

European Construction Sector Observatory



In a nutshell

Over the 2010-2020 period, the Belgian GDP increased by 6.6%, totalling EUR 416.4 billion in 2020. However, in 2020 it recorded a 6.3% decline compared to the 2019 level.

In line with the economy, the **number of enterprises** in the broad construction sector increased by 25.1% between 2010 and 2019, reaching 192,068 in 2019. In 2020, it decreased by 3.5% as compared to the 2019 level, amounting to 185,340. Thus, over the 2010-2020 period, the number on enterprises increased by 20.7%. Compared to 2019 level, the most significant declines were reported by the manufacturing sub-sector (-7.9%), followed by the narrow construction sub-sector (-6.2%) in 2020.

Number of enterprises in the broad construction sector between 2010 and 2020



The **volume index of production** in the broad construction sector increased by 2.8% between 2015 and 2019 before declining by 8.2% in 2020. This decrease is mainly due to a 9.0% decline in the production of construction of buildings and a 6.2% decrease in the production of construction of civil engineering in 2020 as compared to 2019 level.

Total **turnover** in the Belgian broad construction sector increased to EUR 103.5 billion in 2018 and reached EUR 103.8 billion in 2020. This represented an overall increment of 25.2% since 2010 and was primarily driven by growth in three sub-sectors – the real estate activities (+72.5%), the architectural and engineering activities (+25.0%) and the narrow construction (+23.6%) sub-sectors over the 2010-2020 period.

Turnover in the narrow construction sub-sector between 2010 and 2020



The gross operating rate of the Belgian broad construction sector, an indicator of the sector's profitability, stood at 15.4% in 2018¹, slightly above the 2010 level of 14.5%. The real estate activities remained the most profitable sub-sector (39.9%), followed by the architectural and engineering activities (17.7%), the manufacturing (12.3%) and the narrow construction (10.8%) sub-sectors in 2018².

With regards to employment, 524,453 **persons** were **employed** in 2019, representing an increase of 16.0% as compared to 2010 level. In contrast, this decreased to 501,390 persons in 2020, indicating an annual decline of 4.4% in 2020. Overall, the total number of persons employed increased by 10.9% between 2010 and 2020. Compared to 2019, the most significant declines were reported in the manufacturing (-7.6%) sub-sector, followed by the narrow construction (-5.9%) sub-sector in 2020.

Employment in the broad construction sector between 2010 and 2020



The Belgian government – including through the regional governments, launched numerous initiatives to promote the broad construction sector, by supporting e.g. the development of the housing market. For instance, in Brussels, under the Regional Housing Plan and the Habitat Alliance, the government is leading the sustainable renovation of existing housing stock in addition to the construction of 6,400 new housing units. Private sector actors are also active in this field. In February 2021, institutional asset managers Bouwinvest Real

Estate Investors and CBRE Global Investment Partners (GIP) teamed up with ION, a Belgian real estate developer, to invest EUR 280.0 million in affordable housing. As per their agreement, the amount will be invested in building 1,000 affordable new houses and apartments exclusively for the rental market.

With regards to the civil engineering market, the Belgian government has initiated various projects such as the construction of a regional express network (RER) around Brussels, a second rail access to the port of Antwerp and additional tracks between Ghent and Bruges, as well as Bruges and Zeebrugge. The federal rail investment strategy is set out in the Multiannual Strategic Investment Plan 2018-2031, amounting EUR 1.2 billion. Through these projects, the government plans to promote and support a gradual shift in modes of transit from roads to railways.

Belgian railways are set to receive an additional EUR 250.0 million over the next three years³, as per the 2021 national budget. Most of this amount will be invested in infrastructure, to further develop rail freight transport.

At the regional level, the government of the Brussels-Capital Region has extended the Multiannual Investment Plan for Public Transport until 2028, involving investment of more than EUR 6.0 billion for the three main transportation modes: metro, tram and bus. The Flanders region is also adopting an integrated investment programme called "Geïntegreerd Investeringsprogramma" (GIP), involving a total investment of EUR 1.9 billion in mobility and public works.

Under its Recovery and Resilience Plan (RRP), Belgium will invest EUR 1,012.0 million of the total allocation in the renovation of its building stock⁴.

This includes EUR 264.0 million for improving renovation subsidy schemes as well as EUR 98.4 million on social housing renovation in the Flemish and Brussels-Capital regions and the Germanspeaking Community. Around EUR 636.3 million has been allotted to renovation in the public sector including schools (EUR 230.8 million), universities, sports, and cultural facilities (EUR 210.3 million), and other public buildings (EUR 195.2 million)⁵.

In fact, the RRP dedicates 56% of its budget for infrastructure projects such as the renovation of buildings, including schools, the construction of new generation CO2 capture and hydrogen transport energy networks, the renovation and construction of transport infrastructure (mainly bicycles and railways) or digital infrastructure (5G, optical fibres) etc.

In addition, the regional and federal governments have decided on additional stimulus measures and investments from their own budgets.

Despite these initiatives, the Belgian broad construction sector faces two major challenges. Firstly, the construction sector continues to suffer from the on-going shortage of skilled workers, along with a skills mismatch for existing roles. Secondly, late payments continue to be a major concern, which has further deteriorated due to the outbreak of COVID-19 pandemic.

Overall, the Belgian construction sector has a positive outlook. The civil engineering markets are expected to be the primary growth drivers. Additionally, investment in public sector infrastructure, digitalisation as well as a circular and green economy, backed by EU funding, is expected to lead the future growth of the sector.

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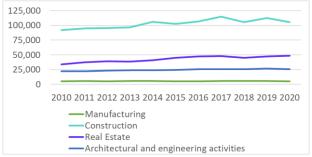
Construction market

The number of enterprises in the broad construction sector in Belgium totalled 185,340 in 2020⁶ (Figure 1), with the narrow construction sub-sector accounting for 56.9% of total enterprises, followed by the real estate activities sub-sector (26.3%). Overall, the number of enterprises in the broad construction sector increased by 20.7% over the 2010-2020 period, mostly driven by growth in the real estate activities sub-sector (+44.1%), followed by the architectural and engineering activities sub-sector (+17.7%) as well the narrow construction sub-sector (+14.4%). The number of companies in the manufacturing sub-sector dropped marginally by 6.5% over the same reference period. Looking more specifically at the 2019-2020 period, the number of enterprises in the broad construction sector proved to be affected by the COVID-19 pandemic, decreasing by 3.5%. Compared to 2019 level, the most significant declines were reported by the manufacturing sub-sector (-7.9%), followed by the narrow construction sub-sector (-6.2%) in 2020.

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



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



Source: Eurostat, 2021.

The volume index of production in the broad construction sector decreased by 5.6% over the 2015-2020 period, primarily due to an 8.9% drop in the production of construction of buildings offsetting the 5.9% increase in the production of construction of civil engineering over the same reference period.

Figure 2: Volume index of production in the Belgian construction sector over 2010-2020 (2015=100)



Source: Eurostat, 2021.

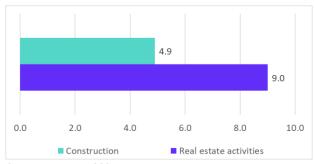
The total value added at factor cost⁷ of the broad construction sector amounted to EUR 32.2 billion in 2020⁸, representing a 26.8% increase compared to the 2010 level of EUR 25.4 billion. The narrow construction sub-sector was the main contributor, with a 57.0% share of the total⁹ (EUR 18.4 billion), followed by the real estate activities (EUR 7.1 billion, i.e. 22.1% of the total), the manufacturing (EUR 3.7 billion, i.e. 11.3% of the total) and the architectural and engineering activities (EUR 3.1 billion, 9.5% of the total) sub-sectors.

Total value added of the broad construction sector between 2010 and 2020



The **share of gross value added** of the narrow construction and the real estate activities sub-sectors in GDP amounted to 4.9% and 9.0% in 2020, as compared to 4.9% and 7.5% in 2010, respectively (Figure 3).

Figure 3: Gross value added as a share of GDP in the Belgian broad construction sector in 2020¹⁰ (%)



Source: Eurostat, 2021.

Belgium is statistically divided into eleven NUTS-2 regions with *Prov. Antwerp, Prov. Oost-Vlaanderen* and *Prov. West-Vlaanderen* together accounting for 52.4% of the total gross regional value added in the narrow construction sub-sector in 2019. Likewise, *Brussels Hoofdstedelijk Gewest, Prov. Antwerp* and *Prov. Oost-Vlaanderen* together made up 43.7% of the total gross regional value added in the real estate activities sub-sector in 2019¹¹.

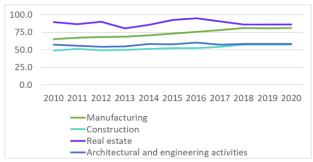
Productivity

Overall, the apparent labour productivity¹² in the Belgian broad construction sector increased from EUR 56,123 in 2010¹³ to EUR 64,064 in 2018¹⁴ (+14.1%), well above the EU-27 average of EUR 51,960. This increase is reflected across most of the construction sub-sectors. The largest increments were witnessed in the manufacturing sub-sector (+23.8%) and narrow construction sub-sector (+17.4%), growing from EUR 65,249 and EUR 48,800 in 2010 to EUR 80,758 and EUR 57,272 in 2020, respectively. The architectural and engineering activities sub-sector reported a marginal increase of 1.6%, amounting EUR 58,106 in 2020. In contrast, the real estate activities sub-sector witnessed a decline of 4.0% from EUR 89,300 in 2010 to EUR 85,720 in 2020.

Productivity in the narrow construction sub-sector between 2010 and 2020

17.4%

Figure 4: Labour productivity in the Belgian broad construction sector over 2010-2020 (EUR k)



Source: Eurostat, 2021.

Turnover and profitability

Total turnover of the Belgian broad construction stood at EUR 103.5 billion in 2018¹⁵, representing an of 24.8% compared to 2010 increase (EUR 82.9 billion). It marginally increased to EUR 103.8 billion in 2020¹⁶, registering a 25.2% increase compared to 2010. This growth was primarily driven by a 72.5% increase in the real estate activities sub-sector over the 2010-2020 period. This was followed by the architectural and engineering activities and the narrow construction sub-sectors, registering increments of 25.0% and 23.6%, respectively, over the same reference period. In contrast, the manufacturing sub-sector reported a decline of 2.2% over the 2010-2020 period. In 2020, 66.7% of the total turnover was generated by the narrow construction sub-sector, followed by the real estate activities (14.4%), the manufacturing (11.0%) and the architectural and engineering activities (7.9%) sub-sectors.

Turnover in the narrow construction sub-sector between 2010 and 2020

1 23.6%

The gross operating surplus of the broad construction sector amounted to EUR 16.0 billion in 2018¹⁷, a 32.7% increase compared to 2010. In terms of sub-sectors, the largest increase was reported by the real estate activities (+42.4%), followed by the manufacturing (+32.3%) and the narrow construction (+28.7%) sub-sectors over the 2010-2018 period. Similarly, the architectural and engineering activities sub-sector increased by 20.9% over the same reference period.

