

Technical Assistance – Market Studies of Pipeline and Stakeholders

Spain

October 2024

Disclaimer

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A comprehensive analysis of social infrastructure investment in nine EU countries is a key objective of the project

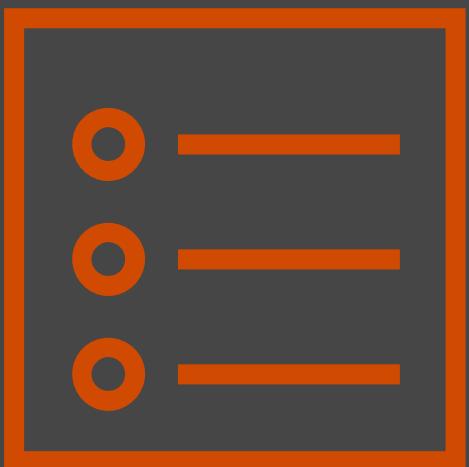
Introduction – Project in focus

The project is initiated by the **Council of Europe Development Bank** who has hired **PricewaterhouseCoopers**, through the support of InvestEU Advisory hub, to identify market gaps and potential investment opportunities, with stakeholder engagement playing a crucial role in enriching the study's findings.

 Project overview and goals	 Methodology and phased approach	 Stakeholder engagement
<ul style="list-style-type: none">The project, led by the Council of Europe Development Bank (CEB) and executed by PricewaterhouseCoopers (PwC), is financed by the European Commission under the InvestEU Advisory Hub. This signifies a strong commitment from the EU to enhance social infrastructure.The aim is to map the current state of social infrastructure investments in nine EU countries, notably including France. This involves a comprehensive assessment of market conditions, funding availability, and potential investment opportunities.The study aligns with InvestEU's broader goals to stimulate investment across the EU, specifically targeting the development and enhancement of social infrastructure.	<ol style="list-style-type: none">Phase One - Desk Research: In the initial phase, PwC conducts extensive desk research to collate and analyse existing market data and studies. This phase establishes a foundational understanding of the investment landscape in the targeted countries and identifies key stakeholders.Phase Two - Direct Market Interviews: Following the desk research, the second phase involves conducting interviews to gather firsthand market insights from identified stakeholders. This step is crucial to enrich the analysis with real-world perspectives and data.Comprehensive Evaluation: The combination of desk research and direct interviews ensures a thorough and multi-dimensional analysis, providing a detailed picture of the current market and identifying key areas for potential investment.	<ul style="list-style-type: none">The CEB and PwC are actively engaging with principal stakeholders to gather insights and respond to specific inquiries. This collaborative approach is essential for validating the study's initial findings and enriching the overall analysis with diverse perspectives.Through this engagement, the CEB seeks to build a network of informed and interested parties, fostering a collaborative environment for future projects and investments.Post-study, stakeholders will have opportunities to remain involved in ongoing dialogues and initiatives led by the CEB. This continued involvement is aimed at translating the study's findings into tangible investment actions and partnerships.

Limitations

The main project limitations consisted of reduced data availability, which was mitigated through involvement of local experts who provided estimates, and in some cases, additional data access. As well as, access to stakeholders for the phase 2 interviews, which resulted in some segments being covered by only one interview.



Introduction

Spain records above EU average GDP growth post COVID-19, with a relatively stagnant GDP per capita

Introduction – Overview of Spain's Economy

Spain's economic forecast

Between 2015 and 2022, Spain's GDP experienced a CAGR of 2,8%, which is 0,55% percentage points lower than the EU-27 average of 3,4%. However, between 2020 and 2022, Spain reported a CAGR of 6,4% in GDP growth, significantly higher compared to the EU average (5,7%). Spain's economy is expected to grow by 2,4% in 2023, with the projections for 2024 indicating that economic activity is expected to slow down to the growth rate of 1,7%. Furthermore, headline inflation is projected to keep stagnating over the forecast horizon, although upside risks persist. Spain places as the 6th EU economy and 15th economy in the world, representing approximately 1,6% of the world economy.

Based on unchanged policies, general government deficit is set to remain slightly above 3% of GDP in 2024 despite phasing out of measures to mitigate the impact of high energy prices. The debt-to-GDP ratio is projected to gradually decrease in 2023, driven by stronger nominal GDP growth, and then stabilise at 106,5% in 2024 and 2025.

Spain	2018	2019	2020	2021	2022	CAGR
Population (mil.):	46,66	46,94	47,33	47,40	47,43	0,41%
GDP tn (current EUR)	1,20	1,25	1,12	1,22	1,35	2,99%
GDP growth	2,3%	2,0%	-11,2%	6,4%	5,8%	n/a
Real GDP per capita (EUR)	24.890	25.100	22.250	23.690	24.910	0,02%
Unemployment	15,3%	14,1%	15,5%	14,8%	12,9%	n/a
HICP (annual % change)	1,7%	0,8%	-0,3%	3,0%	8,3%	n/a

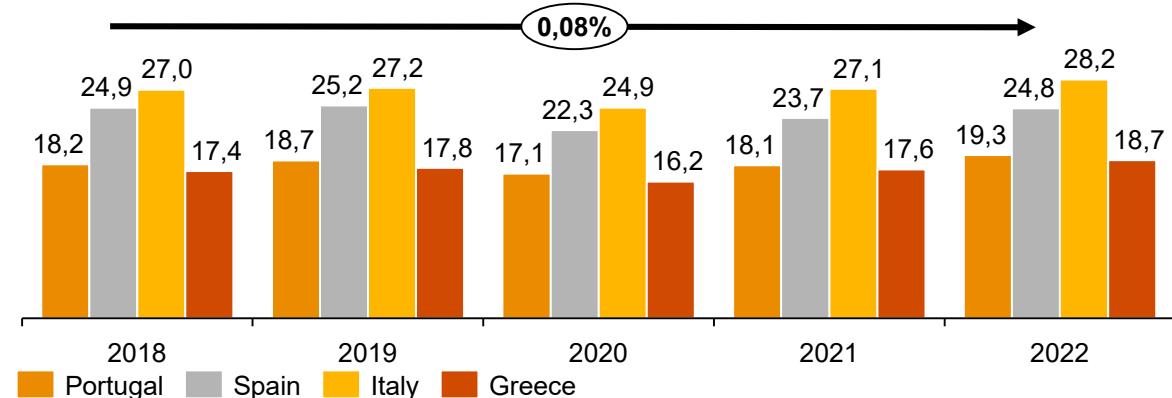
Sources: Eurostat, OECD, IMF, National Statistics, Economy, PwC analysis

GDP per capita and inflation

Spain's GDP per capita has been fluctuating, experiencing growth between 2018 and 2019 with a slowdown in 2020 due to the effects of the COVID-19 pandemic. In parallel with the observed growth in Spain's GDP (between 2020 and 2022), the GDP per capita in Spain grew by a CAGR of 3,7%, compared to the EU (3,1%). The growth rate in GDP per capita is relatively lower compared to overall GDP growth.

According to National Statistics, inflation stood at 3,1% in 2023Q1, compared to HICP inflation in the EU, which remained elevated at 6,9%. The inflation has been mainly driven by a continued increase in energy prices. However, between 2022 and 2023, both Spain and other EU countries have reported a substantial decline in inflation, mainly due to the fall in gas and electricity prices. While the EU inflation in 2023Q1 exceeded the one in Spain with a change of 3,8 percentage points, Spain has reported a slight increase in inflation at the end of 2023 (~3,3%) compared to the EU average (~2,9%). This suggests that the EU economy recovered faster from the inflation fluctuations, while Spain seems to be recovering slower.

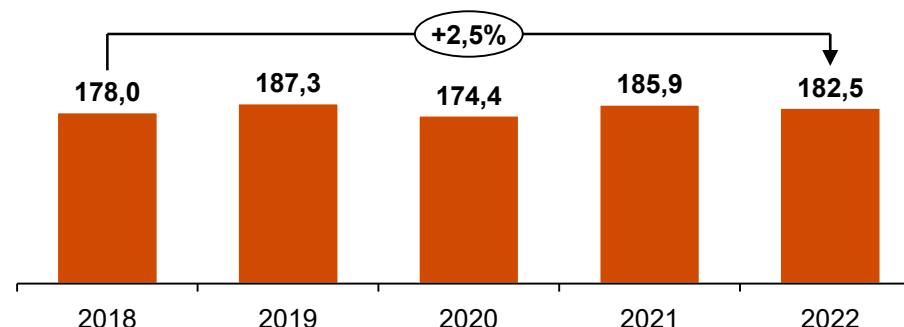
GDP per capita of Spain and a basket of countries (EUR ths.) 2018–2022



The residential and non-residential construction sector both account for approximately half of the market each

Introduction – Overview of the Construction Sector

Construction industry value, in EUR bn



In 2022, the Spanish construction industry was valued at approximately 167,35B EUR, growing by a CAGR of 2,5% between 2018 and 2022. However, in 2022, the overall industry growth declined, registering a negative annual growth rate of 1,8%. Notably, the performance of the industry is forecasted to accelerate with an anticipated CAGR of 4,8% between 2022 and 2027, which is expected to increase the value of the industry to 211,28B EUR by the end of 2027. Additionally, Spain is among the top 5 EU states in construction activity, alongside Italy, Netherlands, France, and Germany. The construction market in Spain is fragmented with a large number of operators, including key players such as Acciona SA, Elecnor SA and Dragados S, among others.

According to Eurostat, between 2010 and 2020, the number of enterprises in Spain grew by only 0,2%, totalling 379k companies. Importantly, the growth was primarily driven by an increase in enterprises in residential construction estimated at 45,4%. In contrast, the EU reported a rise of 1,6% in the number of enterprises in the construction sector in the same period, indicating substantially faster construction expansion compared to Spain.

Overall, the Spanish construction sector has a positive outlook in the long term due to new policies and improvements in construction regulations, along with government investment initiatives. This is already indicated by a rise in building permits in both residential and non-residential construction. Additionally, Spain's NRRP (2021 to 2026) is set to receive 69,5B EUR in grants to support 112 investments and 102 reforms, which will have a sizeable impact on the construction sector.

Residential and Non-Residential Construction Segments

The **residential construction segment** accounted for approximately 83,63B EUR in 2022, equivalent to around 50% of industry aggregated value. The stock of dwellings equalled around 26,6M in 2021, a 0,35% change from the year prior at approximately 25,98M dwellings. In 2021, housing investment equalled around 5,8% of GDP, above the EU average. Despite challenges due to higher interest rates and material prices, building permits in the residential sector rose by 44,2% in 2022 compared to 2021.

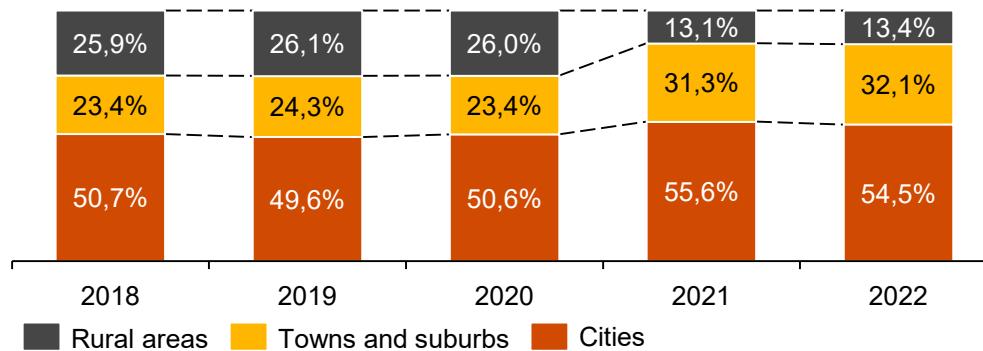


The **non-residential construction segment** accounted for the industry's largest proportion in 2022, with total revenues of 83,72M EUR, equivalent to approximately 50% of the industry's aggregated value. Nevertheless, the number of building permits rose strongly in the non-residential building sector by 41,7% in 2022 compared to a year prior.

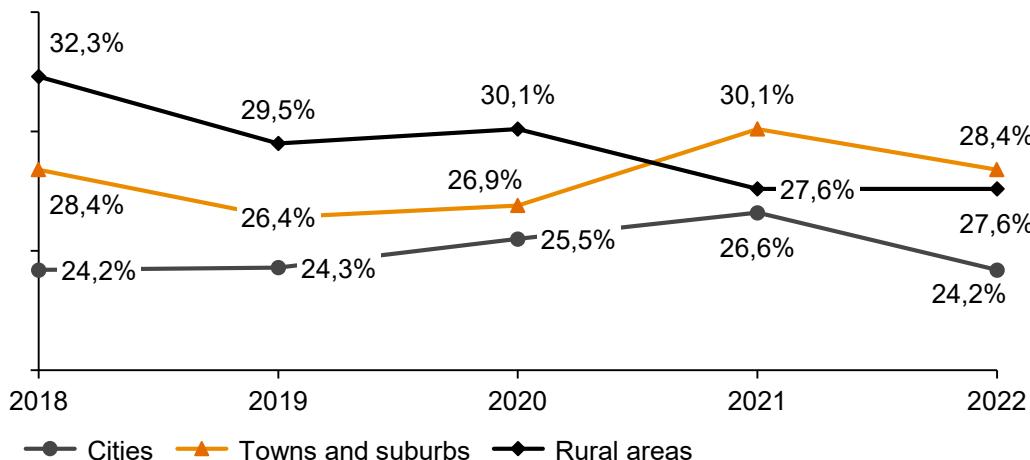
Negative trend in demographics in terms of an ageing population and increasing rate of population at risk of poverty

Introduction – Overview of Spanish population

Share of population, by degree of urbanisation, in %



People at risk of poverty or social exclusion by degree of urbanisation, in %



According to National Statistics, Spain's current population stands at 48,2 million, projected to rise to 48,6 million by 2025. Among the entire population, 54,5% (25,85M) are reported to reside in cities, while 32% (15,22M) live in towns and suburbs. Notably, over the past four years, the percentage of people in towns and suburbs has experienced a substantial growth of 33,5%, while the actual rural population (6,35M) has declined significantly, at a rate of 92,9%.

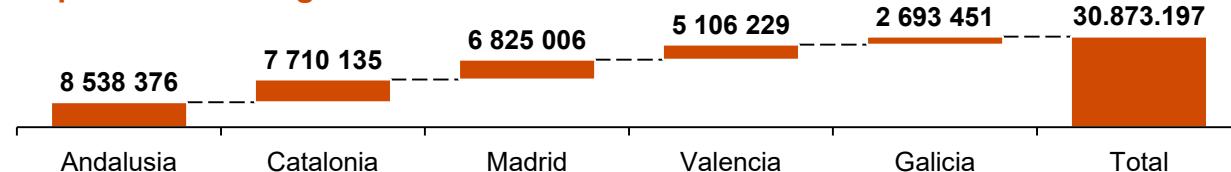
The combined population of the largest 4 autonomous communities, namely Andalusia (8,5M), Catalonia (7,7M), Madrid (6,8M) and Valencia (5,1M), amounts to around 28M people, representing almost 60% of the total population in Spain.

In Spanish towns and suburbs, 28,4% of the population is at risk of poverty or social exclusion, a substantial increase from the 26,4% recorded in 2019. Similarly, in rural areas, Spain's population experiences poverty or social exclusion at a rate of 27,6%, while in cities this percentage goes down to around 24,2% of the total population being at risk of poverty. Although in 2022 the share of people at risk of poverty in Spain (26%) has been one of the highest in the EU, it is decreasing across all degrees of urban areas, especially in rural areas, due to the urbanisation trend.

Population split by rural and urban, 2022



Population in 5 largest autonomous communities



2

A photograph of a modern apartment building with a blue and orange facade, featuring multiple balconies with black railings. The building is set against a clear sky.

Affordable social housing

Spain faces an **increase in unaffordability of housing**, with a **large gap in social housing**

Social and affordable housing

Key conclusions – Phase 1

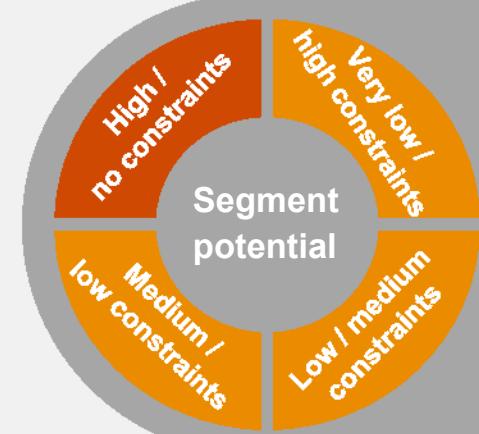
- In contrast to most EU countries, Spain's social housing model has a distinctive feature of being almost entirely owner-occupied, rather than rental in nature
- One of the key identified characteristics of the market is empty dwellings. According to the National Statistics Institute (INE) in 2021, approximately 3,8M dwellings were classified as empty
- The growth in dwelling prices has outpaced wage growth over the past 7 years
- 48,8% of house renters in Spain are at risk of poverty (EU average at 32,3%)
- According to a government report, Spain would need to construct an additional 2M social housing units within the next decade to meet the demand

Key conclusions – Phase 2

- Public-private collaboration models are being explored to address Spain's social and affordable housing needs
- Key challenges include a lack of available land for Officially Protected Housing (VPO), particularly in high-demand urban areas. Although public administrations own land, it is not always efficiently made available
- In many urban areas, average rental costs are increasing faster than incomes, creating a growing gap in housing affordability
- Rising rental prices, are reducing affordability, especially for low and middle-income households



PwC Assessment



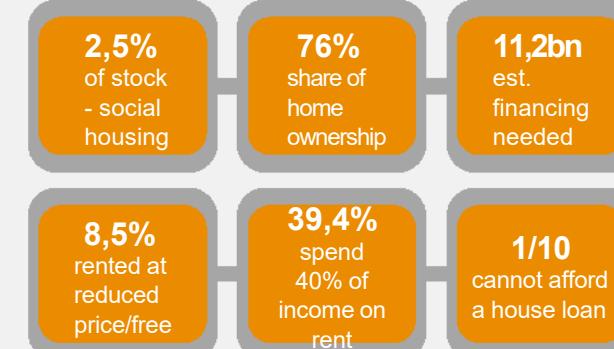
Relatively large gap with number of households that could benefit from social housing



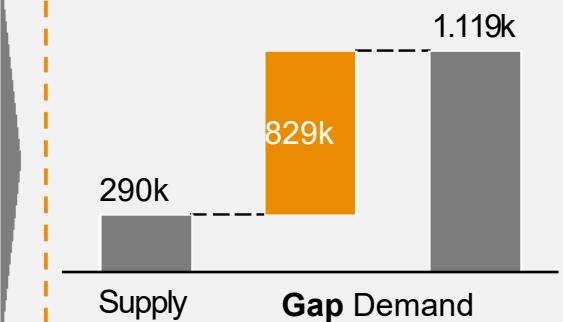
Government is pushing for conversion of old and disused buildings, and repurposing them, some of them for social and affordable housing



Key Segment Data



Gap analysis



Spain allocates one of the lowest shares of GDP towards social housing, as reflected by a low share of social housing stock

Social Housing – General Overview (1/2)

Social housing definition and overview

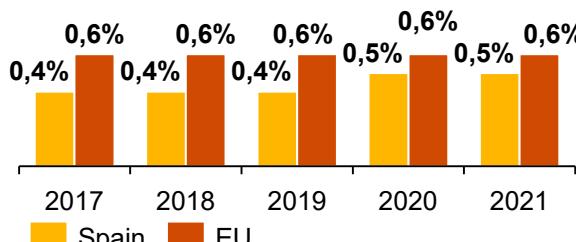
According to the Spanish Constitution, the right to housing is one of the core elements that constitutes an adequate standard of living. Social housing in Spain is legally defined as Vivienda de Protección Pública (VPP), or Publicly Protected Housing. In contrast to most EU countries, Spain's social housing model has had a distinctive feature of being almost entirely owner-occupied, rather than rental in nature. However, upcoming policies aim to boost the stock of rental houses and support access to housing for vulnerable groups, including youth.

