



European Construction Sector Observatory

Country profile **Sweden**

December 2021



In a nutshell

In 2021, the Swedish GDP is expected to grow by 3.9%, reaching SEK 4,684.6 billion (EUR 454.4 billion). The country's inflation is also forecast to increase in 2021, reaching 2.4%¹.

Over the 2010-2020 period, Swedish GDP increased by 17.8%, totalling SEK 4,508.0 billion (EUR 437.3 billion) in 2020. However, the GDP declined by 2.8% in 2020 over the previous year. In 2020, Swedish economic growth slowed down due to COVID-19 pandemic which negatively impacted private consumption, exports and employment.

Likewise, the **number of enterprises** in the broad construction sector experienced an increase of 6.8% over the 2010-2020 period, totalling 187,694 in 2020. This growth was primarily driven by the increase in the number of enterprises in the narrow construction (+20.2%) and the architectural and engineering activities (+3.2%) sub-sectors.

Number of enterprises
in the narrow
construction sub-sector
between 2010 and 2019

↑ 20.2%

Similarly, the **volume index of production in the broad construction sector** increased by 21.6% over the 2015-2020 period, mainly driven by increases in the production of construction of buildings (+19.3%) and construction of civil engineering (+49.3%) over the same reference period. Nonetheless, volume index of production in the broad construction sector slightly slowed down by 1.0 i.p in 2020 over the previous year.

Volume index of
production in the broad
construction sector
between 2015 and 2020

↑ 21.6%

Likewise, the total **turnover** of the broad construction sector stood at EUR 141.7 billion in 2018, exhibiting an increase of 49.0% over the 2010 level of EUR 95.1 billion. It further increased to EUR 146.3 billion in 2020², representing a growth of 53.9% compared to 2010. This growth was mainly driven by the increases registered in all the sub-sectors including the narrow construction (+77.8%), architectural and engineering activities (+59.2%), manufacturing (+26.3%) and the real estate activities (+18.2%) sub-sectors, over the same reference period.

Turnover in the broad
construction sector
between 2010 and 2020

↑ 53.9%

Conversely, the **gross operating rate** of the broad construction sector, an indicator of the sector's profitability, decreased from 16.5% in 2010 to 15.6% in 2018. This is lower than the EU-27 average of 16.7%. The real estate activities sub-sector remained the most profitable (40.4%), followed by the architectural and engineering activities (10.8%), the narrow construction (8.0%) and the manufacturing (7.7%) sub-sectors in 2018.

With regards to employment, there were 718,148 **persons employed** in the Swedish broad construction sector, representing an increase of 34.0% compared to 2010 (535,817 persons). This was primarily due to the rise in employment in the narrow construction sub-sector (+40.7%), followed by the architectural and engineering activities (+34.2%), the real estate activities (+22.6%), and the manufacturing (+4.5%) sub-sectors over the 2010-2020 period.

The Swedish government launched several initiatives aimed at supporting the development of the country's housing market along with the civil engineering sector.

In March 2020 the Swedish government launched its new Larger Accessory Dwellings Bill, aimed at promoting the construction of accessory dwellings, and at the same time, allowing construction of buildings with higher residential quality.

Under its EUR 3.3 billion (SEK 34.0 billion) Recovery and Resilience Plan (RRP), Sweden plans to allocate around EUR 0.4 billion (SEK 4.1 billion) towards energy efficiency of apartment buildings³. The RRP also includes investment support for rental housing and housing for students with an allocation of SEK 1.2 billion (EUR 0.1 billion). It aims to stimulate investment in new production of rental housing and housing for students. This in turn would improve mobility in the labour market and for students, which has positive effects for growth. Notably, the Swedish NRRP still needs to be approved by the Council of the EU.

In terms of the **civil engineering market**, the transport network has been the focus of investment under the 2014-2025 national transport plan, with a budget of SEK 522.0 billion (EUR 50.2 billion). Additionally, in May 2021, the Swedish government proposed an SEK 876 billion (EUR 85.8 billion) 10-year transport infrastructure budget for 2022-2033. This includes SEK 165.0 billion (EUR 16.2 billion) for railway maintenance and operation. Also, the new financial framework

(long-term transport infrastructure budget for 2022-2033) includes SEK 799.0 billion (EUR 78.3 billion) in government funding, more than SEK 176.5 billion (EUR 17.3 billion) as compared to the previous 2018-2029 plan. In addition, the country has also proposed to invest around EUR 0.1 billion (SEK 1.5 billion) on railways. This would mainly include upgrading of the infrastructure during the period 2021–2023⁴.

Despite these favourable policy initiatives and investment plans, the Swedish construction sector continues to face difficulties on two fronts. Firstly, the construction sector suffers from deteriorating access to finance. As per the EIB Investment Survey (EIBIS) 2020 report, availability of finance is considered as a long-term barrier to investment by 29.0% of the firms in the construction sector. Secondly, the ongoing shortage of skilled workers continues to be a major concern for the sector, particularly in the infrastructure market. This is especially challenging as the infrastructure market is quite buoyant as compared to both residential and non-residential markets.

Overall, the Swedish construction sector has a positive outlook. Non-residential and civil engineering markets are expected to be the primary growth drivers. In addition, investment energy efficiency measures towards the apartment buildings, digitalisation of economy and EU backed projects are expected to lead the future growth of the Swedish construction sector.

Table of Contents

In a nutshell	2
1 Key figures	5
Construction market.....	5
Productivity	6
Turnover and profitability	6
Employment	7
2 Macroeconomic indicators	9
Economic development.....	9
Demography and employment.....	9
Public finance	9
Entrepreneurship and access to finance	10
3 Key economic drivers of the construction sector	11
Business confidence	11
Domestic sales	11
Export of construction-related products and services	12
Access to finance in the construction sector.....	12
Access to housing	13
Infrastructure.....	14
4 Key issues and barriers in the construction sector	16
Company failure	16
Trade credit	16
Late payment.....	17
Time and cost of obtaining building permits and licenses	18
Skills shortage	18
Sector and sub-sector specific issues	19
5 Innovation in the construction sector	21
Innovation performance.....	21
Eco-innovation and digitalisation	22
6 National and regional regulatory framework	24
Policy schemes.....	24
Building regulations.....	25
Insurance and liability related regulations	26
7 Current status and national strategies to meet Construction 2020 objectives	27
TO 1 – Investment conditions and volumes	27
TO 2 – Skills.....	29
TO 3 – Resource efficiency / Sustainable construction	30
TO 4 – Single Market	31
TO 5 – International competitiveness	32
8 Outlook	33

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Key figures

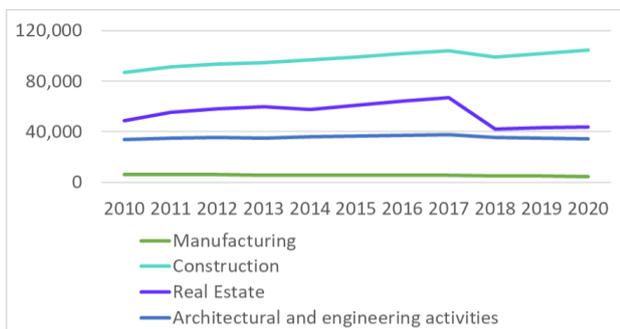
Construction market

The **number of enterprises** in the broad construction sector in Sweden totalled 187,694 in 2020 (Figure 1), representing a 6.8% of increase over the 2010 level of 175,830. This growth was primarily driven by the narrow construction (+20.2%) and the architectural and engineering activities (+3.2%) sub-sectors, partially offsetting the decline in the manufacturing (-24.1%) and the real estate activities (-10.9%) sub-sectors over the same reference period.

Enterprises in the narrow construction sub-sector accounted for 55.8% of the total enterprises in the broad construction sector, followed by the real estate activities (23.3%), the architectural and engineering activities (18.5%) and the manufacturing (2.5%) sub-sectors.



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



Source: Eurostat, 2021.

The **volume index of production in the broad construction sector** increased by 21.6% over the 2015-2020 period, primarily driven by 19.3% and 49.3% of increases in the production of construction of buildings and construction of civil engineering over the same reference period, respectively.



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

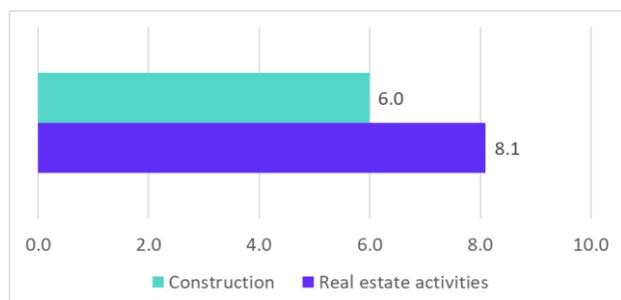


Source: Eurostat, 2021.

In 2020⁵, the **total value added at factor cost**⁶ in the broad construction sector stood at EUR 55.9 billion, with the narrow construction sub-sector having the largest share (49.5%), followed by the real estate activities (30.9%), the architectural and engineering activities (14.2%) and the manufacturing (5.5%) sub-sectors.

The **share of gross value added** of the narrow construction and the real estate activities sub-sectors in Swedish GDP⁷ amounted to 6.0% and 8.1% in 2020 (Figure 3), as compared to EU-27 average of 5.1% and 10.3%, respectively.

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



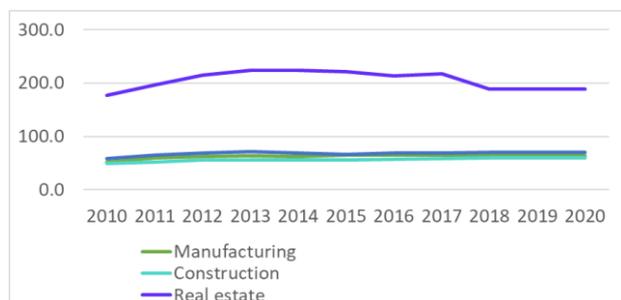
Source: Eurostat, 2021.

Productivity

Overall, **apparent labour productivity**⁸ in the Swedish broad construction sector increased by 13.9%, from EUR 68,545 in 2010 to EUR 78,046 in 2018⁹. Labour productivity in the manufacturing sub-sector experienced the largest increase of 21.8%, from EUR 52,500 in 2010 to EUR 63,912 in 2020. This was followed by the narrow construction (+21.6%), the architectural and engineering activities (+19.5%) and the real estate activities (+6.7%) sub-sectors, rising from EUR 48,900, EUR 58,600 and EUR 176,400 in 2010 to EUR 59,483, EUR 70,012 and EUR 188,162 in 2020, respectively.

Labour productivity in the narrow construction sub-sector between 2010 and 2020 **↑ 21.6%**

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



Source: Eurostat, 2021.

Turnover and profitability

The total **turnover** of the Swedish broad construction sector stood at EUR 141.7 billion in 2018, exhibiting an increase of 49.0% over the 2010 level of EUR 95.1 billion. It further increased to EUR 146.3 billion in 2020¹⁰, representing a

growth of 53.9% compared to 2010. The growth in reported in 2020 was mainly driven by the increases registered in all the sub-sectors including the narrow construction (+77.8%), architectural and engineering activities (+59.2%), manufacturing (+26.3%) and the real estate activities (+18.2%) sub-sectors, over the same reference period. Overall, in 2020, 59.4% of total turnover was generated by the narrow construction sub-sector, followed by the real estate activities (22.5%), the architectural and engineering activities (11.0%) and the manufacturing (7.1%) sub-sectors, respectively.