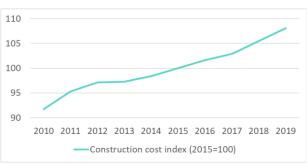
Gross operating surplus of the narrow construction sub-sector between 2010 and 2018

1 28.7%

The **gross operating rate**¹⁸ of the Belgian broad construction sector¹⁹, which is an indicator of the sector's profitability, stood at 15.4% in 2018²⁰, slightly above its 2010 level of 14.5% and below the EU-27 average of 16.7%. In terms of sub-sectors, the real estate activities sub-sector remained the most profitable, with a gross operating rate of 39.9%, slightly below its 2010 rate of 44.9%. Similarly, the architectural and engineering activities sub-sector registered a gross operating rate of 17.7%, lower than its 2010 level of 18.2%. Likewise, the manufacturing and the narrow construction sub-sectors reported gross operating rates of 12.3% and 10.8% in 2018²¹, slightly above their 2010 levels of 9.8% and 10.4%, respectively.

The construction cost index has been on an increasing trend since 2010. In fact, over the 2015-2019 period, the construction cost index increased by 8.1% (Figure 5).

Figure 5: Construction cost index between 2010 and 2019 (2015=100)

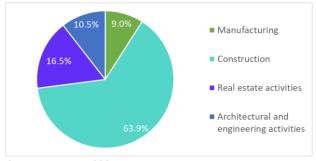


Source: Eurostat, 2021.

Employment

In 2020²², there were 501,390 **persons employed** in the Belgian broad construction sector, representing an increase of 10.9% since 2010 (452,285 persons). Most of these persons were employed in the narrow construction sub-sector (63.9%). The real estate activities, the architectural and engineering activities and the manufacturing sub-sectors accounted for 16.5% (82,829 persons), 10.5% (52,770 persons) and 9.0% (45,376 persons) of the total employed in the broad sector in 2020, respectively (Figure 6).

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



Source: Eurostat, 2021.

Employment in the real estate activities sub-sector increased by 61.7% over the 2010-2020²³ period, followed by the architectural and engineering activities (+18.9%) and the narrow construction (+5.3%) sub-sectors, respectively. In contrast, the manufacturing sub-sector reported a decrease of 13.4% over the same reference period.

Employment in the real estate activities sub-sector between 2010 and 2020

1 61.7%

In terms of employment by **specific occupation**, the biggest drop in the narrow construction sub-sector between 2010 and 2020 was registered for elementary occupations (-42.9%), followed by managers (-23.8%). In contrast, clerical support workers recorded the largest increase of 26.4%, followed by professionals (+14.8%) over the same reference period. With regards to the real estate activities sub-sector, the largest increment was in technicians and associate professionals (+181.3%), followed by professionals (+56.5%). On the other hand, the demand for managers decreased by 9.4% over the 2010-2020 period. Lastly, in the case of the manufacturing sub-sector, service and sales workers reported the largest increase of 56.6% over the 2010-2020 period. In contrast, the number of persons employed in elementary occupations declined by 50.8% over the same reference period.

The share of **self-employed persons** in the general economy working in the narrow construction sub-sector increased from 14.3% in 2010 to 14.9% in 2020, slightly above the EU-27 average of 11.7%. In the real estate activities sub-sector, the share of self-employed workers stood at 1.9% in 2019, marginally above its 2010 level (1.2%) as well as the EU-27 average of 1.6%.

In parallel, **full-time employment** recorded a decrease in both the narrow construction (-1.7%) and the real estate activities (-10.9%) sub-sectors. In contrast, **part-time employment** registered an increase in both the narrow construction (+13.6%) and the real estate activities (+0.9%) sub-sectors over the 2010-2020 period.

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



In terms of regional trends, the *Brussels Hoofdstedelijk Gewest* region registered an increase

of 10.6% in the number of persons employed in the narrow construction sector over the 2010-2018²⁴ period. *Prov. Luxembourg (BE)* reported the largest growth in the number of people employed in the real estate activities (+66.7%) sub-sector for the above referred to period. Overall, in 2018, *Prov. Antwerp, Prov. Oost-Vlaanderen* and *Prov. West-Vlaanderen* together accounted for 46.7% of the total number of persons employed in the narrow construction sub-sector. Similarly, *Brussels Hoofdstedelijk Gewest, Prov. Antwerp* as well as *Prov. West-Vlaanderen* made up 50.2% of the total number of persons employed in the real estate activities sub-sector in 2018.

Macroeconomic indicators

Economic development



In 2020, Belgian GDP amounted to EUR 416.4 billion, representing an increase of 6.6% compared to the 2010 level. That said, the country's GDP decreased by 6.3% compared to 2019 levels, following the advent of the COVID-19 pandemic.

In 2020, Belgian **potential GDP** amounted to EUR 444.4 billion, resulting in a negative output gap of 6.3%. In parallel, the **inflation rate** has been increasing over the 2015-2019 period, reaching 7.8% in 2019. This further increased by 0.4 percentage point in 2020, reaching 8.2% in 2020.

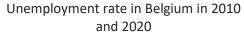
Demography and employment

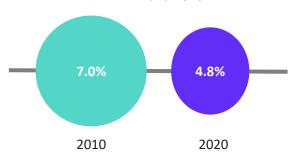
The Belgian unemployment rate decreased from 7.0% in 2010 to 4.6% in 2019, reaching its lowest level. It increased to 4.8% in 2020 primarily due to COVID-19 pandemic, nevertheless remaining slightly below the EU-27 average of 6.3% in 2020²⁵.

Similarly, youth unemployment (below the age of 25) decreased from 22.4% in 2010 to 15.3% in 2020. This is also slightly below the EU-27 average of 16.8%²⁶.

In 2020, the **total population** of Belgium amounted to 11.5 million. This is projected to further increase by 2.2% to 11.8 million in 2030 and by 3.6% to 11.9 million in 2050, respectively. This trend is supported by the positive **net migration rate**, totalling 56,147 in 2020.

In 2020, the **working age population** made up 64.0% of the total Belgian population, marginally below the EU-27 average of 64.3%. By 2050, it is expected to decrease to 58.7%, slightly above the EU-27 average of 56.8%. In parallel, the proportion of elderly people (over 65 years old) is expected to increase from 19.2% in 2020 to 26.3% in 2050. This is still lower than the projected EU-27 average of 29.5% in 2050. In line with the elderly population growth, the demand for elderly persons' infrastructures (hospitals, care homes, access infrastructure) will also continue to rise gradually in the medium and long-term, providing potential opportunities for the construction sector.





Public finance

In 2020, general government expenditure represented 60.0% of GDP, slightly higher than the 2010 levels (53.9%) and the EU-27 average of 53.4%. The general government deficit amounted to 9.4% of GDP in 2020, higher than the EU-27 average of 6.9%. Lastly, general government gross debt amounted to 114.1% of total GDP compared to the EU-27 average of 90.7%. Since 2019, Belgium's fiscal deficit has deteriorated primarily due to a decrease in government revenue followed by an increase in its fiscal expenditure and the advent of COVID-19 pandemic²⁷.

Entrepreneurship and access to finance



As per World Bank Doing Business 2020 report, Belgium ranked 48th out of 190 countries in terms of ease of starting a business with a score of 92.3. This is slightly below compared to its 2019's 45th rank^{28,29,30}.

As per the report, starting a business in Belgium requires five procedures, taking five days and costing 5.3% of per capita income. In contrast, OECD high-income averages stood at 4.9 procedures, 9.2 days and 3.0% of per capita income, respectively. The paid-in minimum capital required (i.e., the amount that the entrepreneur needs to deposit in a bank or with a notary before registration and up to three months following incorporation), stood at 0.0% of per capita income, below the OECD high-income average of 7.6% of income per capita³¹.

Belgium's loans to non-financial corporations increased by 26.4% over the 2010-2020 period, from EUR 100.1 trillion in 2010 to EUR 126.5 trillion in 2020.

Loans to non-financial corporations between 2010 and 2020



According to the **Survey on the Access to Finance of Enterprises (SAFE)** Report 2020, 9.0% of SME respondents reported that **access to finance** is the most important problem they faced, marginally lower than the EU-27 average of 9.9%³².

During the 2018-2019 period, some significant measures were implemented by the government to boost access to finance and entrepreneurship within the country³³:

- PMV/z Cofinancing+, launched bν (Participatiemaatschappij Vlaanderen voor zelfstandige ondernemers) in November 2018, aimed at providing co-financing to existing companies of up to four times their own capital, with a minimum and EUR 350,000 maximum of а EUR 700,000,
- a new grant agreement with non-profit organisation "BAN Vlaanderen" in January 2019, connecting SMEs with individuals looking to invest their personal capital, thereby acting as a marketplace for companies and potential investors,
- reduced social security contributions for start-ups from April 2018 onwards (during their first year), aimed at reducing the social burden on self-employed people.

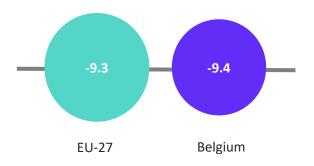
Belgium also introduced several initiatives in 2020 to promote entrepreneurship and increase the of mentors in entrepreneurship. Region-wise, Flanders is investing EUR 90.0 million in promoting entrepreneurship and innovation via specific intermediaries. These selected intermediaries will be tasked with advising and supporting companies in all their business activities. Similarly, Wallonia has introduced the 'development and growth' entrepreneurial mentoring system, aiming at bringing together both experienced and new entrepreneurs³⁴.

Key economic drivers of the construction sector

Business confidence

Over the 2010-2020 period, both the consumer confidence indicator and the industry confidence indicator deteriorated considerably. The **consumer confidence indicator** stood at -12.1 in 2020, well below its 2010 level of -6.4 but slightly above the EU-27 average of -14.6. The **industry confidence indicator** also decreased from -5.5 in 2010 to -15.0 in 2020, below the EU-27 average of -14.4. In contrast, the **construction confidence indicator** slightly increased over the years, going from -11.7 in 2010 to -9.4 in 2020, marginally lower than the EU-27 average of -9.3.

Construction confidence indicator in 2020



The Belgian **investment ratio** slightly increased from 21.7% in 2010 to 24.2% in 2020, above the EU-27 average of 21.8%.

Investment per worker in the broad construction sector increased by 14.7%, from EUR 114,810 in 2010 to EUR 130,273 in 2018³⁵. In terms of subsectors, investment per worker in the manufacturing sub-sector increased by 192.9%, followed by the narrow construction (+39.0%) sub-sector and amounting to EUR 28,700 and EUR 22,100, respectively, in 2018³⁶. Investment per worker in the real estate activities sub-sector

slightly increased by 7.7%, from EUR 73,000 in 2010 to EUR 78,600 in 2018³⁷.