At present, subsidised housing (VPO - Vivienda de Protección Oficial) is rented to low-income households below market prices. Additionally, VPO is prohibited from being sold at market prices for a specific period after which they transition into the open housing market.

The new Public Housing Plan (2022–2025) introduced changes to the one from 2018–2021 by putting an emphasis on adapting the programs for the rental market. Its main objective is to increase the public housing stock by assisting state administrations and their subsidiaries to subsidise up to 60% of the housing costs for properties contributing to the state housing fund.

Spain's public spending on housing is below 0,1% of GDP. Consequently, only 2,5%, of the total housing stock is dedicated to social housing (1,6% is publicly owned). Moreover, Spain has one of the lowest shares of social housing in the EU.

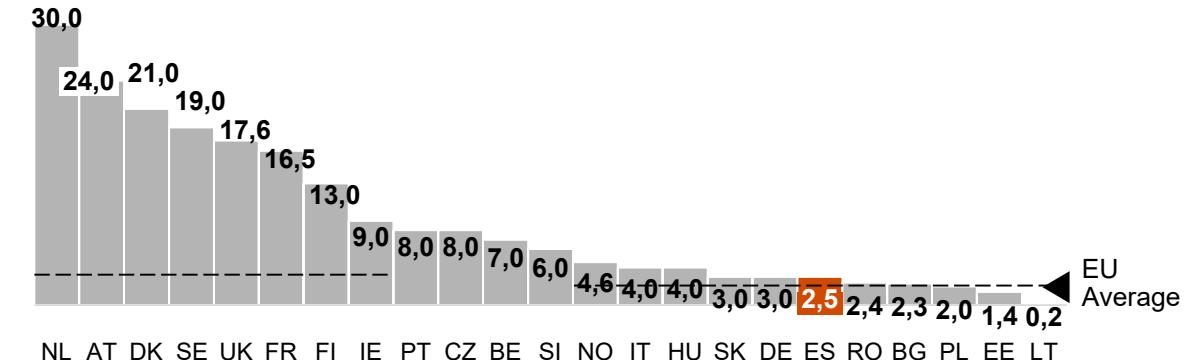
Government Expenditure on Housing and Community Amenities, % of GDP



Number of social housing units; per 100 inhabitants; per 100 dwellings

Country	Ratio	Ratio
France	7,2	16,8
EU	3,8	9,3
Spain	0,9	2,5
Portugal	0,6	2

The share of social housing in Europe, % of total housing stock



Responsibility for social housing

Management and development responsibilities are distributed across multiple stakeholders. Housing Policies in Spain give significant power to autonomous communities. The Ministry of Transport, Mobility and Urban Agenda (MITMA) is responsible for economic planning, coordination, and credit management. The Ministry's role involves developing four-year State Housing Plans with budgets and goals for the housing development. On the other hand, the autonomous communities focus on housing development and its rehabilitation, together with implementing and managing aid measures of these programmes. The Affordable Housing Observatory evaluates and monitors national strategies. Additionally, social housing project management and individual dwelling allocation are the responsibility of the Municipality Governments and their respective Housing Boards. The latter are responsible for identifying housing needs within their jurisdiction, collaborating with other stakeholders and implementing social housing programs and projects.

The provision of social housing is undertaken by:

- private developers (eligible to benefit from subsidies to build VPOs)
- public companies belonging to regional or local entities

High homeownership due to historical housing policies gradually transitioning to a greater prevalence in renting

Social Housing – General Overview (2/2)

Tenure breakdown

Spain's housing policy has traditionally emphasized the promotion of home ownership with a significant homeownership rate of 76% in 2022, equivalent to 19,8M dwellings. This rate surpasses the EU-27 average of 69,1%. The homeownership rate has been slowly declining in the past years with a total decrease of 2,2 percentage points from 2015.

One of the key identified characteristics of the market are empty dwellings. According to the National Statistics Institute (INE) in 2021, approximately 3,8M dwellings were classified as empty, and 2,5M were occasional-use dwellings. This makes sense for a tourist destination, because many property owners may keep dwellings empty for part of the year when they are not being used by tourists. The Santa Cruz de Tenerife, for instance, has the highest reported rate at 17,3%, while Barcelona and Madrid report 9,3% and 6,3% of empty dwellings, respectively.

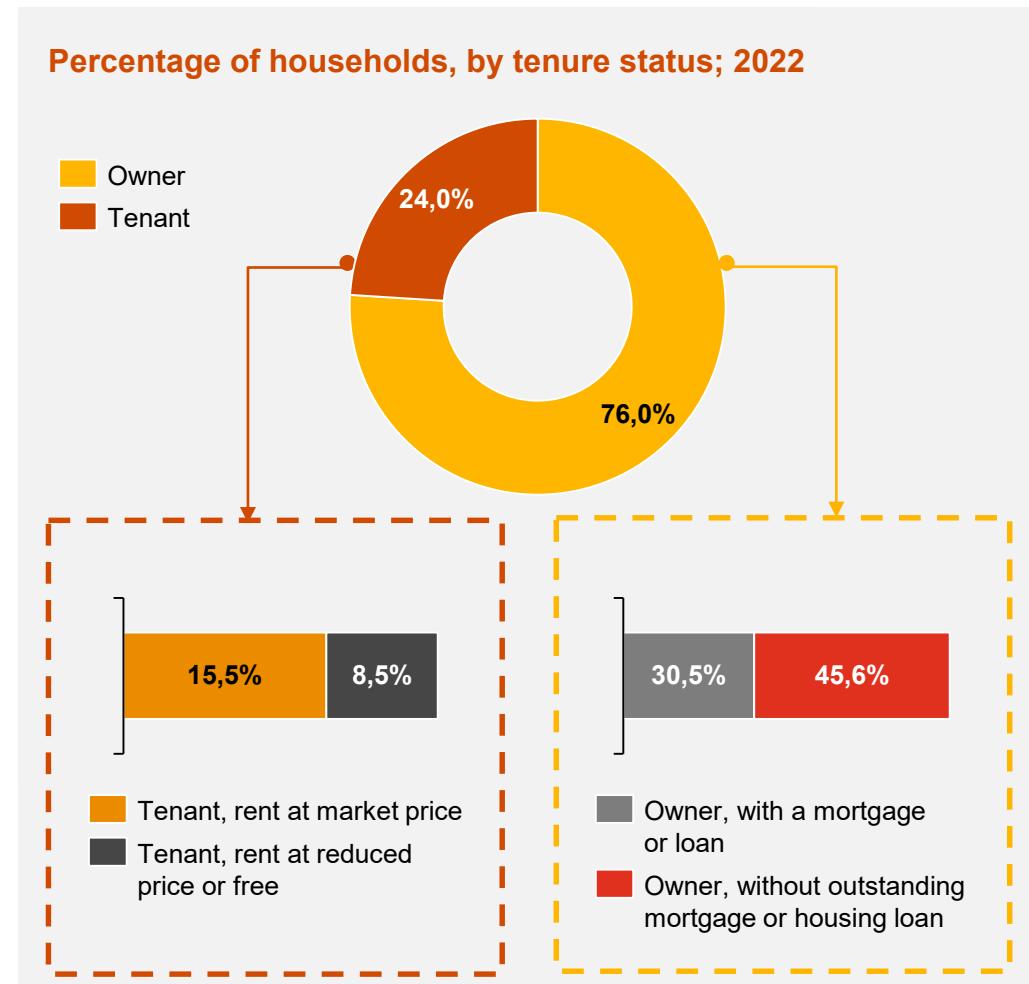
Rental market

There has been a gradual shift observed with the proportion of rented dwellings increasing to 16,1% of the total in 2021, which represents around 4,4M dwellings. This increase is mainly caused by the rising proportion of young people living in rented accommodation, partly because the employment conditions are not favourable for buying a home. The observed trend in renting among the younger generations has also been reinforced by a shift in preferences from ownership to use and greater mobility.

Out of the total tenants, about 15,5% pay rent at market price, and only 8,5% pay rent below market price, aggravated by policies aimed at promoting access to housing through ownership. Over the past years, tenants experienced a rise in rental costs of 6,4% from 2015, which is well below the average rent increase in the EU in the same period (10%).

There are several instruments in place to support buyers and renters, including:

- restructuring adjustable-rate mortgages and support,
- financial aid provided by Spain's Official Credit Institute,
- rent subsidies of up to 40%,
- discounted housing allowances and social rental housing programmes.



High unemployment, exclusion risk and increase in prices are increasing the pressure on potential buyers and renters

Social Housing – Key Issues

Economic distress impacting Spain's housing crisis

Since 2008, Spain has seen an increase in demand for low-income housing as a result of the socio-economic developments in the country, such as the high rate of population at risk of poverty, high unemployment rates, and high increases in dwelling prices.

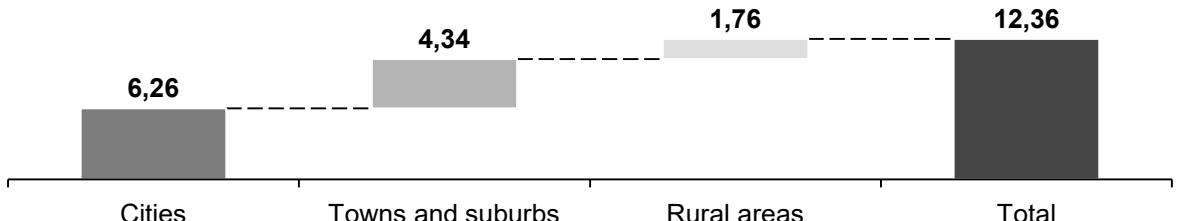
26% of the Spanish population is at risk of poverty, exceeding the EU-27 average of 21,6% in 2022. The Bank of Spain's recent report highlights that 48,8% of house renters in Spain are at risk of poverty (EU average at 32,3%). Moreover, 39,4% of tenants spent over 40% of their income on housing, underscoring the need for affordable housing solutions.

Spain has a low percentage (6,4%) of the population living in overcrowded housing, well below the EU average of 17,3%. The share of people living in under-occupied dwellings in Spain is at 58,2%, significantly surpassing the EU's average of 33,6%. Additionally, INE reports that out of the 26,6M dwellings in Spain, 14,3% dwellings are empty and 9,4% are occasionally used, while the remaining 18,5M are main residences (where people live).

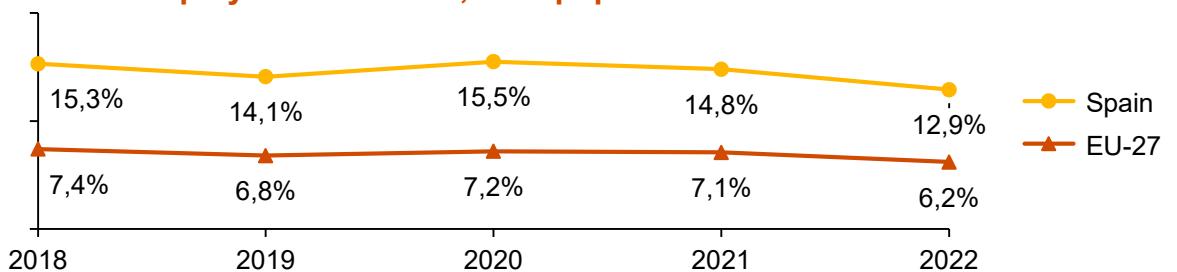
Spain's significant unemployment rate at 11,5% (2,7M active inhabitants) in August 2023 represents the highest rate among EU-27 countries (average rate of 5,9%). It has to be noted that the unemployment rate in Spain is decreasing substantially from hitting an all-time high in 2013 of 26,9%. However, the long-term unemployment rate (12 months or more) stands at 5%, significantly higher than the EU average of 2,4%. Consequently, this leads to an increased risk of poverty, which further underlines the importance of social and affordable housing in Spain's society.

Dwelling prices have grown by 42% in the annual average index from 2015 to 2022 (lower compared to the EU average of 48%). A concerning trend emerges when we consider that dwelling prices have outpaced wage growth over the past 7 years, highlighting the challenges associated with housing accessibility. Additionally, since COVID-19 and the subsequent inflation crisis, households have seen a decrease of real income and imbalances in their budgets, mainly due to increased housing costs as well as other living expenses.

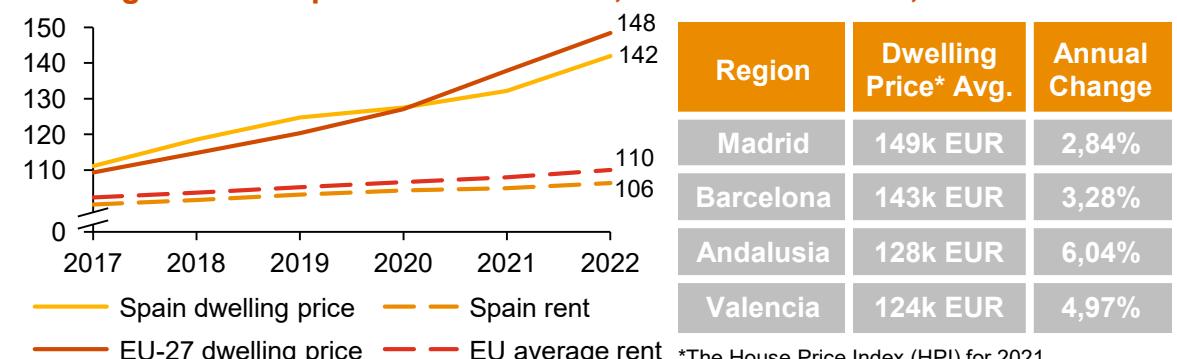
People at the risk of poverty by urbanisation 2022, in millions



Total unemployment rate YoY, % of population in the labour force



Dwelling and rental prices increase YoY, House Price Index, 2015 = 100



Approximately 10% of households cannot afford to buy a home, while 20% cannot afford to rent

Social Housing – Market Demand

The share of households having trouble paying housing bills is significant

The current social housing market dynamics as well as the socio-economic indicators described below indicate an evident need for social housing, caused by several factors. These factors may further signal housing affordability as a concern for potential homebuyers.

Around 9,2% of households are cost overburdened (slightly above the EU average of 8,7%), meaning that housing costs represent more than 40% of the total disposable household income. According to CaixaBank estimations, ~12,3% of municipalities (representing ~60% of all households) report a rent burden exceeding 30%. The share of municipalities with an average rent burden above 30% of disposable income increased to nearly 50%, especially in stressed areas (Barcelona, Madrid, Girona, País Vasco).

A substantial 20% of the Spanish population resides below 60% of the median equivalised income, slightly exceeding the EU-27 average of 18%. FOESSA (a foundation that conducts social-related research in Spain) notes that housing exclusion affects 24% of the population and assesses that approximately 4,6M people live in inadequate housing. In addition to this observation, the Observatory of Emancipation reported that only 16% of young people in Spain live independently, compared to an EU average of 32%.

Moreover, the share of people living in households with late payments on mortgage, rent or utility bills equals to 13,2% in contrast to the EU-27 average of 9,2% in 2022. Adding to the observed trend of late mortgage payments is the fact that 44,8% of the Spanish population residing in market-rate rental housing were at risk of poverty (the highest percentage in the EU). Additionally, 39,4% of the Spanish population spent more than 40% of their disposable income on housing-related payments (compared to 21,0% in the EU).

There has been a significant decrease of 22,7% in the number of mortgages in Spain, resulting in 467k mortgages granted in 2022. The catalyst for the downward adjustment, among others, was a notable increase in interest rates for new home mortgages (at 3,25%), marking an increase of more than one percentage point from the previous year's 1,92%.

Roughly 10% of households cannot afford a housing loan

This calculation examines the affordability of purchasing a 50m² home through a mortgage loan from a commercial bank, with the assumption that a maximum of 40% of household income is allocated to repayment.

For a 35-year-old individual, with a 20-year repayment period and a 20% down payment (per the bank's terms), the total cost is estimated at 104.750 EUR (or ~2k per m²). With a loan amount of 83.800 EUR and a 5,04% APR, the monthly instalment would be 502,43 EUR. This analysis suggests that home ownership is unattainable for roughly 1,87M households out of 18,7M. Additionally, considering renting an apartment with the same characteristics for an average monthly rent of 585 EUR, approximately 20% of households cannot afford this expense.

Consequently, around 20% of households (3,74M) cannot afford either renting or buying such an apartment.

Average total income per household (2022) per decile

Decile	EUR	40% HH income, EUR
D 1	700,5	280,2
D 2	1.321,2	528,5
D 3	1.481,1	592,5
D 4	1.875,8	750,3
D 5	2.161,8	864,7
D 6	2.484,3	993,7
D 7	2.840,4	1.136,2
D 8	3.416,2	1.366,5
D 9	3.839,2	1.535,7
D 10	5.826,5	2.330,6

Source: EUROMOD, National Statistics Institute (INE), FOESSA, Observatory of Emancipation, BBVA

Due to the low share of social housing, Spain allocated 1B EUR to develop the segment, thus also incentivizing private funding

Social Housing – Market Supply

Access to social housing

Social housing in Spain comprises a mere 2,5% of the total housing stock (~452k), which is substantially below the EU average (~7,5%). According to a government report, Spain would need to construct 2M social housing units and around 1,2M affordable housing units within the next decade to address the demand. This construction would encompass 65% for the development of new, reasonably priced rental properties (around 761k units) and the remaining 35% for social housing (around 442k units).

