European Construction Sector Observatory

Country profile **Spain**

January 2022

In a nutshell

Over the 2010-2020 period, Spain's GDP declined by 1.3%, standing at EUR 1.1 trillion in 2020. In 2020, it declined by 10.8% compared to the previous year. In 2021, however, it was expected to grow by 5.9%.

The **number of enterprises** in the Spanish broad construction sector grew by 3.2% between 2010 and 2020, totalling 658,351. This growth was primarily driven by an increase in the number of enterprises in the real estate activities sub-sector (+45.4%) between 2010 and 2020. The manufacturing, architectural and engineering activities and narrow construction sub-sectors experienced declines of 26.9%, 12.2% and 2.8%, respectively, over the same reference period.

Number of enterprises in the real estate activities sub-sector between 2010 and 2020 ↑ **45.4%**

The **volume index of production** in the broad construction sector declined by 9.7% during 2015-2020, mainly due to the declines experienced in the construction of buildings (-10.3%) and the construction of civil engineering (-5.6%) over the same period.

Construction of buildings between 2015 and 2020 ↓ **10.3%**

Turnover in the broad construction sector amounted to EUR 226.7 billion in 2018, registering a decline of 18.2% compared to the 2010 level (EUR 277.3 billion). It further decreased to EUR 216.5 billion in 2020, marking to a 21.9% decline since 2010. This downturn was primarily due to a 31.6% decline in turnover in the narrow construction sub-sector between 2010 and 2020, followed by a 14.7% decline in the manufacturing and a 4.2% decline in the architectural and engineering activities sub-sectors over the same reference period. Conversely, the real estate activities sub-sector grew by 39.1% over the same reference period.

Turnover in the broad construction sector between 2010 and 2020 ↓ **21.9%**

In parallel, the **gross operating rate** of the broad construction sector, which is used to assess the profitability of the sector, stood at 12.4% in 2018[1], lower than the 2010 level of 13.0%. The real estate activities sub-sector registered the largest profit margin on sales (42.2%) in 2018, followed by the architectural and engineering activities (15.5%), the narrow construction (10.4%), the manufacturing (8.0%) sub-sectors.

In terms of employment, there were 1,911,053 **persons employed** in the Spanish broad construction sector in 2020, representing a decline of 20.0% compared to the 2010 level of 2,389,628 persons. This was mainly due to the decline registered in the number of persons employed in the manufacturing (-29.8%), the narrow construction (-27.0%) and the architectural and engineering activities (-7.2%) sub-sectors, respectively, over the 2010-2020 period. The real estate activities sub-sector witnessed growth of 34.4% in the number of persons employed in the same reference period.

In the context of the **housing market**, the Spanish government has taken several measures to ensure the availability of affordable and quality housing.

For instance, in December 2020, the government introduced amendments to the State Housing Plan 2018-2021 including the extension of the programme until 31st December 2022. The country also receives financial support from the European Investment Bank (EIB) for the development and construction of social housing.

In June 2021, the EIB signed an agreement to support Barcelona City Council in the construction of nearly 490 new public rental homes with an investment of EUR 36.2 million[2].

As per the agreement, the EIB will finance the construction of 11 developments and 489 affordable social rental homes in various locations across the city. Also, if required, the financing could be increased to EUR 65.0 million. The project will be implemented up to the end of 2023, helping to create more than 570 jobs per year during the construction phase.

Under its 2021-2026 National Recovery and Resilience Plan (NRRP), the Spanish government has allocated EUR 1.0 billion towards the construction of affordable, energy efficient rental housing.

This measure is aimed at building at least 20,000 new dwellings for social rental purposes, or at affordable prices compliant with energy efficient criteria. These houses will be built in areas where social housing is currently insufficient and on publicly owned land.

As part of the RRP, the government has also granted an allocation of EUR 300.0 million towards the Energy Rehabilitation of Buildings Programme (PREE), aligned with energy efficiency criteria with on average primary energy savings of at least 30.0%.

Spain has allocated 28.2% (around EUR 19.6 billion) of the total grant towards digital activities. This will be used for the promotion of business digitalisation, including SMEs. The aim is to strengthen the digital skills of the Spanish population, improve country-wide digital connectivity, continue the digitalisation of the public administration, and support digital-related R&D, as well as the deployment of digital technologies.

The **civil engineering segment** is expected to benefit from investment in the areas of transport infrastructure and urban development, partly driven by EU funds. As of December 2020, financing under European Fund for Strategic Investments (EFSI) amounted to EUR 13.0 billion and is set to trigger additional investments of EUR 63.0 billion. Under the infrastructure and innovation window, 136 projects have been financed by the European Investment Bank (EIB) with EFSI backing.

In December 2021, the Spanish government announced that it would invest EUR 24.2 billion in rail infrastructure over the next five years. This will go towards both the high-speed lines and the regular Spanish rail network.

While the Spanish construction sector's prospects are expected to be positive on the mid to long-term, it faces some key challenges. These include **skills mismatch** and **the issue of late payment**. As for skills, while the number of job vacancies in the narrow construction sub-sector has decreased by 57% between 2010 and 2020, the Spanish construction sector risks of being affected by skills mismatch. As per a 2019 report by CEDEFOP (European Centre for the Development of Vocational Training), demand for highly qualified workers (47.0% of total job openings in 2016-2030) and medium qualified workers (37.0%) is expected to exceed supply by 2030. Low qualified workers will remain in surplus and will need upskilling/re-skilling. With regards to late payment, according to the Survey on the Access to Finance of Enterprises (SAFE) 2021 report, 29.2% of SMEs reported that their payments to suppliers have been affected as a result of late payments by customers.

Overall, the Spanish broad construction sector has a positive outlook. Investment in public sector infrastructure, digitalisation, energy efficient housing renovations as well as a green circular economy, backed by EU funding, is projected to drive the future growth of the sector.

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Key figures

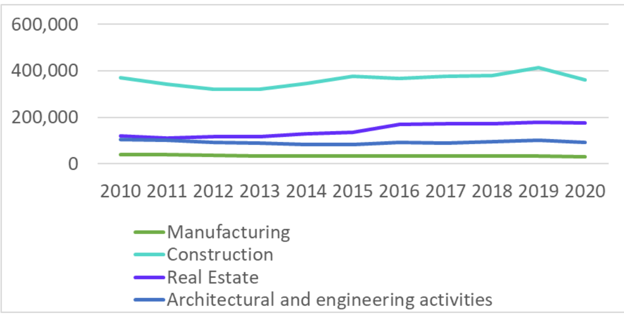
Construction market

The **number of enterprises** in the Spanish broad construction sector totalled 658,351 in 2020[3] (Figure 1), representing a 3.2% increase compared to the 2010 level (637,831). The increase was mainly led by the growth registered in the number of enterprises in the real estate activities sub-sector (+45.4%) between 2010 and 2020. However, the manufacturing, architectural and engineering activities and narrow construction sub-sectors experienced declines of 26.9%, 12.2% and 2.8%, respectively, over the same reference period.

The narrow construction sub-sector accounted for more than half (54.8%, i.e. 360,584) of total enterprises in the broad construction sector in 2020. This was followed by the real estate activities (26.7%, i.e. 175,661), the architectural and engineering activities (14.0%, i.e. 92,036) and the manufacturing (4.6%, i.e. 30,070) sub-sectors.

Number of enterprises in the real estate activities sub-sector between 2010 and 2020 **45.4%**

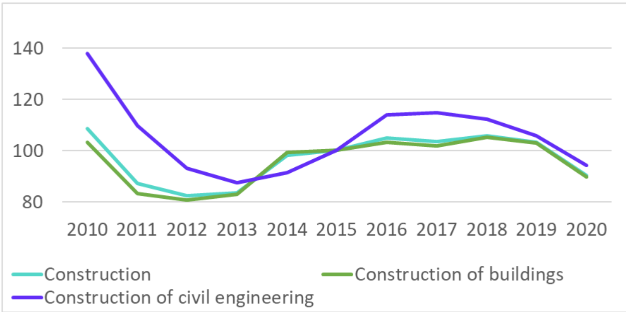
Figure 1: Number of enterprises in the broad construction sector in Spain between 2010 and 2020



Source: Eurostat, 2021.

The **volume index of production** for the broad construction sector decreased by 9.7% between 2015 and 2020 (Figure 2). Likewise, production in the construction of buildings and the construction of civil engineering declined by 10.3% and 5.6%, respectively, over the same period. However, when compared to the 2019 level, the volume index of production in the broad construction sector declined by 13.1 index points in 2020, construction of buildings declined by 13.5 index points and construction of civil engineering declined by 11.6 index points.

Figure 2: Volume index of production in the Spanish construction sector between 2010 and 2020 (2015=100)

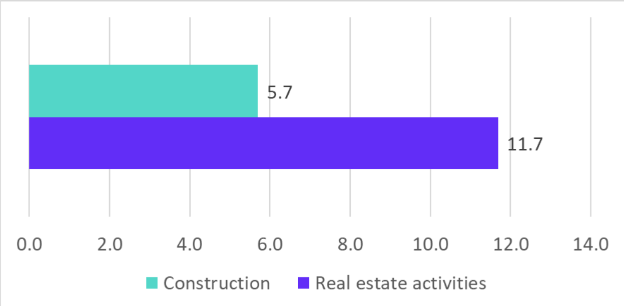


Source: Eurostat, 2021.

Total value added[4] **at factor cost** in the Spanish broad construction sector amounted to EUR 75.6 billion in 2020[5], representing a 21.2% decline since 2010. The narrow construction sub-sector accounted for the greatest part of this total at 57.6% (EUR 43.6 billion) in 2020, followed by the real estate activities (19.1%, i.e. EUR 14.4 billion), the architectural and engineering activities (12.1%, i.e. EUR 9.1 billion) and the manufacturing (11.2%, i.e. EUR 8.5 billion) sub-sectors.

The **share of gross value added (GVA) of the broad construction sector** as a percentage of GDP[6] stood at 17.8% in 2018[7], below the 2010 level of 20.4%. The share of GVA of the real estate activities[8] sub-sector in the GDP stood at 11.7% (EU-27 average 10.3%) in 2020, followed by the narrow construction sub-sector, at 5.7%, above the EU-27 average of 5.1% (Figure 3).

Figure 3: Gross value added as share of GDP in the Spanish broad construction sector in 2020 (%)



Source: Eurostat, 2021.

Spain is statistically divided into 19 NUTS-2 (Nomenclature of Territorial Units for Statistics) regions. The **gross value added** was concentrated mainly in the regions of *Cataluña, Comunidad de Madrid* and *Andalucía* for both the narrow construction and the real estate activities sub-sectors. The top three regions in terms of GVA in the narrow construction sub-sector were *Cataluña* (20.2%, i.e. EUR 26.3 billion), *Comunidad de Madrid* (16.6%, i.e. EUR 21.7 billion) and *Andalucía* (14.7%, i.e. EUR 19.1 billion) in 2019[9]. Likewise, in the real estate activities sub-sector, the top three regions were *Cataluña* (16.4%, i.e. EUR 11.9 billion), *Comunidad de Madrid* (15.4%, i.e. EUR 11.2 billion) and *Andalucía* (14.8%, i.e. EUR 10.7 billion) in 2019[10].

Productivity

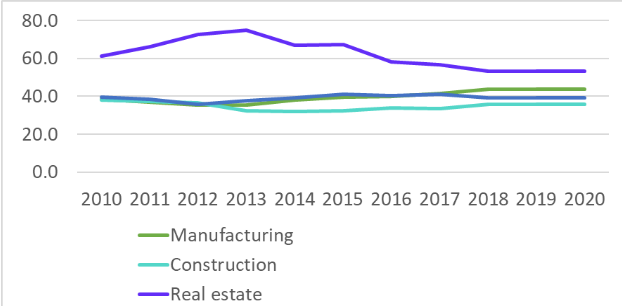
Apparent labour productivity[11] in the broad construction sector declined marginally from EUR 40,151 in 2010 to EUR 39,427 in 2018[12], experiencing a downfall of 1.8%. Productivity, however, has increased continuously from the bottom level of EUR 37,887 in 2014, showing signs of recovery.

With regard to the sub-sectors, labour productivity in the real estate activities sub-sector witnessed the highest decline of 13.3% during the 2010-2020 period, falling from EUR 61,300 to EUR 53,131. The narrow construction sub-sector also recorded a 5.4% decline in labour productivity, reaching EUR 35,936 in 2020[13] from EUR 38,000 in 2010. This was followed by a 1.3% downturn in the architectural and engineering activities sub-sector (from EUR 39,600 to EUR 39,070) over the same period. On the contrary, productivity in the manufacturing sub-sector marked an increase of 13.9% between 2010 and 2020, rising from EUR 38,350 to EUR 43,684 (Figure 4).

Apparent labour productivity in the real estate activities sub-sector between 2010 and 2020

13.3%

Figure 4: Labour productivity in the broad construction sector in Spain between 2010 and 2020 (EUR k)



Source: Eurostat, 2021.

In 2017, a five-year National General Collective Agreement was signed between social partners in the construction sector, namely the National Confederation of Construction, representing employers, and the two trade unions CCOO Construction and Services and UGT-FICA. It was the 6th General Agreement for the construction sector with an objective to increase productivity and competitiveness among other things. It is one of the biggest collective agreements in the Spanish economy since it directly involves around 800,000 employees[14]. The agreement also aimed at promoting the use of new technology, including the "BIM Environment", a new collaborative work methodology, based on the use of an intelligent 3D model. In addition, it aimed to keep improving the qualification and necessary skills of employees in the sector with specific training given by the Construction Labour Foundation (FLC).

