



Co-financed by the European Regional Development Fund

Inspire Policy Making with Territorial Evidence

CASE STUDIES REPORT //

Territorial impacts of COVID-19 and policy answers in European regions and cities

Barcelona province (Spain)

Case Study Report // September 2022

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This document is a final report.

The information contained herein is subject to change and does not commit the ESPON EGTC and the countries participating in the ESPON 2020 Cooperation Programme.

The final version of the report will be published as soon as approved.

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Abbreviations

IDESCAT	Catalan Statistical Institute
SOC	Catalan Employment Service
ERTO	Files of temporary employment regulations - <i>Expedient de Regulació Temporal d'Ocupació</i>
HORECA	Hotels Restaurants and Cafés
ICT	Information and Communication Technologies
GVA	Global Value Added
MAB	Metropolitan Area of Barcelona
INE	Spanish National Statistical Institute

Introduction

This case study report examines the policy response to Covid-19 within the province of Barcelona (NUTS3 region). The report explores which 'proactive' policies have been introduced in response to the pandemic and assesses whether the crisis presented a 'window of opportunity' for regional and local authorities to promote specific spatial planning and territorial targeted policy agendas. The case report is structured around the following core sections:

1. **Regional Characteristics:** Outlines the key socio-economic and governance characteristics of the region.
2. **Impact of Covid-19:** Highlights the socio-economic impacts of the pandemic on the region.
3. **Covid Policy Response:** provides an overview of the regional policy response in relation to three core policy thematic areas - the just transition (social policies), green transition (climate policies) and smart transition (innovation policies).
4. **Covid Policy Impacts:** assesses the main socio-economic, governance and financial impacts of the policy measures introduced.
5. **Future Policy Directions:** examines the medium and long term direction of policy in the region and analyses whether the policies identified can be upscaled to other EU regions.
6. **Policy Recommendations:** provides policymakers and practitioners with policy, governance, territorial and financial recommendations.

Research Methods

The present case study has been conducted following a two-step approach. In a first step, extensive desk research has been conducted with the aim of 1) documenting the main characteristics of the area, 2) assessing the impact of the pandemic on local society and economy according to various national and local statistical sources, and 3) documenting the policy responses as reflected in policy documents and online media outlets. In a second step, semi-structured online and phone interviews have been conducted with representatives of the most important local institutions, non-governmental organizations and private sector. The purpose of the interviews has been to further document the impact of the pandemic, the policy responses, the impact of the policy responses, as well as the future of local and regional policies.

Table 1 lists the stakeholders that have been interviewed as part of the current research. The list includes the most relevant public authorities from the provincial (NUTS3), and local (LAU2) level. The list also includes some of most active local associations. The "Taula del Tercer Sector" (Third Board Sector) is one of the most important civil society stakeholders in the area whose aim is to represent all Catalan social organizations, defending social rights and fighting to eradicate poverty and reduce inequalities in Catalonia. The Chamber of Commerce and Industry of Barcelona is one of the most emblematic stakeholders representing the private sector and the industry sector, respectively.

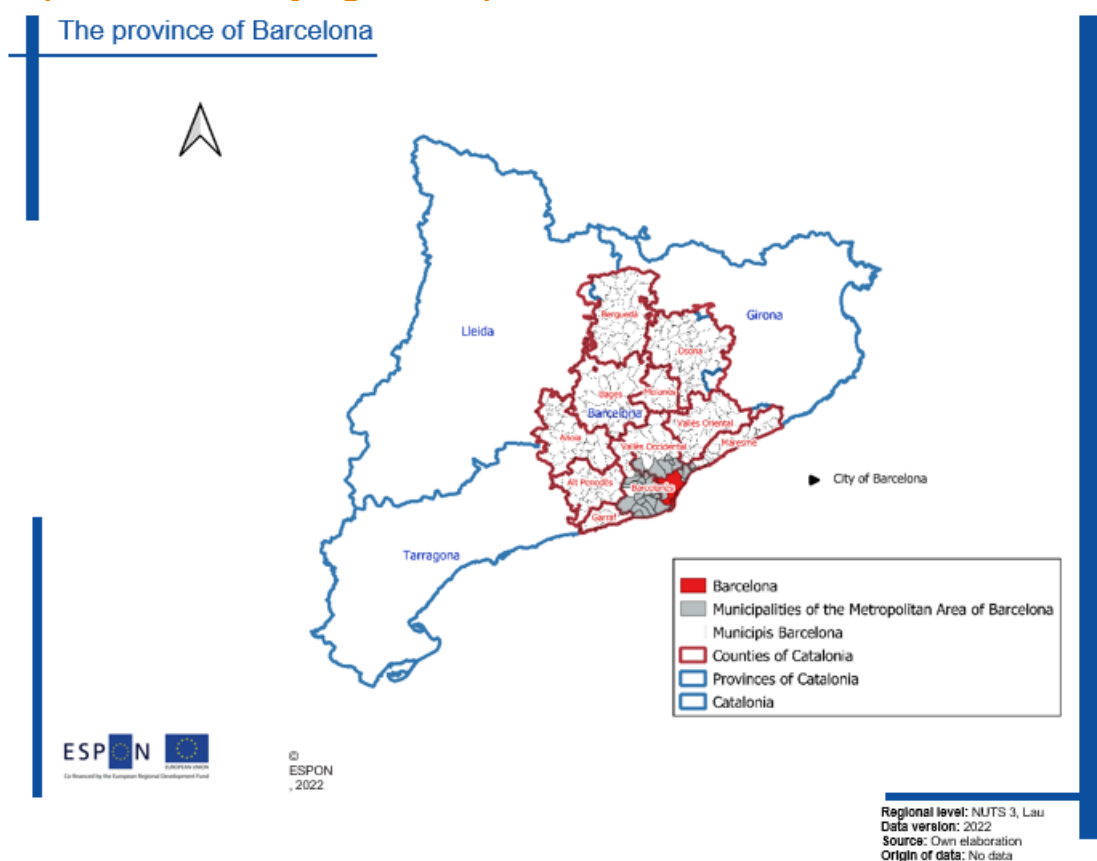
Table 1 List of interviews conducted and civil society stakeholders

	Sector	Stakeholder	Date
1	Public Administration	Àrea de Desenvolupament Econòmic, Turisme i Comerç de la Diputació de Barcelona	November 2021
2	Public Administration	Àrea de Relacions Internacionals de la Diputació de Barcelona	December 2021
3	Public Administration	Àrea Metropolitana de Barcelona	October 2021
4	Public Administration	Ajuntament d'Esplugues del Llobregat	December 2021
5	Public Administration	Institut d'Estudis Metropolitans de Barcelona	October 2021
6	Civil Society	Cambra de Comerç de Barcelona	November 2021
7	Civil Society	Taula del Tercer Sector	December 2021

1 Characteristics of the case study area

Barcelona is a province (NUTS 3 region) – also the city capital of Catalonia, an autonomous region situated in the North-East of Spain. The province of Barcelona is bordered by the provinces of Tarragona, Lleida, and Girona and by the Mediterranean Sea. The province of Barcelona has a surface of 7,726km² and concentrates 5.7 million inhabitants living in 311 municipalities, which represents a 74.4% of the Catalan population. Most of its population live within the administrative limits of the city of Barcelona, which is itself contained in the Metropolitan Area of Barcelona (MAB) (see Map 1).

Map 1 The case study region: The province of Barcelona



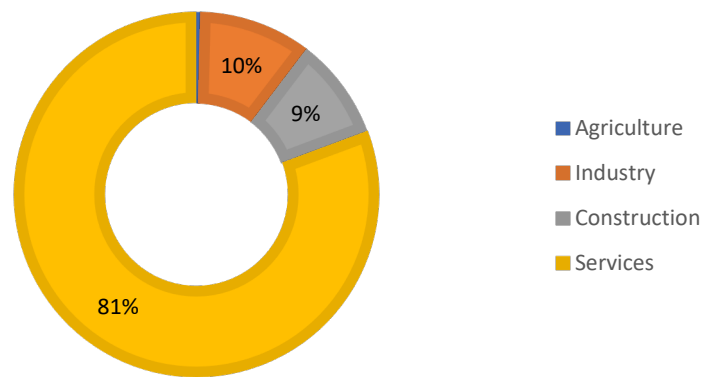
Source: Own elaboration

1.1 Economic characteristics

The province of Barcelona concentrates more than 75% of the population, jobs, and exports of Catalonia in 2019. This is an important fact, considering that it only represents a quarter of the entire Catalan territory. The province has an important industrial tradition that has been reconverted to a more knowledge base economy throughout the last 30 years.

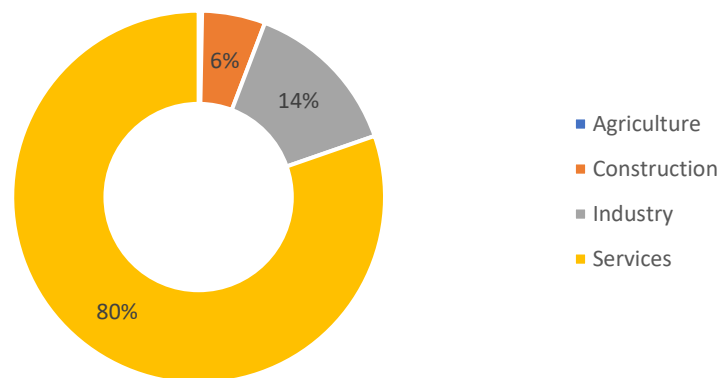
Despite the major weight of the service sector, the region outstands for being an economy with a powerful industrial base where the key industrial activities are chemical and pharmaceutical, automobiles, food production, paper and graphic arts, and waste treatment. In the region, the service sectors represent 81% in terms of companies and its contribution to GDP. The services sector also showed a strong growth in terms of its contribution to GDP, with annual growth rates of 89% between 2018 and 2019 (see Figures 1, 2 and 3).

Figure 1. Distribution of firms by sector in 2019 (%)



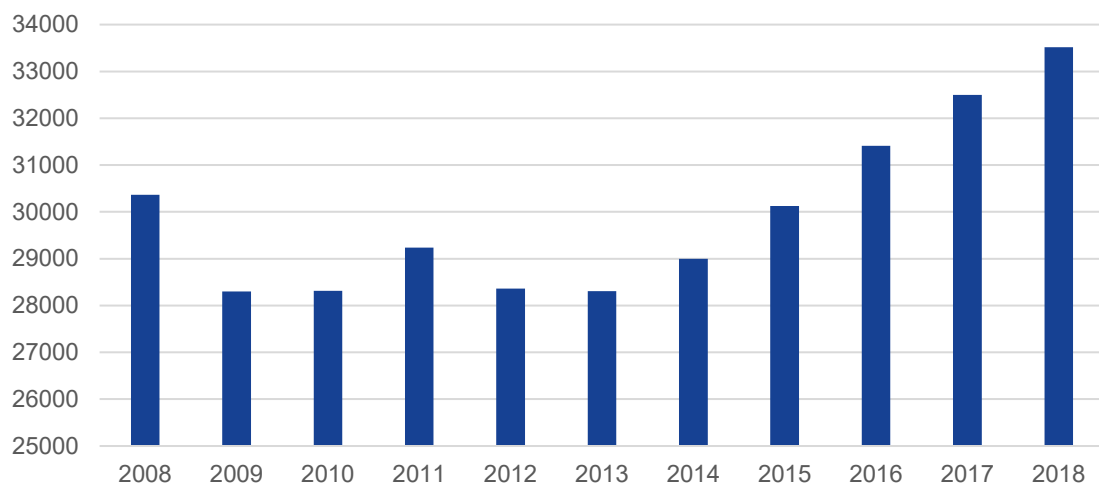
Source: Own elaboration with Hermes data, Diputacio de Barcelona

Figure 2. Distribution of employment by sector in 2019 (%)



Source: Own elaboration with Hermes data, Diputacio de Barcelona

Figure 3. Evolution of GDP per capita (in euros)

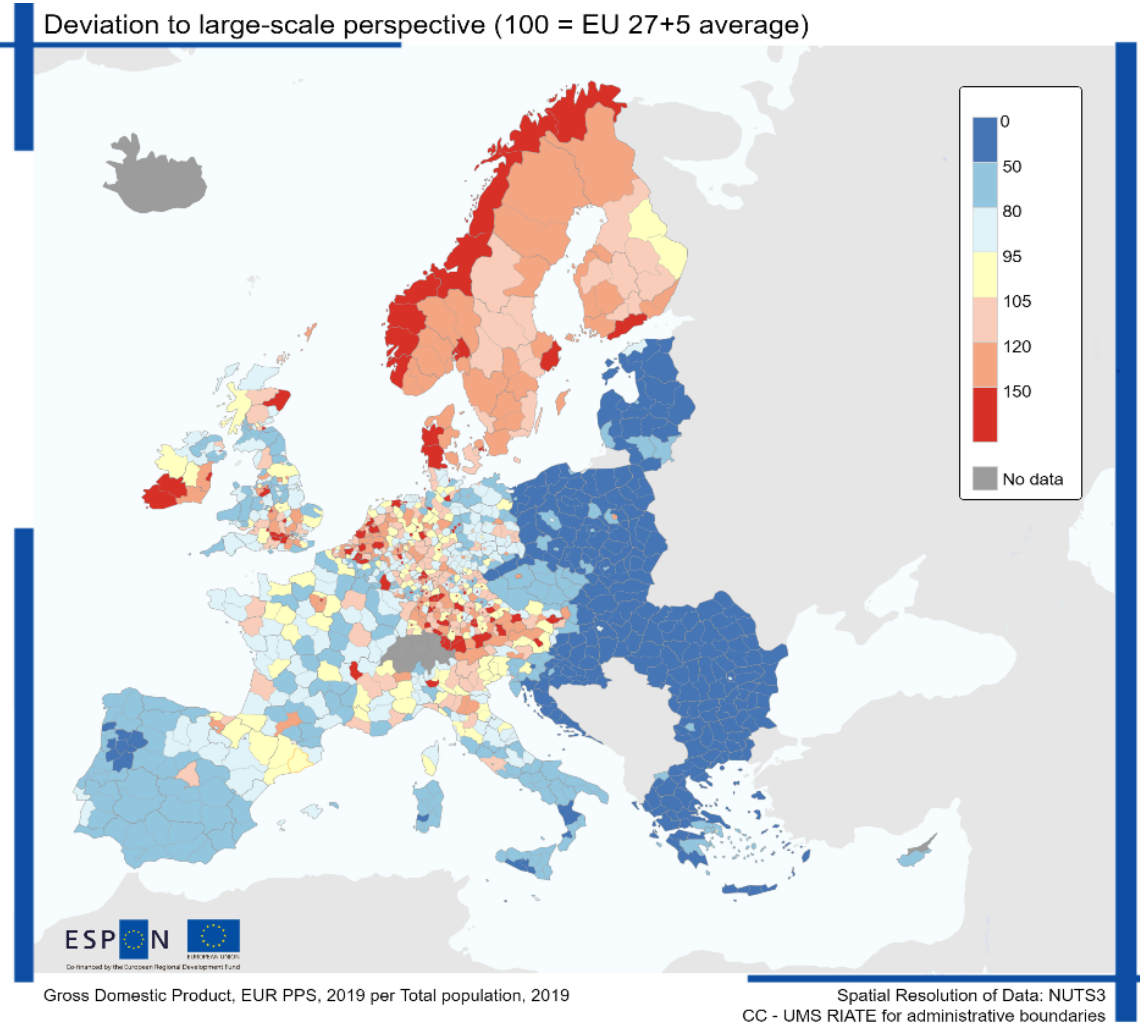


Source: Own elaboration with Hermes data, Diputacio de Barcelona

In 2019, the region of Barcelona had a GDP per capita of 31,450 euros, surpassing the other three provinces of Catalonia, and compared to the regions of the rest of Spain, it is the sixth

province just below the regions of Madrid (34,840€) and the Basque Country. From a European perspective, the province of Barcelona is in the average of European provinces (see Map 2).

Map 2 GDP per capita Deviation to the EU 27+5 average in terms

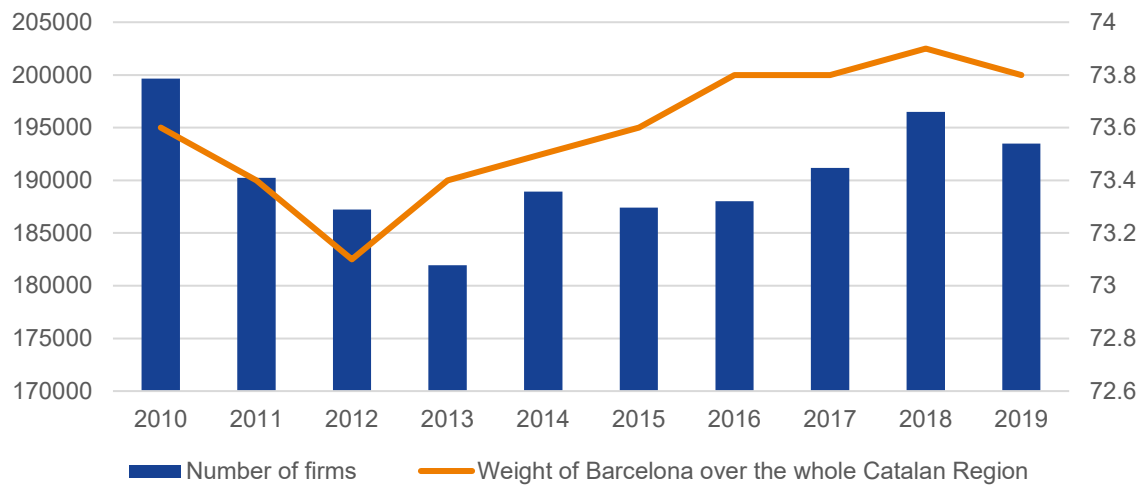


Source: (ESPON REGIO TOOL, 2022) <https://regico.espon.eu/regico/tool>

In terms of the evolution of the economy in the region, since 2015 Barcelona has grown at the same rate as Catalonia as a whole, is around 3% annually in terms of global value added (GVA). This growth in GVA has been the highest of the four Catalan counties, but the least intense since 2015. By sectors, the remarkable dynamism of construction stood out (5.0%), while industry it slowed down (1.4%), and the growth rate of services practically remained the same (3.1%).

In 2019, the number of companies of the province of Barcelona grew for the sixth consecutive year however with lower intensity, 0.1% according to Social Security data (Figure 4). Still, companies only grew in the construction sector (2.7%) and in the primary sector (0.8%). The number of companies in services virtually maintained (increased in 18 companies, 0.01% in relative terms). In contrast, the number of companies in the industry decreased in -1.8%.

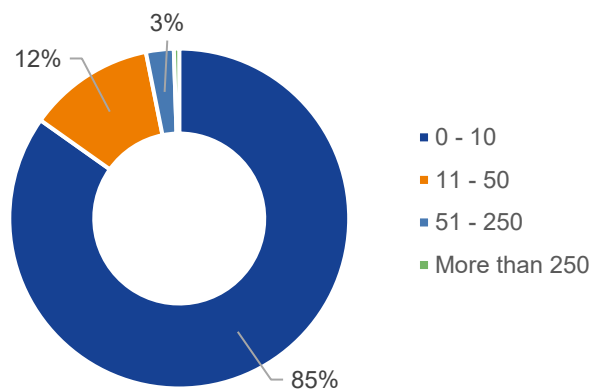
Figure 4. Evolution of the stock of firms



Source: (INE, 2022)

The average size per company for the whole of the Barcelona province slightly rose from 11.3 to 11.5 people employed per company between 2018 and 2019 (see Figure 5). If we compare these figures with the evolution in Spain, the number of companies decreased in 20 Spanish provinces in 2019 compared to the previous year, according to the Central Business Directory (DIRCE) of the Spanish National Statistical Institute (INE). In the province of Barcelona, the slightly growth of 0.3% per annum, is 1.4 tenths times less than in 2018 and is 0.5% less than the Spanish average (0.8%), ranking as the 25th province where the business fabric increased in 2019.

Figure 5. Firms by size in 2019 (%)



Source: Own elaboration with Hermes data (Diputació de Barcelona, 2022)

One of the main strengths of the region is its dynamic ecosystem. Technology Entrepreneurship in Europe and the StartUp Heatmap Europe placed Barcelona as the 3rd favourite city in Europe to set up a start-up after London and Berlin for 2019; for 2020 the city was the fifth hub for start-ups Europe, according to the EU-Startups ranking. Additionally, it ranks as the 4th most innovative city in Europe and 21st in the world in the Innovation Cities ranking Index 2019 (Startup Heatmap Europe, 2022).

In 2019, the Barcelona area generated 13.5% of applications of utility models and 12.6% patents as a whole state. Catalonia is the territory with the highest number of innovative companies in Spain (25.2%) and concentrates the 27.1% of total state spending on innovative activities. R&D expenditure in Catalonia stands at 1.52% of GDP in 2019, that is, a lower percentage than the European Union average, but higher than in Spain and in regions such as Lombardy and London. Catalonia accounts for 52,137 persons employed in

R&D. In academic terms, Barcelona remains in 5th place in Europe and 23rd in the world in scientific production in 2019, according to data provided by the Universitat Politècnica de Catalunya from the Science Citation Index (Ajuntament de Barcelona, 2020).

Barcelona is also a creative hotspot in Europe. The transformation into a cultural and creative city are illustrated in the Cultural and Creative Cities Monitor 2019 report by the European Commission, where Barcelona ranked as the 9th largest city with more creative intensity. Concretely, creative activities include 147,309 jobs in Barcelona in 2019, a figure that represents 13.4% of employment in the city and half (51.1%) of creative employment in Catalonia (Ajuntament de Barcelona, 2020).

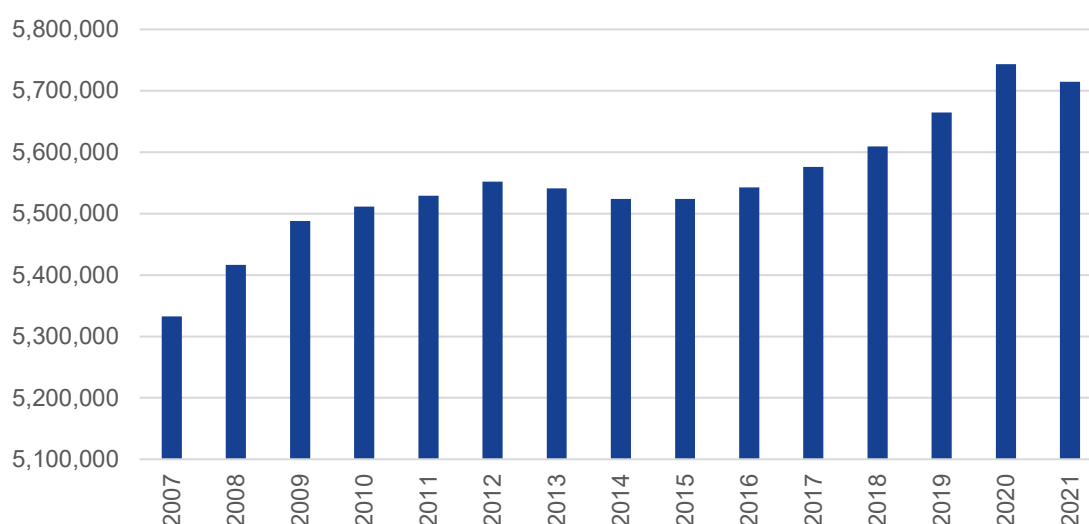
The main structural weaknesses linked to the productive model are the precariousness of the labour market, and a high structural unemployment rate in the comparative plan, with much room for improvement in active employment policies; a greater financial vulnerability of small businesses to economic shocks; high dependence on tourism and related sectors; excessive dependence also on foreign markets and globalized production chains in essential supplies; the significant weight of sectors in difficulty due to changes in consumption patterns and new environmental requirements, such as the automotive industry; and low productivity levels, especially for smaller companies.

