Innovation ecosystem

Preferred cities for establishing a new startup in Europe

| 2020 POSITION | CITY | 2021 POSITION | % OF FOUNDERS |
|---------------|-----------|---------------|---------------|
| 1 | Berlin | 1 | 37.4 |
| 2 | London | 2 | 33.1 |
| 3 | Barcelona | 3 | 20.0 |
| 6 | Lisbon | 4 | 16.4 |
| 3 | Amsterdam | 5 | 16.2 |
| 9 | Tallinn | 6 | 9.2 |
| 7 | Paris | 7 | 8.3 |
| 5 | Munich | 8 | 7.6 |
| 10 | Stockholm | 9 | 7.1 |
| - | Madrid | 10 | 6.4 |

Source: Startup Heatmap Europe, 2022 *StartUp Heatmap Europe Report*.

Expenditure on R&D. 2019 (% of GDP)



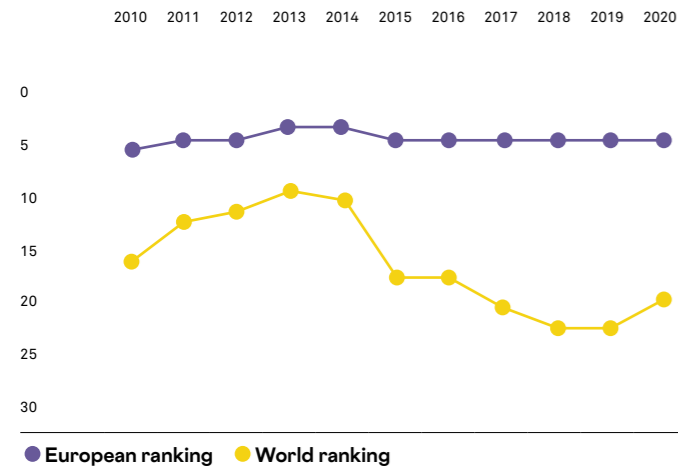
* Data for 2020. Sources: NSI and Eurostat

Leading international scientific and technical facilities in Catalonia. 2022

- Sincotró ALBA-Cells
- Pirineus (CSUC) - Spanish Supercomputing Network
- MareNostrum and MinoTauro (BSC-CNS) - Spanish Supercomputing Network
- Barcelona Nuclear Magnetic Resonance Laboratory (LRB)
- White Room of the Barcelona Microelectronics Institute (IMB-CNM)
- MARHIS installation at the Maritime Engineering Laboratory of the UPC
- Omics Technologies Infrastructure (OMICSTECH) - CNAG - CRG
- Omics Technologies Infrastructure (OMICSTECH) - COS
- Network of High Biosafety Level Laboratories - CReSA
- NANBIOSIS Infrastructure - CIBER-BBN
- Electron Microscopy Infrastructure for Materials - UMEAP
- Spanish Oceanographic Fleet - CSIC

Source: Ministry of Science and Innovation, Map of Unique Scientific and Technical facilities.

Main cities in the world in terms of scientific production. Barcelona's position



(Barcelona's position in the world and European rankings).

Source: Compiled by the UPC's Land Policy and Valuations Centre (CPVS), based on data from the SCI (Science Citation Index).



Top 20 European hubs in attracting technological investment. 2021



| 2021 POSITION | CITY | YEAR-ON-YEAR 2021/2020 (%) | CAPITAL INVESTED 2021 (millions of dollars) |
|---------------|------------------|----------------------------|---|
| 1 | London | 84 | 18,365 |
| 2 | Berlin | 147 | 7,106 |
| 3 | Paris | 111 | 6,533 |
| 4 | Stockholm | 152 | 6,522 |
| 5 | Amsterdam | 302 | 3,591 |
| 6 | Munich | 240 | 2,952 |
| 7 | Barcelona | 312 | 1,503 |
| 8 | Farnham | - | 1,276 |
| 9 | Oxford | 172 | 1,184 |
| 10 | Madrid | 373 | 1,159 |
| 11 | Vienna | 473 | 1,117 |
| 12 | Copenhagen | 236 | 998 |
| 13 | Helsinki | 61 | 918 |
| 14 | Spencers Wood | 159 | 905 |
| 15 | Dublin | 92 | 883 |
| 16 | Tallinn | 114 | 852 |
| 17 | Cambridge | 316 | 777 |
| 18 | Oslo | 149 | 671 |
| 19 | Milan | 46 | 565 |
| 20 | Utrecht | 1,613 | 548 |

Source: State of European Tech21. Atomico.

Creative industries

Key indicators of the cultural and creative industries in Barcelona



| COMPANIES | TURNOVER | JOBS |
|---------------------|---------------------|---------------------|
| 4,675 | €10,158M | 43,535 |
| (6.2% of the total) | (6.3% of the total) | (3.8% of the total) |

Source: Map of creative industries. Barcelona January 2022, Barcelona City Council.

Jobs potentially linked to creative industries* in Barcelona. 2021



| | 4Q 2021 | % BCN/CATALONIA |
|---|------------------|-----------------|
| Activities linked to heritage | 2,971 | 64.6% |
| Architecture and Engineering | 19,192 | 37.9% |
| Graphic art and printing | 3,386 | 17.7% |
| Cinema, video and music | 5,201 | 59.8% |
| Design and photography | 19,726 | 55.4% |
| Publishing | 8,251 | 68.7% |
| Writers, performing and visual arts, and artisans | 7,719 | 52.8% |
| Fashion | 1,692 | 11.7% |
| Radio and television | 1,051 | 21.6% |
| Traditional creative (cultural) industries | 69,189 | 42.0% |
| Creative research and development | 13,564 | 51.1% |
| Advertising | 18,705 | 65.1% |
| Software, video games and electronic publishing | 58,674 | 67.7% |
| Non-traditional creative industries | 90,943 | 64.0% |
| Total creative industries | 160,132 | 52.2% |
| % Creative Ind. / total in Barcelona | 14.3% | - |
| Total | 1,115,988 | 32.8% |

Note: Those registered with the general Social Security system, including self-employed workers, in the fourth quarter of the year.

Source: Produced by the Department of Studies in Barcelona City Council's Manager's Office for Economy, Resources and Economic Promotion, based on data from the Government of Catalonia's Employment and Productive Model Observatory.

Creative and cultural cities in Europe. 2019



| POSITION | CITY | CREATIVE VIBRANCY INDEX |
|----------|------------------|-------------------------|
| 1 | Paris | 66 |
| 2 | Munich | 41 |
| 3 | London | 36 |
| 4 | Milan | 35 |
| 5 | Berlin | 34 |
| 6 | Vienna | 33 |
| 7 | Budapest | 33 |
| 8 | Prague | 33 |
| 9 | Barcelona | 31 |
| 10 | Hamburg | 29 |
| 11 | Madrid | 28 |
| 12 | Warsaw | 27 |
| 13 | Cologne | 27 |
| 14 | Rome | 26 |
| 15 | Lyon | 26 |

Note: Cities with more than a million residents.

Source: Cultural and Creative Cities Monitor 2019, European Commission's Joint Research Centre.