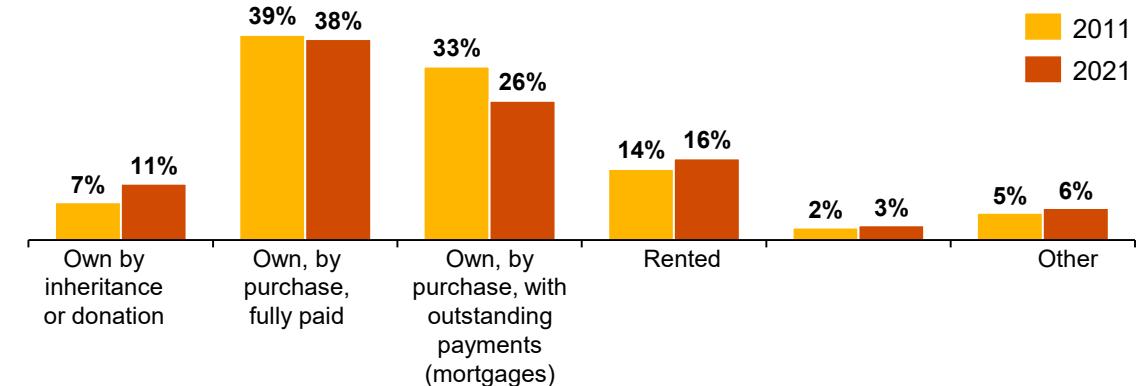
The municipalities with the highest reported housing supply shortages are spread along the Mediterranean, on the islands and around the large urban centres, especially Madrid, Barcelona and País Vasco.

Spain is among the worst performing countries in terms of the number of social housing units per 100.000 inhabitants, with 946 units (placing Spain at the bottom of the EU countries). According to the Spanish Minister of Mobility and Urban Agenda, the national housing stock comprises a mere 290k rental public housing units, with 180.000 units provided by autonomous communities, while 110.000 are provided by City Councils and dependent entities. In essence, the rental public housing stock is reported to cover only approximately 300k households (1,6% of all households). The figure is significantly lower in contrast to countries, such as the Netherlands (~30%), France (~16,8%) and Portugal (only 2%).

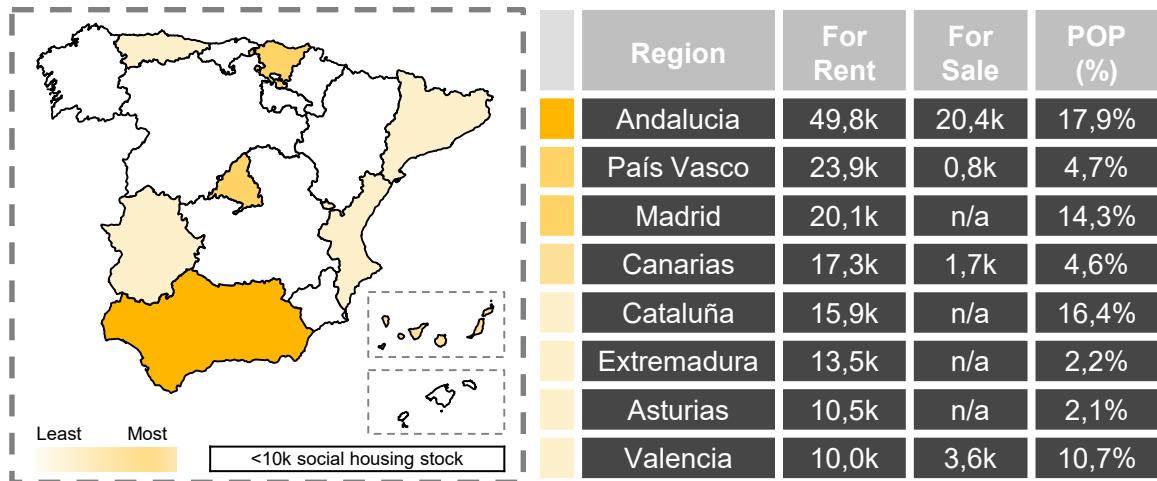
Under Spain's National Recovery and Resilience Plan (NRRP) for 2021–2026, the government has allocated 1B EUR towards the development of the social housing market through various initiatives. The program aims to incentivize private investment and improve access to finance for the construction and renovation of social housing.

The measure aims to build at least 20k new dwellings for social rental purposes and at lower prices compliant with energy-efficient criteria. It is reported that the plan has already mobilized around 60% of the planned housing, totalling 14.266 dwellings (in coordination with the autonomous communities and local councils). The data and the press reports indicate that it is expected to reach the objective to build 20.000 homes by 2026.

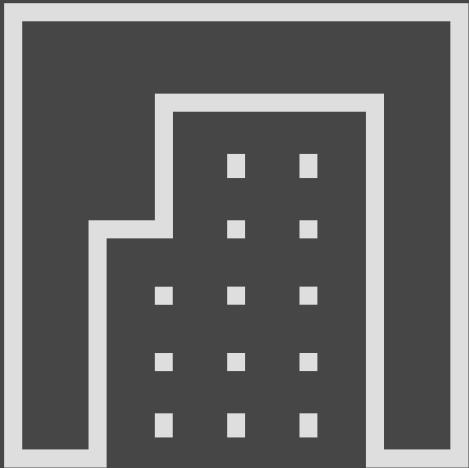
Households according to main dwelling tenancy regime (2011–2021), in %



Social housing stock for rent and for sale, by region, by population (POP)



3



Student housing

The current supply of student housing in Spain **does not meet demand**, with banks requiring high collateral for loans

Student housing

Key conclusions – Phase 1

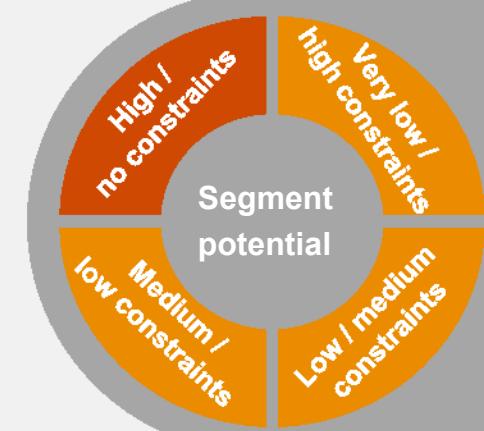
- The majority of students live in a private flat or at home, while only 6,5% are reported to reside in PBSA. Spain also has one of the highest shares of youth living with their parent in Europe, as up to 55% of 25-29-year-olds
- The sector's appeal has increased over the past years, indicated by the market entry of numerous private companies
- Since 2015, there has been an 11% increase in the student population
- There are 1.118 student residences operating in Spain, with 115.735 student beds

Key conclusions – Phase 2 (Student housing & universities)

- Stakeholders have noted that Spain is facing a significant shortage of student accommodation, with a supply-to-demand ratio as high as 1:58
- Additionally, the country faces a broader housing shortage, with over a decade of low construction, which results in a decline in rentals of private apartments
- A challenge noted by stakeholders is limited financing options, and high land costs, with banks requesting high initial capital requirements (50% LTC) while offering low leverage ratios, and 15 years maximum duration of the loans
- Most student bed in Spain are offered by private operators, while universities only have a very limited amount of beds on offer



PwC Assessment



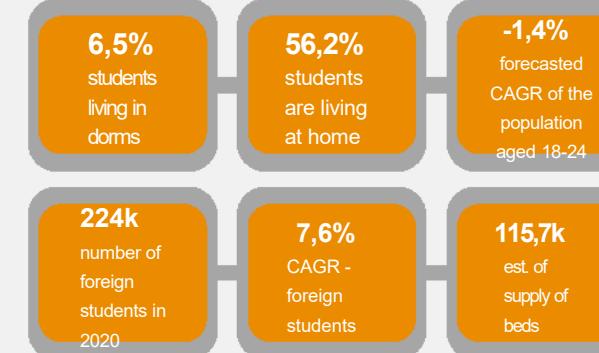
Traditional student housing is in need of renovation, with much of the existing stock being of poor quality



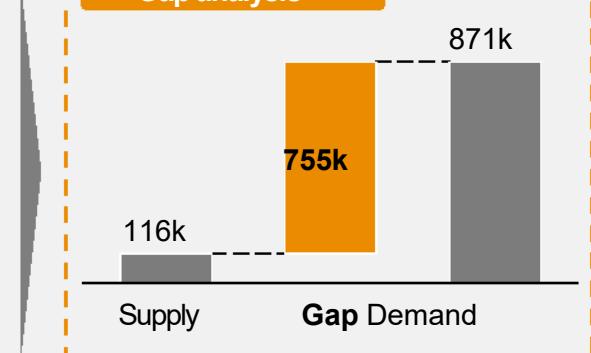
Opportunities exist in the renovation and expansion of facilities within the student housing segment



Key Segment Data



Gap analysis



The majority of students live in a private flat or at home, while only 6,5% reportedly reside in PBSA

Student Housing – General Overview

Student housing options (PBSA - Purpose-Built Student Accommodation)

There is a variety of housing options for students in Spain, including dormitories, student apartments, host families, and shared flats. Only around 6,5% of the Spanish student population lives in dedicated student accommodation.

1 Accommodation provided by universities

Universities such as the University of Madrid, University of Barcelona, University of Navarra, IE Business School and the University of Valencia offer student accommodations - residence halls (Colegios Mayores) or student apartments. Rent and accommodation costs vary depending on the location, amenities offered and other factors. In general student dorms in Spain tend to cost between 360–650 EUR per month. Additionally, universities are offering their student housing through a service not necessarily under their name or can offer the housing only to students enrolled in the specific university through which the service is provided.

2 Accommodation in student dorms run by international private operators

Student dorms are charging similar (starting at 450 EUR) or higher rates compared to university-provided accommodation, but also offer enhanced amenities and utilities, such as fineses, canteens etc.

3 Private Accommodation Options and Shared Apartments

On average, student apartment price ranges from 575 EUR to 1.550 EUR per month. Students seeking more affordable options often consider sharing an apartment, costing between 300–500 EUR per month. Comparing student accommodation pricing (2012 to 2022) a significant increase can be observed in popular student cities like Barcelona, Madrid and Valencia with reported increases of 31,8%, 27,8% and 28,3%, respectively. Importantly, due to the high demand, universities struggle to house a huge number of students in their campus halls, indicating a rise in demand for private student housing.

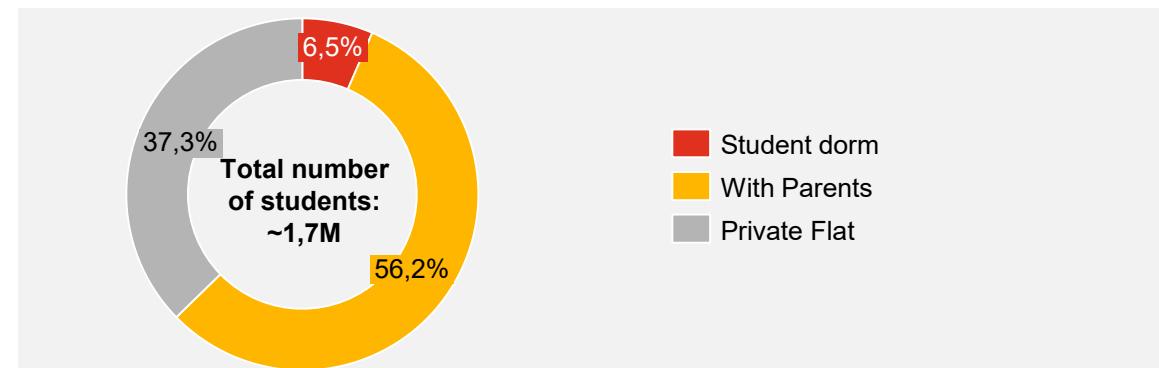
4 Living at home and commuting

56,2% of young adults live with their parents and commute to school.

Private operators try to fill the gap in dedicated student accommodation

Universities in Spain have traditionally invested funds into providing student housing accommodation. In recent years, numerous specialised firms have entered the student housing market to meet the relatively high demand. For instance, Axa, the French insurance company, acquired RESA, the largest Spanish student housing operator. Moreover, The Dutch company Student Experience, backed by Rinkelberg Capital, is also planning to develop five projects that will offer around 5.000 beds.

Students per accommodation type, %



Price of student housing options per month across popular student cities

Municipality	% of tertiary students	Room Rent	Studio Rent*	Apartment Rent	Avg. cost of living
Barcelona	18,4%	633 EUR	1.000 EUR	1.550 EUR	735–1.487 EUR
Madrid	19,5%	575 EUR	990 EUR	1.500 EUR	800–1.500 EUR
Valencia	9,6%	590 EUR	925 EUR	1.300 EUR	600–1.197 EUR

*Studio rent is a self-contained living space, typically combining the living room, bedroom and kitchen into a single room, with a separate bathroom. In Spain, traditionally designed to accommodate one or two people.

Spain's youth leave their home 3,5 years later than the EU average, due to unaffordable housing and cultural preferences

Student Housing – Key Drivers

Student enrolment is increasing significantly for international students

The student housing market in Spain is experiencing significant demand, predominantly driven by the growth in the number of students (domestic and international). Notably, since 2015, there has been an 11% increase in the student population, reaching 1,7M in 2023. Madrid, Catalonia, and Valencia are experiencing even higher growth rates of students, with increases of 14%, 18%, and 21,5%, respectively.

In 2022, Spain achieved a record high with ~224k international students, comprising 170.000 enrolled in degree programs and ~54k in shorter-term academic exchanges, representing an 81% increase since 2015. This surge is primarily driven by students from Europe and Latin America, who now make up 11% of the total student body in Spanish universities. Approximately 65% of these students attend public universities, with the remaining 35% at private institutions.

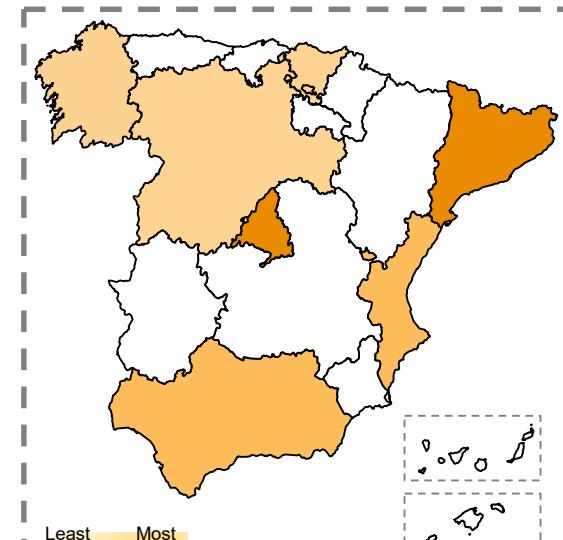
The universities in *Madrid, Barcelona, Andalusia, Valencia, and Castilla y Leon* host nearly two-thirds of all international students. Leading universities like the University of Barcelona, University of Valencia, and the Autonomous University of Madrid have significant international enrolments, with ratios of domestic-to-international students at 73.000/11.000, 51.000/4.000, and 30.000/4.500, respectively.

Furthermore, there is a notable trend of mobility within the student population, with about 20% of the ~1,7M students pursuing higher education, including doctorates and master's degrees, relocating to other cities for further studies and career opportunities.

Regarding the regional split of tertiary education students, Madrid leads Spain's student populations with ~369k students (21%), followed by Catalonia with ~309k (18%), Andalusia with ~277k (~16%), and Valencia with ~188k (11%). Notable mentions include Castilla y León with ~94k students (5%), Galicia with ~75k (4%), and País Vasco with ~69k (4%).

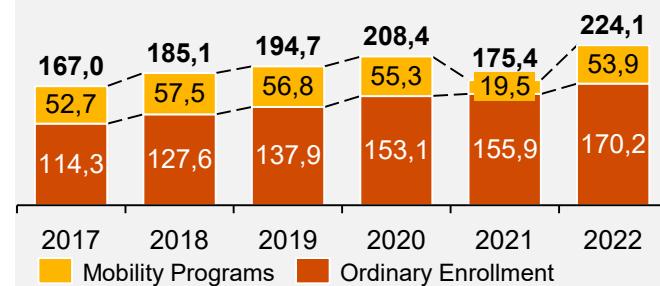
Sources: Eurostat, Savills, Emancipation Observatory, Spanish Ministry for Education, OECD, Local News Sources

Split of tertiary education students, by region (2021)

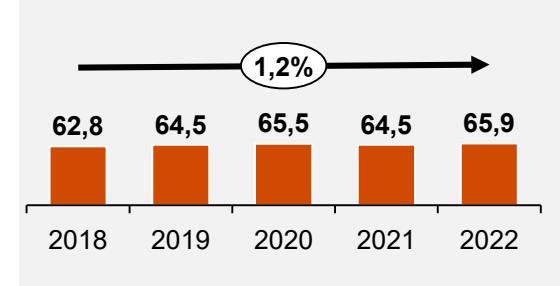


Region	Total	%
Madrid	369.033	21,26%
Catalonia	309.380	17,82%
Andalusia	276.905	15,95%
Valencia	188.243	10,84%
Castilla y León	93.581	5,39%
Galicia	74.973	4,32%
País Vasco	68.988	3,97%

The number of international students, in ths.



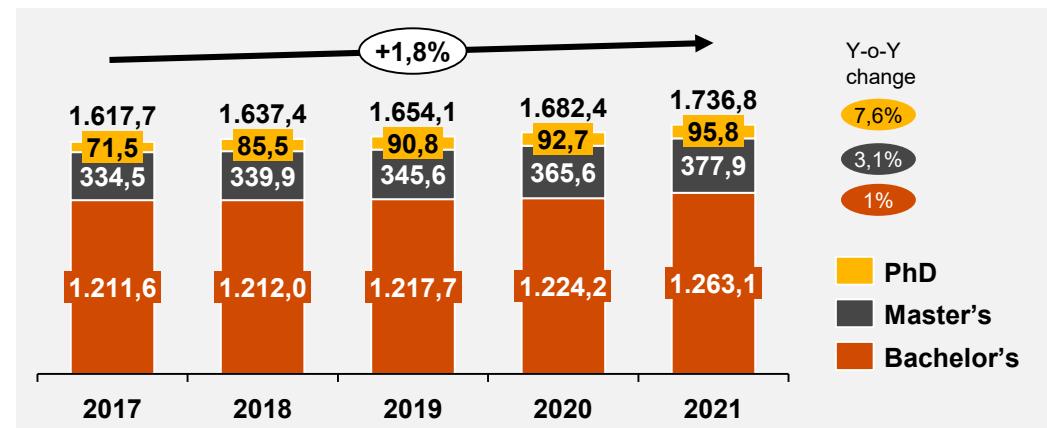
Share of young adults (18–34) living with their parents; %



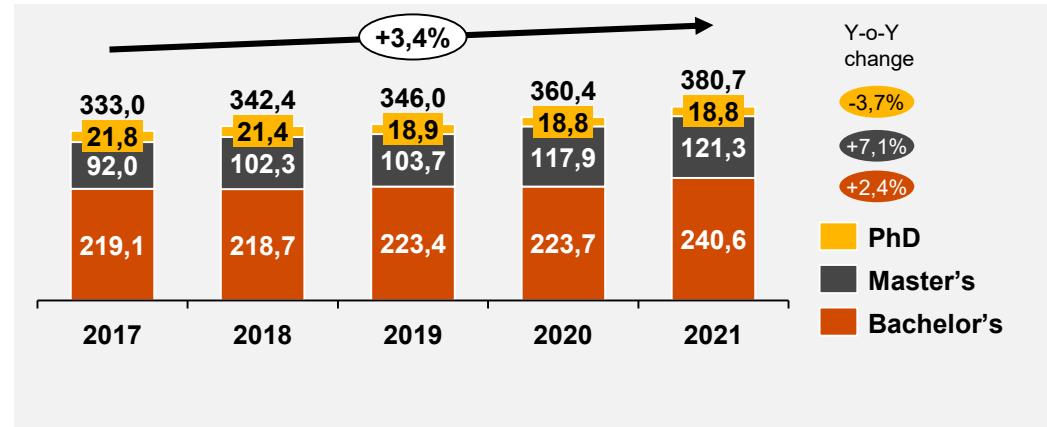
Student enrolment increasing across all levels with notable increases in international student enrolments in the past years

Student Housing – Market Demand

Number of tertiary education students, in Spain, in ths.