1.2 Social characteristics

At the demographic level, the province of Barcelona registered a 1% increase, registering 5,664,579 residents for January 1, 2019, a growth trend that began in 2016 (see Figure 6). This increase is in line with the increase that is observed in Catalonia, given that is heavily influencing the Catalan average, as Barcelona holds a high demographic weight compared to the rest of the territories.

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Figure 6. Evolution of total population in 2019



Source: Own elaboration with HERMES, (Diputació de Barcelona, 2022)

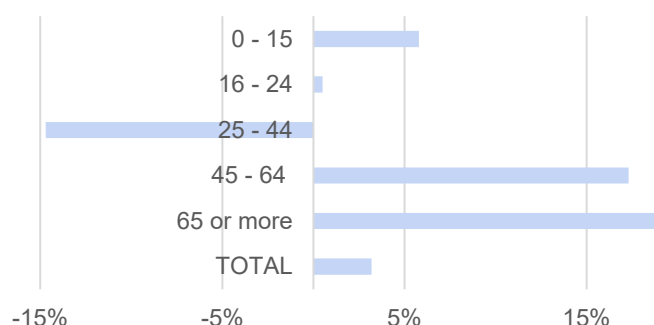
It is worth mentioning that the province of Barcelona is the most populated in Catalonia, but its population is distributed heterogeneously throughout the territory. For 2019, the capital concentrated 1,636,762 inhabitants, while the other municipalities in the metropolitan area concentrated the rest of 3,291,654 inhabitants.

However, of the 311 municipalities that are part of it, 75% of the municipalities have a population of less than 10,000 inhabitants, and where Gisclareny is the smallest municipality with 25 inhabitants.

The county of Barcelonès (Barcelona) has the highest concentration of the population (40.2% of the total population), although it is the region with a smaller territory (145.8 km²). It is followed by the four counties surrounding it, the Baix Llobregat, the Maresme and the Vallès Oriental and Occidental. These five counties concentrate 86.4% of the population of the area and are, together with the Garraf, those with a density higher than the average of the area (733 inhabitants per square kilometre). On the other hand, the Moianès county is the least populated in the region (with just over 13,600 inhabitants), followed by Berguedà (with 39,240 inhabitants).

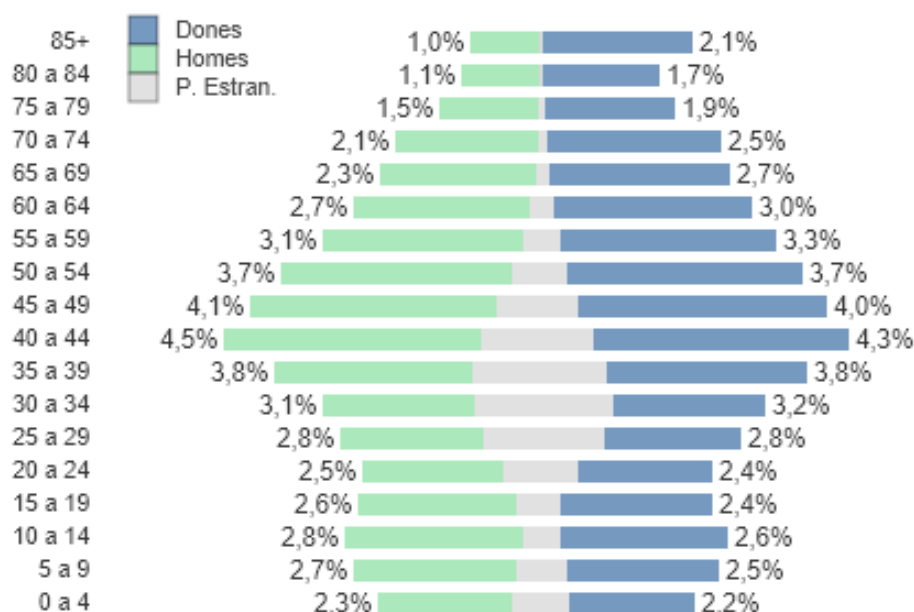
If the analysis is performed by age groups, in 2019 the population of the province increased because the number of residents aged between 15 and 64 years and over 64 years have grown by 1.2% and 1.4%, respectively, while the volume of the youngest (below 15 years) shrunk for the second year in a row (-0.5%) (Figure 7). These variations pushed up the aging rate (percentage of people over 65 over 15 years) sign of the strong population ageing, that poses several challenges to medium term such as the sustainability of the pension or sanitary system, for example.

Figure 7. Variation in the age structure 2019 compared to 2005



Source: HERMES, (Diputació de Barcelona, 2022)

Figure 8. Age pyramid of the population in 2019

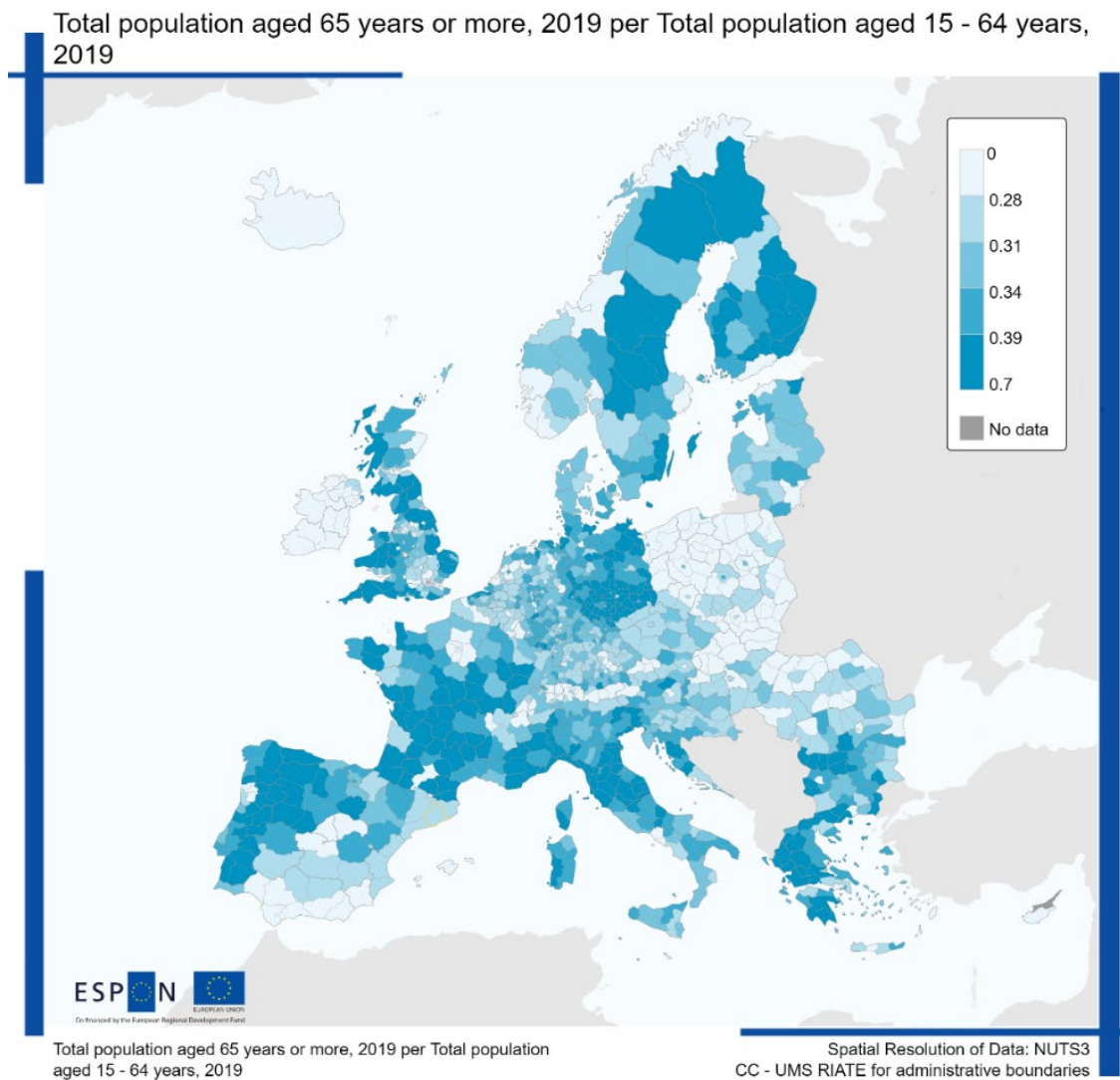


Source: HERMES, (Diputació de Barcelona, 2022)

According to Catalan Statistical Institute (IDESCAT, 2022)'s population projections (average scenario), if the current demographic trends continue, the population of the area would increase by 5.6% to 5,963,736 people in 2029 and would follow a pattern in which the proportion of the population, especially between the ages of 30 and 49, would be narrowing, alongside younger cohorts (from 0 to 14 years); on the other hand, the proportion of the population aged 50 or above will increase, as can be seen in the Figure 8. As a result, the aging rate would increase considerably, from 117% in 2019 to 153.9% in 2029.

The population aging index in 2019 stood at 117, following a growing trend since 2011 where the index was 104. In terms of population dependence, this was of 53.98 in 2019, an upward indicator since 2007. Indeed, the level of dependence of the elderly in the population is very close to the Spanish average and below the European average (Map 3).

Map 3 Old age population ratio 2019

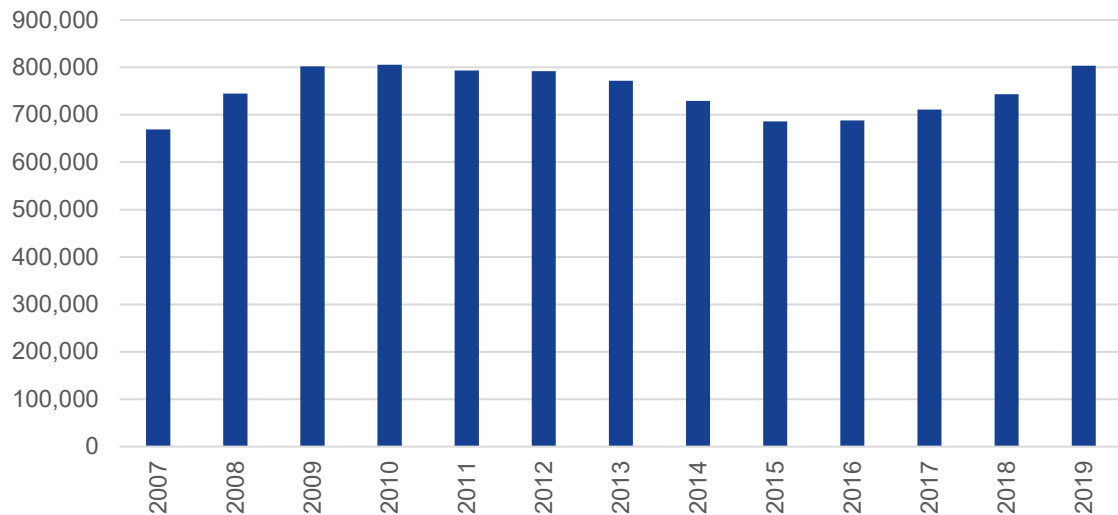


Source: (ESPON REGIO TOOL, 2022) <https://regico.espon.eu/regico/tool>

Depending on the nationality of the population (see Figure 9), since 2016 increases for the Spanish nationality residents were very modest - always below 0.4%. On the other hand, for 2019 the foreign population practically doubled the numbers registered in 2018 and for the first time since 2011 it has exceeded 800,000 foreign residents (+ 8.1% in 2019 and 69% in all of Catalonia). However, it is necessary to keep in mind that Barcelona is the province with the lowest total immigration rate (14.2%). Depending on the origin of foreign

population, more than 20% were from the UE, and the same percentage represent those from South America and those from the African continent, followed by those from Asia and Oceania (18%).

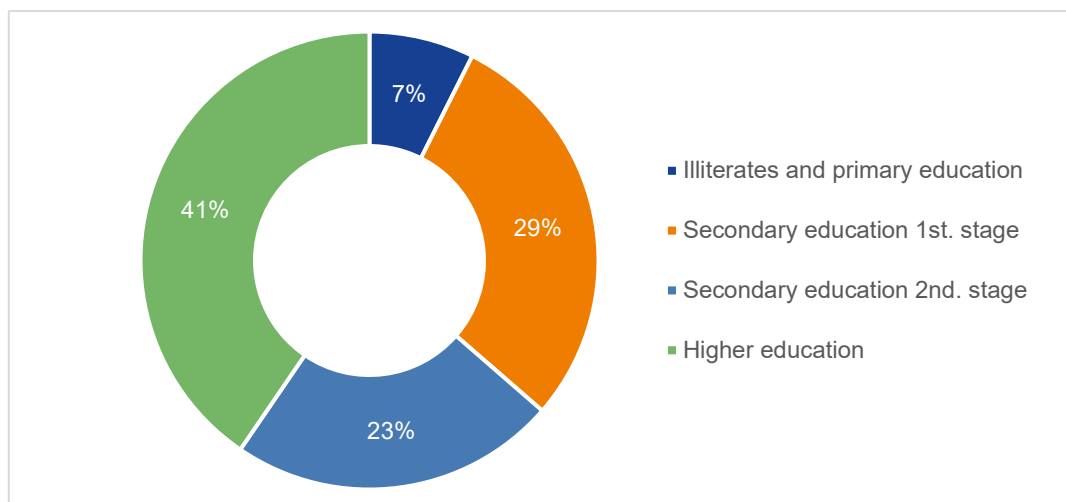
Figure 9. Evolution of foreign population



Source: HERMES, (Diputació de Barcelona, 2022)

In terms of education in 2019, the population of the province of Barcelona is distributed as follows: 41% of the population over 16 years had higher education, 23% with secondary education or vocational training, 29% with secondary education, and the uneducated population accounted for 7% of the total (see Figure 10).

Figure 10. Population by education levels 4t 2019 (in thousands)

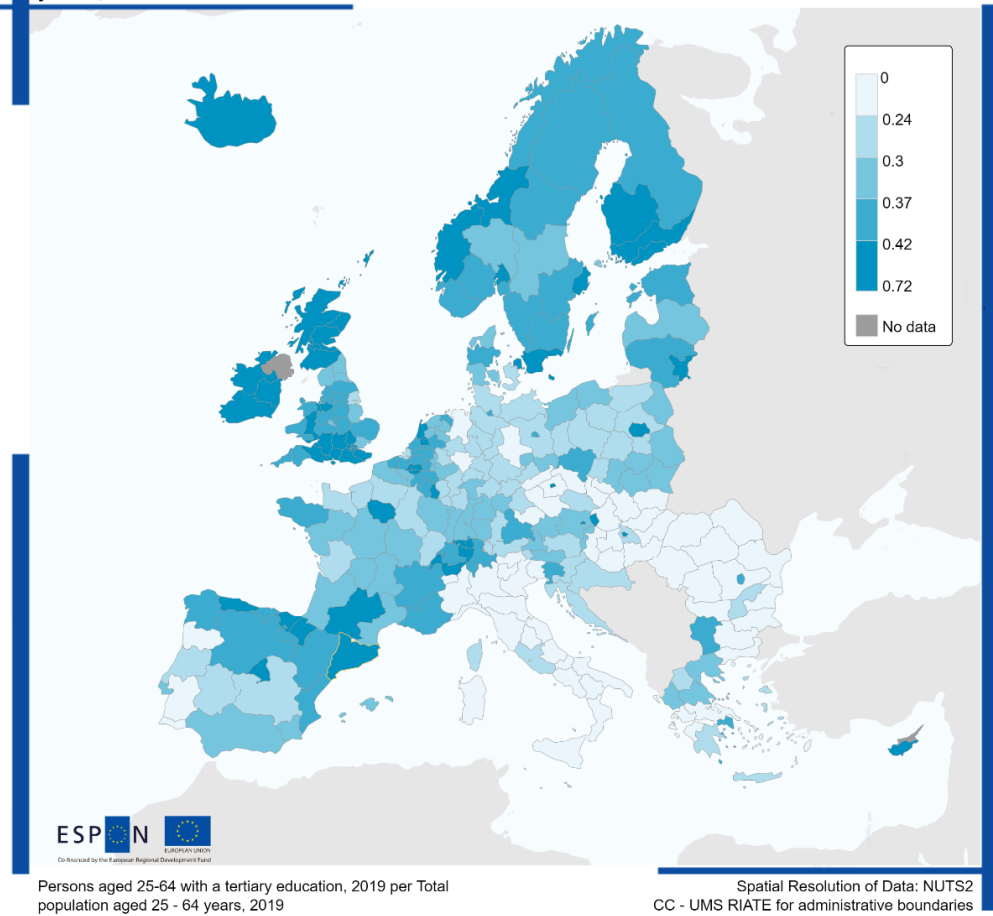


Source: HERMES, (Diputació de Barcelona, 2022)

In the region of Catalonia, the share of adults with higher education is 41% in 2019, above the European average, 24% above the European average (see Map 4).

Map 4 Share of persons aged 25-64 with tertiary education 2019

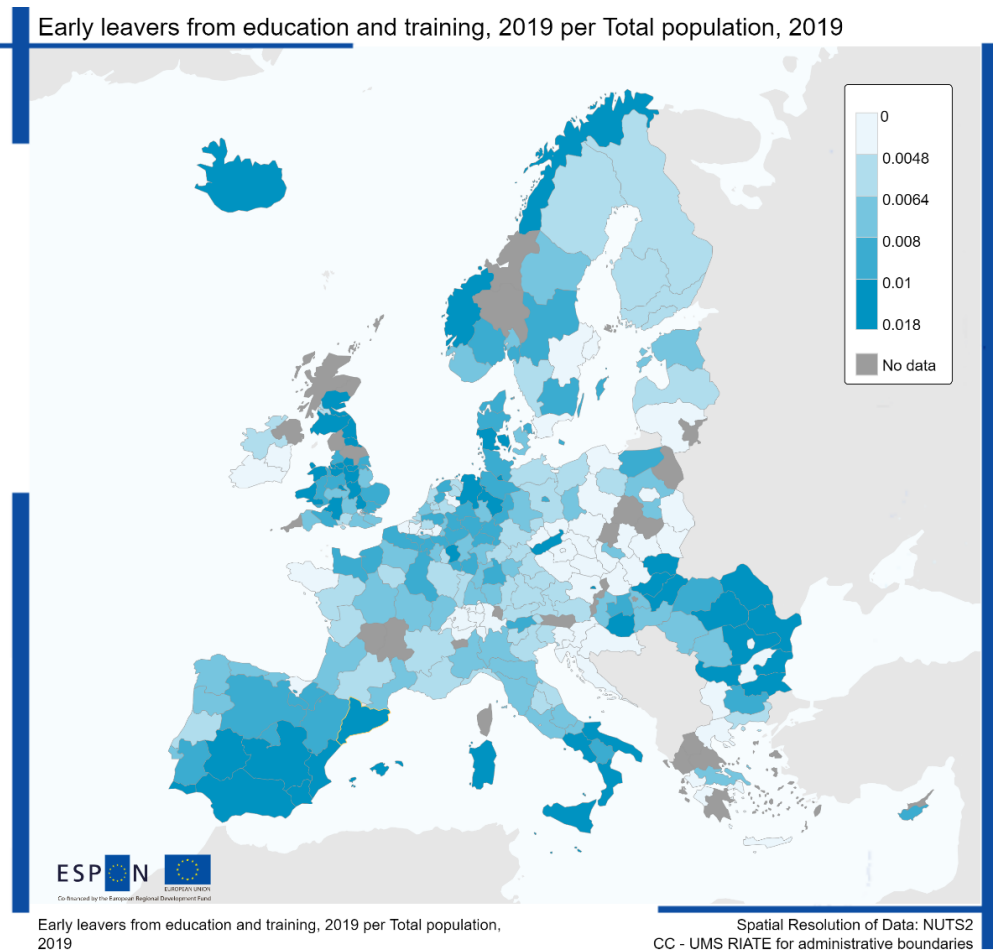
Persons aged 25-64 with a tertiary education, 2019 per Total population aged 25 - 64 years, 2019



Source: (ESPON REGIO TOOL, 2022) <https://regico.espon.eu/regico/tool>

In Catalonia as a whole, the rate of persons dropping out of school prematurely is 0.013%, that is, 100,300 persons in 2019, 50% above the European average (see Map 5).

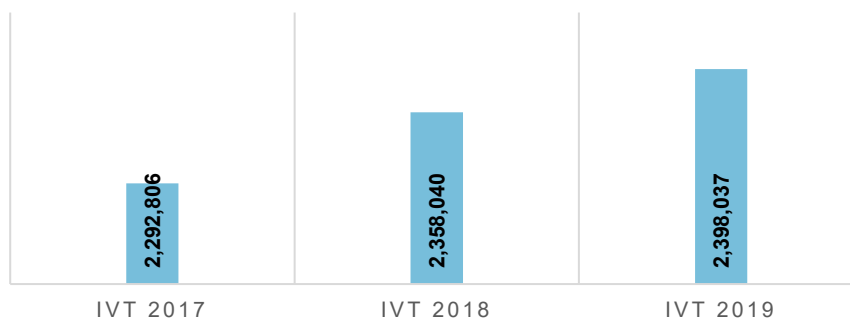
Map 5 Share of early leavers from education and training 2019



Source: (ESPON REGIO TOOL, 2022) <https://regico.espon.eu/regico/tool>

Regarding the labour market context (see Figure 11), according to the Labour Force Survey done by INE for 2019, an increase in the employed population by 2.5% in 2019 was registered. This percentage is slightly lower in Catalonia (+ 2.3%). Since 2014 (with data from the fourth trimester (4T)), in the province of Barcelona employment has increased by 14% in accumulated terms and it is already practically at the level of 2008 (4T).

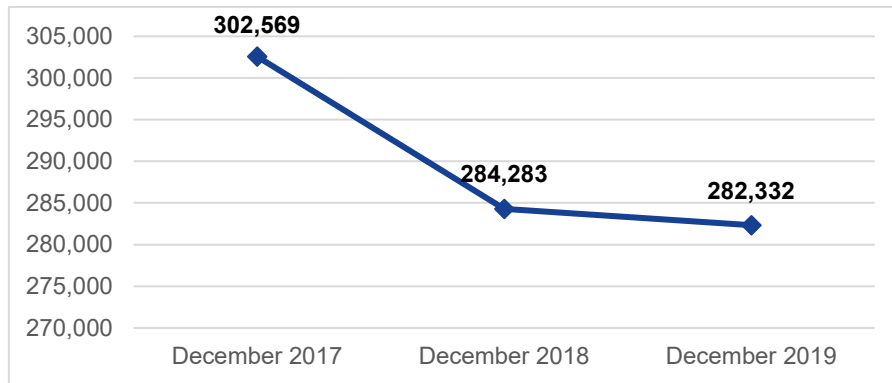
Figure 11 Evolution of employed persons in the 4th trimester



Source: HERMES, (Diputació de Barcelona, 2022)

By sectors, the services sector is the only one that has already surpassed - by 11% - the pre-crisis level, whereas industry (at 17%) and construction sector are still below the pre-crisis level (44% below); the latter was the sector most affected during the crisis, so much so that it took longer to recover since it had to absorb all the surplus supply generated during the bubble real estate.