Turnover and profitability

Total turnover of the Spanish broad construction sector amounted to EUR 226.7 billion in 2018, registering a decline of 18.2% compared to the 2010 level (EUR 277.3 billion). It further decreased to EUR 216.5 billion in 2020[15], a 21.9% decline since 2010. This downturn was primarily due to a 31.6% decline in turnover in the narrow construction sub-sector between 2010 and 2020, followed by a 14.7%

decline in the manufacturing and a 4.2% decline in the architectural and engineering activities sub-sectors over the same reference period. Conversely, the real estate activities sub-sector grew by 39.1% over the same reference period.

In 2020, the largest share of the turnover came from the narrow construction sub-sector, which accounted for 63.6% (i.e. EUR 137.7 billion) of the total. It was followed by the real estate activities (13.7%, i.e. EUR 29.6 billion), the manufacturing (12.7%, i.e. EUR 27.4 billion), and the architectural and engineering activities (10.0%, i.e. EUR 21.8 billion) sub-sectors.

Turnover of the real estate activities sub sector between 2010 and 2020 **39.1%**

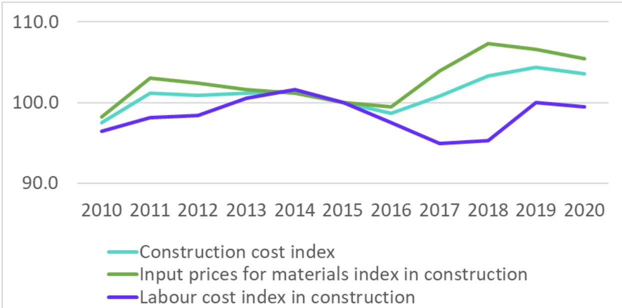
The **gross operating surplus** of the broad construction sector went down from EUR 36.0 billion in 2010 to EUR 28.1 billion in 2018[16], registering a decline of 21.9% during the period. The largest decline was registered by the narrow construction sub-sector (-40.9%), followed by the architectural and engineering activities sub-sector (-14.6%). However, both the manufacturing and the real estate activities sub-sectors recorded rises of 13.5% and 9.1%, respectively, in their gross operating surplus over the same reference period.

Gross operating surplus of the narrow construction sub-sector between 2010 and 2018 **40.9%**

At the same time, the **gross operating rate** of the broad construction sector[17], which gives an indication of the sector's profitability, stood at 12.4% in 2018[18], after fluctuating throughout the 2010-2018 period. This was lower than the 2010 level of 13.0% and also the lowest mark recorded over the period. Except for the manufacturing sub-sector (8.0% in 2010 versus 9.8% in 2018), the remaining three sub-sectors witnessed declines in their gross operating rates over the same reference period - the narrow construction sub-sector (10.4% in 2010 versus 8.5% in 2018), the real estate activities sub-sector (42.2% in 2010 versus 33.7% in 2018) and the architectural and engineering activities sub-sector (15.5% in 2010 versus 13.2% in 2018). Notably, the real estate activities sub-sector remained the most profitable sub-sector in 2018, while the narrow construction sub-sector was the least profitable.

In parallel, the **construction costs** index increased by 3.6% during the 2015-2020 period, primarily driven by a 5.4% rise in the input prices for materials. However, the labour cost index decreased by 0.5% over the same period. (Figure 5).

Figure 5: Construction cost index between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

Following a global trend, construction prices have bene skyrocketing in 2021. The National Construction Confederation (CNC) finds that the rise in the price of raw materials has caused four out of ten construction companies (39.5%) to have been forced to cancel or stop their works, according to the study "Impact of the rise in raw materials in construction"[19]. CNC estimates that the increase in prices has triggered the cost of the works by 22.2%.

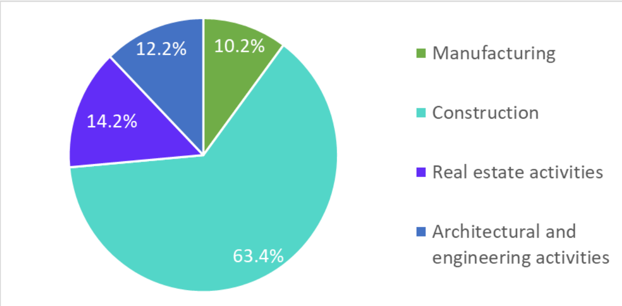
Employment

In 2020[20], there were 1,911,053 persons employed in the Spanish broad construction sector, representing a decline of 20.0% compared to the 2010 level of 2,389,628 persons.

However, when compared with the lowest level of the decade, 1,554,206 persons in 2013, employment in the sector has been consistently rising, marking an increase of 36.1% between 2013 and 2019. However, it declined by 10.9% in 2020 compared to 2019. The narrow construction sub-sector employed the largest share of the total workforce in the broad construction sector in 2020 (63.4% i.e. 1,211,982 persons). This was followed by the real estate activities (14.2%, i.e. 271,558 persons), the architectural and engineering activities (12.2%, i.e. 233,443 persons), and the manufacturing (10.2%, i.e. 194,070 persons) sub-sectors (Figure 6). The decline in employment was primarily due to a 29.8%, 27.0% and 7.2% decrease in the number of persons employed in the manufacturing, the narrow construction and the architectural and engineering activities sub-sectors, respectively, over the 2010-2020 period.

The real estate activities sub-sector witnessed growth of 34.4% in the number of persons employed between 2010 and 2020.

Figure 6: Percentage of people employed per construction sub-sectors Spain in 2020



Source: Eurostat, 2021.

Number of persons employed in the real estate activities sub-sector between 2010 and 2020 **34.4%**

The share of **people employed by SMEs in the broad construction** sector in Spain has remained stable for the past decade. In 2018[21], SMEs employed 88.1% of the entire workforce of the broad construction sector, highlighting its significance in the Spanish construction sector. However, this was marginally below the 2010 level of 89.4%.

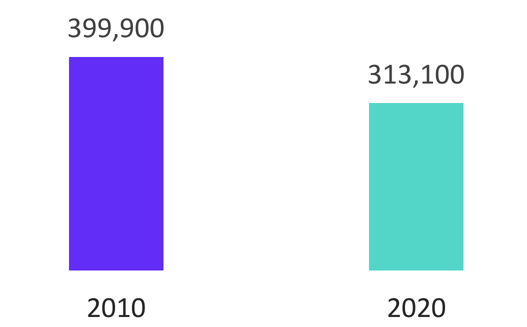
Employment in the construction sub-sectors was not equally spread over Spain and concentrated mainly in the regions of *Cataluña*, *Comunidad de Madrid* and *Andalucía* for both narrow construction and real estate activities sub-sectors. With regard to the **number of persons employed regionally** in the narrow construction sub-sector in 2019[22], the top three regions were *Cataluña* (16.4%, i.e. 210,300 persons), *Comunidad de Madrid* (15.72%, i.e. 201,400 persons) and *Andalucía* (15.71%, i.e. 201,200 persons). Similarly, for the real estate activities sub-sector, the top three regions in 2019 were *Cataluña* (24.3%, i.e. 53,500 persons), *Comunidad de Madrid* (21.6%, i.e. 47,400 persons) and *Andalucía* (13.4%, i.e. 29,500 persons).

As for **employment by specific occupation**[23], the number of professionals in the manufacturing sub-sector rose by 51.2% between 2010 and 2020, followed by clerical support workers (+35.8%). The employment rate of managers declined by 30.6%, and the number of plant and machine operators and assemblers witnessed 17.7% downturn over the same period. In the narrow construction sub-sector, a rise in demand was noticed for professionals of (+2.9%) between 2010 and 2020, while demand for managers, service and sales workers and plant and machine operators registered declines of 55.8%, 51.0% and 40.9%, respectively, during the same period. The demand for professionals in the real estate activities sub-sector recorded the highest increase of 130.6% between 2010 and 2020, followed by a rise in the employment of clerical support workers (+125.3%) and technicians and associate professionals (91.0%).

Demand for professionals in the real estate activities sub-sector between 2010 and 2020 **130.6%**

The **number of self-employed workers**[24] in the narrow construction sub-sector declined by 21.7% between 2010 and 2020, representing 10.8% of total self-employed persons in the general economy. This was lower than the EU-27 average of 11.7% in 2020 and the 2010 level of 13.8%.

There was a 97.0% rise in the number of self-employed workers in the real estate activities sub-sector over the 2010-2020 period, representing 2.1% of total self-employed persons in the general economy. This was higher than the EU-27 average of 1.6% in 2020 and 2010 level of 1.1%.



Number of self-employed workers in the narrow construction sub-sector

At the same time, **full-time employment** in the real estate activities and manufacturing sub-sectors increased by 70.6% and 0.2%, respectively, while in the narrow construction sub-sector, it declined by 24.8% over the 2010-2020 period. Similarly, **part-time employment** in the real estate activities sub-sector registered substantial growth of 152.6% between 2010 and 2020, followed by 19.4% rise in the manufacturing sub-sector.

The narrow construction sub-sector[25] experienced decline of 22.2% over the same period.

Part time employment in the narrow construction sub-sector between 2010 and 2020 ↓ **22.2%**

2

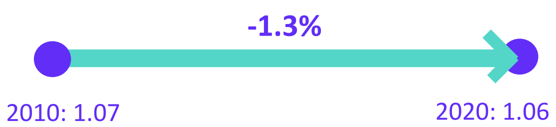
Macroeconomic indicators

Economic development

In 2020, Spanish GDP stood at EUR 1.06 trillion, representing a decline of 1.3% compared to the 2010 level of EUR 1.07 trillion. After rising by 2.0% in 2019, GDP growth decelerated to -10.8% in 2020 mainly because of the outbreak of the global COVID-19 pandemic.

In 2020, GDP decline was the highest in the decade. This was mainly due to the lockdown measures taken by the government to contain the spread of COVID-19. This led to shutting down of industries, less private consumption and weak investment. Potential GDP in 2020 was EUR 1.2 trillion, resulting in a negative **output gap** of 9.3%, which had remained in the negative territory till 2017. In 2021, the country's GDP is expected to grow by 4.6%[26].

Spanish GDP over 2010-2020 (EUR trillion)



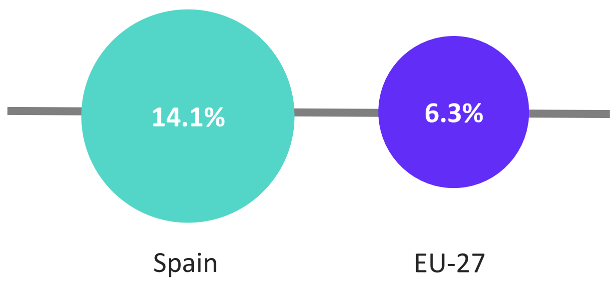
The inflation rate stood at -0.3% in 2020 (2.0% percentage points lower than in 2010). Prior to that it had been in the negatives between 2014 and 2016, before turning positive in 2017. The decline was mainly due to the significant drop in energy prices[27]. In 2021, the country's inflation is expected to increase, reaching 2.8%[28].

Demography and employment

In 2020, the average unemployment rate (between 25-64 years) in Spain stood at 14.1%, 3.8 percentage points (pps) below the 2010 level of 17.9% and 1.2 pps higher than the rate recorded in 2019. This was however, more than double the EU-27 average of 6.3% in 2020.

Similarly, the **youth unemployment rate** (below the age of 25 years) stood at 38.3% in 2020. This again, was 5.8 pps higher than the 2019 rate of 32.5% and better than the 2010 level of 41.5%, though higher than the EU-27 average of 16.8% in 2020.

Unemployment rate in Spain (25-64 years) and the EU-27 in 2020



In terms of demography, the **total population** in Spain amounted to 47.4 million people in 2020, representing a marginal increase of 1.7% over the 2010-2020 period. This is expected to rise further by 3.0% by 2030 (48.7 million people) and 1.2% between 2030 and 2050, reaching 49.3 million people by the end of 2050.

After four consecutive years of negative flows since 2012, **net migration** turned positive in 2016 and reached a level of 214,776 in 2020, a 184.3% rise compared to the 2010 level of 75,537. Migration and labour mobility to Spain have also helped fill labour and skill shortages.

In spite of significant improvements in infrastructure, the urban-rural divide persists in Spain. The country is also exposed to problems of ageing and depopulation in rural areas, as well as severe demographic pressures in the major urban areas[29].

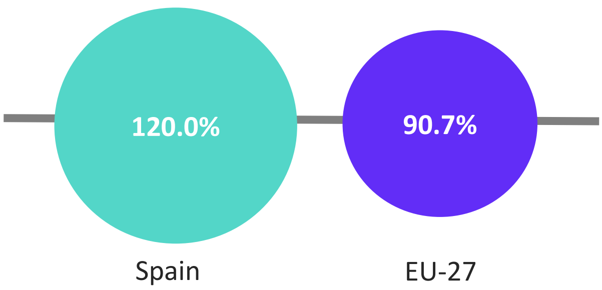
The **working age population** in Spain made up 65.8% of the total population in 2020, above the EU-27 average of 64.3%. However, by 2050, the share of the working age population is expected to decline to 54.9% compared to the 2020 level and people aged 65 or above will make up 32.7% of the overall population by 2050. This shift in population structure will drive the demand for hospitals, elderly care buildings and health infrastructures, which in turn will generate more opportunities for the Spanish construction sector.

