



# European Construction Sector Observatory

Country profile **France**

January 2022



## In a nutshell

In 2020, France's GDP reached EUR 2.2 trillion, exhibiting a 4.0% growth as compared to the 2010 level (EUR 2.1 trillion). However, this represented a decline of 7.9% as compared to 2019

In line with the overall economy, the **number of enterprises** in the broad construction sector increased by 4.4%, from 698,034 in 2010 to 728,420 in 2020. This growth was largely driven by the real estate activities (+47.3%), followed by the architectural and engineering activities (+7.2%) sub-sectors. However, this also represented a decline of 11.4% as compared to its 2019 level.

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

 **47.3%**

In contrast, the **volume index of production** in the broad construction sector decreased by 12.5% between 2015 and 2020. This was primarily due to a 14.4% and 5.1% decrease in the volume index of production in construction of buildings and civil engineering over the same period. Conversely, this represented a greater decline of 15.0% as compared to its 2019 level.

Production in the broad  
construction sector  
between 2015 and 2020

 **12.5%**

In parallel, the **turnover** of the broad construction sector in 2020 stood at EUR 442.0 billion, representing a 5.3% rise as compared to 2010 (EUR 419.9 billion). However, this was also 11.9% lower as compared to its 2019 level. This overall increase was mainly driven by growth in the real estate activities (+14.0%) and the narrow

construction (+5.6%) sub-sectors over the 2010-2020 period.

Turnover in the broad  
construction sector  
between 2010 and 2020

 **5.3%**

The **gross operating rate** in the broad construction sector<sup>1</sup>, an indication of the sector's profitability, stood at 10.5% in 2018<sup>2</sup>, being 0.9 percentage points (pp) below the 2010 level. This indicates that despite higher turnover, the profit margins are limited. According to the FFB (*Fédération Française du Bâtiment*), this relates to the increase in construction costs, the increasing competitiveness on price and the productivity loss.

In terms of employment, there were 2,296,762 **persons employed** in the broad construction sector in 2020, marking a 11.5% and 12.9% decline as compared to its 2010 and 2019 levels, respectively. This was mainly due to declines experienced in the manufacturing (-21.9%) and the narrow construction (-15.3%) sub-sectors over the 2010-2020 period.

The French government has already announced several measures to promote the **housing market**. It is supporting access to housing under its Housing First Plan (*Le Logement d'abord*) (2018-2022). The French government abolished the housing tax on the main residence. It also reformed the financing structure of local authorities. Under the 2020 budget, the housing tax has been entirely removed for 80.0% of French households. With regards to the remaining 20.0%, the country's wealthiest households, there will be a gradual decrease in this tax rate from 2021, followed by complete cessation of housing tax by 2023. In its 2021-2026 **National Resilience and Recovery Plan** (NRRP), the French

government has proposed the adoption of '**Climate and Resilience Law**' to underpin its green transition. Additionally, the plan also suggested revision of thermal regulation of new buildings ('**RE2020**'). Likewise, the French NRRP advocated for the implementation of the '**2019 Mobility Law**', a broad legislative initiative to update the general framework of mobility policies and to be implemented over the NRRP timeframe. Other similar legislative reforms proposed include the '**ASAP Law**' (acceleration and simplification of public action) and the '**4D Law**' (differentiate, deconcentrate, decentralise, reduce complexity – "*decompléxifier*"). All these legislations have a direct or indirect impact on the French constructions sector. The French NRRP has also allocated EUR 5.8 billion for the renovation programme of its building stock in order to increase their energy efficiency.

With regards to the **civil engineering sector**, in accordance with the *Grand Plan d'Investissement (Great Investment Plan)* investment plan for the 2018-2023 period, the French government has allocated EUR 57.0 billion for the overall economic development. This includes EUR 9.0 billion for the thermal renovation of buildings, EUR 4.1 billion for infrastructure, renovation and sustainable transportation, as well as EUR 7.0 billion for the development of renewable energies. Additionally, the country is planning to invest EUR 13.7 billion by 2023 to improve its transport and mobility infrastructure.

**Under its 2021-2026 RRP, France has allocated EUR 4.4 billion for modernisation of its railway network. This includes a EUR 4.1 billion plan to recapitalise 'SNCF Réseau', the railway infrastructure manager in France.**

High speed railway projects also constitute an integral part of French rail infrastructure sector. Projects likely to be approved soon include modernisation of the USD 6.0 billion (EUR 5.3 billion) *Montpellier - Perpignan* line and the USD 22.0 billion (EUR 19.4 billion) *Marseille - Nice* line, along with the EUR 26.0 billion greenfield *Turin-Lyon* project. Other projects likely to be sanctioned soon involve *Toulouse -Bordeaux* line and the *Normandy-Paris* line

Nonetheless, the French construction sector continues to face two major issues. The foremost is the **shortage of labour**, which has hampered the sector's recruitment. Secondly, the prevalence of **late payments** in the construction sector has an impact on the liquidity of companies. According to the 2021 Atradius Payment Practices Barometer Report for France, about 42.0% of the total value of B2B invoices issued in the French construction sector were affected by late payments.

**Overall, the French construction sector has a positive outlook. The non-residential and civil engineering market are expected to be the primary growth drivers. Investments in public sector infrastructure, digitalisation as well as a circular economy, backed by EU funding and national resources, are expected to lead the future growth of the sector.**

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## 1

## Key figures

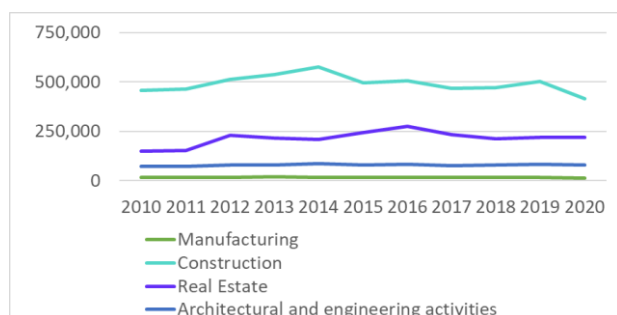
## Construction market

The **number of enterprises** in the broad construction sector in France totalled 728,420 in 2020<sup>3</sup> (Figure 1), representing a growth of 4.4% from 2010. This was primarily driven by a 47.3% increase in the real estate activities sub-sector over the 2010-2020 period. The architectural and engineering activities sub-sector also grew by 7.2% over the same period. Contrarily, the narrow construction and the manufacturing sub-sectors witnessed a decrease of 9.1% and 23.1%, respectively, in the number of enterprises over the 2010-2020 period. In 2020, the narrow construction sub-sector accounted for 57.0% (i.e. 415,026) of the total number of enterprises, followed by the real estate activities (30.3% i.e. 220,596 enterprises), architectural and engineering activities (10.9% i.e. 79,260 enterprises) and manufacturing (1.9% i.e. 13,538 enterprises) sub-sectors.

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

↓ 9.1%

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



Source: Eurostat, 2021.

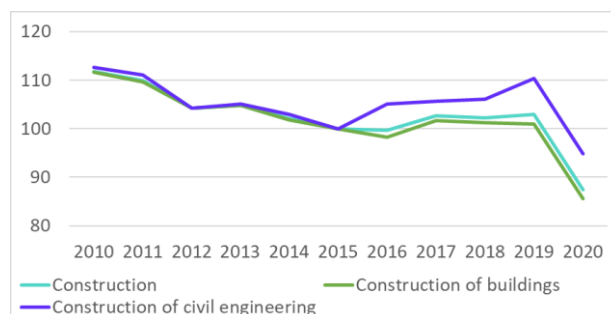
The **volume index of production** in the broad construction sector increased by 2.9% over the 2015-2019 period. However, it declined by 15.0% between 2019 and 2020, primarily due to a similar deterioration of 15.2% and 14.0% in the volume

index of production in the construction of buildings and civil engineering, respectively, in 2020 as compared to 2019. Overall, the volume index of production in the broad construction sector decreased by 12.5% over the 2015-2020 period, mostly due to a similar decline of 14.4% and 5.1% in the volume index of production in the construction of buildings and civil engineering, respectively, over the 2015-2020 period.

Volume index of production in civil engineering between 2015 and 2020

↓ 12.5%

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



Source: Eurostat, 2021.

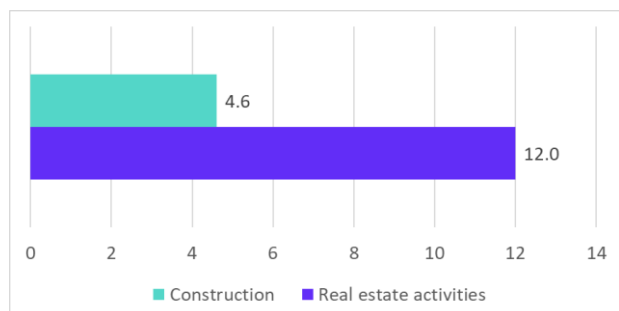
The total **value added at factor cost**<sup>4</sup> of the broad construction sector amounted to EUR 157.5 billion in 2020<sup>5</sup>. This represented a 3.1% rise as compared to the 2010 level (EUR 152.8 billion). The narrow construction sub-sector accounted for 54.7% (EUR 86.2 billion) of the total value added, followed by the real estate activities sub-sector which accounted for 24.8% (EUR 39.0 billion) of the total in 2020. The architectural and engineering activities and manufacturing sub-sectors contributed 14.0% (EUR 22.1 billion) and 6.5% (EUR 10.2 billion) in the total value added in 2020, respectively.

The **share of gross value added** of the broad construction sector in the GDP<sup>6</sup> reached 18.3% in 2018, higher than the EU-27 average of 16.5%. With



regards to sub-sectors, in 2020, the share of gross value added of the real estate activities and narrow construction<sup>7</sup> sub-sectors as a share of the country's GDP stood at 12.0% and 4.6%, respectively (Figure 3).

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



Source: Eurostat, 2021.

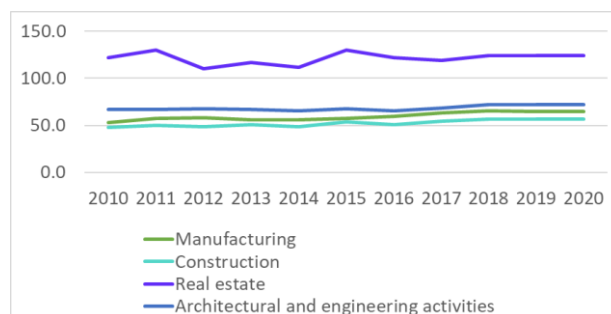
## Productivity

**Apparent labour productivity**<sup>8</sup> in the broad construction sector in France has experienced a positive trend since 2010, despite some fluctuations. In fact, over the 2010-2018 period<sup>9</sup>, it increased by 11.1% from EUR 58,887 to EUR 65,426. This is above the EU-27 average of EUR 51,960.

Labour productivity in the broad construction sector between 2010 and 2018 **↑ 11.1%**

Amongst the sub-sectors, the manufacturing sub-sector witnessed the highest increase of 22.9% from EUR 52,936 in 2010 to EUR 65,055 in 2020. It was followed by the narrow construction sub-sector, which increased by 18.9%, from EUR 47,700 in 2010 to EUR 56,720 in 2020. The architectural and engineering activities sub-sector witnessed an increase of 7.5%, from EUR 67,000 in 2010 to EUR 72,046 in 2020. Lastly, the real estate sub-sector experienced an increase of 2.1%, from EUR 121,700 in 2010 to EUR 124,212 in 2020, even though it exhibits the highest labour productivity among all the construction sub-sectors.