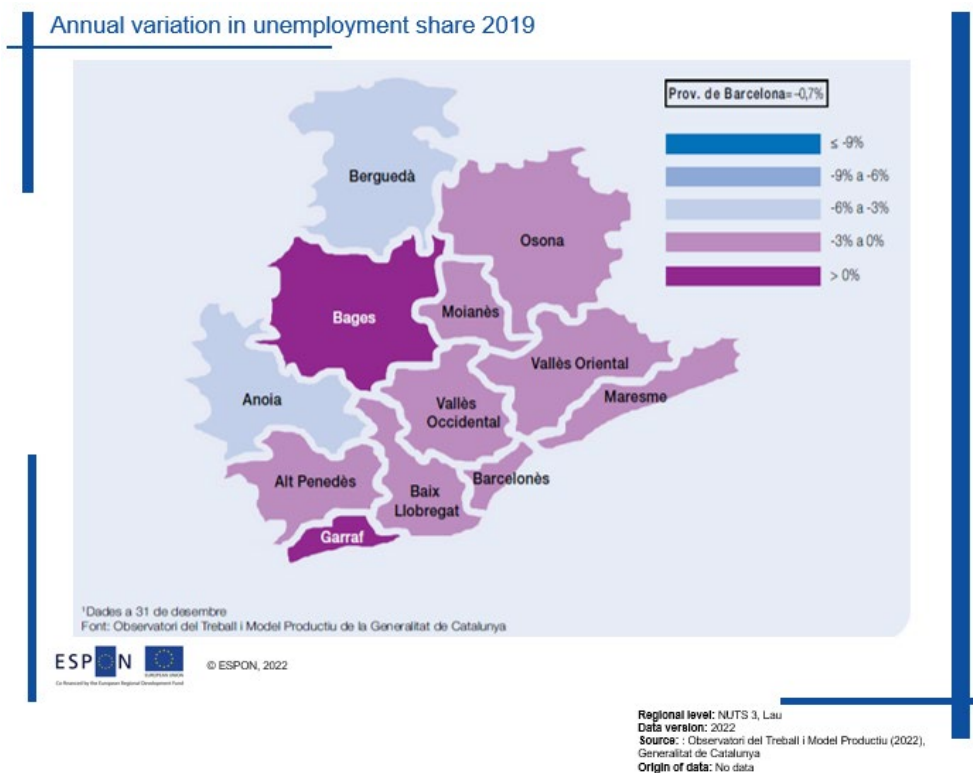
Figure 12. Evolution of employed persons



Source: HERMES, (Diputació de Barcelona, 2022)

In parallel with the favourable but less intense situation of employment and the business fabric in 2019, unemployment registered in the province of Barcelona fell for the seventh consecutive year but having a minor impact in comparison to previous years. Barcelona with -0.7%, stands at 0.5 tenths of the Spanish average (-1.2%), and as the 30th decreasing province. Thus, the number of unemployed people registered in the offices of the Catalan Employment Service (SOC) declined over the year to 282,332 unemployed at the end of 2019, the lowest level since 2008.

Map 6 Annual variation in unemployment share 2019, counties of the Province of Barcelona (%)

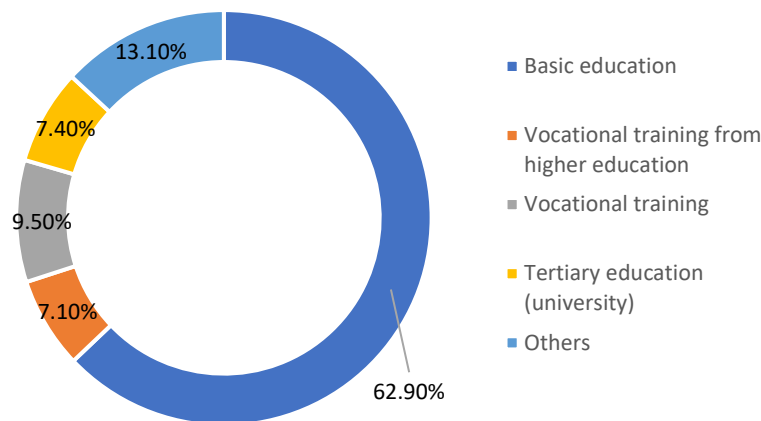


Source: Observatori del Treball i Model Productiu (2022), Generalitat de Catalunya

As shown in Map 6, unemployment did not decrease in a general way in all the counties of the province, and it has done so in smaller intensity than previous years. In relative terms, the most significant decrease was found in Berguedà (-5.3%) and the most moderate decrease was in the Vallès Oriental or Barcelonès (-0.5%). By contrast, the number of unemployed has increased in Bages (1.4%) and Garraf (0.2%) and has remained in the Vallès Occidental.

Unemployment affects some groups of the population more than others. For example, in terms of education, 63% of the total unemployed in the province of Barcelona had a basic level of education, while the population with higher education represented only 7% in 2019 (see Figure 13). In terms of gender differences, if the unemployment rate in the fourth trimester of 2019 was 10.5%, for women (11.1%) it was slightly higher than for men (9.9%).

Figure 13. Unemployed population by education levels in 2019 (%)

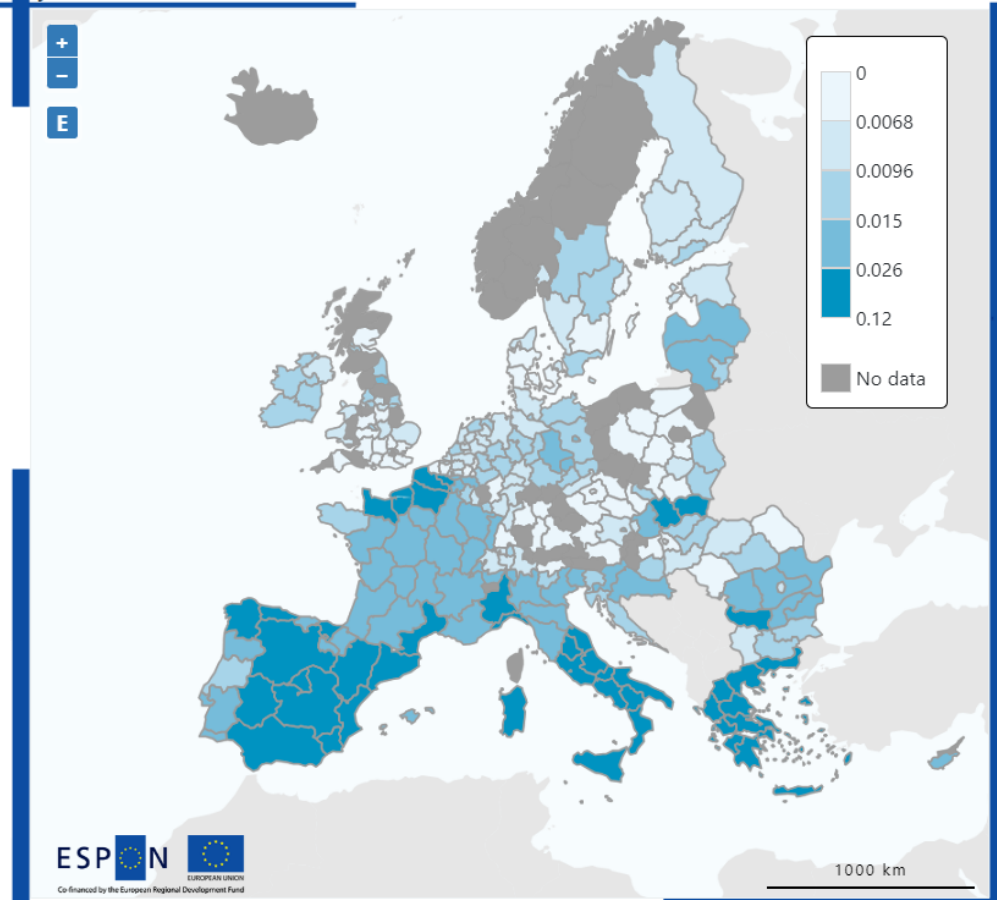


Source: HERMES, (Diputació de Barcelona, 2022)

Beyond unemployment levels, long-term unemployment is one of the major problems for the social cohesion of the territory. At the level of Catalonia as a whole, the percentage of the population in a situation of long-term unemployment was one of the highest in Europe (72% above the European average, see Map 7), similarly to other regions in Spain due to the country's economic structure, which is closely linked to low job stability in services, trade, and tourism sectors. Still, long-term unemployment in Catalonia is only 5% above the Spanish average.

Map 7 Long-term unemployment per total population aged 15-64 years, 2019

Long-term unemployment, 2019 per Total population aged 15 - 64 years, 2019



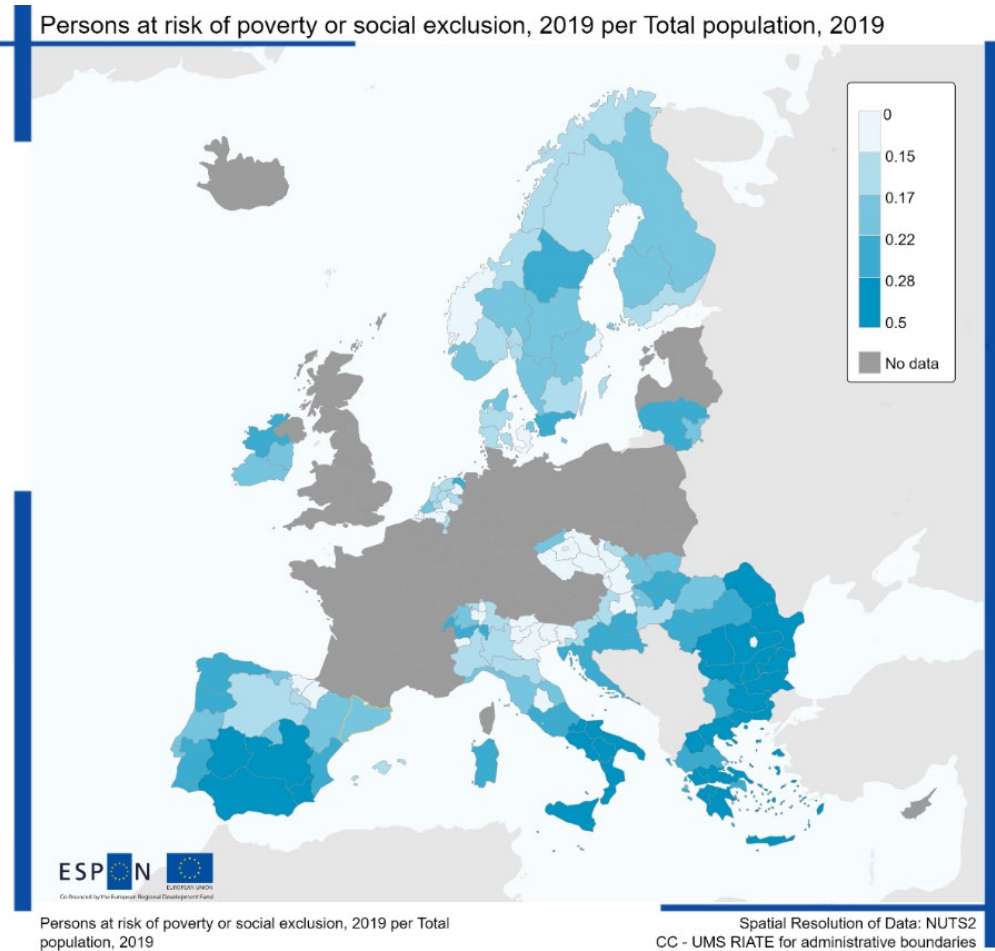
Long-term unemployment, 2019 per Total population aged 15 - 64 years, 2019

Spatial Resolution of Data: NUTS2
CC - UMS RIATE for administrative boundaries

Source: (ESPON REGIO TOOL, 2022)

Finally, Map 8 shows that 24% of the Catalan population in 2019 was at risk of poverty or risk of exclusion, although it is a not negligible figure, this is 28% above the rest of Spanish regions and 10% above of the European mean share.

Map 8 Share of persons at risk of poverty or social exclusion, 2019



Source: (ESPON REGIO TOOL, 2022) <https://regico.espon.eu/regico/tool>

According to a rapport of the stakeholder the Third Sector Board (Taula d'Entitats de la Taula del Tercer Sector de Catalunya, 2021), the groups that before the pandemic were already in a situation of great vulnerability in the territory were:

- Children: 1 in 3 children in Catalonia is poor
- Women: the poverty rate was higher for them, they had more temporal contracts than men (21.5% vs. 7.6%) and earned in average 20% less than men.
- Migrants: more precarious jobs and more than 50% live in poverty.
- People with disabilities had a lower employment rate and a higher risk of poverty than other people.
- And by type of household, single-parent households: almost half are poor and the majority, 80%, have a single woman at the head of the family.

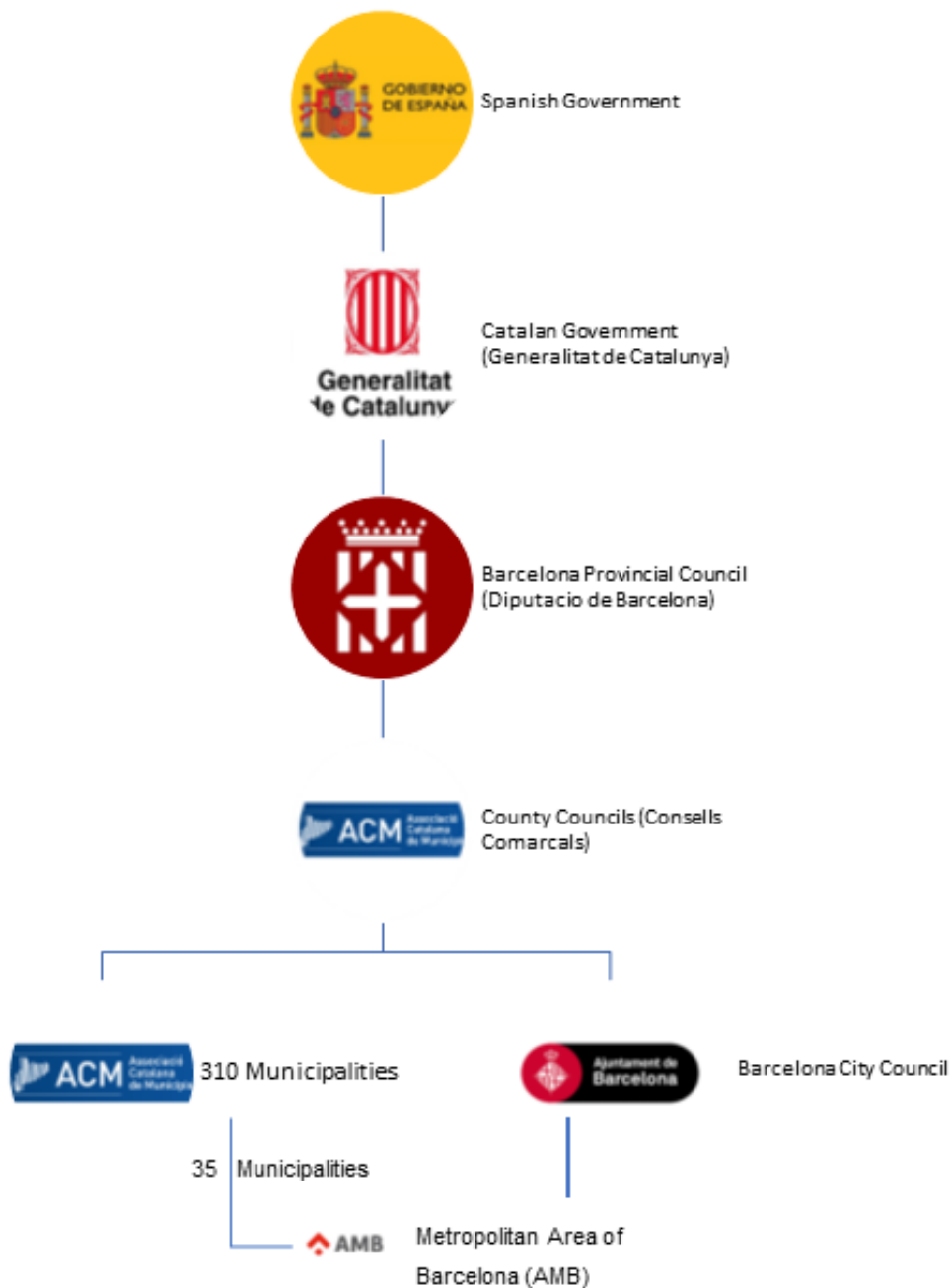
1.3 Governance characteristics

Before analysing the socio-economic impact of the pandemic in the province of Barcelona, it is necessary to make known the government structures that are part of it and what their functions are.

Before, it is necessary to consider the political context between Catalonia and Spain in the last 10 years. Since 2012, the region has been raising supporters for the independence of Catalonia, to the point of proclaiming a self-declaration of independence in 2017 that was revoked by the Spanish Court and not recognized internationally.

It is also worth mentioning that at the beginning of the pandemics, Catalonia had not an official government. The President of the Generalitat (Catalan Government) elected before the start of the pandemic, Joaquim Torra i Pla, announced his intention to dissolve the parliament. The president announced the call for elections after the budgets of the Generalitat were approved in 2020, but the beginning COVID-19 pandemic forced the delay of the elections and the collaboration with the Spanish Government to deal with the sanitary crisis.

Chart 1. Governance system in the case study Area: The Province of Barcelona



Source: Own elaboration

The province of Barcelona has 311 municipalities grouped in 12 counties (Consells Comarcals¹) that depend on various governance bodies as shown in the Chart 1. The Diputació de Barcelona (Barcelona Provincial Council) coordinates all the 311 municipalities and their County Councils; the Metropolitan Area of Barcelona englobes the 36 of the 311 municipalities of the province that are around the city of Barcelona (Ajuntament de Barcelona, 2022); and the Generalitat de Catalunya is the main regional government (Generalitat de Catalunya, 2022).

Each of these institutions has different political competencies. In the case of the Barcelona Provincial Council for historical reasons, it is attributed by more powers compared to the other Catalan provincial councils (Girona, Lleida and Tarragona). It is also worth mentioning that the city of Barcelona directly manages some functions (due to its volume) through its City Council and the Metropolitan Area of Barcelona (Area Metropolitana de Barcelona, 2022), which also includes 35 neighbouring metropolitan municipalities in the capital. This institution has as its highest priorities the management of metropolitan waste and public transport.

This case study mainly focuses on the main supranational administration that coordinates all the municipalities of the NUTS3 region – the Barcelona Provincial Council (Diputació de Barcelona, 2022). It is an institution that promotes the progress and well-being of the citizens of the 311 municipalities of the province of Barcelona. It was constituted in 1812 as the Provincial Council of Catalonia in the city of Vic. The Spanish Constitution of 1978 recognized the autonomy of the local administration (the municipalities and the provincial councils). It is an institution governed by mayors, and councils of the Barcelona city elected indirectly. The Barcelona Provincial Council provides technical, economic, and technological support to the city councils and coordinates municipal services and organizes supra-municipal public services.

Assistance and cooperation with local governments take the form of the transfer of technical resources (advisory and assistance work), financial resources (grants, funds, and credits) and material resources (direct provision of the service by the staff of the Barcelona Provincial Council).

The growing complexity of local government is pushing more and more the fact that the city councils must collaborate with other administrations to develop their competences. In this sense, the state and regional legislation establishes the possibility of creating instruments and bodies of collaboration and coordination to guarantee an effective provision of public services and avoid duplication.

It is worth mentioning the existence of associations and federations of municipalities whose purpose is to promote and represent the interests common of the associated municipalities before the other administrations public. In Catalonia, there are two associative entities of character general: the Federation of Municipalities of Catalonia and the Catalan Association of Municipalities and Counties, and at the state level there is also the Spanish Federation of Municipalities and Provinces.²

In Catalonia, all stakeholders are recognized and registered in the register of interest groups (Generalitat de Catalunya, 2022). The Register of Interest Groups of Catalonia is the centralized census of individuals and organizations that work on their own and participate in the elaboration and application of public policies promoted by the Catalan public administrations in defence of their interests and that of third parties or organizations.

Catalonia is characterized by a strong movement of interest groups and associations in the territory and their participation and collaboration with the governing bodies has always been present. Examples of some of the historical interest groups in the territory are the following: Chambers of Commerce and Industry (Cambra de Comerç i Indústria de Barcelona, 2022), Labour Promotion (Foment del Treball, 2022), General Union of

¹ The province of Barcelona comprises twelve counties: Alt Penedès, Anoia, Bages, Berguedà, Baix Llobregat, Barcelonès, Garraf, Maresme, Moianès, Osona, Vallès Occidental and Vallès Oriental.

A “Consell Comarcal” (County Council) is constituted as a local entity of a territorial nature formed by the grouping of contiguous municipalities, has its own legal personality and full capacity and autonomy to fulfill its purposes. The main function of the county councils is to be a tool in the service of territorial rebalancing to ensure the provision of services to municipalities that, due to their characteristics, cannot have them. They can also coordinate municipal services with each other and organize new ones that are not covered by local governments.

² Please visit these websites for more information on these federations: Federation of Municipalities of Catalonia (<https://www.fmc.cat/>), Catalan Association of Municipalities and Counties (<https://www.acm.cat/>), and Spanish Federation of Municipalities and Provinces (<http://www.femp.es/>).

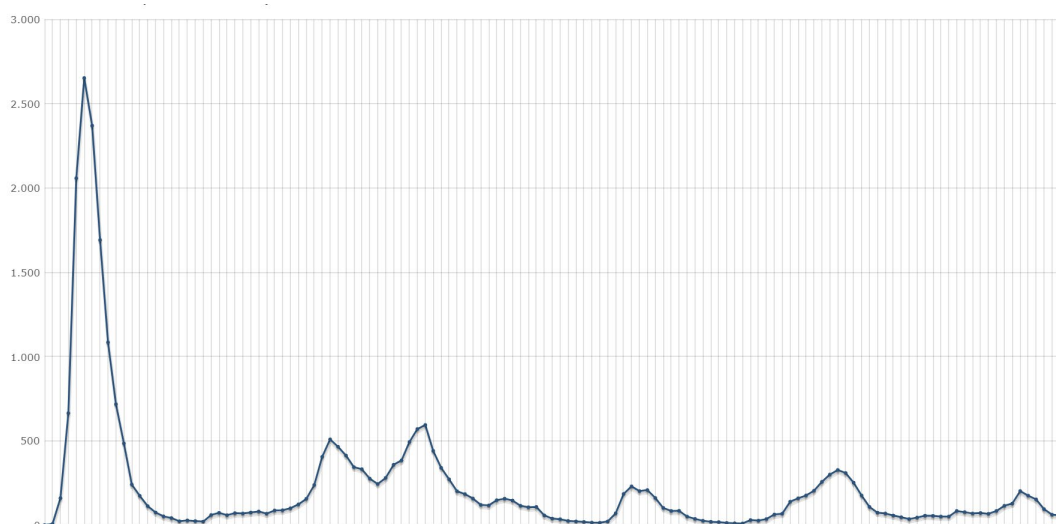
Workers (UGT, 2022), Worker's Commission (CCOO, 2022), the Third Sector Board (Taula d'Entitats de la Taula del Tercer Sector de Catalunya, 2022) *la Taula del Tercer Sector* the Third Sector Table, Caritas (Càritas, 2022) or the Red Cross (La Creu Roja, 2022).

2 Impacts of COVID-19 on the region

This section provides an overview of the main socio-economic and governance related impacts of the pandemic on the province of Barcelona.