Public finance

In 2020, **general government expenditure** represented 52.3% of GDP (46.0% in 2010), below the EU-27 average of 53.4%. **General government gross debt** accounted for 120.0% of GDP in 2020, remaining much higher than the 2010 level of 60.5% and the 2020 EU-27 average of 90.7%. **General government deficit** stood at -11.0% of GDP in 2020, higher than the -9.5% level in 2010 and the EU-27 average of -6.9% in 2020. This was mainly due to the COVID-19 crisis and the subsequent policy responses undertaken.

With economic growth resuming in the second quarter of 2021, the government deficit started to decrease due to higher income tax and VAT revenues. The phasing out of several measures introduced to contain the impact of the pandemic and the solid performance from the revenue side are set to reduce the deficit in 2021[30].

General government gross debt in 2020 as a percentage of GDP



Entrepreneurship and access to finance

According to the World Bank Doing Business 2020 report, Spain ranked 97th out of 190 countries in ease of starting a business in 2019. This is a decline in comparison with previous year's ranking (86th)[31,32].

As per the report, starting a business in Spain requires 7 procedures, taking 12.5 days and costing 3.9% of income per capita[33]. In terms of entrepreneurship, 16.5% of the Spanish adult population perceive that there are good opportunities in starting a firm in the country, and 6.8% of the adult population, currently not involved in entrepreneurial activities, intend to start a business in the coming three years[34].

In terms of the start-up environment, a 'Law for the Development of the Start-up Ecosystem' (*Anteproyecto de Ley de fomento del ecosistema de empresas emergentes*) was announced in 2019 and is expected to further promote the creation of technological companies and simplify regulations. An inter-ministerial working group has been created to develop the preliminary draft law. There are some public and public-private programmes that support SME growth, such as Spanish Company for Innovation (ENISA's) Growth Programme (*Programa Crecimiento*) and the Growing100 Programme (CRE100DO), recently launched by trade promotion agency- Spanish Institute for Foreign Trade (ICEX) in partnership with business associations and private foundations. These have helped improve Spain's scale-up performance[35].

In 2020, the COVID-19 pandemic had a major impact on Spanish SMEs leading to a drop in SME value added by 16.6% and employment by 4.6%. However, with the government taking numerous policy measures to support the economy, these indicators are expected to partially recover with SME value added to grow by 5.4%. Despite such measures SME employment dropped by 1.6% in 2021[36].

The government adopted several policy measures such as tax deferrals, suspension of the obligation to declare insolvency, and liquidity measures in 2020 to mitigate the economic impact of COVID-19 on SMEs. Digital tools such as a portal to inform SMEs about available aid programmes have also been launched[37].

Loans advanced to Spanish non-financial corporations reduced steadily, witnessing a decline of 8.7% from EUR 1,009.4 billion in 2013[38] to EUR 921.9 billion in 2020. However, when compared to the 2019 figure of EUR 876.9 billion, it grew marginally by 5.1% between 2019 and 2020, showing some signs of recovery.

Loans to Spanish non-financial corporations between 2013 and 2020 ↓ **8.7%**

As per the World Bank Doing Business 2020 report, in terms of access to finance Spain ranked 80th out of 190 countries for the ease of getting credit[39].

The Spanish government has taken several measures to improve the conditions of access to finances for SMEs. These include supplementary measures such as tax alleviations, access to government funds and other aid designed to help businesses facing temporary solvency problems due to the COVID-19 pandemic[40].

3

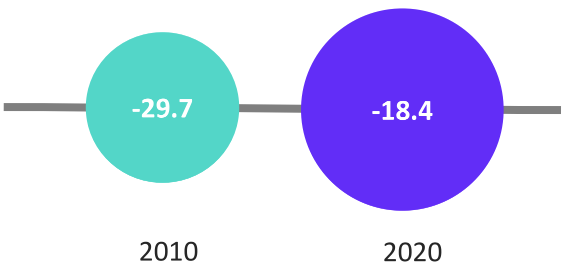
Key economic drivers of the construction sector

Business confidence

In 2020, all confidence indicators remained in negative territory, with consumer confidence and construction confidence dropping sharply from the previous year. However, overall confidence indicators have shown significant signs of improvement since 2010.

The **consumer confidence** indicator remained stable from the 2010 level of -22.9 to -22.8 in 2020, standing below the EU-27 average of -14.6 in 2020. Similarly, the **industry confidence** indicator improved from -13.7 to -4.0 between 2010 and 2020, well above the EU-27 average of -14.4 in 2020. Finally, the **construction confidence** indicator experienced an improvement over the 2010-2020 period, reaching -18.4 in 2020, up from -29.7 in 2010, while the EU-27 average in 2020 stood at -9.3.

Construction confidence indicator in Spain



Mirroring this trend, the **investment ratio** rose from the bottom level of 17.4% in 2013 to 19.2% in 2020, remaining 0.8 percentage points below the 2010 level of 20.0%.

In parallel, **investment per worker** in the Spanish broad construction sector increased by 42.0% in 2018[41], reaching EUR 78,653 compared to EUR 55,370 in 2010.

Investment per worker in the broad construction sector between 2010 and 2018	↑ **42.0%**

Domestic sales

The ranking of the five **most domestically sold construction products** in Spain has fluctuated in recent years. All product groups in the top five list witnessed declines in sales value over the 2010-2020 period except 'Prefabricated structural components' which reported an increase of 21.7%. The largest decrease in the list was reported in the sales of 'Ready-mixed concrete' (-42.8%), followed by 'Portland cement etc.' (-40.8%), 'Prefabricated buildings of metal' (-21.1%) and 'Doors, windows and their frame etc.' (-14.0%).

The largest increase in sales was observed by 'Barrels and Coopers, products of wood', which rose substantially by 79.0% between 2010 and 2020, followed by 'Pallets, box pallets and other load boards of wood', rising by 69.2% over the same period. Both these product groups together accounted for only 5.4% of the total construction product sales value sold domestically in 2020. The highest decline of 61.3% was registered in the sales of 'Bridges and bridge-sections of iron and steel', during 2010-2020.

The top five most domestically sold construction products in Spain, accounting for 48.1% of total construction products sold domestically in 2020, are presented in the table below (Table 1), including a comparison with the most sold products in the EU-27 region.

Table 1: Five most domestically sold construction products in Spain and in the EU in 2020

	Spain			EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Doors, windows and their frames (group 251210)	1,567.2	12.8	Other structures and parts of structures, etc. (group 251123)
2	Prefabricated structural components for building etc. (group 236112)	1,231.9	10.1	Ready-mixed concrete (group 236310)
3	Ready-mixed concrete (group 236310)	1,225.2	10.0	Doors, windows and their frames (group 251210)
4	Portland cement, aluminous cement, etc. (group 235112)	962.2	7.9	Prefabricated buildings of metal (group 251110)
5	Prefabricated buildings of metal (group 251110)	888.1	7.3	Prefabricated structural components for building etc. (group 236112)

Source: PRODCOM, 2021.

Export of construction-related products and services

The ranking of the **most exported construction products** has also fluctuated since 2010. Most of the products strongly increased in terms of sales value of exports between 2010 and 2020. Indeed, robust exports have been a driving factor in the country's economic upswing. Among the top five products groups, 'Articles of cement, concrete or artificial stones n.e.c.' reported an increase of 218.0% in its export sales over the 2010-2020 period. However, between 2010 and 2020, the largest increase was recorded in the product category 'Mortars' (+337.4%), accounting for EUR 64.5 million in 2020, followed by 'Barrels and Coopers, products of wood', which rose by 220.5% over the same period and accounted for EUR 80.5 million in 2020. Neither of these product groups made it to the top five list and contributed only 2.0% of construction exports, taken together. The top five most exported construction products from Spain and the EU-27 are summarised in Table 2. Together, these accounted for 63.8% of all construction products exports in 2020.

Table 2: Five most exported construction products in Spain and in the EU in 2020

	Spain			EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Ceramic tiles and flags (group 233110)	2,944.0	40.3%	Ceramic tiles and flags (group 233110)
2	Articles of cement, concrete etc. (group 236919)	485.8	6.7%	Other structures and parts of structures, etc. (group 251123)
3	Other structures and parts of structures, etc. (group 251123)	477.0	6.5%	Fibreboard of wood (group 162115)
4	Other worked ornamental etc. (group 237012)	443.0	6.1%	Doors, windows and their frames (group 251210)
5	Towers and lattice masts (group 251122)	312.4	4.3%	Builders joinery and carpentry, of wood, n.e.c (group 162319)

Source: PRODCOM, 2021.

In terms of the **cross-border provision of construction services**[42], Spain exported EUR 768.0 million of construction services worldwide in 2020, marking a decline of 50.9% compared to the 2012[43] level of EUR 1.6 billion. The country imported EUR 117.0 million worth of construction services from worldwide in 2020, witnessing a significant decline of 46.3%, compared to the 2012[44] level of EUR 218.0 million. Thus, Spain generated a **trade surplus** of EUR 651.0 million in 2020.

Access to finance in the construction sector

As per the **Survey on the Access to Finance of Enterprises (SAFE) 2021 report**, the rising macroeconomic uncertainty and developments in the general economic outlook severely impacted the availability of external finance in Spain. As per the report, around 56.6% of small and medium enterprises (SMEs) in Spain reported bank loans as being relevant, above the EU-27 average (45.7%). 19.9% of SMEs reported using bank loans recently (between April 2021 and September 2021), above the EU-27 average (14.2%). During the same period, 22.6% of SMEs in Spain applied for a bank loan, slightly above the EU-27 average of 21.3%. 5.6% of SMEs in Spain did not apply for bank loans fearing rejection, above the EU-27 average (4.7%). 46.7% of SMEs did not apply for bank loans because of sufficient internal funds, lower than the EU-27 average (47.7%)[45]. Out of those who applied for a bank loan, 65.9% received everything they requested, which is below the EU-27 average of 71.3%.

According to the report, from April to September 2021, the availability of bank loans to Spanish SMEs also changed. 18.8% of SMEs opined that the availability of bank loans had improved over the period, well above the EU-27 average (15.6%), while 10.3% stated that it had deteriorated, above the EU-27 average (10.1%). However, 64.4% of SMEs believed that the availability of bank loans remains unchanged, marginally above the EU-27 average (64.0%)[46].

The requirement for bank loans between April and September 2021 increased for around 19.2% of SMEs in Spain, above the EU-27 average (18.1%). Over the same period, the requirement for bank loans decreased for around 15.0% of SMEs, below the EU-27 average (15.7%). 64.8% of SMEs reported that their requirement for bank loans remained unchanged over the same period, below the EU-27 average (65.4%)[47].

According to the EIB Investment Survey (EIBIS) for 2020, 16.0% of firms in the Spanish construction sector were dissatisfied with the cost of financing. 11.0% were dissatisfied with the collateral requirements, 8.0% with the amount, 7.0% with the type and 5.0% with the maturity terms[48].

As per the survey, 6.0% of all Spanish firms could be considered as financially constrained, on par with the EU-28[49] average of 6.0%. The share of financially constrained firms was higher in the construction sector (9.0%) and lower in the manufacturing sector (3.0%). Bank loans continued to make up the highest share of external finance (68.0%) across all sectors in the country, though witnessing a decline since the EIBIS 2019 survey (76.0%). The report further stated that leasing and hire purchase activities represented a higher share of external finance among construction and infrastructure sector firms with a share of 19.0% and 13.0%, respectively, compared with other sectors ranging from 4.0% to 7.0%[50].

Credit extended to the narrow construction sub-sector in Spain has been declining consistently, reaching EUR 27.9 billion in 2020, a substantial 75.6% drop from 2010 (EUR 114.5 billion). This indicates difficulties for the construction sector (and especially SMEs) to obtain credit and access the financial market.

Credit extended to the narrow construction sub-sector 2010 and 2020	↓ **75.6%**

A line of guarantee has been created to protect SMEs and self-employed from the impact of COVID-19. It involves a maximum amount of EUR 100,000 million by the ICO (*Instituto de Crédito Oficial*), a Spanish state-owned bank, to preserve the level of financing flows, working capital levels and liquidity of firms[51].

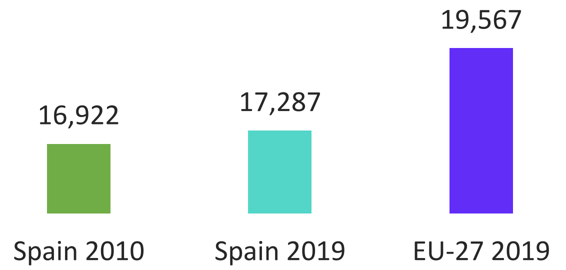
Addressing this pressing issue of finance, **CERSA** *(Compañia Española de Refianzamiento SA)* recently introduced the Guarantee Programme for SMEs and entrepreneurs *(Programa de avales para PYMES y emprendedores)* that provides a free counter-guarantee for SMEs that have signed guarantee contracts with Mutual Guarantee Companies. Another measure announced by Spain was the **Global Innovation Line** *(Línea de Innovación Global)* from CDTI *(Centro para el Desarrollo Tecnológico Industrial)* with a motive to provide financial assistance to different innovative projects to generate value added. To qualify, projects must have a minimum budget of EUR 667,000 and maximum of EUR 10.0 million, with the programme covering up to 75.0% of the eligible costs[52].