A talent generation and attraction hub

Barcelona's job market has critical mass and qualified human capital

- There are 1.1 million jobs in the city and 2.7 million in the Barcelona area. The rates of activity (80.2%) and employment (74.8%) in Barcelona are higher than the Catalan, Spanish and European averages. Likewise, in 2021 the female employment rate in the city exceeded 70% for the first time and ended the year with the highest value in the historical series.

- More than half of the jobs in Barcelona (56.9%) are in knowledge-based activities, and the city is the centre of this economic segment in Catalonia, as 42.8% of the high-knowledge jobs are to be found here, while Barcelona accounts for 34.8% of Catalonia's employed population.

- Barcelona has a job market with a critical mass in the high added value sectors. In 2018, Catalonia was listed as the 6th European region with most people working in manufacturing that involves medium-high to high technological intensity, 5th in terms of people with higher education qualifications working in science and technology – with more than

931,000 jobs in this area – while in 2020 it was in 8th position in high-tech knowledge-intensive services.

- According to the *Decoding Digital Talent 2021* report, Barcelona is the 9th most attractive city to work abroad for global talent and the tenth for digital experts.

- Catalonia has 12 universities with over 282,000 students, while the Barcelona Metropolitan Area, with its 8 public and private universities, accounts for 82% of enrolled students. In the 2020-2021 academic year, there were over 55,000 people studying masters and PhD programs in the universities in the Barcelona area.

- In 2020, more than half (53.1%) of female workers and 47.5% of the people working in Catalonia had attained a higher education degree, figures that are clearly higher than the European and Spanish averages.

- In the area of education, it should be noted that Barcelona is the only city with two teaching institutions among the 10 best business schools in Europe: IESE and ESADE are listed 3rd and 9th in Europe and 10th and 34th in the world, respectively, in the *Global MBA 2022* ranking published by the Financial Times.

Jobs in Barcelona

Workers registered with the Social Security. 2021*

| | TOTAL | % OF SPAIN |
|--------------------|------------|------------|
| Barcelona | 1,144,133 | 5.8 |
| Barcelona province | 2,679,752 | 13.5 |
| Catalonia | 3,519,131 | 17.8 |
| Spain | 19,824,911 | 100.0 |

* Data from the 4th quarter.
Source: Department of Statistics and Data Dissemination, Barcelona City Council.

% workers having attained a higher education degree. 2020*

| | WOMEN | TOTAL |
|-----------|-------|-------|
| Catalonia | 53.1% | 47.5% |
| Spain | 51.8% | 45.5% |
| Model | 40.6% | 35.8% |

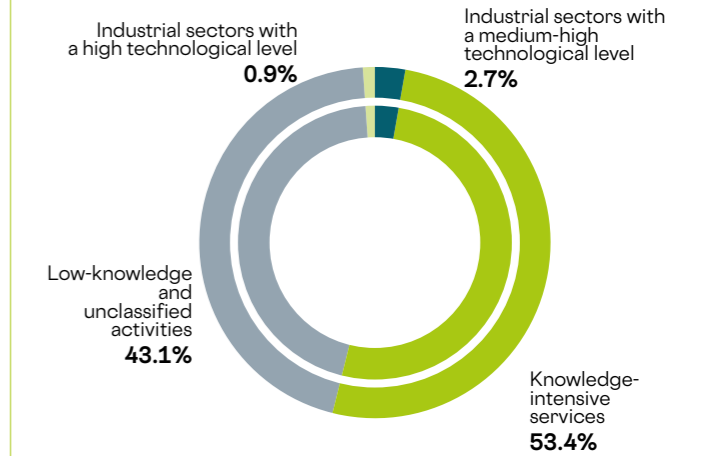
* % of the population aged between 25 and 64 with university or GFGS qualifications.
Source: Eurostat.

Most attractive cities in the world to work abroad

| 2020 POSITION DIGITAL EXPERTS | CITY | 2020 POSITION GLOBAL TALENT |
|-------------------------------|--------------|-----------------------------|
| 1 | London | 1 |
| 3 | Amsterdam | 2 |
| 6 | Dubai | 3 |
| 4 | Berlin | 4 |
| 9 | Abu Dhabi | 5 |
| 5 | Tokyo | 6 |
| 2 | Singapore | 7 |
| 7 | New York | 8 |
| 10 | Barcelona | 9 |
| 8 | Sydney | 10 |
| 17 | Paris | 11 |
| 12 | Los Angeles | 12 |
| 11 | Melbourne | 13 |
| 13 | Toronto | 14 |
| 24 | Seoul | 15 |
| 26 | Brussels | 16 |
| 15 | Zurich | 17 |
| 16 | Kuala Lumpur | 18 |
| 27 | Geneva | 19 |
| 14 | Vancouver | 20 |

Source: *Decoding Global Talent 2021* and *Decoding the Digital Talent Challenge*, BCG.

Salaried employees* according to knowledge intensity of the activity in Barcelona. Q4 2021 (%)

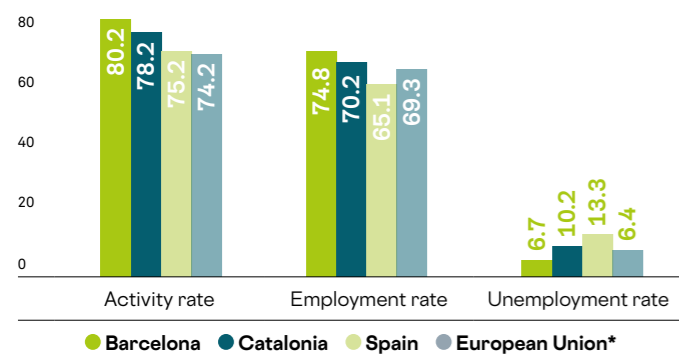


* Those registered with the general Social Security system.
Source: Produced by the Department of Studies in Barcelona City Council's Manager's Office for Economy, Resources and Economic Promotion, based on data from the Government of Catalonia's Employment and Productive Model Observatory.



Participation in the job market

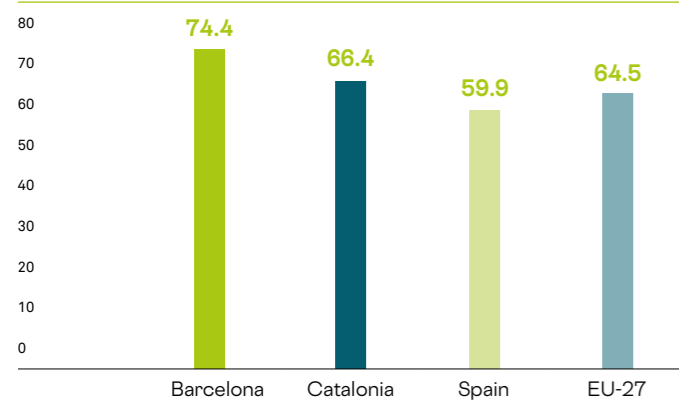
Participation in the job market
Q4 2021 (% of population aged 16-64)



Source: Labour Force Survey and Eurostat.

Female employment rate

Q4 2021 (% of population aged 16 to 64)



Source: Labour Force Survey and EUROSTAT.