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



Source: Eurostat, 2021.

## Turnover and profitability

**Turnover** of the broad construction sector in 2018 stood at EUR 478.2 billion, representing a 13.9% increase as compared to 2010. In 2020, it decreased to EUR 441.9 billion, representing an overall increase of 5.3% over the 2010-2020 period. This growth was mainly driven by the narrow construction and the real estate activities sub-sectors which registered a turnover growth of 5.6% and 14.0% and amounted to EUR 271.6 billion and EUR 88.0 billion, respectively, over the same reference period. Conversely, turnover in the manufacturing and the architectural and engineering activities sub-sectors decreased by 2.3% and 4.8%, amounting to EUR 35.8 billion and EUR 46.6 billion, respectively, over the 2010-2020 period.

Turnover of the broad construction sector between 2010 and 2020 **↑ 5.3%**

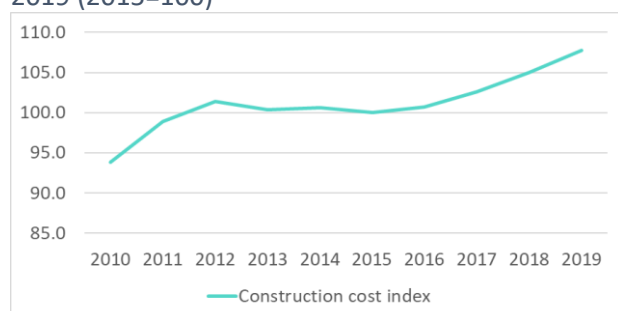
Similarly, the **gross operating surplus** of the broad construction sector amounted to EUR 48.9 billion in 2018, 2.1% higher than the 2010 level. This growth is explained by a significant increase in the narrow construction (+14.5%) and the architectural and engineering activities sub-sectors (+11.8%), over the same period. Conversely, the real estate activities and the manufacturing sub-sectors witnessed declines of 4.4% and 30.1%, respectively.

At the same time, the **gross operating rate** in the broad construction sector<sup>10</sup>, which gives an indication of the sector's profitability, stood at 10.5% in 2018, lower than its 2010 level of 11.4% and lower than the EU-27 average of 16.7%. The gross operating rate in the narrow construction, the manufacturing and the real estate activities

sub-sectors reached 6.3%, 6.6% and 28.2% in 2018, representing a decline by 0.2pp, 0.2pp and 4.3pp from 2010, respectively. Contrarily, in the architectural and engineering activities sub-sector, it stood at 8.4%, representing a growth of 1.3pp since 2010.

**Construction cost**<sup>11</sup> had a significant influence on the profitability of the sector. The construction costs in France have been consistently increasing since 2015. The construction cost index increased by 7.8% between 2015 and 2019.

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



Source: Eurostat, 2021.

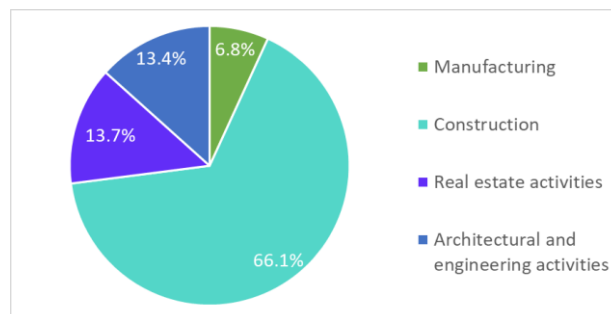
## Employment

In 2020, there were 2,296,762 **persons employed** in the broad construction sector, marking a 11.5% decline as compared to the 2010 level (2,594,613). In terms of sub-sectors, the narrow construction sub-sector employed 66.1% of the total workforce (i.e. 1,518,915 persons), followed by the real estate activities (13.7% i.e. 314,194 persons), the architectural and engineering activities (13.4% i.e. 306,666 persons) and the manufacturing (6.8% i.e. 156,988 persons) sub-sectors. Both, the architectural and engineering activities and the real estate activities sub-sectors reported an increase of 1.8% and 5.0%, respectively. In contrast, the narrow construction and the manufacturing sub-sectors registered a decrease of 15.3% and 21.9%, respectively, over the 2010-2020 period.

Number of persons employed in the broad construction sector between 2010 and 2020

↓ 11.5%

Figure 6: Percentage of persons employed per construction sub-sectors in France in 2020



Source: Eurostat, 2021.

As for **employment by specific occupation**, the manufacturing sub-sector experienced a sharp increase in demand for 'managers' and 'technicians and associate professionals' by 63.5% and 13.8%, respectively, over the 2010-2020 period. Conversely a sharp decrease in demand was witnessed for 'clerical support workers' and 'plant and machine operators and assemblers' by 51.2% and 39.5%, respectively, over the same period. The narrow construction sub-sector experienced a growth in demand for 'technicians and associate professionals' and 'managers' by 126.8% and 78.8%, respectively, over the 2010-2020 period. On the other hand, a decline in demand has been witnessed for 'plant and machine operators and assemblers' and 'service and sales workers' by 37.0% and 20.6%, respectively, over the same reference period. Lastly, the real estate activities sub-sector witnessed the highest rise in demand for 'service and sales workers' by 598.5%, followed by demand for 'professionals' by 122.0% over the same reference period. Contrarily, a significant decline in demand has been experienced for 'elementary occupations' and 'managers' by 80.6% and 72.0%, respectively, over the 2010-2020 period.

The number of **self-employed workers** in the narrow construction sub-sector experienced an increase of 1.2% between 2010 and 2020, accounting for 12.9% of the self-employed professionals in the general economy. Similarly, self-employment in the real estate activities sub-sector reported an increasing trend, growing by 89.2% between 2010 and 2020, and accounted for 2.6% of the self-employed professionals in the general economy.

Number of self-employed workers in the real estate activities sub-sector between 2010 and 2020

↑ 89.2%

Over the 2010-2020 period, **full-time employment** in the manufacturing and the narrow construction sub-sectors declined by 9.0% and 7.1%, respectively. Conversely, in the real estate activities sub-sector, it increased by 15.5%, over the same period. Moreover, **part-time employment** in the

narrow construction and the manufacturing sub-sectors increased by 25.8% and 5.0%, respectively, between 2010 and 2020. Conversely, the real estate activities sub-sector reported a 30.1% decline over the same reference period.



## 2

## Macroeconomic indicators

### Economic development

In 2020, GDP in France amounted to EUR 2.2 trillion, registering a growth of 4.0% as compared to the 2010 level (EUR 2.1 trillion). This also represented a decline of 7.9% as compared to 2019 (EUR 2.4 trillion).

In 2020, **potential GDP** amounted to EUR 2.3 billion, resulting in a negative **output gap** of 7.1%. With regards to **inflation rate**, it increased by 5.5% and 0.5% in 2020 as compared to the 2015 and 2019 levels, respectively.

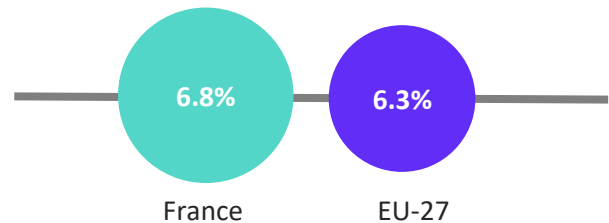
### Demography and employment

In 2020, the **total population** in France amounted to EUR 67.4 million people. It is projected to increase to 68.7 million people by 2030 (+2.0%) and 70.0 million people by 2050 (+3.9%). In parallel, the **net migration rate** increased by 38.3%, from 37,580 in 2010 to 51,960 in 2020. The total number of immigrants has, however, increased from 307,111 in 2010 to 385,591 in 2019<sup>12</sup> (+25.6%).

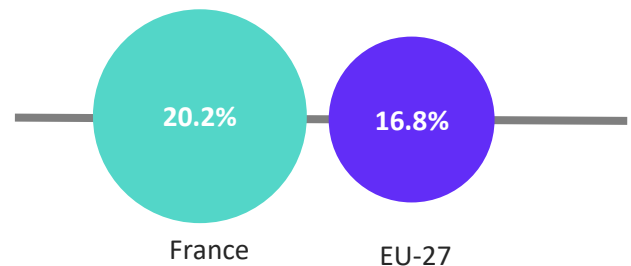
In 2020, the **working age population** accounted for 61.7% of the total population, and is expected to decrease in the coming years, reaching 59.8% in 2030 and 56.2% in 2050. Moreover, the share of the **ageing population** (65 years old and above) accounted for 20.5% of the total population in 2020. This is also expected to increase to 23.9% in 2030 and 27.7% in 2050. In turn, this may generate an increased demand for hospitals and elderly care infrastructure. This also puts further pressure on the labour supply for the construction sector (see Chapter 4 on skills shortage).

The **unemployment rate** (between 25-64 years) in France stood at 6.8% in 2020, lower as compared to the 2010 level of 7.3%. In contrast, this is higher than the EU-27 average of 6.3%. The **youth unemployment rate** (below 25 years of age) was at 20.2% in 2020, lower than the 2010 level of 22.5%, but higher than the EU-27 average of 16.8%.

Unemployment rate in 2020

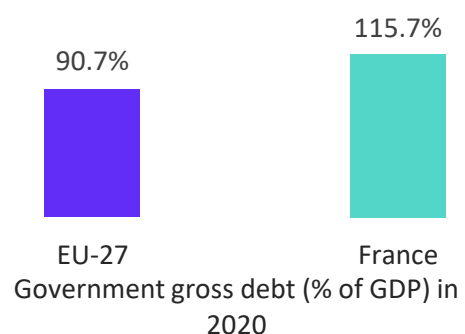


Youth unemployment rate in 2020



### Public finance

In 2020, **general government expenditure** (as a percentage of GDP) reached 62.1%, higher than the 2010 level (56.9%) as well as higher than the EU-27 average of 53.4%. Moreover, **general government deficit** (as a percentage of GDP) in 2019 reached -9.2%, higher than 2010 level (-6.9%) and the EU-27 average of -6.9%. Lastly, **general government gross debt** (as a percentage of GDP) reached 115.7% in 2020, its highest value over the 2010-2020 period. This is also higher than the EU-27 average (90.7%).



## Entrepreneurship and access to finance




As per the World Bank Doing Business 2020 report, France ranked 37<sup>th</sup> out of 190 countries in terms of ease of starting a business with a score of 93.1. France has dropped in ranking as compared to previous years when it stood in 30<sup>th</sup> place<sup>13, 14, 15</sup>.

As per the report, starting a business in France requires five procedures, taking four days and costing 0.7% 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. Moreover, 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) is negligible (0.0% of per capita income), lower than the OECD high-income average of 7.6% of income per capita<sup>16</sup>.

In April 2019, the French government passed a key law entitled '**Action Plan for Companies' Growth and Investment**' (PACTE – *Plan d'Action pour la Croissance et la Transformation des Entreprises*). Among other things, the PACTE law facilitated the

registration of companies and replaced multiple physical counters with one online platform. 'Bpifrance Creation' took over specific responsibilities of the Agency for Entrepreneurs and the French Public Bank CDC (*Caisse des Dépôts*), in terms of supporting and keeping future entrepreneurs informed<sup>17</sup>. The PACTE law also reduced the costs and delays of judicial liquidation for all companies with less than five employees and a turnover of less than EUR 750,000. Several other measures were also initiated by the French government. Companies were encouraged to invest in innovation through tax incentives wherein they can depreciate a total of 140.0% of the amount used for productive investment on an approved list and deduct the same from their taxes<sup>18</sup>.