Turnover in the narrow construction sub-sector between 2010 and 2020 **↑ 77.8%**

In parallel, the **gross operating surplus** of the Swedish broad construction sector amounted to EUR 22.1 billion in 2018¹¹, a 41.1% increase compared to 2010. In terms of its sub-sectors, the largest increase was reported by the architectural and engineering activities (+94.6%), followed by the narrow construction (+74.0%) and the manufacturing (51.5%) sub-sectors over the 2010-2018 period. Similarly, the real estate activities sub-sector experienced a 23.8% increase over the same reference period.

Gross operating surplus of the broad construction sector between 2010 and 2018 **↑ 41.1%**

At the same time, the **gross operating rate**¹² of the Swedish broad construction sector¹³, an indicator of the sector's profitability, stood at 15.6% in 2018¹⁴, lower than 16.5% in 2010 and the EU-27 average of 16.7%. In terms of sub-sectors, all the sub-sectors reported an increase over the 2010-2018 period. Specifically, the real estate activities sub-sector remained the most profitable, with a gross operating rate of 40.4%, above its 2010 rate of 37.4%. This was followed by the architectural and engineering activities and narrow construction sub-sectors, which registered a gross operating rate of 10.8% and 8.0% in 2018, slightly above compared to their 2010 levels of 8.9% and 7.8%, respectively. Similarly, the manufacturing sub-sector registered a gross operating rate of 7.7% in 2018, slightly above its 2010 level of 6.6%.

Correspondingly, construction costs for residential buildings have been experiencing an increasing trend, with the **construction cost index** rising by 11.9% over 2015-2020 period. This increase has been spurred by a 15.7% increase in input prices for materials as well as a 7.7% increase in labour costs over the same reference period. Other factors affecting the rise in building costs relate to the suboptimal productivity growth in the construction sector¹⁵.



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



Source: Eurostat, 2021.

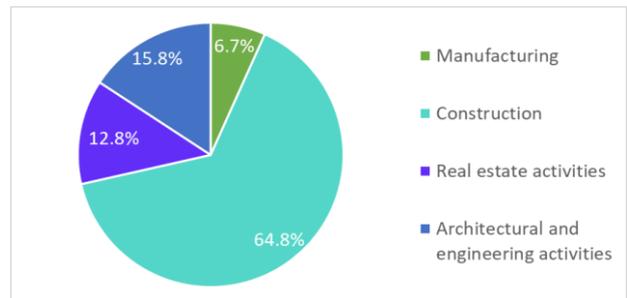
Employment

In 2020¹⁶, there were 718,148 **persons employed** in the Swedish broad construction sector, representing an increase of 34.0% compared to 2010 (535,817 persons). Specifically, the narrow construction sub-sector employed 64.8% of the total workforce in the broad construction sector in 2020 (465,081 persons). This was followed by the architectural and engineering activities (15.8%, 113,132), the real estate activities sub-sector (12.8%, 91,889) and the manufacturing sub-sector (6.7%, 48,047) (Figure 6).

Over the 2010-2020¹⁷ period, employment in the narrow construction sub-sector increased by 40.7%, followed by the architectural and engineering activities (+34.2%) and the real estate activities (+22.6%) sub-sectors. Likewise, the manufacturing sub-sector reported a modest increase of 4.5% over the same reference period.



Figure 6: Percentage of persons employed in construction in Sweden in 2020



Source: Eurostat, 2021.

In terms of employment by **specific occupations**, the highest increase between 2010 and 2020 in the narrow construction sub-sector was registered in technicians and associate professionals (+92.6%), followed by professionals (+44.7%), elementary occupations (+29.8%) and managers (+25.9%). Similarly, demand for service and sales workers increased by 1053.8% between 2010 and 2020 in the real estate activities sub-sector, as the demand amounted to around 1,300 units in 2010 and grew to more than 15,000 units in 2020. This was followed by demand for professionals (+104.5%), managers (+57.1%) and technicians and associate professionals (+45.2%). Conversely, demand for the elementary occupations within the same sub-sector declined by 81.1% during the same reference period. Furthermore, in the manufacturing sub-sector, the demand for plant and machine operators and assemblers and elementary occupations declined by 57.6% and 31.1% respectively over the 2010-2020 period, while it grew by 41.5% in case of professionals.



The share of **self-employed workers** in the general economy working in the narrow construction sub-sector increased from 14.0% in 2010 to 16.8% in 2020. This is higher than the EU-27 average of 11.7%. In contrast, in the real estate activities sub-sector, the share of self-employed workers stood at 1.7% in 2020, marginally above its 2010 level (1.6%) and the EU-27 average of 1.6%.

In parallel, **full-time employment** in the narrow construction and the real estate activities sub-

sectors also increased by 15.7% and 28.1% respectively, between 2010 and 2020. At the same time, **part-time employment** in the narrow construction and the real estate activities sub-sectors also increased by 27.2% and 26.0% respectively, during the same reference period.

Part-time employment in the narrow construction sub-sector between 2010 and 2020

 **27.2%**

2

Macroeconomic indicators

Economic development

Swedish economic growth slowed down in 2020 due to COVID-19 pandemic which negatively impacted private consumption, exports and employment¹⁸. Nonetheless, the country's economy outperformed many European countries due to the government's decision not to impose a full-scale lockdown to curb the spread of COVID-19¹⁹.

In 2020, Swedish **GDP** amounted to SEK 4,508.0 billion (EUR 437.3 billion), representing a decline of 2.8% over the previous year and an increase of 17.8% compared to 2010 level. The 2020 **potential GDP** of Sweden amounted to SEK 4,703.7 billion (EUR 439.7 billion), resulting in a negative output gap of 4.8%. In 2021, Swedish GDP is expected to grow by 3.9%, reaching SEK 4,684.6 billion (EUR 454.4 billion)²⁰.

In parallel, the **inflation rate** for 2020 stood at 0.7%, marking a 1.0 percentage point (pp) reduction over the 2019 level (1.7%). The country's inflation is forecast to increase in 2021, reaching 2.4%²¹.

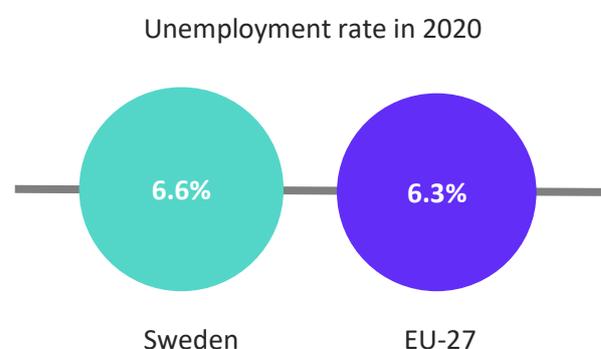
Demography and employment

In terms of demographics, the **total population** of Sweden amounted to 10.3 million people in 2020, a 10.6% increase as compared to 2010 levels. Population projections anticipate an overall 7.5% and 18.7% growth in the number of people living in Sweden reaching 11.1 million by 2030 and 12.3 million by 2050, respectively. These projections are partly driven by constantly increasing net migration to Sweden. Between 2010 and 2019, **net migration** increased by 44.1%, from 49,734 in 2010 to 71,647 in 2019. However, it decreased to 36,753 in 2020, marking a 48.7% decline over the previous year.

The **unemployment rate** in Sweden stood at 6.6% in 2020, above the EU-27 average of 6.3%. This

also marks an increase of 0.3 pps from the 2010 level of 6.3%. **Youth unemployment** (below the age of 25) stood at 23.9% in 2020, well above the EU-27 average of 16.8%, yet an improvement as compared to its 2010 levels (24.8%)²².

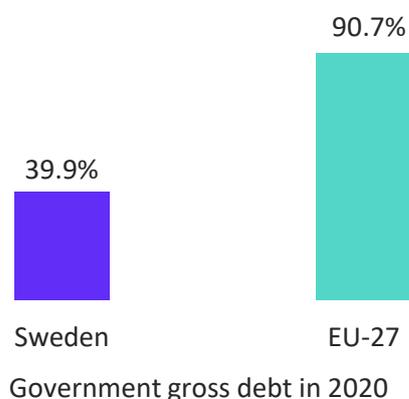
In 2020, Sweden's **working age population** accounted for 62.2% of the total population. It is projected to decline in the future, accounting for 61.9% of the total by 2030 and 60.2% of by 2050, respectively. Conversely, people over 65 years, accounting for 20.0% of the total in 2020, are expected to increase to 21.3% by 2030 and by 23.5% by 2050, respectively. The demographic trends in the country are expected to drive the demand for public sector construction, such as hospitals, old age institutions and other care facilities. This is also expected to drive demand for housing adapted to the needs of the elderly.



Public finance

In 2020, **general government expenditure** as a share of GDP in Sweden stood at 52.9%, slightly below as compared to the EU-27 average of 53.4%. In 2020, a vast majority of COVID-19-related support was financed by the central government, which led to a **general government deficit** as a share of GDP of 3.1% in the year, as compared to a surplus of 0.6% in 2019. This is, however, better when compared to the EU-27 average deficit of 6.9%²³.

In addition, **general government gross debt** stood at 39.9% of the country's GDP in 2020, higher than 2010 (38.1%). This is well below the EU-27 average of 90.7%.



Entrepreneurship and access to finance



According to the World Bank Doing Business 2020 Report²⁴, Sweden ranked 39th out of 190 countries in ease of starting a business, with a score of 93.1²⁵.

As per the report, starting a business in Sweden requires four procedures, taking 7.5 days and costing 10.5% of per capita income²⁶. In terms of entrepreneurship, 62.5% of the Swedish adult population perceive that there are good opportunities for starting a firm in the country, and

8.39% of the adult population, currently not involved in entrepreneurial activities, intended to start a business in the coming three years²⁷.

The Swedish government has taken several initiatives to encourage entrepreneurship and start-ups. Since January 2020, it has become easier in the country to start a new private limited company after the capital requirement was lowered from EUR 5,000 (SEK 50,000) to EUR 2,500 (SEK 25,000)²⁸.

According to the World Bank Doing Business 2020 report, in terms of access to finance, Sweden ranked 80th out of 190 countries for the ease of getting credit²⁹.

To foster access to finance to SMEs, Ponture AB, a Swedish loan marketplace and financial institution, signed a guarantee agreement with the European Investment Fund (EIF) in August 2021. The deal, with backing from the EU's programme for Employment and Social Innovation (EaSI), allows Ponture to provide up to SEK 145.0 million (EUR 14.2 million) in new lending to about 1,000 financially underserved Swedish SMEs. The guarantee is aimed at providing microloans to three target groups including women, young entrepreneurs and entrepreneurs with a migratory background. The loans range from SEK 10,000 – 250,000 (EUR 980.0 – 24,500)³⁰.

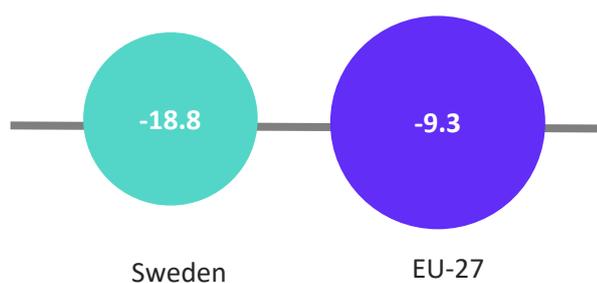
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Key economic drivers of the construction sector

Business confidence

Over the 2010-2019 period, overall business confidence in Sweden has improved, however, it deteriorated in 2020, mainly due to the COVID-19 pandemic. In fact, in 2020, the **consumer confidence** indicator stood at -2.4 (-3.1 in 2019), below the 2010 levels of 7.3. However, it is well above the EU-27 average of -14.6. Similarly, **industry confidence** deteriorated significantly from -0.1 in 2019 to -8.4 in 2020, well below the 2010 level of 5.5 and above the EU-27 average of -14.4. Likewise, the **construction confidence** indicator declined to -18.8 in 2020 from 6.3 in the previous year. This is again well below the 2010 level of -6.7 and the EU-27 average of -9.3 in 2020.