Higher Education

Student enrollment and attraction. 2020-2021

| | |
|---|---------|
| Total number university students in Catalonia | 282,418 |
| Total number university students in the Barcelona area | 231,403 |
| Masters offered by Universities in the Barcelona area | 500 |
| Master's and PhD students at Universities in the Barcelona area | 55,843 |
| Foreign students at universities in the Barcelona area | 26,657 |

Source: Area of Support for Planning, Analysis and Evaluation in the Area of Universities and Research, Secretariat of Universities and Research, Catalan Ministry of Business and Knowledge and Barcelona City Council's Department of Statistics and Data Dissemination.

Best European Business Schools. 2022

| EUROPEAN RANKING 2022 | BUSINESS SCHOOL | CITY | WORLD RANKING 2022 |
|-----------------------|--|------------------|--------------------|
| 1 | Insead | Fontainebleau | 3 |
| 2 | London Business School | London | 8 |
| 3 | IESE Business School | Barcelona | 10 |
| 4 | HEC Paris | Paris | 11 |
| 5 | SDA Bocconi | Milan | 13 |
| 6 | University of Cambridge: Judge | Cambridge | 22 |
| 7 | IMD Business School | Lausanne | 28 |
| 8 | University of Oxford: Said | Oxford | 31 |
| 9 | ESADE Business School | Barcelona | 34 |
| 10 | Imperial College Business School | London | 34 |
| 11 | IE Business School | Madrid | 40 |
| 12 | Alliance Manchester Business School | Manchester | 43 |
| 13 | ESCP Business School | Paris | 52 |
| 14 | Warwick Business School | Coventry | 57 |
| 15 | Essec Business School | Cergy | 64 |
| 16 | City, University of London: Bayes | London | 69 |
| 17 | Mannheim Business School | Mannheim | 72 |
| 18 | EDHEC Business School | Lille | 73 |
| 19 | WHU - Otto Beisheim School of Management | Vallendar | 74 |
| 20 | Lancaster University Management School | Lancaster | 76 |
| 21 | University of St. Gallen | St. Gallen | 76 |
| 22 | Rotterdam School of Management, Erasmus University | Rotterdam | 86 |
| 23 | ESMT Berlin | Berlin | 88 |
| 24 | EMLyon Business School | Lyon | 89 |
| 25 | Politecnico di Milano School of Management | Milan | 91 |

Source: Global MBA Ranking 2022, Financial Times.

Entrepreneurial city with competitive costs

Barcelona has a dynamic and flexible business activity

- The area of Barcelona is home to the head offices of **471,885** companies, **14%** of those in Spain. They are mainly SMEs and micro-companies, characterised by higher flexibility and capacity to adapt to complex environments. Almost **40%** of the business headquarters of the province are in the city.

- The entrepreneurial activity rate (18-64 years) of the resident population in the province of Barcelona was **6.9%** in **2020**, exceeding that of Germany (**4.8%**), Poland (**3.1%**) and Italy (**1.9%**) and the Spanish average (**5.2%**). Barcelona and Catalonia have a higher female entrepreneurship rate (6.1% and 6%, respectively) than the European average.

- Barcelona has been awarded the **European Entrepreneurial Region Award 2023**, presented annually by the European Committee of the Regions, in association with the European Commission and in collaboration with SMEUnited, Eurochambres and Social Economy Europe, in a call that rewards 'Entrepreneurship and resilient communities' and which also recognises the integrated entrepreneurship strategy within the urban and economic agenda of the Barcelona Green Deal.

Barcelona has a competitive real estate offer for businesses

- In relation to the **cost of living**, Barcelona is in **84th** position among the cities analysed in the annual study carried out by Mercer Consulting in 2021 (which uses New York as a reference), meaning that it has risen eighteen places compared to the previous year, although it has maintained its competitiveness in the Eurozone ranking, where it has dropped two places and is in 17th position.

- In the third quarter of 2021, the price of office rental in Barcelona stood at €327 per square metre per year, 3.5% less than in the same period in 2020. In terms of the profitability of office rental, i.e. the return on the investment made, in 2021 the yield remained at 3.4%, a very similar figure to that of the last four years. Barcelona continues to hold a competitive position as regards rental prices of industrial land, offices and commercial premises, making it a more attractive place to do business, both for new companies to set up there and for those that already exist to remain there.



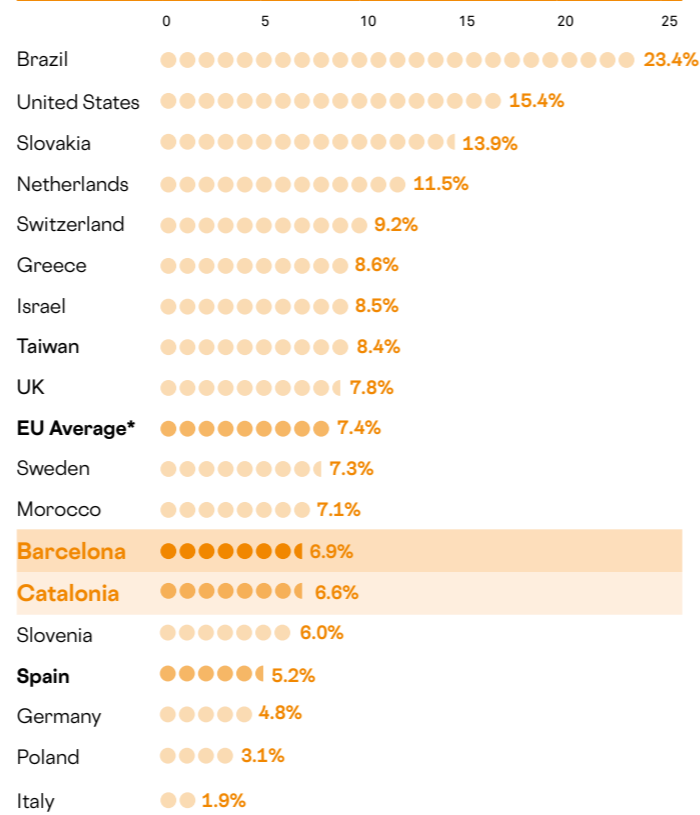


Barcelona honoured with the European Entrepreneurial Region Award 2023

(Committee of the Regions, European Commission.)

Entrepreneurial activity

Entrepreneurial activity rate in the world. 2020 (% of 18-64 year-olds)



* High-income countries.
Source: Global Entrepreneurship Monitor (GEM), Executive brief for Catalonia 2020-21.

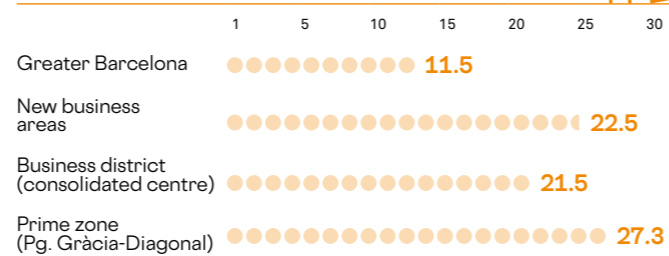
Real State Market

Offices market. 2021

| | |
|--------------------------|-------------------------|
| Total office stock | 6,823,031m ² |
| Leased area | 331,497m ² |
| Area under construction | 462,189m ² |
| Available offices offer | 525,574m ² |
| Availability rate | 7.7% |
| Investment attracted | €1,891M |

Source: Marketbeat, Cushman and Wakefield.