Investment per worker in the narrow construction sub-sector between 2010 and 2018³⁸



Domestic sales

The ranking of the top five most domestically sold construction products in Belgium in 2020 remained almost same as 2010 except for "Prefabricated buildings of metal (group 251110)" and "Windows, French windows, etc. (group 162311)", being replaced by "Other structures and parts (group 251123)" and "Portland cement, aluminous cement, etc. (group 235112)". Compared to 2010, the total value of "Prefabricated structural components (group 236112)", "Portland cement, aluminous cement, etc. (group 235112)", "Doors, windows and their frames (group 251210)" and "Ready-mixed concrete (group 236310)" sold domestically has increased by 68.8%, 68.2%, 44.5% and 29.1%, respectively. The top five most domestically sold construction products represented almost 60.1% of total domestic construction product sales in 2020.

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

		Belgium		EU-27
	Product	Value (EUR m)	Share in constructio n product domestic sales (%)	Product
1	Other structures and parts (group 251123)	875.8	14.8	Other structures and parts (group 251123)

		Belgium		EU-27
	Product	Value (EUR m)	Share in constructio n product domestic sales (%)	Product
2	Prefabricated structural components (group 236112)	862.9	14.5	Ready-mixed concrete (group 236310)
3	Doors, windows and their frames (group 251210)	750.8	12.7	Doors, windows and their frames (group 251210)
4	Ready-mixed concrete (group 236310)	663.2	11.2	Prefabricated buildings of metal (group 251110)
5	Portland cement, aluminous cement, etc. (group 235112)	410.4	6.9	Prefabricated structural components (group 236112)

Source: PRODCOM, 2021.

Export of construction-related products and services

The ranking of the five **most exported products** has seen notable changes in recent years with the addition of "Fibreboard of wood, etc. (group 162115)", "Other structures and parts (group 251123)" and "Particle board (group 162112)", replacing "Other worked ornamental, etc. (group 237012)", "Pallets, box pallets, etc. (group 162411)" and "Calcined or agglomerated dolomite (group 235230)" since 2010. Additionally, compared to 2010, the total value of "Portland cement, aluminous cement, etc. (group 235112)" and "Prefabricated structural components (group 236112)" exported has increased by 11.0% and 5.2%, respectively, in 2020.

The **top five most exported** construction products from Belgium and the EU-27 are summarised in Table 2. Together, these made up 39.4% of all construction product exports in 2019.

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

		Belgium		EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Fibreboard of wood, etc. (group 162115)	515.3	14.3	Ceramic tiles and flags (group 233110)
2	Other structures and parts (group 251123)	386.0	10.7	Other structures and parts (group 251123)
3	Prefabricated structural components (group 236112)	191.0	5.3	Fibreboard of wood, etc. (group 162115)
4	Portland cement, aluminous cement, etc. (group 235112)	166.0	4.6	Doors, windows and their frames (group 251210)
5	Particle board (group 162112)	160.3	4.5	Builders joinery and carpentry, etc. (group 162319)

Source: PRODCOM, 2021.

In terms of the cross-border provision of services³⁹, construction Belgium exported EUR 2.3 billion worldwide in 2020, 7.9% higher compared to the 2010 value (EUR 2.2 billion). This included EUR 1.7 billion of exports to the EU-27 member states (i.e. 72.0% of exports), highlighting the importance of the EU Single Market for the country. Belgium imported a total of EUR 2.6 billion in construction services in 2020, registering a considerable growth of 50.3% compared to its 2010 level (EUR 1.7 billion). This included imports from EU-27 countries amounting to EUR 2.3 billion in 2020⁴⁰ (i.e. 85.5% of imports). Belgium, thus, experienced a trade deficit of EUR 244.0 million in 2020.

Access to finance in the construction sector

According to the **2020 Survey on the Access to Finance of Enterprises (SAFE)** report, 27.2% of small and medium enterprises (SMEs) in Belgium reported grants or bank loans as being relevant, below the EU-27 average (44.4%). Around 22.0% of the SMEs reported using bank loans recently, above the EU-27 average (17.9%). During the same period, 31.2% of Belgian SMEs applied for a bank loan, lower than the EU-27 average of 34.6%. This may be explained by the fact that around 44.0% of SMEs did not apply for bank loans because of sufficient internal funds, well above the EU-27 average of 35.1%^{41,42}.

The availability of bank loans for Belgian SMEs has also changed. Around 11.4% of SMEs recorded that the availability of bank loans has improved in 2020, well below the EU-27 average (18.6%). 14.8% of SMEs mentioned that it has deteriorated, almost in line with the EU-27 average of 14.2%⁴³.

As per the European Investment Bank (EIB) Investment Survey 2020, 51.0% of Belgium's construction firms considered the availability of finance as a long-term barrier for the sector⁴⁴.

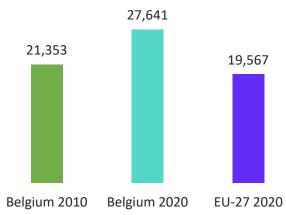
Bank loans continue to make up the largest share of external finance (about 65.0%) in the construction sector in Belgium, followed by leasing (20.0%). 60.0% of the Belgian firms in the construction sector relied on internal sources of finance for investment purposes compared to external sources (40.0%). This is also driven by the fact that 70.0% of the Belgian construction firms reported making a profit, below the EU-27 average of 80.0%. Nonetheless, the share of 'financially constrained'⁴⁵ firms in the construction sector (6.0%) is slightly higher than the firms operating in the manufacturing (4.5%) and service sectors (5.0%) in Belgium⁴⁶.

The impacts of COVID-19 on investment strategies have also been quite negative with almost 40.0% of Belgian construction firms investing less in 2020, lower than EU-27 average of 45.0%⁴⁷. However, 74.0% of construction firms believed their investment over the last three years was about the right amount, well above the EU-27 average of 50.0%⁴⁸.

Access to housing

The **number of households** in Belgium experienced a slight increase of 5.6%, from 4,622,400 in 2010 to 4,881,500 in 2020. The share of the **total population living in densely-populated areas** decreased from 54.3% in 2010 to 30.0% in 2020. In contrast, the share of the **total population living in intermediate urbanised areas** increased from 41.5% in 2010 to 54.8% in 2020.

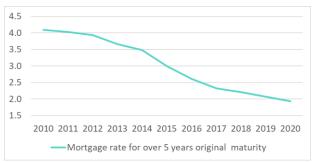
The **mean equivalised net income** increased by 29.4%, from EUR 21,353 in 2010 to EUR 27,641 in 2020, well above the EU-27 average of EUR 19,567.



Mean equivalised net income in Belgium and in EU-27 (in EUR)

Housing loans to households picked up considerably, with total **outstanding residential loans** increasing by 62.9%, from EUR 161.7 billion in 2010 to EUR 263.4 billion in 2019⁴⁹. This increase in residential loans is partly supported by the declining **interest rates on mortgages**, currently standing at 1.9% in 2020 compared to 4.1% in 2010 (Figure 7).

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



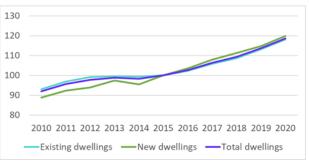
Source: European Central Bank, 2021.

The **house price index** for total dwellings increased by 18.6% over the 2015-2020 period, mostly driven by a 19.9% and 18.0% increase in price indices of new dwellings and existing dwellings over the same reference period, respectively (Figure 8). This increase in house prices is partially due to the overvaluation of the Belgian residential real estate market⁵⁰.

House price index for new dwellings between 2015 and 2020

19.9%

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



Source: Eurostat, 2021.

Social housing continues to be a concern, especially in the case of the private rental market with 8.6% of the Belgian population spending about 40.0% or more of their household income on housing⁵¹.

Likewise, obtaining a building permit continues to be difficult and involves long delays, particularly with regards to the renovation of Belgium's existing housing stock. The number of new residential construction building permits issued for new buildings and new dwellings increased by 4.9% and 9.6%, from 27,292 and 50,545 in 2010 to 28,633 and 55,412 in 2020, respectively. In the case of non-residential constructions, the number of new buildings permits issued increased by 34.3%, from 4,753 in 2010 to 6,383 in 2020. Similarly, the number of building permits issued for residential renovations slightly increased by 2.0%, from 28,888 in 2010 to 29,480 in 2020. In contrast, the number of building permits issued for non-residential renovations decreased by 32.4%, from 5,252 in 2010 to 3,552 in 2020⁵².

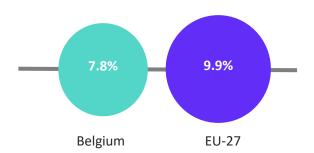
Number of permits for non-residential renovations between 2010 and 2020

32.4%

Historically, Belgium has been characterised by a high home ownership rate. Over the 2010-2020 period, the **home ownership** rate in Belgium remained above 71.0%, being at 71.1% in 2020. This rate further increased to 76.7% for the population earning **above 60.0% of the median equivalised income**⁵³ whereas it substantially declined to 36.9% for the population earning below 60.0% of the median equivalised income.

In parallel, Belgium's **overcrowding rate**⁵⁴ stood at 5.7%⁵⁵ in 2019 and 2020, considerably below the EU-27 average of 17.1% for 2019. The **severe housing deprivation rate**⁵⁶ stood at 1.9% in 2019 and 2.3% in 2020, slightly below the EU-27 average of 4.0% in 2019. Lastly, the **housing cost overburden rate**⁵⁷ stood at 7.8% in 2020, slightly below the EU-27 average of 9.9%.

Housing cost overburden rate in 2020



Infrastructure



As per the 2019 Global Competitiveness Report, Belgium ranked 14th out of 141 economies in terms of its overall infrastructure quality⁵⁸.

Belgium ranked 16th with regards to its transport infrastructure and 4th in terms of its railroad density, 9th for the efficiency of its seaport services and 19th with regard to the efficiency of its air transport services. Belgium ranked 21st in terms of road connectivity, 36th in relation to the efficiency of its train services, 42nd with regard to its airport connectivity and 56th for the quality of its road infrastructure. However, Belgium also has one of the densest road networks in the EU, reaching 58.0 km per 1,000 km² in 2018⁵⁹. In order to improve the quality of the general infrastructure, the regions have implemented their own infrastructure investment plans.

Key issues and barriers in the construction sector

Company failure

Over the 2010-2018⁶⁰ period, the number of **company deaths** in the real estate activities sub-sector increased by 60.1%, from 511 in 2010 to 818 in 2018⁶¹. Similarly, the number of company deaths in the narrow construction and the architectural and engineering activities sub-sectors increased by 43.2% and 39.4%, from 2,718 and 642 in 2010 to 3,893 and 895 in 2018⁶², respectively.

Company deaths in the narrow construction sub-sector between 2010 and 2018⁶³



The number of **company births** in the real estate activities sub-sector increased by 34.5%, from 1,404 in 2010 to 1,889 in 2018. Likewise, the narrow construction and the architectural and engineering activities sub-sectors experienced increases of 18.9% and 11.6%, from 6,882 and 1,626 in 2010 to 8,183 and 1,815 in 2018⁶⁴, respectively.