Construction confidence indicator in 2020



The **investment ratio** stood at 24.5% in 2020, higher as compared to 22.1% in 2010. This is above the EU-27 average of 21.8% in 2020.

Likewise, **investment per worker** in the Swedish broad construction sector marginally increased by 1.4%, from EUR 69,723 in 2010 to EUR 70,706 in 2019³¹. In terms of sub-sectors, investment per worker in the narrow construction sub-sector notably increased by 52.1%, in 2019. Similarly, investment per worker in the real estate activities sub-sector also increased by 20.0% in the same

period³². Likewise, investment per workers in the architectural and engineering activities marked a 31.7% increase between 2010 and 2019³³.

Domestic sales

The ranking of the **most domestically sold construction products** has remained the same since 2010 except for “Articles of cement” being replaced with “Other structures and parts of structures”. The largest value increment over the 2010-2020 period was witnessed in the product category “Prefabricated structural components” (+319.3%), followed by “Windows, French windows and their frames” (112.6%), “Towers and lattice masts of iron or steel” (+88.9%), and “Articles of cement, concrete or artificial stone” (+72.7%). Contrarily, the only decline in sales during the above reference period was recorded in “Quicklime, slaked lime and hydraulic lime” (-21.3%). The top five most domestically sold construction products, both in Sweden and the EU-27, made up 64.1% of all Swedish construction products sales in 2020.

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

Sweden				EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Prefabricated wooden buildings (group 162320)	1,467.4	23.6	Other structures (group 251123)
2	Windows, French windows, etc. (group)	732.8	11.8	Ready-mixed concrete (group 236310)

Sweden				EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
	162311)			
3	Tiles, flagstones, bricks, etc. (group 236111)	657.3	10.6	Doors, windows and their frames (group 251210)
4	Other structures (group 251123)	598.7	9.6	Prefabricated buildings of metal (group 251110)
5	Ready-mixed concrete (group 236310)	530.1	8.5	Prefabricated structural components (group 236112)

Source: PRODCOM, 2021.

Export of construction-related products and services

The top five **most exported construction products** and their ranking has witnessed some fluctuations since 2010. Most of the product categories registered a high growth rate over the 2010-2020 period with the largest increment being recorded in “Towers and lattice masts of iron or steel” (+466.0%), followed by “Prefabricated buildings of metal” (+170.2%), “Tableware and kitchenware, of wood” (+130.6%) and “Tools, tool bodies, tool handles. etc.” (+95.9%). In contrast, “Quick lime, slaked lime and hydraulic lime” saw the largest decline in any product category (-41.5%), closely followed by “Cement clinkers” (-24.8%). The top five most exported construction products from Sweden and the EU-27, constituted 54.6% of all Swedish construction product exports in 2020.

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

Sweden				EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Other structures (group 251123)	221.1	17.8	Ceramic tiles and flags (group 233110)
2	Assembled parquet panels (group 162210)	155.6	12.5	Other structures (group 251123)
3	Windows, French windows and	124.7	10.0	Fibreboard of wood (group 162115)

Sweden				EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
	their frames (group 162311)			
4	Prefabricated buildings of metal (group 251110)	93.5	7.5	Doors, windows and their frames (group 251210)
5	Prefabricated wooden buildings (group 162320)	85.5	6.9	Builders joinery and carpentry, of wood, n.e.c. (group 162319)

Source: PRODCOM, 2021.

In terms of the **cross-border provision of construction services**³⁴, Sweden **exported** services worth EUR 441.1 million worldwide in 2020, a decline of 29.6% since 2010. In 2020, about 65.9% of total exports (i.e. EUR 290.4 million) was made to the EU-27, well above the 55.5% of 2010 (EUR 347.8 million). Similarly, the value of exports to countries outside the EU decreased by 46.0%, from EUR 279.1 million in 2010 to EUR 150.6 million in 2020.

Export of construction services worldwide over 2010-2020 period  **29.6%**

In contrast, Sweden **imported** a total of EUR 1.2 billion of construction services in 2020, representing a 45.9% increase since 2010 (EUR 847.4 million). Almost 87.2% of the total imports (i.e. EUR 1.1 billion) came from EU-27 countries while the remaining 12.8% came from the rest of the world (EUR 0.2 billion). Thus, Sweden reported a **trade deficit** of EUR 795.3 million in 2020, significantly above than its 2010 levels of EUR 220.5 million.

Access to finance in the construction sector

According to the Survey on the Access to Finance of Enterprises (SAFE) 2021 results, on average, **6.5% of the Swedish respondent SMEs considered ‘access to finance’ as the most important issue, slightly lower than the EU-27 average of 7.1%**³⁵.

According to the report, bank loans are still the main source of financing for 32.7% of SMEs in

Sweden, below the EU-27 average of 45.7%. Between April and September 2021, 17.2% of Swedish SMEs applied for a bank loan, while 4.2% did not, because of fear of rejection. Out of those who applied for a bank loan, 67.1% received everything, which is slightly below the EU-27 average of 71.3%³⁶.

As per the EIB Investment Survey (EIBIS) 2020 report, availability of finance is considered as a long-term barrier to investment by 29.0% of the firms in the construction sector. Additionally, 10.0% of firms in the construction sector are dissatisfied with the cost of finance, 6.0% for collateral requirements and 3.0% each for the type of finance received and the maturity period³⁷.

In October 2021, the European Investment Bank (EIB) signed a guarantee agreement with the Swedish Export Credit Corporation (SEK) to provide new financing of EUR 817.0 million (SKR 8.3 billion) to Swedish companies. The aim is to support mid-sized and large companies in making new investments and help them recover from the COVID-19 pandemic. The guarantee forms part of the European Guarantee Fund's guarantee programme³⁸.

Access to housing

The **number of households** in Sweden increased by 24.7%, from 4,460,300 in 2010 to 5,563,800 in 2020. The share of the **population living in densely populated areas** also increased from 22.1% in 2010 to 39.5% in 2020. In parallel, the share of the population living in intermediate urbanised areas increased to 41.2% in 2020 from 16.3% in 2010.

The **mean equivalised net income** increased by 31.3%, from EUR 20,070 in 2010 to EUR 26,356 in 2019. This is well above the EU-27 average of EUR 19,567 in 2019. Similarly, this increased to EUR 26,646 in 2020, resulting in an overall growth of 32.8% over the 2010-2020 period.

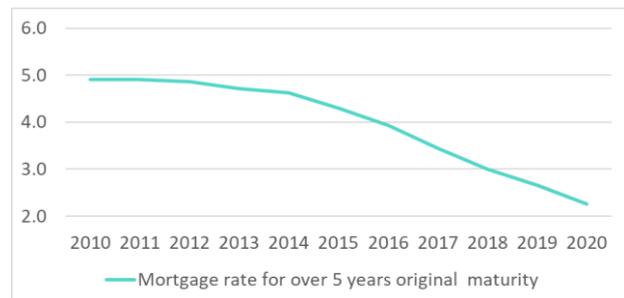
Number of households between 2010 and 2020 **↑ 24.7%**

Moreover, housing loans to households picked up substantially, with **total outstanding residential loans** growing by 44.6%, from EUR 292.3 billion in 2010 to EUR 422.7 billion in 2019³⁹. This increase is partly supported by the declining **interest rates on mortgages**, standing at 2.7% in 2019 as compared

to 4.9% in 2010. It further decreased to 2.3% in 2020 (Figure 7).

Total outstanding residential loans to households between 2010 and 2019 **↑ 44.6%**

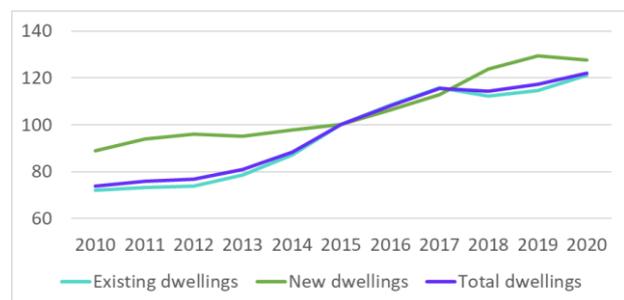
Figure 7: Mortgage rates for loans for over 5 years original maturity (%) between 2010 and 2020



Source: ECB MFI Interest Rate Statistics, 2021.

The **house price index** for total dwellings also increased by 22.1% over the 2015-2020 period, mostly driven by a 27.6% and 21.2% increase in new dwellings and existing dwellings over the same reference period, respectively. This rapid price growth is partly driven by a combination of structural bottlenecks to housing supply, especially in the main urban areas, combined with a growing housing demand, driven by an increasing population.

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



Source: Eurostat, 2021.

Amidst the COVID-19 pandemic related restrictions, the residential construction activity weakened. The number of dwelling starts in newly constructed one-to two-dwellings fell by 9.4% from 2019 reaching 9,644 units in 2020. On the other hand, dwelling completions of one- to two-dwelling increased slightly by 1.0% to 10,315 units for the same reference period. Conversely, dwelling starts of multi-dwelling buildings reached to 40,728 units in 2020, an increase of 7.3% from 2019. Dwelling

completions fell by 20.0% in 2020 to 36,367 units for multi-dwelling buildings⁴⁰.

As per Statistics Sweden, the total number of completed dwellings in 2020 witnessed a decline of 9.3%, from 55,659 units in 2019 to 50,479 units in 2020⁴¹. In the first three quarters of 2021, construction activity began in 46,000 dwellings as compared to 39,443 dwellings for the same reference period in the previous year. This rise of 17.0% indicates that the construction activity is increasing in the country.

According to SBAB - State mortgage provider, around 50,000 new homes are expected to be built in the coming years. This is projected to fill the estimated need of 30,000 new homes that are deemed necessary to keep up with the population growth. This means that the housing shortage of about 90,000 should be overcome by 2027⁴².

Regarding the **building permits** index for residential dwellings, Sweden witnessed an increase of 12.4% between 2015 and 2020. Notably, there was an 11.5 index points (ip) increase between 2019 and 2020 itself. Similarly, building permits for one-dwelling buildings rose by 8.0% over the same reference period. Further, the biggest increment was seen in the building permits for two and more dwelling buildings, rising by 14.0% between 2015 and 2020.

According to the European Construction Industry Federation (FIEC), during 2020, a total number of 57,500 building permits was issued in residential construction in Sweden, 5.7% increase from 2019. This comprises 19.1% (i.e. 11,000) of total permits for single dwellings, 69.6% (i.e. 40,000) of total permits for collective dwellings and 11.3% (i.e. 6,500) of total permits for other types of dwellings in 2020⁴³.

The number of **new constructions building permits** issued for **residential buildings** increased by 8.8%, from 8,138 in 2010 to 8,852 in 2020. In the case of non-residential construction, the number of new buildings permits issued increased by 12.1%, from 2,434 in 2010 to 2,729 in 2020⁴⁴.