Overall, **corporate loans to French SMEs** increased by 44.4% over the 2012<sup>19</sup>-2020 period, from EUR 358.1 billion in 2012 to EUR 517.3 billion in 2020.

Corporate loans to French SMEs between 2012 and 2020  **44.4%**

**Loans to non-financial corporations** also showed an increasing trend since 2010, up from EUR 840.4 billion to EUR 1.0 trillion (+21.0%) in 2017<sup>20</sup>.

## 3

## Key economic drivers of the construction sector

### Business confidence

Over the 2010-2020 period, the **consumer confidence indicator** had deteriorated from -11.9 in 2010 to -12.9 in 2020. This is still higher than the EU-27 average of -14.6. Likewise, the **industry confidence indicator** decreased from -8.3 in 2010 to -14.8 in 2020. However, this is lower than the EU-27 average of -14.4. Conversely, the **construction confidence indicator** experienced an increase over the 2010-2020 period, going from -29.1 in 2010 to -10.3 in 2020. This is also lower than the EU-27 average of -9.3.

In parallel, the **investment ratio** increased from 22.1% in 2010 to 22.7% in 2020. **Investment per worker** also increased from EUR 89,119 in 2010 to EUR 95,085 in 2018<sup>21</sup> (+6.7%).

### Domestic sales

The ranking of the **five most domestically sold product groups in 2019** has changed since 2010. 'Ready-mixed concrete' (group 236310), which ranked first in 2010, has been replaced by 'Other structures and parts of structures' (group 251123). Secondly, 'Doors, windows and their frames' (group 251210), ranking second in 2010, has been replaced by 'Ready-mixed concrete' (group 236310). Similarly, 'Portland cement, aluminous cement' (group 235112), ranking third in 2010, has been replaced by 'Doors, windows and their frames, etc.' (group 251210). Lastly, 'Prefabricated structural components' (group 236112), ranking fifth in 2010, has been replaced by 'Portland cement, aluminous cement' (group 235112).

Moreover, compared to 2010, the total value of 'Prefabricated buildings of metal' (group 251110), 'Doors, windows and their frames, etc.' (group

251210), 'Ready-mixed concrete' (group 236310) and 'Portland cement, aluminous cement, etc.' (group 235112) sold domestically has increased by 37.2%, 32.3%, 19.1% and 14.2%, respectively. France's **top five most domestically sold** product groups in 2020 formed 54.4% of all construction product domestic sales in 2019.

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

France				EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Other structures and parts of structures, (group 251123)	4,269.6	13.4%	Other structures and parts of structures, (group 251123)
2	Ready-mixed concrete (group 236310)	4,222.6	13.2%	Ready-mixed concrete (group 236310)
3	Doors, windows and their frames, etc. (group 251210)	3,989.1	12.5%	Doors, windows and their frames, etc. (group 251210)
4	Prefabricated buildings of metal (group 251110)	2,499.9	7.8%	Prefabricated buildings of metal (group 251110)
5	Portland cement, aluminous cement, etc. (group 235112)	2,398.3	7.5%	Prefabricated structural components for building, etc. (group 236112)

Source: PRODCOM, 2021.

### Export of construction-related products and services

The ranking of the **top five most exported construction** product groups had changed

significantly between 2010 and 2020. Except for 'Barrels and coopers' products, etc.' (group 162412) and 'Quicklime, slaked lime and hydraulic lime' (group 235210), all other construction products within the top five list have been replaced in 2020 (Table 2). 'Prefabricated buildings of metal' (group 251110), which ranked second in 2010, has been replaced by 'Other structures and parts of structures' (group 251123) in 2020. 'Bridges and bridge-sections of iron or steel' (group 251121), which ranked third in 2010, has been replaced by 'Fibreboard of wood, etc.' (group 162115) in 2020. Similarly, 'Quicklime, slaked lime and hydraulic lime' (group 235210), which ranked fourth in 2010, has been replaced by 'Particle board' (group 162112) in 2020. Lastly, 'Pallets, box pallets and other load boards of wood' (group 162411), ranking fifth in 2010, has been replaced by 'Quicklime, slaked lime and hydraulic lime' (group 235210).

Additionally, compared to 2010, the total value of 'Barrels and coopers' products, etc.' (group 162412) and 'Quicklime, slaked lime and hydraulic lime' (group 235210) exported has increased by 41.9% and 9.4%, respectively, in 2020. France's **top five most exported construction** products groups in 2020 formed 44.1% of the total exported construction products groups.

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

Country				EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Barrels and coopers products, etc. (group 162412)	387.5	14.4%	Ceramic tiles and flags (group 233110)
2	Other structures and parts, etc. (group 251123)	260.8	9.7%	Other structures and parts, etc. (group 251123)
3	Fibreboard of wood, etc. (group 162115)	248.3	9.2%	Fibreboard of wood, etc. (group 162115)
4	Particle board (group 162112)	200.1	7.4%	Doors, windows and their frames, etc. (group 251210)
5	Quicklime, slaked lime and hydraulic	87.4	3.3%	Builders joinery and carpentry,

Country				EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
	lime (group 235210)			etc. (group 162319)

Source: PRODCOM, 2021.

**In terms of the cross-border provision of construction services<sup>22</sup>, France exported EUR 2.3 billion worldwide in 2020, 32.7% below the 2010 value (EUR 3.5 billion).**

Specifically, **exports** made to the EU-27 countries and countries outside the EU-27 in 2020<sup>23</sup> amounted to EUR 221.0 million and EUR 2.1 billion, respectively. The **share of exports of construction services** to the EU-27 in total exports in 2020 were 9.4%. On the other hand, **imports** from the EU-27 countries and countries outside the EU-27 in 2020 amounted to EUR 1.1 billion and EUR 611.0 million, respectively. The **share of imports of construction services** to the EU-27 in total imports in 2020 was 64.3%. Overall, France achieved a **trade surplus of construction service** of EUR 629.0 million, a 5.3% decline as compared to trade surplus achieved in 2010.

## Access to finance in the construction sector

According to the **2021 Survey on the Access to Finance of Enterprises (SAFE)** (September – October 2021) report, around 40.5% of French enterprises reported of grants or bank loans being relevant, lower than the EU-27 average (42.7%). Around 21.2% of the enterprises reported using bank loans in the last six months, higher than the EU-27 average (14.2%). During the same period, 27.8% of French enterprises applied for a bank loan, higher than the EU-27 average of 21.3%. Around 4.4% of SMEs did not apply for bank loans fearing rejection, lower than the EU-27 average of 4.7%. In contrast, around 47.6% of enterprises did not apply for bank loans because of sufficient internal funds, almost in line with the EU-27 average of 47.7%<sup>24</sup>.

Moreover, the availability of bank loans for French enterprises has also changed. Around 11.9% of enterprises recorded that the availability of bank loans has improved for the period, lower than the EU-27 average (15.6%). Conversely, 11.5% of enterprises mentioned that it has deteriorated,

higher than the EU-27 average of 10.1%. Additionally, 67.9% of enterprises accepted that the condition of availability of bank loans remains unchanged, higher than the EU-27 average of 64.0%<sup>25</sup>.

**As per the European Investment Bank (EIB) Investment Survey 2020, 45.0% of the French construction firms considered availability of finance as a long-term barrier for the sector<sup>26,27</sup>.**

Bank loans continue to make up the largest share of external finance (about 80.0%) in construction sector in France, followed by leasing (about 18.0%). About 50.0% of the French firms in the construction sector relied on external sources of finance for investment purposes as compared to internal sources (45.0%). This is also driven by the fact that 70.0% of the French construction firms reported making a profit, lower than the EU-27 average of 80.0%. Nonetheless, the share of 'financially constrained'<sup>28</sup> firms in the construction sector (2.0%) is lower as compared to the firms operating in the manufacturing (4.5%) and service sectors (3.0%) in France<sup>29</sup>.

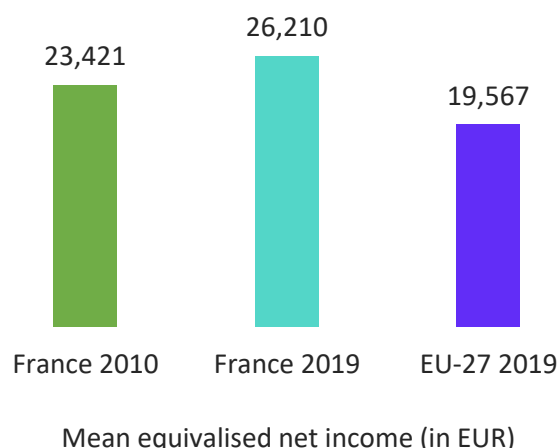
The impact of COVID-19 on investment strategies have also been quite negative with almost 45.0% of French construction firms investing less in 2020, in line with the EU-27 average of 45.0%<sup>30</sup>. Moreover, almost 35.0% of French construction firms reported that they would abandon or delay their investment plans due to COVID-19, in line with the EU-27 average of 35.0%<sup>31</sup>.

According to the FFB, about 77,000 construction companies benefit from the guaranteed loans provided by the state in the context of the COVID pandemic (six years maximum, and up to 25.0% of the company's turnover). The loans averaged about EUR 140,000.

## Access to housing

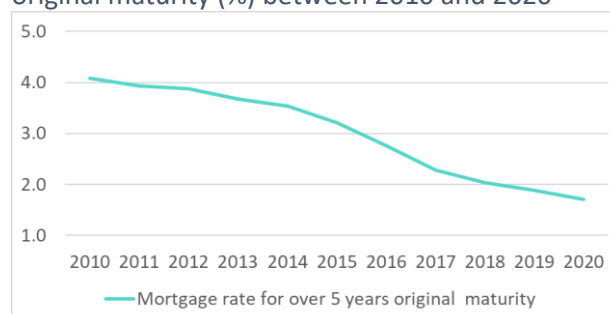
The **number of households** in France has continuously increased since 2010, reaching 30.4 million in 2020. This represented an 8.9% increase as compared to the 2010 level of 27.9 million. At the same time, the percentage of the population living in **densely populated areas** stayed relatively constant, increasing by 0.9 percentage points between 2010 and 2018<sup>32</sup>, from 46.7% to 47.6%. Since 2010, the **mean equivalised net income** in France has increased by 11.9% growing from

EUR 23,421 to reach EUR 26,210 in 2019<sup>33</sup>. This is higher than EU-27 average of EUR 19,567 in 2019.



Moreover, lending to households for home purchases picked up, with **total outstanding residential loans** growing by 35.6%, from EUR 795.2 billion in 2010 to EUR 1.1 trillion in 2019<sup>34</sup>. This increase in residential loans is partly supported by the declining rates on mortgages. In fact, **interest rates on mortgages (for over five years maturity)** have been consistently declining from 4.1% in 2010 to 1.7% in 2020 (Figure 7).

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

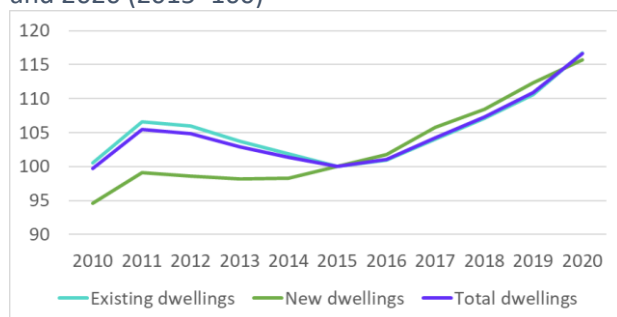


Source: ECB MFI Interest Rate Statistics, 2021.