Company births in the narrow construction sub-sector between 2010 and 2018⁶⁵



In parallel, the number of bankruptcies in the Belgian narrow construction and the real estate activities sub-sector decreased by 15.3% and 32.6%, from 1,560 and 218 in 2010 to 1,322 and 147 in 2020, respectively. In fact, over the January 2021-September 2021 period, 977 and 90 bankruptcies had already been registered in the narrow construction and real estate activities sub-sectors, respectively^{66,67}.

Trade credit

In 2020, about 50.0% of the total value of Belgian B2B (business to business) sales were made through the use of trade credit. This is slightly lower than the Western European average of 55.5%. Nonetheless, 41.0% of the respondent businesses reported an increased use of credit sales (by almost 36.0%) with the onset of COVID-19 pandemic⁶⁸.

As per the Payment Practices Barometer Belgium 2020, 57.0% of the respondent businesses offered trade credit primarily to encourage domestic market transactions, slightly above the Western European average of 53.0%. 21.0% offered trade credit to meet short-term financial needs, lower than the Western European average of 23.0%⁶⁹.

As per the report, 40.0% of the respondent are likely to refuse trade credit requests due to deteriorating customer creditworthiness, substantially above the Western European average of 26.0%. In fact, businesses representing almost 30.0% of the total B2B sales value refused to provide trade credit. Going forward, 28.0% of respondent businesses plan to offer trade credit next year to help develop foreign sales, slightly higher than the Western European average of 23.0%. This is followed by 23.0% of respondent businesses planning to offer trade credit as a short-term financing option for B2B customers (compared to the Western Europe average of 20.0%). 4.0% of respondent businesses plan to offer less trade credit to their B2B customers in the coming months⁷⁰.



According to the 2020 Survey on the Access to Finance of Enterprises (SAFE) Report, 34.6% of Belgian SME respondents reported trade credit to be relevant, well above the EU-27 average of 27.7%^{71,72}.

Amongst the firms which applied for trade credit in Belgium, 57.5% of SMEs received everything they applied for, lower than the EU-27 average of 67.3%. 14.4% of Belgian SMEs received above 75.0% of what they applied for in trade credit, slightly above the EU-27 average of 10.8%. 19.9% of SMEs received below 75.0% of what they applied for, well above the EU-27 average of 10.1%⁷³.

Late payment

According to 2020 Atradius Payment Practice Barometer, 63.0% of the total value of B2B invoices in the Belgian construction sector were affected by late payments⁷⁴.

As per the report, 36.0% of the total value of B2B invoices reported waiting longer (up to ten days) past the due date to turn outstanding invoices into cash. 54.0% reported no change in average cash turnaround time, while 4.0% registered a reduced cash turnaround time compared to before the COVID-19 pandemic⁷⁵.

According to the 2020 Payment Practice Barometer, the average Days Sales Outstanding **(DSO)** for the Belgian construction sector stood at 91 days, higher than the Western European average of 70 days. 60.0% of the respondent businesses reported their DSO increased by up to 10.0%, while 25.0% confirmed that their DSO increased by above 10.0% as compared to previous year⁷⁶.

50.0% of the respondent businesses in the Belgian construction sector reported lower revenue levels due to the COVID-19 pandemic downturn, almost on par with the Western European average of 49.0%. Consequently, 29.0% of the respondent businesses delayed payments to suppliers, slightly lower compared to the Western European average of 36.0%. Additionally, 25.0% of the respondent businesses requested an extension to bank overdrafts. 25.0% spent more on time, costs and resources to collect unpaid invoices. Similarly, 25.0% of the respondents also declared hiring

freezes as a coping mechanism for lower revenue levels⁷⁷.

As per the 2020 Atradius Payment Practice Barometer, 57.0% of the respondent businesses deem that the increasing construction costs represent the biggest risk for profitability in 2021. This is well above the Western European average of 43.0%. This is followed by the collection of outstanding invoices as reported by 54.0% of the respondent businesses, well above the Western European average of 42.0%⁷⁸.



As per Intrum European Payment Report 2021, 64.0% of Belgian businesses are concerned about debtor's ability to pay debt on time and 44.0% of businesses expect the widening gap between payment terms and pay duration to become a serious risk for sustainable business growth⁷⁹.

As per the report, some of the major challenges still faced by companies making customers pay on time included debtor's facing liquidity challenges due to impact of COVID-19 (48.0%), debtors in financial difficulties (40.0%), risk of pan-European recession (39.0%), disputes regarding goods and services delivered (36.0%) and lack of business experience among customers (30.0%)⁸⁰. About 40.0% of business respondents use pre-payments as a precautionary measure, followed by credit checks (35.0%), debt collection (25.0%), credit insurance (16.0%), bank guarantees (12.0%), factoring (8.0%) and fraud prevention (9.0%)⁸¹.

In terms of good payment practices, the construction sector is among the lowest performing sectors in the Belgian economy with only 34.0% of construction sector enterprises in Q4 2020 making payments by the due date. The number of firms paying after over 90 days past the due date stood at 2.1% in Q4 2020⁸².

The Late Payment Directive was transposed through the Act of 22 November 2013, ensuring that businesses, including SMEs, are safeguarded against payment delays by adding minimum debtrecovery processing compensation and increased interest penalties for late payments. The directive also stipulates that payment terms should be set at 30 days if not otherwise specified in the contract.

For B2B transactions, the two parties can also agree on payment terms of up to 60 days or longer, provided that the agreement is not unfair to the creditor⁸³.

Recently, the Belgian government has been actively taking steps to address late payment issues, particularly those affecting SMEs. For instance, in May 2019, the Belgian government amended **the law of 2nd August 2002** related to late payment in commercial transactions. As such, enforceable from April 2020, the maximum payment terms between SMEs and larger enterprises cannot exceed 60 days⁸⁴.

Time and cost of obtaining building permits and licenses

According to the World Bank Doing Business 2020 Report, Belgium ranked 45th out of 190 countries with respect to "**Dealing with construction permits**"⁸⁵. In 2019, ten procedures were required to complete the formalities to build a warehouse⁸⁶, slightly below the OECD high-income average of 12.7. However, the time needed to complete them totalled 212 days, considerably above the OECD high-income average of 152.3 (Table 3). The cost of completing the formalities to build a warehouse represented 0.9% of the total value of the warehouse, notably below the OECD high-income average of 1.5%.

Table 3: Construction procedures timing and costs in Belgium

Procedure	Time to complete	Associated costs
Obtain a recent proof of land ownership	7 days	EUR 75
Obtain clearance from the Fire Department	14 days	EUR 880
Request building permit from the Municipality	110 days	EUR 780
Inform Municipality of commencement of work	1 day	No charge
Receive on-site inspection from Fire Department after construction	1 day	No charge
Inform Municipality of the completion of construction	1 day	No charge
File application and receive an inspection by the Cadastre upon completion of construction	1 day	No charge
Apply for water and sewage connection	1 day	No charge
Receive inspection for water and sewage on construction site	1 day	No charge

Obtain water and sewage connection	75 days	EUR 16,602
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Source: Doing Business overview for Belgium, Word Bank, 2021.

Skills shortage

In 2020, there were 7,938 **job vacancies** in the Belgian narrow construction sub-sector and 683 vacancies in the real estate activities sub-sector. This represented a significant increase of 43.9% and 209.9% as compared to 2013⁸⁷ levels, respectively. The **job vacancy rate** for both the narrow construction as well as the real estate activities sub-sectors increased from 2.6% and 1.5% in 2013 to 3.7% and 2.8% in 2020, respectively.

Job vacancies in the narrow construction sub-sector between 2013 and 2020



The situation has worsened in the third quarter of 2021, as the narrow construction sub-sector reported 18,194 job vacancies, being the third worst affected sector after the hospitality and ICT sectors⁸⁸. Over the 2011-2020 period⁸⁹, **adult participation in education and training** in the broad construction sector decreased. In the case of the real estate activities sub-sector, the adult participation rate decreased from 13.3% in 2011 to 8.6% in 2019⁹⁰. In contrast, the adult participation rate in the narrow construction sub-sector marginally increased from 4.0% in 2010 to 4.1% in 2020.

The **number of tertiary students** enrolled in engineering, manufacturing and construction increased by 17.3% from 11,243 in 2010 to 13,192 in 2019⁹¹. Out of this, 3,380 tertiary students were enrolled in architecture and building in 2019, representing a slight increase of 5.6% compared to the 2010 level of 3,200 students.

Labour shortages continue to be an ongoing concern for Belgium with the country facing an annual scarcity of about 20,000 construction workers every year⁹². Finding appropriate skills in the broad construction sector, in addition to recruiting qualified personnel, is one of the greatest challenges of the sector. The highest scarcity relates to professions such as trained technical personnel with a highly technical degree, engineers, project managers, and mathematicians. Additionally, the construction sector needs plasterers, painters, plumbers, bricklayers, carpenters, scaffolders,

roofers, tile layers, building site workers, electricians and mechanics⁹³. To mitigate the increasing number of workers leaving the profession, the number of new recruitments will need to increase from a baseline of 24,150 in 2012 to 24,900 in 2030⁹⁴.

Sector and sub-sector specific issues

Material efficiency and waste management

In 2018⁹⁵, Belgium reported a total of 22.6 million tonnes of **construction and demolition waste (CDW)**, representing a growth of 34.4% compared to the 2010 level (16.9 million tonnes). Of the 2018 total, 22.6 million tonnes (i.e. 94.8%) were non-hazardous, with the remaining 1.2 million tonnes (i.e. 5.2%) being hazardous waste^{96,97}.

Construction and demolition waste between 2010 and 2018

1 34.4%

With regards to waste management, Belgium is one of the best performers in the EU. It has already achieved its EU 2020 municipal waste recycling target. However, different regions follow separate collection rates with Flanders and Wallonia (70.0%) performing much better compared to Brussels (43.0%). Additionally, in 2018 Belgium recorded a 97% recovery rate in construction and demolition waste⁹⁸. Nonetheless, the Belgian regional and federal governments have launched several initiatives to promote resource efficiency and the adoption of the circular economy. For instance, Flanders has launched Green Deals on circular purchasing and circular construction and the Circular Flanders hub⁹⁹. Similarly, Wallonia has also launched three competitiveness clusters to create a common platform for plastic recycling along with a Green Deal for circular purchasing¹⁰⁰, whereas the **Brussels-Capital** Region launched the BuildCircular.Brussels amongst other.

Waste prevention and sustainable recovery, being an important aspect of effective waste management, the Flanders region has introduced requirements to pre-identify the types and quantities of materials present in a non-residential buildings up for demolition so as to enable the identification and recycling of hazardous waste¹⁰¹. At the same time, following the traceability system of the non-profit independent demolition management organisation Tracimat can result in a "certificate of selective demolition"¹⁰². Sectoral implementation plans were also introduced for CDW. The Public Waste Agency of Flanders (OVAM) has developed a policy to make Flanders asbestossafe by 2040¹⁰³. An asbestos inventory will be mandatory in 2022 when selling a building¹⁰⁴.