Office rental prices (€/M²/month). 4Q2021



Source: On point, Jones Lang Lasalle.

Office rental prices in European cities. 2021

| CITY | YEAR-ON-YEAR VARIATION 2021/2020 (%) | OFFICE RENTAL (€/M ² /YEAR) |
|------------------------|--------------------------------------|--|
| London (WE) | 0.0 | 1,321 |
| Paris (CBD) | 8.1 | 930 |
| London (City) | 1.5 | 862 |
| Geneva | 0.0 | 831 |
| Stockholm | 1.3 | 785 |
| Zurich | 0.0 | 739 |
| Dublin | -2.5 | 656 |
| Milan | 0.0 | 600 |
| Frankfurt | 3.3 | 558 |
| Paris (La Défense) | -9.1 | 500 |
| Munich | 3.8 | 492 |
| Rome | 0.0 | 490 |
| Manchester | 2.7 | 484 |
| Berlin | 2.6 | 468 |
| Birmingham | 0.0 | 466 |
| Helsinki | 1.3 | 462 |
| Amsterdam (South Axis) | -3.2 | 460 |
| Edinburgh | 1.4 | 453 |
| Madrid | -3.6 | 405 |
| Hamburg | 1.7 | 366 |
| Lyon | 9.7 | 340 |
| Barcelona | -3.5 | 327 |
| Brussels | 0.0 | 320 |
| Vienna | 0.0 | 318 |
| Warsaw | -1.1 | 282 |
| Lisbon | 2.2 | 282 |
| Copenhagen | 5.3 | 269 |
| Prague | -2.2 | 264 |
| Marseille | 0.0 | 260 |
| Istanbul | -7.4 | 254 |
| Rotterdam | 0.0 | 235 |
| Bucharest | -2.6 | 222 |
| Sofia | 0.0 | 180 |

Source: Cushman & Wakefield Research, The DNA of Real Estate. 3Q2021 (Europe).

Average housing prices in Barcelona. 4Q2021

Rental: **€934.2/m²/month**
 Sale of new homes: **€4,498.1/m²**
 Sale of second-hand homes: **€3,932.0/m²**

Source: Barcelona City Council.

Cost of living

Cost of living in cities around the world

| 2020 POSITION | CITY | 2021 POSITION |
|---------------|------------------|---------------|
| 2 | Ashgabat | 1 |
| 1 | Hong Kong | 2 |
| 45 | Beirut | 3 |
| 3 | Tokyo | 4 |
| 4 | Zurich | 5 |
| 7 | Shanghai | 6 |
| 5 | Singapore | 7 |
| 9 | Geneva | 8 |
| 10 | Beijing | 9 |
| 8 | Bern | 10 |
| 102 | Barcelona | 84 |

Source: Cost of Living survey, City Ranking 2021, Mercer Human Resource Consulting.

Logistics Space

Rental price of logistics space in urban areas of Europe. 2021

| URBAN AREAS | YEAR-ON-YEAR RENTAL VARIATION 2021/2020 (%) | LOGISTICS SPACE RENTAL (€/M ² /YEAR) |
|----------------------|---|---|
| London (Heathrow) | 14.5 | 223 |
| Zurich | 71.4 | 222 |
| Geneva | 5.6 | 176 |
| Oslo | 3.8 | 131 |
| Helsinki | 2.7 | 114 |
| Dublin | 1.8 | 112 |
| Luxembourg | 12.5 | 108 |
| Bristol | 13.3 | 107 |
| Manchester | 3.4 | 94 |
| Munich | 4.0 | 94 |
| Amsterdam (Schiphol) | 2.2 | 92 |
| Birmingham | 3.6 | 91 |
| Stockholm (south) | -28.0 | 88 |
| Leeds | 7.7 | 88 |
| Barcelona | 0.0 | 87 |
| Copenhagen | 0.0 | 84 |
| Scotland (central) | 8.3 | 82 |
| Frankfurt | 4.6 | 82 |
| Hamburg | 4.8 | 79 |
| Newcastle | 9.1 | 75 |

Source: Cushman & Wakefield Research, The DNA of Real Estate, 3T. 2021 (Europe).

Companies

Businesses according to headcount January 2021

| | BARCELONA | % OF TOTAL | BARCELONA PROVINCE | % OF TOTAL |
|-----------------------------------|----------------|------------|--------------------|--------------|
| Without salaried employees | 110,120 | 60.1 | 277,286 | 58.8 |
| With salaried employees: | | | | |
| 1 - 9 employees | 65,039 | 35.5 | 173,283 | 36.7 |
| 10 - 199 employees | 7,577 | 4.1 | 20,198 | 4.3 |
| Over 199 employees | 550 | 0.3 | 1,118 | 0.2 |
| Total businesses | 183,286 | 100 | 471,885 | 100.0 |

Source: INE, Central Business Directory.

Companies. January 2021

| | NUMBER OF COMPANIES | % OF SPAIN |
|--------------------|---------------------|------------|
| Barcelona | 183,286 | 5.4 |
| Barcelona Province | 471,885 | 14.0 |
| Catalonia | 622,967 | 18.5 |
| Spain | 3,366,570 | 100.0 |

Source: INE, Central Business Directory (DIRCE).

Compact city with social cohesion

Barcelona, a city committed to reducing inequalities.

• In 2019, Barcelona had an estimated disposable household income per capita (DHlpc) of €22,229. The Barcelona district with the highest level of DHlpc is Sarrià-Sant Gervasi, which, with €35,998, exceeds Barcelona's value by 62%. The district with the lowest income per capita is Ciutat Vella, with €14,865, which is 67% of the city average. Between 2015 and 2019, the relative positions of the districts stabilised, with Sarrià-Sant Gervasi and Ciutat Vella being the districts with the greatest increase in the DHlpc.

• Following the unfavourable evolution of living conditions and rising inequality in recent years, the poverty risk or social exclusion rate (AROPE) for Catalonia was 23.2% in 2020, which is below the rate for Spain (27%) but slightly higher than the rate for the EU-27 (22%).

• Barcelona is internationally known as a dynamic city that seeks innovative responses to today's economic and social challenges. In 2021, Barcelona became the World Capital of Sustainable Food with the aim of promoting a food transition towards sustainability, strengthening local economies while improving the health of people and the planet. Within the framework of the 2021 Capital, and in collaboration with farmers, associations, businesses, the academia and the local government, more than 90 projects and over 200 activities were promoted – including Sustainable Food Citizen Week, the 7th Global Forum of the Milan Urban Food Policy Pact and the programmes 'Now, here are the schools' and 'Green Commerce'. In 2022, Barcelona continues to propel the food transformation with the development of the 2030 City Sustainable Food Strategy.