The rising urbanisation and increasing mean equivalised net income, coupled with increasing residential loans as a result of declining mortgage rates in France, has led to a rise in demand for housing. As a result, housing prices have increased significantly since 2015. In particular, the **house price index** for total dwellings has increased by 16.6% over the 2015-2020 period. This is driven by a 16.8% and 15.7% increase in the house price index for existing dwellings and new dwellings, respectively (Figure 8).



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



Source: Eurostat, 2021.

House price index for new dwellings between 2015 and 2020

↑ 15.7%

Post lockdown period, buyers in the French property market have also reported facing tighter lending conditions as mortgage approvals have become tougher. This is due to the warning issued by the ministry of economy to banks to restrict credit<sup>35</sup>. Additionally, according to the FFB, the *Haut Conseil de stabilité financière* has put in place more stringent recommendations to preserve the financial stability of the country. These recommendations advise banks not to provide loans of more than 25 years, and which would account for more than 33.0% in terms of household resources.

Owing to the global COVID-19 pandemic and associated restrictions, the French housing market has been negatively impacted. However, it started picking up after the relaxation of restrictions. Soon after the easing of the strict nationwide lockdown in May 2020, France witnessed a record-high national interest in investing in property, according to an analysis of the French housing market published in June. There was also a peak in sales, which had been boosted by deals that had been initiated before lockdown in March 2020<sup>36</sup>.

To make housing accessible for vulnerable groups in the country, the French government is supporting access to housing under its **Housing First Plan (*Le Logement d'abord*) (2018-2022)**. This plan involves a shift from emergency housing towards increased investment in favour of Social Housing Infrastructures Targeting Lowest Income Households (*Prêt locatif Aide d'intégration*, PLAI)<sup>37</sup>.

Amid the increasing demand for houses in 2020, the supply remained constrained. This is reflected in the

**building permits** issued in France, which has decreased by 3.1%, from 33,682 (average) in 2015 to 32,653 (average) in 2020. However, there has been a trend reversal in 2021 with average building permits issued till Q3 2021 being 39,381, an increase of 20.6% as compared to the 2020 level. In fact, 40,100 building permits had been issued till Q3 2021<sup>38</sup>.

The trend of **home ownership** has been increasing in France since 2010, as the share of owners increased from 62.0% in 2010 to 64.0% in 2020. On the other hand, the share of tenants in the country decreased from 38.0% in 2010 to 36.0% in 2020. Income plays a crucial role in the affordability of home ownership in the country. This is reflected in observing the change in the share of owners under different income groups over the 2010-2020 period. The share of homeowners having a **median equivalised income of 60.0% and above** increased from 66.7% in 2010 to 69.3% in 2020. Similarly, homeowners having **median equivalised income below 60.0%** marginally decreased from 31.5% in 2010 to 31.2% in 2020.

Moreover, the **housing cost overburden rate**<sup>39</sup> for France in 2019<sup>40</sup> stood at 5.5%, lower than the EU-27 average of 9.4%. However, this is higher than the 2010 level in France (5.1%)<sup>41</sup>. The **severe housing deprivation rate**<sup>42</sup> in 2019 stood at 2.3%, below the EU-27 average of 4.0% as well as its 2010 level of 3.0%. This further increased to 3.8% in 2020<sup>43</sup>. Finally, the **overcrowding rate**<sup>44</sup> of France in 2020 stood at 9.8%, lower than the EU-27 average of 17.8% and its 2010 level of 9.2%<sup>45</sup>.

## Infrastructure

**As per the Global Competitiveness Report 2020, France ranked 9<sup>th</sup> out of 141 economies in terms of infrastructure, with a score of 89.7<sup>46</sup>.**

Specifically, it ranked 6<sup>th</sup> for road connectivity, 12<sup>th</sup> in liner shipping connectivity, 13<sup>th</sup> in airport connectivity and 15<sup>th</sup> in the efficiency of train services. These made up the best performing indicators for France. The country also ranked 17<sup>th</sup> in railroad density, 18<sup>th</sup> with regard to the quality of road infrastructure, 20<sup>th</sup> in efficiency of seaport services and 24<sup>th</sup> with respect to efficiency of air transport services<sup>47</sup>.

In order to recover from the economic downturn as a result of disruptions due to the COVID-19

pandemic, the French government unveiled a massive stimulus package amounting to EUR 100.0 billion in September 2020. As part of this support plan, the government plans to spend a significant chunk of money on infrastructure investment<sup>48</sup> and digital transformation<sup>49</sup>. Around EUR 30.0 billion shall be set aside for sustainable energy and transport. As a part the of investments in energy, around EUR 2.0 billion will be spent over two years on hydrogen infrastructures, which tops up a plan to spend EUR 7.0 billion by 2030<sup>50</sup>.

**As per its National Resilience and Recovery Plan (NRRP), France has allocated EUR 4.4 billion for modernisation of its railway network. This includes a EUR 4.1 billion plan to recapitalise 'SNCF Réseau', the railway infrastructure manager in France<sup>51</sup>.**

Moreover, within **InvestEU** – the current EU investment programme for 2021-2027 – France will benefit from substantial infrastructure investments, as 'sustainable infrastructure' is one of the four main areas of the programme<sup>52</sup> (for more information – refer chapter 7 – TO 1).

## 4

# Key issues and barriers in the construction sector

## Company failure

Over the 2010-2019 period, **company births** in the narrow construction sub-sector decreased by 0.3% from 70,439 in 2010 to 70,255 in 2019<sup>53</sup>. In parallel, the number of **company deaths** also decreased by 30.8%, from 40,625 in 2010 to 28,109 in 2019. Conversely, in the real estate activities sub-sector, company births increased by 69.7%, from 15,203 in 2010 to 25,793 in 2019. Similarly, company deaths increased by 12.9%, reaching 9,434 in 2019 from 8,358 in 2010. Lastly, company births in the architectural and engineering activities sub-sector experienced a rise of 20.2%, from 9,287 in 2010 to 11,160 in 2019, while company deaths increased by 16.2%, from 4,509 in 2010 to 5,241 in 2019.

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

↓ 30.8%

Number of company births in the real estate activities sub-sector between 2010 and 2019

↑ 69.7%

With regards to business failures, as of October 2021, the number of bankruptcies and insolvencies in the French construction sector amounted to 5,827, a 16.1% and 48.3% decline as compared to the previous year (Oct 2020 – 6,946) and 2019 (October 2019 – 11,262)<sup>54</sup>. This decrease is mostly attributable to the government's support policies, which have cushioned the impact of the COVID-19 pandemic on the business sector in France. Specifically, the country implemented a EUR 300.0 billion loan guarantee scheme to soften the impact on businesses<sup>55</sup>.

## Trade credit

As per the 2021 Atradius Payment Practices Barometer Report for France, almost 50.0% of all the B2B sales made in France were made using trade credit, representing an increase of 44.0% as compared to last year. However, this has also resulted in an increase in administrative costs of managing trade credit as reported by 57.0% of respondent businesses<sup>56</sup>.

With regards to the French construction sector, about 33.0% of the respondent businesses considered that the use of trade credit will not increase in 2022. Nonetheless, where businesses do plan to use trade credit in future, most of them would continue to do so to provide additional payment period to their customers<sup>57</sup>.



According to the 2021 SAFE Report, around 21.8% of French enterprise respondents reported trade credit to be relevant, below the EU-27 average of 27.8%<sup>58</sup>.

As per the 2021 SAFE Report (September-October 2021), around 5.8% of the French respondents disclosed using trade credit in the past six months, below the EU-27 average of 13.7%. During the same period, around 21.3% of French enterprises applied for trade credit, lower than the EU-27 average of 29.6%. Around 6.1% of the respondents did not apply due to possibility of rejection, higher than the EU-27 average of 3.9%. About 44.2% of the French respondents did not apply because of sufficient internal funds, greater when compared to the EU-27 average of 37.5%<sup>59</sup>.

Amongst the firms which applied for trade credit in France, around 82.1% of the enterprises received everything they applied for, well lower as compared to the EU-27 average of 71.6%. About 5.3% of the respondents received above 75.0% of what they applied for in trade credit, lower than the EU-27 average of 9.6%. Around 5.1% of the respondents received below 75.0% of what they applied for, lower than the EU-27 average of 8.7%<sup>60</sup>.

Regarding the availability of trade credit, around 9.6% of the French enterprises reported that the conditions had improved, lower than the EU-27 average of 14.3%. However, around 9.3% of the respondents also reported that the availability of trade credit had deteriorated, higher than the EU-27 average of 8.4%. For around 68.1% of French respondents, the availability of trade credit remained unchanged during the same period, marginally better than the EU-27 average of 66.1%<sup>61</sup>.

In the context of the disruptions caused by the global COVID 19 pandemic, France initiated a state guarantee scheme in April 2020. The scheme supports the insurance of domestic trade affected by the outbreak. It aims to assure continuity in issuing domestic trade credit insurance, thereby protecting the liquidity needs of French companies. The total budget of the measure amounted to EUR 10.0 billion. The European Commission has also approved the scheme under EU State Aid rules<sup>62</sup>.

## Late payment

**According to the 2021 Atradius Payment Practices Barometer Report for France, about 42.0% of the total value of B2B invoices issued in the French construction sector were affected by late payments<sup>63</sup>.**

Moreover, almost 6.0% of the total value of B2B invoices were long-overdue invoices (i.e. overdue for more than 90 days). Out of these, only 1.0% were successfully collected while the rest 5.0% were written-off, representing lost sales revenue for the sector. As such, only 53.0% of the total value of B2B invoices issued in 2021 in the construction sector were paid on time<sup>64</sup>.

Additionally, about 25.0% of respondent businesses in the French construction sector reported a downturn in payment practices in 2021 as compared to last year. In fact, 4.0% of the

respondent businesses agreed to cashing invoices earlier than they did in 2020. In order to maintain liquidity, 26.0% of the respondents delayed payments to suppliers while 32.0% delayed payment for bills and staff. Some businesses even suspended delivery until overdue invoices were cleared<sup>65</sup>.

As per the 2021 Atradius Payment Practices Barometer Report, with regards to French construction sector duration, 33.0% of the respondent businesses reported an increase in average payment duration. This was also accompanied by 29.0% and 25.0% of the respondents registering an increase in Days Sales Outstanding (DSO) and credit management costs, respectively, in 2021 as compared to last year<sup>66</sup>.

With respect to credit management techniques, 46.0% of the respondents used payment reminders while 21.0% employed debt collection agencies. Further, 42.0% of the respondents retained credit risk in-house while 33.0% preferred trade credit insurance services. Looking ahead, 38.0% of the respondent businesses intend to adjust payment terms in 2022 and 30.0% plan to offer cash discounts for early payment<sup>67</sup>.



**As per Intrum European Payment Report 2021, 64.0% of French 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 growth<sup>68</sup>.**

As per the report, some of the major challenges still faced by companies making customers pay on time included debtors facing liquidity challenges due to impact of COVID-19 (44.0%), debtors in financial difficulties (43.0%), risk of pan-European recession (39.0%), disputes regarding goods and services delivered (32.0%) and lack of business experience among customers (32.0%)<sup>69</sup>.