In February 2020, positive cases of COVID-19 began to multiply in Europe, first in Italy and then in Spain. The exponential increase in cases and the growing pressure on the health system led the Spanish Government to declare a state of alarm on March 14, 2020, bringing home confinement, the closure of many economic activities, schools, and even borders. In April, when record numbers of cases, hospitalization and mortality were reached, the measures were tightened, and all non-essential productive activities closed for almost two weeks (see Figure 14). During this first wave, Catalonia showed a high incidence of positive cases and mortality, although far behind territories such as Madrid, Castilla-La Mancha or Castilla y León. These measures were used to control the pandemic and improve the sanitary situation, so that from May onwards, gradually removing restrictions at the state level began, which concluded in Catalonia on 21 June 2020: mobility abroad was restored (although with limitations) and the reopening of most of the productive activity was allowed, although the activities with more social exposure – such as restaurants, trade, artistic or leisure activities – maintained the restrictions regarding capacity and physical distance (Diputació de Barcelona, 2020).

Figure 14. Evolution of deaths for COVID-19 in Catalonia (Mars 2020 - Mars 2022)



Font: Idescat, a partir de dades del Departament de Salut.

Source: Health Department of the Generalitat de Catalunya's data, (IDESCAT, 2022)

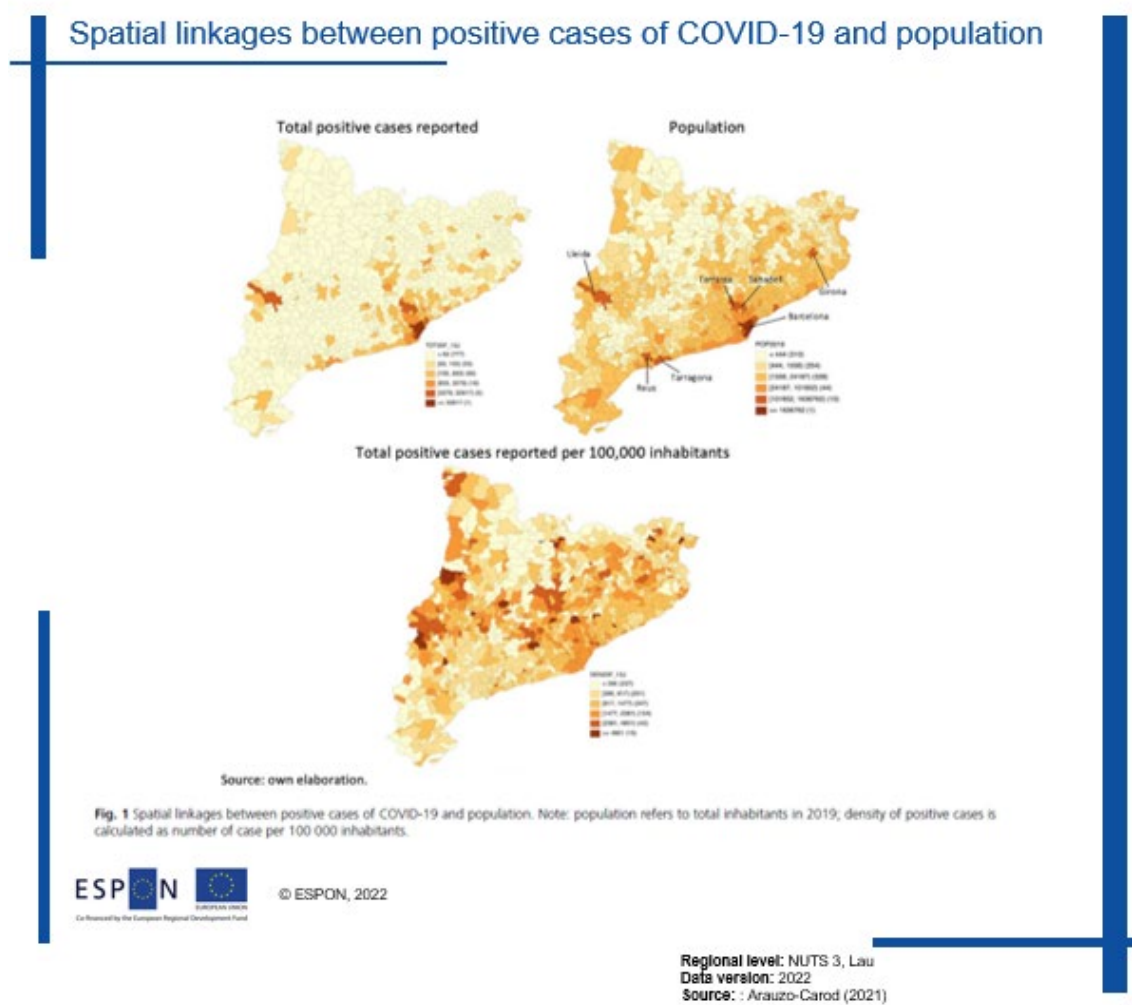
Table 2. Record of positive and dead cases of COVID-19 in the counties of Barcelona (Mars 2020 - Mars 2022)

	Positives	Deaths
ALT PENEDES	35 244	363
ANOIA	38 597	678
BAGES	59 531	912
BAIX LLOBREGAT	260 733	2 769
BARCELONES	723 713	10 038
BERGUEDA	12 144	213
GARRAF	45 488	379
MARESME	145 158	1 445

MOIANÈS	4 693	53
OSONA	54 992	792
VALLES OCCIDENTAL	311 276	2 864
VALLES ORIENTAL	136 011	1 299
Province of Barcelona	1 827 580	21 805

Source: Health Department (Generalitat de Catalunya, 2022)

Map 9 Spatial linkages between positive cases of COVID-19 and population

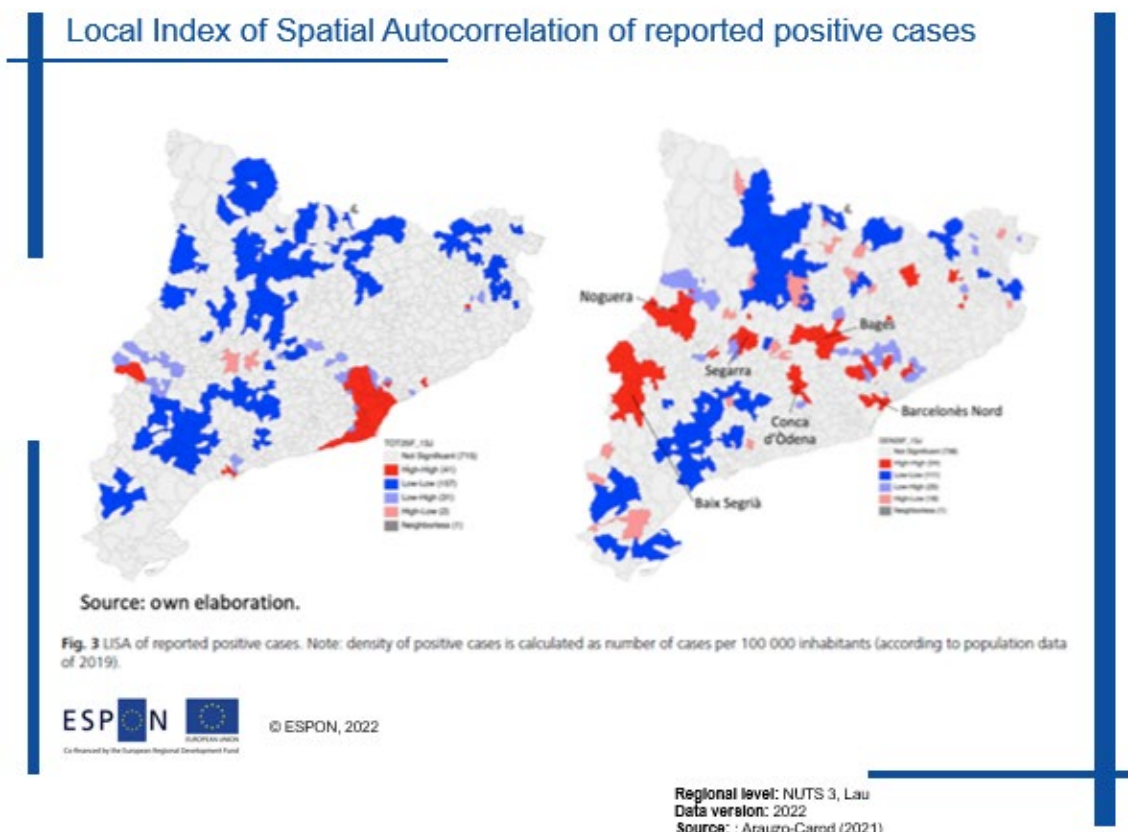


Source: Arauzo-Carod (2021)

As Arauzo-Carod (2021) suggests, there is a clear linkage between urban size and the number of positive cases. Concretely in Map 9, it can be observed that most of positive cases were concentrated in the metropolitan area of Barcelona (where most of Catalan population lives) and Lleida (due to a serious outbreak from June to July). It seems that the spatial distribution of positive cases was not directly related to population in absolute terms but to the data in relative terms (i.e., positive cases per 100 000 inhabitants). When the density of positive cases is considered, the spatial pattern changes completely and the positive cases have an erratic distribution without a clear pattern, although they are higher in more dense areas and in some inland rural municipalities of the region. This distribution is also confirmed in Table 2, where the most densely populated counties in Barcelona are the ones concentrating the larger number of positive and mortal cases.

Map 10 complements these patterns and shows the local spatial autocorrelation estimates (LISA) for the first wave of the pandemics. According to the number of cases in absolute terms, there is a clear cluster of positive cases of COVID-19 in an around the metropolitan area of Barcelona. Nevertheless, the LISA results for the relative measure (i.e., density of positive cases) shows that the previous Barcelona’s cluster is much smaller in size and is not the only one, as some other clusters appear around small and medium municipalities in the inner part of the Province of Barcelona (in counties such as Bages and Conca d’Òdena) as well as in other municipalities out of the Province of Barcelona.

Map 10 Local Index of Spatial Autocorrelation of reported positive cases



Source: Arauzo-Carod (2021)

2.1 Economic impacts

As a result of measures adopted to combat the Covid-19 pandemic, for 2020, the province of Barcelona suffered losses in the number of companies, and jobs.³ This evolution is framed in a context of record falls in real GDP in Catalonia (-11.5%), Spain (-10.8%) and the euro area (-6.5%) (see Table 3).

Table 3. Gross domestic product evolution

	Catalonia		Spain	
	2019	2020	2019	2020
PIB	1.9	-11.5	2	-10.8

³ The data and analyses in this section comes from the following sources: Diputació de Barcelona (2020) and (2021) and Cambra de Comerç de Barcelona (2020).

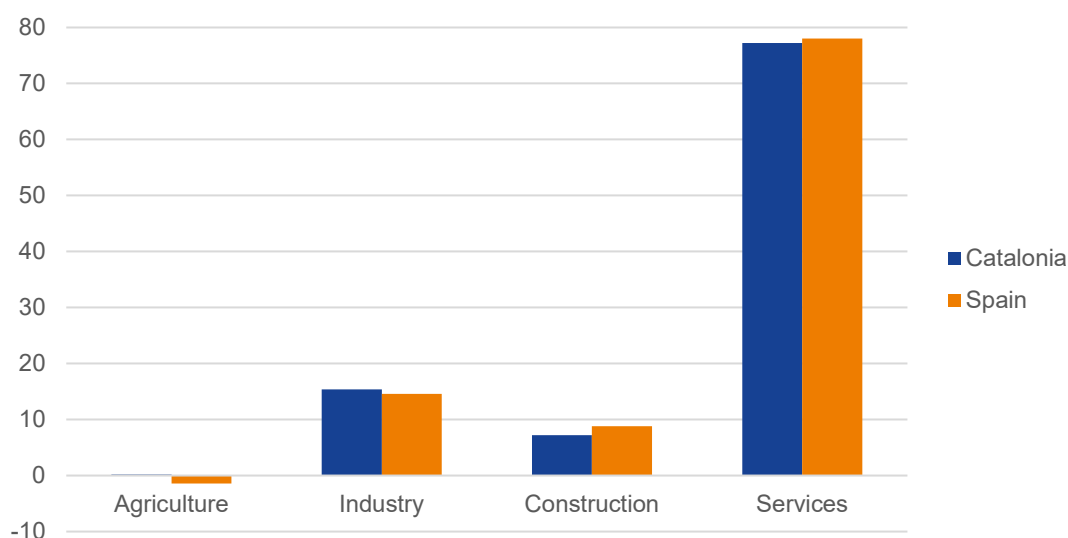
Demand				
Internal Demand	1.6	-9.5	1.4	-9.1
Household consumption expenditure	0.8	-12.5	0.9	-12.4
Consumption expenditure of Public adm.	2.7	5.1	2.4	3.6
Gross capital formation	2.8	-13.6	2	-12.4
External balance	0.6	-3.3	0.6	-2
Exports of goods and services	3.7	-11.5	2.2	-11.5
Imports of goods and services	2.2	-15.7	0.3	-13.1
Offer				
Agriculture, livestock, forestry, and fishing	-3	-2.6	-2.3	5.3
Industry	0.2	-9	1.7	-9.6
Construction	1.6	-15.4	4.3	-14.5
Services	2.7	-11.7	2.2	-11.1

Source: IDESCAT (2022)

The decrease in the number of companies was of 8.5% and 2.3% in the number of jobs lost. The subsector that suffered more job losses, by far, in absolute terms, was the HORECA sector (more than 22,500 fewer jobs at the end of 2020 compared to 2019). This subsector was particularly affected by mobility restrictions and confinement suffered throughout 2020. The total registered employed population decreased by 2.2%. Registered unemployment rose by 27.7%, so that the registered unemployment rate rose by 3% to 13.3%.

As for the components of the offer, the most important decrease of the economic activity in relative terms to 2019 was suffered by the Construction sector (-15.4%), followed by Services (-11.7%) and the Industry (-9%). The impact of the recession in these sectors seems to be reinforced when considering that only the Services sector represented 77.2% in the Catalan economy in 2020 (see Figure 15).

Figure 15. Contributions of the sectors to the annual GDP growth 2020 (%)



Source: IDESCAT (2022)

The analysis of the evolution of activities at the local scale of the province of Barcelona shows differentiated patterns. Industrial activities such as metal and the automotive industry or activities related to logistics were severely affected during the confinement. But the strongest falls were in activities closely related to tourism,

business services, trade, publishing, culture and leisure and construction. The more resilient activities in terms of employment were Agroindustry and chemistry, though that the latter had a difficult first trimester.

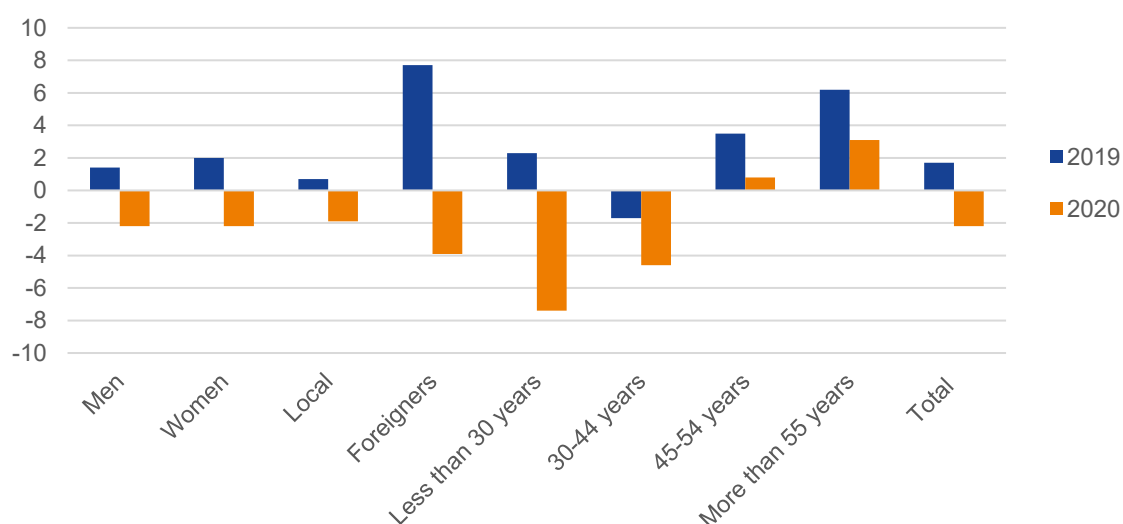
Emerging activities are those that have a rapid growth in the period 2013-2020. In this group, ICT and social services consolidated despite the crisis. While health, education, and research are on the rise, they were in an intermediate position and, in any case, on a positive path during the first quarter of 2020.

2.2 Social impacts

For the labour market both in the province of Barcelona and in Catalonia, the end of 2020 is characterised by the destruction of jobs as well as the increase of unemployment.⁴ The impact of the crisis on the destruction of jobs could have been much more important if it had not been for the application of mitigation measures such as the ERTOs (files of temporary employment regulations) or the cessation of the activity for the self-employed.

On 31 December 2020 the registered employed population (affiliated to Social Security according to the residence of the workers) decreased by 2.2% year-on-year in the province of Barcelona. By nationality, the reduction was more intense among foreigners (-3.9%) than in natives (-1.9%), and among young people under 30 (-7.4%) and people between 30 and 44 years (-4.6%), compared to the increase for persons aged 45 and over. By gender, the impact was very similar between men and women (see Figure 16).

Figure 16. Rates of variation in the registered employed population (%)

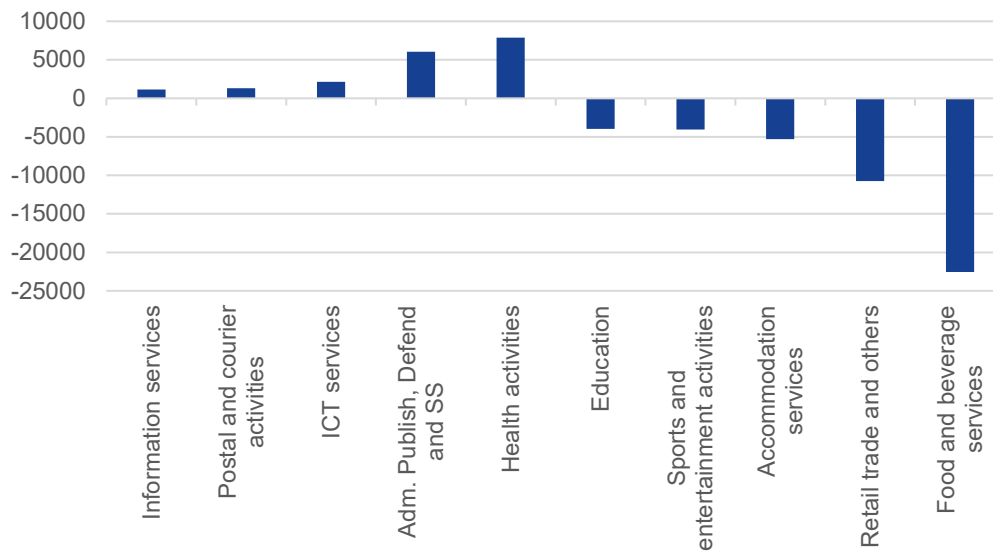


Source: Hermes, Diputació de Barcelona (2022)

Figure 17 shows the subsectors that, on the one hand, created more jobs in 2020 in absolute terms, and, on the other hand, those that recorded the highest losses. First, health related activities stand out, with nearly 8,000 more jobs at the end of 2020 as opposed to 2019, which is perfectly consistent with the need to strengthen this area to face the sanitary emergency experienced as a result of the Covid-19. Secondly, we can find the public administration sector, with just over 6,000 more jobs. On the other hand, the sector with the highest job losses was, by far, it is food and beverages (-22,559). This was followed by the retail sector with approx. 10,000 fewer jobs.

⁴ The data and analyses in this section comes from the following sources: Diputació de Barcelona (2020) and (2021) and Cambra de Comerç de Barcelona (2020).

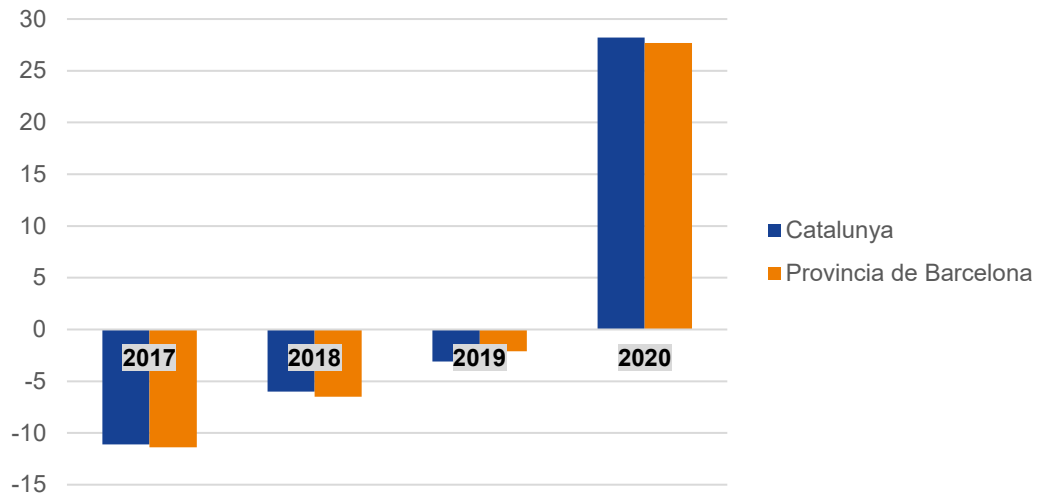
Figure 17. Subsectors of activity with more creation and more destruction of jobs. Province of Barcelona, 2020 (absolute)



Source: Hermes, Diputació de Barcelona (2022)

In 2020, in the province of Barcelona, the registered unemployment rate increased by 3% compared to the previous year, up to 13.3. Also, the registered unemployed population (Figure 18), according to data from the Labour Force Survey (EPA) of the National Statistics Institute (INE), increased by 27.7% in 2020.

Figure 18. Annual variation of the registered unemployed population (%)



Source: Hermes, Diputació de Barcelona (2022)

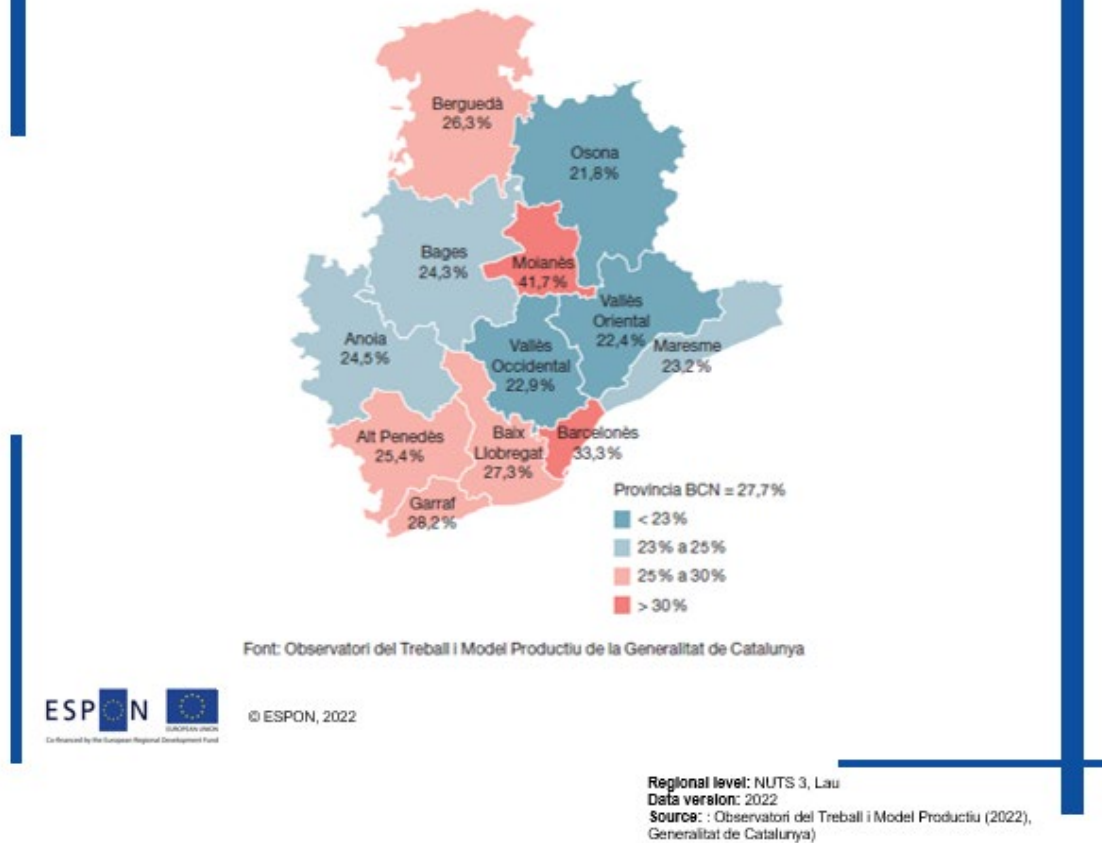
At the same time, unemployment has risen over the years across all counties in the Province of Barcelona (see Map 11). The largest relative increase was in Moianès (41.7%), followed by Barcelonès⁵ (33.3%), Garraf (28.2%) and the Baix Llobregat (27.3%), the latter three counties were severely affected by tourism

⁵ Barcelonès is a county that includes the city of Barcelona and 4 neighbouring municipalities.

restrictions. An increase in unemployment rates was recorded also in Osona - 21.9% and in Berguedà - 26.5% (Map 12). It is worth saying that this data does not include population who benefited from an ERTO (file of temporary employment regulation) and that were still members registered contributing to the social security despite not being actively employed. In absolute terms, the counties registering more than 350,000 unemployed population, are Barcelonès, Vallès Occidental and Baix Llobregat. These three counties concentrate 71% of the unemployed in the province of Barcelona.