Since January 2021, a reduced VAT rate of six per cent has been applied instead of 21 per cent for the demolition and reconstruction of a house throughout Belgium. This is a temporary measure, with specific conditions, which runs until the end of 2022. This measure goes in addition to the existing VAT reduction for demolition and reconstruction in 32 cities¹⁰⁵.

According to a survey conducted by Bouwunie, half of the respondents (contractors) have seen a remarkable increase in the number of applications since the introduction of the reduced rate. The measure therefore works.

Climate and energy

Emissions of greenhouse gases (carbon monoxide and dioxide, methane and nitrous oxides) from the narrow construction and real estate activities sub-sectors in Belgium amounted to a total of 2.7 million tonnes and 227,851 tonnes in 2019, respectively. Over the 2010-2019 period, emissions by the narrow construction sub-sector decreased by 11.6%. Contrarily, emissions by the real estate activities sub-sector significantly increased by 53.6%.

Construction materials shortages

Various material shortages occurred in conjunction with the COVID-19 pandemic, creating widespread supply-chain tensions and important price hikes. According to a survey made by the Construction Confederation, a majority of contractors were still experiencing price increases and abnormally long delivery times at the end of 2021.

Innovation in the construction sector

Innovation performance

According to the 2021 European Innovation Scoreboard, Belgium is classified as an Innovation Leader, better than its Strong Innovator rank in 2020¹⁰⁶.

The top three indicators of the Belgian innovation system included foreign doctorate students, innovative SMEs collaborating with others as well as enterprises providing ICT training. The country also demonstrated strong performance in attractive research systems, use of information technologies and linkages¹⁰⁷.

As per the scoreboard, Belgian innovation performance improved in 2020 primarily driven by substantial performance improvement in several indicators including using innovation survey data, digital skills, venture capital and resource productivity. The country also achieved above average scores on the climate change related indicators¹⁰⁸.

In 2017¹⁰⁹, **Business Enterprise R&D Expenditure** (BERD) in the narrow construction and the real estate activities sub-sectors amounted to EUR 74.4 million and EUR 1.0 million, representing a 16.7% and 35.8% growth compared to its 2010 levels, respectively. BERD in the professional, scientific and technical activities sub-sector also significantly increased by 69.8%, from EUR 552.0 million in 2010 to EUR 937.7 million in 2017¹¹⁰.

BERD expenditure in the professional, scientific and technical activities sub-sector between 2010 and 2017¹¹¹



Total R&D personnel (full-time equivalents – FTE)¹¹², in the narrow construction and the real estate activities sub-sectors considerably increased by 54.4% and 100.0%, from 513 and 7 in 2010 to 792 and 14 in 2017, respectively¹¹³. The FTE in the professional, scientific and technical activities

sub-sector grew by 80.0%, from 4,167 in 2010 to 7,501 in 2017^{114} .

In line with the generally moderate developments in BERD and FTE, the number of **construction-related patent applications** has fluctuated, from 41 in 2010 to 61 in 2020 (+48.8%) and averaging at 59 patents over the 2010-2020 period.

Construction-related patent applications between 2010 and 2020



Moreover, two Belgian construction and materials firms ranked within the top 1,000 EU-28 companies by R&D (industrial sector ICB-3D), according to the 2020 EU R&D Scoreboard¹¹⁵.

The Belgian Building Research Institute (BBRI), a private research centre founded with the support of the National Federation of Belgian Building Contractors, plays a key role in boosting research and innovation in the construction sector. It aims to provide technical support to innovation activities, tailored to the specific needs of construction SMEs. This technological guidance is also supported by the Flanders Region, the Walloon Region as well as the Brussels-Capital region¹¹⁶. BBRI also runs the Centre for Excellence in Sustainable Construction (CESC) in Brussels, aimed at supporting construction companies in the application of new technologies promoting sustainable buildings renovation techniques 117.

The Belgian Road Research Centre plays a similar role in road construction and Volta for the electricians.

Eco-innovation and digitalisation



As per to the 2021 Eco-Innovation Scoreboard (Eco-IS), Belgium scored 107, well below the EU-27 average of 121¹¹⁸.

As per the report, in 2019¹¹⁹, Belgium's overall performance was below the EU average. While the country performed close to EU average in the eco-innovation, input, activities, output and resource efficiency outcomes It recorded one of the lowest scores in socio-economic indicators among all EU member states. Nonetheless, Belgium has launched several initiatives at the regional level aimed at achieving eco-innovation and a circular economy. For instance, projects in the Wallonia region focus on diverse areas of sustainability energy, (construction, natural resources, digitalisation, etc.). Initiatives developed in the Brussels region support eco-innovation in many areas including construction, digitalisation and treatment. Additionally, the government has also initiated the Green Deal instrument (for instance Green Deal on domestic wood heating¹²⁰, Green Deal Shared Mobility¹²¹) to achieve specific environment related objectives¹²².

Major drivers of eco-innovation in Belgium include integration of goals into industrial and economic policies, rising demand for green technology, products and local markets for recycling as well as the existence of supporting institutions. However, several factors continue to hinder eco-innovation including difficulties posed by inter-regional coordination, lack of eco-innovation and circular economy related skills in SMEs and low environmental taxation¹²³.

As per the European Commission **Digital Economy** and **Society Index (DESI) 2020**, Belgium ranked 9th out of EU-28 member states with a 58.7 score, slightly below the EU-28 average score of 52.6¹²⁴. According to the index, in 2019, Belgium adopted various new strategies and policy goals towards achieving its digital transformation, such as DigitalWallonia4AI, the policy notes 2019 – 2024 of the new Flemish government etc., in addition to updating its existing policies. Managing digital transformation continues to be a priority policy agenda both at federal and regional levels. As such, detailed policies and financial instruments have already been adopted and established to frame as well as promote policy initiatives country-wide¹²⁵.

According to the European Investment Bank (EIB) Investment Survey 2020, the most frequent long-term impacts of COVID 19 on Belgian construction firms were changes in increased use of digital technologies (53.0%) and in supply chain (46.0%),

followed by changes in their services and products portfolio (41.0%), as well as permanent reduction in employment (20.0%). Nonetheless, more than 45.0% of Belgian construction sector firms are expected to have implemented digital technologies within their businesses, either fully or partially by the end of 2020. According to the report, the top digital technologies implemented by businesses in Belgium, either partially or fully, in the broad construction sector includes the internet of things (31.0%), augmented or virtual reality (18.0%), 3-D printing (14.0%) and drones (19.0%)¹²⁶.

As a part of its EUR 5.9 billion Recovery and Resilience Plan (RRP), Belgium has allocated almost 27.0% of its total allocation for the promotion and investment in its digital transition. This includes allocating EUR 585.0 million for investment in public administration, EUR 480.0 million in Education 2.0 and EUR 80.0 million in cyber security¹²⁷.

Particularly, investment in Education 2.0 aims to improve the digital and STEM (Science, Technology, Engineering, and Math) skills of the workforce while providing easier access to digital tools and technology. Belgium plans to increase the cyber risk awareness level and management capabilities for its SMEs, thereby boosting its response capacity to cyberattacks. All these initiatives impact businesses in the construction sector either directly or indirectly and will be a potential driver of growth for the sector in the coming years¹²⁸.

Belgian regions have had consistent policy support in the areas of low carbon economies. For example, Flanders has developed large clusters in the areas of eco-innovation and low carbon technologies. The Flux50 energy cluster, facilitates coordination and cooperation between energy, IT and building firms to enhance the use of smart energy and transition towards low carbon systems¹²⁹. EnergyVille is another cluster focusing on sustainable energy, intelligent energy systems and energy-efficient buildings, among others¹³⁰. Another Sustainable Energy Cluster TWEED (Technology of Wallonia Energy, Environment and sustainable Development) aims to play a major role in the business development of «sustainable energy» sectors¹³¹.

EcoBuild, the cluster for sustainable construction and renovation in Brussels, focuses particularly on energy efficient retrofitting and the circular economy. Another such cluster is **the Cluster for Eco Construction of Wallonia** aimed at promoting the use of renewable energies and awareness of the environmental impact of construction projects over their whole lifecycle¹³². Additionally, **GreenWin** is another competitive cluster in Wallonia, which focuses on eco-innovation in green chemistry and sustainable materials. The subsequent application in zero or near zero energy buildings is a major focus area of this cluster¹³³. In order to help the Belgian construction sector to reduce the environmental impact of buildings, the three regions have developed the TOTEM tool [Tool to Optimise the Total Environmental impact of Materials]¹³⁴.

Belgium has identified digitalisation in the National Pact for Strategic Investment as a priority area for boosting productivity and innovation¹³⁵. The Belgian federal government has continued to support the digital transformation of organisations

within the framework of the Digital Belgium Action Plan. The Brussels-Capital Region promotes digital transformation on its territory as part of the bedigital.brussels strategy. This strategy is primarily based on three key pillars: the Smart City strategy, the Regional plan for innovation (Plan régional pour l'innovation / Gewestelijk plan voor innovatie) and the NextTech plan. Similarly, the Digital Wallonia 2019-2024 plan was launched in December 2018. It is aimed at financing the digital coverage of key industrial and white zones with a budget of EUR 50.0 million. Other initiatives include the opening of BeCode campuses in Liège and Charleroi, and the implementation of Demos 4.0 to stimulate the development of technologies in companies¹³⁶. With the recent reform of the Code on Land Use (CoBAT), Brussels has tightened the administrative deadlines for approving building permit requests. In Flanders, the building permit process is digital since 2018^{137,138}.

National and regional regulatory framework

Policy schemes

In Belgium, the **housing policy**, including property taxation and private sector rental regulation, is under the jurisdiction of the regions, and has traditionally been directed towards supporting home ownership through a favourable fiscal regime. In fact, the Belgian property market is highly decentralised, enabling a shift of responsibilities of housing policy and regulation from the federal level to the regional level¹³⁹.

The Belgian taxation system plays an important role in implementing reforms in the housing sector. For instance, the Flanders region continues to follow its policy of reducing tax expenditure with the abolition of the housing bonus for new entrants, along with a decline in tax rate reductions on service vouchers (from 30.0% to 20.0% per voucher) effective from January 2020¹⁴⁰.

Similarly, the Walloon region plans to reform its tax incentives system through a change in its housing voucher initiative. Essentially, the system will provide a bonus on buying a house only if energy saving works are performed. The scheme is primarily being aimed at first-time home buyers¹⁴¹.

As part of its medium-term objective, the Walloon government aims to increase its public housing stock by up to 10.0% (i.e.36,298 housing units) of the region's total housing accommodation¹⁴².

As such, the government has allowed for the creation of a drawing right for public utility housing investment funds, in addition to the existing proportionate urban planning charges¹⁴³.