Debtors facing liquidity challenges due to the COVID-19 pandemic<sup>70</sup>

**44.0%**

Overall, 46.0% of business respondents use pre-payments as a precautionary measure, followed by credit checks (32.0%), debt collection

(24.0%), credit insurance (15.0%), fraud prevention (11.0%), bank guarantee (10.0%) and factoring (8.0%)<sup>71</sup>.

## Time and cost of obtaining building permits and licenses

As per the World Bank Doing Business 2020 report, France ranked 52<sup>nd</sup> out of 190 countries in terms of 'dealing with construction permits'. This marks a substantial setback compared to 2019 (19<sup>th</sup>)<sup>72</sup>. This is due to reforms being implemented to reduce the cost of obtaining building permits. ). It is important to note that there is sub-procedures named "obtain a building permit", which is a part of the overall procedure needed to obtain a building permit. This sub-procedure account for over 42.3% of the time needed to complete the administrative formalities to build a warehouse.

Completing administrative formalities to build a warehouse<sup>73</sup> requires nine procedures, below the OECD high-income average (12.7 procedures), but takes 213 days, higher than the OECD high-income average of 152.3 (Table 3). Moreover, the cost of obtaining a permit to build a warehouse represents 3.9% of the value of the warehouse, more than double of the OECD high-income average of 1.5%.

Table 3: Construction procedures timing and costs in France

Procedure	Time to complete	Associated costs
Obtain an urbanism certificate	60 days	no charge
Hire an external inspection company (Bureau de contrôle technique)	1 day	EUR 4,488

Obtain building permit <sup>74</sup>	90 days	EUR 62,156
Apply for water connection	0.5 days	no charge
Receive site visit by Eaux de Paris to prepare a cost estimate (devis) for water connection	1 day	no charge
File a declaration of the worksite opening	1 day	no charge
Obtain water and sewage connections	60 days	EUR 3,761
Declare completion of construction	1 day	no charge
Receive visit by building inspectors and obtain compliance certificate	1 day	no charge

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

## Skills shortage

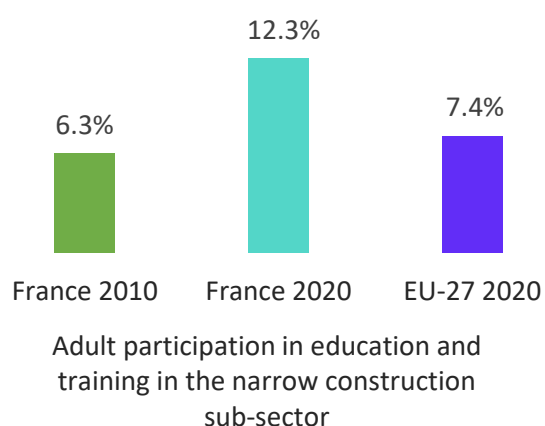
The number of **tertiary students in engineering, manufacturing and construction** increased by 8.9% between 2010 and 2019<sup>75</sup>, from 103,397 in 2010 to 110,933 in 2019. Out of this, the number of students in engineering and engineering trades experienced an increase of 7.9%. In contrast, the number of students in manufacturing and processing as well as architecture and building decreased by 4.8% and 7.1%, respectively, over the 2010-2019 period.

Number of tertiary students in the architecture and building category between 2010 and 2019

↓ 7.1%

Moreover, **adult participation in education and training** in the narrow construction sub-sector went from 6.3% in 2010 to 12.3% in 2020. This is higher than the EU-27 average of 7.4% in 2020. Similarly, adult participation in education and training in the real estate activities sub-sector experienced a significant increase, growing from 6.0% in 2010 to 19.8% in 2020. This is also higher than the EU-28<sup>76</sup> average of 13.8% in 2020.





Despite the increased number of tertiary students and adult participation in education and training, France has been struggling with the issue of labour shortage for a long period. Moreover, the higher unemployment rates of the country also reflect the structural mismatch between the available labour force and the requirements of companies. Differences in France's labour market outcomes for various skill groups are among the highest in the EU. Changes in the structure of labour demand along with a tightening labour market also contribute to the skill mismatches<sup>77</sup>.

France has made some progress in addressing these skills shortages and mismatches. Particularly, the country has implemented initial **vocational education and training (VET)** system reforms and improved access to lifelong learning. Access to lifelong learning through a revised, euro-based, personal training account, granting increased rights to low-qualified and part-time workers, is being further enabled to the launch of the web-based application named '*Conseil en évolution professionnelle*' since November 2019<sup>78</sup>.

## Sector and sub-sector specific issues

### Material efficiency and waste management

**Construction and demolition waste (CDW)** constitutes one of the most important waste streams in the entire EU region. CDW mainly consists of several materials, including concrete, bricks, gypsum, wood, glass, metals, plastic, solvents, asbestos and excavated soil, many of which can be recycled. Specifically, in France, in 2018<sup>79</sup>, CDW totalled 240.2 million tonnes. Though this represents a 7.9% decrease from 2010 levels (260.7 million tonnes), it depicts an increase of 7.1%

from 2016 levels (224.3 million tonnes). Out of the total CDW generated in 2018, around 2.9 million tonnes of waste were classified as hazardous, comprising 1.2% of the total CDW generated. 237.2 million tonnes of waste were categorised as non-hazardous, forming 98.8% of the total CDW generated<sup>80</sup>.

In February 2020, the French government passed the law 'Circular Economy and the Fight Against Waste' (Law No. 2020-105). It aims at changing the French societal model from a 'linear economy' to a 'circular economy', where waste is minimised and resources are reused as much as possible. This economic model features the low consumption of non-renewable resources, the reuse of waste as a resource, a preference for products that have a longer useful life, the recycling of 100.0% of plastics, and less wastefulness. The legislation plans to achieve a 15.0% decrease in household trash per inhabitant by 2030 and a 5.0% decrease in waste from economic activity. It also intends to achieve a recycling target of 100.0% for plastics by 2025. In order to attain these objectives, legislative and regulatory actions are required. Therefore, the law includes specific measures to that end as well<sup>81</sup>.

### Climate and energy

**Emissions of greenhouse gases** (carbon dioxide, methane and nitrous oxides) from activities in the narrow construction sub-sector amounted to 9.2 million tonnes in 2019<sup>82</sup>, representing a 19.8% increase as compared to the 2010 level (7.6 million tonnes). Conversely, emissions from the real estate activities sub-sector declined by 17.7%, reaching 487,248 in 2019, from 591,958 in 2010.

Emissions of greenhouse gases in the narrow construction sub-sector between 2010 and 2019

↑ 19.8%

After transport (40.0% of total national emissions), the residential sector is the largest emitter (25.0% of total national emissions) of **greenhouse gases** in France. Therefore, increased efforts are needed to cut greenhouse gas emissions in the residential sector. France has committed to reach carbon neutrality ('zero net emissions') by 2050<sup>83</sup>.

As mentioned in its NRRP, the French government has announced a gradual phase out of reduced rates for non-road diesel while will be finalised by end-2022. Additionally, the country has also announced the removal of the 'malus' ceiling applied to new privately-used vehicles, to strengthen the market signal towards cleaner vehicles. France is also willing to open a debate at EU level on the taxation of kerosene for planes and marine fuel for boats<sup>84</sup>.

(Additional details with respect to residential sector have been mentioned in detail in Chapter 7 TO 3).

## 5

# Innovation in the construction sector

## Innovation performance

As per the European Innovation Scoreboard 2021, France continues to be categorised as a Strong Innovator, same as the previous year<sup>85</sup>.

The top three indicators of the French innovation system included foreign doctorate students, lifelong learning and Government support for business R&D. The country also demonstrated strong performance in human resources, finance and support as well as attractive research systems<sup>86</sup>.

As per the scoreboard, French innovation performance slightly declined primarily due to decline in the functioning of several indicators including doctorate graduates, enterprises providing ICT training, business process innovators, trademark and design applications, employment in innovative enterprises, sales of innovative products as well as environment-related technologies. Nonetheless, the country achieved above average scores on in-house product innovators with market novelties and on the climate change related indicators<sup>87</sup>.

Conversely, **business enterprise R&D expenditure (BERD)** in the narrow construction sub-sector declined by 20.0% between 2010 and 2017<sup>88</sup>. In contrast, BERD in professional, scientific and technical activities increased by 3.1%, from EUR 4.5 billion in 2010 to EUR 4.7 billion in 2017<sup>89</sup>.

In parallel, total **R&D personnel** (full-time equivalents – FTE<sup>90</sup>) in the broad construction sector also experienced an increasing trend. In particular, the professional, scientific and technical activities sub-sector reported the highest FTE, which grew from 41,604 in 2010 to 43,092 in 2017 (+3.6%). Contrarily, total FTE in the narrow construction sub-sector decreased by 37.5%, from 1,835 in 2010 to 1,147 in 2017<sup>91</sup>.

Business enterprise R&D expenditure in the narrow construction sub-sector between 2010 and 2017

 **20.0%**

In recent years, the number of **construction-related patent applications** has declined by 10.2%, from 381 in 2010 to 342 in 2020 and averaging at 352 patent applications over the 2010-2020 period. As per the 2021 EU Industrial R&D Investment Scoreboard, only four French construction related firms are ranked among the top 1,000 EU companies by R&D (industrial sector ICB-3D). These include Saint-Gobain (76<sup>th</sup>), followed by Bouygues (192<sup>nd</sup>), Tarkett (461<sup>st</sup>) and VICAT (913<sup>th</sup>)<sup>92</sup>.

France continues to suffer from weak innovation performance including insufficient business innovation, a low degree of automation and digitalisation, as well as a lack of coordination between public and private research and development. To improve the country's business environment and to foster growth, the French government adopted the PACTE law (*Loi relative à la croissance et la transformation des entreprises*) in 2019. Additionally, diagnostics of the R&D tax credit (*Crédit Impôt Recherche*) were also proposed but need to be further extended to have a macroeconomic impact<sup>93</sup>.

## Eco-innovation and digitalisation

According to the 2021 European Commission Digital Economy and Society Index (DESI), France ranked 15<sup>th</sup> out of the 27 EU Member States, same as compared to its 2020 rank<sup>94</sup>.

As per the DESI 2021 report, France had a relative score of 50.6, equal to the EU-27 average score. As per the report, France performance improved in terms of connectivity. In case of digital skills, France score is in line with the EU-27 average for both basic skills (57.0% of individuals) and advanced skills (31.0% of individuals). The performance of French enterprises is also above EU-27 average in terms of

use of digital technologies. This is evident from the fact that 22.0% of enterprises made use of big data, higher than the EU-27 average of 14.0%. France is investing significant resources in improving connectivity and supporting innovative ways of teaching with the use of digital technologies. The country continues to invest in the development of key digital technologies capabilities and support digitalisation of French companies along with the uptake of digital solutions. In fact, a comprehensive strategy is being implemented for the digitalisation of services and to support the digital transformation of the public administration by utilising technologies such as cloud, Artificial Intelligence (AI) and cybersecurity<sup>95</sup>.

**Under its National Resilience and Recovery Plan (NRRP), France has allocated EUR 8.4 billion for supporting the digital transition of the country. These funds will be complemented by national resources as part of the 'France Relance' plan<sup>96</sup>.**

The country plans to invest EUR 1.8 billion in developing and deploying key digital technologies including cybersecurity, quantum and cloud to support innovation and encourage their widespread usage. France will also participate in two **Important Projects of Common European Interest (IPCEI)** in the areas of cloud and edge computing and on microelectronics and communication technologies. As per estimates, about 200,000 enterprises, in particular SMEs, will be supported in their digital transformation by 2024 under the 'France Num' initiative<sup>97</sup>. Likewise, France has also allocated EUR 4.3 billion out of its NRRP for the digitalisation of health sector, supporting innovation in the *Programme d'Investissements d'Avenir* as well as the digitalisation of the State and territories<sup>98</sup>.