Map 11 Annual variation of unemployed population 2019-2020 in December 2020

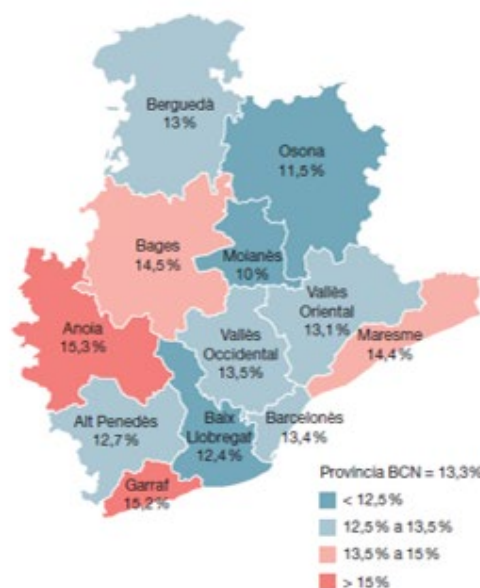
Annual variation of unemployment rate (%) in December 2020



Source: Observatori del Treball i Model Productiu (2022), Generalitat de Catalunya

Map 12 Annual variation of unemployment rate (%) in December 2020

Annual variation of unemployed population 2019-2020 in Dec. 2020



Font: Observatori del Treball i Model Productiu de la Generalitat de Catalunya

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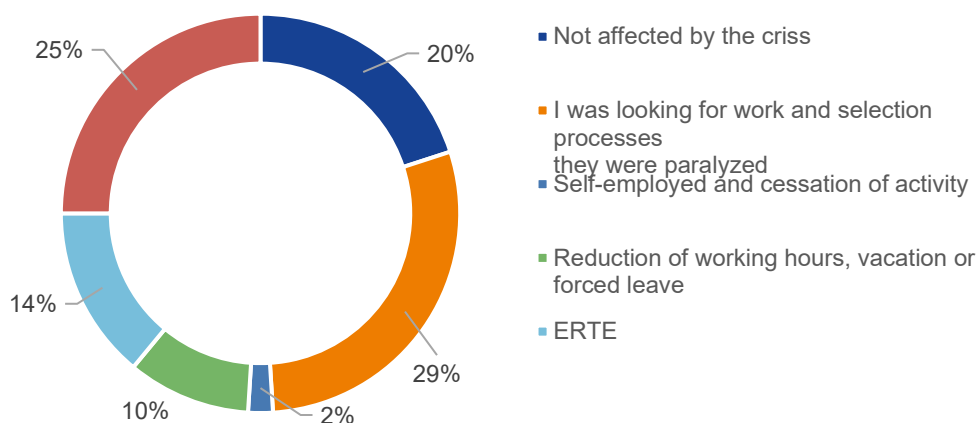
Regional level: NUTS 3, Lau
 Data version: 2022
 Source: Observatori del Treball i Model Productiu (2022),
 Generalitat de Catalunya)

Source: Observatori del Treball i Model Productiu (2022), Generalitat de Catalunya

The sudden interruption of economic activity without a robust protective social shield to mitigate its consequences has resulted in worsening the living conditions of those groups who were already in a situation of vulnerability. The stakeholder the Third Board Sector (Taula d'Entitats de la Taula del Tercer Sector de Catalunya, 2021) examined how the crisis has had a greater impact on the most vulnerable families with dependent children (often with a single woman at the head of the family), on people in an irregular administrative situation, on people in a situation of homelessness and in those families that dealt with situations of residential exclusion due to the impossibility of meeting the costs of rent or utilities.

The worsening of the labour and economic situation has also significantly affected the living conditions of women who run single-parent households, 80% of the total of this type of household in Catalonia. According to a report by the Adecco Foundation for the Third Board Sector (2021), 80% of these women have experienced a worsening in their employment and financial situation due to the pandemic. Specifically, Figure 19 shows that 25% were working in the shadow economy and lost their jobs without the right to benefits; 14% were affected by an ERTD (files of temporary employment regulations); 10% had to reduce their working hours, exhaust their holidays, or apply for compulsory leave; 2% were self-employed and/or forced to leave their jobs voluntarily and 29% were actively looking for employment and saw the selection processes paralysed. Only 20% of all respondents stated that their living conditions had not worsened as a result of the Covid-19 crisis

Figure 19. Impact of the pandemic on the employment situation of household's single parents (%) in Catalonia (2020)



Source: Taula d'Entitats de la Taula del Tercer Sector de Catalunya (2021) by Fundació Adecco

In Catalonia, according to the same estimates, there will be 9.4% more people living in poverty as a result of the pandemic, being one of the Autonomous Communities with the highest increase. Despite these estimates, the increase in poverty and vulnerability has been evidenced by the increase in the number of users/families helped by those entities dedicated to covering basic needs over the past year.

According to data from the Catalan Federation of the Food Bank, 30% of people who applied for help during the first year of the pandemic were new users. The food banks of the four Catalan province served 60,000 more people in 2020, than they did in 2019. Currently, 256,000 people are being assisted through 636 collaborating entities. Applicants' profiles have included low- and middle-income families and young people who have lost their jobs.

The Creu Roja (the Red Cross) has helped 556,706 people in all its services during the period between March 2020 and February 2021.

The impact of job insecurity and lack of income, as well as very limited coverage of different incomes and economic benefits, have affected people's lives in many areas. For example, the difficulties of households in coping with housing and utilities costs have increased (52.6%); issues regarding the access to adequate nutrition affect 48.5% of households; 35% of households cannot access necessary medicines and finally 26% of households cannot afford school expenses.

Many people employed in the affected sectors have been laid off from their jobs and have been unable to cover the housing costs, which has caused them to lose their homes. Only in the city of Barcelona, between March and November 2020, the new emergency facilities had attended to about 1,500 people (1,280 men, 230 women), of whom up to 45% did not sleep on the street before accessing these resources, but came from other situations of precariousness and residential exclusion, such as situations of infra-housing, renting rooms, or stays in relatives' or friends' homes; 63% of the people that were attended, did not use previously the services provided by social organizations.

The Covid-19 pandemic has had an important impact on the health status of the population, directly or indirectly. In addition to the huge rates of infection and mortality, it has worsened the health of those who were already in a fragile state due to previous illnesses conditions. The virus itself or the changes in our way of life caused by confinement and the measures of social distancing to contain it in its advance, have significantly affected the physical and emotional health problems; many cancer patients and people with previous mental illness were especially affected. Special mention should be made of the impact of Covid-19 on the elderly, dramatically affecting those who were living in nursing homes. Finally, the effects of the pandemic on the emotional health of the population, which has experienced moments of great confusion and anxiety over the last year, and which are not always easy to manage, cannot be overlooked.

3 Policy Response to COVID-19

This section assesses the impact of the pandemic on policy developments and highlighting which governance structures/stakeholder and financial provisions have driven policy developments.

Although in the region different administrative institutions played different roles in the coordination and activation of the measures, here we summarise some of the most relevant policies in relation to just, green and smart transition, conducted by the Provincial Council of Barcelona, as well as some of the best practices applied by the Metropolitan Area of Barcelona and the Barcelona City Council.

It is worth noting that the policies shown in the following tables are actions implemented with the specific aim of combating the impacts of the pandemic. Beyond these examples, we could cite many other policies that were already in place before the COVID and have mitigated the impacts of the crisis.

3.1 Policy Context

The COVID-19 pandemic highlighted that local governments were not prepared to deal with health emergencies. For this reason, the elaboration of Contingency Plans for the municipal public health services was promoted to deal with COVID-19: to establish the necessary procedures, organization, and resources so that the local public health structures can guarantee the provision of services and assist in minimizing the impact of a pandemic. As Hector Scitovsky (Metropolitan Area of Barcelona) said, *“the emergency situation revealed the resilience of the administrations, that out of necessity had to reinvent and adapt as quickly as possible to a situation that no one could have foreseen”*. In the same line, Javier Villamayor (Diputació de Barcelona) claimed that *“the local sphere has stood out for its ability to react and in an innovative way”*.

The application of the Contingency plans contributed to the development of organizational structures, services, cities, communities, and populations better prepared to deal with adverse emergency contexts (natural disasters, effects of climate change on health, health system blockage, etc.). In total, 46 municipalities out of the 311 of the Barcelona Provincial Council have activated the Contingency Plan to deal with health emergencies and 42 municipalities have adopted the Local Health Plan to the COVID-19 .

The confinement and the consequent abrupt interruption of economic activities has led to a disruption in the income flows of companies, making it difficult for them to continue - especially for small and medium-sized businesses and the self-employed; this was already accompanied by jobs losses and will generate more in the medium and long term, depending very much on the steps taken to prevent it. The priority in a situation like this, therefore, was to protect and support the productive and social fabric, to minimize its impact and ensure that, once the health emergency is resolved, a quick exit from the deadlock situation can be given.

The first actions to deal with COVID-19 were based on the analysis of the Spanish Royal Decree 8/2020, of 17 March, on extraordinary urgent measures to deal with the economic and social impact of COVID-19. From this analysis it is concluded that action had to focus on the following fronts: 1) reorient the portfolio of products and management services to adapt them to the new context and give better support to the local entities, specifically strengthen the lines of specialized information and assistance, those of training and knowledge, those of diffusion and the adaptation of technological tools; 2) write a set of proposals for action that should be carried out, within the framework of the competencies of the Barcelona Provincial Council, in the field of economic promotion and employment; and 3) guarantee the operation of the products and services, in accordance with the contingency plans designed before the declaration of the state of alarm (Diputació de Barcelona, 2020).

After the first two waves of the pandemic, public organisms were more able to detect the main impacts of the pandemic: changes in aspects such as employment, working conditions, production, distribution, and consumption systems that had a strong impact on trade, catering, transport, and hospitality, as well as a reduction in industry.

Faced with this scenario, the Metropolitan Area of Barcelona, the Barcelona City Council and the Barcelona Provincial Council signed a collaboration agreement with the aim of working together on the development of policies and the achievement of objectives related to the economic revitalisation of the territory. In this sense, the three entities governing in the region agreed to share a strategy with actions for each of the current priorities. The agreement, valid until 2024 and which can be extended over time, responds to the principle

of inter-administrative coordination and institutional cooperation of the Pact for Barcelona for the economic reactivation of the city (Area Metropolitana de Barcelona, 2020).

All the policymakers and practitioners interviewed considered that the pandemic has been a great challenge, but without any doubt an opportunity to identify the strengths and weaknesses of the region and redesign the socio-economic strategy of the region.

For example, Javier Villamayor, coordinator of the Area of Economic Development, Tourism and Commerce of the Diputacio de Barcelona, highlights that *"the local sphere has stood out for its ability to react and in an innovative way, it has been a laboratory of ideas to solve problems that had never been presented before and to design projects in moments of uncertainty"*.

In the same line, the deputy and mayor of Esplugues del Llobregat, Pilar Diaz, believes that *"the pandemic has brought out the best in people and has made all politicians and elected officials work closely together to find solutions leaving aside the interests of each political party."* In addition, *"the pandemic has made it possible to recognize the need to modernize and streamline the public administration while working to advance the reconversion of the productive fabric of the territory."* Indeed, the mayor also points out that the management of the pandemic has made it possible to detect synergies between municipalities that have not been used so far and that are key to identifying how to act in the territory, adapting to the real needs of each municipality.

According to Héctor Santcovsky, Director of the Social and Economic Development Area of the Barcelona Metropolitan Area, *"if it had not been for the pandemic, not so much effort would have been devoted to the implementation of mobility policies, energy transformation and sustainability of the economy"*. *"Issues highlighted during the pandemic, such as changes in mobility patterns, have prompted a shift towards the use of alternative energy sources in metropolitan mobility,"* adds Hector Santcovsky. Examples include investment in a hydrogen power plant to supply metropolitan public transport, the use of pure electric vehicles or the acceleration of the decarbonisation plan at Barcelona Airport.

As for stakeholders, some entities, such as the Third Sector Board, acknowledge that most public bodies have been considered in their short/long-term analysis work and strategies. In the case of Barcelona City Council, the challenges to be faced were defined and the Generalitat de Catalunya was illustrated with the creation of a body to define the challenges (CORECO) with the Department of Social Affairs and covid key family.

The pandemic has altered the coordination, design, and implementation of strategies. Nevertheless, most actors acknowledge that in most cases the commitment to the digitalization, green transition, and reduction of inequalities in the territory were already the priority in most strategic plans in the region before the pandemic.

According to Héctor Santcovsky and Javier Villamayor, the pandemic has served to reinforce small projects and promote progress in the implementation of digitalization and decarbonization programs.

In the case of some municipalities, as in the case of Esplugas del Llobregat, the industrial reconversion programs and the urban reconversion plans to improve access and conditions of the industrial estates planned for 2020, had to be set aside to use existing resources to the socioeconomic problems that intensified during the crisis, especially the impacts on the most vulnerable population and the maintenance of employment in the population.

As aforementioned, the pandemic has served to identify the greatest weaknesses in the territory and, to some extent, will have an impact in designing future policies.

However, according to Roger Civit, representative of the Third Sector Board, *"the representatives of the associative fabric and social workers expected that the severity of the pandemic would allow progress in structural change specially to improve labour market conditions or widespread access to decent housing, which has not been the case"*. The first housing law is now being promoted in Spain due to the crisis, something that had already been worked on in Catalonia since several years ago but had been revoked by the Spanish government. The emergency of the sanitary crisis has slowed down some of the negotiations to amend the guaranteed minimum income law.

3.2 Proactive Policy Overview

The tables below provide some of the best examples of proactive policies in relation to the just, green and smart transitions in the region of Barcelona by its different public administration institutions, that is, the Provincial Council of Barcelona, the Metropolitan Area of Barcelona (AMB) and the Barcelona City Council.

Just transition policies are associated to policies that allow us broadly to examine any social policies introduced during the pandemic which aim to improve human welfare and meet the needs of citizens, particularly the most vulnerable groups in society. This category also includes measures directed at businesses in order to prevent bankruptcies during the pandemic, save jobs and prevent increases in unemployment and poverty.

Table 4. Just transition policies

Focus area(s)	Policy description	Target group(s)/ Beneficiaries	Responsible level of governance / Financing	Stakeholders involved in policy implementation	Timing of policy	Duration
Social support	As a social support practice, the program FEM TEC! ¡REINICIEMOS! (Let's Tech! Restart!) proposes dynamics designed to help young people and adolescents to recognize COVID-19 crisis as a challenge and an opportunity to gain new perspectives, skills, and maturity. To do so, the program proposed several activities focused on various aspects of the learning and growth process, especially in recognizing what we have lost and valuing the personal strengths that we have mobilized in adapting to confinement. With this proposal, the Barcelona Provincial Council aimed to provide to all municipalities in the region with a set of materials for professionals and volunteers who work with young people. This policy will be maintained after the crisis and could be adapted and applied to other regions.	Children and youth Public stakeholders	Regional level / Local level	Barcelona Provincial Council (Diputació de Barcelona)	Pandemic	Medium/ Long term
Physical activities	The policy "UN, DOS, TRES, JA!" had the goal to ensure the access to sports and leisure activities for the general population. In the province of Barcelona there are 4,420 municipal sports facilities, excluding those in the city of Barcelona, that were among the first facilities to close to the public due to the COVID-19 pandemic. Now, in the post pandemic context, the Provincial Council has offered its support to the municipal councils for the safe reopening of all these facilities and, also, the	General population	Regional level / Local level	Barcelona Provincial Council (Diputació de Barcelona)	Pandemic	Short term

	use of outdoor itineraries, which allow practising sports and enjoying nature. To implement this policy, the Barcelona Provincial Council worked hand in hand with the City Councils of the different municipalities of the province to adapt the equipment and sports practice to the pandemic context and sanitary requirements. Even if the policy had a short-term nature, its application to long term and other regions would be useful to be considered.					
Cultural offers Digitalisation of public services	The program Las bibliotecas seguimos cerca de ti (Libraries keep being close to you) proposed a series of virtual activities like talks, reading clubs, storytelling with the aim of guaranteeing the reading and cultural participation to all society, so that the days of confinement were more enjoyable. The program was proposed by the Virtual Library of the Network of Municipal Libraries of the Barcelona Provincial Council. Even if the policy had a short-term nature, its application to long term and other regions would be useful to be considered.	General population	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Short term
Cultural offers Social support	On 23rd April, the day of the patron of Catalonia (Sant Jordi), library buses distributed in all municipalities of the province a selection of books and magazines for people at risk of vulnerability, such as families who are victims of gender violence or homeless people. It was a cultural and social practice organised by the Municipal Libraries Network of the Barcelona Provincial Council. Even if the policy had a short-term nature, its application to long term.	Vulnerable groups Homeless people	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Short term
Digitalisation of public services	The confinement pointed to neighbourhood and family coexistence as a central item for local administrations. The	General population	Regional level / Local level	Barcelona Provincial Council	Pandemic	Short term

<p>Social support</p>	<p>digitalisation and social support program “Citizen mediation adapted to COVID-19: phone and online attention” provided 48 local mediation services and an itinerant citizen mediation service for municipalities that did not have their own mediation service. The mediation services have responded to COVID by adapting their ways of working and they currently helped to solve coexistence conflicts by telephone and online. A professional mediator helps the citizens to manage their own coexistence conflicts with their neighbours or family members and helps them to reduce tensions. This action was led by the Barcelona Provincial Council in collaboration with all municipalities of the region during the first waves of the pandemics. A useful practice to apply in other regions in a similar context.</p>			<p>(Diputacio de Barcelona)</p>		
<p>Communication and knowledge sharing</p>	<p>With the program "Support for the professionals of the local women's services" the Area of Social Cohesion, Citizenship and Welfare of the Barcelona Provincial Council offered support to local professionals working in the information and care services for women. These services had to be restructured and deal with more complex cases due to the COVID-19 context, within the framework of new resolutions and regulations that the State government has launched in response to Covid-19. This support includes monitoring cases (professionals that share doubts about cases they are dealing with), as well as reviewing cases or work processes with the team. There is also a legal advice support for all kinds of requests from municipal professionals coming from the Covid-19 situation (custody, social assistance, work</p>	<p>Key workers Women</p>	<p>Regional level / Local level</p>	<p>Barcelona Provincial Council (Diputacio de Barcelona)</p>	<p>Pandemic</p>	<p>Unclear</p>

	or housing situations, resources on gender violence, among others). It has a short-term application, but it is expected to be adapted to the current context and be maintained.					
Social support	The "Community campaign against gender violence" aimed at informing potential victims, as well as to raise awareness of population so that they can collaborate in detecting and warning of any suspicion of gender violence. The programme consisted of the elaboration of dissemination material in different languages (Catalan, Spanish, English, French, Arabic, Urdu and Chinese) about the public services available to deal with gender violence, and their contact numbers and WhatsApp contact. Indeed, a decalogue of recommendations was distributed to the local police forces with the aim of providing homogeneous recommendations and strategies in the municipalities of the province of Barcelona. The campaign was disseminated on social networks by local governments as well as supermarkets or pharmacies. The campaign was designed by the Area of Social Cohesion, Citizenship and Welfare of the Barcelona Provincial Council with the collaboration of two large supermarket companies. Even if the policy had a short-term nature, its application to long term.	Women General population	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Unclear
Mental health services	The situation of exceptionality has an emotional cost for the municipal staff that provides direct services to the citizens. The Barcelona Provincial Council, through the Social Cohesion, Citizenship and Welfare Area, has set up a Psychological Assistance Service for municipal staff,	Municipal staff Key workers	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Short term