The Walloon government intends to provide a rental allowance for lower income households as well as develop actions within the Social Real Estate approved Agencies. the lease-to-own arrangement in public housing in April 2019. Under this policy, the government approved a mechanism for renting with an option to buy in public housing. The sale price will be determined at the time of the conclusion of the tenancy agreement. The rent paid by the tenant consists of the usual rental fee and automatic savings agreed between the tenant and the public service housing agency. The government also approved a housing and energy bonus scheme effective from June 2019¹⁴⁴.

Providing access to quality affordable housing continues to be a priority for the new Brussels government. Under **the Regional Housing Plan and the Habitat Alliance**, the government is undertaking the sustainable renovation of the existing housing stock in addition to the construction of 6,400 new housing units. This has resulted in an investment of EUR 54.6 million in relation to construction costs¹⁴⁵.

Belgium's social housing situation has deteriorated over recent years, resulting in long waiting lists. For example, as of September 2020, 49,135 households representing 128,270 people were registered on the Brussels Region's waiting list for social housing 146.

The government made specific provisions for investments in social housing. The budget for the **fight against homelessness** was increased by EUR 15.0 million in 2020. Additionally, a **Housing Emergency Plan** for social housing is also being formulated to provide an affordable solution to 15,000 households waiting for social housing. In relation to the private rental market currently

managing about 6,300 housing units, the government is promoting the development of the social real estate agency sector. A new policy encouraging private landlords to charge reasonable rents from tenants is also being considered¹⁴⁷.

The Flemish government plans to continue investing in social housing and undertake additional initiatives to make social housing climate neutral¹⁴⁸.

As for rental support, the Flemish government grants **rent subsidies** to low-income families moving from a low quality, non-adapted house to a better adapted house rented from the private rental market or from a social letting agency. The rent contribution consists of a monthly rent subsidy, equalling one third of the rent, as well as a one-off move-in premium of three times the amount of the rent subsidy.

The 2019-2024 Housing Plan, prepared by the Property Management Agency and the CPAS of the City of Brussels (*Centre Public d'Action Sociale de la Ville de Bruxelles*), Public Welfare Centre, is focused on developing the rental supply on the territory of the City in order to meet the growing housing demand¹⁵⁰.

The plan consists of 14 projects, spread throughout the city. 469 new housing units will be added, in addition to the CPAS housing, to reach the goal.

In June 2018, the Brussels Capital region launched an emergency aid and social housing ordinance, with a view to addressing the issues of homelessness and inadequate housing. Another ordinance passed in December 2018, introduced a housing allowance in the Brussels- Capital region for all potential tenants of social housing. Similarly, in June 2018, the Walloon region adopted a decree on the rental conditions of social housing¹⁵¹.

In February 2021, institutional asset managers Bouwinvest Real Estate Investors and CBRE Global Investment Partners (GIP) teamed up with ION, a Belgian real estate developer, to invest EUR 280.0 million in affordable housing¹⁵².

As per the agreement, the amount would be invested in building 1,000 affordable new houses and apartments exclusively for the rental market. This would allow Belgians to rent a home instead of owning one¹⁵³.

Building regulations

In addition to the **Civil Code** and the **Breyne Law**, the **Law of 15 June 2006** constitutes important legislation with regards to the execution of construction works in the public sector. This law defines public procurement contracts and other contracts for the delivery of work, supplies and services¹⁵⁴.

In the context of infrastructure and utilities, these are mainly regulated by the public planning law of the Flemish, Walloon and Brussels-Capital Regions, namely the Flemish Public Planning Code of 15 May 2009 and the Environmental Permit Decree of 25 April 2014 (for the Flemish Region), the Public Planning and Patrimonium Code of 27 November 1997 (for the Walloon Region) and the Brussels Code regarding Public Planning of 9 April 2004 (for the Brussels-Capital Region)¹⁵⁵. In addition to the regional regulations, national laws and building ordinances, there are several widespread but non-compulsory standards used in construction contracts. These include the NBN standards, issued by the Belgian Normalisation Institute (NBN), and Technical the Prescriptions (Prescriptions Techniques - PTVs), normative documents drafted by a qualified technical institute, which confer the BENOR label to construction products processes¹⁵⁶.

In 2018, the Brussels Capital Region approved a reform of the Brussels Code of Spatial Planning (BWRO). It includes changes in the procedural deadlines, permits and grants for construction projects in the region¹⁵⁷. The key aspects of **BWRO**, include, among others, the formalisation of a decision period of 75, 90 or 160 days for projects.

The reform also puts a cap of three years after which the building permit expires if it is not executed. Apart from these, the reform also limits the scope of land subdivision permits. It is only required when the site's division requires the construction of a road connecting to an undeveloped parcel of land, specifically intended for residential development. The new rules are expected to protect unaware purchasers of a previously built property, which is in violation of urban planning rules¹⁵⁸.

In the Wallonia region, the **CoDT** legislation, which aimed to simplify some constraining rules and expand planning permission exemptions, came into

effect in June 2017. The CoDT legislation (territorial development code - code du development territorial) replaces the CWATUP. Some new constructions no longer require permits, including a garage or carport of 40 m² in direct relationship with the service road, the extension of 40 m² of a house to create an additional space, the placement of a shelter, a garden of 20 m² in a courtyard or/and in an agricultural zone¹⁵⁹.

Insurance and liability related regulations

In Belgium, there are two insurance categories, namely insurance related to constructing activities (i.e. civil liability insurance of contractors; professional insurance of architects, experts, engineers) and insurance related to the protection of certain goods (i.e. all risks insurance for the construction site and insurance against decennial liability of contractors and architects following the final acceptance of the works)¹⁶⁰.

Although there is no legal obligation in Belgium to carry any of these types of insurance, architects, health and safety coordinators and expert land surveyors must take out professional liability insurance (as stipulated under the royal ordinance of 25 April 2007, royal ordinance of 27 January 2005 and royal ordinance of 15 December 2005, respectively¹⁶¹). Moreover, the General Conditions for Public Procurement Contracts set the obligation for contractors to be covered against industrial accidents and against civil liability in the case of accidents caused by the works to any third party¹⁶². The Belgian government also adopted a new law in

2018 requiring all professionals working in the construction sector (including architects, service providers, etc.) to subscribe a **decennial professional liability insurance** or **decennial guarantee**. This new liability insurance, already implemented in France, aims to guarantee the repair of damages occurred after the official end of the construction works (i.e. buildings for residential purposes¹⁶³). Since 2019 contractors in Belgium can take out an environmental liability insurance that also covers damage caused by asbestos¹⁶⁴.

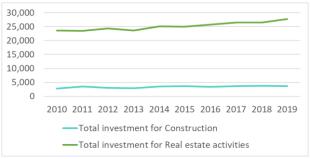
The **Civil Code** is the primary legislation governing the liability of parties involved in construction activity, although the construction contract can also shape liability. Moreover, the Breyne Law of 9 July 1971 regulates the sales of completed dwellings or of dwellings in the construction phase, modifying the Civil Code rules in order to ensure greater consumer protection. Thus, the property developer is bound by a duty of performance to deliver the dwelling free of defects. The duration of contractual liability, according to the Civil Code, is 10 years following the date of final acceptance of the works. This applies in the case of serious defects that compromise the stability of the building or a major part of the building, and cannot be modified by the contract. Conversely, liability for ordinary defects is up to 10 years but can be contractually determined by the parties. As for extra-contractual liability, which includes liability towards third parties and clients, legal action must be started within a maximum of five years after identification of the fault165.

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total investment by the broad construction sector¹⁶⁶ has shown an increasing trend since 2010. Investment by the narrow construction sub-sector increased by 32.5%, from EUR 2.8 billion in 2010 to EUR 3.6 billion in 2019¹⁶⁷. This was mostly driven by a 83.9% incline in investments in intellectual property, going from EUR 128.9 million to EUR 237.0 million, partially offsetting a 29.5% drop in investments in machinery amounting to EUR 775.5 million in 2019¹⁶⁸. Likewise, investment by the real estate activities sub-sector increased by 17.0%, from EUR 23.7 billion in 2010 to EUR 27.7 billion in 2019¹⁶⁹. This was primarily influenced by a 26.9% and 210.5% increase in investments in machinery and investment in intellectual property over the same reference period, amounting to EUR 116.2 million and EUR 62.1 million, respectively.

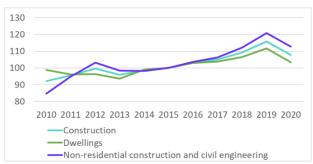
Figure 9: Investment in the Belgian broad construction sector between 2010 and 2019 (EUR m)



Source: Eurostat. 2021.

The total investment index in the broad construction sub-sector¹⁷⁰ increased by 7.8% over the 2015-2020 period. Investment in dwellings by the whole economy followed a similar trend, rising by 3.4% in comparison to the 2015 value. Likewise, investment in non-residential construction and civil engineering also increased by 12.8% over 2015-2020 (Figure 11).

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



Source: AMECO, 2021.

In absolute terms, **investment in the broad construction** sector totalled EUR 57.0 billion in 2019¹⁷¹, marking an increase of 45.0% over the 2010 level (EUR 39.3 billion). This was mainly driven by EUR 29.5 billion and EUR 27.5 billion of investment in dwellings and non-residential and civil engineering¹⁷² respectively in 2019, exhibiting increases of 32.5% and 61.2% respectively in comparison to 2010.

Investment in the broad construction sector between 2015 and 2019

45.0%

Total inland infrastructure investments¹⁷³ as a share of GDP has been stable since 2010, fluctuating around 0.5% of GDP over the 2010-2017¹⁷⁴ period, and reaching 0.4% of GDP in 2017. Railway and road infrastructures received the largest investments, amounting EUR 0.9 billion and EUR 0.7 billion in 2017¹⁷⁵, respectively. While investments in road infrastructure increased substantially by 88.5% over the 2010-2017 period, investments in railway declined by 36.1% over the same reference period. Investments in air transportation infrastructure increased significantly by 287.6%, amounting to EUR 116.3 million in 2017¹⁷⁶. In contrast, investments in sea transportation infrastructure declined by 47.7%, totalling EUR 120.4 million in 2017¹⁷⁷.

Over the 2010-2017¹⁷⁸ period, **investments in railway and road infrastructures maintenance** increased by 7.5% and 115.7%, amounting to EUR 317.0 million and EUR 396.8 million, respectively. Similarly, investment in inland waterways infrastructure maintenance increased by 34.6%, from EUR 65.0 million in 2010 to EUR 87.5 million in 2017¹⁷⁹.

There are regional differences in the investment needs and the resultant plans across Belgium. For example, while Flanders prioritises infrastructure investments in mobility, school buildings and welfare, the Walloon region adopted more of a multi-sector investment plan¹⁸⁰.