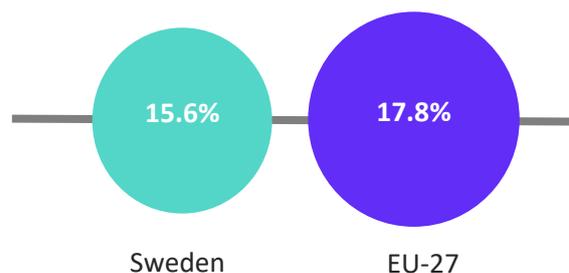
Number of building permits for new residential buildings between 2010 and 2020  **8.8%**

Number of building permits for new non-residential buildings between 2010 and 2020  **12.1%**

Furthermore, the distribution of residential building stock between owners and tenants has witnessed fluctuations since 2010. Over the 2010-2020 period, the **home ownership** rate in Sweden has remained above 63.0%, being at 63.6% in 2019 (lower as compared to EU-27 average of 69.8%). This rate slightly increased to 64.5% in 2020. Conversely, for the population earning **above 60.0% of the median equivalised income**⁴⁵, the home ownership rate increased to 71.0% in 2019 (slightly lower than EU-27 average of 73.6%). It further increased to 71.3% in 2020. Besides, it substantially declined to 27.3% (well above the EU-27 average of 50.3%) in 2019 for the population earning below 60.0% of the median equivalised income. In 2020, it slightly increased to 28.7%.

Sweden's **overcrowding rate**⁴⁶ stood at 15.6%⁴⁷ in 2020, below the EU-27 average of 17.8%. The **severe housing deprivation rate**⁴⁸ stood at 2.6% in 2019, slightly below the EU-27 average of 4.0%. Nevertheless, the rate slightly decreased to 2.5% in 2020. Lastly, the **housing cost overburden rate**⁴⁹ stood at 8.3% in 2020, below the EU-27 average of 9.9%.

Overcrowding rate in 2020



Infrastructure



As per the 2019 Global Competitiveness Report, Sweden ranked 19th out of 141 economies in terms of its overall infrastructure quality^{50,51}.

According to the report, Sweden ranked 23rd with regards to its transport infrastructure. More specifically, Sweden ranked 8th among the 141

economies in terms of its road connectivity, 13th for the efficiency of its air transport services, 17th with regards to the efficiency of seaport services and 20th in terms of quality of road infrastructure. Further, Sweden ranked 26th for its linear shipping connectivity, 35th with regards to its airport connectivity, 37th in terms of railroad density and 40th in relation to the efficiency of its train services⁵².

There is an urgent need to renovate the existing infrastructure and plan additional investments in the sector. In this context, the Swedish government, under its National Infrastructure Plan 2018-2029, aims to invest SEK 700 billion (EUR 67.3 billion) in improving transport infrastructure, including the maintenance of rail tracks and

investments in new railways. In the coming twelve years, the country plans to invest three times more in new rail infrastructure than in new roads. This could also beneficially shift Sweden's transport regime from roads (currently 86.0%) to railways (currently 10.0%)⁵³.

The Recovery and Resilience Plan of Sweden, which is currently a draft awaiting for the Council of the EU's endorsement, includes investments in refurbishment and modernisation of existing railway infrastructure and in the field of sustainable transport. The measures aim to upgrade the condition and reliability of the railway infrastructure. The plan includes a total investment of SEK 1.5 billion (EUR 145.5 million).

4

Key issues and barriers in the construction sector

Company failure

Over the 2010-2019⁵⁴ period, the number of **company deaths** in the narrow construction sub-sector increased by 20.6%, from 5,206 in 2010 to 6,279 in 2019. Similarly, the number of company deaths in the real estate activities sub-sector also grew by 19.9%, from 1,700 in 2010 to 2,038 in 2019. Lastly, in the case of the architectural and engineering activities sub-sector, the number of company deaths grew by 3.8%, from 1,959 in 2010 to 2,033 in 2019.

Company deaths in the narrow construction sub-sector between 2010 and 2019

 **20.6%**

Likewise, the number of **company births** in the real estate activities, as well as the architectural and engineering activities sub-sectors, increased by 23.2% and 2.5%, from 2,814 and 2,299 in 2010 to 3,467 and 2,357 in 2019⁵⁵, respectively. In contrast, in the narrow construction sub-sector, company births deteriorated by 13.8%, from 7,956 in 2010 to 6,855 in 2019.

Company births in the narrow construction sub-sector between 2010 and 2019

 **13.8%**

Statistics Sweden reported 1,351 bankruptcies in the construction sector⁵⁶ in 2019, a marginal increase of 1.0% as compared to the 1,338 bankruptcies in 2018⁵⁷. In 2020, the total number of bankruptcies in the construction sector fell by 6.0% from 2019⁵⁸.

Trade credit

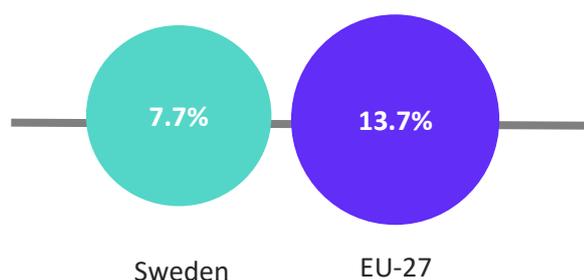
As per the **Atradius Payment Practices Barometer 2020 report**, Sweden reported an increased use of trade credit in 2020 with **67.0% of the total value of Swedish respondents' B2B sales made through the use of credit. This is well above the western European average of 55.0%**⁵⁹.

As per the report, 29.0% of the businesses surveyed declared that the total value of sales through credit increased by 40.0% since the onset of the COVID-19 pandemic. Half of the respondents (50.0%) reported they tend to accept trade credit requests from SMEs to encourage sales on the domestic market while 33.0% granted trade credit to provide financial support to customers facing liquidity shortages⁶⁰.

According to the **SAFE 2021 report**, trade credit constitutes a relevant source of financing for **14.8% of Swedish SMEs, below the EU-27 average of 27.8% in 2021**⁶¹.

As per the report, 16.3% of Swedish SMEs applied for trade credit in 2021. Around 7.7% of them have used trade credit in the last six months as compared to the EU-27 average of 13.7%. Additionally, out of all the respondents who applied and negotiated trade credit financing, 74.3% of respondents received everything they requested (against the EU-27 average of 71.6%)⁶².

Share of companies using trade credit in 2021



Late payment



According to the European Payment Report 2021, about 41.0% of Swedish respondent firms say late payments to have a high impact and prohibits growth, well above the EU average of 37.0%⁶³.

As per the report, 60.0% of Swedish businesses believe that growing macroeconomic uncertainty has caused them to extend their payment terms to suppliers in 2020 as compared to the EU-28⁶⁴ average of 57.0%. On average, a business-to-business (B2B) customer in Sweden takes 42 days to pay dues, slightly above the EU-28⁶⁵ average of 41 days. In practice, Swedish B2B customers took an average of 53 days to pay dues in 2021, above the EU-28⁶⁶ average of 52 days⁶⁷.

Further, 64.0% of Swedish companies are more concerned than ever before about debtors' ability to pay on time, with 70.0% of companies expecting an increase in the risk of non-payment from debtors in the next 12 months⁶⁸.

Additionally, 48.0% of the respondents expect debtors' liquidity challenge due to the impact of COVID-19 affecting late payments. This is at par with the EU-28⁶⁹ average of 48.0%. At the same time, 42.0% of respondents in Sweden ranked "Risk of a pan-European recession" as one of the main payment challenges in terms of their customers paying on time and in full over the next 12 months. This is above the EU-28⁷⁰ average of 40.0%⁷¹.

As per the SAFE 2021 report, around 3.2% of SMEs reported facing late payment issues on a regular basis, below the EU-27 average (11.8%)⁷².

As per the report, 18.7% of SMEs reported that their payments to suppliers have been affected as a result of late payments by customers. For 10.5% of SMEs, late payment affected production or operations, and for 5.1% it impacted investments or new hiring. 7.1% of SMEs also reported that their loans repayments have been delayed, or they have had to seek additional financing, as a result of late payments⁷³.

As per the Atradius Payment Practices Barometer 2020 survey report, businesses lengthened their payment terms from 28 days in 2019 to 37 days in 2020⁷⁴.

According to the 2021 Payment Practices Survey, 47.0% of the businesses polled increased payment terms this year while 49.0% adjusted credit terms based on the availability and cost of funds needed to finance credit sales. In 2022, most businesses expect to see an increase in the frequency of credit sales⁷⁵.

After the onset of the COVID-19 pandemic, the total value of overdue invoices in 2020 increased to nearly 30.0%. This is a significant increase as compared to 20.0% in 2019, although it is lower than the Western European average of 47.0%. This increase in late payments led to a significant increase in the financing and administrative costs associated with carrying trade debt. In addition, 4.0% of the total value of receivables was still outstanding at 90 days. On average businesses lost 80.0% of the value of the receivables that were not paid within 90 days. Also, 37.0% of respondents reported granting longer payment terms (up to 20 days) following the onset of the pandemic as compared to the Western European average of 47.0%⁷⁶.

Following the outbreak of the pandemic a significant majority of businesses (73.0%) started using self-insurance for the first time as compared to Western Europe average of 47.0%. Besides, 66.0% of the respondents sent overdue invoices earlier for collection while 57.0% requested letters of credit and 54.0% turned to factoring. Over the coming months, 41.0% of the businesses plan to offer discounts for early payment of invoices, lower

than the Western Europe average of 47.0% while 39.0% would send overdue invoices for collection earlier than before as compared to the Western Europe average of 45.0%⁷⁷.

According to the Atradius Payment Practices Barometer 2021 report, 60.0% of the total value of all the B2B invoices issued were reported overdue in Sweden in 2021 out of which 15.0% of all invoices were more than 90 days overdue and 14.0% were written off. Over the coming months, 54.0% of businesses expect their customers' payment practices to improve while 43.0% expect no change⁷⁸.

In 2022, most businesses expect to see an increase in the frequency of credit sales, largely as a way of providing short-term finance for customers while 54.0% of businesses expect their customers' payment practices to improve over the coming months⁷⁹.

Time and cost of obtaining building permits and licenses

As per the World Bank's Doing Business Report, 2020⁸⁰, Sweden ranked 10th out of 190 countries in terms of "Ease of doing business" and 31st in "Dealing with construction permits" in 2019. Eight **procedures** and 117 **days** are required to complete the administrative formalities to build a warehouse⁸¹, well below the OECD high-income average of 12.7 procedures and 152.3 days, respectively. Nevertheless, in 2019, the **cost of completing the formalities** to build a warehouse represented 1.9% of the value of the warehouse, slightly above the OECD high-income average of 1.5%. Specifically, **obtaining a building permit** takes 60 days and costs SEK 88,680 (EUR 8,521) (Table 3). It is important to note that there is sub-procedures named "obtain a building permit", which is a part of the overall procedure needed to obtain a building permit. This sub-procedure account for over 50% of the time needed to complete the administrative formalities to build a warehouse.

Table 3: Construction procedures timing and costs in Sweden

Procedure	Time to complete	Associated costs
Hire an external certified supervisor	1 day	SEK 180,000 (EUR 17,296)
Hold technical consultation meeting with Building Committee of the Municipality	15 days	No charge
Obtain building permit	60 days	SEK 88,680 (EUR 8,521)
Receive decision to commence construction	5 days	No charge
Receive inspection from the Building Committee	1 day	No charge
Submit supervisor's report and hold final consultation meeting	10 days	No charge
Obtain water and sewerage connection	25 days	SEK 190,000 (EUR 18,257)
Obtain final certificate	10 days	No charge

Source: Doing Business overview for Sweden, World Bank, 2020⁸².