In June 2021, the European Investment Bank (EIB) signed two guarantee agreements with Banco Santander under the Pan-European Guarantee Fund (EGF). The EIB will provide Santander with two guarantees of up to EUR 500.0 million each to support SMEs, mid-caps and large companies affected by the COVID-19 pandemic[53].

In January 2022, the EIB Group and Banco Bilbao Vizcaya Argentaria (BBVA) entered into an agreement to support working capital and liquidity needs, as well as to cover the investment constraints of Spanish SMEs affected by the COVID-19 crisis. The EIB will guarantee a junior tranche of a EUR 120.0 million synthetic securitisation of an SME and small mid-cap loan portfolio originated by BBVA, enabling the bank to provide more than EUR 960.0 million of financing to support SME investments[54].

Access to housing

The **number of households** in Spain has been following a steady uptrend since 2010, rising by 6.5%, from 17,645,200 in 2010 to 18,793,900 in 2020. The share of population living in intermediate urbanised areas went up to 23.4% from 22.3% over the 2010-2020 period, reaching the highest level in the decade. Meanwhile, the **mean equivalised net income** started picking up from the bottom level of EUR 15,405 in 2014, reaching EUR 17,287 in 2019, while the EU-27 average stood at EUR 19,567. It further rose to EUR 18,116 in 2020, marking a growth of 7.1% compared to the 2010 level of EUR 16,922. Together with the general population growth, these figures support the rising housing demand and ensuing need for new residential properties, especially in urban areas.

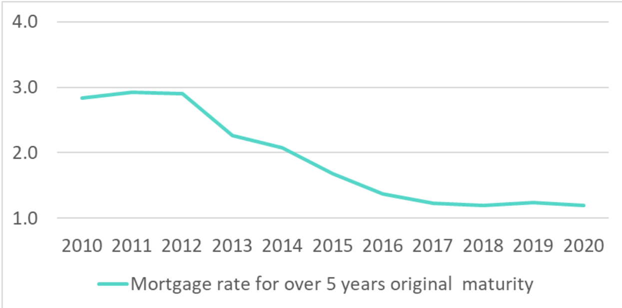


Mean equivalised net income in EUR

In addition, the **interest rate on mortgages** (for loans over five years of original maturity) declined since 2010 (2.8%) to reach 1.2% in 2017 and has stayed at that level until 2020, the lowest level in the decade (Figure 7). However, this decrease did not drive households' residential loans up. In fact, total **outstanding residential loans to households** declined consistently by 21.4% between 2010 and 2019[55], falling from EUR 620.4 billion to EUR 487.6 billion.

Residential loans to households in Spain between 2010 and 2019 **21.4%**

Figure 7: Mortgage rates for loans for over 5 years original maturity (%)

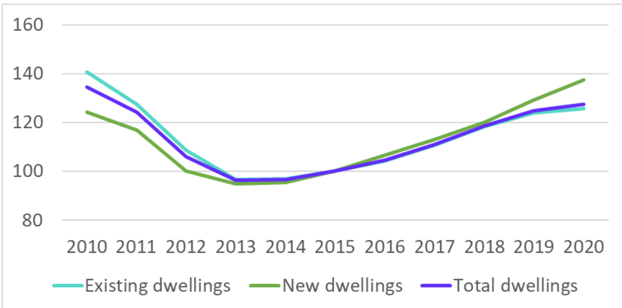


Source: ECB MFI Interest Rate Statistics, 2021.

The **house price index** of total dwellings has been increasing gradually since 2015, witnessing a 27.5% growth between 2015 and 2020. This was led by 25.8% and 37.5% rise in the house price index of existing and new dwellings, respectively, over the same period (Figure 8).

House price index for new dwellings between 2015 and 2020 **37.5%**

Figure 8: House price index in Spain between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

According to statistics provided by the Bank of Spain, house prices in Spain experienced an increase of 4.3% in 2021. The year-on-year increase in house prices in the fourth quarter of 2021 was 8.6% compared to the fourth quarter of 2020[56].

The increase in house prices in Spain are partly due to the lack of supply in areas where there is high demand, whereas the places with more properties are not in demand. The rise in the price of raw materials will also have an impact on the house prices in 2022. At the same time, falling mortgage rates will favour more residential loans to buy property[57].

In parallel, the rental price index for housing experienced a steady increase over the years, rising by 4.3% between 2015 and 2020. The price increase, to some extent, was mitigated by the increase in housing supply. However, in big cities, the increased propensity to rent after the crisis, created upward pressure on rental prices.

The number of **building permits** issued for residential dwellings increased significantly by 36.3% between 2015 and 2020. With regard to one-dwelling building permits, there was a 7.9% increase over the same period. The highest increment was noticed in the building permits for two and more dwellings, rising by 57.3% between 2015 and 2020.

Number of building permits for two and more dwellings between 2015 and 2020

57.3%

According to data published by the Ministry of Public Works, 10,037 housing permits for new constructions were granted in October 2021. This is a 43.1% increase from the 7,014 permits granted in October 2020. Conversely, it reported a 12.9% decline in the number of permits (11,517) granted in September 2021[58].

Nonetheless, the COVID-19 pandemic has considerably impacted the Spanish housing market where house sales dropped by 17.0% in 2020[59].

In order to mitigate the impact of COVID-19, Spain approved a three-month moratorium on mortgage payments to guarantee access to housing for the most vulnerable groups. In addition, for those who cannot pay their rents and have no alternative housing, it has suspended evictions for six months from the entry into force of the state of emergency. Also, upcoming rental contracts which are due to expire are automatically renewed for six months[60].

75.1% of the **building stock** in Spain was owner-occupied in 2020. The highest owner-occupied rate of the decade was recorded in 2010 at 79.8%. 24.9% of building stock was occupied by the tenants in 2020 compared to 20.2% in 2010. At the same time, the home ownership rate for the population earning **above 60.0% of the median equalised income** stood at 80.4% in 2020 compared to 83.9% in 2010. Also, the home ownership rate for the population earning **below 60.0% of the median equalised income** stood at 54.9% in 2020, declining from the 2010 level of 64.2%.

In 2020, the **overcrowding rate**[61] in Spain stood at 7.6%[62], well below the EU-27 average of 17.8%. Similarly, the **severe housing deprivation rate**[63] stood at 1.7%[64] in 2019, while the EU-27 average was 4.0%. In 2020, it increased to 3.4%. Lastly, the **housing cost overburden rate**[65] has been falling since its peak in 2014 (10.9%), and stood at 8.2% in 2020, recording the lowest level of the decade. This was again below the EU-27 average of 9.9%[66] in 2020.

Infrastructure

As per the 2019 Global Competitiveness Report, Spain ranked 7th out of 141 economies in terms of infrastructure[67], an improvement on the 2018 ranking of 10th.

As per the report, the overall ranking of Spain was 9th out of 141 economies in the context of transport infrastructure. More specifically, it ranked top (1st) for its road connectivity, 8th for airport connectivity and 9th for efficiency of train services. The country also performed well in terms of quality of road infrastructure and liner shipping connectivity with a rank of 11th on both these parameters, followed by a rank of 16th in efficiency of seaport services and 18th in air transport services. Lastly, with regards to railroad density, Spain secured 28th position out of 141 economies[68].

Overall, Spain is well served with transport infrastructure, but it relies almost exclusively on road transport for freight. Improvements in rail freight have been identified as a crucial priority in

Country Specific Recommendations for Spain, in order for the country to fully benefit from the EU single market. The country's rail segment still lacks multi-modal connections with ports and logistics hubs. Investments in implementing the requirements of the **Trans-European Transport Network (TEN-T)** are expected to improve links with ports and logistics hubs, upgrade railway lines to UIC (International Union of Railways) standards and support a gradual modal shift towards railways and short sea shipping. In this regard, completion of the Atlantic and Mediterranean corridors would facilitate using railways for exports to central Europe. The country also needs to pay attention to the maintenance of the existing road network in order to keep up the high level of road safety standards and ensuring better connectivity[69].

In December 2021, the first high-speed train connecting Madrid to the northern region of Galicia was inaugurated after 16 years of construction. The Spanish government invested around EUR 9.7 billion for its construction. The government also aims to expand it to the city of Santiago de Compostela[70]. The government also announced its plan to invest EUR 24.2 billion in rail infrastructure. The amount will be allocated towards both high-speed lines and the regular Spanish rail network[71].

> **The Recovery and Resilience Plan of Spain includes reforms and investments directed towards the development of transport infrastructure. The plan is expected to support logistics and inter-modality, foster the development of the European railway network as well as the digitalisation and sustainability of freight transport.[72]**

The plan allocates EUR 2.0 billion towards investments in recharging and boosting electric vehicle infrastructure. It should lead to the installation of 80,000 to 110,000 recharging points and achieve a fleet of at least 250,000 plug-in electric vehicles by 2030. Further, EUR 2.0 million will be for investment in rail infrastructure and EUR 1.0 million for the construction and modernisation of new rail infrastructure (TEN-T comprehensive network)[73].

4

Key issues and barriers in the construction sector

Company failure

Business demography in the Spanish broad construction sector has shown a positive trend over the 2010-2018[74] period, with the number of company births rising and company deaths falling simultaneously across all sub-sectors. In fact, **company births** in the real estate activities sub-sector experienced the highest growth of 71.7%, rising from 10,223 in 2010 to 17,551 in 2018. Similarly, company births in the architectural and engineering activities and narrow construction sub-sector went up by 34.5% and 29.3%, respectively, during the same period, reaching 9,815 and 47,863 in 2018.

Number of company births in the narrow construction sub-sector between 2010 and 2018 ↑ **71.7%**

In parallel, all three sub-sectors registered declines in the number of **company deaths** between 2010 and 2018. The narrow construction sub-sector recorded the largest decline of 39.5% in the number of company deaths (falling from 60,979 in 2010 to 36,918 in 2018). Similarly, company deaths in the architectural and engineering activities and the real estate activities sub-sectors declined by 25.5% and 5.8%, respectively, reaching 7,101 and 8,846 in 2018.

Number of company deaths in the narrow construction sub-sector between 2010 and 2018 ↓ **39.5%**

The onset of COVID-19 pandemic brought some uncertainties in the number of insolvency proceedings, which remained stable for several years, particularly for SMEs, entrepreneurs and professionals. Surprisingly, in 2020, the number of insolvency cases in Spain declined to 4,092 cases, marking an annual decline of 14.4%. The regions of Catalonia, Madrid and Valencia still account for 60.0% of the total cases[75].

Most of these insolvencies correspond to microbusinesses and retail, real estate services, construction and leisure were the sectors most severely affected. The decline in number of insolvency proceedings can be attributed to measures enacted by the Spanish government to protect and financially assist debtors during this crisis. The government removed insolvency proceedings by suspending the debtor's duty to file insolvency and the creditors' rights for petition, initially until 31st December 2020[76].

Trade credit

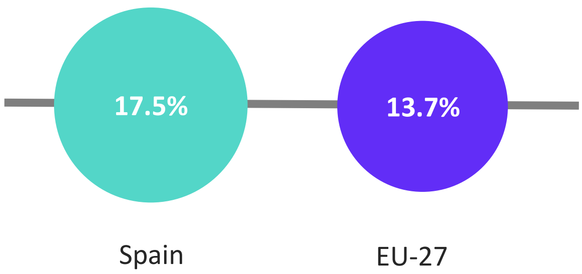
According to the Survey on the Access to Finance of Enterprises (SAFE) 2021 report, trade credit constituted a relevant source of financing for 40.5% of Spanish SMEs, well above the EU-27 average of 27.8% in 2021[77].

Furthermore, as per the 2021 SAFE report, 17.5% of the SMEs in Spain reported using trade credit between April 2021 and September 2021, above the EU-27 average of 13.7%. During the same period, around 35.2% of SMEs in Spain applied for trade credit, higher than the EU-27 average of 29.6%. 3.9% of Spanish SMEs did not apply due to possibility of rejection and 38.4% of SMEs did not apply because of sufficient internal funds, higher than the EU-27 average of 37.5%[78].

Amongst the firms which applied for trade credit in Spain, around 68.5% of SMEs received everything they applied for, below the EU-27 average of 71.6%. A smaller share of Spanish SMEs (8.3%) received more than 75.0% of what they applied for in trade credit, lower than the EU-27 average of 9.6%. 12.7% of SMEs received less than 75.0% of what they applied for, higher than the EU-27 average of 8.7%. Trade credit applications for 3.1% of the Spanish SMEs were rejected[79].

Regarding the availability of trade credit during April 2021 to September 2021, 17.9% of SMEs reported that the conditions had improved, higher than the EU-27 average of 14.7%. However, around 8.7% of Spanish SMEs also reported that the availability of trade credit had deteriorated, higher than the EU-27 average of 8.2%. For 69.1% of Spanish SMEs, the availability of trade credit remained unchanged during the same period, lower than the EU-27 average of 69.7%[80].

Share of companies using the trade credit in 2021



According to the Atradius Payment Practice Barometer 2021 survey, 55.0% of the total value of B2B sales in Spain were made on credit, compared to the Western Europe average of 50.0%. This was, however, lower than the 58.0% recorded in 2020[81].

As per the survey, with regard to the construction materials sector, 7.0% of the total value of the sector's B2B trade receivables were written off as uncollectable (an increase on the 3.0% reported in 2020). As for the credit management, 58.0% of the survey respondents reported relying in internal credit risk management resources whereas 55.0% resorted to bank instruments such as letters of credit, and 50.0% preferred trade credit insurance[82].