Mobility is a major challenge across Belgium and a key policy priority across federal and regional governments. Belgium already has a dense transport network, especially its road and rail network, further complemented by strong port infrastructure. It is also well integrated in European transport networks. In order to maintain and upgrade its network infrastructures, the Belgian government has announced various strategy initiatives.

The federal rail investment strategy has been explained in SNCB (*Société nationale des chemins de fer belges*) /Infrabel's Multiannual Investment Plan 2018 2020, as well as in the Multiannual Strategic Investment Plan 2018 2031, amounting EUR 4.2 billion and EUR 1.2 billion, respectively¹⁸¹. Through these projects, the government plans to promote and support a gradual shift in modes of transit from roads to railways, thereby reducing greenhouse gas emissions as well as curtailing congestion in and

around Belgium's main urban areas. This consisted of the construction of the regional express network (RER) around Brussels (expected completion in 2031), the construction of the second rail access to the port of Antwerp (expected completion in 2023), along with the construction of additional tracks between Ghent and Bruges (expected completion in 2024) and Bruges and Zeebrugge (expected completion in 2031). Additionally, this included the modernisation of the Brussels-Luxembourg track (scheduled completed in 2027)¹⁸².

In the case of sustainable mobility, the Brussels Capital Region government has extended the Multiannual Investment Plan for Public Transport until 2028. The plan includes the investment of more than EUR 6.0 billion in the three transportation modes: metro, tram and bus¹⁸³.

Furthermore, the Brussels government continues to develop its **Regional Mobility Plan (RMP) 2020-2030: Good Move** which includes 50 concrete action plans to achieve the mobility goals¹⁸⁴.

The Walloon Region will also adjust its 2019-2024 Mobility and Infrastructures plan with a view to achieve an investment of EUR 2.0 billion by 2025. In fact, from 2021 onwards, EUR 80.0 million will be earmarked each year exclusively for the implementation of additional projects targeting soft and collective mobility. This also involves the implementation of the concept of "cycle motorways" in prime urban areas (Liège, Charleroi, Namur and Mons-Borinage). Another example is the new PEREX centre (*permanence d'exploitation*), inaugurated in April 2019 and involving an investment of EUR 30.0 million. This centre further strengthens the management of Walloon road and waterway infrastructures¹⁸⁵.

Flanders has also adopted an integrated investment programme called "Geïntegreerd Investeringsprogramma" (GIP), involving a total investment of EUR 1.9 billion in mobility and public works (i.e. public transport, airports, waterways, roads and cycling infrastructure)¹⁸⁶.

Flanders is also participating in the road infrastructure development initiatives for Antwerp, Ghent and Brussels. The region is heavily dependent on river public transportation with the government planning to fund ferry services carrying passengers to and from Antwerp city. The Flemish government

further plans to continue investing in the waterways, particularly in raising the bridges over the Albert Canal, the renewal of the Zeebrugge and Terneuzen locks, the Sigma Plan and the Seine-Escaut project¹⁸⁷.

The Brussels-Capital Region also defined its long-term investment plan 2016-2025 for the regional public transport operator STIB (*Société des Transports Intercommunaux de Bruxelles*), entailing a total investment of EUR 5.2 billion. The objective is to streamline the region's public transport network, extend it and increase its density. The plan aims at investing EUR 900.0 million in trams, buses and depots, as well as car park areas. It also entails an investment of EUR 1.4 billion in a metro expansion project. The project will connect the city centre to north of the region, where demand for public transport is expected to go up to 6,000 travellers per hour¹⁸⁸.

In October 2021, as part of the budget agreement, the government decided to allocate additional EUR 250.0 million to Belgian railways over the next three years¹⁸⁹.

Most of this amount will be invested in infrastructure to further develop rail freight transport. The Brussels-Luxembourg line has also received attention and the government is investing in night trains. The amount allocated from the budget will be added to the EUR 365.0 million provided in the context of the Recovery and Resilience Plan, making a total of EUR 615.0 million¹⁹⁰. In fact, the RRP dedicates 56% of its budget for infrastructure projects such as the renovation of buildings, including schools, the construction of new generation CO2 capture and transport hydrogen energy networks, renovation and construction of transport infrastructure¹⁹¹.

In terms of EU Funds dedicated to infrastructure investment, EUR 638.0 million under the **Connecting Europe Facility** (CEF) are allocated to specific projects on strategic transport networks. Additionally, the European Investment Bank (EIB) has dedicated significant funds for infrastructure modernisation in Belgium. For example, in April 2019, the EUR 200.0 million SOFICO - Walloon Waterways & Roads Modernisation project was undertaken as part of the SOFICO 2018-2022 Investment Programme. The project entails the renewal and enlargement of the Ampsin-Neuville

inland waterway complex. Additionally, it included the improvement and resurfacing of roads in the Trans-European Transport Network (TEN-T) North Sea-Mediterranean Corridor of Wallonia¹⁹².

In October 2021, the European Investment Bank (EIB) and the Belgium Government signed the third tranche worth EUR 250.0 million of a lending facility in support of the Oosterweel project, the missing link in the ring road around the city of Antwerp. This brings the total EIB-financing made available for the project to EUR 500.0 million¹⁹³.

The Oosterweel link (part of the TEN motorway Amsterdam-Paris) is expected to close the northern part of the ring road around Antwerp. It is one of the major projects of the Master Plan prepared by the Belgian Government aimed to reduce traffic congestion in the Antwerp Region¹⁹⁴.

Belgium has also benefitted from investments from the **European Fund for Strategic Investments** (EFSI). As of December 2020, financing under EFSI amounted to EUR 2.0 billion and is set to trigger additional investments of around EUR 11.0 billion. Under the infrastructure and innovation window, 24 projects have been approved, amounting to EUR 1.6 billion and are set to trigger EUR 8.2 billion in total investments. Under the Small and Medium Sized Enterprises (SMEs) window, 20 agreements have been approved, involving a total financing of EUR 401.0 million, and are set to trigger investments of up to EUR 2.8 billion¹⁹⁵.

Renovation spending by Belgian households increased by 45.6%, going from EUR 488.6 million in 2010 to EUR 711.5 million in 2019¹⁹⁶. The share of renovation spending out of the total household's disposable income stood at 0.3% in 2019¹⁹⁷, well below the EU-27 average of 0.9%.

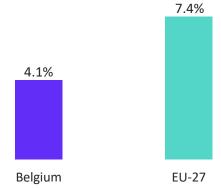
TO 2 – Skills

Although the share of students enrolled in Belgian **vocational education and training (VET)** remains well above the EU average, it is still steadily decreasing over time. In 2018¹⁹⁸, the share of upper secondary students in VET was 56.8%, notably above the EU-28¹⁹⁹ average of 65.2%. Similarly, the **employment rate of recent VET graduates** stood at 77.1%, slightly lower than the EU-28²⁰⁰ average of 79.1%²⁰¹.

The Belgian regional governments are taking actions to counteract this development. For instance, from September 2019, the Flemish Community (BEfl) implemented reforms at all levels of education. This included dual learning, which was rolled out as optional in mainstream secondary education. Recently, the Walloon government announced a follow-up document to the Marshall 4.0 plan for socioeconomic development which contains an important part on skills development, but its preparation has been delayed by the COVID crisis. The VET reform in BEfr has been postponed to 2021²⁰².

The Commission of Construction Parity (Commission Paritaire de la Construction) launched the Construction Professional Training Fund (Fonds de Formation professionnelle de la Construction-FFC), active in the Brussels Region. The fund is dedicated to improving and promoting the training of future as well as existing construction professionals²⁰³.

Belgium's participation in adult learning is lower than the EU-28²⁰⁴ average (8.2% in 2019²⁰⁵ versus 10.8% in the EU-28). The main hindrances to adult are work, childcare, and family responsibilities - cost was least cited as a barrier of countries²⁰⁶. OECD Moreover, participation in education and training in the narrow construction sub-sector stood at 4.1% in 2020 compared to the EU-27 average of 7.4%. Similarly, adult participation in education and training in the real estate activities sub-sector stood at 8.6% for 2019²⁰⁷ compared to the EU-27 average of 16.4%.



Participation in education and training in the narrow construction sub-sector in 2020

In order to improve adult participation in learning, BEfr has planned for a new lifelong learning

platform and individual learning accounts, seeking to reduce the fragmentation of adult education policies. The Walloon government intends to strengthen workers' training through a new scheme inspired by the Flemish 'career training vouchers'. It will provide support and guidance to workers wishing to improve their skills or change direction to a job facing labour shortages, with a focus on older workers and those losing their jobs. In addition, a decree on increased cooperation with regard to the recognition of skills was established in 2019 between the different French speaking political authorities²⁰⁸.

In addition to attracting young people, specific action has been taken to target women and attract them to the construction sector. The portal **Femmes de metier** is dedicated to the recruitment of women, who are interested in a career in the construction sector²⁰⁹. The portal offers information on specific training and includes testimonials of women working in construction.

The social media campaign **#werfze** was launched in 2020 to promote the construction sector among young people to demonstrate that the construction sector is an innovative and forward-looking sector.

Certain institutions like IFAPME (*l'Institut wallon de Formation en Alternance et des indépendants et Petites et Moyennes Entreprises*) in Belgium, in addition to others in countries like Germany, France, Italy and Portugal, have tied up with Spain's Labour Foundation for Construction and Madrid Employment Agency to work on an initiative called "Women Can Build", promoting equality for women in vocational training and jobs in construction sector²¹⁰.

TO 3 – Resource efficiency / Sustainable construction

The Belgian government is focused on making building renovation and energy efficiency a regional priority objective, with the intention to achieve carbon neutrality for its entire building stock by 2050. As such, the Belgian government has targets to insulate and renovate 250,000 housing units along with 2,500 public buildings and schools through a third-party investor mechanism and soft loans²¹¹.

The Belgian government also intends to form an **Employment-Environment-Renovation** alliance to

stimulate demand for renovating the existing building stock and develop the necessary skills required in the sectors of renovation, sustainable construction, eco-construction and natural insulation²¹².

Additionally, the amended Housing and Energy **Bonuses scheme** (Primes Habitation) implemented in June 2019. The amendment simplified procedures to make bonuses more accessible. Further, under the Walloon Investment Plan, the government released an additional EUR 12.5 million in May 2019, to improve the energy performance of public housing²¹³.Belgium has adopted specific policies aimed at the renovation of buildings. In fact, Brussels adopted its long-term renovation strategy in April 2019²¹⁴. It plans to raise the energy performance of its buildings by 2050 through reduction of the environmental impact of existing buildings. The aim is to achieve an average primary energy of 100kWh/m²/year for the residential sector while shifting towards energy-neutral buildings in the case of tertiary sectors²¹⁵.