Number of newly enrolled student per year, in ths.



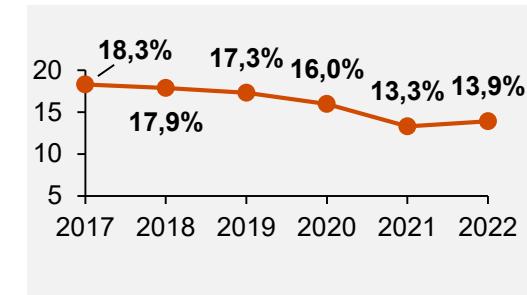
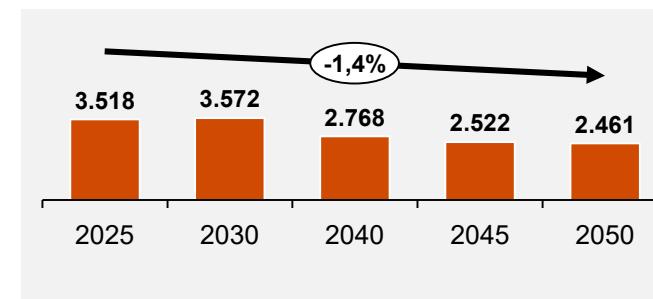
Growth in student enrolment and demographic factors influence demand

In Spain, the period between 2017 and 2021 has seen a notable increase in the number of higher education students, particularly at the postgraduate level. This is due to the high growth in PhD student numbers, which have risen from ~72k to ~96k, and Master's student numbers from ~335k to ~378k. The number of newly enrolled students, on the other hand, has declined for PhDs but has significantly increased for Master's programmes and has moderately grown for Bachelor's programs. The rate of early education leavers has notably decreased, which further indicates a strong growth of tertiary education students.

Spain's population within the 18–24 age group has been growing by a CAGR of around 2% between 2017 and 2023. In contrast, in 2022 specifically, the population (18–24) increased by 3,45%, totalling ~3,5M. According to estimations, the observed population group is expected to grow up to 2030, after which it will decline by the year 2050, reaching a total CAGR of -1,4%.

Population growth projections, particularly the anticipated increase in individuals aged 18 to 24 in Spain, suggest a potential 13% increase between 2021 and 2031. This points to a growing demand for student housing in the coming years. On the other hand, there is still a significant percentage of early leavers from education, which negatively influences the demand for student housing.

Predicted population, 18–24-year-old, in ths. Share of early leavers, in %



In 2021 the accumulated investments in PBSA were valued at 500M EUR with 60 projects under development

Student Housing – Market Supply

A significant oversubscription rate of 17 students/bed is expected to persist

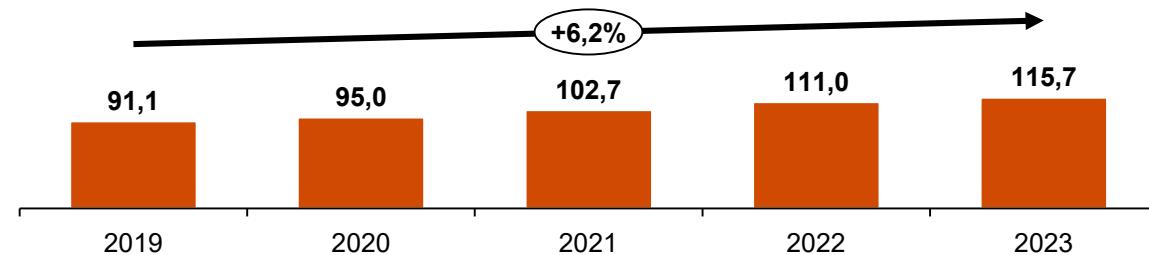
According to the Iberian Property Report, in 2021, the Spanish housing market offered ~103k student accommodations for nearly 1.7M students with around 42% of those students seeking affordable housing options. Taking into account the supply of student beds in 2021 and the number of enrolled students, both domestic and international, this results in a significant oversubscription rate of 16.8 students per bed. This means that on average there are ~17 students demanding individual units of student housing supply. Compared to the average bed/student ratio of approximately 7 students per bed in the EU, this suggests a substantial shortage in student accommodation supply.

The student housing situation slightly improved by 2023. There were 1.118 student residences operating in Spain, with ~116k student beds (with a 15:1 student-to-bed ratio). This represents a substantial increase of 13% in contrast to two years prior and is expected to further grow by 8% until 2025, totalling 125k student beds. Most of the student accommodations are university residences, with 949 centres and ~95k places, while residence halls totalled 169 centres and ~21k places. However, the identified shortages of student beds are expected to persist, despite projected increases in supply.

Although there was a 13% increase in beds from 2019 (90k) to 2021, the supply remains insufficient to meet the growing demand. However, the investment and operations activity indicates that a supply growth is anticipated and may potentially slowly outpace the growth in demand. For example, for Spain to match Germany's or the UK's ratio, it would have to increase the number of beds by approximately 60k and 275k, respectively.

The supply of student housing is spread out through a few key regions. Madrid stands out with the highest number of places at 22.3% of the total, followed by Barcelona and Andalusia at 15.7% and 14.3%, respectively. Moreover, in 2020, particularly Madrid and Barcelona, experienced higher demand, resulting in 16 and 17 students per bed. Notably, Valencia faced a severe imbalance of 32 students per bed. This suggests that a significant gap in the student-bed ratio can be observed, especially in popular student areas.

Estimated number of student beds, in ths.

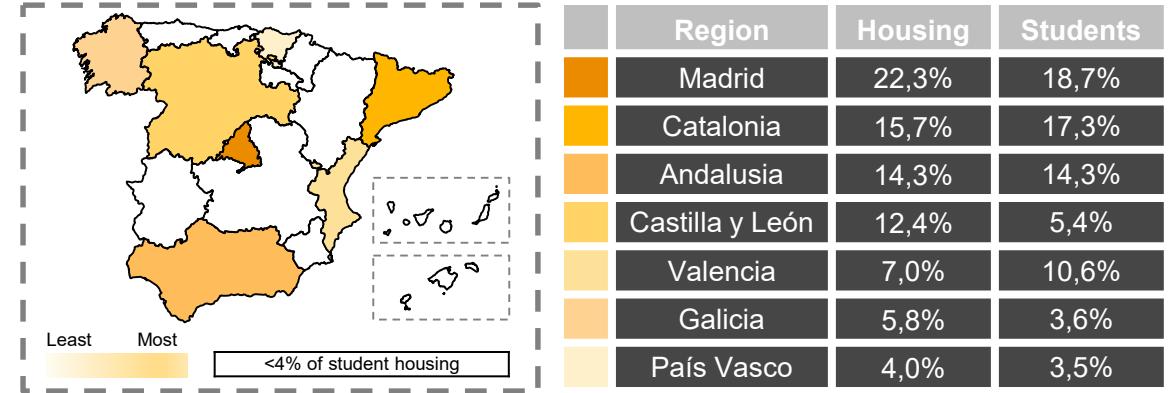


Investment Activity Concentration

Madrid and Barcelona account for most of the investment (57% in 2022) with increasing activity in Seville, Valencia, Granada, etc.

- student housing accounted for 31% of total investment in living in 2022 (~1,4B EUR)
- due to low supply, 34% of all investment transactions are forward purchase or forward funding

Share of student housing supply and students by largest regions, in %



4



Universities

A low student to teacher ratio and a large oversupply were observed in the universities segment

Universities

Key conclusions – Phase 1

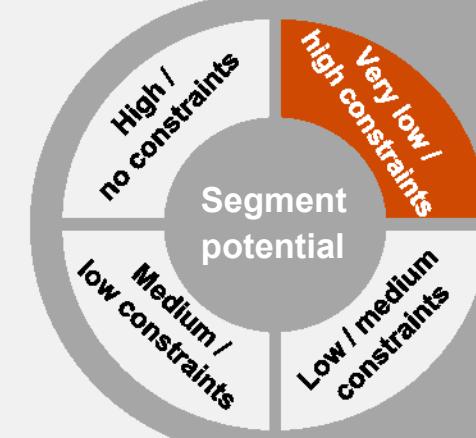
- Public universities in Spain provide tuition-free education for Spanish students, with students covering administrative costs, insurance, and other expenses
- As of 2023 there are approximately 1,7M students in Spain. With public institution covering the majority, with 76% (1,3M) of students, while approximately 24% attended private universities
- The Spanish higher education system consists of 89 universities, comprising 50 public and 39 private institutions
- The population aged 20 to 24 in Spain is forecasted to increase by 18,3% until 2030
- The current student-teacher ratio for higher education in Spain is around 12,9:1, significantly better than the EU average of 14,7:1

Key conclusions – Phase 2

This segment has not been shortlisted for phase 2.



PwC Assessment



Large oversupply of places exist, however universities are in the middle of investment cycle which is observed in a large amount of total financing



The opportunities are primarily found in the renovation of existing universities rather than the development of new universities



Key Segment Data

1,3M
students
in public
institutions

-19%
est.
population
(20-24)
2025-2050

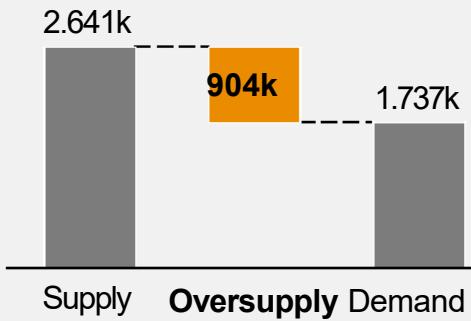
406,6k
students
in private
institutions

1,8%
CAGR –
tertiary
students

89
number of
tertiary
institutions

3,4%
CAGR -
newly
enrolled

Oversupply analysis



In Spain, 44% of tertiary education institutions are private, charging higher fees compared to public universities

Universities – General Overview

Organisation of tertiary education in Spain

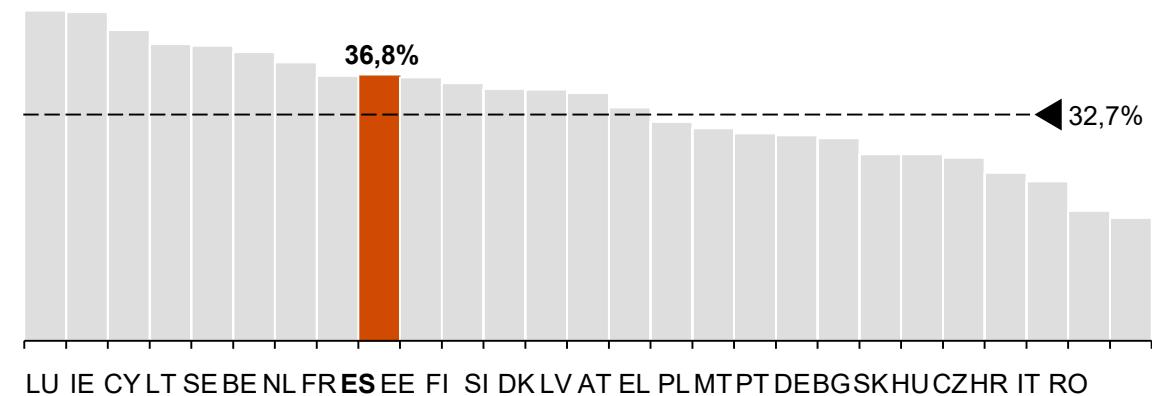
The Spanish education system follows the Bologna Process, which is a standard three-tier structure of bachelor's, master's, and PhD degrees. This system ensures programs are compatible with the European Credit Transfer System (ECTS), allowing credits to be recognized across Europe in various fields. Tertiary education institutions are categorized based on ownership – publicly owned, state-owned/community-owned, or privately owned. The standard higher education framework for degree studies is typically based on the 3+1/2 curriculum system. It usually involves a standard duration of a minimum of 3 years for bachelor's degrees, an additional 1 to 2 years for master's degrees (second cycle) and doctoral degrees (third cycle) spanning 3 to 5 years.

As of the academic year 2022/2023, Spain hosted a student population of approximately 1,7M students in total. Public institutions accommodated the majority, with 77% (1,3M) of students, while approximately 23% attended private universities. The Spanish higher education system consists of 89 universities, comprising 50 public and 39 private institutions. Complementing universities there are also 480 research institutes and 67 science and technology parks. While the number of public universities has remained unchanged, there has been a noticeable increase observed in the number of private universities since 2017. The latter grew by a CAGR of ~4% from 2017 to 2022, representing an 18% increase between the four years.

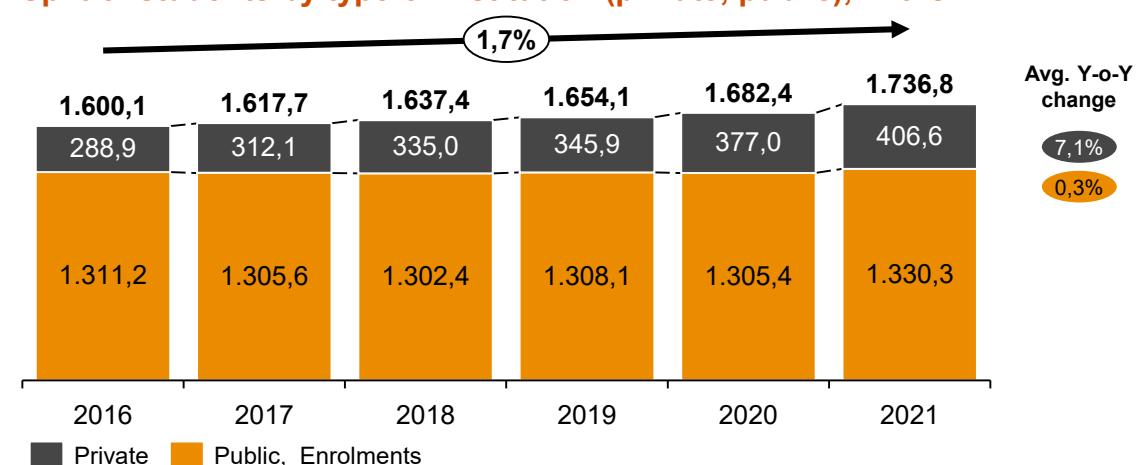
The establishment of public and private universities is guided by legislative acts, either enacted by the Legislative Assembly or approved by the Spanish parliament, with proposals from the government and alignment with the relevant Autonomous Community Councils.

Public universities in Spain provide tuition-free education for Spanish students, however, students are obligated to cover administrative, insurance, and other expenses. Additionally, the government covers the majority of costs for EU students and around 80% of the tuition for international students. The fees are determined annually by the legislation of each autonomous community, varying from region to region. Meanwhile, independent private universities charge annual fees on average between 5k EUR and 18k EUR.

Share of population with university degree, in %



Split of students by type of institution (private, public), in ths.



Student enrolment is growing mainly due to the high-quality educational system and various career opportunities offered

Universities – Key Drivers

Spanish speaking international students are advocates for Spain's education

According to Eurostat's demographic projections, particularly the anticipated growth in the population aged 20 to 24 in Spain, forecasts indicate a potential 18,3% increase until 2030, before entering a declining trajectory. Considering the number of students, this would increase the population to approximately 250k in the mentioned age group.

Additionally, the student population in Spanish universities has notably grown by 11% since 2015, increasing to 1,7M students, which includes 224k international students as of 2023. The growth in international student enrolments (~36% in the last five years) is attributed to the expansion of programs similar to Erasmus and the appealing atmosphere, culture and opportunities (top school ranking, job market).

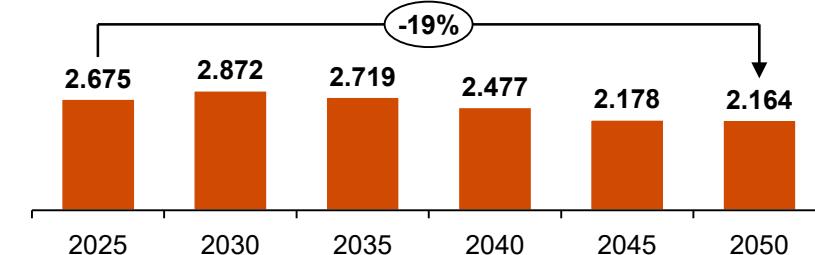
The growth in the foreign student population is also reflected in an 11,1% increase in undergraduate students, a 4,9% increase in master's students, and an 11,6% increase in Ph.D. enrolled students.

A high number of them being not only European and US students but also individuals from Mexico, Ecuador, Colombia, and other Latin American countries are showing an increasing interest in pursuing higher education in Spain. This phenomenon can be attributed to the cultural and linguistic affinities shared with Spain. Spanish ranks as the fourth most widely spoken language globally, with approximately 496M native speakers.

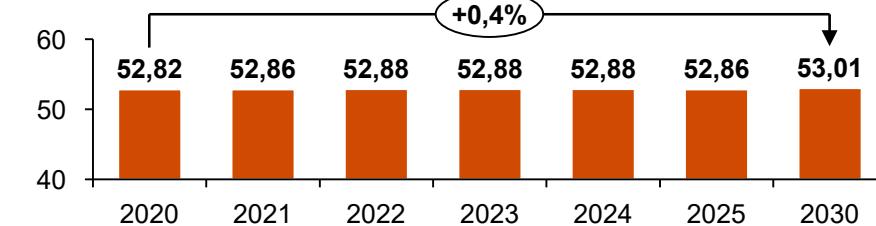
With rising demand for higher education among Latin American students (and a rising population in the 18 to 24 age group), there is an observable trend indicating a potential further growth trajectory for international student enrolment.

International students tend to enrol in private universities; in 2021/22, approximately 67k were enrolled in private universities, constituting nearly 40% of the total international student population.