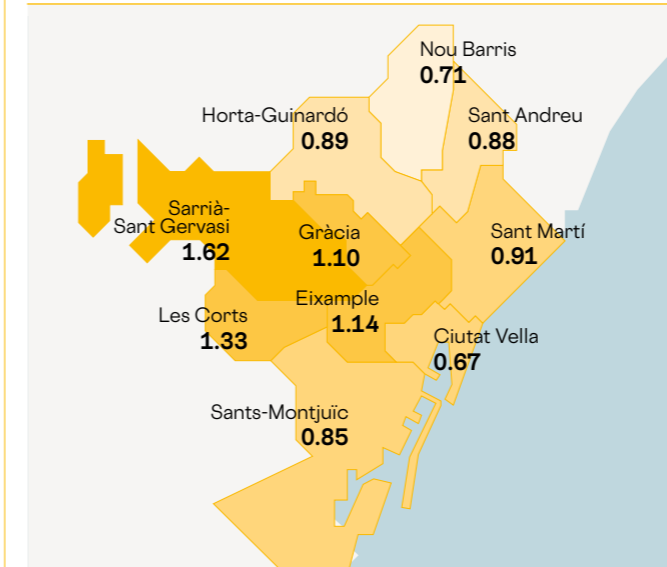
Barcelona,
World Sustainable
Food
Capital
2021



A municipal
strategy aligned with
the Sustainable
Development
Goals of the
2030 Agenda

Family income

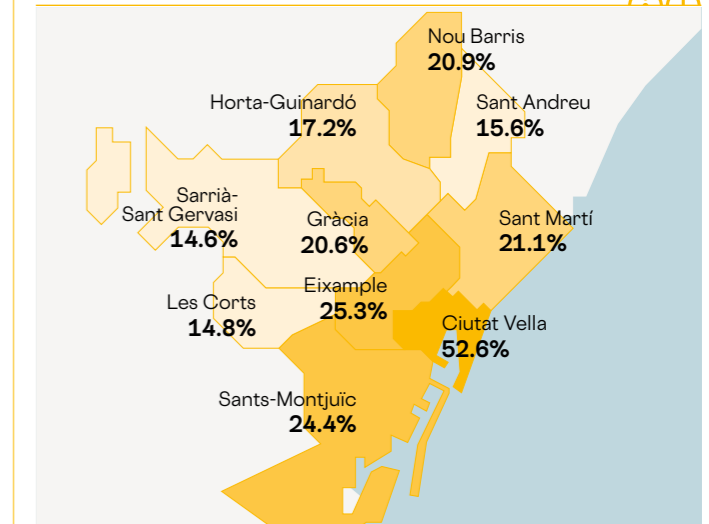
Disposable household income per capita in the Barcelona districts. 2019 (Average Index for Barcelona=1)



Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Foreign-resident population by district

Foreign-resident population by district of Barcelona. 2021 (% of total)



Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Poverty and social exclusion

Population at risk of poverty or social exclusion in European regions. 2020



| COUNTRY | REGION (PRINCIPAL CITY) | AROPE RATE (%) |
|----------------|------------------------------------|----------------|
| Slovakia | Bratislavský kraj (Bratislava) | 5.9 |
| Czech Republic | Prague (Prague) | 8.1 |
| Finland | Helsinki-Uusimaa (Helsinki) | 11.5 |
| Sweden | Stockholm (Stockholm) | 12.7 |
| Portugal | Lisbon Metropolitan Area | 14.7 |
| Germany | Bavaria (Munich)* | 14.8 |
| Italy | Lombardy (Milan)* | 16.1 |
| Norway | Oslo og Akershus (Oslo) | 16.2 |
| Ireland | Ireland - east and centre (Dublin) | 17.3 |
| Netherlands | Netherlands - West (Amsterdam) | 17.6 |
| Denmark | Hovedstaden (Copenhagen) | 18.0 |
| Germany | Berlin (Berlin)* | 19.3 |
| Bulgaria | Bulgaria - south-west (Sofia) | 20.9 |
| Spain | Community of Madrid (Madrid) | 21.2 |
| Greece | Attica (Athens) | 21.8 |
| Spain | Catalonia (Barcelona) | 23.2 |
| Italy | Lazio (Rome)* | 24.1 |
| Spain | | 27.0 |
| Austria | Vienna (Vienna)** | 27.5 |
| Belgium | Brussels | 36.4 |

** Data from 2018. * Data from 2019.

Note: The 'At Risk of Poverty or Social Exclusion' rate (AROPE) indicates the percentage of the population that is at least in one of the following circumstances: at risk of poverty, severe material deprivation or living in households with very low labour intensity.

Source: Eurostat.

Safest cities in the world. 2021



| POSITION | CITY | INDEX /100 |
|-----------|------------------|-------------|
| 1 | Copenhagen | 82.4 |
| 2 | Toronto | 82.2 |
| 3 | Singapore | 80.7 |
| 4 | Sydney | 80.1 |
| 5 | Tokyo | 80.0 |
| 6 | Amsterdam | 79.3 |
| 7 | Wellington | 79.0 |
| 8 | Hong Kong | 78.6 |
| 8 | Melbourne | 78.6 |
| 10 | Stockholm | 78.0 |
| 11 | Barcelona | 77.8 |
| 11 | New York | 77.8 |
| 13 | Frankfurt | 77.7 |
| 14 | Washington, DC | 77.4 |
| 15 | London | 77.2 |
| 15 | San Francisco | 77.2 |
| 17 | Osaka | 76.7 |
| 18 | Los Angeles | 76.5 |
| 19 | Zurich | 76.3 |
| 20 | Chicago | 75.0 |
| 21 | Madrid | 74.7 |
| 22 | Dallas | 74.5 |
| 23 | Paris | 74.3 |
| 24 | Taipei | 74.0 |
| 25 | Seoul | 73.8 |
| | Average | 66.1 |

Source: The Safe Cities Index 2021. The Economist Intelligence Unit.

Quality of life and sustainability

Barcelona, international benchmark for quality of life

• In the environmental sphere, the Barcelona model for a compact and Mediterranean city favours sustainable mobility – which represents 85% of all internal journeys – and Barcelona ranks high in the Urban Mobility Readiness Index 2021, which places it as the world's 17th most sustainable city in terms of mobility. There is a particularly favourable result in the indicator relating to the development of the bicycle infrastructure during the pandemic, where it reached the 7th position globally. Moreover, the city's bicycle lane network reached 240 kilometres in 2021, and its bike hire service (Bicing) exceeded the 130,000 users mark in the same year.

• In terms of safety, Barcelona is in 11th place among the safest cities in the world in the *Safe Cities Index 2021*, according to The Economist, moving up 15 places from the previous edition, published in 2019, with the same score as New York.

• It should be highlighted that Barcelona is currently a European benchmark in saving water. The consumption

of water per inhabitant per day was 104.6 litres in 2021, which is 11.4% less than in 2006. Barcelona also presents a relatively low volume of CO2 equivalent emissions per inhabitant, compared to other cities around the world. Moreover, Barcelona was the 14th most sustainable city in Europe in 2021 according to the *Schroders European Sustainable Cities Index*, which tracks thirteen environmental policies in order to monitor the application of Sustainable Development Goal 11 (Sustainable Cities and Communities) in the continent's cities.