62.0% of the respondents in the construction materials sector reported that they will not change their approach to credit risk management in the coming year. Many businesses also intend to use trade receivables securitisation. Additionally, 23.0% anticipate no change in the frequency of use of trade credit. For those planning to offer B2B credit, 35.0% will do so to give their customers additional time to pay, while 26.0% will do so in order to stimulate customer demand[83].

Late payment

According to the European Payments Report 2021, 46.0% of businesses in Spain have agreed to accept longer payment terms in order to avoid damaging client relationships[84].

As per the report, 43.0% Spanish firms consider the widening gap between the payment terms and duration of pay is a real risk to the sustainable growth of the business. On average, business-to-business (B2B) customers in Spain are allowed 40 days to pay dues, lower than the EU-28[85] average of 41 days. However, in practice Spanish B2B customers took an average of 52 days to pay dues in 2021, on par with the EU-28[86] average of 52 days[87].

37.0% of Spanish companies consider that late payments lead to loss of income and prohibit growth potential, with 41.0% of companies believing that the financial difficulties of debtors are the main cause of the problem[88].

The construction sector in Spain is among the sectors that are affected the most by the late payments. In 2020, Construction and Real Estate were the economic area with longer collection periods, taking 99 days to collect their invoices[89].

With the ongoing COVID-19 pandemic, the situation has become more difficult. According to the European Payment Report 2021, 47.0% of respondents expect debtors to have liquidity challenges due to the impact of COVID-19 and this will likely affect late payments. This is lower than the EU-28[90] average of 48.0%[91].

Additionally, 37.0% of respondents in Spain ranked "Risk of a pan-European recession" as one of the main challenges in terms of their customers paying on time and in full over the next 12 months[92]. This is below the EU-28[93] average of 40.0%. At the same time, 63.0% respondents are more concerned than ever before about debtors' ability to pay on time, more than the EU-28 average of 62.0%. Lastly, 65.0% of respondents believe the risk of late/non-payments will increase during the next 12 months, below the EU-28 average[94] of 66.0%[95].

According to the SAFE 2021 report, 7.0% of SMEs reported facing late payment issues on a regular basis, below the EU-27 average (11.8%)[96].

As per the report, 29.2% of SMEs reported that their payments to suppliers have been affected as a result of late payments by customers. For 18.5% of SMEs, late payment affected production or operations, and for 21.4% it impacted investments or new hiring. 17.2% of SMEs also reported that their loan repayments have been delayed, or they had to seek additional financing, as a result of late payments[97].

According to the Atradius Payments Practices Barometer 2021 survey report, late payments effect on average 53.0% of the total value of the B2B invoices issued by businesses polled across Spain. The total value of B2B sales that were outstanding after 90 days stands at 8.0% in 2021 compared to 7.0% in 2020. All of the invoices overdue after 90 days were written off[98].

As per the survey, with regard to the construction materials sector, 54.0% of the total value of the B2B invoices were reported overdue in 2021, an increase from 40.0% in 2020[99].

The survey also reports that 46.0% of the businesses in the construction materials sector experienced a significant slowdown in customer invoice payment practices in 2021. This is an increase on the 41.0% recorded in 2020. This downturn in the quality of payment practices is reflected in the Days Sales Outstanding (DSO) results. In 2021, around 39.0% reported a deterioration of DSO compared to 33.0% in 2020. This deterioration could lead to higher pressure on the liquidity positions of businesses in the sector, particularly from the increase in write-offs. Due to this, a third of the businesses surveyed had taken out additional financing and bank overdrafts in 2021[100].

Time and cost of obtaining building permits and licenses

As per the 2020 World Bank's Doing Business Report[101], Spain ranked 79th out of 190 economies in 'dealing with construction permits', representing a decline of one position from last year's ranking (78th in 2019).

As per the report, it requires 13 administrative procedures and 147 days in total to complete the formalities to build a warehouse[102] in Spain. While the former is higher than the OECD high-income average of 12.7 procedures, the latter is lower than the OECD high-income average of 152.3 days (Table 3). In addition, the cost of obtaining a building permit for a warehouse in Spain represents 4.7% of the value of the warehouse, substantially higher than the OECD high-income average of 1.5%. Specifically, **obtaining a building permit** takes 45 days and costs EUR 52,005.

Table 3: Construction procedures, timing and costs in Spain

Procedure	Time to complete	Associated costs
Obtain results of geotechnical study / soil test	17 days	EUR 1,875
Request and obtain the official alignment (*alineamiento oficial*)	14 days	EUR 186
Obtain results of topographical study	7 days	EUR 800
Obtain approval of draft project proposal and implementation plan (*Visado del proyecto básico y proyecto de ejecución*) from College of Architects of Madrid	3 days	EUR 1,155
Request and obtain a building permit[103] (*licencia de obras*)	45 days	EUR 52,005
Notify labour authority of the start of construction (*apertura del centro de trabajo*) at the Ministry of Employment, Tourism and Culture	1 day	No charge
Receive initial inspection	1 day	EUR 375
Obtain completion certificate (*visado del certificado final de obra -CFO*) from College of Architects of Madrid	3 days	EUR 204
Request final inspection in connection with the occupancy permit	1 day	EUR 1,116

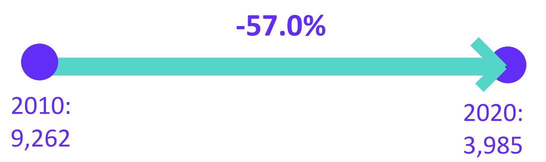
(*licencia de primera ocupacion y funcionamiento*)		
Receive final inspection	1 day	No charge
Obtain occupancy permit (*licencia de primera ocupación y funcionamiento*)	60 days	No charge
Register the new building	18 days	EUR 1,255
Request and obtain water connection	10 days	EUR 1,200

Source: Doing Business overview for Spain, Word Bank, 2020.

Skills shortage

The number of **job vacancies**[104] in the narrow construction sub-sector decreased by 57.0% from 9,262 to 3,985 between 2010 and 2020. Similarly, the **number of jobs occupied** in the narrow construction sub-sector decreased by 22.7%, from 1,084,973 in 2010 to 839,132 in 2020. In contrast, for the real estate activities sub-sector, the number of jobs occupied increased by 52.4% during the same reference period, standing at 96,146 in 2020.

Number of job vacancies in the narrow construction sub-sector between 2010 and 2020



This is also reflected in the job vacancy rate. In fact, in 2020, the **job vacancy rate** in the narrow construction sub-sector stood at 0.5%, as compared to the 2010 level of 0.9%. Similarly, in the real estate activities sub-sector the rate stood at 0.4% in 2020, compared to the 2010 level of 0.8%.

Adult participation in education and training in the narrow construction sub-sector has been fluctuating in recent years. After an initial increase during the period 2010-2013, the adult participation in training for the narrow construction decreased, reaching 5.8% in 2020, i.e. 1.5 percentage points below the 2010 level (7.3%). Conversely, adult participation in the real estate activities sub-sector grew from 6.5% in 2010 to 12.1% in 2020.

The number of **tertiary education students in engineering, manufacturing and construction** has increased by 10.5% since 2010, reaching 59,664 students in 2019[105]. This highlights the increasing interest of students in engineering (+30.0%), manufacturing and processing activities (+41.3%), and their limited appetite for engaging in architecture and building studies (-39.8%).

Number of tertiary education students in engineering, manufacturing and construction between 2010 and 2019

↑ **10.5%**

In Spain, enrolment in vocational education and training (VET) is low. In fact, in 2019, the **share of upper secondary students in VET** stood at 36.4% which, while growing (35.8 in 2018), remains below the EU-27 average (48.5%). Moreover, the onset of COVID-19 negatively affected the employment rate of VET graduates. In 2020, the **employment rate of recent upper secondary VET graduates** in Spain dropped to 50.3% in 2020, from 66.0% in 2019[106].

Skills mismatches also affect the performance of the labour market in Spain and weigh on productivity growth. The Spanish government has taken initiatives to reduce skills mismatches and early school leaving. The new Strategic Plan for Vocational Education and Training (VET) may play an important role in reducing skills mismatches and early school leaving, once fully implemented[107].

> **As per a report by CEDEFOP (European Centre for the Development of Vocational Training), the demand for both highly qualified workers (47.0% of total job openings in 2016-2030) and medium qualified workers (37.0%) is expected to exceed their supply by 2030, while low-qualified workers will remain in surplus and will need upskilling/re-skilling[108].**

Sector and sub-sector specific issues

Material efficiency and waste management

Owing to the rise in economic activity, specifically in construction, **waste generated by the construction sector** has significantly increased over recent years. Construction and Demolition Waste (CDW) accounts for approximately 25.0% - 30.0% of all waste generated in the EU. CDW mainly consists of several materials, including concrete, bricks, gypsum, wood, glass, metals, plastic, solvents, asbestos and excavated soil, many of which can be recycled[109].

The bulk of CDW is made up of 81.0% of waste soil and stones, with the remainder segregated waste such as rubble, concrete, bricks, glass, plastic, wood, metals and mixed CDW. In 2018[110], construction activities alone generated a total waste of 38.1 million tonnes in Spain. This was 0.3% higher than the waste generated in 2010 (37.9 million tonnes)[111].

Despite improvements in the transition to the circular economy, waste management remains an important challenge in Spain.

The recycling rate of CDW in Spain is around 40.0%, implying that the country is at a risk of missing the 70.0% target for 2020 set by the EU Waste Framework Directive (Directive 2008/98/EC). Its recycling rate is also low compared to other countries such as the Netherlands, Denmark and Germany that exceed the recycling rate of 80.0%[112]. This is mainly because of the delay in approving regulations regarding end of waste and by-products in construction.

To reach the 70% target, a National Waste Plan was approved in 2016 for the period 2016 – 2022 (*Plan Estatal Marco de Gestión De Residuos (PEMAR)*) [113]. It aims to increase the recycling rate and improve the efficiency of its use of resources. The plan has a specific chapter targeting construction and demolition waste in order to promote actions for the reutilisation and recycling of material to ensure that Spain complies with legal EU objectives. Some objectives include promoting the use of sustainable and non-dangerous construction materials, studying the durability and recycling possibility of the materials, and increasing taxes or to encourage the use of sustainable products. It also focuses on R&D, which will play an important role in achieving the EU recycling target. The final objective is to replace linear models of production by circular models that bring waste materials back into the production line.

In order to achieve the EU recycling target, an estimated capital investment of EUR 2,457.0 million is needed for 2021-2035 for Spain as a whole[114]. This particularly affects the construction sector, which is responsible for 40% of overall waste generation[115].

Climate and energy

Based on the latest national projections taking into consideration the measures currently in place, Spain is expected to surpass the 2020 National Greenhouse Gas Emissions target of -10.0% by a margin of 4.0 percentage points. However, it is expected to miss the 2030 target of -26.0% by 10.0 percentage points[116].

Emissions of greenhouse gases (carbon dioxide, methane and nitrous oxides) from the narrow construction and real estate activities sub-sectors in Spain amounted to a total of 575,351 tonnes and 771,163 tonnes, respectively, in 2019[117]. These represented a decline of 39.7% and 0.2%, respectively, in comparison to the 2010 levels[118].

Emissions of greenhouse gases from narrow construction sub-sector between 2010 and 2019	↓ **39.7%**

5

Innovation in the construction sector

Innovation performance

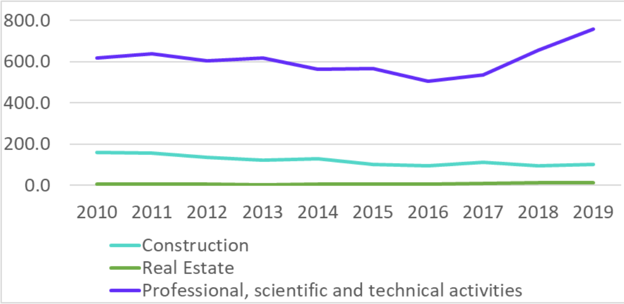
> **According to the European Innovation Scoreboard 2021, Spain is classified as a 'Moderate Innovator', with a continuous increase in performance since 2017[119].**

Spain's performs well in terms of Human Resources, Digitalisation, and Environmental Sustainability. The country scores high on three innovation indicators including Doctorate Graduates, Resource Productivity, and Sales of Innovative Products. The country's low scoring indicators are Product Innovators and Business Process Innovators (SMEs). At the same time, Spain has an above average share of non-innovators with potential to innovate and is showing close to average scores on the climate change related indicators[120].

Business enterprise R&D expenditure (BERD) has been fluctuating since 2010. In the narrow construction sub-sector, BERD decreased by 35.2%, from EUR 158.9 million in 2010 to EUR 103.0 million in 2019[121]. In contrast, BERD expenditure in the real estate activities sub-sector increased by 49.6% during the same reference period, from EUR 8.0 million to 12.0 million. It grew by 22.2% to EUR 756.0 million in 2019[122] from EUR 618.5 million in 2010 in the professional, scientific and technical activities sub-sector.

BERD in the narrow construction sub-sector between 2010 and 2019 ↓ **35.2%**

Figure 9: Business enterprise R&D expenditure (BERD) per construction sub-sector in Spain between 2010 and 2019[123] (EUR m)



Source: Eurostat, 2021.