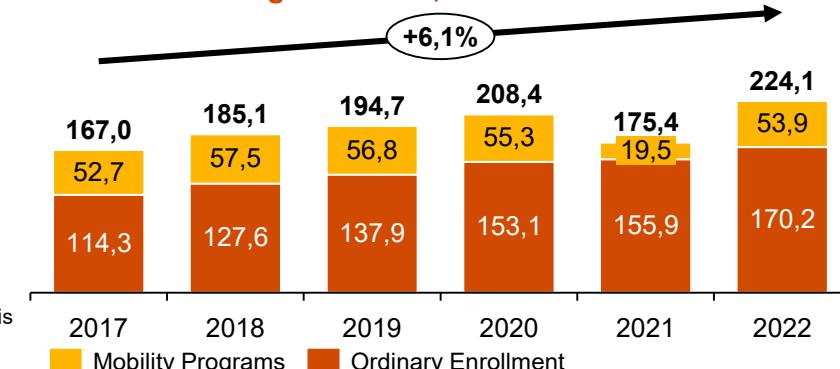
Predicted population (20–24) in ths.



Spanish-speaking population (18–24), in mil.



Number of foreign students, in ths.



Projections for the population aged between 20–24 project a significant 15,7% increase until 2033

Universities – Demand

Spain is witnessing national and foreign student enrolment expansion

In 2022, a significant 50,5% of young adults aged 25 to 34 in Spain possessed tertiary education, surpassing the EU average of 44,7%. The share has increased by 6,2 percentage points from 2018.

The number of newly enrolled students in Spain has been increasing steadily at a CAGR of 3,4% between 2017 and 2021. The growth is mainly driven by newly enrolled master students, who have been growing at a CAGR of 7,1% since 2017. However, bachelor students still present more than 60% of total new enrolments.

The course offerings, study preferences and the distribution of Spanish students across various fields are diverse. Business, administration and law attract around 28% of higher education students, engineering, industrial production and construction studies capture 15% while health and well-being-related studies account for 13%. Notably, approximately 25% of students pursue higher education in the STEM fields (science, technology, engineering, mathematics), a figure slightly below the EU average of 28%.

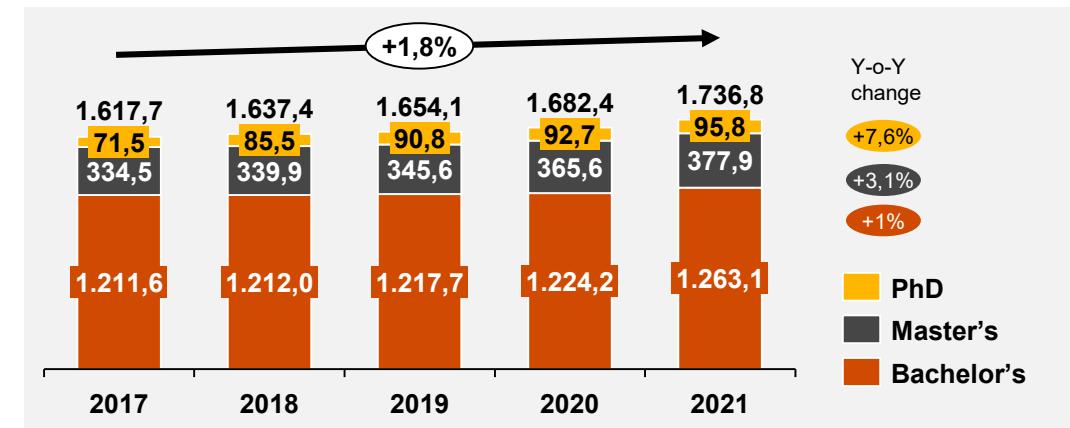
The World Bank's demographics projections for the population aged 20-24 forecast a positive trajectory until 2033, indicating a significant increase of 15,7%. However, there is a decline expected in this age group, estimated at a decrease of 11% from 2023 to 2050. Additionally, there is already evidence of a population growth slowdown in the age group 25–29.

The share of early school leavers (aged 18–24) in Spain totalled nearly 14% in 2022. This is substantially higher than the EU average of 10%. This places Spain among 4 EU members with the highest shares of education early leavers.

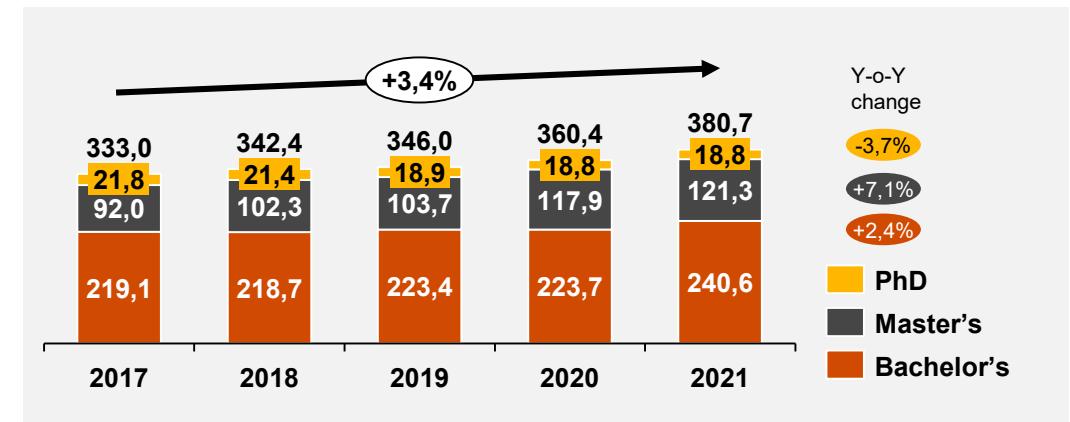
Early leavers from education, age group between 18 and 24, in % of population



Number of tertiary education students, in Spain, in ths.



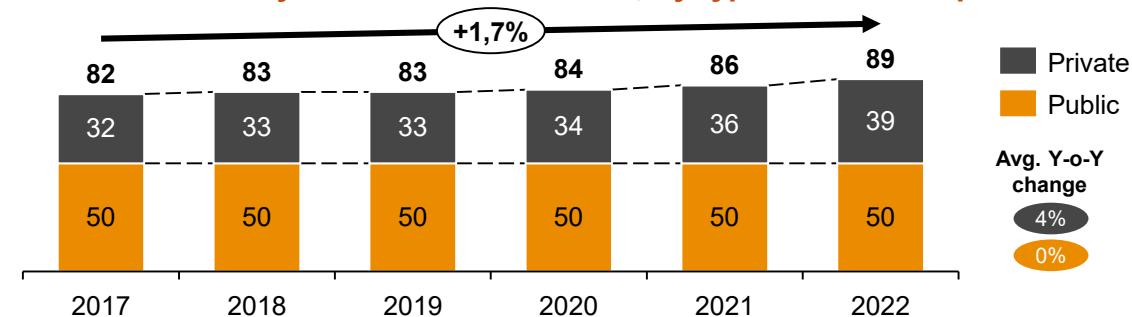
Number of newly enrolled student per year, in ths.



The number of private universities is on a growth trajectory with a CAGR of 4% between 2017 and 2022

Universities – Supply

Number of tertiary education institutions, by type of ownership



Private universities in Spain account for around 44% of tertiary institutions

The number of public universities has remained stagnant in recent years, while the number of private universities has increased notably, marking a ~22% growth from 2017 to 2022. This surge resulted in a 43,8% share of private universities in tertiary education in Spain.

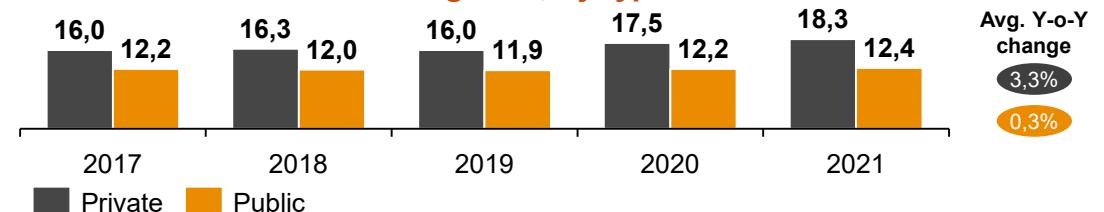
In terms of academic dynamics, the current student-teacher ratio for higher education in Spain is around 12,8:1, significantly better than the EU average of 14,7:1, and is remaining mostly stable from 2017 to 2021.

The stability of the student-to-teacher ratio is driven by concurrent growth of both academic staff and the number of students, which grew by similar CAGR in the same time period.

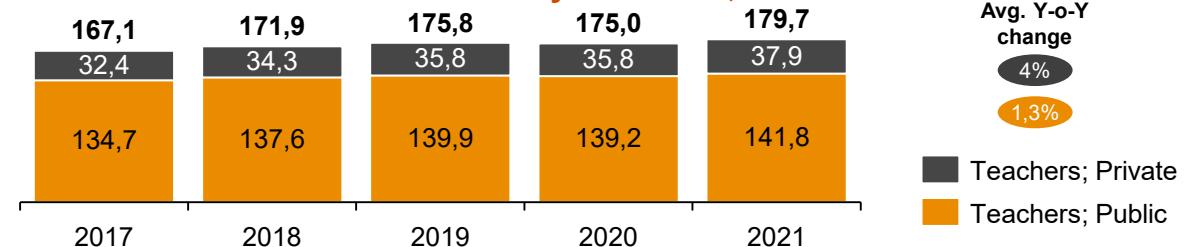
In 2021, the student-to-teacher ratio is notably worse in private educational institutions, standing at 18,3:1, while the ratio stands at 12,4:1 for public institutions, indicating a relatively better quality of education in the public sector. This is specific in Spain compared to other countries, considering that in general private universities have better student-to-teacher ratios than public universities.

Sources: Eurostat, Statistics Spain, Local News Outlets, PwC analysis

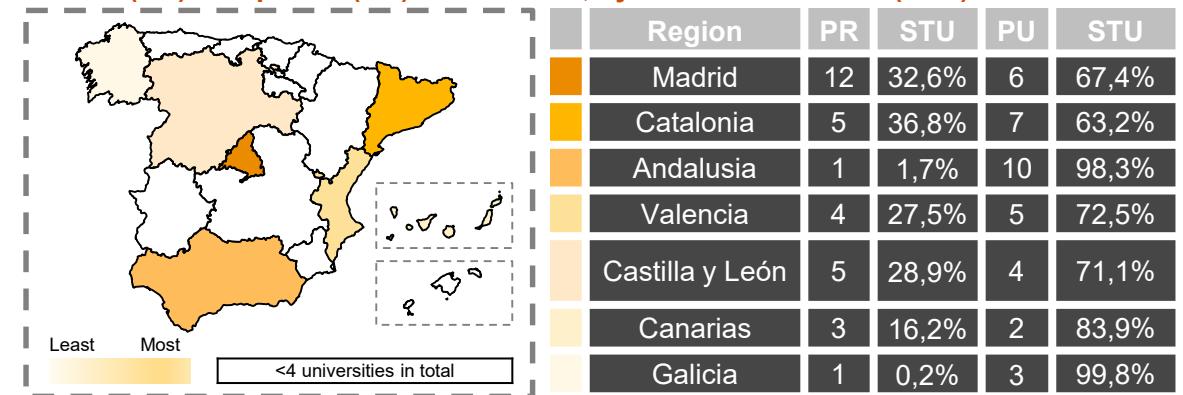
Ratio of students to teaching staff, by type of educational institutions



Number of academic staff in tertiary education, in ths.



Private (PR) and public (PU) universities, by share of students (STU)



5



Pre-school facilities



The potential in this segment is limited due to stakeholder fragmentation and an observed oversupply

Pre-school facilities

Key conclusions — Phase 1

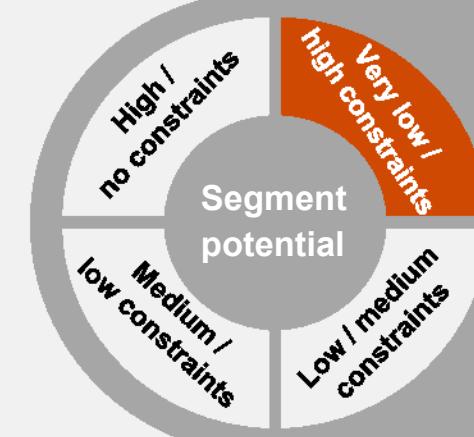
- Early childhood education in Spain is not mandatory, and is split into two categories: nurseries tailored to children aged 0-3, and kindergartens tailored to children aged from 4-6
- 73,8% of all children are enrolled into early childhood education, while there is a relatively low enrolment in years 0-3, standing at 40,5%; this number increases to average 95,6% in the age group 4-6
- The majority of institutions are publicly owned with private players holding 34% of the market
- The segment is characterised by a decreasing number of children, which is primarily influenced by the low fertility rate in Spain. Consequently, pre-school enrolment is dropping by a CAGR of -2% from the year 2017 to 2022

Key conclusions — Phase 2

This segment has not been shortlisted for phase 2.



PwC Assessment



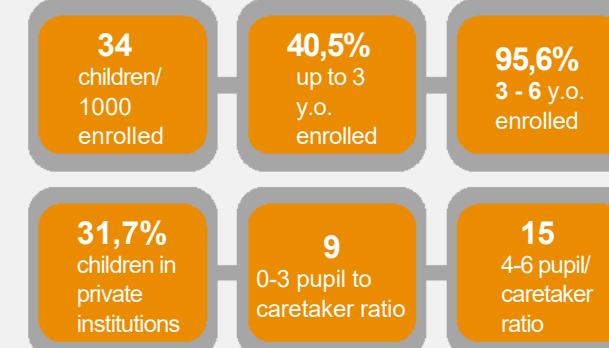
Segment is jurisdictionally and operationally fragmented, with multiple state and private operators



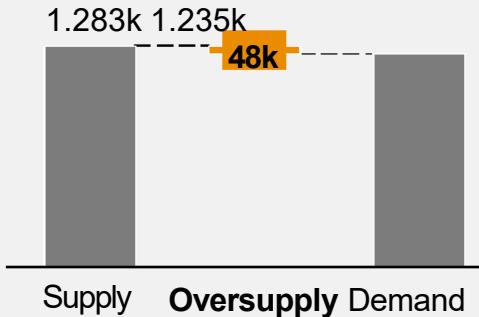
Most opportunities exist in financing states for refurbishments and extensions



Key Segment Data



Oversupply analysis



The share of children enrolled in pre-school facilities is relatively high, but slightly decreasing in the past years

Pre-Schools – General Overview

While the first-cycle education is tuition based, the second is tuition-free

Early childhood education in Spain is divided into two main categories: nursery schools and infant school/kindergarten. Nursery schools cater to children aged 3 months to 2 years, while infant school (kindergarten) is attended by children aged 3 to 5 years.

The education legislation guarantees that every child over 3 years of age has the legal right to attend an early childhood education institution free of charge. Efforts are underway to extend this to the first cycle, prioritizing education access for children in households at risk of poverty or social exclusion as well as improving low preschool attendance rates.

Although preschool education is not mandatory, it is commonly practiced among Spanish parents. However, securing a place, especially in state preschools in urban areas, can be challenging. Spain reports high enrolment rates, with 96% of three-year-olds and 97% of four-year-olds attending early childhood education. On the other hand, enrolment rates for children aged 2 years and below are significantly lower (43,8%), but still higher than the rates observed in most EU countries.

Despite the high preschool enrolment, a slight decrease has been observed in recent years. Between 2018 and 2021 the enrolment rate in pre-schools has decreased by 2,3 percentage points. Nevertheless, the enrolment rates in Spain remain among the highest in the EU.

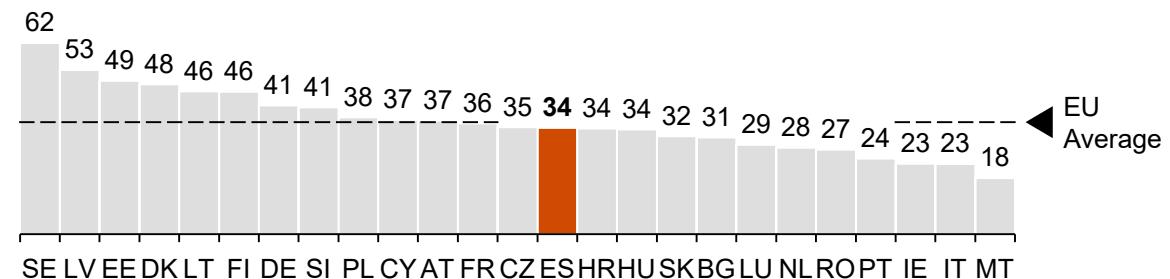
Pre-schools in Spain can be categorized by cycle and ownership. Public nursery schools (first-cycle), operated by the state, are not tuition-free but offer lower fees compared to private institutions, typically ranging from 150 to 400 EUR per month based on income and location. Public kindergartens (second-cycle) are generally free of charge as they are state-funded, while private ones may charge up to approximately 500 EUR per month.

Spain decreased the pre-primary and primary education expenditure to 3,5% of GDP (a total decrease of 0,3 percentage points since 2017), which is higher than the EU average of 3,2% of GDP. Private sources accounted for 16% of total expenditure in pre-primary institutions, slightly lower than the OECD average of 17%.

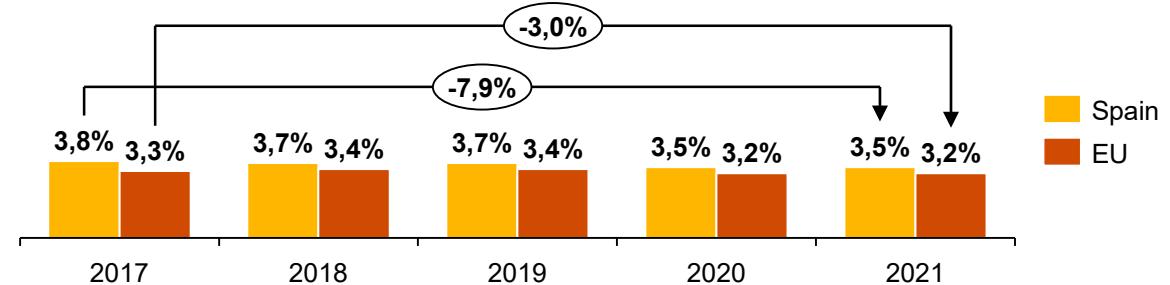
Sources: Eurostat, National Statistics Institute (INE), European Commission, Local news outlets, PwC analysis

PwC

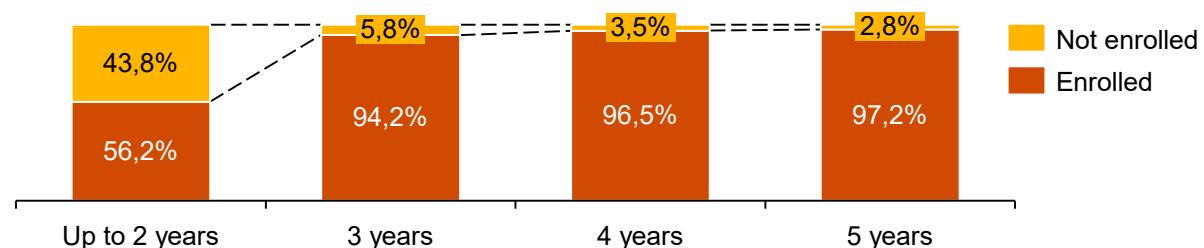
Number of children enrolled in pre-school facilities, per 1000 citizens



General government expenditure on pre-primary and primary education



Share of children enrolled in pre-schools, in %



Spain has one of the lowest fertility rates in the EU and consequently a rapidly decreasing number of children

Pre-Schools – Key Drivers

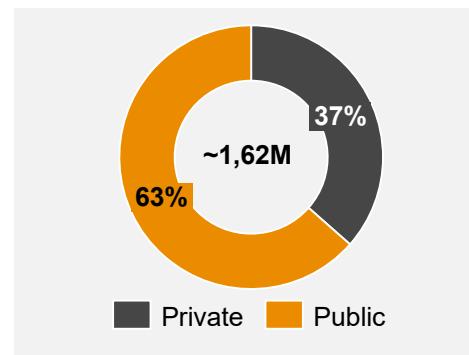
There is a significant financial burden associated with child raising in Spain

Various factors contribute to declining birth rates in Spain, with economic conditions emerging as a primary obstacle. Our analysis indicates that the financial burden of raising a child has increased significantly, with parents facing an average monthly cost of €672 (up 18% since 2018) for raising a child. This expense represents nearly 35% of the average monthly salary in Spain, which is reported at €1.910. This indicates that costs associated with raising children consume a significant portion of parent's income.