Skills shortage

In 2020, there were 4,052 and 1,347 **job vacancies** in the Swedish narrow construction and the real estate activities sub-sectors, respectively. This, in turn, represented a significant increase of 55.5% and 95.8% as compared to the 2010 levels of each of the sub-sectors, respectively. Likewise, the **job vacancy rate** for both the narrow construction as well as the real estate activities sub-sectors increased from 1.1% and 1.3% in 2010 to 1.2% and 1.8% in 2020, respectively.

Number of job vacancies in the narrow construction sub-sector over 2010-2020  55.5%

Over the 2010-2019 period, **adult participation in education and training** in the broad construction sector experienced an increasing trend. However, in 2020 it witnessed a decline, reaching 18.1% from 22.0% in 2019. With regards to sub-sector, the adult participation rate increased from 24.7% in 2010 to 30.0% in 2020 for the Swedish real estate activities sub-sector.

In parallel, the **number of tertiary students** enrolled in engineering, manufacturing and construction increased by 24.6% from 11,746 in 2010 to 14,641 in 2019⁸³. In particular, 4,167

tertiary students were enrolled in architecture and building in 2019, representing a considerable increase of 51.4% as compared to 2010 level of 2,753 students.

As per the EIB Investment Survey 2020 report, 82.0% of firms in the construction sector reported availability of skilled staff as a long-term barrier to investment⁸⁴.

Despite Sweden having one of the highest employment rates in the EU region, the European Commission's autumn 2019 forecast expected an increase in unemployment up to 2021. This was primarily due to large scale labour shortages and skill mismatches in the Swedish economy, particularly in the case of high-skilled jobs. In the case of low-skilled workers, notably non-EU migrants, finding a job itself is rather difficult in the current economic environment⁸⁵.

With regards to the construction sector, Sweden is experiencing higher labour and skills shortages, both for blue and especially white-collar workers (including site managers, civil engineers and technicians). This labour shortage is also affected by Sweden's housing market situation. Existing housing shortages makes it difficult for workers to move to other locations for new jobs, thus augmenting the labour shortages crisis⁸⁶.

Around 19.0% of Swedish employers stated that difficulties in finding suitable accommodation affected the responsiveness of potential candidates to recruitment offers⁸⁷.

According to the Swedish construction federation (BI), this also prevented construction companies from exploring further market opportunities. The skills shortage is expected to increase in the coming years, due to growing investments in construction, coupled with high retirement rates in the sector. This is more evident in the infrastructure market as compared to residential and non-residential markets. The Construction Industry Association has assessed that 50,000 new employees will be needed over a five-year term solely due to aging. Additional labour requirements are expected, driven by the projected construction of 600,000 new dwellings by 2025 and the infrastructure projects outlined in the national transport plan 2018-2029⁸⁸.

Furthermore, to tackle the labour shortage problem, the Swedish government, in its Budget Bill 2022, proposed several initiatives. These include the reinforcement of the Swedish Public Employment Service, providing more people with employment training, counteracting long-term unemployment, giving older jobseekers more time in new start jobs and introducing more unemployed people with disabilities to the working world⁸⁹.

Sector and sub-sector specific issues

Material efficiency and waste management

In 2018⁹⁰, Sweden reported a total of 2,571,964 tonnes of **construction and demolition waste (CDW)**, representing a growth of 163.8% as compared to the 2010 level (975,000 tonnes). Of the 2018 total, only 190,294 tonnes (i.e. 7.4%) were hazardous, with the remaining 2,381,670 tonnes (i.e. 92.6%) being non-hazardous waste⁹¹.

Mineral waste from construction and demolition in Sweden between 2010 and 2018



163.8%

According to Statistics Sweden, around 35.2% of all waste generated in Sweden in 2018 was produced by the construction sector (excluding mining waste)⁹².

Additionally, the Swedish Environmental Research Institute's 2018 report on waste stated that the amount of CDW has remained constant over the past few years⁹³. The report concluded that CDW treatment facilities' methods diverged largely according to municipality size, location and type of customer etc. Waste facilities also used differentiated gate fees for incoming material as a tool to encourage good CDW sorting practices. The report offers recommendations to improve recycling including; better information flow upstream and downstream, incentives for businesses to sort waste, more user-friendly recycling centres and strategic work making use of waste as a resource⁹⁴.

Moreover, the Swedish Construction Federation has published updated guidelines to improve the management of resources and CDW during construction and demolition activities. In 2019, new guidelines backed by the Swedish Property Federation were also issued, aimed at improving the quality of CDW.

Climate and energy

Emissions of greenhouse gases (carbon monoxide and dioxide, methane, nitrous oxides) from activities in the narrow construction and the real estate sub-sectors amounted to 2,437,248 tonnes and 304,830 tonnes in 2019⁹⁵, respectively. This represented a 10.3% increase in the narrow construction sub-sector, but a 15.9% reduction in the real estate activities sub-sector, as compared to 2010 levels, respectively⁹⁶.

As per Statistics Sweden, total greenhouse gas emissions from Sweden's economy were 49.7 million tonnes of greenhouse gas equivalents in 2020. This is a decrease of 5.6 million tonnes of greenhouse gas equivalents compared to 2019⁹⁷. As of April 2021, Sweden had the highest carbon tax worldwide.

In the context of the European Union's burden sharing agreement, Sweden has adopted climate policy targets well beyond its obligations. The country's target is to reduce domestic greenhouse

gas (GHG) emissions (mostly CO₂ emissions), by 85% by 2045, yielding zero net GHG emissions, including emission reductions abroad. The intermediate targets of reducing overall emissions by 63% and transport sector emissions specifically by 70% (compared to 1990 levels) by 2030 have been set. To achieve these targets, in addition to the carbon tax and blending obligation for biofuels, the government has introduced steps such as increased government subsidies for solar cells, electric vehicles and charging points, and support for company and municipal investments reducing climate impact⁹⁸.

The draft Recovery and Resilience Plan of Sweden allocates 40.0% (SEK 16.3 billion) of the total investments, towards the green recovery. Some of the proposed reforms and investments include abolished reduction of energy tax on heating fuels in various industries, strengthened and simplified environmental management in the bonus – malus system for light vehicles, strengthening of fuel change through gradually increasing reduction levels in the reduction obligation and diesel investments and local and regional climate investments⁹⁹. These investments and reforms would become effective once the RRP is approved by the Council of the EU.

5

Innovation in the construction sector

Innovation performance

According to the 2021 European Innovation Scoreboard, Sweden is classified as an Innovation Leader¹⁰⁰.

The country's performance strongly increased between 2020 and 2021 mainly due to improved performance for the indicators using innovation survey data and Venture capital. As per the report, the strongest dimensions of the Swedish innovation system include Use of information technologies, Human resources and Attractive research systems. The country's top three innovation indicators include Lifelong learning, PCT patent applications, and International scientific co-publications. Moreover, Sweden has above average shares of In-house product innovators with market novelties and Innovators that do not develop innovations themselves. Sweden is showing close to average scores on the Climate change related indicators¹⁰¹.

Similarly, **BERD (Business enterprise R&D) expenditure** in the narrow construction sub-sector increased by 32.3%, from EUR 17.3 million in 2011¹⁰² to EUR 22.9 million in 2019¹⁰³.

In parallel, the total **R&D personnel** (full-time equivalents – FTE¹⁰⁴) in the narrow construction sub-sector also experienced a growing trend. The number increased by 116.2%, from 117 in 2011¹⁰⁵ to 253 in 2017¹⁰⁶. Likewise, the number of researchers in the sub-sector rose from 76 to 255 between 2011¹⁰⁷ and 2015^{108,109}.

Similarly, the number of **construction-related patent applications** has been on an increasing trend, from 84 in 2010 to 107 in 2020 (+27.4%), averaging at 98.7 over the 2010-2020 period.

Construction-related
patent applications
between 2010 and 2020

↑ 27.4%



Two Swedish construction & materials firms rank within the top 1,000 EU companies by R&D (industrial sector ICB-3D), according to the 2020 EU R&D Scoreboard¹¹⁰.

In the context of the construction sector, industry operators, along with the Swedish Energy Agency, run a series of **innovation clusters**: the LÅGAN cluster is for buildings with very low energy consumption; BELOK is a cluster for non-residential premises; BeBo is an innovation cluster for owners and managers of apartment buildings; and BeSmå groups together house builders. Additionally, three innovation clusters were set up including the *Innovationskluster för energieffektiv sjukvård* [Innovation Cluster for Energy-Efficient Medical Care]; *Innovationskluster Hållbart samhälle* [Innovation Cluster Sustainable Society] and the Smart Housing Smaland. The first two innovation clusters focus on the energy efficiency of the building stock by promoting the development of new solutions and applying and demonstrating new knowledge and technology. Smart Housing Smaland aims to create smart housing and a sustainably built environment based on glass and wood¹¹¹.

Additionally, the Swedish Energy Agency continues to invest in research in the field of buildings in the energy system through a range of programmes focusing on energy-efficiency, heat pump research and district heating research¹¹². Furthermore, the new Swedish research bill is also scheduled to be presented by end-2020¹¹³.

In December 2020, the Swedish government presented the Research and Innovation Bill, which sets out the direction of policy for the next four years (2021-2024)¹¹⁴.

As per the bill, six new ten-year national research programmes will be established. The Swedish Research Council will be responsible for four of these including viruses and pandemics, the consequences of digitisation, criminality, and segregation¹¹⁵. In the bill, the government has proposed increases in funding for research and development throughout the country. For the years 2022, 2023 and 2024, the investments are expected to be approximately SEK 3.2 billion (EUR 0.3 billion), SEK 3.3 billion (EUR 0.3 billion) and SEK 3.8 billion (EUR 0.4 billion) respectively¹¹⁶.

Eco-innovation and digitalisation



According to the 2021 Eco-Innovation Index, Sweden scored 142, considerably above the EU-27 average of 121¹¹⁷.

Sweden scored a higher rating than the EU-27 average in three out of the five components with the exceptions being the resource efficiency outcomes and socio-economic outcomes¹¹⁸.

Eco-innovation continues to be a focus point in Sweden's national environmental policy strategy. The country has been at the forefront in developing new technologies in areas like bioenergy, smart grids, green building, waste and recycling, water resource management, etc. Over the past years, emissions of carbon dioxide have declined in Sweden. It is the EU-28 leader in renewable energy in gross final energy use as well as the first member state to meet its 2020 EU-set renewable energy targets, eight years ahead of schedule. Sweden plans to achieve zero-emissions of greenhouse gases by 2045¹¹⁹.

As per the European Commission Digital Economy and Society Index (DESI) 2020, Sweden ranked 3rd out of 27 EU Member States with a 66.1 score, notably above the EU-27 average score of 50.7¹²⁰.

As per the report, the country's human capital is one of its strongest competitive advantages (ranking 2nd in the EU). Around 72.0% of the population has at least basic digital skills and 46.0% has above basic digital skills. However, more action is required to increase the pool of digital experts. As per the projections, the country will have a shortage of 70,000 ICT specialists by 2024¹²¹.

Swedish companies have been successful in integrating digital technologies and the country ranks 3rd in the EU. Nonetheless, the pace of growth in Sweden is slowing down, while other countries continue advancing¹²².