**According to the 2021 Eco-Innovation Scoreboard (Eco-IS), France has scored 127, higher than the EU-27 average of 121<sup>99</sup>.**

As per the index, France exhibited a considerable improvement on eco-innovation activities in comparison to past years. Nonetheless, despite eco-innovation inputs and resource-efficiency outcomes being strong points, France needs to improve its eco-innovation outputs and socio-economic outcomes to ensure an overall ranking above the EU-27 average<sup>100</sup>.

According to the **European Investment Bank (EIB) Investment Survey 2020**<sup>101</sup>, the most frequent long term impacts of COVID 19 on French construction firms were permanent reduction in employment (40.0%) and changes in their services and products portfolio (32.0%), followed by changes in supply chain (15.0%) as well as increased use of digital technologies (10.0%). Nonetheless, about 28.0% of French construction sector firms are expected to have implemented digital technologies within their business, either fully or partially by end-2020. As per the report, the top digital technologies implemented by businesses in French, either partially or fully, in the broad construction sector includes internet of things (15.0%), 3-D printing (13.0%), drones (11.0%) and augmented or virtual reality (6.0%)<sup>102</sup>.

Since 2018, the French government has supported business innovation through several measures. Under its '**Great Investment Plan**' (GPI), the country allocated EUR 13.0 billion towards innovation, with an additional annual EUR 250.0 million support through the Innovation Fund and Industry (IFI) to targeted support for disruptive innovation. Moreover, an excess depreciation measure, aimed at promoting productive investments by SMEs in the digital and robotisation fields, has also been implemented<sup>103</sup>.

The **Scientific and Technical Centre for Building** (*Centre Scientifique et Technique du Bâtiment - CSTB*) is in charge of delivering the authorisations to develop innovations on the market. The CSTB has improved its processes, giving more opportunities to SMEs to implement innovations in the construction market. The CSTB also set up a partnership with *Bpifrance*, a public investment bank specialised in the support of innovative SMEs. This partnership aims to provide innovative construction SMEs with better financial and technical support<sup>104</sup>.

In case of BIM (Building Information Modelling), under its digital transition plan for buildings, France is aiming to generalise the adoption of BIM by 2022 through voluntary commitments from the stakeholders involved<sup>105</sup>. With regards to incentivising companies, the Digital Transition Plan for Buildings (PTNB) has launched the '*Atelier BIM Virtuel*' (ABV) project. This is aimed at using BIM level 2 to perform a simulation of the construction of existing dwellings, already built without using

BIM, to compare the two approaches and derive good practices and lessons learnt<sup>106</sup>. The PTNB has defined and implemented a standardisation strategy for BIM among construction actors. The latter aimed to create a level-playing field on which the usage of BIM can take off<sup>107</sup>. Building on this, the government also introduced a BIM plan 2022, “*Plan BIM 2022*”, which has been accepted by the construction industry and aims to support the shift towards digital construction. The government granted EUR 10.0 million as part of it<sup>108</sup>.

In April 2018, France published its first roadmap to becoming a circular economy while creating new employment opportunities through 300,000 new jobs. This roadmap is expected to reduce resource use and consumption by almost 30.0% by 2030 and curtail the generation of non-hazardous waste by half by 2025, as compared to 2010. France also aims to be fully able to recycle its plastic waste by 2025<sup>109</sup>.

Lastly, in association with the private sector and academia, the French government established created the “*Chaire Construction 4.0*” group in 2018 with the objective to lead the digital transformation of the construction sector and improve its productivity<sup>110</sup>.

As for other dimensions of digitalisation, e-commerce uptake levels of French companies (16.0%) are still lower than the EU average (18.0%) and varies considerably according to company size. In fact, only 15.0% of SMEs sell their products online as compared to almost 45.0% of large companies. In order to tackle this challenge, the French government is implementing the initiative ‘*France Num*’<sup>111</sup>. Initiated in October 2018, ‘*France Num*’ aims to promote digital transformation among French businesses by providing finance loans, up to EUR 1.0 billion, to SMEs and micro-enterprises through a EUR 30.0 million guarantee scheme financed by the French government, using EU funding<sup>112</sup>.



## 6

# National and regional regulatory framework

## Policy schemes

Under its 2020 budget, the French government has initiated a series of measures aimed at promoting the housing market. In this regard, the capital gains tax and income taxation system has been revised to be less distortive and not to deter productive investment. In fact, the solidarity tax on wealth (*Impôt de solidarité sur la fortune* - ISF) has been abolished and replaced by the real estate wealth tax (*Impôt sur la fortune Immobilière* - IFI), while the taxation of capital income, except property income has been unified around a single flat-rate levy (*Prélèvement Forfaitaire Unique* - PFU) of 30.0% to promote better savings allowance<sup>113</sup>.

In order to promote the housing market, the French government abolished the housing tax on the main residence, in addition to reforming the financing structure of local authorities. From 2020 onwards, housing tax has been entirely removed for 80.0% of French households. With regards to the remaining 20.0% of wealthiest households, there will be a gradual decrease in tax rates from 2021, followed by the complete cessation of housing tax by 2023<sup>114</sup>.

Likewise, effective from 1<sup>st</sup> January 2020, the French government launched the '*MaPrimeRénov*' initiative, replacing the Tax Credit for the Energy Transition (**CITE**) and the Aid from the National Housing Agency (**ANAH**), thus becoming the main subsidy for energy saving work. The '*MaPrimeRénov*' combines and implements several bonuses including a strainer exit bonus, a low consumption renovation bonus, a comprehensive renovation package and a project management assistance package. The policy was aimed at eliminating the one-year lag between the

completion of renovation work and the receipt of the underlying tax benefit<sup>115, 116</sup>.

The '*MaPrimeRénov*' scheme is scheduled to include the middle and upper income households as well as the co-owner associations by 1st January 2021 and the landlords by 1st July 2021. It is expected that the scheme extension will make it accessible to an additional 500,000 new homes<sup>117</sup>. Additionally, a part of the territorial authorities' (*département*) revenue from the immovable property tax will be transferred to the local authorities (*communes*) from 2021. In turn, a part of VAT revenues will be allocated to the territorial authorities to compensate for the transfer<sup>118</sup>.

Improving the energy performance of social housing and public infrastructure is a priority for all French metropolitan and outermost regions, both to limit greenhouse gas emissions and to reduce energy and financial consumption. Most regions are developing social housing rehabilitation projects at the local level. For instance, in Colmar (Grand Eastern region) or Belfort (*Bourgogne Franche-Comté* region) 67 and 106 social housing units are planned to be renovated with co-financing of EUR 234,500 and EUR 371,000 from the European Regional Development Fund (ERDF), respectively<sup>119</sup>. Likewise, the **Zero-Interest Loan Programme** (*Prêt à Taux Zero* – PTZ) supports people planning to build or buy their first dwelling by granting them a zero-interest loan in the form of partial financing. The PTZ can also finance the purchase of an existing dwelling requiring major works, thus making it fiscally equivalent to a new building, as well as the conversion of a non-residential unit into a housing unit. It finances up to 40.0% of the cost of the transaction in question and

its loan amount can range between EUR 40,000 and EUR 138,000<sup>120</sup>. The revised law limits the amount of PTZ co-financing to 20.0% for new dwellings outside of urban zone (in B2 and C zones) while it stays at 40.0% in A and B1 zones<sup>121</sup>. Contrary to other announcements, the PTZ for existing dwellings will still be available for areas outside of urban zones. The programme is expected to be abolished in 2022<sup>122</sup>.

To boost investments in rental properties, the **Pinel law** was introduced in 2014. It offers a tax reduction for people investing in the purchase of a new property, provided that it is rented out for at least 6 years, up to a maximum of 12 years. Tax reductions ranged from 12% of the amount of the investment in the case where the property is rented for six years.

This goes up to 18.0% if the rental period is nine years and 21.0% for a 12-year rental commitment. The scheme has already been extended until 2022 and until 2024 with lower tax reduction<sup>123</sup>. However, it will be only applicable for purchases in areas with a tight property market<sup>124</sup>.



As mentioned in its 2021-2026 NRRP, the French government has proposed the adoption of 'Climate and Resilience Law' to underpin its green transition. Additionally, the plan also suggested revision of thermal regulation of new buildings ('RE2020')<sup>125</sup>.

The '**Climate and Resilience Law**' aims to reduce France's greenhouse gas emissions and thus achieving the reduction targets for 2030. It is applicable for all fields, including buildings, transport, industry and agriculture, and it is targeted at facilitating investments in climate mitigation, adaptation and environmental protection<sup>126</sup>.

Similarly, the revision of thermal regulation of new buildings ('**RE2020**') is an integral reform that supports wider energy efficiency measures. This housing legislation reform includes several sub-elements, in particular the prolongation of the '**Pinel**' renting investment scheme, which also support investments in rehabilitation of buildings<sup>127</sup>. The legislation sets new standards to reduce energy consumption of new buildings (both

residential and commercial) with the objective to shift from essentially thermal regulations to environmental regulations while taking into account greenhouse gases throughout the building's lifecycle<sup>128</sup>.

Likewise, the French NRRP also advocated the implementation of the '**2019 Mobility Law**', a broad legislative initiative to update the general framework of mobility policies and to be implemented over the NRRP timeframe. The law is also relevant and complementary to the investments supporting the decarbonisation of the transport sector<sup>129</sup>.

Other similar legislative reforms proposed under the NRRP include the '**ASAP Law**' and the '**4D Law**'. The '**ASAP Law**' reform (acceleration and simplification of public action) facilitate access to the administration while reducing the administrative and regulatory burdens for firms and citizens. The law foresees that industrial and construction projects will remain subjected to the regulations in force at the time of project application, even if those regulations change during the examination period. The '**ASAP Law**' is dedicated to simplifying administrative procedures for businesses. Still, the plan does not propose any reforms to reduce regulatory restrictions in services, a low productivity growth sector that could benefit from a reduced level of regulatory barriers<sup>130</sup>.

Conversely, the '**4D Law**' (differentiate, deconcentrate, decentralise, reduce complexity – "*decomplexifier*") reform intends to improve decentralisation, promote differentiation and ensure that each territory has laws and regulations adapted to its specificities (de-concentration), as well as to simplify the administration ("*de-complexification*"). The law is expected to empower entities closest to the ground and hence best understand the reality of the public service users<sup>131</sup>. All the above proposed legislations have a direct or indirect impact on the French constructions sector<sup>132</sup>.

Additionally, the **law on changes in housing, land management and digital technology** (ELAN) was approved by the French parliament in 2018. This law simplified building standards, improved access to housing (especially for the most vulnerable) promoted the renovation of buildings and supported communities in revitalising their

territories<sup>133</sup>. It included the implementation of several projects, including the Large Urban Planning Operation - GOU (*Grande Opération d'Urbanisme*), the Land Management Partnership Project - PPA (*Projet Partenarial d'Aménagement*) and Innovation Permits (*Permis d'Innover*). These projects are intended to facilitate the growth of the Greater Paris Region and the organisation of the Olympic and Paralympic Games in 2024<sup>134</sup>. Moreover, the ELAN law contributed to the consolidation of various social housing construction organisations. It also facilitated access to property for tenants. The law also included punitive measures to fight against 'slum landlords'. The monitoring of abusive claims against urban planning, as well as the definition of decent housing have also been revised. According to the French Building Federation, the ELAN reforms will boost the construction of social housing in the long run.