In Spain, both public and private nurseries require tuition for the first cycle of pre-school education, although the government provides tax relief and additional financial support for parents. Specifically, parents receive €1.000 per year for sending their children to preschool, and low-income working parents with infants can benefit from income tax discounts.

While preschool education is not compulsory in Spain, the majority of parents opt to enrol their children to prepare them for formal education, especially in the second cycle of pre-school education, as it is free of charge. Nevertheless, regional disparities (e.g. enrolment rates, price rates) exist across Spain.

Split of children between public and private institutions, in %



While children's enrolment in pre-school education is slightly decreasing, it is important to note that the decrease is higher for private facilities than for public ones.

On the other hand, it has to be noted that the total number of children enrolled in pre-school education in Spain has decreased by 11,8% since 2015 (representing 218k children in total).

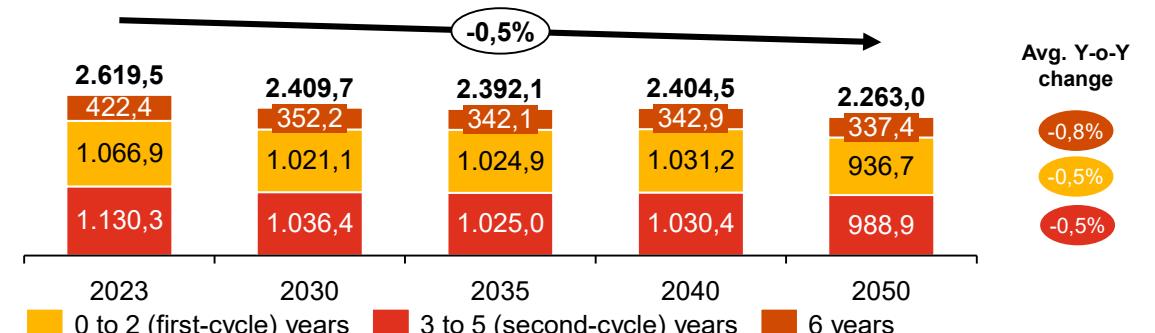
The decline in the number of enrolled children is expected to persist in the future, mainly driven by a low fertility rate and a decreasing number of newborns.

Concerning fertility rates leading to demographic imbalances

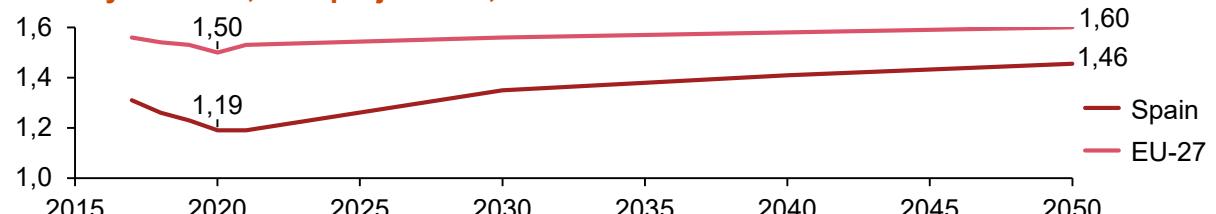
Spain has a fertility rate of 1,23 births per woman, which is one of the lowest in the EU, where the average fertility rate stands at 1,5 births per woman. Consequently, the number of newborns is decreasing since 2015, with a total decrease of 21,4% or 89,7k children.

According to forecasts the fertility rate in Spain is estimated to grow by 11% until 2050, thus growing faster than the projected fertility rate in the EU (2,6% growth). Although the fertility rate is expected to increase, the number of children is still expected to decrease significantly until 2050 (-0,5 % CAGR, 13,6% total decrease). The forecasted decrease in the number of children is most evident for children aged 0–2 years (-0,8 % CAGR, 20,1% total decrease).

Forecasted number of children by age group, in thousands



Fertility rate YoY, with projections, in %



Spain is experiencing a steady decline in the number of pre-school enrolments, visible across all observed age brackets

Pre-Schools – Demand

Out of all children aged 0 to 3, less than half are enrolled in a pre-school

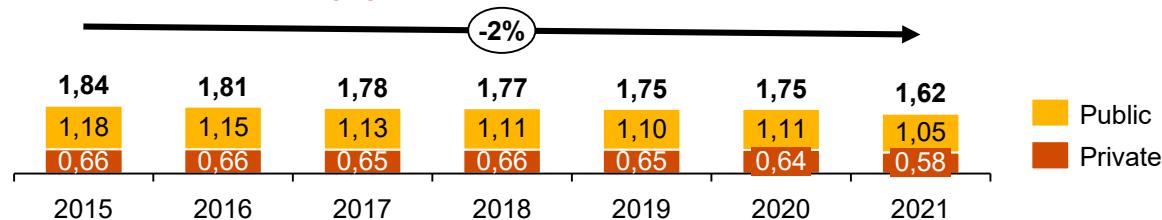
According to our analysis, there is a total of approximately 2,2M children in the age group between 0 and 5 who are eligible for pre-school education enrolment. Out of the total, around 1M or 45% of children are aged 0 to 3, who are eligible for nursery (first-cycle schools). On the other hand, around 55% or 1,2M children between the ages of 3 and 5 are eligible for second-cycle schooling or kindergarten.

Enrolment rates vary significantly between the first- and second-cycle (below 43% and above 94% respectively). This difference is caused mainly by two factors:

- cultural preferences, as Spanish people are traditionally very family-oriented with many mothers staying at home or sending children to grandparents for care, which is more prevalent for children aged below 3 years.
- financial burden, as the second cycle of early childhood education is free, therefore the financial burden of tuition fees for the first cycle might be too high for some Spanish parents.

The overall enrolment in pre-school education has been decreasing, however, the decrease from 2015 to 2021 in the private segment (12,9%) is higher than the decrease in the public segment (11,3%). In the same time period, there are also differences when assessing the number of enrolled children by cycle, as enrolments in the first cycle have been declining by 12,4%, while the decline was relatively slower in the second cycle (11,7%). This trend is forecasted to continue, as Spain reported the lowest number of births in 2021 since record-keeping began in 1941.

Pre-school enrolment by type of ownership, in millions



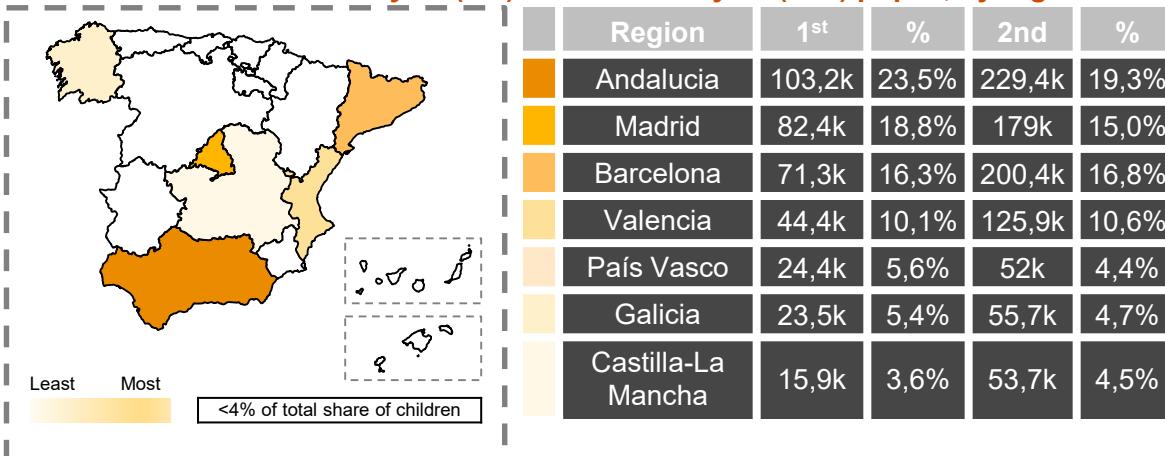
Relatively high regional differences in terms of enrolment rates

Early childhood education enrolment is highly concentrated in Spain's largest autonomous communities. Around 21,4% of total preschool children enrolments come from Spain's biggest community Andalusia, followed by Madrid at 17% and Catalonia at 16,3%. The difference between the first and second-cycle early childhood education enrolment rates in regions varies.

In general, second cycle enrolments are significantly higher, which is a trend observed in most Spanish regions as well as most EU member states. In Spain, this trend is additionally accelerated, as the participation in early childhood education is free for all children, thus minimising the affordability challenges for all families. Benefits for some families can also vary from region to region, thus potentially increasing regional differences.

The highest enrolment rates for all age brackets of early childhood education are evident in Andalusia, Cantabria, Madrid, País Vasco and Navarra. While the lowest rates can be seen in the Balears, the Canary Islands and in Melilla (none of them being part of continental Spain).

Number and share of first-cycle (1st) and second-cycle (2nd) pupils, by region



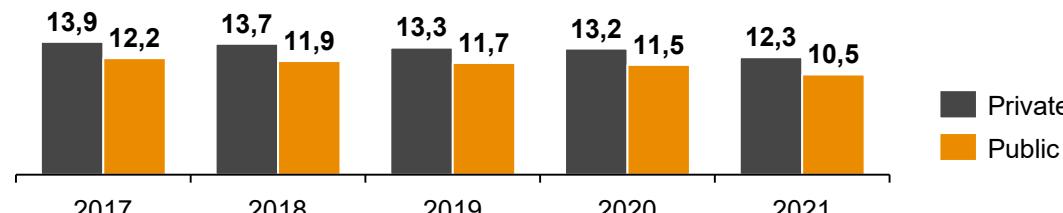
Over the years, the number of pre-school facilities encountered a substantial decrease with an emphasis on private facilities

Pre-Schools – Supply

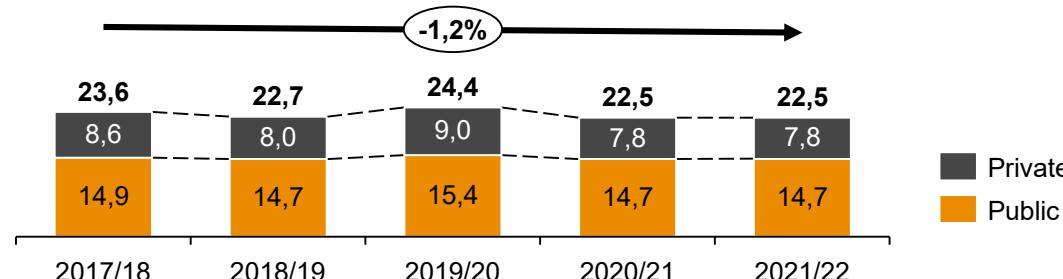
Number of pre-schools and available places is slowly decreasing

In line with the year-over-year decrease in newborns, there is a substantial decline in the number of pre-schools in Spain. In the year 2021/22, there were around 22,5k preschool facilities out of which private facilities accounted for approximately 35% or 7,8k, while public facilities accounted for 65% or 14,7k facilities. Over the past few years, the number of pre-schools has been consistently decreasing by a CAGR of around 1,2%. This decrease is driven by a reduction in the number of private pre-school facilities, which reported a sharper decrease by a CAGR of 2,6%, in comparison to public ones at a CAGR of -0,4%. In 2021, around 45,6% of total pre-school centres were dedicated to first-cycle pre-school education, while around 62% of the total supply was dedicated to second-cycle pre-school education.

The ratio of children to teaching staff, by type of institution, in ths.



Number of pre-schools by ownership, in ths.



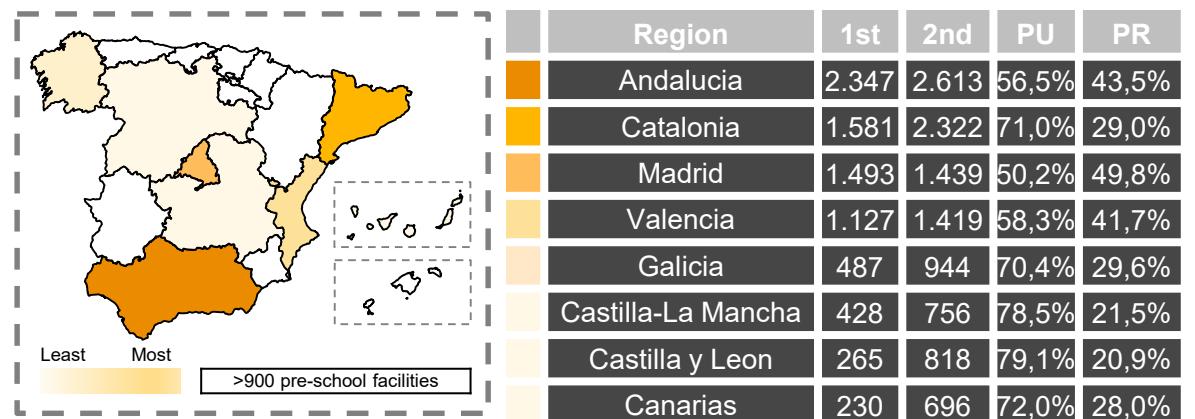
Relatively high share of private early childhood education facilities

In general, there is almost a 50/50 split of private and public first-cycle pre-school facilities, while the share in the second-cycle facilities is approximately 74% to 26% in favour of public facilities.

Taking into account the number of children enrolled in each cycle, our calculation suggests that around 45 children are enrolled per first-cycle pre-school facility and 90 children per second-cycle pre-school facility, respectively. Privately owned pre-schools notably surpass the average ratio of children per second-cycle pre-school facility by 25%, resulting in a capacity of 113 children. On the other hand, private first-cycle pre-schools tend to have lower capacity compared to public ones.

Pre-school education poses a significant financial burden for Spanish parents. The cost for first-cycle education (not state-financed) ranges from 150–400 EUR per month for public nurseries. Meanwhile, the private nurseries costs range from 400 to 1000 EUR per month. The financial burden for families in some regions is decreased through various subsidies.

Split of pre-schools by cycle type and by total share of public (PU) and private (PR)



6



Hospitals



A large oversupply was identified in this segment, along with staff shortages and a low utilisation rate

Hospitals

Key conclusions – Phase 1

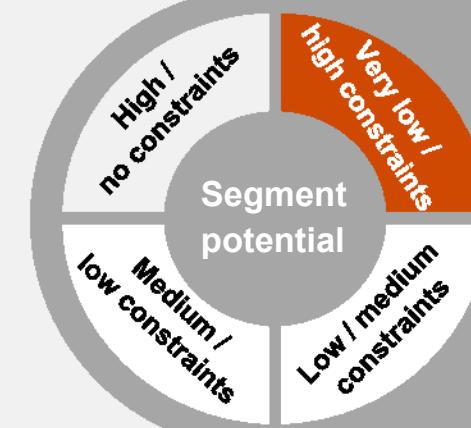
- The national Government in Spain is responsible for policy making, while the autonomous communities oversee the administration of healthcare services
- Spanish healthcare is characterised by shortages of staff both in case of physicians as well as nurses, with both being below EU averages
- The number of hospitals as well as the number of hospital beds has remained relatively stable across the last five years. 44% of hospitals are publicly owned, while 69,5% of beds are publicly owned
- Bed utilisation rate stood at 67,6% indicating a sizable oversupply

Key conclusions – Phase 2

This segment has not been shortlisted for phase 2.



PwC Assessment



Oversupply of hospital beds is in line with similar countries, however if the numbers rebound to pre-pandemic level pressures in supply could occur



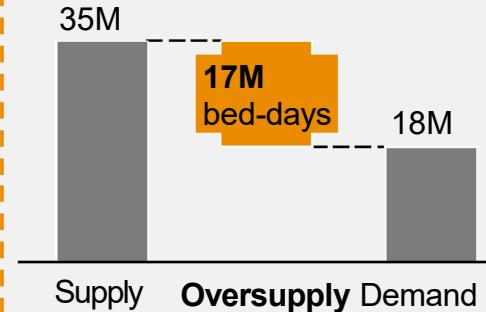
Significant opportunities in renovations and equipment purchases to mitigate the staff issues especially in case of nursing staff



Key Segment Data



Oversupply analysis



Despite comprehensive HC coverage Spain has high degrees of out-of-pocket payments and supplemental health insurance

Hospitals – General overview

Definition of the segment and ownership

The healthcare system in Spain is organised both at the national and regional levels. At the national level, the Government (through the Ministry of Health esp. Ministerio de Sanidad) is in charge of policy and budgeting, while the regional level (autonomous communities) oversee the local provision of healthcare services. The public healthcare system is principally funded through general taxation and employee contributions.

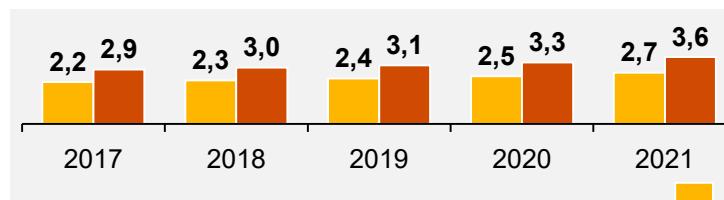
The ownership of the hospitals is split almost equally between public and private players, with 44,3% of hospitals being publicly owned. However, when we look at the ownership of hospital beds, we see a slightly different picture with a majority (68,9%) of beds being publicly owned. This would suggest that private hospitals are smaller and mainly focused on outpatient care.

The Spanish healthcare system (SNS) offers close to universal coverage (99,5%) and guarantees a comprehensive package of benefits to all citizens independent of the labour status and personal wealth. In general, foreign citizens are also guaranteed coverage if they are employed in Spain, are EU citizens, or if their annual income is equal or lower than the minimum wage.