• The city has a vast and diverse cultural offer. It has 40 public libraries and 59 museums, collections, exhibition centres and other heritage centres. Furthermore, Barcelona has nine UNESCO World Heritage Sites: seven buildings designed by Gaudí, the Palau de la Música and Hospital de Sant Pau.



Climate

Climate indicators for Barcelona. Can Bruixa Observatory - 2021

Daily mean temperature **18,1 °C** Lowest minimum temperature **2,8 °C**

Highest Maximum temperature **34,5 °C** Annual hours of sunshine **2.800,3**

Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Sustainable European Cities. 2021

| POSITION | CITY | CONTENTS |
|-----------|------------------|-------------|
| 1 | Amsterdam | 0.81 |
| 2 | London | 0.77 |
| 3 | Paris | 0.76 |
| 4 | Copenhagen | 0.74 |
| 5 | Oslo | 0.72 |
| 6 | Stockholm | 0.72 |
| 7 | Berlin | 0.71 |
| 8 | Glasgow | 0.69 |
| 8 | Hamburg | 0.68 |
| 10 | Birmingham | 0.68 |
| 11 | Vienna | 0.67 |
| 11 | Helsinki | 0.67 |
| 13 | Liverpool | 0.67 |
| 14 | Barcelona | 0.65 |
| 15 | Madrid | 0.65 |
| 15 | Leeds | 0.65 |
| 17 | Frankfurt | 0.64 |
| 18 | Brussels | 0.63 |
| 19 | Rotterdam | 0.63 |
| 20 | Manchester | 0.62 |

Source: Schroders, *Schroders European Sustainable Cities Index*, 2021.

Quality of life

Top sports cities in the world. 2021

| POSITION | CITY |
|----------|------------------|
| 1 | New York |
| 2 | London |
| 3 | Los Angeles |
| 4 | Barcelona |
| 5 | Paris |
| 6 | Lausanne |
| 7 | Manchester |
| 8 | Munich |
| 9 | Tokyo |
| 10 | Madrid |

Source: Burson Cohn&Wolfe, *Ranking of Sports Cities 2021*.

Energy and environment

Indicators for green areas in Barcelona. 2020

| | |
|---|---|
| Urban parks (green areas for public use) 620.3ha. | Urban greenery (green spaces inside the urban area) 11,709,055m² |
| Urban green space <i>per capita</i> 7.0m²/inhabitant | Urban greenery and woodland 28,690,000m² |
| Urban green space and woodland <i>per capita</i> 17.3m²/inhabitant | |

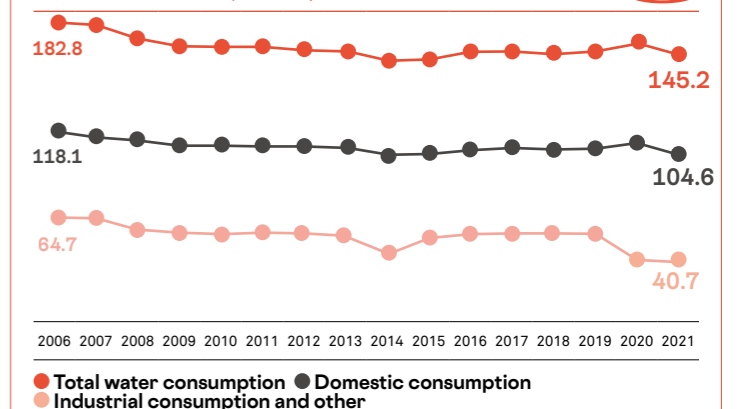
Source: Department of Statistics and Data Dissemination, Barcelona City Council. *City of Barcelona Statistics Year Book for 2021*.

Beaches 2021

Length **4.78km**
Number **10**

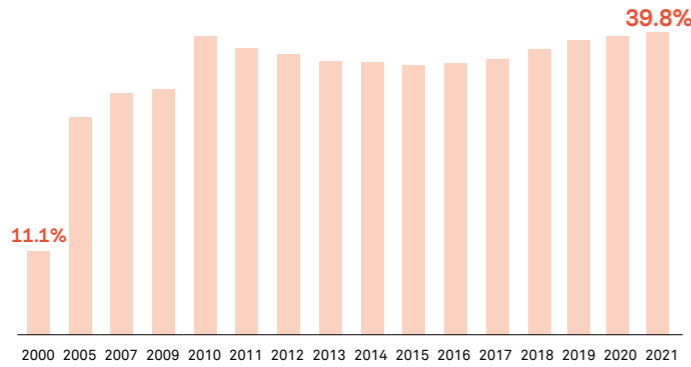
Source: Department of Statistics and Data Dissemination, Barcelona City Council.

Water consumption. (litres/inhabitant per day)



Source: Department of Statistics and Data Dissemination, Barcelona City Council.

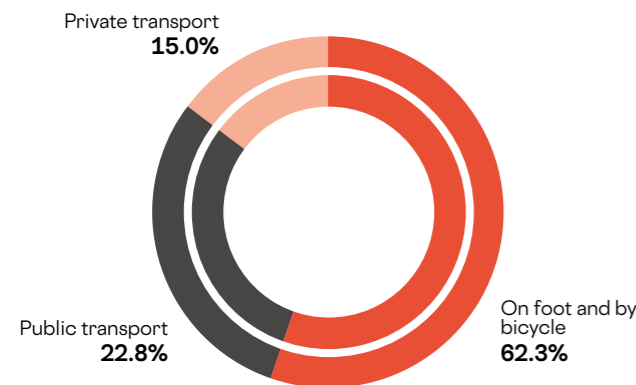
Evolution of selective waste collection in Barcelona. (% of total)



Source: Barcelona City Council's Department of Statistics and Data Dissemination, City of Barcelona Statistical Yearbook, 2021.

Sustainable mobility

Modes of transport used for internal travel in Barcelona. 2021 (% of total)



Source: Working Day Mobility Survey 2020. Metropolitan Transport Authority (ATM).

Cycle lanes and users. 2019-2021



| | 2018 | 2020 | 2021 |
|---|---------|---------|---------|
| Cycle lanes | 211 Km | 236 Km | 240 Km |
| People using the Bicing bike-hire service | 111,911 | 126,545 | 131,771 |

Source: Director of Mobility Services, Barcelona City Council.



Cultural offer

Cultural offer. 2021



| | |
|--|---|
| Public libraries (number and users in millions) 40/3.96 | Heritage centres and large exhibition centres (number, headquarters and visitors in millions) 59/76/9.8 |
| Performing arts, (theatres, performing arts venues and spectators in millions) 39/45/2.0 | Civic centres (number/registrations for workshops/attendees at activities) 52/58,000/184,000 |
| Commercial cinemas (number/rooms) 21/ 154 | Large auditoriums (number/ spectators) 3/ 367,000 |

Source: Barcelona Institute of Culture and Barcelona City Council's Department of Statistics and Data Dissemination.

World Heritage sites in Barcelona



- Palau de la Música Catalana
- Sant Pau Hospital
- Parc Güell
- Palau Güell
- Casa Milà
- Casa Vicens
- The Nativity façade and the crypt of the Sagrada Família
- Casa Batlló
- Crypt of the Colònia Güell

Source: UNESCO.