Total **R&D personnel** (full-time equivalents – FTE[124]) in the narrow construction sub-sector reached 1,375 in 2019[125], i.e. 33.5% lower than in 2010 (2,068). The real estate activities sub-sector reported a significant increase of 97.3% in the period, increasing from 74 in 2010 to 146 in 2019. Similarly, R&D personnel in the professional, scientific and technical activities sub-sector increased by 37.5%, from 8,657 in 2010 to 11,902 in 2019.

R&D personnel in the narrow construction sub-sector between 2010 and 2019 ↓ **33.5%**

The limited investments on innovation of the Spanish construction sector are also reflected by the 37.3% drop in the number of **construction-related patent applications**, which fell from 83 in 2010 to 52 in 2019.

In 2020, there were 21 Spanish firms ranked amongst the top 1,000 EU companies by R&D spending, including four construction-related firms. The highest-ranking construction firm, Acciona (156th place) spent EUR 230.4 million on R&D in 2019[126].

As part of the Recovery and Resilience Plan, the Spanish government has allocated EUR 3.5 billion to boost the country's innovation capacity by financing research and innovation infrastructure and programmes[127].

Eco-innovation and digitalisation

Spain ranked 8th in the 2021 Eco-Innovation Scoreboard, obtaining a score of 125, above the EU-27 average of 121[128].

The country's strongest performance lies in eco-innovation activities in which it scores 141, well above the EU-27 average of 100. However, the country scores below the EU-27 average when it comes to eco-innovation inputs, socioeconomic outcomes, eco-innovation outputs scoring 77, 87, and 96 respectively. Similarly, Spain scores 142 in resource efficiency outcomes, lower than the EU-27 average of 147[129]. In recent years, Spain has made progress in promoting more sustainable and digitalised construction, resulting in a slightly more innovative construction sector.

In the **European Commission Digital Economy and Society Index (DESI) 2021**, Spain ranked 9th out of the 27 EU Member States, with a performance above the EU-27 average (57.4 against 50.7). Spain is ranked 3rd and 12th in the areas of **connectivity** and **human capital**, respectively. In terms integration of digital technology, its performance deteriorated in 2021 in comparison to 2020, ranking at 16th position (against 13th in 2020)[130].

As per DESI 2021, 62% of SMEs in Spain have at least a basic level of digital intensity, in line with the EU-27 average of 60%. Also, 24% SMEs sell online, above the EU-27 average of 17%, but only 7% sell across borders within the EU. 10% of SMEs' turnover is generated by online sales[131].

In this regard, the country, in July 2020, presented its new digital strategy, **Digital Spain 2025**. The objective of this strategy is to promote the country's digital transformation through public-private collaboration and with the participation of all economic and social stakeholders in the country. Under the strategy, in January 2021, Spain published the SME Digitalisation Plan 2021-2025 to boost disruptive innovations and entrepreneurship in digital fields[132].

Under its Recovery and Resilience Plan, Spain has allocated 28.2% (around EUR 19.6 billion) of the total grant towards digital related activities[133].

The allocated amount will be used for promoting business digitalisation, including SMEs (25% of the total digital budget), strengthening the digital skills of the Spanish population (22%), improving country-wide digital connectivity (15%), continuing the digitalisation of public administration (28%), and supporting digital-related R&D and the deployment of digital technologies (10%). The plan also includes actions to further digitalise industries and business, with a specific focus on Spanish SMEs and micro-enterprises, to support them in the transition towards the digitalisation of productive processes and distribution channels[134].

According to EIBIS 2020 report, 42.0% of companies in the Spanish construction sector have implemented Internet of Things, well above the EU-27 average of 22.0%[135].

As per the report, around 20.0% of construction firms have used drones, slightly above the EU-27 average of 19.0%. Also, 18.0% of firms have implemented augmented or virtual reality, compared to the EU-27 average of 11.0%, and 10.0% of companies have used 3-D printing, on par with the EU-27 average[136].

In 2017, Spain transposed the EU Directive 2014/24/UE (Ley 9/2017), according to which, EU member states are to encourage the use of Building Information Modelling (BIM) in construction projects financed by EU public funds. Since the law come into force in December 2018, BIM (or similar tools) can be required by contracting authorities for all public construction tenders in Spain. This includes all building projects of the Ministry of Transport, Mobility and Urban Agenda and its associated state-owned companies such as ADIF (*Administrador de Infraestructuras Ferroviarias*), Renfe (the public railway company), and Aena (the public airline company) etc[137].

The BuildingSMART Spanish Chapter is a non-profit association, which aims to promote efficiency in the construction sector through the use of open standards of interoperability based

on BIM, in order to reduce the costs and time while increasing quality[138].

This association is composed of a variety of construction stakeholders, including promoters, investors, developers, manufacturers and universities[139].

The Spanish government also established the “Inter-ministerial Commission for the Adoption of the BIM Methodology in Public Procurement” in 2018. The commission is related to the Ministry of Development (*Ministero de Fomento*) and is composed of representatives from several other ministries[140].

In addition, the MINETAD programme 2017 under the Strategic Action for Digital Economy and Society Framework (*Programa MINETAD 2017 en el marco de la Acción Estratégica de Economía y Sociedad Digital*) aims to improve research, technology development and innovation in the digital economy. Likewise, the CDTI NEOTEC 2017 for Technological Businesses (*CDTI NEOTEC 2017 para empresas de base tecnológica*) measures aim to support and fund the development of new technology[141].

The Spanish government is also currently working on the Strategy “**Spain Start-Up Nation**”, a comprehensive strategy to embed innovation and digitalisation in all aspects of economy and society. This strategy will consist of a new plan for the deployment of digital infrastructure; investment in enabling digital technologies; programs to promote skills and talent, and a national strategy on artificial intelligence[142].

6

National and regional regulatory framework

Policy schemes

Since the 1980s, there have been three-year state housing plans in Spain, which have established housing policy priorities. The housing policies are implemented through a multi-level governance structure that is mainly split between the central and regional governments. Such an approach helps regions maintain broad powers to develop their own policies and measures in this domain.

In March 2018, the Spanish government approved the **State Housing Plan** for the period 2018-2021 (SHP 2018-21). The objectives of this plan are to strengthen the rental market and activate the construction sector by promoting employment in building rehabilitation and urban regeneration and renewal. It focuses on facilitating quick access to "decent and adequate" housing for those with financial difficulties[143]. The new plan (SHP 2018-21) is similar to its predecessor (2013-2016[144]).

To achieve its objectives, the SHP 2018-21 is structured around ten programmes:

- Programme 1: **Subsidisation of agreed loans**. This programme focuses on maintaining the subsidies for agreed loans regulated in the previous state housing plans that comply with current legislation in the matter.
- Programme 2: **Aid for housing rental**. This programme aims to facilitate access to rental housing for the population with limited economic means. It provides up to 40.0% of the monthly rent, or up to 50.0% for people over 65 years old. The support can be up to EUR 600. There is also the possibility of support up to 30% of the rent in the tranche between EUR 601 and EUR 900 in certain scopes to be defined by the autonomous communities
- Programme 3: **Aid to victims of gender-based violence, people who are evicted from their usual residence, homeless people and others particularly vulnerable**. This programme offers help up to EUR 600 per month (up to 100% of the rent or price of the housing solution found); in cases particularly justified, it may reach up to EUR 900 per month (up to 100% of the rent or price of the housing solution).
- Programme 4: **Promotion of the housing stock for rent.** This programme aims to promote the stock of dwellings (new or from refurbishment) intended for rental or transfer in use, both public and private, for a minimum period of 25 years. This is done using subsidies that can go up to EUR 36,750/dwelling with a limit of 40% to 50% of the investment.
- Programme 5: **Promoting the improvement of energy efficiency and sustainability in housing**. This programme focuses on regulating aid for works to improve energy efficiency and the sustainability of single-family homes and buildings of the collective residence type. The amount of the subsidy varies, but generally does not go over 40.0% of the total investment.
- Programme 6: **Promotion of conservation, improved safety of use and accessibility in housing.** This programme aims to finance the execution of works for the conservation, improvement of the safety of use and universal accessibility both in

residential buildings and in single-family homes, whether urban or rural, and in homes located in residential buildings. The amount of the subsidy varies, but generally does not go over 40% of the total investment.

- Programme 7: **Promotion of urban and rural regeneration and renewal**. This programme aims to finance the refurbishment of residential buildings and individual dwellings, as well as the development of adjacent public spaces, and works for the construction of buildings and dwellings to replace others which have previously been demolished in the same area. The amount of the subsidy varies, but generally does not go over 40% of the total investment.
- Programme 8: **Help for young people**. This programme aims to facilitate the access of decent and adequate housing for young people under 35 years of age, either on a rental basis or through direct aid for the acquisition of housing located in municipalities with less than 5,000 inhabitants. This is done by providing a subsidy covering up to 50% of the monthly rent.
- Programme 9: **Promotion of housing for the elderly and people with disabilities**. This programme aims to encourage the promotion of housing, or its rehabilitation, to allocate them for a minimum period of 40 years to rent or transfer of use for elderly or disabled people, having adapted common facilities and services. This is done by providing a subsidy, covering up to EUR 400 usable m2/housing with a limit of 40% of the investment.
- Programme 10: **Aid to help minimise COVID-19's economic and social impact on housing rentals**. It is aimed at granting rental aids to tenants for their main dwelling who, as a result of the economic and social impact of COVID-19, have temporary problems in meeting the partial or total payment of rent. The aid is up to a maximum amount of EUR 900 per month and 100% of the rental and up to a period of 6 months.

These programmes focus public assistance on the most vulnerable social groups such as households experiencing forced evictions, low-income households, young people, the elderly and people with disabilities, as well as the rural population[145].

The programmes included in the plan are co-financed by the central administration and autonomous communities. The central administration budget earmarked for housing subsidies for the period 2018-2021 stood at EUR 1.4 billion, representing an increase of 62.5% compared to the amount implemented/executed under the SHP 2013-16 (EUR 888.0 million)[146,147].

Furthermore, the plan is being implemented in a context of increasing housing demand driven by large domestic and foreign investment groups, accompanied by a rise in the price of rental housing in large cities. This hinders the access to housing of low-income households, in a context of an unemployment rate which remains high and a large share of precarious jobs[148].

In December 2020, the Spanish government introduced amendments in the State Housing Plan 2018-2021 including the extension of the programme until 31st December 2022[149].

The government has extended the deadline for the implementation of actions that the regional governments are developing to promote public housing stock and urban regeneration and renovation until 31 December 2022. Among the amendments introduced is the extension of support to young people to buy a property, both in villages and population centres with fewer than 5,000 inhabitants[150].

The European Investment Bank (EIB) plays a key role in the development and construction of social housing in Spain. For instance, in December 2020, under the '**Malaga Social and Affordable Housing I**' project, Spain received EUR 37.0 million from the European Investment Bank (EIB) for urban development. The project consists of the construction of approximately 525 social and affordable housing units for rent in the city of Malaga.[151]

In June 2021, the EIB signed an agreement to support Barcelona City Council in the construction of nearly 490 new public rental homes with an investment of EUR 36.2 million[152].

As per the agreement, the EIB will finance the construction of 11 developments and 489 affordable social rental homes in various locations across the city. If required financing could be increased to EUR 65.0 million. The project will be implemented up to the end of 2023, helping to create more than 570 jobs per year during the construction phase. This agreement is the second of its type, following an initial financing agreement for EUR 125.0 million in 2017 to support the construction of 1,570 affordable social rental homes[153].

As part of the Recovery and Resilience Plan, the Spanish government has allocated EUR 1.0 billion towards the construction of affordable, energy efficient rental housing[154].

This measure is aimed at building at least 20,000 new dwellings for social rental purposes or at affordable prices compliant with energy efficient criteria. These houses will be built in areas where social housing is currently insufficient and on publicly owned land[155].

As part of the RRP, the government has also allocated of EUR 300.0 million to the Energy Rehabilitation of Buildings Programme (PREE), aligned with energy efficiency criteria with on average primary energy savings of at least 30.0%. With this measure, the government's objective is to support energy renovations of an equivalent of at least 40,000 residential buildings and 690,000 m2 of non-residential buildings by improving energy efficiency and integrating renewable energy[156].

Building regulations

The Building Technical Code (*Código Técnico de la Edificación*) is the regulatory standard that lists the basic security and habitability requirements in Spain, applicable since 2006. The code explains the main regulations and legislation in the construction sector[157] and covers (amongst others) the mandatory requirements for accessibility, user protection and sustainability. In terms of energy use specifically, the code details requirements and measures to reduce the energy demand and consumption of buildings, defines the performance of thermal installations, sets the minimum share of solar energy for hot water generation and the minimum contribution of photovoltaic energy in electricity production[158]. With the Building Technical Code, all construction stakeholders are bound to use the technical norms. The local administration manages the urbanisation regulation and housing planning, whereas the national authority is responsible for regulating the rents od dwellings[159]. Minor changes were made in 2017 including the security (i.e. fire extinction) and energy saving measures[160]. Since 2013, according to the Royal Decree 235/2013[161], housing, retail and office buildings tenants or buyers should hold an Energy Performance Certificate.

Insurance and liability related regulations

Since May 2000, under Spanish regulations, it has been mandatory for developers of residential buildings to have in place underlying defect cover or surety insurance. These policies must include cover (for ten years) for loss arising from property damage caused to the building by faults or defects originating in or affecting the foundations, supports, beams, framework, load-bearing walls, or other structural elements that directly risk the building's mechanical resistance and stability.