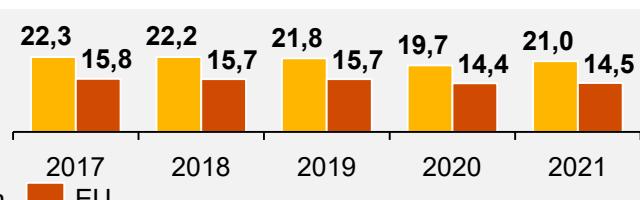
The SNS covers primary care services, including emergency services, family medicine, paediatric services, nursing, and maternity care services. On the other hand, prescription costs, surgical prostheses, orthopaedic equipment and wheelchairs are subject to co-sharing of the costs by the patients.

In Spain, it is common for individuals to supplement their public coverage with Voluntary Health Insurance (VHI) with 25% of the population owning VHI. It is independent from the SNS and can offer the same scope of services as the national scheme. The purchase of this insurance plans are mainly driven by faster access to some services.

Healthcare expenditure, per inhabitants, in ths.



Out-of-pocket expenditure on healthcare



Medical centres can be segmented into 5 general categories:

- General Hospitals (comprehensive range of medical services)
- Specialised Hospitals (including surgical, maternal and children's hospitals)
- Mental Health and Drug Treatment Hospitals
- Medium and long-stay Hospitals (tailored to the needs of patients requiring extended care)
- Other hospitalisation centres like rehabilitation centres

Hospitals and beds, by type of ownership



Healthcare expenditure in Spain stands at 132,8B EUR annually, which accounts for around 10,6% of GDP, or 2.734 EUR per inhabitant. This figure is slightly below the EU average at 3,6k (10,9% of GDP).

Spain records high out-of-pocket payment levels, which are well above the EU average, reaching 21,8% compared to 15,4% of total health expenditure in 2019. These mainly consist of co-payments for medicines and dental care, and indicate that despite the nearly universal coverage, the provision the healthcare in Spain can place a significant burden on citizens' budget.

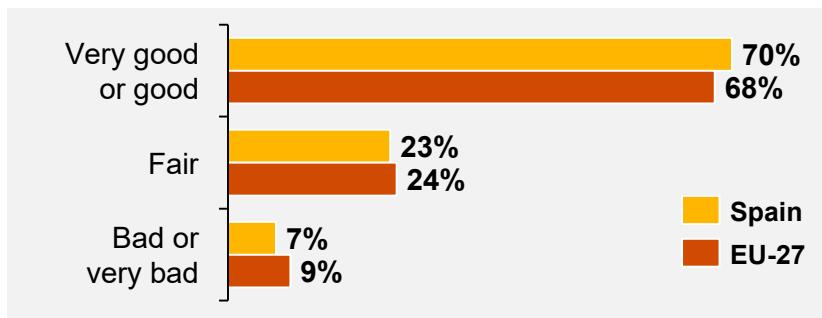
Ageing population and the health determinants could boost the demand for healthcare in the coming years

Hospitals – Key Drivers (1/2)

Mortality rate compared to EU average



Self-perceived health, and risk factors



Primary health determinants in Spain compared to the EU countries

Country	Healthy life years	Active Smoking	Alcohol Consumption	Physical Activity	Obesity
Spain	69,9	19,8%	13,0%	10,2%	15,4%
Italy	68,3	17,3%	12,1%	7,6%	11,4%
Germany	66,3	22,9%	7,5%	23,9%	18,5%
EU	64,6	19,3%	8,4%	12,4%	16,0%
Portugal	59,2	14,2%	20,7%	7,0%	16,0%

The ageing population in Spain may strain its high-quality healthcare system

Spain has lower both preventable and treatable mortality compared to the EU average, as well as higher overall life expectancy, standing at 83,5 years old, which is considered one of the highest in the world. Notably, the healthy life expectancy averaged at 69,9 years and is again among the highest globally.

Although the mortality rate in Spain has seen an improvement to 9,49 per 1000 population, it has not fully recovered to its pre-covid state at 8,83 per 1000 population. Furthermore, a general upward trend in mortality over the last decade can be observed, which is mainly attributed to the challenges posed by an ageing population.

This, coupled with the fact that 20% of the population is older than 65, will in turn provide additional drivers for demand for adequate healthcare in the future, and is expected to substantially increase the said demand. Hence, we recognise a clear need for strategic planning and investment to ensure capacity for the evolving health demand.

Health determinants suggest a potential increase in HC demand

The mentioned healthy life expectancy in Spain surpassed the EU average of 64,6 healthy years by more than 5 years. Furthermore, Spain's citizens have on average a higher self-perceived positive health than their EU counterparts, with 70% of the population perceiving their health as very good or good (as opposed to 68% of Europeans).

On the other hand, when looking at the primary health determinants, the data reveals on average a worse situation than in the rest of the EU, with a smoking rate of 19,8%, slightly above the EU average, daily alcohol consumption of 13% as opposed to 8,4% on the EU level, physical activity levels of 10,2% as opposed to 12,4% on the EU level, and obesity rate of 15,4% as opposed to 16% on the EU average.

This, coupled with the ageing population would indicate a potential for increasement of the healthcare demand in the coming years, as the health determinants indicate a relatively unhealthier lifestyle by Spain's citizens when compared to their EU counterparts.

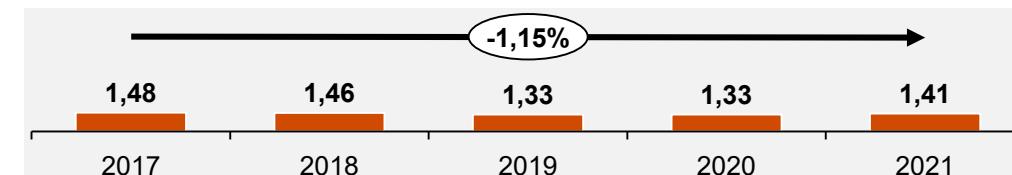
With only 1,15 nurses per doctor, Spain is facing a significant shortage in nursing staff

Hospitals – Key Drivers (2/2)

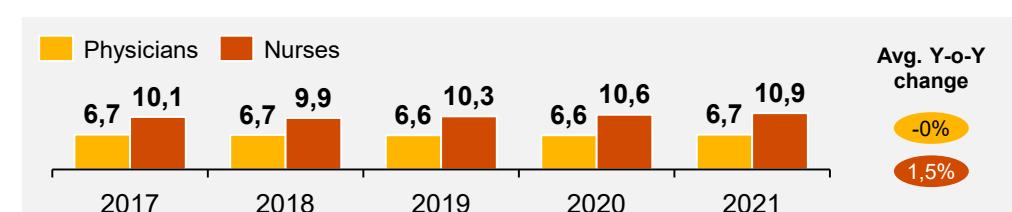
Medical practitioners, per hundred thousand population



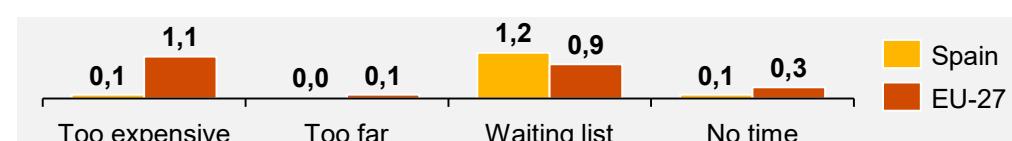
Nurses per doctor ratio



Number of healthcare graduates, by function, in ths.



Self-reported unmet demands of population (% of population 16+)



The Ministry reports 40% of citizens believe the health system might not function well

The data suggests that in general there is an increase in the number of medical practitioners per hundred thousand population in Spain. The numbers grew significantly, with a CAGR of 3,94% in the segment of general practitioners, while specialists recorded a more modest growth of CAGR of 1,63% in the same period.

While the data may showcase a positive increase, Spain still falls short of the EU average of 6,2 doctors and 11,3 nurses per 1000 inhabitants. This indicates a significant shortage of nursing staff, as the number of doctors is very close to the EU average. This is also confirmed when examining the share of nurses per doctor, which stood at only 1,15 nurses per doctor, and has reduced by a CAGR of -1,15% in the last five years, outlining a persistent negative trend, and underscoring the general shortage of nursing staff.

On the other hand, this trend could be slowed down, since the data suggests that between 2017 and 2021, Spain reported an increase in nursing graduates by a CAGR of 1,5%, as well as a persistent 2% increase in nursing enrolments.

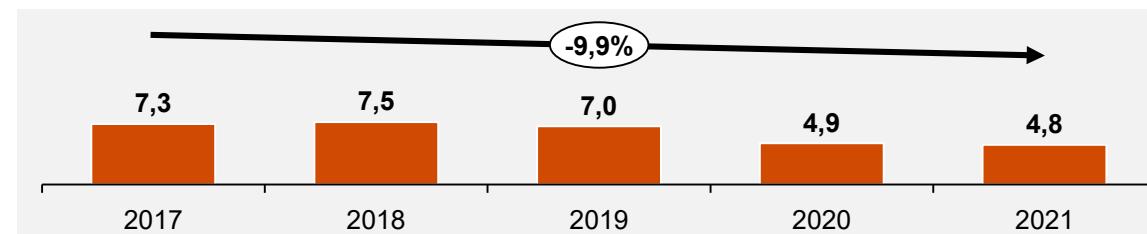
The number of physician graduates has remained stable across the years, however, there is some evidence of poor working conditions for the physicians, which could negatively influence Spain's healthcare system in the future. The data suggests poor retention rates, as well as protests in Madrid, with healthcare workers demanding improvements in working conditions. This is also underscored by a report of the World Health Organization (WHO) which revealed that Spain is among the four countries where mental health problems during the pandemic were reported between 40% and 75% of surveyed health workers.

Finally, one of the key drivers for the future state of HC in Spain are the long waiting lists, as this is the primary unmet demand reported by the population in the EU's SILC survey, with all other categories being below the EU average. This is also recognised in the number of citizens subscribing to voluntary health insurance (VHI), which was discussed on the first slide of this segment. It is mentioned that the primary reason for the VHI is the desire to reduce the waiting times, and not the lack of coverage by the public health system.

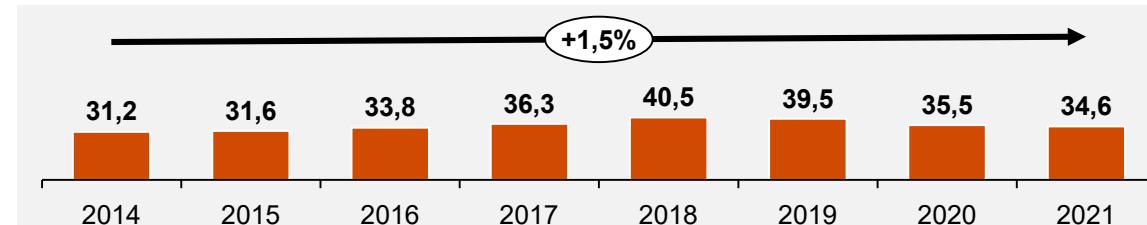
Unmet needs for healthcare in Spain were reported mostly due to the waiting lists and financial reasons

Hospitals – Market Demand

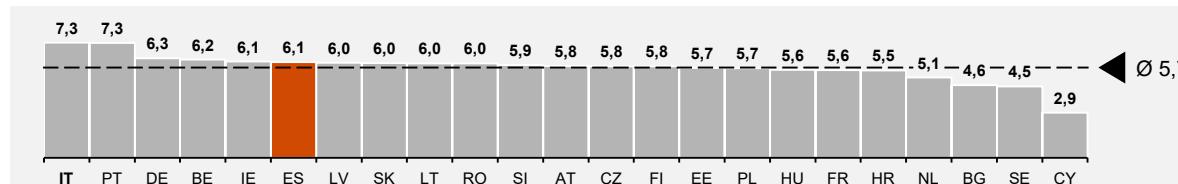
Average number of visits to physicians, per capita



Number of hospital days for inpatient cases in Spain, in M



Average in-patient length of stay across EU in days in 2021 (curative care)



The main concerns are related to waiting lines and the financial burden

According to the National Statistics of Spain (INE) 2021, a total of 4.513.640 individuals, approximately 9,4% of the Spanish population, required hospitalisation. Those were also concentrated in the biggest urban areas, with the epicentre of hospitalisations and mortality being in Madrid.

Similarly to other examined countries, we can observe the reduction in key demand metrics during the COVID-19 pandemics, with reductions in the number of hospital days and the number of discharges in the years 2020 and 2021.

This can be attributed to the decreasing number of consultations, which indicates that the healthcare sector focused on dealing with the effects of COVID-19 as a priority. This trend should be observed in the future to understand whether the numbers will rebound from the year 2022 onwards, after the effects of the pandemic have been reduced.

Geographically, hospital admissions are closely aligned with population density, with Madrid (27,8%), Catalonia (20%), Andalusia (9,1%) and Valencia (6,9%) accounting for around 64% of total admissions among 17 autonomous communities.

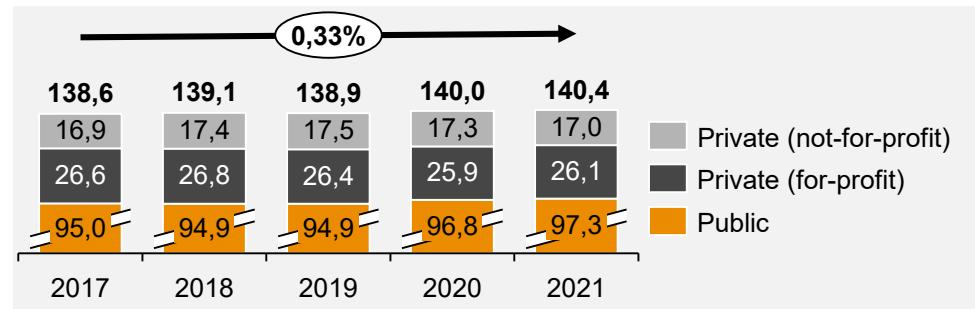
The average inpatient length of stay was approximately 6,1 days in 2021, slightly above the EU average of around 5,7 days. Over the years, there has been a modest year-to-year increase, with a CAGR of 0,56% from 2015. According to National Statistics, the main causes of hospitalisation in 2021 were diseases of the circulatory system (12,9% of the total), diseases of the digestive system (12,3%), and tumours (9,7%).

Hospitalisations due to COVID-19 in 2021 accounted for 5% of all discharges and 8,7% of all deaths in Spain. Interestingly, the number of discharges grew from the year 2020 (from ~138k to ~241k), while the number of deaths almost halved (from ~60k to ~39k). This indicates that the healthcare system has definitely started to better cope with the impacts of COVID-19 pandemic and is freer to refocus on other healthcare priorities now. Hence, we expect the number of hospitalisations and the number of visits to physicians to rebound in the coming years, thus returning the demand for healthcare back to the pre-pandemic levels.

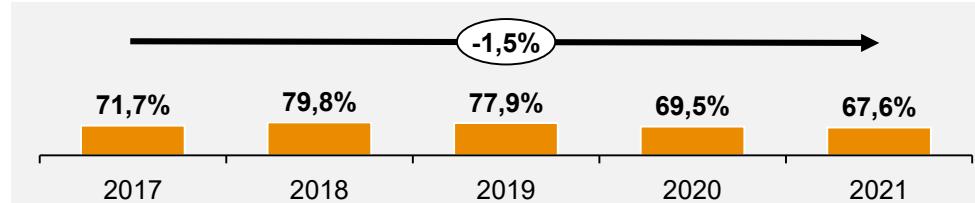
High utilisation rate, coupled with low number of beds per 1.000 citizens, indicate existence of supply side pressure

Hospitals – Market Supply

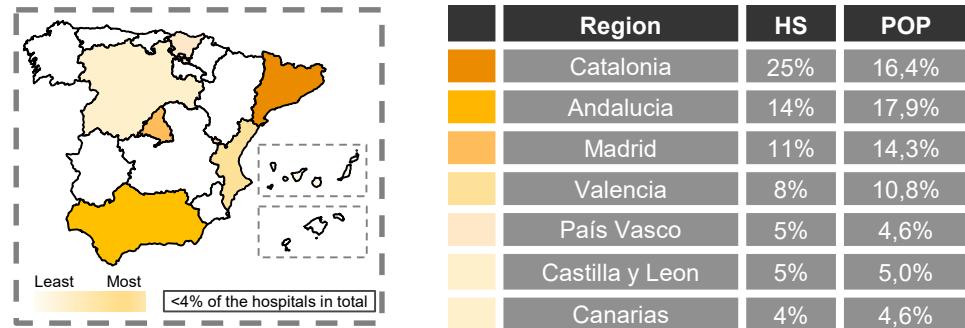
Number of hospital beds, in ths.



Utilisation of current bed capacity in Spain



Regional split of hospitals and population



Sources: Eurostat, National Statistics Institute (INE), Local News Outlets, PwC analysis

Hospital beds follow staffing shortage challenges for healthcare supply

In 2022, Spain had a total of 776 hospitals, consisting of 346 public hospitals (44%) and 430 private hospitals (55,4%). Despite a slight upward trend in the past decades, Spain reported a decrease in the number of hospitals between 2018 and 2021, with a CAGR of -0,2%. While in case of the number of hospital beds in Spain, it amounted to approximately 140.397 hospital beds, indicating a slight increase of CAGR 0,3% from 2021.

Conversely to the ownership of hospitals out of total hospital beds, around 69,3% are publicly owned, while approximately 30,7% fall under private ownership (18,6% for-profit and 12,1% not-for-profit). This indicates that private hospitals are predominantly smaller in size (in terms of bed capacity), and hence more focused on outpatient care.

Furthermore, Spain's number of hospital beds per 1000 population, which is currently at 2,96, is significantly lower than the EU average of 5,25, positioning it among the lowest in Europe and suggesting a potential shortage in bed availability.

On the other hand, the data on utilisation of the bed capacity in Spain suggests a dropping utilisation from the high of 79,8% in 2017 down to 67,6% in 2021. Considering that the number of hospital beds remained stable, we see this reduction mainly as the product of reducing the number of hospitalisations, also outlined in the previous slide. Hence, in case the number of hospitalisations rebounds back to pre-pandemic levels, there will still be more than 20% spare capacity.

This is further supported by a study done in Madrid, which identified an increase of available beds by 27% compared to the pre-pandemic situation, as such the developments in these areas should be closely monitored.

Outside of Catalonia, which has by far the largest concentration of hospitals, the split of hospitals follows closely the distribution of population, indicating that there are no regional limits to the provision of care.

It should be also noted that the Government has allocated EU funds (specifically RRF funds) aimed at improving the renovations of hospitals and upgrading the equipment within the present hospitals. This could ensure against any potential shortages in the future.