International positioning as a city that adds value

In an international and European context, Barcelona continues to be an advanced, competitive city with a good reputation, which, apart from its traditional assets – high quality of life, culture, health, attractiveness for tourists,

etc. – has a growing potential for attracting investments and talent, particularly in tech companies and the digital economy industry.

Barcelona is also a pole of attraction for economic activity that generates trust in the world of international investment and it was listed 9th among the main urban areas around the world for attracting foreign investment projects, according to KPMG (*Global Cities Investment Monitor 2021*). It is also worth highlighting Barcelona's position in the Mori Memorial Foundation's *Global Power City Index 2021* report, which ranks it 18th in the world and 7th in Europe for its global competitiveness, improving its position in the world by three places and in Europe by two, and placing it among the top 20 global cities for the first time since 2016.

In the field of entrepreneurship and knowledge, special mention should be made of its progress as a hub for technological innovation and attracting talent in digital entrepreneurship. The city is the 7th largest hub in Europe in terms of technological investment received, according to the *State of European Tech 2021* report by the consultancy firm Atómico, and has gained new positions compared to the previous edition. Barcelona also ranked 3rd in Europe in 2022 for attracting startups for the fifth consecutive year (Startup Heatmap Report), the 9th most attractive city in the world for digital talent and the 10th most attractive for digital experts (Decoding Global Talent 2021), as well as the 7th most attractive European tech city of the future (Tech Cities of the Future 2021). The city's remarkable positioning in scientific production should also be noted.

Turning to tourism, the ICCA rankings of international meetings and participants for business tourism, the Euromonitor International ranking on the number of international visitors and the ranking of cruise-ship passengers in European and global ports, all give Barcelona a leading position. In 2019 Barcelona took 1st place in the world in number of participants and 4th in number of international congresses hosted, according to the International Congress and Convention Association, making the city one of the top five in this organisation's ranking for 20 years running. The 2021 *World's Best Cities* ranking by Resonance Consultancy also places Barcelona as the 9th most attractive city in the world for visitors and entrepreneurs, with an outstanding position (5th) in terms of the quality of its urban and natural space.

With regard to the indicators associated with quality of life, Barcelona is considered the 11th safest city in the world according to the *Safe Cities Index 2021* report, published by The Economist, and is up fifteen places on the previous edition. Among other relevant aspects of the city model, the city has been ranked as the 14th most sustainable city in Europe in 2021, according to the *Schroders European Sustainable Cities Index*, and is the 17th city in the world with the most sustainable mobility system, according to the Urban Mobility Readiness Index 2021. Barcelona is also the 9th most creative city in Europe, according to the European Commission, and in 2021 it was ranked among the top five global sports cities for the first time in Burson Cohn & Wolfe's *Ranking of Sports Cities*.



FDI European Cities and Regions of the future 2022/23



Barcelona

1st city in Europe with the best strategy for attracting foreign investment

Catalonia

1st region in Europe with the best strategy for attracting foreign investment

Global Power City Index 2021



7th European city for global competitiveness

18th World city for global competitiveness

Global Cities Investment Monitor 2021



9th World city for foreign investment projects in 2020

Decoding Global Talent 2021



9th most attractive city to work in for global talent

10th most attractive city to work in for digital experts

Top Tech Cities of the Future 2021



7th tech city of the future in Europe

5th European city in foreign direct investment in technology projects

State of European Tech21, 2021



7th hub in Europe for attracting technological investment

The Startup Heatmap Europe Report 2022



3rd preferred European city for establishing a startup

The Safe Cities Index, 2021



11th safest city in the world

9th safest city in terms of health

Ranking of Sports Cities 2021



4th most sporting city in the world

Cultural and Creative Cities Monitor 2019



9th cultural and creative city in Europe

Schroders European Sustainable Cities Index 2021



14th most sustainable city in Europe

Main Cities for International Congresses and Delegates 2019



4th world city for organising international meetings in 2019

1st world city for participants in international meetings in 2019

World's Best Cities 2021



9th most attractive city in the world for visitors and entrepreneurs

4th most attractive European city for visitors and entrepreneurs

World-wide cost of living survey 2021



84th city for cost of living



Let Barcelona City Council be your best ally when you land in Barcelona

It's not easy to land in a new city! We will provide you with strategic guidance in order to properly plan your arrival. In addition, we offer you a portfolio of services adapted to your needs.

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meet.barcelona/business

For companies

Do you want to expand your business in Barcelona?

The Business Landing Service offers you a complete assistance when setting up your business in Barcelona.

- Online company service Registration
- Support with recruitment and locating your business
- Connection with other agents in the business ecosystem

CONTACT US AT
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For entrepreneurs

Do you want to set up your business in Barcelona?

Barcelona Activa provides you with personalised plans that will guide you through while making your business activity in Barcelona a success and that will allow you to follow, step by step, the stages of setting up a business in Barcelona.

Sign up for a welcome session in English!

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barcelonactiva.cat/entrepreneurship

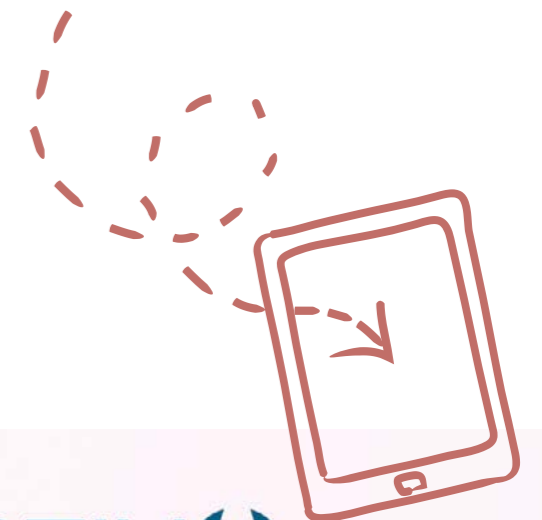
For professionals from all over the world

Are you moving to Barcelona?

Barcelona is a vibrant and welcoming city that makes it easy to land on a personal level and to connect with the local community thanks to the following resources:

- Website with all the information you need to know if you move to the city.
- Seminars, workshops, expat lunches, business visits around the city.
- Welcome Desk: online and face-to-face support for international talent.