The Swedish **smart industry strategy**, adopted in 2016, focused on four key areas: digitalisation, sustainable and resource-efficient production, creation of industrial talent and innovation. The strategy consisted of 45 concrete measures for technology development, connectivity, automation, new business and production model creation, and increased competitiveness. In late 2017, the second phase of the strategy a 'Roadmap for Smart Industrialisation', was launched. While the key focus areas of the strategy remained the same, the government added 37 new measures including automation and robotics programs for SMEs, national test labs for electric vehicle production and zero emission programs and incentives for energy intensive industries, etc.¹²³.

Once the Swedish RRP will be approved by the Council of the EU, Sweden plans to allocate around SEK 4.6 billion (EUR 0.4 billion) to digitalise the public infrastructure and make the public administration more efficient and effective by taking advantage of the potential of digitalisation. The investments would mainly be focused on digital infrastructure, broadband expansion and research is digitisation¹²⁴.

According to EIB Investment Survey 2020, in the context of Swedish construction sector, around 28.0% of the firms used Internet of Things (IoT) in comparison with 22.0% of the firms in the EU-27 average. Similarly, around 26.0% of the firms used Drones, in comparison with 19.0% in the EU-27 average. Augmented or virtual reality were implemented by 17.0% of the firms, whereas in the EU-27 average it was 11.0%. Lastly, only 6.0% firms implemented 3-D printing, lower than the EU-27 average 10.0%¹²⁵.

The Swedish smart industry strategy supports SMEs' digital transformation through various mechanisms, such as vouchers for consultancy services (EUR 10.7 million), etc. The Swedish government has also allocated EUR 1.5 million to assist in the upgrade of digital skills of SME management teams¹²⁶.

The Swedish Research Council (*Formas*) handles funding research under Sweden's National Research Program for Sustainable Spatial Planning¹²⁷ and the strategic innovation programme Smart Built Environment. **Smart Built Environment** is a plan embracing digitalisation and promoting the development of intelligent, sustainable cities, efficient resource management and reduced carbon emissions¹²⁸. The plan's implementation started in 2016 and is expected to continue until 2028¹²⁹.

Furthermore, the adoption of **BIM** (Building Information Modelling) in Sweden is also on the

rise and some best practices have emerged in the country. Currently, the Swedish government is taking measures to facilitate nation-wide implementation, and public organisations like the Swedish Transport Administration have made the use of BIM mandatory since 2015¹³⁰. This includes the development of the **CoClass**¹³¹, a Swedish classification system for the built environment adapted to BIM. However, according to the Swedish construction association BI, more needs to be done to fully integrate BIM in the construction value chain.

6

National and regional regulatory framework

Policy schemes

The main policy schemes introduced by the Swedish government in recent years are aimed at addressing structural barriers to the efficient functioning of the housing market. In particular, they target the undersupply of dwellings, the shortage of rental apartments, lack of developable land, cumbersome zoning and building regulations, and differing standards at a municipal level. These reforms have supported investment in the construction of dwellings. However, a housing shortage remains, despite a significant rise in new constructions over the past five years¹³².

In 2017, Sweden's Financial Supervisory Authority (*Finansinspektionen*) proposed a new amortisation requirement for new housing loans. The so-called "**debt ratio brake**" (*skuldkvotsbroms*) required households that borrow more than 4.5 times their gross income to amortise their debt at a faster pace. The authority estimates that about 15.0% of new borrowers will be affected by the tightening of amortisation requirements¹³³. The Swedish Construction Industry Association warned that the measure would lead to a slowdown in housing construction¹³⁴. In 2018, the amortisation regulation was further amended by *Finansinspektionen* so as to be also applicable on companies subject to the Mortgage Business Act. This was done to ensure that the same amortisation requirements are applied to loans secured by homes irrespective of whether the loan is given by a company subject to the Mortgage Business Act or a credit institution¹³⁵.

To improve the availability of dwellings for the elderly in response to the predicted ageing population, as of 1st January 2018, the government increased the housing allowance available to those

pensioners with pension and other income of less than SEK 15,000 (EUR 1,441) per month after tax¹³⁶.



In 2019, the Swedish government announced some of its main priorities for the housing market, including support for the rental market through rental subsidies and enforcing market rents for new constructions.

In 2019, the Swedish government also appointed an Inquiry on **better competition in housing construction** (*Bättre konkurrens i bostadsbyggandet*). This is currently known as **the Model Homes Inquiry**. The purpose of this inquiry is to draft a proposal of supporting information that can be utilised in public procurement of housing construction at a predetermined rent. Additionally, this would also assist in analysing how action by municipalities affects the ability of enterprises to develop their countrywide operations. The underlying objective of the inquiry is to favour development in which lower production costs are reflected in lower housing costs and in which companies with low-cost business models are given better operating conditions. The Inquiry submitted its final report on 11 December 2020¹³⁷.

In 2020, the Swedish government further introduced various measures to improve the situation of the country's housing market. For instance, effective from 1st February 2020, investment support for rented housing and student accommodation was reformed so that at least 10.0% of new flats have to be small (i.e. not larger than one room and a kitchen or equivalent).

This amendment (under **SA.56305 to Ordinance 2016:881**¹³⁸) was made to increase the mix of flat sizes and to make it easier for young and vulnerable people to enter the housing market. In order to further improve the functioning of the rental housing market, other relevant initiatives were also introduced including tougher penalties for illegal sales, criminalisation of the purchase of rental contracts and tighter rules in relation to the regulations concerning exchanges of rented homes¹³⁹.

Moreover, the country also receives EU funding for the development of social and affordable housing. For instance, in October 2019, EIB agreed to provide SEK 3.0 billion (EUR 300.0 million) loan to *Heimstaden Bostad AB*, a Swedish residential company, to finance the construction of affordable and energy efficient housing. The company would use the financing to develop eight residential properties in five cities in Sweden, comprising about 3,300 new affordable homes to rent. This scheme is aimed at addressing the shortage of residential units in Sweden's main cities¹⁴⁰.

The draft Recovery and Resilience Plan of Sweden would include investment support for rental housing and housing for students with an allocation of SEK 1.2 billion (EUR 0.1 billion). It aims to stimulate investment in new production of rental housing and housing for students. This in turn would improve mobility in the labour market and for students, which has positive effects for growth¹⁴¹.

Building regulations

Sweden's National Board of Housing, Building and Planning (*Boverket*) is the regulatory body governing all building works. The main regulations and legislation in the construction sector are detailed in the **Boverket's Building Regulations (BBR)**¹⁴², as established in the government's 22 measures to increase housing construction. These cover mandatory requirements for accessibility, dwelling design, ceiling height and utility rooms, as well as general rules for buildings, mechanical resistance and stability, fire safety, hygiene, health and environment, noise protection and energy performance. The **design regulations (BKR)** deals with areas such as load bearing structures, geo-structures, timber, masonry, concrete, steel,

aluminium structures and fire resistance requirements.

The BBR set mandatory performance requirements for both residential and non-residential buildings, depending on their location and the type of heating system involved¹⁴³. The BBR requirements are related to the thermal transmittance of the building envelope and encourage the efficient design of the energy consuming systems, including HVAC (heating, ventilation, air conditioning), hot water, lighting, auxiliary systems, as well as materials and products. Compliance with the requirements is verified through measuring the actual energy use of the finished building and showing it to be less than or equal to the allowable energy frame predicted at the design stage. Enforcement of the BBR is ensured by on-site inspections during construction and, to a lesser extent, at post-occupancy stage. The building's energy consumption should be measured over a continuous period of 12 months, to be completed within 24 months after the building is put in use¹⁴⁴. Through these measurements, any gap between the designed and as-built performance of the building can be identified and corrected. In general, in Sweden the awareness of performance issues at the construction site level is relatively high¹⁴⁵.

The government has also proposed the Planning and Building Act on **temporary building permission** for portable building for housing purposes (proposal 2016/17:137). This would see building permits issued (with a validity of up to 15 years) that would allow for the use of temporary housing to augment permanent constructions when housing needs cannot be fully met through ordinary planning and building processes.

In 2020, the Swedish government introduced a new model for agreements on the standards in flats. These agreements expand the freedom of contract allowing landlords to offer more flexible adaptations¹⁴⁶.

This will also give people more freedom of choice about the design of their own home

Moreover, amendments have also been made to the Planning and Building Act to ensure better continuity in comprehensive planning and that the regulations provided support good applications. For instance, under its new **Larger Accessory**

Dwellings Bill, effective from 1st March 2020, the Swedish government proposed an amendment that increased the building area permitted for the erection of an accessory dwelling in the vicinity of a one or two dwelling building without the need of a building permit. This proposal is aimed at increasing the construction of accessory dwellings and allowing construction of buildings with higher residential quality¹⁴⁷.

Insurance and liability related regulations

The liabilities of the different parties involved in a construction project are principally defined in a contractual arrangement. The standard forms of contracts are drafted by the **Construction Contracts Committee BKK** (*Byggandets*

Kontraktsskommitte). A large percentage of contracts in Sweden are based on General Conditions of Contract for Building and Civil Engineering and Installation Work (AB04), or the General Conditions of Contract for Building, Civil Engineering and Installation Work Performed on a Package Deal Basis (ABT06). The liability covers the design, planning, building and guarantee period, which is usually five years for non-conformity to the contract and ten years for important defects if it is proved to be negligent¹⁴⁸.

Additionally, the **Law on Construction Coverage** requires contractors to be covered through an insurance or a bank guarantee. It applies to small buildings intended for permanent habitation. Furthermore, there are other securities and warranties offered on a voluntary basis.

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total investment by the broad construction sector¹⁴⁹ has increased moderately since 2010. Investment by the narrow construction sub-sector increased by 3.8%, from EUR 2.5 billion in 2010 to EUR 2.6 billion in 2020. This was mostly driven by 69.6% increment in investments in intellectual property in the same sub-sector, going from EUR 70.0 million in 2010 to EUR 118.7 million in 2020, offsetting a decline of 1.7% in investment in machinery for the same sub-sector, standing at EUR 1.3 billion in 2020. Likewise, investment in the real estate activities sub-sector increased by 36.1%, from EUR 20.2 billion in 2010 to EUR 27.4 billion in 2020. This was influenced by a 4.6% increase in investments in intellectual property, from EUR 92.3 million in 2010 to EUR 96.5 million in 2020, marginally offsetting a 12.3% drop in investments in machinery amounting to EUR 779.3 million in 2020, respectively.

Figure 9: Investment by the Swedish broad construction industry between 2010 and 2020 (EUR million)



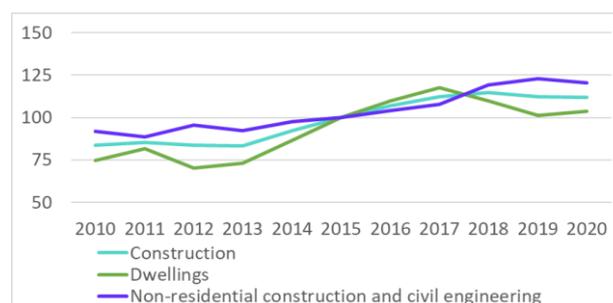
Source: Eurostat, 2021.

The investment index in the broad construction sector¹⁵⁰ has experienced a steady growth since 2015, rising by 12.0% over 2015-2020 (Figure 10).

This trend was mainly driven by investment in dwellings by the whole economy, rising by 3.7% between 2015 and 2020. In parallel, investment in non-residential buildings and civil engineering increased at a higher pace by 20.3% over the same reference period. In absolute terms, investment in the broad construction sector totalled EUR 52.7 billion in 2018¹⁵¹, with EUR 25.5 billion invested in dwellings and EUR 27.2 billion in non-residential and civil engineering¹⁵² (Figure 10).