	<p>provided by telephone, through a contract with the Official College of Psychology of Catalonia. The service, targeted at municipal professionals who work in direct contact with population (e.g., local police, cleaning brigades, home care service professionals, funeral, and civil protection staff) and were supposed to be overwhelmed on an emotional level due to the COVID-19 context, had the aim to listen, accompany and reduce the stress derived from the management of services in the sanitary emergency context. The service was provided through a telephone centre by Barcelona Provincial Council with the capacity to distribute up to nine simultaneous calls each day of the week, uninterruptedly from 9 am to 8 pm. It was a short-term practice.</p>					
<p>Social support Communication and knowledge sharing</p>	<p>Due to the Covid-19 crisis, the Barcelona Provincial Council's Local Telecare Service has set up a free telephone helpline for all people over 65 who were not previously users and who are in a situation of vulnerability, isolation or risk, identified by the local social services. It is a free telephone line for the users and for the local governments, which is activated by a fix or mobile phone so that it is not necessary to install any device. Until 8th May 2020, 147 municipalities requested access to a new line, with a total of 3,212 new registrations for this service and 370,280 calls, most of them related to questions, follow-ups or emergencies caused by the COVID-19. Concretely, telephone attention was provided to requests related to Covid-19 and gives responses to situations of distress or stress. The 29 Mobile Units of the Telecare Service have not stopped their</p>	<p>Elderly people</p>	<p>Regional level / Local level</p>	<p>Barcelona Provincial Council (Diputacio de Barcelona)</p>	<p>Pandemic</p>	<p>Medium/ Long term</p>

	activity and continue to provide assistance to the whole province, following up users with illness or with symptoms of having it.					
Communication and knowledge sharing	With the aim of ensuring that local authorities take into account religious diversity, the Area of Social Cohesion, Citizenship and Welfare of the Provincial Council of Barcelona introduced the campaign "Recommendations on religious freedom and COVID-19". The campaign provided guidelines to local governments to guarantee the right to freedom of religion of its citizens and the adjustment to the measures of prevention and health protection and to the regulations coming from the declaration of the state of alarm. Specifically, it provided information on how to proceed with burials from the diversity of beliefs in accordance with the indications of the health authorities, recommendations regarding religious celebrations, and the impact of Covid-19 on the celebration of Ramadan. It is a medium/long term measure that could easily be applied by other regions.	Municipal staff General population	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Medium/Long term
Education and training	The impact of Covid-19 required the implementation of self-isolation measures, including the closure of educational centres and the initiation of distance learning. Given this context, the Barcelona City council provided guidance and accompaniment for young people who are going through phases of educational transition, with special attention being paid to the jump from obligatory to non-obligatory education, as well as to those who wish to re-enter the educational system. This focus is especially pertinent in Catalonia, which has a 19% rate of early school	Children and youth Students Teachers	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Medium/Long term

	dropout, one of the highest in Europe. By means of a Virtualization Plan, the program provided public schools by services and resources for educational accompaniment such as online chats and personalized guidance, personalized online consultations addressed to students at municipal schools and adults who are re-entering education, personalized online tutorials aimed at families with children who need to make the jump to non-obligatory education, video sequences for training, online courses, webinars and info graphic documents aimed at teachers and educators, among others. It is a policy that is maintained and reinforced after the pandemics. It could be applied to other regions.					
Food, medical and housing support Business support	The Metropolitan Area of Barcelona in collaboration with city councils set a series of measures during the COVID-19 pandemic to mitigate its effects in the economy and society. Concretely, the areas of Housing and Public work applied a moratorium for rents payment of apartments and commercial premises during April and May of 2020. Once this situation was overcome, vulnerable families were attended to guarantee housing in case they were not able to pay the rent totally or partially. To do so, a letter was sent to all tenants of apartments or commercial premises owned by the Metropolitan Institute for Land Promotion and Asset Management (IMPSOL) to explain this decision. It was a short-term practice that could be redesigned and expanded.	Businesses People living in municipality-owned housing	Municipal level	Metropolitan Area of Barcelona (MAB)	Pandemic	Short term
Digitalisation of public services	Between March and June 2020, the Barcelona City Council opened a device for	Public stakeholders	Regional level / Local level	Barcelona Provincial Council	Pandemic	Short term

	collecting the needs, uncertainties, and challenges of the local authorities in the municipalities of the province to face the COVID-19 crisis.			(Diputacio de Barcelona)		
Business support	With the aim to provide financial support to local firms, Barcelona's city council create an initial budget of €25 million in their recovery after the COVID-19 crisis. With the same vain, the deadline for paying most municipal taxes has been extended.	Businesses	Municipal level	Barcelona City Council	Pandemic	Unclear
Social support	The Barcelona Cuida Space aimed to provide citizens with information about all the available services and resources of the territory, and to promote the exchange and networking of the devices to inform and advise domestic and care workers passed to be a telematic service during the COVID-19 pandemic. These initiatives, of telephone and email attention, were deployed after confirming their concern about the different situations they experience during the pandemic context in relation to the personal attention services they perform at home, their well-being, and their labour rights. It was an action promoted by the Barcelona City Council that will be expanded after COVID-19.	Key workers Other groups	Municipal level	Barcelona City Council	Pandemic	Medium/Long term
Social support	The Assistance, Recovery and Shelter Service (SARA) was a citywide municipal ambulatory service that offers specific ambulatory care to victims of male violence (women, children, and adolescents, and LGBTI people, or people from their close circle directly affected by this violence). It also offered advice to professionals and people from the victims' circle. Concretely, it was the gateway to public and private emergency accommodation and long-stay resources for people experiencing	Women Children and youth	Municipal level	Barcelona City Council	Pandemic	Unclear

	<p>situations of gender violence. This service already provided before the pandemics by the Barcelona City Council was adapted to the COVID-19 context to ensure remote assistance through telephone and e-mail. This service is maintained and readapted to face-to-face assistance after the pandemics.</p>					
<p>Business support</p> <p>Food, medical and housing support</p>	<p>Barcelona City Council announced a moratorium on rents for properties managed by the Barcelona Municipal Housing and Rehabilitation Institute (IMHAB), for both housing and commercial premises. For three months at the beginning of the pandemics, a total of 12,000 tenants did not have to pay for their accommodation or commercial premises. Tenants compensated these months by paying slightly more rent each month until December 2020. To tackle this package of measures, the City Council enabled an extraordinary item of €3.5 million in the municipal budget, which was extended up to €5.5 million. It has a short-term application that really helped their recipients.</p>	<p>Businesses</p> <p>People living in municipality-owned housing</p>	<p>Municipal level</p>	<p>Barcelona City Council</p>	<p>Pandemic</p>	<p>Short term</p>
<p>Communication and knowledge sharing</p> <p>Social support</p>	<p>VinclesBCN is a service of the Social Rights Area of the Barcelona City Council that wants to strengthen the social relationships of older people who feel lonely and improve their well-being through technology and the support of social revitalization teams. The City Council lends older people who are users of the service a tablet with the application installed and with an internet connection to be able to use the Vincles BCN application.</p> <p>The Vincles application is accessible and very intuitive: it has been designed with the elderly in mind. This application allows</p>	<p>Elderly people</p>	<p>Municipal level</p>	<p>Barcelona City Council</p>	<p>Pandemic</p>	<p>Short term</p>

	<p>the user to communicate and interact through video calls and video or voice messages both with their family and friends and with the elderly who are part of the Vincles user group. Family and friends of the user will have to download the Vincles application on their smartphone, available for Android and iOS.</p>					
Business support	<p>The creation of the Tax Support and Advice Office of the Barcelona City Council was one of the shock plans being implemented to reduce the effects the COVID-19 pandemic is having on the city. The plan will allow for the postponement and compensation of municipal taxes for the use of public space. Once it is up and running, one of the goals of the office is to offer personalised plans providing payment terms for municipal taxes. The plans will adapt to the reality of each company, to entrepreneurs and individuals.</p> <p>This first package of measures has been developed through constant dialogue with the city's social and economic stakeholders like the Third Sector Board (Taula del Tercer Sector) and will be expanded as the situation evolves.</p>	Businesses	Municipal level	Barcelona City Council	Pandemic	Unclear
Business support	<p>The Mayoral decree on disruptions to municipal public procurement, approved by the Barcelona City Council when the national state of emergency was declared in Spain, ensured the continuity of public contracts, the liquidity of providers, particularly for SMEs, and strives to maintain jobs. All contracts relating to essential services and those which can be provided remotely under the same conditions were maintained. The rest of contracts remained valid, even though their execution</p>	Businesses	Municipal level	Barcelona City Council	Pandemic	Short term

	is totally or partially suspended. While that suspension lasts, the payment of hardware, machinery and human resources was guaranteed, to reactivate them as soon as this became possible. At the end of the state of emergency, contract execution periods were extended accordingly.					
Business support Communication and knowledge sharing	<p>The Labour Rights Defence were strengthened to respond to the COVID-19 crisis. They were discussed by the Barcelona City Council in partnership with several stakeholders (la Taula del Tercer Sector, CCOO, UGT, etc.) and were intended to answer questions about occupational risks or job losses. To facilitate its diffusion, the public agency Barcelona Activa created a website (https://barcelonactiva.barcelona/Covid-19/es/) which includes tools and resources from all administrations specifically designed to support companies, SMEs, entities, freelancers, and workers. It has also put to work a toll-free helpline that aims to guide citizens and to resolve questions about their employment situation.</p> <p>As an additional measure to help businesses, Barcelona Activa will not charge the rent for all companies housed in their business incubators until the state of alarm is called off.</p>	<p>Businesses</p> <p>Employees and self-employed people</p> <p>Public stakeholders</p>	Municipal level	<p>Barcelona City Council</p> <p>Barcelona Activa</p>	Pandemic	Short term
Social support Communication and knowledge sharing	<p>The Barcelona City Council Municipal Telecare Service is a permanent home care service provided 24 hours a day, 365 days a year. This enables its users, mainly elderly and dependent people, to be connected with a care centre that manages the necessary services for attending to an emergency situation. The service was reorganised its telephone home care service</p>	Elderly people	Municipal level	Barcelona City Council	Pandemic	Short term

	<p>to contact 3,000 users, mainly elderly and dependent persons, daily, to inform them, advise them and answer any queries about Covid-19. They also receive recommendations on how to organise their time and activities and exercises they can do while they are confined to their homes. This daily contact means the City Council Telecare Service ensures their users' basic needs are covered.</p>					
<p>Food, medical and housing support</p>	<p>New plans to offer tourist apartments to vulnerable families whose current accommodation does not meet conditions to endure confinement. Further housing measures are focussed on helping homeless people through the crisis.</p> <p>The first measure is to have 200 tourist apartments to accommodate vulnerable families whose homes do not meet the conditions to endure confinement. The second is to accommodate one pavilion of Fira de Barcelona in Montjuïc for homeless people and emergencies, which can initially accommodate 150 people. And the third, to reinforce the equipment for the homeless with three new centres.</p>	<p>Vulnerable groups Homeless people</p>	<p>Municipal level</p>	<p>Barcelona City Council</p>	<p>Pandemic</p>	<p>Short term</p>
<p>Business support</p>	<p>Service providers for the city of Barcelona will continue to be paid even if the execution of their services is suspended. Under the current state of emergency, those contracts remain valid. The Mayoral decree on disruptions to municipal public procurement, approved when the national state of emergency was declared, ensures the continuity of public contracts, the liquidity of providers, particularly SMEs, and strives to maintain jobs.</p>	<p>Businesses</p>	<p>Municipal level</p>	<p>Barcelona City Council</p>	<p>Pandemic</p>	<p>Short term</p>

Cultural offers	The crisis generated by COVID-19 also affected the city's cultural network. The City Council has undertaken 10 city measures to mitigate the effects and keep culture alive, with the Catalan and Spanish governments also being urged to implement others. These measures were intended to give an opportunity to arts companies, cultural programmes and shows which were cancelled and to mitigate the effects of the crisis in the cultural sector, and include advance payments for artists whose shows have been postponed, subsidies for cultural festivals such as the Grec 2020 as many other productions proposed by local companies.	Employees and self-employed people Businesses	Municipal level	Barcelona City Council	Pandemic	Short term
Business support	With the campaign Ahora te toca a ti, gracias! (It's your turn, thanks!), the Barcelona Provincial Council aimed to reinforce its commitment to local economic development and offered direct aid to the commercial sector by giving value to the local food supply and the municipal markets that during the pandemics were crucial actors in the commercial fabric of the towns and cities. It consisted in a campaign to make citizens aware of the vital importance of buying in local shops and helping the local economy.	Businesses	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Short term
Business support Food, medical and housing support	The Metropolitan Area of Barcelona introduced a set of measures during COVID-19 to mitigate its effects in the areas of Water and Energy. To do so, firms with less than 50 employees and an annual business income below EUR 8 million and self-employed workers were dispensed to pay their water bills and postpone their payment. The same action was also offered to families that have difficulties to	Vulnerable groups Businesses Employees and self-employed people	Municipal level	Metropolitan Area of Barcelona Energy: Barcelona Energia	Pandemic	Short term

	<p>pay their water bill due to the crisis. At the end of the crisis, the deferred amount has been charged in six equal instalments financed without interest. The action was a result of the collaboration with the metropolitan public electricity operator, Barcelona Energia.</p>					
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Green transition policies aim to enhance climate neutrality and the shift to a carbon neutral economy through the implementation of policies that support the development of green technology and green spaces, cultivate sustainable industries and the electrification of transport, and cut pollution and carbon emissions.

Table 5. Green transition policies

Focus area(s)	Policy description	Target group(s)/ Beneficiaries	Responsible level of governance / Financing	Stakeholders involved in policy implementation	Timing of policy	Duration
<p>Green spaces</p>	<p>The Equipment and Public Space Service (SEEP) of the Management of Equipment, Urban Infrastructures and Architectural Heritage (GSEIUPA) of the Barcelona City Council incorporated the urban green master plans and the strategies for renaturalization of cities as one of the best tools to influence the quality of life in cities within the program "Renaturing cities". The greening of urban areas has become an essential infrastructure for improving the quality of life of towns and cities to address the COVID crisis. Ecosystem green infrastructures are now a structural tool, from the perspective of sustainability, of the Sustainable Development Goals (SDGs), to improve the habitability of urban areas and reduce the environmental footprint and a key strategy to be applied even after the pandemics.</p>	<p>General population</p>	<p>Regional level / Local level</p>	<p>Barcelona Provincial Council (Diputació de Barcelona)</p>	<p>Pre-Pandemic</p>	<p>Medium/ Long term</p>

Tourism	The "Zero Strategy" is a tourism marketing strategy led by the Barcelona Provincial Council that responds to the current needs of the sector. The strategy maintains the spirit of empowerment of tourism that values the destination, that consumes local and respects the environment, guaranteeing its social, economic, and cultural sustainability. It focused on supporting the tourism sector in the Barcelona region and carrying out communication and inspiration actions for the final customer, especially in the local market (Catalan, Spanish), always in collaboration with other public institutions such as the Catalan Tourism Agency, Turisme de Barcelona and local and regional tourism management agencies. During the pandemics, the first phase was dedicated to the local market: the city of Barcelona, its metropolitan area, but also the rest of Catalonia region, trying to transform the need for short trips into opportunities for overnight stays. A second phase targeted nearby markets (Spain, southern France), focused on family tourism that can be done by car during short periods. A third stage, more commercially intense, is dedicated to short vacations in Europe. However, it is attentive to the recovery of other international markets.	Businesses Public stakeholders	Municipal level	Barcelona Council City	Pandemic	Medium/ Long term
Education and training	The Metropolitan Area of Barcelona (MAB) shares educational material for children to learn about biodiversity in the metropolitan territory. To do so, they provide colouring sheets to show some of the species and natural areas that can be found in the metropolitan parks and beaches such as butterflies, frogs, snails, bees, insect hotels or beach dunes. Cut out illustrations of different bird species living in nest boxes were distributed	Children and youth	Municipal level	Metropolitan Area of Barcelona	Pandemic	Unclear

	in the parks of municipalities of the MAB for the purpose of fostering biodiversity across the young population groups. This action can be maintained after the COVID-19 crisis.					
Waste management and circular economy	<p>With the program "How to separate domestic waste during COVID-19?" the MAB shares visual and useful information about how to separate domestic waste during COVID-19 situation:</p> <p>Households in quarantine or affected by a COVID-19 positive case must deposit waste generated by the sick person and by the caregiver (masks, gloves and other health supplies) in a specific bag that must be deposited in the rest-waste container.</p> <p>Other types of waste in the household must follow the regular separate collection system.</p> <p>Households not affected by the COVID-19 nor the quarantine must correctly separate waste in order to reduce the rest-waste amount.</p>	General population	Municipal level	Metropolitan Area of Barcelona	Pandemic	Short term
Green spaces	Due to the pandemic, the Metropolitan Area of Barcelona decided to close the metropolitan parks and children's and sports facilities in the metropolitan beaches. However, the cleaning and maintenance of metropolitan parks and beaches was guaranteed.	General population	Municipal level	Metropolitan Area of Barcelona	Pandemic	Short term

Smart transition policies refer to policies where industries, businesses, networks and services are made more efficient for the benefit of citizens through the use of digital solutions. We also extend this definition of smart transitions to include the concept of smart specialization (S3 and S4) and policies related to increasing innovation and facilitating the formulation of innovative startups and entrepreneurial businesses and companies.

Table 6. Smart transition policies

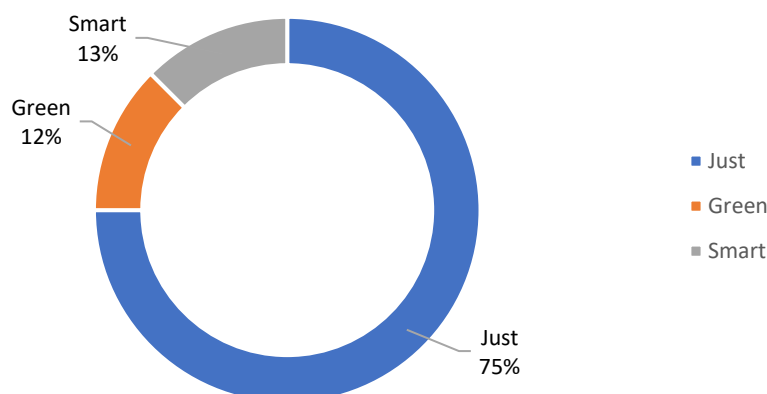
Focus area(s)	Policy description	Target group(s)/ Beneficiaries	Responsible level of governance / Financing	Stakeholders involved in policy implementation	Timing of policy	Duration
Big data	The Barcelona City Council developed a COVID-19 Tracking website to monitor the impact of the pandemic on the city through real-time data and daily follow health, pollution, transport and mobility, economic issues arriving in the city. This tool will certainly be used after the pandemic.	Municipal staff General population	Municipal level	Barcelona City Council Diputacio de Barcelona	Pandemic	Unclear
Research	Considering the COVID-19 crisis, SciTech DiploHub, the Barcelona Science and Technology Diplomacy Hub, developed a service that connected the actors of Barcelona's innovation ecosystem and the rest of the world, leading international cooperation against COVID-19. In this scenario of border shutdowns, travel restrictions, and unilateral national responses, global cities play a decisive role in bringing inclusive solutions to global challenges. This is the case of Barcelona and its science and technology ecosystem, which has taken the lead in the fight against Covid-19 virus. SciTech DiploHub is a pioneering non-profit public-private partnership backed by leading research centres, universities, non-profits, startups, corporations and public institutions that positions Barcelona as a global lab in science diplomacy for cities around the world.	Public stakeholders Researchers, universities and research institutes	Municipal level	Barcelona City Council SciTech DiploHub	Pandemic	Unclear
E-governance	With the intention of helping local governments faced by the problems derived from COVID-19, a new Funeral Services management module coordinated by the Barcelona City Council, allowed them to control the number of niches, columbarium, and tombs, existing and that	Municipal staff	Regional level / Local level	Barcelona Provincial Council (Diputacio de Barcelona)	Pandemic	Medium/Long term

	were empty. In addition, municipalities had also access to the same information for the different cemeteries of the province, to find possible alternatives to the neighbours. This practice has been extended and should be useful for other regions.					
Digital access and competencies Education and training	The project TTT (Treball, Talent i Tecnologia – Jobs, Talent and Technology) is a local public policy based on the promotion of technology and the support for the digital transition of populations, companies and institutions towards a sustainable, inclusive, supportive and egalitarian socio-economic model. The aim of this project is to address the employment opportunities involved in technological developments and the digital transition in the labour market, which have become even more apparent given the current circumstances resulting from the effects of COVID-19. In this line, the Barcelona Provincial Council contribute to the digital transition of companies to ensure their survival and future development by considering into four lines of work for its territorial development: Analysis and diagnosis, strategic alliances, competence development of population, boosting productive capacity and transforming the business fabric. The direct recipients of the project's budget are the 310 municipalities in the province (excluding the municipality of Barcelona).	Businesses Employees and self-employed people Unemployed people	Regional level / Local level	Diputacio de Barcelona	Pre-pandemic	Medium/Long term
Digital access and competencies	To strengthen the role of municipal markets as suppliers of fresh produce close to the population and to increase its supply and digital presence, the need for which has become especially evident since the health crisis of the COVID-19, support for the digitization of municipal markets was provided by the Barcelona Provincial Council. The program helped municipalities and local markets with support, preferably, for the implementation of digital platforms for online sales and home service, support for technological capacity control systems and, support for equipment health control systems.	Businesses General population	Regional level / Local level	Diputacio de Barcelona	Pandemic	Short term

Here we provide some stylised facts about the set of proactive policies presented in the tables above, and that has been applied during the different waves of the pandemic to respond to the socioeconomic problems related to COVID-19.

Specifically, 40 examples of proactive policies have been identified in the tables above, with the following distribution between priority areas: just transition (75%); green transition (12.5%); and smart transition (12.5%) as shown in Figure 20.

Figure 20. Proactive policies by area



Most of the proactive policies that were introduced exclusively for minimizing the effects of the pandemics were only applied during the first wave.

In terms of duration, just transition proactive policies are mainly short term, that is, they are closely tied to the pandemic context and of limited timespan (e.g., connected to specific waves of the pandemic) or have already ended (see Figure 20). Policies with a short-term duration include actions supporting different types of businesses in avoiding bankruptcies and safeguarding or creating jobs; measures to help disseminate information and knowledge about the pandemic to the local population as well as actions to improve communication and knowledge sharing between policy makers and other actors from different sectors or different levels of governance; measures implemented by public authorities to keep cultural offers/activities alive, like libraries and cinemas; policies and initiatives which have digitalised different types of public services related to, for example, mediation, physical and mental health; measures that provide practical support for vulnerable groups by covering costs related to housing (rent, energy, water), providing shelter, and by ensuring access to food, medicine, personal hygiene products and other basic essentials; measures aimed at offering psychological support to different population groups during the pandemic; measures which support sports facilities and encourage physical activity among the population (especially, children and young people); measures that aimed at supporting local institutions and key workers in obtaining necessary personal protective equipment during the pandemic; and policies and campaigns to support the victims of gender violence and higher risks of isolation like elderly people.

There are also some just transition policies that are not set to end with the pandemic, but instead envisage a medium- or long-term perspective. They include key actions to deal with the main socioeconomic challenges of the region, like initiatives to improve communication and knowledge sharing between policy makers and other actors from different sectors or different levels of governance; measures to facilitate digital and remote education; and social support to specific groups such as children, youth, elderly people or women.

Other just transition policies that do not present a clear duration term are related to business support, communication and knowledge sharing, and social support actions.

Figure 21. Just transition policies by duration and focus

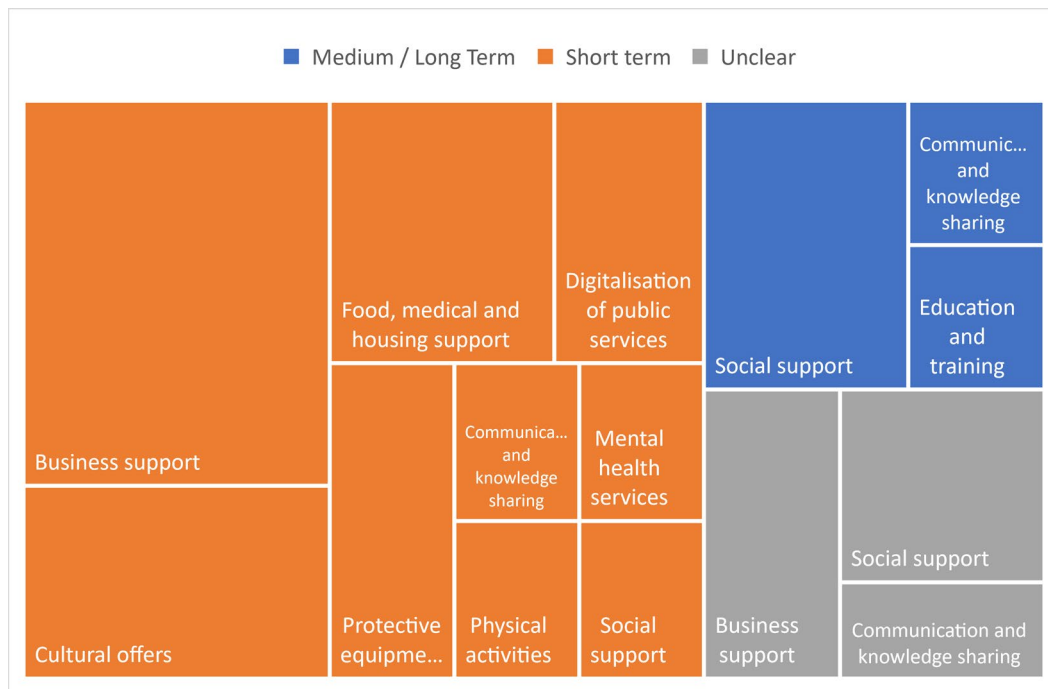


Figure 22 shows the green transition proactive policies with a medium / long-term duration. They include measures and initiatives to increase and maintain accessible green space for the public; and measures directly aimed at promoting tourism of proximity as well as measures that aim to digitalize the tourism sector. These are key policies for addressing the main economic challenges in Barcelona region. From a short-term perspective, actions aim to promote more sustainable and efficient waste management and the circular economy and the increase the surface of public green spaces. Also, there are actions that try to raise awareness of children and young people about the importance of keeping the environment and biodiversity.