## Building regulations

The primary legislation governing construction activities in France is the **Construction and Housing Code** (*Code de la construction et de l'habitation*). It sets out the general provisions related to the construction and renovation of buildings; energy and environmental performance; fire protection; heating, water supply and building repairs; real estate development, lease and sales transactions; housing policy and social housing<sup>135</sup>.

The French construction sector is heavily regulated across all activities (planning, construction products, building, etc.), with the regulatory environment consisting of hundreds of different standards. The French government is already committed to simplifying the existing norms as well as reducing the number of regulations, wherever possible, in the construction sector in the next few years<sup>136</sup>.

Adopted in November 2018, the ELAN law has brought several changes in terms of standards in the construction sector. These include:

- Focus on housing access for disabled people - while buildings do not have to be completely accessible for disabled people anymore, about one-fifth of housing must integrate accessibility standards, while the other buildings must be able to evolve ("*évolutif*"), i.e. they should be able to be

transformed easily to favour access for disabled people.

- Focus on prefabricated construction material - the government provides a definition of prefabricated materials to foster their integration in the construction industry.
- Focus on building permits - the ELAN Law has made the appeal periods shorter. Additionally, the supervision of appeal procedures has become more pronounced. The purpose of these measures is to combat the immobilisation of constructions affected by abusive remedies (see Decree No. 2018-617 of 17 July 2018)

Moreover, the ELAN law encourages the dematerialisation of administrative procedures through the creation of the digital lease, making procedures simpler for the tenant. The latter has more information easily accessible, with simplified procedures.

## Insurance and liability related regulations

There are two types of liability regimes in France, namely the general civil liability regime and specific liability regime. The latter includes three main liability types. The perfect completion warranty (*garantie de parfait achèvement*) covers all defects of any kind within the year following the delivery of the construction, and only building contractors are subject to it. Under the good working order warranty (*garantie de bon fonctionnement* or *garantie biennale*), claims can be made within two years from the day of acceptance of the works, with regard to damage to plant and machinery, obliging the builder to replace any non-working equipment. The structural warranty, also known as decennial liability (*responsabilité décennale*), makes the builder responsible for all structural damage that can affect the solidity of the building or make the use of the building impossible for its initial purpose. Under this liability, claims can be brought forward within a ten-year period following the date of acceptance<sup>137</sup>.

There are two compulsory categories of insurances covering professional construction activities. Firstly, a civil liability insurance for contractors and professional insurance for architects, experts and engineers in case of construction defects. Secondly,

the decennial liability insurance taken out by contractors to cover the protection of certain goods<sup>138</sup>. Additionally, widespread complementary

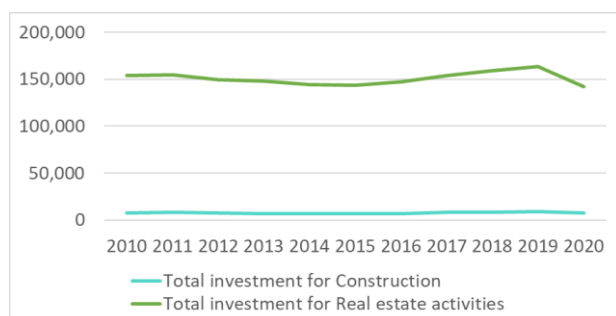
insurances are also taken out, such as Contractor's All Risk and professional indemnity insurance<sup>139</sup>.

# Current status and national strategies to meet Construction 2020 objectives

## TO 1 – Investment conditions and volumes

**Total investment by the broad construction sector**<sup>140</sup> has registered an increasing trend since 2010. Investment by the narrow construction sub-sector increased by 7.4% between 2010 and 2020, reaching EUR 7.8 billion. This is mostly driven by a 54.2% and 23.4% increase in investments in intellectual property and machinery since 2010, totalling EUR 1.3 billion and EUR 3.0 billion in 2020, respectively. Conversely, investment by the real estate activities sub-sector recorded a decrease of 7.9%, from EUR 154.1 billion in 2010 to EUR 142.0 billion in 2020. This is primarily due to a 54.4% decrease in investments in machinery, partly offsetting a 70.2% increase in investment in intellectual property over the 2010-2020 period.

Figure 9: Investments by the French broad construction sector between 2010 and 2020 (EUR m)



Source: Eurostat, 2021.

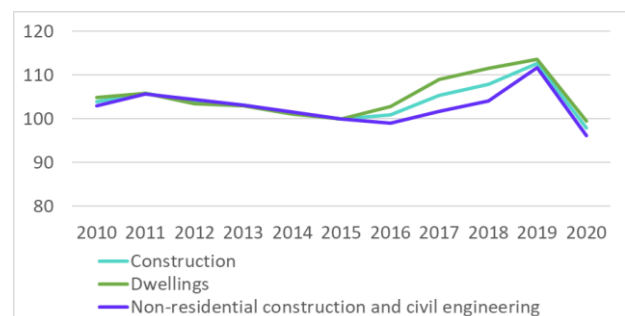
**Total investment index in the broad construction sector**<sup>141</sup> increased by 12.7% over the 2015-2019 period. However, it decreased by 13.2% between 2019 and 2020, primarily due to the onset of COVID-19 pandemic. As such, overall, the investment index increased by only 2.2% over the

2015-2020 period. In parallel, investment in dwellings by the whole economy declined by 0.6% in comparison to the 2015 value. Likewise, investment in non-residential construction and civil engineering decreased by 3.9% over the 2015-2020 period. In absolute terms, investment in the construction sector totalled EUR 271.7 billion in 2020 with EUR 140.9 billion invested in dwellings and EUR 130.8 billion in non-residential and civil engineering<sup>142</sup> (Figure 10).

Total investment in the broad construction sector between 2015 and 2020

↓ 2.2%

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



Source: AMECO, 2021.

The share of **total inland**<sup>143</sup> **infrastructure investment** in the GDP stood at 0.9% in 2019<sup>144</sup> as compared to the 1.0% in 2010. Investment in rail, sea and air transport infrastructure increased by 127.9%, 41.3% and 35.6% over the 2010-2019<sup>145</sup> period, totalling EUR 11.6 billion, EUR 301.0 million and EUR 1.0 billion, respectively. In contrast, investment in inland waterways and road infrastructure decreased by 35.6% and 32.3% over the 2010-2019 period, amounting to



EUR 163.0 million and EUR 9.8 billion in 2019, respectively.

Total investment in the rail infrastructure between 2010 and 2019

↑ 127.9%

In contrast, **investments in infrastructure maintenance** has declined over the 2010-2019 period. Investments in the maintenance of sea, rail, road and inland waterways infrastructure decreased by 11.3%, 8.1%, 4.4% and 1.7% over the same reference period, totalling EUR 47.0 million, EUR 3.5 billion, EUR 2.3 billion and EUR 59.0 million in 2019, respectively.

Total investment in rail infrastructure maintenance between 2010 and 2019

↓ 8.1%

**Household renovation spending** has seen an increasing trend since 2010. Indeed, it reached EUR 18.8 billion in 2020, an increase of 15.0% as compared to the 2010 level of EUR 16.4 billion. Renovation spending continues to account for 1.2% of households' disposable income in 2020, higher than the EU-27 average of 0.9%. This could be linked to the many renovation incentives provided by the French government. The latter identified the energy renovation of buildings as one of the national priorities.

Household renovations spending between 2010 and 2020

↑ 15.0%

Under its **Grand plan d'investissement** (GPI) investment plan, the French government has announced its public investment strategy for the 2018-2022 period, aimed at energy transition, skills, innovation, and digitalisation. Within this plan, the government has allocated EUR 57.0 billion for addressing existing economic challenges related to categories including ecological transition, skills, competitiveness through innovation and the digitalisation of public services<sup>146</sup>. Out of EUR 57.0 billion, EUR 9.0 billion has been allocated to the thermal renovation of buildings, EUR 4.1 billion to the renovation of infrastructure and sustainable transportation, while EUR 7.0 billion has been directed towards the development of renewable energies<sup>147</sup>.

With regards to the railway network, France is

implementing an ambitious reform the 'Law for a New Railway Pact'. Launched in 2018, the law aims to improve the governance and viability of France's national railway company (*Société nationale des chemins de fer français*, SNCF) by opening it up to external competition. The legal monopoly of SNCF on rail passenger transport is forecasted to end for regional transport by December 2023. Railway stations are also scheduled to be transferred from the railway undertaking '*SNCF Mobilités*' to the infrastructure manager '*SNCF Réseau*' to facilitate the implementation process. To improve transport and mobility infrastructure, France is planning to invest EUR 13.7 billion until 2023<sup>148</sup>.

**Under its 2021-2026 National Resilience and Recovery Plan (NRRP), France has allocated EUR 4.4 billion for modernisation of its railway network. This includes a EUR 4.1 billion plan to recapitalise '*SNCF Réseau*', the railway infrastructure manager in France<sup>149</sup>.**

With regards to the recapitalisation of '*SNCF Réseau*', under its NRRP, the French government has specifically allocated EUR 2.3 billion for regeneration of national railways, EUR 1.3 billion for renovation of engineering structures and EUR 250.0 million for regeneration of local railway lines. Additionally, EUR 300.0 million and EUR 40.0 million has also been allocated for investment in regional railway lines and development of rail freight, respectively<sup>150</sup>.

Moreover, the NRRP also provides for investments in the development of charging points for electric vehicles, improvement of the infrastructure of inland waterways as well as supporting projects aimed at greening ports, development of road infrastructure for transportation, and schemes aimed at the transition to clean road vehicles<sup>151</sup>.

In parallel, France has also undertaken a 'Grand Paris Express' programme to expand the country's infrastructure landscape. The EUR 35.0 billion expansion plan is designed to expand Paris' existing metro network, double the current track length and alleviate congestion in the city centre while providing enhanced transport connections in preparation for the 2024 Olympic Games<sup>152</sup>. When completed, the project will comprise a fully automated rapid transit metro line surrounding Paris, providing more efficient connections including to the *Charles de Gaulle* and *Orly* international airports. The project includes the

construction of fully automated four additional metro lines around Paris (Lines 15, 16, 17 and 18) and the extension of three existing metro lines (Lines 11, 12 and 14). The project is expected to be fully completed by end-2030<sup>153</sup>.

**High speed railway projects constitute an integral part of French rail infrastructure sector. Projects likely to be approved soon include modernisation of the EUR 5.3 billion Montpellier - Perpignan line and the EUR 19.4 billion Marseille - Nice line, along with the EUR 26.0 billion greenfield Turin-Lyon project. Other projects likely to be sanctioned soon involve Toulouse -Bordeaux line and the Normandy-Paris line<sup>154</sup>.**

Several other projects are also being undertaken simultaneously to develop the French transport infrastructure. For instance, Alstom won a EUR 430.0 million contract for the renewal and automation of *Marseille* metro. The project will be financed by *Métropole Aix-Marseille-Provence* with new trains expected to start running in early 2024. In December 2020, Alstom was also awarded by *Toulouse Metropole* a EUR 470.0 million contract to design, construct and maintain the transport system for the *Toulouse Aerospace Express* metro project in France<sup>155</sup>. The Turin-Lyon high-speed railway project also saw some advancement in its implementation. The EUR 26.0 billion project aims to align the French national network with the Trans-European Transport Network's Mediterranean corridor<sup>156</sup>.