Investment index in the broad construction sector between 2015 and 2020  **12.0%**

Figure 10: Investment index in the Swedish construction sector between 2010 and 2020 (2015=100)



Source: AMECO, 2021.

Total inland infrastructure investment¹⁵³ as a share of GDP amounted to 0.9% in 2019¹⁵⁴, at par with the 2010 level of 0.9% of GDP. Annual investment in rail infrastructure in Sweden grew by 2.2% between 2010 and 2019¹⁵⁵, reaching EUR 1.7 billion. Similarly, investments in air transport infrastructures increased substantially by 374.6%, from EUR 78.8 million in 2010 to EUR 373.9 million in 2019¹⁵⁶. Also, investments in road infrastructure

increased by 50.3% over the 2010-2019 period, totalling EUR 2.5 billion in 2019¹⁵⁷.

Investment in air transport infrastructure over the 2010-2019 period  **374.6%**

Investment in road infrastructure over the 2010-2019 period  **50.3%**

Likewise, annual investment in rail and road **infrastructure maintenance** increased by 33.0% and 14.4%, from EUR 499.7 million and EUR 873.8 million in 2010 to EUR 664.9 million and EUR 999.8 million in 2019¹⁵⁸, respectively. In contrast, maintenance of air transport infrastructure registered a drop of 32.0% in investment volumes over the 2010-2019¹⁵⁹ period, amounting to EUR 17.9 million in 2019.

Investment in rail infrastructure maintenance over the 2010-2019 period  **33.0%**

Furthermore, household renovation spending experienced an increasing trend between 2010 and 2020, growing by 25.0% during the period. In real terms, it amounted to EUR 1.1 billion in 2020. Household renovation spending as share of GDP remained almost constant since 2010, standing at 0.4% in 2020.

The Swedish government is actively investing in the civil engineering field. In particular, the transport network has been the focus of investment under the **2014-2025 National Transport Plan**, with a budget of SEK 522.0 billion (EUR 50.2 billion)¹⁶⁰. Of the total amount, SEK 86.0 billion (EUR 8.3 billion) has been allocated for the maintenance and operation of the rail infrastructure and SEK 155.0 billion (EUR 14.9 billion) for the operation and maintenance of roads. The remaining SEK 281.0 billion (EUR 27.0 billion) has been allocated for new transport projects, including a high-speed rail line between Stockholm and Linköping, and the expansion of other railway tracks¹⁶¹.

In 2018, the Swedish government announced a 73-points programme, confirming the National Plan for Infrastructure 2018-2029 with a total

investment of SEK 700.0 billion (EUR 68.6 billion)¹⁶². This national investment plan also includes allocations for the maintenance of rail tracks and investment in new railways. The allocated financing will be distributed through three main channels: (i) operation and maintenance of state-owned railways; (ii) roads and; (iii) the development of the transport system. Overall, 77.0% of the total budget will be dedicated to the railways, which is 32.0% more than in the previous planning period¹⁶³. In the next twelve years, Sweden is planning to invest three times more in new rail infrastructure as compared to new roads. This would beneficially shift Sweden's transport regime from roads (currently 86.0%) to railways (currently 10.0%)¹⁶⁴. The plan is still in the developmental stage and work is not expected to be completed until 2029¹⁶⁵.

In May 2021, the Swedish government proposed a SEK 876 billion (EUR 85.8 billion) 10-year transport infrastructure budget for 2022-2033. This includes SEK 165.0 billion (EUR 16.2 billion) for railway maintenance and operation¹⁶⁶.

This would support the country's goal to become the world's "first fossil-free welfare state". The new financial framework includes SKR 799 billion (EUR 78.3 billion) in government funding, more than SEK 176.5 billion (EUR 17.3 billion) as compared to the previous 2018-2029 plan. A further SEK 77.0 billion (EUR 7.5 billion) would be made available to traffic authority *Trafikverket* from rail track access charges and road congestion charges. A total of SEK 437.0 billion (EUR 42.8 billion), a SEK 103.5 billion (EUR 10.1 billion) increase, has been allocated for the development of transport infrastructure across the whole country, including new rail lines, although it is unclear what proportion will go to rail¹⁶⁷.

Sweden is a beneficiary of various EU funds and programmes. For instance, in July 2020, EU's Connecting Europe Facility (CEF) agreed to provide around EUR 99.0 million of funding for eight infrastructure projects of Sweden, of which Swedish actors would receive an estimated EUR 64.0 million¹⁶⁸.

In 2020, the European Investment Bank (EIB) Group invested almost EUR 296.0 million in infrastructure¹⁶⁹.

In parallel, Sweden has also benefitted from investments from the **European Fund for Strategic Investments (EFSI)**. As of December 2020, financing under EFSI amounted to EUR 4.0 billion and is set to trigger additional investments of EUR 15.0 billion. Under the infrastructure and innovation window, 43 projects have been approved, amounting to EUR 3.2 billion, and are set to trigger EUR 12.7 billion in total investments. Under the SME window, 16 agreements have been approved, involving total financing of EUR 717.0 million, and are set to trigger investments of up to EUR 2.2 billion¹⁷⁰.

TO 2 – Skills

Sweden has one of the highest employment rates for recent vocational education and training (VET) graduates in the EU. The employment rate of recent VET graduates stood at 88.7% in 2019, well above the EU-27 average of 80.9% and the EU benchmark for 2020 (82.0%)¹⁷¹.

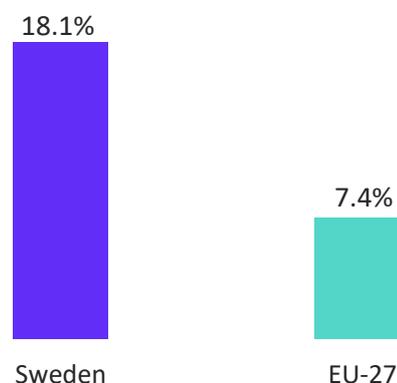
The Swedish government has taken several measures to make VET more attractive. Some notable measures include the creation of VET courses that prepare for tertiary education, and the development of new apprenticeships by the Apprenticeship Centre. National and regional coordinators have also been established to help schools successfully collaborate with local enterprises. Since January 2018, a pilot project, for the period 2018-2023, has also been initiated involving ten trade schools that can obtain a state grant of up to SEK 50,000 (EUR 4,670) per learner¹⁷².

The number of study places in Sweden has increased by 70% in 2014-2020, mostly during the last two years (38.0%). This is mainly driven by the government’s ongoing initiative “the Knowledge Boost”, which aims at creating an additional 100,000 permanent study places¹⁷³.

Correspondingly, Sweden’s overall **participation in adult learning** is the highest in the EU at 34.3% (EU-27 average: 10.8%)¹⁷⁴. While **adult participation in lifelong learning** stood at 28.6% in Sweden in 2020¹⁷⁵.

Furthermore, **adult participation in education and training** in the narrow construction sub-sector stood at 18.1% in 2020, notably higher as

compared to the EU-27 average of 7.4%. Similarly, adult participation in education and training in real estate activities stood at 30.0% for 2020, well above the EU-27 average of 13.8%.



Adult participation in education and training in the narrow construction sub-sector 2020

Boosting the rate of adult learning in Sweden is one of the major objectives of the new Swedish government’s coalition agreement. As such, the government is taking appropriate steps to provide additional opportunities to adults to participate in further education and training, including improvements in the conditions of study loans made available¹⁷⁶. In order to boost the development of regional support structures for work-based learning placements, the Swedish government has allocated a state grant amounting to SEK 10.0 million (EUR 935,000) per year for social partners and stakeholder organisations¹⁷⁷.

Additionally, the productivity growth rate also varies significantly across different market segments – higher in residential markets while lower in renovation and labour-intensive works. To develop students’ knowledge and skills in the building and construction of new buildings, conversions and renovation, Sweden offers the **Building and Construction Programme (Bygg- och anläggningsprogrammet)**. About 12,400 students are enrolled in this programme, accounting for roughly 12.0% of all VET students in upper secondary school in 2018^{178,179}.

Ongoing efforts for upskilling in the construction workforce are carried out by **Swedish Construction Industry Training Board (BYN)**, the national body for construction vocational training¹⁸⁰. BYN works in close collaboration with European organisations to ensure that Swedish VET has a degree of

uniformity within the various branches of the industry across different countries. This will eventually result in the cross-border recognition of skills and qualifications of construction workers in Europe, in their increased mobility and in uniformly high-quality constructions.

The Swedish Construction Federation also plays an active role in the training of the construction workforce through its **Entrepreneurship School** (*Entreprenörsskolan*). It offers training courses and e-learning in areas such as health and safety, construction law, construction management and energy and the environment, as well as e-learning modules and seminars¹⁸¹.

To develop the energy efficiency skills of the construction workforce, the Swedish Construction Federation together with other industry stakeholders launched **Energy Builders** (*Energibyggare*). This is a four-hour interactive web-based training in the field of energy-efficient construction and renewable energy tailored to all parties active on a construction site, including builders, installers, supervisors and managers. The programme includes areas such as thermal insulation, airtightness, moisture control and installations¹⁸².

Other similar initiatives to improve the energy efficiency skill-base in the sector are also in place, including the Swedish Construction Industry Training Board's Purchaser Skills Scheme (*Beställarkompetens*). It aims to impart methods and tools for energy efficient renovation among clients, developers and property owners¹⁸³. The Swedish Energy Agency's **Energy Boost** (*Energilyftet*) provides training in energy efficient construction for architects, clients, construction managers and consultants¹⁸⁴.

In 2017, Sweden's construction sector associations and trade unions introduced a joint venture called **Professional Introduction** (*Yrkesintroduktionsanställning*) aimed at addressing the skills shortage in the construction sector and the obstacles for new arrivals (persons with refugee background who have recently been granted a residence permit) to enter the labour market. With the help of Professional Introductory Appointments, linked to the established Vocational Training Agreement, companies in the construction sector can broaden the skills supply available to them by employing people without previous

experience and vocational training. In the case of newly arrived refugees, the education will be free of charge for the company and will instead be financed by promotional funds from the state¹⁸⁵.

TO 3 – Resource efficiency / Sustainable construction

In Sweden, the National Property Board Sweden and the Swedish Fortifications Agency own most of the buildings. These two authorities are responsible for the promotion of cost-effective measures and instruments to achieve the energy efficiency goals¹⁸⁶.

According to Sweden's Integrated National Energy and Climate Plan, the country's energy consumption target is to be 50% more efficient than in 2005. This target is also expressed as energy supplied (primary energy) in relation to real GDP and is part of the Energy Agreement¹⁸⁷.

Under the fourth **National Energy Efficiency Action Plan (NEEAP)**, Sweden reaffirmed its energy efficiency targets as a 20% reduction in energy intensity between 2008 and 2020, i.e. the input energy per unit of GDP must decrease by 20%. Furthermore, Sweden's primary energy consumption target for 2020 was 43.4 Mtoe, with a final energy consumption of about 30.3 Mtoe¹⁸⁸. Regarding buildings specifically, the target is for energy consumption per square metre to fall by 20% to 30% by 2050 relative to 1995. Results by 2016 show that the planned energy savings in the housing sector have been reached.

Sweden's total building stock accounts for 30.0% of its energy consumption. In line with its energy efficiency targets, Sweden is planning to cut the energy consumption in buildings by 50.0% by 2050. Additionally, it is also planning to make all new constructions nearly zero-energy buildings from 2021¹⁸⁹.