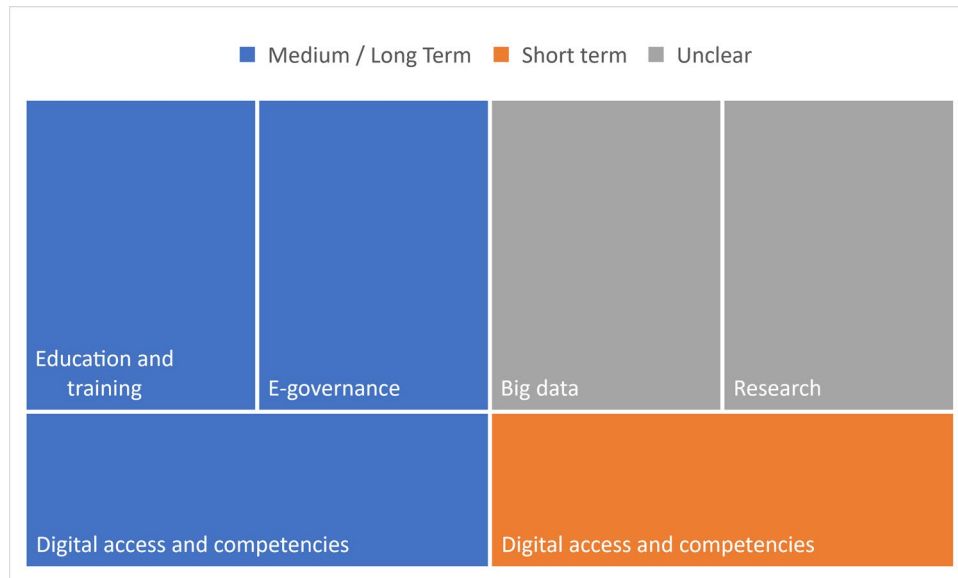
Figure 22. Green transition policies by duration and focus



Proactive policies can also be associated to different target groups. For instance, just transition policies are focused on all groups of society, from women, children and youth to elderly people, to most vulnerable groups and homeless people passing through business, public stakeholders and key public workers (see Figure 21). While green transition policies are more focused on business actions, public stakeholders,

children and youth and general population (see Figure 22). Finally, smart transition policies target all the groups that are associated to the development and adoption of new technologies such as researchers, business, municipal staff, public stakeholders or to support unemployed, employees and self-employed to develop the required competencies in the digital transition of the economy (see Figure 23).

Figure 23. Smart transition policies by duration and aim



Indeed, proactive policies can also be associated to different target groups. For instance, Just transition policies are focused on all groups of society, from women, children and youth to elderly people, to most vulnerable groups and homeless people passing through business, public stakeholders and key public workers (see Figure 24). While Green transition policies are more focused on business actions, public stakeholders, children and youth and general population (see Figure 25). Finally, Smart transition policies target all the groups that are associated to the development and adoption of new technologies such as researchers, business, municipal staff, public stakeholders or to support unemployed and employees and self-employed to develop the required competencies in the digital transition of the economy (see Figure 26).

Figure 24. Target groups in Just transition policies

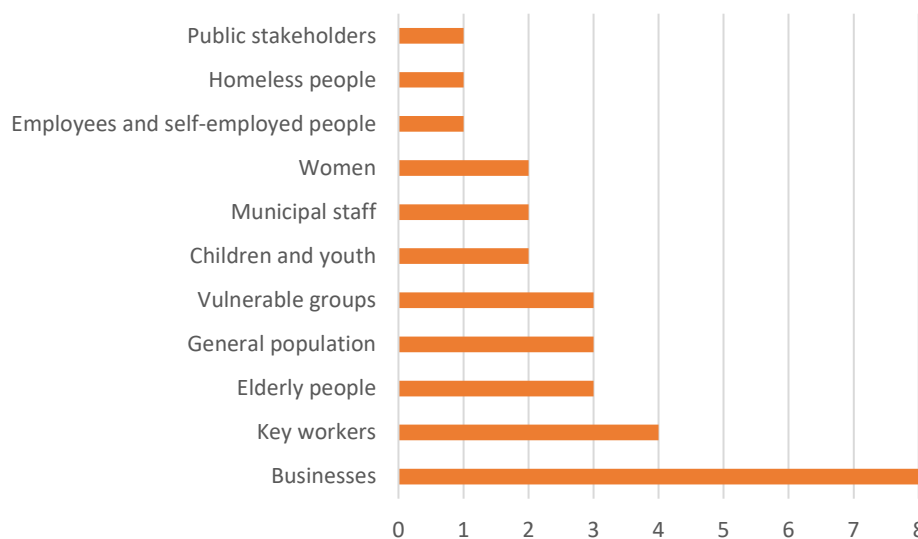


Figure 25. Target groups in Green Transition policies

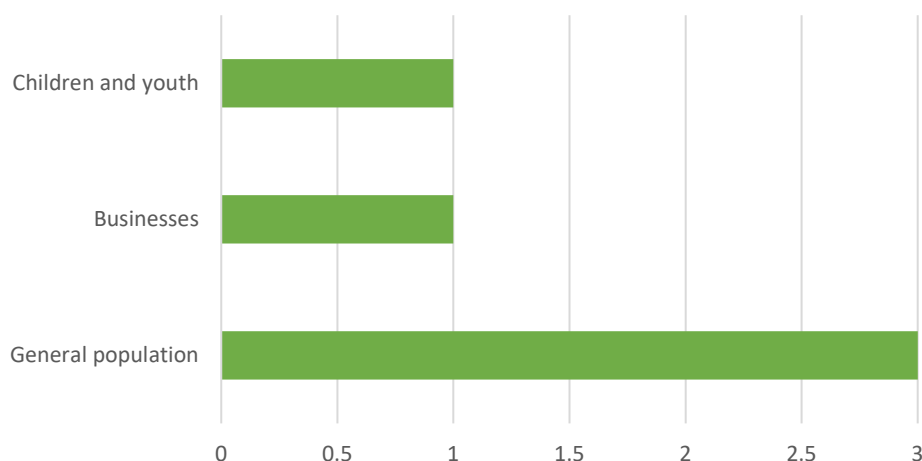
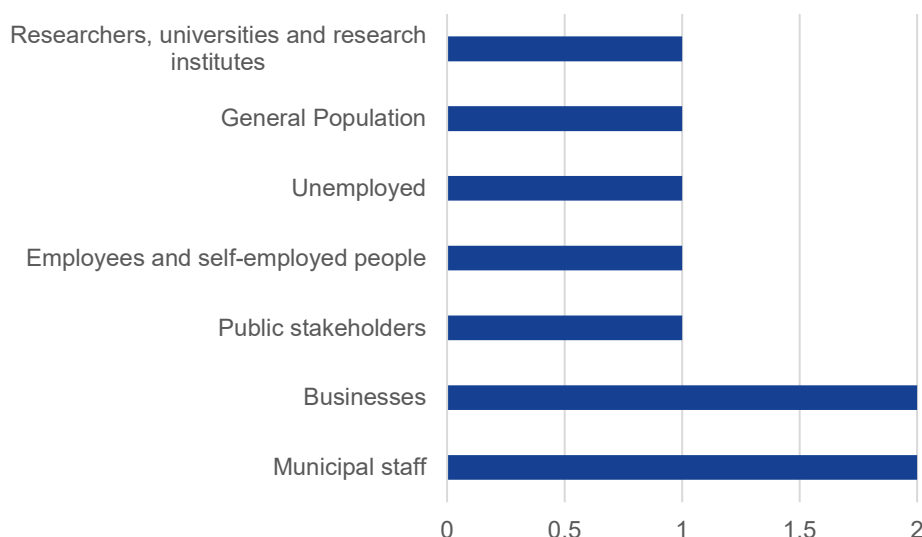


Figure 26. Target groups in Smart Transition policies



Although in the above tables we show some of the most interesting policies applied by some of the public bodies, these policies can be contextualized within the strategy of the highest governing body in the region, the Generalitat de Catalunya.

The Generalitat de Catalunya (2020), in order to ensure an effective response to the crisis of COVID-19, has mobilized several instruments during three phases: **emergency**, **recovery** and **reactivation**. The first phase (emergency) aimed at adopting emergency measures in the health system. In a second phase, the focus was on the recovery of the cessation of the economic activity. In the third phase (the reactivation phase), the Generalitat's response to the crisis will be extended for several years, concentrating most of the effort in the first years. In this sense, on May 2, 2020, the Government agreed to the creation of the Commission for the elaboration of the Catalonia's Economic Reactivation and Social Protection Plan (CORECO) to articulate the response of the public sector to the economic and social challenges arising from the COVID-19.

Within the framework of CORECO, three objectives have been set for the Economic Recovery and Social Protection Plan:

- Contribute to at least to one of the three goals of this plan and to one of the 17 Sustainable Development Goals (SDGs) without having a negative impact on the other SDGs.

- Contribute — or at least not be a hindrance — to achieving the goals of climate neutrality and social cohesion, as well as the conservation of ecosystem services and the improvement of environmental quality, which is closely linked to improving people's health.
- The Catalan Government will not consider projects that benefit companies with headquarters or subsidiaries in tax havens, companies or citizens who have an open criminal case in the tax or environmental field or who have relapsed in the commission of crimes, or companies that do not contribute to reducing emissions or are not implementing actions to reduce them.

Within the framework of the Commission for the Elaboration of the Plan for Economic Reactivation and Social Protection, four strategic axes and a transversal axis have been established that serve to structure an agile, effective, and transversal response to the derived social and economic crisis. of COVID-19. This response, as mentioned above, is in line with both the 2030 Agenda and the Sustainable Development Goals (SDGs) and the recovery strategy defined by the European Union.

The axes that have been defined to deploy the Reactivation Plan are the following (Chart 2):

- Axis 1: Economics for life
- Axis 2: Digitization
- Axis 3: Ecological transition
- Axis 4: Knowledge society
- Axis 5: Transversal

A total of 20 transformation projects have been included in these axes. The projects have been nourished by the discussions that have taken place in the working groups in which the activity of CORECO has been organized and that have had the participation of external agents in the Catalan Government.

The 20 projects selected within the framework of CORECO have an estimated cost of 31,765 million euros and the actions they comprise have a different time horizon. Some are short-term, and could be launched in 2020, while others are in the medium term (to be developed between 2021 and 2025) or long-term (between 2026 and 2032).

Chart 2. Main axis of Economic and Social Protection Reactivation Plan in Catalonia

Economics for life	Digitalization	Ecological transition	Knowledge society	Transversal
•65 projects •5,010 M €	•16 projects •980 M€	•65 projects •16,678 M€	•35 projects •5,785 M€	•10 •3,309 M€

4 Policy impacts

Bearing in mind that it is still soon to quantify the actual policy impacts of the policies introduced in the region during the pandemics, this section provides an overview of the impacts of the policies that can be identified by now.

The effectiveness and success of the measures applied, especially those based on the granting of aid or support services, should be assessed in terms of the number of people who have no longer needed the aid. However, this information is still difficult to obtain.

Therefore, in this section you can find some data on the number of users served or aid granted during the pandemic.

4.1 Policy impact

Table 7. Just transition policies impact

Focus area(s)	Policy description	Stakeholders involved in policy implementation	Impact
Social support	" FEM TEC! ¡REINICIEMOS!" proposes dynamics designed to accompany young people and adolescents in the search for these opportunities.	Diputació de Barcelona	546 young people and 74 professionals have participated in the workshops held to date (2020 and 2021) with these materials. These materials were available to any youth professional, counting the visits and downloads on the website (google analytics): - Fem tec! web visits: 23,465 (March to December 2020) and 50,540 (January to November 2021) - Download Fem tec!: 8,267 (March to December 2020) and 16,890 (January to November 2021) - Downloads Restart !: 1,498 (March to December 2020) and 965 (January to November 2021) Finally, the youtube views of the support videos in the "Restart!" a total of 4,464 are counted.
Cultural offers Digitalisation of public services	"Las bibliotecas seguimos cerca de ti" proposed by the Virtual Library of the Xarxa de Biblioteques Municipals (XBM) of the Diputació de Barcelona proposes a series of virtual activities with the aim of guaranteeing the reading and cultural promotion, so that these days confinement are more enjoyable and usable.	Diputació de Barcelona	A total of 40 online sessions, with a total of 6,204 entries.

Digitalisation of public services Social support	The program " Citizen mediation adapted to COVID-19: phone and online attention" (SIMC) for municipalities that do not have their own mediation service.	Diputacio de Barcelona	In 2020, the SIMC responded to 26 applications - 7 of which were through the Coexistence Support Hotline - and correspond to 19 municipalities.
Communication and knowledge sharing	With the program "Support for the professionals of the local women's services" the Area of Social Cohesion, Citizenship and Welfare of the Barcelona Provincial Council offers support to local professionals working in the information and care services for women.	Diputacio de Barcelona	During the state of alarm, 20 requests were received, 10 for legal advice (mostly related to gender-based violence against women and their children resulting from the situation of confinement, as well as related to shared custody); 8 case supervisions; and 2 team supervisions.
Mental health services	The Barcelona Provincial Council, through the Social Cohesion, Citizenship and Welfare Area, has set up a Psychological Assistance Service for municipal staff, provided by telephone, through a contract with the Official College of Psychology of Catalonia (COPC).	Diputacio de Barcelona	A total of 85 cases were assisted, of which 46 can be separated in first aid and 39 in follow-up. The main and clear reason for consultation was anxiety, more than 75%. Women were the majority claimants (about 75%) especially around 40 years old.
Social support Communication and knowledge sharing	Due to the Covid-19 crisis, the Barcelona Provincial Council's Local Telecare Service has set up a free telephone helpline for all people over 65 who were not previously users and who are in a situation of vulnerability, isolation or risk, identified by the local social services.	Diputacio de Barcelona	Until 8th May 147 municipalities have requested the new 900 line, with a total of 3,212 new registrations for this service. Since the beginning of the crisis, and until May 8 2020, the call centre has managed 370,280 calls, most of them related to questions, follow-ups or emergencies caused by the Covid-19. In addition, the 29 Mobile Units of the Telecare Service have not stopped their activity at any time and continue to provide assistance to the whole province.
Food, medical and housing support	The creation of services for the care of homeless people or families with housing difficulties. Based on a need's diagnosis in the territory, it has collaborated with local authorities in the creation of four spaces for the care of these groups where imminent needs have been detected.	Diputacio de Barcelona	Places for 172 people and 10 families.
Social support	The Barcelona Cuida space, which aims to	Barcelona City Council	In Barcelona, one in four people cares for another person in their family network and there

	provide citizens with information about all the services and resources of the territory, and to promote the exchange and networking of the devices, has closed its physical headquarters and will not offer face-to-face care until further notice such as preventive measure to prevent the spread of COVID-19, but it launches a series of telematic actions in order to inform and advise domestic and care workers.		are more than 55,000 people registered in the "work at home" regime of the Social Security.
Communication and knowledge sharing Social support	With VinclesBCN, users can manage their social relationships by using a simple application installed on a tablet or smartphone.	Barcelona City Council	The service reaching 3,000 active users across the city. As of December 2021, the service has 3,067 users and 198 groups (groups can be by neighborhood, by friendship, or by interest).

Table 8. Green transition policies impact

Focus area(s)	Policy description	Stakeholders involved in policy implementation	Impact
Green spaces	The program "Renaturing cities" sets urban green master plans and the strategies for renaturalization of cities as one of the best tools to influence the quality of life in cities.	Diputacio de Barcelona	Total work 2020, 49 work in collaboration with 49 local bodies
Tourism	The "Zero Strategy" is a new tourism marketing strategy that fosters the spirit of empowerment of tourism that values the destination, that consumes the local and respects the environment, guaranteeing its social, economic and cultural sustainability.	Barcelona City Council	Many virtual events (webinars, presentations, workshops) as well as hybrids (conferences) and some face-to-face events (familiarization trips to the territory) and many communication and positioning actions have been carried out, together with DIBA's Communication Management (campaigns in

Table 9. Smart transition policies impact

Focus area(s)	Policy description	Stakeholders involved in policy implementation	Impact
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Big data	Creation of the COVID-19 TRACKING WEBSITE IN BARCELONA to monitor the impact of the pandemic on the city through real-time data (health, pollution, transport and mobility, economic, opinion, etc.)	Barcelona City Council Diputacio de Barcelona	During 2020, the number of visits to the Public Health Service's websites doubled and the number of pages visited also increased sharply: 373,245 visits to the website and 29,1859 page views.
Digital access and competencies Education and training	The project TTT (Trellball, Talent i Tecnologia – Jobs, Talent and Technology) is a local public policy based on the promotion of technology and the support for the digital transition of people, companies and institutions towards a sustainable, inclusive, supportive and egalitarian socio-economic model.	Diputacio de Barcelona	303 municipalities and 67 projects: 98% of the territory and 99% of the Potentially Active Population (16-64 years) 29 supra-municipal projects (43%), which group 265 municipalities (87.5% of the total beneficiary municipalities) and represent 68.5% of the total budget.
Digital access and competencies	Support for the digitization of municipal markets.	Diputacio de Barcelona	A total of 36 municipalities, 28 trade associations and 5 municipal markets were added.

According to the Taula del Tercer Sector, out of the set of measures that have been put in place to mitigate with the serious socio-economic effects of the pandemic on the most vulnerable population - the so-called social shield - the one that generated the most impact was the Minimum Income. However, the implementation of this service has caused many problems, bringing saturation and administrative blockage. As of May 2021, 118,730 cases had been processed in Catalonia, of which almost 80% had been resolved. Of these resolved requests, only 15.6% were approved and 84.4% were denied. The total number of people receiving the minimum living income is 46,410. The Guaranteed Income of Citizenship is the main policy of the Catalan government for families without resources. Both benefits are still not complementary and only reach a very small proportion of people in a situation of social exclusion (Taula d'Entitats de la Taula del Tercer Sector de Catalunya, 2021).

4.2 Governance impacts

Following the declaration of the pandemic by the World Health Organization, the first response of the Spanish government was the approval, on March 14, 2020, of Royal Decree 463/2020, which declared a state of alarm and granted it the authority to be competent for the management of the health crisis.

From the extension of 7 June (Royal Decree 555/2020), the presidents of the Autonomous Communities have become the competent authorities delegated to manage this draft in the respective territories. Health systems were declared central in the management of crisis, competence of the Autonomous Communities, and "co-governance" rules were established between the State and the communities in order to manage the restrictive measures, while local governments remained invisible throughout the emergency management.

Local governments, despite their invisibility, have become instrumental in mitigating the effects of the pandemic on the social sphere, but also on health, economy, culture and education, using their experience in these fields, their proximity to the needs of the community and their knowledge of the territory (OECD, 2020). They have made a decisive contribution to ensuring essential public services, considering socio-territorial differences and inequalities, and at the same time to better planning and implementing recovery measures adjusted to the reality of each municipality.

In this sense, the emergency has been a major challenge for municipal public management, showing both its weaknesses, such as the limited digital transformation of the public administration, and its strengths, in terms of proximity and capacity for anticipation (Institut d'Estudis Regionals i Metropolitans de Barcelona, 2021).

The Barcelona City Council, the Metropolitan Area of Barcelona or the Barcelona Provincial Council, like the rest of the public administration, was not prepared to do that in the face of an emergency like the one we have experienced. However, Covid-19 has meant one forced experimentation and learning in the forms of governance that point to suggestive path to deal with complex emergencies.

In terms of the agility of the response, the reaction of the Spanish state was on delay once community transmission was detected in Italy, as has been the case in other European countries. In this context, Barcelona City Council reacted quickly and even in advance. At first, this agility was made possible by the anticipation of the municipal government, a consolidated and flexible management structure, and the intensity of dedication of its staff.

It has been shown that in most cases, the success of the policies and actions depended to a great extent on the level of governance decentralization. The existence of several governance bodies in the same territory can sometimes imply an overlap in actions. However, it is worth noting that in the case of Barcelona, all the agents interviewed agreed on that the decentralization of governance facilitated the implementation of actions in a more flexible, fast, and efficient way adapted to the local needs of the territory. However, a certain centrality also allowed for greater capacity to negotiate with the state, for example.

Given the territorial complexity of the region and the socio-economic and demographic diversity of the territory, the multi-level territorial structure was essential to deal with the pandemic and implement policies according to local needs. This is the case of the Barcelona Provincial Council, which made it possible to coordinate efforts and ensure the correct application of the actions in the most efficient way possible in all the municipalities in the region.

In the same line, cross-sectoral collaboration between the different bodies of public administrations was intense and essential for the identification of the main problems, the coordination of these in the implementation of policies and thus avoid any overlap of the actions taken.

Although the territory is already characterized by a strong involvement of stakeholders, associations, and public administrations in decision-making, during the pandemic this collaboration has multiplied. The different stakeholders interviewed said that the situation called for this greater collaboration in order to mitigate the effects upon the society as a whole. One of the main lessons we learnt from the crisis is the need to take advantage of the first-hand information that stakeholders can provide to identify the problems of society. In this way, stakeholders such as the Third Sector Board call for greater presence and recognition of their role in the debate and design of public policies.

4.3 Financial impacts

Funding the policies to mitigate the impacts of the pandemic required the efforts of the various public administrations to readjust public budgets to the state of emergency.

In addition, one of the legacies of the great crisis of 2008, the high public debt, must be borne in mind. Despite the great efforts made to consolidate public finances, efforts of the Catalan Government made in recent years (with a reduction of the deficit of 89%, between 2010 and 2018, equivalent of € 8,099M), the short-term fiscal efforts to respond to health challenges and economic crisis will aggravate the situation of public accounts. A prudent attitude advises for a medium-term consolidation strategy to regain sufficient room for manoeuvre to be able to deal with new adverse situations.

In most cases, the different public bodies made mainly use of internal and accumulated funds. The participation private actors on financing these policies are quite unusual. Thus, in a context of lack of external funding resources, the efficient management of public administrations to obtain sound accounts is crucial to deal with emergencies such as the pandemic as the major of Esplugues de Llobregat and the delegate of International Relations of the Diputació de Barcelona, Pilar Diaz claimed.

In the case of the Metropolitan Area of Barcelona, the overall direct costs of the measures (executed or planned to be executed) accounted for 90 million euros. Of these, the most important item is indeed the

Social Shock Plan, followed by economic recovery measures - budgeted for 30 million, measures for adapting the public space - for 15 million euros, and the culture shock plan - for 10 million euros. To all that one must add other tax measures such as deductions or tax suspensions for terraces, commercial waste collection, bar fees and beach services, etc., summing up to about 29 million euros in indirect collecting.

5 Future policy directions

The purpose of this section is to reflect on how the impacts of the pandemic will influence future policy direction and design over the next five years.

The effects of the pandemic have highlighted the most important issues and have highlighted the shortcomings and sectors that need more attention. From a just transition perspective, the institutions have seen important socio-economic inequalities throughout the territory and, how the access to social benefits and support is not always possible and does not reach all segments of the population in the same way.

Just Transition

The effects of the pandemic have highlighted the most important issues and have highlighted the shortcomings and sectors that need more attention. From a just transition perspective, the institutions have seen how important socio-economic inequalities throughout the territory are and, how the access to social benefits and support is not always possible and does not reach all sections of the population in the same way.