7



Retirement homes



This segment faces **affordability and supply challenges**, with an **increase of retirees**, both domestic and foreign

Retirement homes

Key conclusions — Phase 1

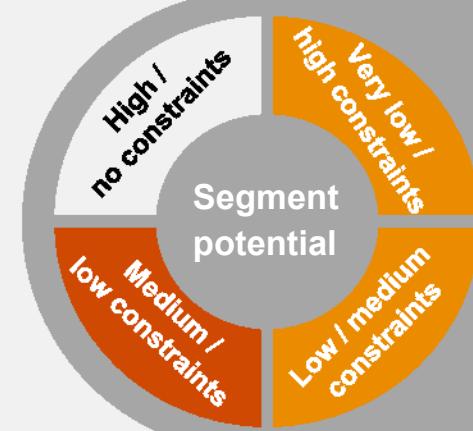
- The segment is characterised with decentralisation, with the central Government (through the Ministry of Social Rights) making policy decisions and allocating funding, while the provision of care is delegated to the specific providers
- 70% of providers are private entities and they also hold the majority of home care beds (73%)
- Spain has seen a significant increase in retiree immigrants, with numbers growing at a CAGR of 9%, from 2015 to 2021
- Population projections further indicate a substantial growth in the share of elderly population, which should reach 25.2% of total population in Spain by 2033

Key conclusions — Phase 2

- Stakeholders noted that long construction times and recent high interest rates put pressure on investment profitability and feasibility
- In recent years, the number of private nursing homes has grown, particularly through investments by business groups
- With current care costs, a significant portion of elderly people and their families are excluded from accessing residential care unless they receive public funding or opt for public or contracted places, thus limiting demand
- A significant percentage of existing facilities are old, in many cases their renovation are not economically viable



PwC Assessment



Challenges in the segment persist, primarily in providing affordable care to the elderly, as well as securing financing to ensure projects are economically viable



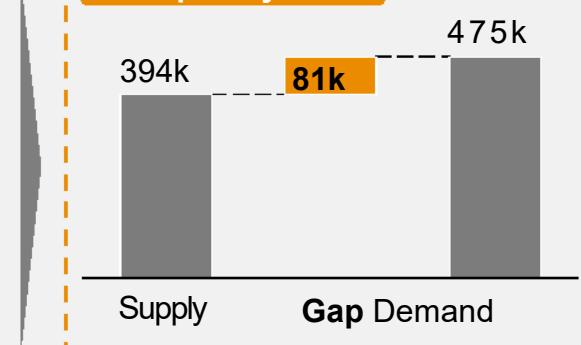
With a growing number of private players and the need for extensive renovations of existing stock, this segment presents significant potential for CEB financing



Key Segment Data



Gap analysis



The elderly care system is characterised by decentralisation, while large share of the elderly receive mainly informal care

Retirement Homes – General Overview

Characteristics of the system

Spain's Long-Term Care (LTC) system is grounded in the 2007 act "*Promotion of Autonomy and Care for Dependent Persons*" which established universal access to LTC in Spain, including home and residential care. This act significantly expanded public funding, as well as implemented the system of "needs assessment" to determine the level of dependency of the elderly and prepare an individual care plan to tailor the support to the needs of the specific person.

Furthermore, the act decentralises the responsibility of the LTC care by establishing regionally decentralised cost-sharing agreements. The regional authorities, hence, are responsible for the implementation of the act, the performance of needs assessment, and the provision of LTC care in Spain. They are free to employ specific service providers, or provide the LTC services on their own, through a subsidiary company. The Ministry of Social Affairs, acting on behalf of the Spanish government, oversees sector regulation and provides subsidies to families caring for elderly members.

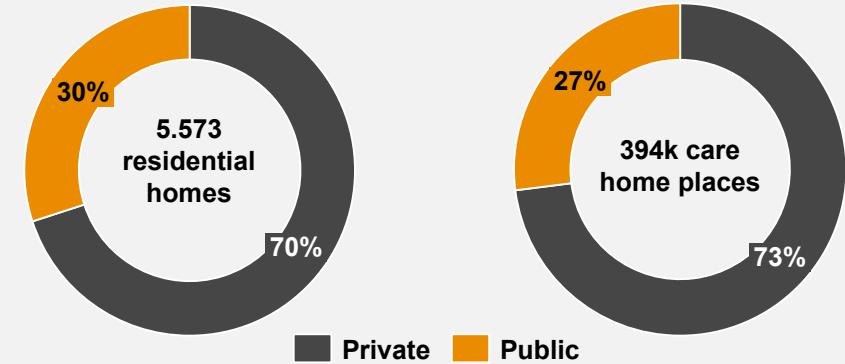
Service providers (public and private) in the elderly care sector, including retirement homes, home care services, and nursing homes are responsible for the efficiency and quality of the care services provided in alignment with the allocated funding and plans. At present majority of the residential homes as well as beds in the residential home places are privately owned.

The majority of the funding is provided by the regions, depending on the scope of disability assessed. Additionally, depending on the said level of disability, the elderly can either receive formal care at home, or be placed in the LTC facility. However, it should be noted that a large majority of elderly receive mainly informal care. According to the Survey of Health, Ageing and Retirement in Europe (SHARE), informal care is defined as help without pay or by a paid relative, while formal care is defined as paid help by a non-relative.

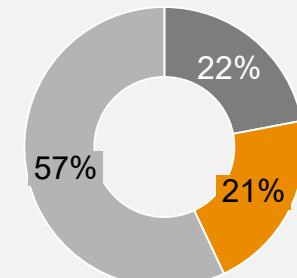
It should be noted that Spain is in general a popular destination for retirement from other EU countries. Foreign retirees in Spain have the same rights as the local elderly population, and qualify for the same benefits, however many of the more affluent retirees opt for fully private services. To this end, this report examines only institutions holding a "charter" enabling them to participate in the state funding scheme.

PwC

Number of units for elderly care, by type

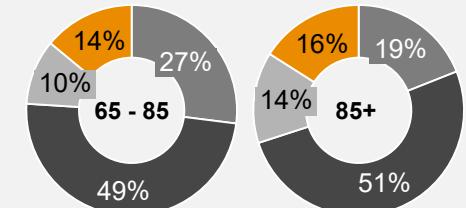


Share of LTC financing by type of source



State
Co-payment
Regions

Type of long-term care received



Only formal care
Only informal care
Formal and Informal care
Nursing home care

Sources: Eurostat, National Statistics Institute (INE), PwC analysis

Higher life expectancy than the EU average along with the higher risk of poverty or social exclusion influence demand

Retirement Homes – Key Drivers

Affordability is one of the key issues in LTC provision

Spain's life expectancy is significantly above the EU average both for males and females, which should increase the pressure on the LTC system, as more population will require support at some point in time. Furthermore, the elderly population in Spain is growing at a faster pace than that of the EU. In comparison to the elderly population growth in the EU (~1,3%), Spain's elderly population grew by a CAGR of 1,6% between 2015 and 2022.

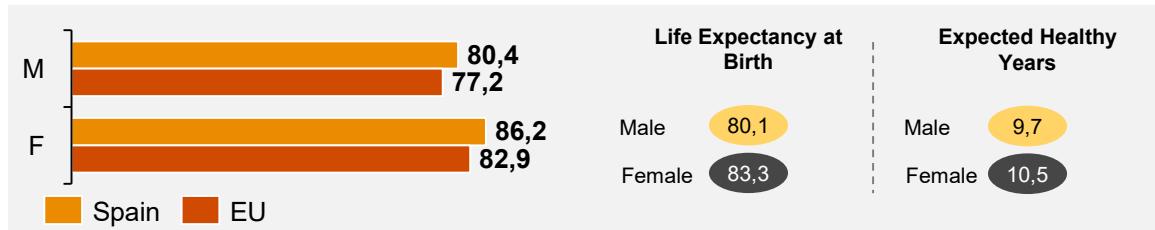
On the other hand, Eurostat data reveals that Spain maintains a slightly lower old-age dependency ratio of 30,5 compared to the EU's 33. This means that for every 100 working-age people, there are about 31 individuals aged 65 and older, who are not working. This lower dependency ratio means that the working population in Spain is better able to support the economically inactive elderly than that of the EU.

However, the data on the risk of poverty or social exclusion with the elderly, indicate that the elderly in Spain are under a bigger risk of poverty than it is the case on average in the EU. The figures dropped to a low of 18% (slightly below the EU average) right before COVID-19 and have then surged back to a high of 22% before stabilising at 21%.

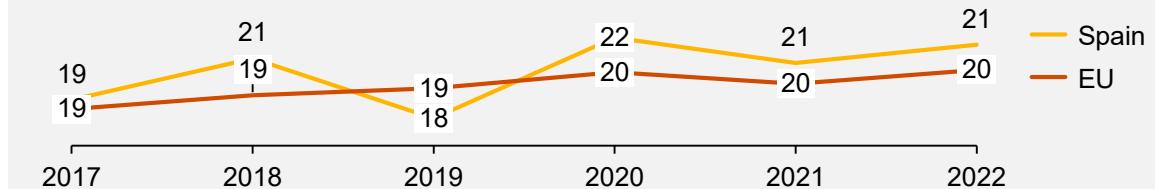
Comparing the cost of retirement homes to the average retirement pension identifies a significant financial burden. The average pension covers only around 65,4% of the average care home rate. This suggests a clear need to supplement the gap with savings and family support. The elderly can choose between private and public retirement homes, in case of public homes the coverage is increased to 80% of the cost, however, it is still not affordable for a large amount of the population. This fact causes Spain's elderly to opt for informal care, home care or rely on family support, which places an additional burden on the families.

To address the affordability issue, the state provides dependency allowances, particularly for severe and highly dependent individuals. The amount to be paid and the co-payment (determined based on the claimant's income) favours those with lower incomes. Seniors with difficulties in affording long-term care (based on eligibility criteria) may receive a public grant of 300 EUR to 600 EUR monthly for use in charted private residences.

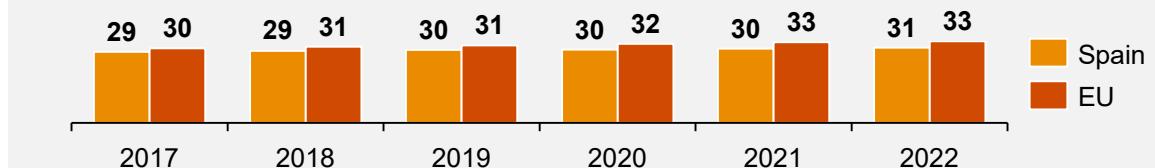
Average life expectancy at birth (2021)



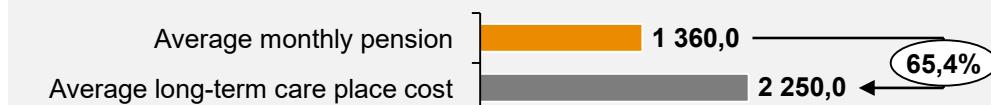
Risk of poverty or social exclusion, in % of 65+ years population



Old-age-dependency ratio



Difference between retirement pension and prices



Projected growth in population along with the immigration trends increase demand for LTC in Spain

Retirement Homes – Demand

Due to the ageing population, the LTC waiting lines expected to extend

According to the National Statistics Office Spain, with a population of 47M, recorded a significant demographic shift as approximately 20% of its population, or 9,48M people, are aged 65 or more. As mentioned in the previous slide, the country has one of the highest life expectancy rates in the EU at 83,5 years. Notably, the National Statistics Office projects that there will be more than 13M seniors in 2035, representing a significant 25,2% of the total population. Looking further ahead, by 2050, one-third of the population is anticipated to be over 65 years old.

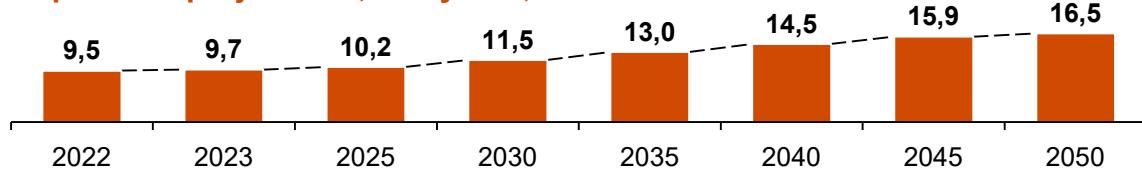
The government reports around 2,1M applications for all forms of long-term care from the Spanish elderly, with only around 1,9M resolved, leaving a waiting list of approximately 124k individuals for all types of LTC. Furthermore, the number of requests is increasing at a CAGR of 2,6%, similar to the growth of resolved applications (CAGR 2,8%). This indicates that despite the number of resolved applications grew at a slightly faster rate, there is still a large portion of unresolved applications, causing further waiting lists.

Out of the total yearly immigrants at 528.856 in 2021, around 36.475 were aged 65 or over. Interestingly, the annual immigration for this age group increased by a CAGR of 9% from 2020 to 2021 and is further expected to increase due to Spain's appeal as an attractive retirement destination, healthcare system, and relatively low standard of living costs.

Hence, the foreign population in 2022 was reported at 7,4M (accounting for 15% of the total population). Foreign retirees are immigrating in significant numbers from all over the world, primarily selecting the Spanish Mediterranean coast (areas such as Barcelona, Valencia and Andalusia) as their destination. In 2022, the share of elderly foreigners living in Spain from the EU represented ~38% of the total foreign senior population.

It should be noted that the elderly who immigrate from the EU can avail of the same service as Spain's elderly, however, it is usually the case that elderly immigrants are more affluent and opt for private, more luxury offerings, which are not part of this study.

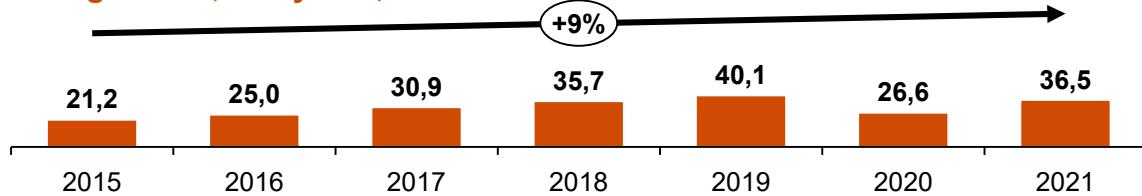
Population projections, 65+ years, in millions



Elderly number (#M) and share (%) with respected total, by region

Region	#	%	Change (2017–2022)
Andalucia	8,5	18%	1,6
Catalunia	7,8	19,3%	0,9
Madrid	6,8	18,3%	1,0
Valencia	5,1	20,0%	1,0
Galicia	2,7	26,1%	1,6
Castilla y León	2,4	26,2%	1,6

Immigrations, 65+ years, in ths.



Existence of waiting lines, long average time to enter a care home, and coverage ratio indicate supply issues

Retirement Homes – Supply

Spain's coverage ratio falls short of international standards

In 2022, there were approximately 5.573 residential homes with a distribution of 3.904 private residential homes (~70%; ~289k places) and 1.669 public residential homes (~30%; ~104k places). The total supply of residential care home places increased by 2,4% at 393.581 in contrast to 2020. According to the Government of Spain report, around 63,3% of all places in retirement homes, including those in chartered private facilities, are publicly funded.

The monthly costs for assisted living facilities are on average 1.700 EUR. Depending on the dependency level of the elderly, the majority of the cost of the home can be covered by the Government, with the elderly covering around 36% of the co-payment on average.

Spain's current approximate coverage ratio is 4,15 beds per 100 elders aged 65 or more, slightly lower than the one in 2020 (4,17 beds). According to the WHO, the ratio of 5 beds is considered to be the standard. This, coupled with the identified waiting lists of 124k described in the previous slide, indicates that the current LTC system in Spain may not be adequately equipped to meet the needs of the ageing population. The data also suggests that according to the Organization for Consumers and Users (OCU), the average waiting time to enter a care home is 120 days.

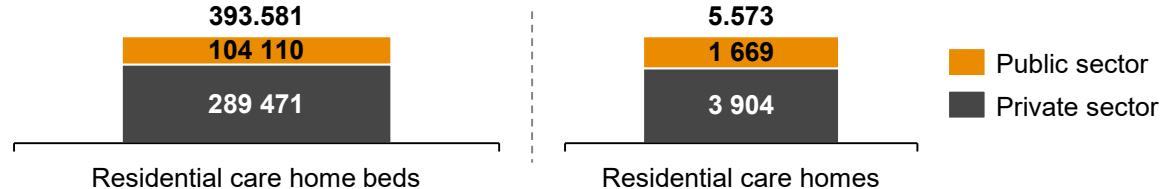
A wide variation in the nursing home beds per 100 people older than 65 years has been observed among the autonomous communities. Barcelona, Madrid and Castilla y León reported the highest ratios, being close to the WHO standard. However, although a significant elderly population share resides in Andalusia and Canarias, the two regions report lower ratios in elderly care places.

The highest concentration of retirement home beds is in the autonomous community of Catalonia with the reported share of beds dedicated for LTC of around 16,3%. It is followed by Madrid at 13,5%, Castilla y Leon at 12,2% and Andalusia at 11,3%. The four regions together accounted for 53% of the total supply of nursing home places in 2020.

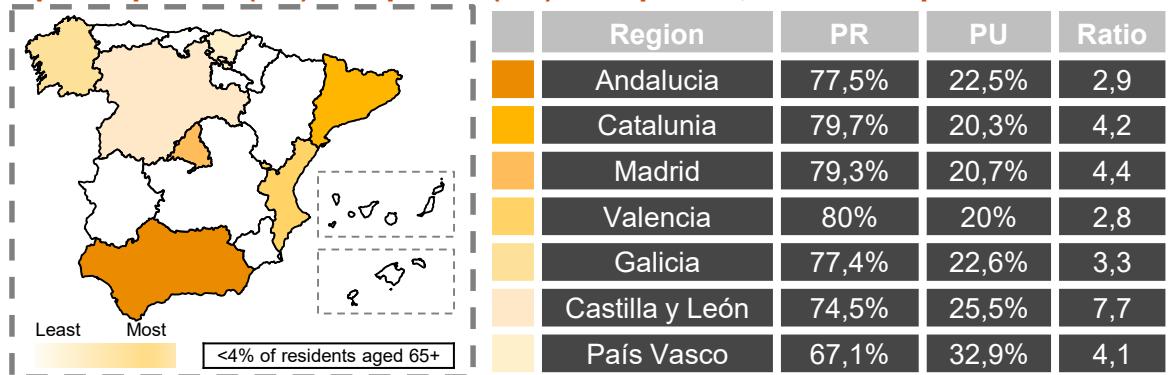
Sources: Eurostat, National Statistics Institute (INE), Social Charter, Local News Outlets, PwC analysis

PwC

Retirement care resources by facilities and beds, by ownership



Split of private (PR) and public (PU) care places; beds ratio per 100 elders



Main operators by number of assets and beds

Main private operators	Assets	LTC beds
DomusVi España	144	19.499
Edad Dorada	104	6.364
Grupo Clece	66	4.868
Vitalia Plus	54	7.986
Orpea Ibérica	53	8.258

LTC places by center size, by owner

# of places*	Private	Public
< 25	12k	6,97k
25–49	38,97k	16,4k
50–99	82,1k	31,89k
>=100	156,4k	48,85k
Share	73,5%	26,5%