The **Spanish Building Act 1999** explains two other guarantees for property owners for non-structural damage (currently not compulsory). These two guaranties include a property damage and surety insurance policy to guarantee:

- For a period of one year - compensation for property damage due to execution faults or defects which affect the finished works or elements of it.
- For a period of three years - compensation for property damage due to faults or defects in constructive elements or services which result in the non-compliance of the habitability requirements such as humidity, cracks, and other non-structural damages.

Although these two guarantees are not compulsory, some Spanish insurers provide cover for the second guarantee.

In the context of construction risks, insurance coverage for construction projects depends on the scope of different activities in which the insured is involved, with preference being for the single project format. The key important aspects include:

- Under Spanish law, regulations within the Insurance Contract Act 1980 (ICA) are applicable to all insurance contracts unless there is a large risk.
- The general objective of the ICA is to provide protection to the insured and firmly sets out how the clauses and exclusions of a policy are to be interpreted. Contractual clauses that are more beneficial for the insured than the terms of the ICA, will be deemed valid[162].

The Law of Construction Order[163] (*Ley de Ordenación de la Edificación*, LOE), Law 38/1999 of 5 November 1999, governs liability in construction with the purpose of protecting the final users against delay and insolvency of property developers[164].

The act is applicable to all new construction works as well as to alterations and refurbishments of permanent structures.

The LOE has introduced three different durations of liability[165]. For all of them, the starting point is the handover of the completed building:

- One year for material disorders resulting from incorrect work (applicable to building contractors only),
- Three years for damages affecting the use of the building as a residential dwelling (for all participants in the construction process),
- Ten years for material damages (affecting the structure (for all participants in the construction process).

If the cause of the damage or the individual responsibility cannot be determined, the participants can be jointly and severally liable. The property developer is jointly liable with all the other parties. Legal actions need to start within the two years after the date when the damage occurs[166].

7

Current status and national strategies to meet Construction 2020 objectives

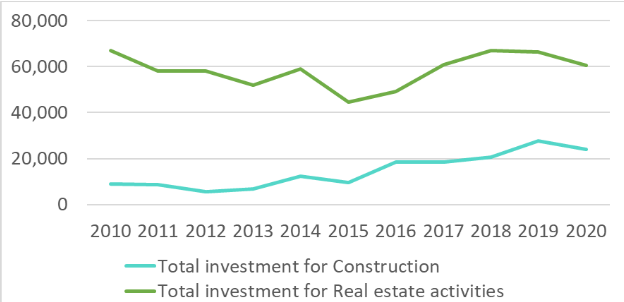
TO 1 – Investment conditions and volumes

Total **investment by the broad construction sector**[167], has been fluctuating since 2010 (Figure 10). Particularly the investment by the narrow construction sub-sector which, after hitting a low in 2012, increased to EUR 26.9 billion in 2019. It again declined to EUR 23.9 billion in 2020 but remains significantly above the 2010 level of EUR 9.0 billion (+165.0%). Also, following a general decline from 2010 to 2015, investment by the real estate activities sub-sector picked up again, reaching EUR 66.0 billion in 2019. Nonetheless, it again declined to EUR 60.7 billion in 2020, 9.6% lower than the decade's high of EUR 67.1 billion recorded in 2010.

Investment in intellectual property products[168] by the narrow construction sub-sector amounted to EUR 172.9 million in 2020, marking a decline of 63.0% in comparison to the 2010 level of EUR 467.0 million. Investment in intellectual property products in the real estate activities sub-sector increased to EUR 108.4 million in 2020 from EUR 97.0 million in 2010, representing a growth of 11.8% during the period.

Investment in intellectual property products in the narrow construction sub-sector between 2010 and 2020 ↑ **11.8%**

Figure 10: Investment by the Spanish broad construction sector between 2010 and 2020 (EUR million)



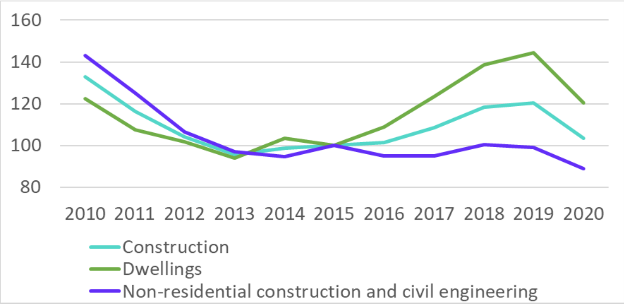
Source: Eurostat, 2021.

The total **investment index in the Spanish broad construction sector**[169] has experienced growth since 2015, rising by 3.6% between 2015 and 2020 (Figure 11). This was mainly driven by investment in dwellings by the whole economy, which grew by 20.5% over the same reference period, reflecting the high demand for housing. Investment in non-residential buildings and civil engineering, however, witnessed a decline of 11.3% between 2015 and 2020.

Investment index in dwellings by the whole economy between 2015 and 2020 ↑ **20.5%**

In absolute terms, **investment in the broad construction sector** totalled EUR 129.7 billion in 2019[170], out of which EUR 73.1 billion was invested in dwellings and EUR 56.6 billion in non-residential construction and civil engineering[171].

Figure 11: Investment index in the Spanish construction sector between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

Total inland infrastructure investment[172] as a share of GDP declined from the decade's high of 1.4% in 2010 to 0.5% in 2016 and remained at that level till 2019[173].

Investment in rail and air transport infrastructure in Spain dropped the most, registering a 71.1% and 63.6% fall between 2010 and 2019[174], reaching EUR 2.2 billion and EUR 635.0 million, respectively. Investment in sea and road infrastructure also fell considerably over the same period, by 58.7% and 56.1%, respectively, to stand at EUR 929.0 million and EUR 3.4 billion in 2019[175].

Investments in rail infrastructure between 2010 and 2019 **71.1%**

Investments in air transport infrastructure between 2010 and 2019 **63.6%**

Renovation spending as a share of total household disposable income stood at 0.6% in 2020, below the 2010 mark of 0.9%. Similarly, after picking up gradually from the low of EUR 4.7 billion in 2013 to reach EUR 6.1 billion in 2019, household renovation spending declined to EUR 4.4 billion in 2020. This marks a 27.7% decrease over the 2010 level of EUR 6.1 billion.

Household renovation spending between 2010 and 2020 **27.7%**

In December 2021, the Spanish government announced that it would invest EUR 24.2 billion in rail infrastructure over the next five years[176].

The investment will go towards both the high-speed lines and the regular Spanish rail network. The planned investment will benefit freight transporters. The amount will also be used for the electrification of the Bobadilla-Algeciras and Zaragoza-Teruel-Sagunto sections to make them suitable for the 750-metre trains. In addition, improvements will also be made to the Mediterranean Rail Freight Corridor, including in Almería and Granada[177].

As part of the Recovery and Resilience Plan (RRP), the Spanish government has allocated around EUR 13.2 billion towards sustainable mobility, both in urban areas and in long-distance mobility[178].

This will be achieved by improving railway infrastructure, creating low-emission zones in urban areas, financing green public buses, deploying electric charging stations and developing urban public transport[179].

Spain also benefits from EU support when it comes to infrastructure development. In particular, it benefits from investments from the **European Fund for Strategic Investments** (EFSI). As of December 2020, financing under EFSI amounted to EUR 13.0 billion and is set to trigger additional investments of EUR 63.0 billion. Under the infrastructure and innovation window, 136 projects have been financed by the European Investment Bank (EIB) with EFSI backing. These projects amount to around EUR 11.0 billion and are set to trigger EUR 42.4 billion in total investments. Additionally, under the SMEs window, 40 agreements have been approved, involving a total financing of EUR 2.3 million, and are set to trigger investments of up to EUR 20.6 million, benefitting about 175,690 SMEs and mid-cap companies from improved access to finance[180].

Furthermore, Spain received approximately EUR 1.6 billion in 2020 from the EIB, specifically for the development of transport infrastructure. The major projects included were '**Spanish Suburban and Regional Rolling Stock**' with an allocation of EUR 470.0 million, **'*Ave Madrid Extremadura*'** with an allocation of EUR 300.0 million and **'Renfe**

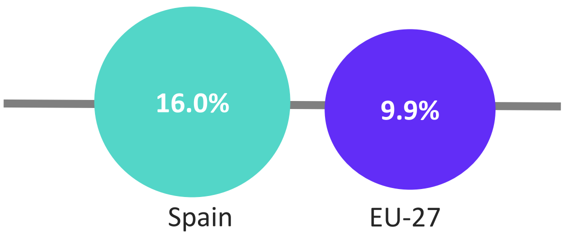
Suburban Sustainable Transport Madrid' with an allocation of EUR 350.0 million[181].

TO 2 – Skills

After witnessing a steady fall over the past decade, the share of **early leavers from education and training** (age 18-24) in Spain stood at 16.0% in 2020 compared to the 2010 level of 28.2%. This is well above the EU-27 average 9.9%. In fact, Spain still has the highest rate of early leavers from education and training in the EU, thus contributing to the high share of a low skilled population in the country.

Tertiary educational attainment in Spain in 2020 stood at 47.4%, showing better results when compared with the 2010 level of 40.3% and even the EU-27 average of 40.5% in 2020. Spain's **adult participation in learning** increased from 10.6% in 2019 to 11.0% in 2020 (EU-27 average: 9.2%) mainly driven by the increase in online training. However, as compared to 2019, the increase only applied to highly qualified adults (+0.7 pps), while low-qualified adults participated less (-0.3 pps). Consequently, gaps in the participation levels of both groups widened further in 2020 (18.2% of adults with tertiary education against 3.5% for the less qualified)[182].

Early leavers from education and training



Additionally, the **employment rate of recent tertiary graduates** in Spain, which stood at 75.9% in 2020, lies below the EU-27 average of 83.7%. This reflects a strong demand for highly skilled workers in the country[183]. **Public expenditure on education** as a percentage of GDP in Spain stood at 4.0% in 2019[184], lower than the EU-27 average of 4.7%[185].

Regarding **vocational education and training (VET)** in Spain, the share of upper secondary students in VET stood at 36.4% in 2019, below the EU-27 average of 48.5%. The employment rate of recent upper secondary VET graduates in Spain reduced from 66.0% in 2019 to 50.3% in 2020. The decline was stronger than in other EU countries and in line with the increase in youth unemployment.

The Spanish government has proposed a plan for a single integrated VET system. The 2020-2023 plan for modernising the VET system encompasses both initial and continuous VET with the goal of integrating them into a single system linked to the National Qualifications System. The plan is aimed at providing support for the continuing professional development of teachers through placements in companies[186].

As part of its Recovery and Resilience Plan, the Spanish government has allocated EUR 2.0 billion to enable more than 3.3 million workers to receive basic and professional skills. The plan also sets out a new VET law by 2022 to regulate the integrated VET system, approved by the Council of Minister on September 2021[187].

The RRP plan will also support the National Digital Competences Plan with EUR 3.0 bn in 2021-2023. Around 2,600,000 people and 450,000 workers in Spain will benefit from digital skills training to improve their competences and employability. The RRP will also provide upskilling and reskilling training for the employed and unemployed alike, especially the low-skilled, targeting 1,000,000 workers[188].

The **BUILD UP SKILLS Construye 2020** project was launched in order to achieve the 2020 EU energy objectives in the construction sector. This project aims to promote the qualification of workers in the construction sector, mainly in the building sector, creating courses to increase the professional competencies on energy efficiency (EE) and renewable energies installation (EERR) in buildings[189].

In addition, the Spanish Construction Labour Foundation offers several courses (online and/or in person) for a variety of construction jobs such as plumbing, machinery use etc., and health and safety conditions at work[190].

Last, the Construction Labour Foundation signed in 2018 a collaboration agreement with the Spanish Association of Manufacturers of Light Facades and Windows (Asefave) to update the professional skills of exterior carpentry installers through training. This shows that the skill shortage is seriously taken into account and is tackled across sectors[191].

TO 3 – Resource efficiency / Sustainable construction

The Spanish government has published its Fourth National Energy Efficiency Action Plan 2017-2020, in line with the requirements of the EU Energy Efficiency Directive (EED). However, the country had difficulty in meeting its 2020 energy efficiency targets. Spain also needs to increase investments into energy efficiency in order to meet the EU target of 32.5% by 2030[192].

Article 5 of the Energy Efficiency Directive establishes that member states should develop and make publicly available an energy inventory of heated and/or cooled buildings owned by the general state administration. On the basis of this inventory, member states should renovate 3.0% of the building floor area every year, so that these buildings meet at least the minimum energy performance requirements set in the application of Article 4 of the Directive on the Energy Performance of Buildings (Directive 2010/31/EU as amended by Directive 2018/844/EU)[193].

In 2019, Spain presented a draft Integrated National Energy and Climate Plan 2021-2030 (INECP) to the European Commission (EC), which was approved in January 2020. With regards to energy efficiency, the objectives of the plan include[194]:

- Digitalisation of the electricity system,
- Intelligent solutions for energy consumers,
- Smart cities and communities,
- Heat and cold generation systems,
- The use of renewable energy in urban heating and cooling networks,
- The use of renewable energy in buildings,
- Renewable energy produced by cities, energy communities and self-consumers,
- Active and passive solutions in the energy upgrading of buildings.

The INECP 2021-2030 proposes measures for achieving the target of renovating the public building stock established in the Energy Efficiency Directive (3.0%) and evaluates and promotes savings that can be obtained by renovating an additional 300,000 m2/year of the general state administration[195].