- **Social cohesion.** One of the consequences of the social and economic crisis arising from the Covid-19 pandemic has been the worsening of the living conditions of those who were already in a vulnerable situation, at the same time, for the first time many people have faced situations of poverty and exclusion. This fact shows that although poverty in our country has structural characteristics, Covid-19 has aggravated the consequences and the number of people who suffer from it. According to the Taula del Tercer Sector, the 700 million euros social rescue plan needs to be implemented, guaranteeing three basic rights to a decent life (decent work, decent and affordable housing and a guarantee of a minimum income).
 - It is necessary to ensure the correct coordination between the government of the Catalan Government and the Spanish government to guarantee the compatibility between deploying the Minimum Vital Income and the Guaranteed Income of Citizenship. Also, the shock plan should be implemented to encourage employment for people in the vulnerable groups, which have many difficulties in finding work. To move in this direction, it is necessary to establish a shock plan for the long-term unemployed, to reform immigration legislation where granting of residence and work permits is becoming more flexible, so that foreigners who are in an irregular administrative situation can access the labour market with full rights, and thus facilitate their integration.
 - The public housing stock needs to be increased to ensure access to decent and affordable housing as a key measure to ensure living standards. In addition, it is necessary to maintain and expand the "relocation" program implemented by the Ministry of Social Rights to offer rental contracts to ensure that people in a vulnerable situation about to be evicted could remain in their households, as well as extending the agreement on energy poverty, signed with Endesa (the Spanish leader in the electricity, gas and water sector), to other energy supply companies.
- **Education.** The improvement of teaching quality, equity and the definition of clear pedagogical objectives are the aspects to be worked on. Confinement has shown that the education system needs to be updated: it does not have the capacity to use technology to quickly respond to all types of learning. At the same time, to ensure an inclusive, equitable and quality education and to promote lifelong learning opportunities for all who consider the skills and values needed from now on. Another key issue is equity. More efforts should be conducted to increase the resources, programs and services for the for children and young people with the aim to reduce the lack of opportunities, to acquire the knowledge, to develop a life project, and reducing the problems associated with segregation in schools.

Public investment in education must be increased and access to educational, cultural and sporting leisure activities must be guaranteed beyond school hours so that all children and young people enjoy the same opportunities in their integral development.

- **Business – Entrepreneurship.** Make easier and more flexible procedures for starting a new business. The entrepreneurial culture of the region is evident as it has been seen with one of the highest rates in Europe in terms of micro-enterprises. Thus, although the pandemic has had a strong impact on this sector, this impact must be seen as an opportunity to encourage and facilitate entrepreneurship, giving more effort to entrepreneurial support and making the associated bureaucracy more flexible.
- **Infrastructures.** The competitiveness of the region relies on new demand-based infrastructure model to avoid empty trains or airports and that connects the urban and rural parts of the territory. For instance, *Foment del Treball (Labour Promotion)*, one of the main employers' associations in Catalonia, has compiled a catalogue of more than a hundred pending works to gain competitiveness, including the Mediterranean Corridor, pending investment in suburbs, the B-40 or Barcelona orbital motorway, road, and rail access to ports of Barcelona and Tarragona, and the pending splits of the N-II, N-340 and N-240. The Chamber of Commerce has quantified the funding needs to deal with all these infrastructures in 45 billion by 2030. However, the problem is that the region that has not the power to directly act on this issue, as infrastructures depend on the Spanish government, which does not execute all the budgeted investments. Between 2001 and 2018, 8 billion less was invested than expected.
- **Public Health System.** The Catalan public health system has been a great example during the pandemic. At the same time, it has highlighted the need to improve primary care and enhance public health. Experts say that the reality - now in the form of a pandemic - requires rethinking public policies, redefining goals, and reorganizing welfare levels to face the next decade in a sustainable way. European funds for reconstruction can be useful for the remuneration of professionals and for investment in "stuck" projects such as the renovation of health facilities.

Green Transition

The implications of the green perspective are clear. In fact, the sustainable development goals that the institutions had set before having been reformulated due to the pandemic. For instance, the *Diputació* of Barcelona recognizes that this crisis has informed them about how the local consequences achieves all the fields of the society: the public health, at first term, but also the political field, the economic and the social and that will mark a watershed at the Diary 2030. Therefore, the SDGs will be redefined according to these priorities (Diputació de Barcelona, 2020).

If until now some efforts to reduce emissions were made, now there is even more need to implement plans that promote the energy transition and limit emissions by "taking advantage of changes in mobility, production, and consumption due to the pandemic", as also claimed Hector Sitovsky (Metropolitan Area of Barcelona).

The new policies will be aimed at encouraging the energy transition; the possibility of developing a decentralized energy production model where renewable energies and hydrogen generation have a greater weight and the creation of intelligent networks and systems that allow it; the transition to decarbonised urban, metropolitan and interurban transport systems as is already being applied in Barcelona's metropolitan transport; intelligent waste management; the preservation of biodiversity and ecosystems; and the commitment to a circular economy in the business models of the most important sectors in the territory, such as tourism, industry and trade.

Smart Transition

Regarding Smart transition, and digital conversion in the territory was already a priority before the pandemic, but the pandemic has shown that to achieve it, more efforts must be made, and actions must be taken from different angles. For example, the digital gap has been one of the biggest problems for the ability to quickly respond to the labour, productive, educational, and social emergencies required by the pandemic. Then, it

is necessary to design an impact plan on the digital gap to ensure access to the Internet for all people as a fundamental right.

- The **digitalization** of the region in all its areas is now more than ever a key priority. First, to understand that the real digital transformation is not to reproduce a business on the online channel but to rethink it digitally and to achieve this we will need to invest more in training, capturing, and retaining talent. And to achieve this, it is necessary to "make all society understand that technology is the key, without leaving anyone behind", as Pilar Diaz (Esplugues del Llobregat City Council and Barcelona Provincial Council) commented.
- **Research.** Even if the region is seen as one of the leading regions in the production of knowledge in the south of Europe, this position can be clearly weakened due to the COVID-19 crisis. Thus, it now requires more efforts to improve the ability to transfer knowledge to companies to generate value, foster the values of research and science from basic education, streamline bureaucracy in Catalan universities and to facilitate the conditions for attracting and retaining researchers who are severely affected by the low weight of research in GDP in Spain (below 2%) and the lack of a favourable taxation to R&D.
- **Technology.** "Barcelona has lived 25 golden years of attracting talent, big multinationals in the technology sector, (...), however, now we have to rethink many things, that other cities are advancing, in an increasingly global and competitive world even within the pandemic context ", highlighted Javier Villamayor (Diputacio de Barcelona). To take advantage of these bases and improve the competitiveness of the whole territory, policies now include improving training, attracting, and retaining talent, and greater public and private investment in the development of new technologies and in R&D.

Indeed, in a globalized world where industrial relocation was until now the reference, in the competition with emerging economies, reindustrialization may be seen as key industrial policy. In Catalonia, the industry is losing ground, the closure of Nissan being the latest example. In 2000, according to IDESCAT data, the industry contributed with 24.5% in the Catalan GDP while in 2019 this contribution was only of 17.7%. The challenge is to encourage investments in new technologies that favour the creation of jobs in a high value-added manufacturing sector, which favours better working conditions in terms of wages and stability, compared to the services sector.

Most of the proactive policies and actions carried out in the province of Barcelona can certainly be replicated in other regions of the EU. Despite the particularities of the Catalan territory, their coordination and application can be easily exported. For example, the creation of services for the care of homeless people or families with housing difficulties based on a need's diagnosis in the territory, collaborating with local authorities in the creation of four spaces for the care of these groups where imminent needs have been detected. In this case, an example of cooperation is offered by the different entities and public bodies (i.e., Generalitat de Catalunya, Diputacio de Barcelona, Municipalities, Agència Catalana del Turisme) taking advantage of the synergies and knowledge of the territory (in this case from the tourist infrastructures for an alternative use) in an emergency context. The region and its institutions have activated different successful strategies to help specific groups like, women, elderly and people with mental health problems. A good example of it, is the service VinclesBCN of the Social Rights Area of the Barcelona City Council that wants to strengthen the social relations of elderly people who feel lonely and improve their well-being through technology and the support of social revitalization teams. The City Council will lend older people who are users of the service a tablet with the application installed and with an internet connection to be able to use the Vincles BCN application (Ajuntament de Barcelona, 2022).

We also find good examples that aimed to reduce the economic impact on the productive sector and trade. For example, Talent and Technology – Jobs (TTT - *Treball, Talent i Tecnologia*) (Diputacio de Barcelona, 2022), is a local public policy based on the promotion of technology and the support for the digital transition of people, companies and institutions, addressing the employment opportunities of technological developments and the digital transition in the labour market. In the same line, a good proactive policy, especially for regions where the presence of local markets and local trade is important, is the program of support for the digitization of municipal markets for the implementation of digital platforms for online sales and home service, technological capacity control systems and to provide local markets with health control systems equipment.

Given that in this study we have focused on proactive short-term policies with the specific aim to mitigate the impacts of the pandemic, most of these policies will not be maintained beyond the different waves of the pandemic. However, most policies focused on the digitalisation of public administrations, trade, tourism, industry, and the economy in general or designed to facilitate the energy transition and the sustainability of economic activity will remain in place, for medium and long term, as they were already part of the region's priorities and have become even more necessary with the pandemic.

Although the region has historically been characterized by strong collaboration between stakeholders and governance bodies, they may be even more present in decision-making and planning of new reorientation strategies. To strengthen this collaboration, it is important to recognize the role of stakeholders. A way to do it is with the approval of the Third Social Sector Law as to guarantee its viability and economic solvency as a key part of the Catalan welfare model. Indeed, as the Taula del Tercer Sector recommends, it is also necessary to continue developing the measures included in the Agreement for a Social Catalonia, signed by the Catalan Government, the Board of Third Social Sector Entities and the Business Confederation of the Third Social Sector which includes about eighty proposals to strengthen the system of services and social protection so that it becomes a strong pillar of the Welfare State alongside health and education, and, facilitate the third social sector access to European Next Generation funds to make it part of public policies aimed at reconstruction and social rescue.

Despite the fact that European regions have shown their resilience and enhanced cooperation efforts to deal with the urgency of the crisis, the ability to react to an emergency or crisis could be further enhanced by a greater territorial cooperation. In fact, all the stakeholders interviewed agreed that a better cooperation and interaction between the different institutions is needed and should be further fostered. If until now the sharing of good practices was probably more in the hands of the supranational bodies, it would be necessary to consider the intermediate and local administrations and create opportunities and platforms for them to collaborate. Examples of policy sharing tools and platforms are the Local Experiences Bank or the Cities for Global Health platforms.

The Local Experiences Bank is an online platform promoted by the Provincial with the aim to deal with COVID-19 where municipalities can share their actions (Diputació de Barcelona, 2022). Some examples that can be found in the platform are: the recovering plan of *Esplugues del Llobregat*; the local reactivation plan of *Viladecans*; the Socioeconomic Reactivation Plan of *el Baix Llobregat*; the Post-COVID-19 strategy of *Cerdanyola del Vallès*; the Urban resilience office of *Mataró*; the plan *Transform yourself* to promote economic growth in *Igualada*; the Recovering strategy of *el Prat del Llobregat*; the Economic and Social Reactivation Plan of *Vilanova i la Geltrú*.

In the same line, the project "Next Diba" provides a space to share and respond to the challenges and opportunities brought by approving the European Next Generation EU funding (Diputació de Barcelona, 2022). According to Ms. Diaz (Esplugues del Llobregat City Council, Diputació de Barcelona) "the main concern is that the funds also reach the smallest municipalities. Thus, with this project, the smaller municipalities will have technical support to apply and efficiently use the Next Generation funds".

6 Regional recommendations

This final section seeks to provide applicable guidelines for policy and decision makers at multiple levels of governance to facilitate the analysis of future crisis.

The recommendations are structured as follows: (i) identification of the best proactive policies to be exported to other regions; (ii) governance recommendations; (iii) territorial recommendations; and (iv) funding recommendations.

6.1 Policy Recommendations

Here we present some examples of best practices to capitalise on the Covid-19 pandemic on local and regional level and/or to mitigate social consequences of containment measures presented in the above tables in Section 3 by policy area. These are clear examples that could be easily exported to other regions in Europe.

Just Transition

- The creation of temporary accommodation and services provision for homeless people, vulnerable groups, and families in Barcelona and in other municipalities of the Metropolitan Area. Based on a needs diagnosis in the territory, the Barcelona Provincial Council has collaborated with local authorities and associations (like the Catalan Agency of Tourism or Caritas) in the creation of four spaces: in the case of the city of Barcelona, 200 tourist apartments were used to accommodate vulnerable families whose homes do not meet the conditions to endure confinement; one pavilion of Fira de Barcelona in Montjuïc was available for homeless people and people in emergency, initially accommodating 150 people.
- The Local Telecare Service provided by the Provincial Council of Barcelona has set up a free helpline for elderly people, who were not previously users and who are in a situation of vulnerability, isolation or risk, which were previously identified by the local social services.

Green Transition

- The Zero Strategy aimed to respond to the current needs of the tourism sector due to the pandemic. The strategy maintains the spirit of empowerment of tourism that values the destination, that consumes the local and respects the environment, guaranteeing its social, economic, and cultural sustainability. It is focused on supporting the tourism sector in the Barcelona regions, collaborating with operators and carrying out communication and inspiration actions for the end customer, especially in the local market (Catalan, Spanish), always in collaboration with other institutions such as the Catalan Tourism Agency, Turisme de Barcelona and local and regional tourism management agencies.

Smart Transition

- The project TTT (Trellat, Talent i Tecnologia – Jobs, Talent and Technology) led by the Diputació de Barcelona whose aim is to address the employment opportunities involved in technological developments and the digital transition in the labor market is divided into four axes: i) analysis and diagnosis; ii) strategic alliances between companies and stakeholders; iii) competence development for people; and iv) boosting productive capacity and transforming the business fabric.
- Support for the digitization of municipal markets created to strengthen their role as suppliers of fresh and local products close to the population and to increase their digital presence through online sales platforms.

6.2 Governance Recommendations

The following recommendations can help decision-makers at any level of governance to coordinate and collaborate.

- **Do not leave the socioeconomic problems that have been identified due to Covid-19 crisis for the next elections.** Despite the serious humanitarian and socio-economic consequences of the pandemic, it has provided an opportunity to detect the weaknesses of the public sector in the region, such as the limited digital transformation and not capitalising enough existing synergies between different entities. In this sense, it would be necessary to take advantage of the situation to resolve these weaknesses right now in the economic and public administration reconversion and transformation programs and not to leave them in a drawer until the next elections.
- **Encourage a greater decentralization at the local (intermunicipal) level.** Use of policy sharing platforms infrastructure as a mechanism for further collaboration, awareness, capacity building, and knowledge exchange to build a common understanding between public workers and policymakers operating at different implementation stages and scales. The existence of several governance bodies in the same territory can sometimes imply an overlap in actions. Given the territorial complexity of some regions, the multi-level territorial structure is essential to deal with daily issues and more complex challenges like the pandemics according to local needs. The decentralization of governance facilitates the implementation of actions in a more flexible, fast, and efficient way adapted to the local needs of the territory.
- **Advance on a multilevel organization in which decision spaces are shared.** The actors interviewed believe that more opportunities need to be created to bring together the different local issues concerning all European regions. In the same way, the creation of platforms to present and share good practices across regions and countries would be crucial to deal with future economic and social challenges. At the European level, they consider that local issues are considered, but from a country or regional perspective, which makes it difficult to understand the diversity of territorial realities in each of the regions.
- **Give more weight to different stakeholders.** Formally integrate the point of view of non-profit associations and social workers in the planning of recovery strategies and structural changes of the different governing bodies when designing recovery plans and structural reform proposals, as they know first-hand the problems and the societal vulnerabilities.
- **Encourage greater agility, flexibility, and the digitization of public administrations.** Among these priorities, the most urgent is the transformation of the administration of government institutions favouring greater flexibility, agility, and the digitalisation of administrations. To do so, it is also necessary to reconsidering the level of decentralization from the central government. However, improving the efficiency of public administrations involves opting for the creation of platforms and spaces for co-governance that make it possible to take advantage of the synergies created between the different public bodies to avoid overlaps and duplications and speed up problem-solving.

6.3 Territorial Recommendations

The following recommendations should help to further consider the territorial cohesion in the European context:

- **Take into account local entities and stakeholders in the design of European policies.** To overcome future crisis and face the new and old challenges at European level, greater integration of local authorities and non-profit associations into policymaking within the European Union should be encouraged since social cohesion problems and vulnerabilities can be extremely diverse within each region.
- **Consider the rural-urban differences that coexist in the same territory and require an adapted technical action and support.** In regions where there is a double rural-urban reality, they must offer the same opportunities and greater technical and administrative support to alleviate the different problems in terms of internet access, digitization, infrastructure, mobility, population aging, etc.
- **Apply a metropolitan point of view to the management of social problems that go beyond the city of Barcelona.** The regions that have large cities with a very important economic global weight and density, as is the case of the city of Barcelona, must not forget that their success and attractiveness go beyond the borders of the city. In this sense, the policies tackling social cohesion, accessibility or infrastructure must be applied within a vision that goes beyond municipal boundaries and includes metropolitan and regional perspectives in its design.

6.4 Financial Recommendations

The following recommendations can help decision-makers at any level of governance in the efficient use of fundings.

- **Take into account the point of view of the municipalities in the distribution of NEXT generation funds to efficiently use them according to the real needs of their citizens.** All the actors interviewed agree about the fact that NEXT generation funds will be essential to recovery and to preparing for new challenges and new crises that may arise beyond the pandemic. They also highlight that the lack of adaptation to the local context can be a hindrance to the effective and efficient use of funds, so the communication and consideration of local needs (municipal, county, etc.) are extremely necessary. For this reason, some of the administrations, such as the Barcelona Provincial Council, have activated a platform to accompany all the town councils in the region. A very useful tool especially for municipalities that have fewer resources or skills to apply for and access funds.
- **Encourage efficient public management that achieves sound accounts to deal with potential emergencies in the future.** Another factor that can hamper the efficient use of the funds is the lack of flexibility of the bureaucratic public systems. A problem that has been exacerbated during the pandemic and has therefore served to devote more effort to its conversion. To improve their efficiency, the digitalisation of the system and coordination to avoid overlaps should be encouraged.

7 References

- Ajuntament de Barcelona, 2020. *Barcelona data sheet 2020 - Main economic indicators*, Barcelona: Barcelona Activa.
- Ajuntament de Barcelona, 2022. Available at: <https://ajuntament.barcelona.cat/ca/>
- Ajuntament de Barcelona, 2022. *VinclesBCN*. Available at: <https://ajuntament.barcelona.cat/personesgrans/es/content/vincles-bcn-0>
- Arauzo-Carod, J.-M., 2021. A first insight about spatial dimension of COVID-19: analysis at municipality level. *Journal of Public Health*, 43(1), p. 98–106.
- Area Metropolitana de Barcelona, 2020. *Area Metropolitana de BarcelonL'AMB, l'Ajuntament de Barcelona i la Diputació de Barcelona signen un acord per una reactivació econòmica conjunta del territori per contrarestar els efectes de la pandèmia*. Available at: <https://www.amb.cat/web/amb/actualitat/sala-de-premsa/notes-de-premsa/detall/-/notaprensa/l-amb--l-ajuntament-de-barcelona-i-la-diputacio-de-barcelona-signen-un/9891839/11696>
- Area Metropolitana de Barcelona, 2022. *La institució*. Available at: <https://www.amb.cat/web/amb/la-institucio>
- Cambra de Comerç de Barcelona, 2020. *Informe Territorial Demarcació de Barcelona*, Barcelona: s.n.
- Cambra de Comerç i Indústria de Barcelona, 2022. Available at: <https://www.cambrabcn.org/>
- Càritas, 2022. Available at: <https://www.caritascatalunya.cat/>
- CCOO, 2022. [En línia]
Available at: <https://www.ccoo.cat/>
- Diputació de Barcelona, 2020. *Impacte de la COVID-19 en el teixit empresarial de la demarcació de Barcelona*. Issue https://www.diba.cat/documents/36150622/322259167/Presentacio_Impacte+COVID-19_Estruc.
- Diputació de Barcelona, 2021. *Informe econòmic local Província de Barcelona 2021*, Barcelona: s.n.
- Diputació de Barcelona, 2020. *Impact of the COVID-19 at the Diary 2030 at the local field*. [En línia]
Available at: <https://www.diba.cat/en/web/ods/covid-19>
- Diputació de Barcelona, 2020. *Informe sobre l'actuació de la Diputació de Barcelona durant l'estat d'alarma*, Barcelona: Diputació de Barcelona.
- Diputació de Barcelona, 2022. *Banc d'experiències locals*. Available at: <https://www.diba.cat/es/web/atencio-als-ajuntaments/-/banc-d-experiencies-locales-davant-el-covid19>
- Diputació de Barcelona, 2022. *HERMES - Informació Estadística Local*. Available at: <https://www.diba.cat/hg2/>
- Diputació de Barcelona, 2022. *Institució*. Available at: <https://www.diba.cat/en/web/ladiputacio/institucio>
- Diputació de Barcelona, 2022. *Next Diba*. Available at: <https://www.diba.cat/en/web/next-diba>
- Diputació de Barcelona, 2022. *TTT, treball-talent-i-tecnologia*. Available at: <https://www.diba.cat/en/web/economieslocals/treball-talent-i-tecnologia>
- ESPON REGICO TOOL, 2022. Available at: <https://regico.espon.eu/regico/tool>
- Foment del Treball, 2022. Available at: <https://www.foment.com/>
- Generalitat de Catalunya, 2020. *Pla de reactivació econòmica i protecció social (CORECO)*. [En línia]
Available at: <https://drac.cultura.gencat.cat/handle/20.500.12368/15524#page=1>
- Generalitat de Catalunya, 2022. *La Generalitat*. Available at: <https://web.gencat.cat/ca/generalitat/>
- Generalitat de Catalunya, 2022. *Portal de dades obertes: seguiment Covid-19*. [En línia]
Available at: <https://analisi.transparenciacatalunya.cat/browse?tags=covid19&page=3>

Generalitat de Catalunya, 2022. *Registre de grups d'interès de Catalunya*. [En línia]
Available at: <https://governobert.gencat.cat/ca/grups-interes/>

IDESCAT, 2022. Available at: <https://www.idescat.cat/>

IDESCAT, 2022. *covid 19*. Available at: <https://www.idescat.cat/dades/covid19/>

INE, 2022. *Instituto Nacional de Estadística*. [En línia]

Available at: <https://www.ine.es/>

Institut d'Estudis Regionals i Metropolitans de Barcelona, 2021. *La metròpoli (Post)-COVID Impactes, escenaris i reptes. Anuari metropolità de Barcelona 2020*, Barcelona: s.n.

La Creu Roja, 2022. Available at: <https://www2.cruzroja.es/web/creu-roja>

Observatori del Treball i Model Productiu, 2022. Available at:

https://observatorit treball.gencat.cat/ca/recursos/dades_estadistiques/

OECD, 2020. *OECD Economic Outlook, Volume 2020 Issue 1. París: OECD Publications*, Paris: OECD Publications.

Startup Heatmap Europe, 2022. Available at: <https://startupheatmap.eu/>.

Taula d'Entitats de la Taula del Tercer Sector de Catalunya, 2021. *L'impacte de la Covid-19 en els diferents àmbits d'actuació del tercer sector social de Catalunya*", Barcelona: Taula del Tercer Sector.

Taula d'Entitats de la Taula del Tercer Sector de Catalunya, 2022. [En línia]

Available at: <https://www.tercersector.cat/>

UGT, 2022. Available at: <https://www.ugt.cat/>



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