In 2017, the Swedish Energy Agency and the National Board of Housing, Building and Planning (*Boverket*) completed the procurement of an **information centre for sustainable construction**. This information centre has been operational since 2018, and is aimed at promoting energy-efficient renovation and construction using sustainable and low climate-impact materials from a lifecycle perspective¹⁹⁰.

In parallel, the European Investment Bank (EIB) supports the construction of sustainable and energy efficient housing. For instance, in September 2019, the EIB signed a SEK 3.0 billion (EUR 288.3 million) financing facility agreement with Heimstaden Bostad AB, a Sweden-based residential company. Under the agreement, Heimstaden will develop eight residential properties in five cities in Sweden, which will result in about 3,300 new affordable homes to rent. The project is backed by the European Fund for Strategic Investments (EFSI). It also supports national and European targets for energy efficiency and contributes to CO₂ emission reduction¹⁹¹.

Similarly, in May 2019, the EIB signed a SEK 1.0 billion (EUR 96.1 million) loan agreement with Rikshem AB, the Swedish property developer and owner. Under this agreement, Rikshem will use the long-term financing facility to renovate the housing stock to higher energy efficiency standards¹⁹². Later in July 2019, an EU Council decision recommended that Sweden introduce more flexibility in rental prices and revise its capital tax gains design to improve the efficiency of the country's housing market¹⁹³.

Additionally, **near-zero energy regulations** (*när-nollenergiregler*) were introduced to the Building Regulations on 1 July 2017. The objective is that, as of 2021, all new completed buildings in Europe will be close to zero-energy buildings according to the EU's Energy Performance Directive. The aim of the new rules is to push the pace of development towards energy-efficient construction in Europe through high energy requirements¹⁹⁴. More can be expected with the transposition of the recent EU Directive on Energy Performance of Buildings, in 2020.

Similarly, the Swedish government has introduced an energy efficiency programme to industry called the **Energy Step**. Under this programme, large companies carrying out an energy audit can apply for a state grant for an in-depth study of energy efficiency measures or investment support for the additional cost of investing in an energy efficiency proposal¹⁹⁵.

Furthermore, the Swedish Government also intends to introduce a climate declaration requirement when buildings are constructed, which will become effective from 1 January 2022. To implement the steps required to achieve this in

an efficient and effective manner, the National Board of Housing, Building and Planning will receive SEK 10.0 million (EUR 1.0 million) per year up to 2022¹⁹⁶.

In the Recovery and Resilience Plan, Sweden plans to allocate around SEK 16.3 billion (EUR 1.6 billion) towards the green recovery component which also includes the support for energy efficiency of apartment buildings¹⁹⁷. The Plan is, however, still waiting for the endorsement of the Council of the EU.

As mentioned in the draft RRP, a proposal for a regulation on support for energy efficiency in apartment buildings has been adopted (Fi2021 / 00200). The objective of the support is to provide according to the conditions and restrictions explained in Chapter I and Article 38 of the General Block Exemption Regulation (GBER). According to current proposals to the regulation, support is provided to apartment buildings with an energy performance which, expressed as a primary energy source, exceeds 100 kWh/m² and year and for energy efficiency measures that overall improve the building's energy performance by at least 20.0%¹⁹⁸.

TO 4 – Single Market

According to the 2020 EU Single Market Scoreboard, Sweden performed in line with the EU average. In particular, it performed better in two metrics - Internal Market Information System and Your Europe¹⁹⁹.

In relation to 2020 EU Single Market Scoreboard metrics, Sweden's performance was average particularly in the case of Transposition of Law, Infringements, EU Pilot, EURES and SOLVIT. In parallel, Sweden performed above average in terms of Internal Market Information System (IMI) and Your Europe metrics – EU's single digital gateway aimed at providing access to information, procedures, assistance and problem-solving services²⁰⁰.

The overall administrative burden for companies in Sweden is low and SMEs get a stable regulatory environment. As part of the national export strategy, coordination of export support services is offered at regional level to SMEs who want to export their goods and services²⁰¹.

In line with this effort, Sweden has set up an e-business portal (www.verksamt.se). Through this portal, more than 45 different government agencies provide information, targeted support and offer services such as company registrations and tax calculation. Further, in September 2018, a new agency for digital government was also established to develop, coordinate and support public sector digitisation at both a central and local level²⁰².

The European Commission is assisting Swedish authorities in preparing a study to digitalise the issuance of import as well as export permits and re-export certificates in compliance with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)²⁰³.

Finally, regarding the implementation of **Eurocodes**, all EN Eurocode parts have been published as National Standards, with 46 Parts being the obligatory means for structural design, as stipulated in the BFS 2011:10 regulation. In addition, these Parts are enforced in public procurement by the Public Procurement by Law (2007:1091). National Annexes are published on all 46 compulsory Parts, but not on the remaining 13 non-compulsory ones, and are available in English. No other national standards are used in parallel with Eurocodes²⁰⁴.

TO 5 – International competitiveness



As per World Bank Doing Business 2020 report, Sweden ranked 18th out of 190 economies in the ease of trading across border, achieving a score of 98.0²⁰⁵.

As per the report, in Sweden, it takes only one hour to be documentary compliant and two hours to be border compliant. In terms of costs, businesses need to spend US\$ 40 (EUR 35.6) and US\$ 55 (EUR 49.0) to be documentary compliant and border compliant, respectively²⁰⁶.

With regards to the **internationalisation of construction SMEs**, the export value of all construction-related projects in Sweden stood at

EUR 1.2 billion in 2020, almost in line with its 2010 level of EUR 1.2 billion. Sweden's share of exports of all construction-related products in 2019 stood at 24.1% of the total production value, well above the EU-27 average of 11.3%. However, this share decreased to 22.2% in 2020.

In the context of **inward FATS (Foreign Affiliates Statistics)**²⁰⁷, value added at factor cost in the narrow construction sub-sector increased by 16.6% between 2010 and 2018²⁰⁸. Similarly, turnover in the narrow construction sub-sector increased by 66.9% over the 2010-2018 period. In contrast, value added at factor cost, as well as turnover in the real estate activities sub-sector, decreased by 8.7% and 18.0% between 2010 and 2018. Correspondingly, turnover in the Swedish narrow construction and the real estate activities sub-sectors, in terms of **outward FATS**²⁰⁹, increased by 60.3% and 190.7% over the 2010-2018²¹⁰ period, respectively.

Sweden has taken several measures to further strengthen its competitiveness. By the end of 2018, Regional Export Centres were formed in all regions and the online import/export information at verksamt.se/utland was further developed. It also included an updated matching tool to find regional export support and the launch of a guide on export. Other measures include the innovation collaboration with India in the field of Smart Cities. It covers in-depth cooperation between Swedish and Indian companies, researchers and relevant public institutions²¹¹.

To support the internationalisation of Swedish SMEs, and particularly micro-SMEs, the Swedish Agency for Economic and Regional Growth offers **Internationalisation Cheques** (*Checkar för internationalisering*) to companies with less than fifty employees having a product or service they wish to bring to foreign markets. The checks are used to hire external expertise to help businesses draft an internationalisation strategy, carry out market research, identify potential partners abroad and understand legislative and insurance requirements in the foreign country of interest. Companies can receive a maximum of EUR 250,000 over three years²¹². The total budget available for the scheme is SEK 50 million (EUR 4.8 million)²¹³.

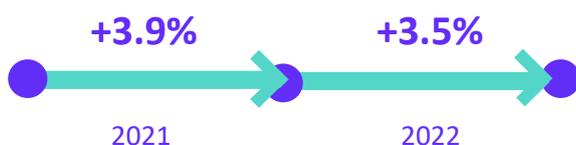
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Outlook

After witnessing a decline of 2.8% in GDP in 2020 due to the COVID-19 pandemic, the Swedish economy is expected to revive and register growth post 2021.

Sweden's GDP is expected to grow by 3.9% in 2021, reaching SEK 4,684.6 billion (EUR 454.4 billion) and then by 3.5% in 2022, reaching SEK 4,849.8 billion (EUR 470.4 billion).

Expected GDP growth in 2021 and 2022



In parallel, the **volume index of production** in the broad construction sector is estimated to slightly decline by 0.8 index points (ip) in 2021, mainly due to a 4.0 ip decline in the construction of civil engineering, offsetting a 2.1 ip growth expected in the production in the construction of civil engineering in 2021.

In contrast, the **turnover of the Swedish broad construction sector** is estimated to rise by 7.6%, reaching a value of EUR 157.5 billion in 2021. Similarly, the **total value added of the broad construction sector** is expected to grow by 7.6%, standing at EUR 60.2 billion in 2021.

Following the same trend, the **number of persons employed** in the broad construction sector is expected to increase by 7.7%, reaching 773,379 in 2021. Most of this growth is expected to come from the narrow construction (+8.1%), the architectural and engineering activities (+8.0%), real estate activities (+7.2%) and the manufacturing (+4.1%) sub-sectors.

The Swedish government is already undertaking several initiatives to promote the **housing market** and the civil engineering.

Recent measures undertaken by the government include the Model Homes Inquiry, reforms in rented housing, student accommodation investment support, amendments to the Planning and Building Act along with the introduction of tougher penalties for illegal sales, criminalisation of the purchase of rental contracts and tighter rules in relation to the regulations concerning exchanges of rented homes. As part of the proposed Recovery and Resilience Plan – yet to be approved by the Council of the EU – Sweden has allocated around EUR 0.4 billion (SEK 4.1 billion) towards energy efficiency of apartment buildings.

With regards to **civil engineering**, the Swedish government, in May 2021, proposed an SEK 876.0 billion (EUR 85.8 billion) 10-year transport infrastructure budget for 2022-2033. This includes SEK 165.0 billion (EUR 16.2 billion) for railway maintenance and operation. In particular, a total of SEK 437.0 billion (EUR 42.8 billion), a SEK 103.5 billion (EUR 10.1 billion) increase, has been allocated for the development of transport infrastructure across the whole country, including new rail lines. The country has also allocated around EUR 0.1 billion (SEK 1.5 billion) on railways which would include upgrading of the infrastructure during the period 2021–2023, as part of its RRP – pending the approval of the Council of the EU.

Moreover, as part of EU funding, EU's Connecting Europe Facility (CEF) announced, in July 2020, to provide around EUR 99.0 million of funding for eight infrastructure projects of Sweden. In addition, the country's RRP also proposes investment support for rental housing and housing for students with an allocation of SEK 1.2

billion (EUR 0.1 billion), which will materialize once the Plan will be approved by the Council of the EU. It aims to stimulate investment in new production of rental housing and housing for students. This in turn would improve mobility in the labour market and for students, which has positive effects for growth.

Overall, the economic outlook for the Swedish broad construction sector is positive. Investment in infrastructure, energy efficiency measures towards the apartment buildings, digitalisation of economy and EU backed projects are expected to further support the development of the construction sector.

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- 6 Please note that the share of each sub-sector in the value added of the broad construction sector should not be compared to the shares of the Gross Value Added in the GDP, since the GDP also includes taxes and excludes subsidies.
- 7 Please note that the share of each sub-sector in the value added of the broad construction sector should not be compared to the shares of the Gross Value Added in the GDP, since the GDP also includes taxes and excludes subsidies.
- 8 Apparent labour productivity refers to the gross value added per person employed.
- 9 No data available for subsequent years.
- 10 No data available for subsequent years for the productivity in the broad construction sector.
- 11 No data available for subsequent years.
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Country Fact Sheet Sweden

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