CONTACT US AT
barcelona.cat/internationalwelcome



BARCELONA ACTIVA CONNECTS YOU

TO FIND WORK

TO GET TRAINED

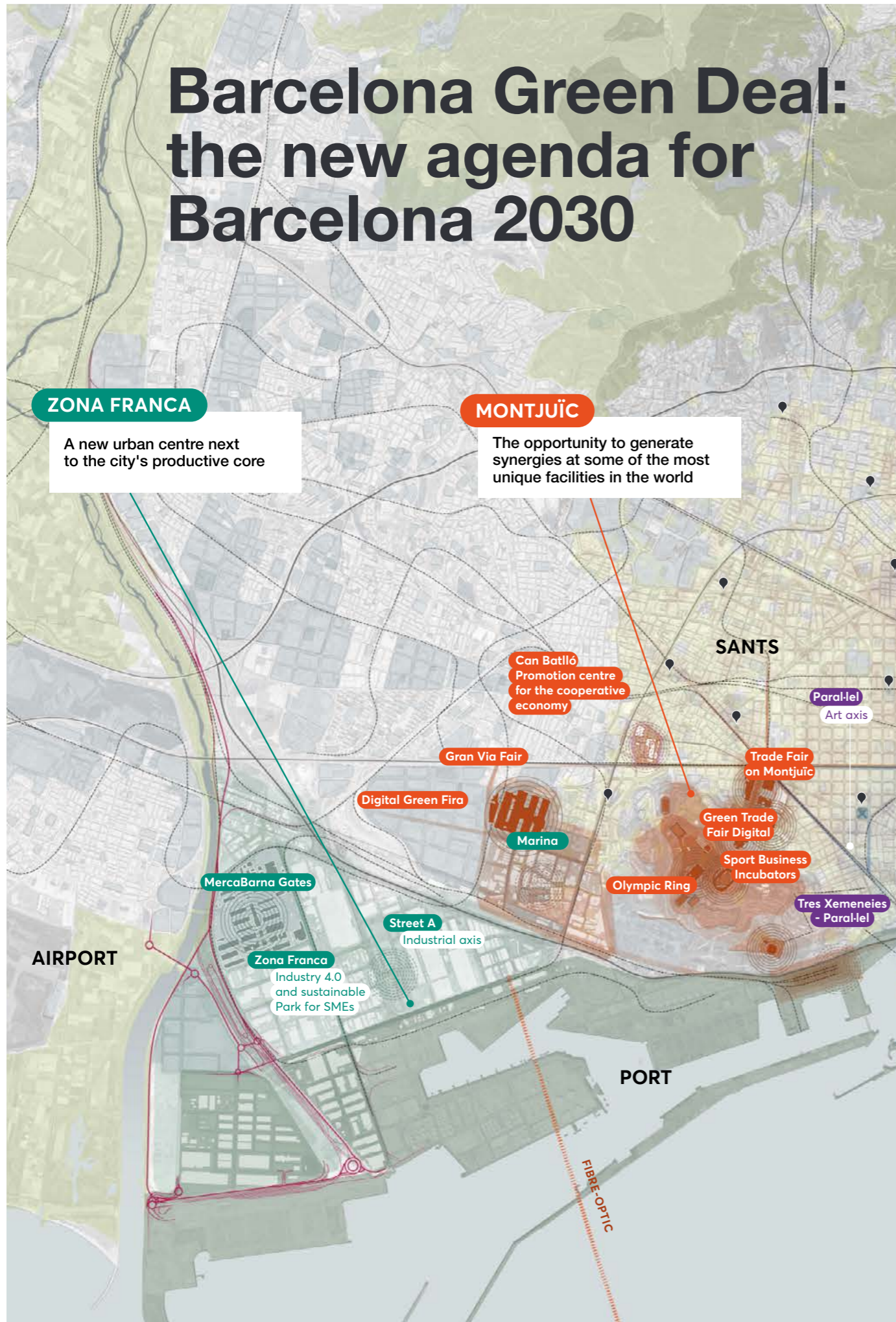
TO BOOST YOUR BUSINESS

TO START UP

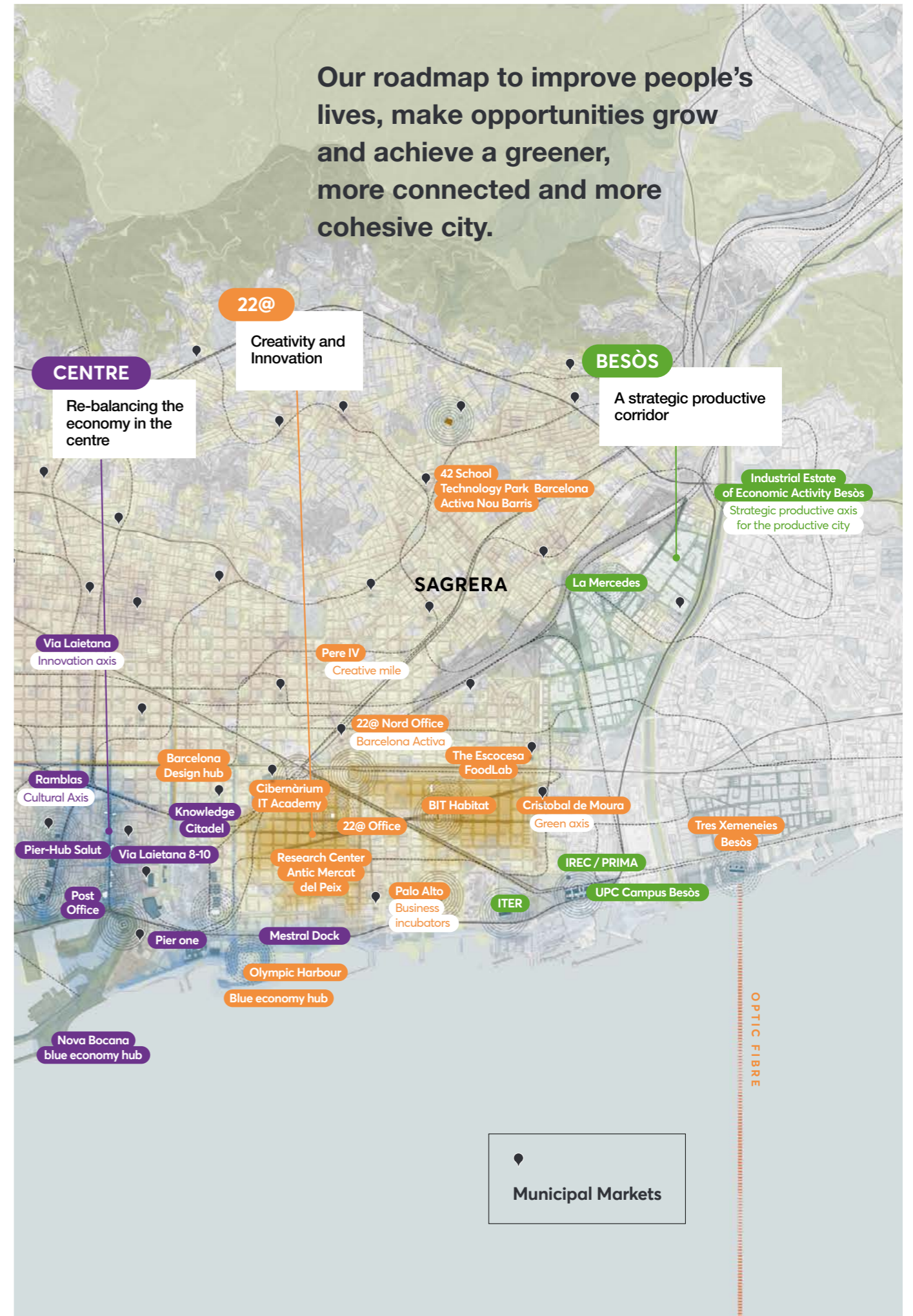
barcelonactiva.cat



Barcelona Green Deal: the new agenda for Barcelona 2030



Our roadmap to improve people's lives, make opportunities grow and achieve a greener, more connected and more cohesive city.



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