In compliance with Article 2a of Directive 2010/31/EU on the long-term strategy to support the renovation of the national stock of residential and non-residential buildings, Spain has developed **ERESEE 2020: 2020 Update of the Long-term Strategy for Energy Rehabilitation in the Building Sector in Spain**[196]. The targets of decarbonising the housing stock by 2050 are also adopted in this INECP 2021-2030.

Spain also receives EIB support for energy efficiency related initiatives.

> **In December 2021, the EIB announced the provision of EUR 45.2 million to MERLIN Properties SOCIMI to accelerate its sustainability strategy and increase the energy efficiency of its buildings[197].**

MERLIN Properties is a Spain-based real estate company. The company will use the EIB loan to improve the energy efficiency of its buildings by introducing various measures to reduce CO_2 emissions. Projects funded by MERLIN with EIB support are estimated to create 460 jobs during the implementation period[198].

> **Spain's EUR 69.5 billion Recover and Resilience Plan supports the green transition through investments of over EUR 7.8 billion (around 11.0% of the total grant) towards the energy efficiency of public and private buildings including new social housing[199].**

Around EUR 6.8 billion (out of EUR 7.8 billion) has been allocated for renovation across residential and public buildings. The residential sector has been allocated the highest share of investment, including EUR 3.6 billion for a multi-measure renovation programme for economic and social recovery in residential environments. Around EUR 758.0 million has been allocated for the renovation of public buildings, in addition to renovation activities supported by a EUR 1.0 billion allocation for the modernisation of public services, and EUR 135.0 million for energy efficiency of sports facilities[200].

The Institute for Diversification and Energy Savings (*Instituto para la Diversificación y el Ahorro de la Energía* - IDAE), a public body under the Ministry of Energy, promotes/manages, among others, the energy efficiency several of existing buildings-related programmes such as the JESSICA-FIDAE Fund and the Aid Programme to Improve the Energy Efficiency of Existing Buildings (PAREER-CRECE Programme)[201].

The Green Building Council Spain developed the VERDE methodology to evaluate and certify sustainable buildings according to the Building Technical Code approach[202].

In Spain, regions also have a key role to play to improve energy efficiency, including for buildings. In fact, Order ETU/120/2017 of 1 February 2017 establishes how regional governments and local authorities should submit information on their energy saving and efficiency programmes. Therefore, regional initiatives also support sustainable construction. In Andalusia, the **Sustainable Construction Support Programme**[203] (*Programa de impulso a la construcción sostenible*) provides property owners with financial support for works improving energy efficiency and promoting the use of renewable energies. The purpose of the programme is to support sustainable investments in construction by boosting the economy with a EUR 250.0 million fund corresponding to 68,000 works, focusing on the most efficient and relevant energy source, with the objective of saving 66,000 tonnes of petrol per year, and reducing the global energy bill by EUR 500.0 million.

The Ministry of Public Works promotes sustainable construction and urbanisation via three dimensions: economic, social and environmental. Public policies related to land arrangement and transformation have to be in line with the **principle of sustainable development**.

TO 4 – Single Market

According to the EU Single Market Scoreboard 2021, Spain's performance was exemplary in terms of internal market information systems but lagged behind with regards to transposition of directives and public procurement[204].

Despite some improvements the proposed target of 0.5% has still not been met when it comes to Spain's transposition deficit, currently standing at 1.9%. This is also above the EU-27 average of 1.0% and worse than its last year's reporting of 1.1%. This suggests that the country may have difficulties in monitoring the timely transposition of directives[205].

As per the scoreboard, Spain has 20 overdue directives (last report: 11) and its conformity deficit increased from 1.1% to 1.3%, below the EU-27 average of 1.4%. In terms of Infringements, the country reported 58 pending cases compared to EU-27 average of 31 cases. The average case duration also increased to 46.2 months (EU-27 average 37.3 months) from the 39.9 months previously reported[206].

Spain maintained its excellent performance in terms of internal market information systems, with all five indicators standing well above the EEA average. However, its trade integration in the single market for goods and services remained below the EU-27 average. Similarly, its performance with regards to public procurement remained unsatisfactory in 2020[207].

As per the Corruption Perceptions Index (CPI), Spain improved its performance from 58/100 points in 2018 to 62/100 points in 2020. This translated into a better ranking – from 41st among 188 countries in 2018 to 32nd in 2020[208].

That being said, few vulnerabilities to the country's public procurement system remain, as per the GAN report (Risk and Compliance report)[209]. As of 2014, almost half of business respondents believed that corruption has prevented them from winning a public tender. Inter alia, tailor-made specifications for particular companies, conflicts of interest in the evaluation of bids, collusive bidding were other risk factors commonly identified by companies in Spain.

Addressing this issue, the government adopted the **Law 9/2017 on Public Sector Contracts**, that entered in force in 2018. The law transposes Directives 2014/23/EU and 2014/24/EU of the European Parliament and the Council of 26 February 2014. It includes several new elements applicable to public procurement, such as broader subjective scope, modification of contract types, simplified procedures, and systems for the modification contracts. Other elements include a push for innovation, free competition, incentives for SMEs, new provisions for contract performance by public entities, and augmented transparency etc. However, this new governance structure for public procurement is still not fully operational, almost two years after its entry into force. The newly established Independent Office for Regulation and Supervision of Public Procurement lacks enough resources to perform its duties. Further, there have been no other steps to strengthen the fiscal framework.

Spain follows a horizontal authorisation scheme for the cross-border provision of construction services. This scheme requires foreign service providers to demonstrate that construction health and safety requirements have been complied with. This is in compliance with Directive 89/391/EEC -Framework Directive on health and safety at work, which establishes the obligation of the employer to train its workers in occupational risk prevention. In Spain there is an obligation for companies to prove, through the Registro de Empresas Acreditadas, that they have complied with this obligation and that their workers have received adequate and sufficient preventive training. This procedure is free of charge and ensures that the workers carrying out the work have received the corresponding training[210,].

Regulatory requirements imposed on service providers, including regulated professions have limited market development in Spain. The level of restrictiveness is higher compared to the single market average for civil engineers and architects in the construction sector[211].

The **CEVIPYME** (*centro de apoyo a la PYME en materia de gestión de Propiedad Industrial, Intelectual e innovación*) is a platform that provides assistance to SMEs to overcome difficulties in accessing patents and trademarks in the single market. It further helps SMEs protect their intellectual property rights[212].

With regard to the implementation of **Eurocodes**, 44 EN Parts are published as National Standards and EN 1999 series is ratified with all the published Eurocodes Parts being translated in the national language. The use of Eurocodes is not compulsory, nor is it enforced in public procurement. Also, National Annexes have been published on ten Eurocodes Parts and no other national standards are used in parallel with Eurocodes for structural design[213].

TO 5 – International competitiveness

As per World Bank Doing Business 2020 report, Spain was ranked 1st out of 190 economies in the ease of trading across border, achieving score of 100 out of 100[214].

As per the report, in Spain it takes only one hour to be documentary compliant while it hardly takes any time to be border compliant. In terms of costs, businesses do not need to spend any amount to be border and documentary compliant[215].

The **internationalisation of construction products** in the Spanish construction sector has been consistently demonstrating signs of growth since 2010. **The export values of all construction-related products** soared up from EUR 4.9 billion in 2010 to EUR 7.3 billion in 2020, marking an increase of 49.5% over the period. Moreover, Spain's share of exports of all construction-related products stood at 41.2% of the total value of production in 2019, nearly double the 2010 level of 22.3% and higher than the EU-27 average of 11.3%. This increased to 41.7% in 2020.

Export value of all construction-related products between 2010 and 2020 ↑ **49.5%**

Notably, the export value of architectural services went up significantly to EUR 5.0 million in 2020 from EUR 2.3 million in 2010, representing a remarkable growth of 117.5% between 2010 and 2020. However, this also marks a decline of 40.8% over the previous year level of EUR 8.4 million.

Export value of all architectural services between 2010 and 2020 ↑ **117.5%**

In the context of **inward FATS (foreign affiliates statistics)**[216], value added at factor cost in the manufacturing and real estate activities sub-sectors increased by 29.9% and 4.6%, respectively, over the 2010-2018[217] period. However, in the narrow construction sub-sector, it decreased by 46.6% during the same period. Similarly, turnover in the real estate activities and the manufacturing sub-sectors grew by 63.4% and 36.8%, respectively, whereas it declined by 37.2% in the narrow construction sub-sector over the 2010-2018 period.

In terms of **outward FATS**[218], turnover in the real estate activities, the manufacturing and the narrow construction sub-sectors soared up by 109.7%, 43.5% and 27.2%, respectively, between 2010 and 2018[219]. In parallel, the number of people employed in the real estate activities and the manufacturing sub-sectors increased by 251.7% and 36.4%, respectively, during 2010-2018 period, while for the narrow construction sub-sector, this growth was limited to 15.3%.

Foreign Direct Investment in the Spanish broad construction sector has overall witnessed growth over recent years. Specifically, in the real estate activities sub-sector, both **direct investments abroad (DIA)** and **direct investments in the reporting economy (DIRE)** from EU-27 countries increased by 43.8% and 72.0%, respectively, over the 2013-2017[220] period. Similarly, in the narrow construction sub-sector, DIA from EU-27 rose by 59.6% between 2014-2017[221] and DIRE from EU-27 surged by 30.9% between 2013-2017[222]. In the real estate activities sub-sector, however, both DIA and DIRE from EU-27 declined by 52.9% and 17.9%, respectively, over the 2013-2017[223] period.

According to the 2021 World Investment Report, Spain's construction sector stood as one of the most invested sectors in 2020, having received 7.8% of the total FDI inflows[224].

As per the SBA Fact Sheet report 2019, despite the country's poor performance in many areas relating to internationalisation, the number of companies exporting on a regular basis rose to 51,768 in 2018, an increase of 2.4% in comparison to 2017. This was mainly due to the Strategy for the Internationalisation of the Spanish Economy 2017-2027. Fostering the internationalisation of Spanish SMEs, the government also established an umbrella organisation **ICEX** (*España Exportación e Inversiones*- Spain Export and Investment) that stimulates the trade and exports of SMEs and provides dedicated financial support and information on foreign markets[225].

In addition, the 'Strategic Framework in SME Policy 2030' was adopted in April 2019 that includes measures to improve the information available on international markets and business opportunities. It also consists of steps to improve specialised training activities to help SMEs grow in new markets and to create new financial instruments to meet the requirements of SMEs[226].

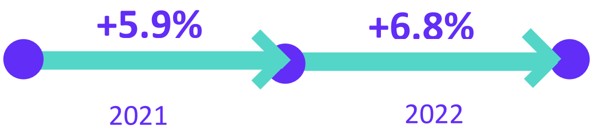
8

Outlook

After registering an annual GDP decline of 10.8% in 2020, compared to 2.0% of growth in 2019, the Spanish economy is projected to revive and register fast growth in 2021 and afterwards.

Spain's GDP is expected to grow annually by 5.9% in 2021, reaching EUR 1.1 trillion and then by 6.8% in 2022, reaching EUR 1.2 trillion.

Expected GDP growth in 2021 and 2022



In parallel, the **volume index of production** in the broad construction sector is expected to increase by 7.6 ip annually in 2021, mainly driven by a 7.6 ip and 7.8 ip growth in the construction of buildings and the construction of civil engineering in 2021, respectively. Similarly, the volume index of production in the broad construction sector is expected to experience a growth of 11.5 ip annually in 2022.

Turnover in the broad construction sector is forecasted to grow by 3.9% in 2021, reaching a value of EUR 224.9 billion. Similarly, the **total value added** of the broad construction sector is expected to grow by 4.1% in 2021, reaching EUR 78.7 billion.

Similarly, the number of **persons employed** in the broad construction sector is also expected to increase by 3.9% to 1,985,751 in 2021. This growth is projected to come from all the sub-sectors including the real estate activities (+6.1%), the architectural and engineering activities (+6.1%), manufacturing (+5.5%), and the narrow construction (+2.7%) sub-sectors in 2021.

The Spanish government is taking several measures in the context of the **housing market**. For instance, in December 2020, the government introduced amendments in the State Housing Plan 2018-2021 including the extension of the programme until 31st December 2022. In June 2021, the EIB signed an agreement to support Barcelona City Council in the construction of nearly 490 new public rental homes with an investment of EUR 36.2 million. As per the agreement, the EIB will finance the construction of 11 developments and 489 affordable social rental homes in various locations across the city.

As part of the Recovery and Resilience Plan (RRP), the Spanish government has allocated EUR 1.0 billion towards the construction of affordable, energy efficient rental housing.

This measure aims to build at least 20,000 new dwellings for social rental purposes or at affordable prices compliant with energy efficient criteria. These houses will be built in areas where social housing is currently insufficient and on publicly owned land. The **civil engineering segment** is expected to benefit from investment in the areas of transport infrastructure and urban development.

In December 2021, the Spanish government announced that it would invest EUR 24.2 billion in rail infrastructure over the next five years. The investment will go towards both the high-speed lines and the regular Spanish rail network.

As part of the RRP, the Spanish government has allocated around EUR 13.2 billion towards the sustainable mobility in urban areas and long-distance mobility. This will include improving railway infrastructure, creating low-emission zones in urban areas, financing green public buses, deploying electric charging stations and developing urban public transport

Overall, the growth in Spanish broad construction sector is projected to be driven by large scale digitalisation, energy renovations, infrastructural and circular economy projects backed by EU funding. Output in civil engineering will be the leading investment driver for the economy.

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5 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
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