Energy efficiency and building renovation policy in the Walloon region is defined under the fourth axis of the Walloon government's strategic economic restructuring plan, the Marshall Plan 4.0. Out of the total budget of EUR 2.9 billion, Axis 4 on the support of efficiency, energy transition and the circular economy has a budget of EUR 1.1 billion²¹⁶. The Walloon government has already adopted the Decree on the Energy Efficiency of Buildings (PEB), introducing an amendment to the calculation method for the energy performance of nonresidential buildings and enforcing new energy efficiency standards for new constructions and system requirements for renovation²¹⁷. The **Flemish** Housing Rental Decree (Woninghuurdecreet) came into force in January 2019, encompassing a specific provision on energy-saving investments for rented houses and dwellings. Additionally, there are provisions for penalty points for roof insulation standards and achievement of double-glazing standards. Specifically, from January 2023 onwards, the absence of double glazing will make dwellings considered unfit for use²¹⁸.

The Walloon government introduced several loan schemes to support renovation and energy saving in dwellings. In 2017, it adopted a new strategy, the Walloon Strategy for the 2050 Energy Renovation

of Buildings ("Stratégie wallonne pour la rénovation énergétique 2050 des bâtiments"), which targets the renovation of more than one million dwellings in Wallonia by 2050²¹⁹.

As for the Brussels Capital Region, the Energy Premium scheme is also in place, focusing on three categories of priority measures for energy efficiency in buildings, namely audits, insulation and heat (heating and solar water heating)²²⁰. The region also offers homeowners the Housing Renovation **Premium** (*Prime à la rénovation de l'habitat*), which covers 30.0-70.0% of the costs of the renovation works, up to a maximum of EUR 35,000, depending on the income of the beneficiary and the location of the dwelling. Eligible interventions include those related to improving the stability of the building; roofing, installation of electricity and heating systems, sewage connection, acoustic and thermal insulation, adaptations of living space, and accessibility works for people with handicaps²²¹.

For the Flemish Region a large scale of **housing and energy bonuses** are adopted and will be increased in 2021. Anyone who invests in energy saving as a private individual is rewarded with some financial support. However, it must be noted that this support is still limited compared to the overall cost of the renovation works and it has been scaled down over time. Support is provided from different levels: the federal government, the Flemish government, the provincial government. In addition, most benefits can be accumulated. In this way the investment costs are limited²²².

The Belgian government, under the Recovery and Resilience Plan (RRP), has allocated EUR 967.0 million for the renovation of private and public buildings. The country's main objective is to renovate the existing building stock and make it more energy and resource efficient²²³.

Out of the EUR 967.0 million, Belgium has allocated EUR 332.0 million for improving the renovation subsidy schemes in the Flemish and Brussels-Capital regions, and approximately EUR 120.0 million is earmarked for social housing renovation in the Walloon region²²⁴.

Financing under the RRP is projected to allow around 4,050 social housing units to benefit from support for energy renovation. In addition, in 2021, the Flemish region will increase by EUR 250.0 million the authorisation for a subsidised loan to the Flemish social housing company (*Vlaamse Maatschappij voor Sociaal Wonen*) to allow it to step up renovations²²⁵.

Similarly, the Renovation of Social Housing measure of the Brussels-Capital Region will finance the renovation of 1,711 social housing units in Brussels. This will lead the reduction of 53.0% of the energy consumed and an estimated reduction of 4,452 tonnes of CO2 emissions per year²²⁶.

Through the renovation of its public buildings measure as a part of the RRP, Belgium is expected to renovate a total estimated surface of 2,02,359 m² of local authority public buildings as well as 84,122m² of sport infrastructure by 30 June 2026. This will help in achieving on average at least a 30.0% reduction in primary energy demand²²⁷.

TO 4 – Single Market

According to the 2020 EU Single Market Scoreboard, Belgium performed in line with the EU-28²²⁸ average. Notably, the country performed better in metrices such as Transposition of Law, EU Pilot, e-Curtis and Your Europe²²⁹.

In relation to 2020 EU Single Market Scoreboard metrices, Belgium performed below average in terms of SOLVIT. Regarding the transposition deficit, the country's score stood at 0.8%, slightly above the EU-28 average of 0.6%. Its average delay reduced by 3.3 months, standing at 7.1 months, below the EU-28 average of 11.5 months.

In the context of infringements, the country's 'Compliance with court rulings' stood at 29 months for the eight Single Market-related cases (EU-28 average: 29.5 months). Also, its performance in the context of 'public procurement' was average²³⁰.

As per the Belgium Corruption Report²³¹, public procurement is the activity most affected by corruption. The process of awarding public contracts and licenses may be affected by bribery and irregular payments. However, land administration is characterised by low corruption

risk because of a well-functioning court system, which generally safeguards property rights²³².

With regard to the international equivalence of **voluntary certification schemes**, the German SCC (Safety Certificate Contractors) scheme is mutually recognised by the Dutch-Belgian VCA (*Veiligheid Gezondheid en Milieu Checklist Aannemers*) - a certification for occupational safety. The requirements of the **SCC/VCA** are coordinated between four countries, namely Germany, Austria, Belgium and the Netherlands²³³.

Finally, regarding the implementation of **Eurocodes**, all Eurocode Parts are published as National Standards and are available in both French and Flemish. Belgium published National Annexes to all Eurocode Parts, and no other National Standards are used in parallel. Although their use is voluntary, six Eurocode Parts are compulsory for fire-resistant design. Although no special provisions exist for their enforcement in public procurement, Eurocodes are included as a referenced standard for public procurement contracts, particularly for larger infrastructure works²³⁴.

TO 5 – International competitiveness

As per World Bank Doing Business 2020 report, Belgium was ranked 1st out of 190 economies in the ease of trading across border, achieving score of 100²³⁵.

As per the report, in Belgium it takes only one hour to be documentary compliant and almost zero hours to be border compliant. In terms of costs, businesses do not need to spend any amount to be border and documentary compliant²³⁶.

With regard to the **internationalisation of construction SMEs**, the export value of all construction-related projects in Belgium stood at EUR 3.6 billion in 2020, representing an increase of 4.5% compared to its 2010 level of EUR 3.4 billion. Belgium's share of exports of all construction-related products in 2020 stood at 57.6% of the total production value. In 2019, the country's share stood at 61.1%, considerably above the EU-27 average of 11.3%.

In the context of **inward FATS** (foreign affiliates statistics)²³⁷, value added at factor cost in the narrow construction sub-sector decreased by 3.2%

between 2010 and 2018²³⁸. However, it increased by 13.8% and 17.0% in the manufacturing and real estate activities sub-sectors respectively during the same reference period. Similarly, turnover in the narrow construction sub-sector declined by 17.4%, while it grew by 7.0% and 1.6% in the manufacturing and real estate activities sub-sectors respectively over the 2010-2018 period. Turnover in the narrow construction sub-sector²³⁹, in terms of **outward FATS**²⁴⁰, increased substantially by 1,361.2% between 2011²⁴¹ and 2018²⁴².

Various agencies and government bodies provide support to SMEs for export and internationalisation activities. These include the Belgian export credit agency *Ducroire*, which is now a part of a broader credit insurance group called *Credendo*²⁴³. It insures companies and banks against political and commercial risks associated with international commercial transactions, namely involving capital goods and industrial projects, as well as contracted

works and services. For the realisation of construction projects in third countries, *Credendo* covers the construction entrepreneur against the risks associated with the contract as well as risks of non-payment from the employer²⁴⁴. *Credendo* provides both direct financing as well as financial guarantees²⁴⁵.

Similarly, **Brussels Invest & Export**, the foreign trade and investment agency of the Brussels-Capital Region, also promotes the internationalisation of the Brussels economy. While supporting Brussels' companies operating in foreign markets, it also seeks to attract foreign companies to Brussels and to provide them with support when establishing their business in the region. It also offers advice, market intelligence, training programmes as well as business missions in cooperation with the Belgian Foreign Trade Agency, with the construction sector being a key target²⁴⁶

Outlook

Over the 2020-2021 period, Belgian GDP is expected to increase by 9.6%, primarily driven by investments in public infrastructure, healthcare, digitalisation and the green economy, backed by EU funding.

Belgian **GDP** is forecast to increase by 4.5% in 2021 and 3.7% in 2022, totalling EUR 451.3 billion in 2022. The **volume index of production** in the broad construction sector is expected to increase by 9.4% over the 2020-2022 period, primarily driven by a 9.6% and 9.2% increase in the production of the construction of buildings and civil engineering sub-sectors, respectively.

Volume index of production in the broad construction sector between 2020 and 2021

1 9.6%

The total value added of the broad construction sector is forecast to increase by 5.4% in 2021. Additionally, turnover of the broad construction sector is expected to increase by 4.7% in 2021.

The **number of persons employed** in the broad construction sector is also forecast to increase by 5.1% in 2021, amounting to 526,915 persons. This growth is primarily driven by increments in the real estate activities (+11.7%) sub-sector, followed by the architectural and engineering activities (+7.6%) sub-sector.

Persons employed in the broad construction sector between 2020 and 2021



The Belgian government is already implementing several measures to address the shortage of social

housing stock in the country. The 2019-2024 Housing Plan, prepared by the Property Management Agency and the CPAS of the City of Brussels (Centre Public d'Action Sociale de la Ville de Bruxelles), Public Welfare Centre, is focused on developing the rental offer on the territory of the city to meet the growing housing demand. It includes 14 projects, spread throughout the city. As per the plan, 469 new housing units will be added to reach the goal.

With regard to non-residential construction and infrastructure investments, the country has numerous roads and railways development projects in the pipeline including the regional express network (RER) around Brussels, the second rail access to the port of Antwerp, modernisation of Brussels-Luxembourg track, etc. In October 2021, as part of the budget agreement, Belgian railways will be allocated an additional EUR 250.0 million over the next three years. Most of the amount will be invested in infrastructure, to further develop rail freight transport. The Brussels-Luxembourg line has also received attention and the government is investing in night trains. These amounts will be added to the EUR 365.0 million provided in the context of the Recovery and Resilience Plan (RRP), making a total of EUR 615.0 million.

The Belgian construction sector is expected to recover from 2021 onwards, driven by large-scale digitalisation, infrastructural and circular economy projects backed by EU funding. Output in civil engineering will be the leading investment driver for the economy.

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5	Ibidem.
6	Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
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	Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
9	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.
10	Data unavailable for the manufacturing and architectural and engineering activities in 2019.
11	Data for subsequent years unavailable
12	Apparent labour productivity refers to the gross value added per person employed
13	No data available for 2010 for the productivity in the broad construction sector.
14	No data available for subsequent years for the productivity in the broad construction sector.
15	Ibidem.
16	Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
17	Data for subsequent years unavailable
18	The gross operating rate is the ratio of gross operating surplus to turnover, and is an indicator of profitability
19	Ibidem.
20	Data for subsequent years unavailable.
21	Ibidem.
22	Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
23	Ibidem.
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The ground, on which the warehouse is built is owned by the company that will use it and valued at 50 times income per capita. There are architectural and technical plans prepared for the warehouse, which are also taken into account and counted as procedures if their preparation requires obtaining further documentation or getting prior approvals from eternal agencies. 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The unit is obtained by comparing an employee's average number of hours worked to the average number of hours of a full-time worker. 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