**In 2020, the EIB Group invested almost EUR 1.6 billion in infrastructure in France<sup>157</sup>.**

In parallel, France also benefitted from investments from the **European Fund for Strategic Investments** (EFSI). As of January 2021, financing under EFSI amounted to EUR 18.0 billion and is set to trigger additional investments of EUR 90.1 billion. Under the infrastructure and innovation window, 168 projects have been approved, amounting to EUR 14.1 billion and are set to trigger EUR 63.4 billion in total investments<sup>158</sup>. Under the EFSI SMEs window, 70 agreements have been approved, involving a total financing of EUR 4.0 billion, and are set to trigger investments of up to EUR 26.7 billion. It is expected that this will provide improved access to finance to about 332,790 SMEs and mid-cap companies<sup>159</sup>.

## TO 2 – Skills

The employment rate of **vocational education and training** (VET) graduates (aged 20-34) in France stood at 68.5% in 2020, being employed between one and three years after graduation. With regards to upper secondary students, the VET proportion remained stable at 39.3% in 2019. The advent of the COVID-19 pandemic had a negative impact on the labour market integration of VET graduates. For instance, in July 2020, about 65.0% of apprentices and 44.0% of VET students were in employment after 12 months of graduation, representing a decrease of 3 and 6 pps, respectively, as compared to the employment rates of students graduated in 2018<sup>160</sup>.

The French government has introduced several initiatives to address the challenges faced in VET, including measures to support apprenticeships, such as financial incentives for firms to hire apprentices. New 'trades and qualifications campuses' encouraging international cooperation, were launched to promote excellence in VET. In 2020, the French government announced the first 23 excellence campuses representing key economic sectors, including the construction sector. It is expected that by 2022 'excellence campuses' will be set up in each region. Currently, the European Commission's Structural Reform Support Programme supports the launching of new campuses along with the upgrading of existing ones. Additionally, the Investment Plan for the Future (*Programme d'investissement d'Avenir* - PIA) was scheduled to fund 20 to 30 projects by end-2020<sup>161</sup>.

In parallel, a new quality label, '*Qualiopi*', has been implemented for initial training. Simultaneously, a new service, '*Inserjeunes*', to develop indicators for monitoring the professional integration of initial VET students has also been launched. Over the 2018-2022 period, the Skills Investment Plan (*PIC*), backed by EU funding, further intends to support unemployed people and job seekers access continuous VET. Furthermore, education and training centres had been shifted to online as well as hybrid training courses<sup>162</sup>.

Conversely, the overall **adult participation in learning** decreased from 19.5% in 2019 to 13.0% in 2020. This continues to be higher than the EU-27 average of 9.2%<sup>163</sup>. Adult participation in education and training in the narrow construction sub-sector

stood at 12.3% in 2020, notably higher as compared to the EU-27 average of 7.4%. Similarly, adult participation in education and training in the real estate activities sector stood at 19.8% for 2020, higher than the EU-27 average of 13.8%.

Likewise, in 2020, the participation rate of low-skilled adults stood at 4.6%, almost half as compared to that of medium-skilled adults (9.5%) in learning. It is also lower than the participation rate of highly skilled adults (20.5%). Further, the share of unemployed persons participating in learning stood at 11.1% in 2020, representing a decline of 3.4 pps as compared to its 2019 level. Nonetheless, the French Public Employment Service (*Pôle Emploi*) reported that more unemployed people started training courses in 2020, a 13.0% increase as compared to its 2019 level. This was also partially driven by the rapid take-up of individual learning accounts (*CPF Autonome*)<sup>164</sup>.

The economic crisis caused by the COVID-19 pandemic has put a renewed emphasis on developing human talent through more direct measures beyond online training. For instance, both job seekers and employees can benefit from free professional guidance at regional level through institutions designated by law (including the public employment service), following a call for projects from the national institution for vocational training (*France Compétences*)<sup>165</sup>.

There is also an increased emphasis on supporting career transition. From 2020, new professional development counselling providers will be selected in each region. Under the *Pro-A* program, employees will be allowed to access a training program through an apprenticeship, while keeping their work contract and salary. Moreover, the skills investment plan is also financing innovative experimentation wherein increased support is provided for low-qualified jobseekers and NEETs (Not in Education, Employment or Training) at national and regional levels<sup>166</sup>.

Under the framework of the Construction Revival Plan, the Action Programme for Construction Quality and Energy Transition (*Programme d'Action pour la qualité de la Construction et la Transition Energétique* - PACTE) was launched by the Ministry of Housing, aimed at supporting innovation and training among construction companies. The programme is structured around three main axes namely, supporting the development of skills,

providing practical and modern tools adapted to the needs of professionals and strengthening cooperation among regions regarding the actions and measures to build the skills of construction professionals<sup>167</sup>.

**As mentioned in its National Resilience and Recovery Plan (NRRP), France has allocated EUR 4.6 billion for training young people. This includes training opportunities in higher education and targeted hiring subsidies for youth. Further, the NRRP also allocated EUR 2.5 billion for reskilling and upskilling the French labour force, investing in lifelong training as well as distance learning tools<sup>168</sup>.**

The French NRRP strongly supports the VET and apprenticeship systems as well as provides subsidies worth EUR 3.2 billion. The Plan allocated EUR 1.6 billion for investments in the skills acquisition of workers and unemployed people. Additionally, the plan allocated EUR 1.1 billion for providing training courses to workers in partial (un)employment and participate in professional reconversions, EUR 25.0 million for developing digital skills, EUR 304.0 million for digitalisation of training materials, EUR 160.0 million for providing distance learning courses to unemployed people and EUR 100.0 million for organisations supporting professional transitions<sup>169</sup>.

Several other initiatives also provided training on energy efficiency techniques. The **FEE Bat** initiative, set up through an agreement between various industry actors (*Électricité de France*, the Ministry of Housing, various trade associations, etc.) offers training courses on the thermal renovation of existing buildings, covering both technical implementation aspects, as well as those related to the overall energy performance of buildings. This allows participants to provide relevant advice to customers in terms of energy savings<sup>170</sup>. Similarly, **Qualit'EnR** offers short training courses for construction professionals to provide them with the necessary skills for the installation of renewable energy systems (such as photovoltaic panels, solar-powered heating systems, biomass-powered heating systems, etc.)<sup>171</sup>.

In order to stimulate the adoption of digital technologies in the construction sector, the Building Digital Transition (PTNB) initiative also seeks to improve the digital skill-base of construction professionals. To this end, the PTNB coordinates

several actions including the assessment of the offers for BIM training, as well as the benchmarking of international initiatives, with a view to providing construction professionals with a comprehensive picture of all training opportunities available. These measures also allow training centres to further align their courses with the needs of the industry<sup>172</sup>.

### TO 3 – Resource efficiency / Sustainable construction

For 2020, France had set an energy efficiency target of 219.9 Mtoe for primary energy consumption and 131.4 Mtoe for final energy consumption<sup>173</sup>. However, as per latest available data, France is falling short of its energy efficiency targets and faces the major challenges of decarbonising and increasing the energy performance of the building sector. France's energy consumption levels remain above the expected levels under the Energy Efficiency Directive for 2020 (239.5 Mtoe for primary energy consumption and 148.9 Mtoe for final energy consumption). As per its National Energy and Climate Plan (NECP), the country plans to achieve a 20.0% reduction of its energy consumption by 2030 as compared to 2012 levels, in line with the EU 2030 targets. The French building sector represents 45.0% of final energy consumption and 25.0% of greenhouse gas emissions. As such, decarbonisation and upgrade of the energy performance of the building stock represents a major challenge for the country<sup>174</sup>.

**As per the National Energy and Climate Plan, France needs to invest an additional EUR 15.0 to EUR 25.0 billion annually until 2030 into the renovation of its building stock<sup>175</sup>.**

As per the estimates made by the Institute for Climate Economics, by 2023 an additional EUR 15.0 to EUR 18.0 billion of investment per year in housing, renewable energy and clean transports are required to enable France to achieve its goal of carbon neutrality by 2050. According to the national objectives set by the national low carbon strategy (SNBC) and the multiannual energy plan (PPE), investment needs in the same sectors are estimated at about EUR 46.0 billion per year during the 2<sup>nd</sup> carbon budget period (2019-2023) and EUR 64.0 billion per year during the 3<sup>rd</sup> period (2024-2028)<sup>176</sup>. As per the French Institute for Climate Economics (I4CE), an additional EUR 2.0 – 8.0 billion per year is required to renovate 500,000

buildings annually and bring them up to a 'low consumption' label<sup>177</sup>.

With regards to the building sector, the main policy instruments used by the French government for promoting energy efficiency include tax credits in favour of energy transition, CITE, and the energy savings certificates, CEE<sup>178</sup>. The Energy Transition Initiative (*Transition Énergétique*) supports energy efficiency upgrades of the public building stock and private housing, among other objectives<sup>179</sup>. It also includes measures focusing on the citizens, such as a communication campaign to inform people about the options for sustainable dwelling renovations and the related financial gains<sup>180</sup>. Following the newly amended EU Directive on Energy Efficiency, the French government transposed the initiative into its legal framework, turning it into a bonus scheme in 2020. As part of this, a new regulation, the RE 2020 is expected to make buildings more energy efficient, by shifting the focus of the policy on limiting building energy consumption to limiting building greenhouse gas emissions.

**The French National Resilience and Recovery Plan (NRRP) has allocated EUR 5.8 billion for the renovation programme of its building stock in order to increase their energy efficiency<sup>181</sup>.**

This flagship investment allocation includes EUR 3.8 billion assigned for renovation of public buildings and is aimed at achieving an average energy savings as well as reductions in greenhouse gas emissions exceeding 30.0%. This also includes allocation for the renovation of social housing, private housing, and buildings owned or operated by SMEs and micro enterprises. Overall, these investments are aimed at increasing the rate and depth of building renovations and contributions to the green transition of the building sector<sup>182</sup>.

**The French NRRP builds on 'France Relance', a EUR 93.4 billion recovery package with funding from both the domestic and EU budgets as approved in September 2020. About 42.0% of 'France Relance' funding (EUR 39.4 billion) is included in the NRRP<sup>183</sup>.**

About EUR 6.7 billion is allocated towards building renovation within the "France Relance" package (7.2%), out of which EUR 5.8 billion is backed through the NRRP (14.0% of NRRP funding). The majority of this amount is directed towards the renovations of schools and public administration



buildings (EUR 4.0 billion, of which EUR 3.8 billion NRRP), followed by private housing (EUR 2.0 billion, of which EUR 1.4 billion NRRP), social housing (EUR 0.5 billion, all NRRP) and businesses (EUR 0.2 billion, of which EUR 0.12 billion NRRP)<sup>184</sup>.

Additionally, the **Housing Energy Efficiency Renovation Plan** (*Plan de rénovation énergétique de l'habitat* - PREH) continues to stimulate the renovation of the existing housing stock and enhance energy efficiency<sup>185</sup>. The plan also aims to renovate all residential buildings which have an energy consumption over 330 kWh/m<sup>2</sup> per year by 2025. It provides the framework for a variety of support instruments, such as loans and tax reductions for all income classes. The **National Housing Agency** (*Agence Nationale de l'Habitat* - ANAH) also grants financial support to low-income property owners to renovate dwellings, enhance energy efficiency and adapt them to disabilities. Under the **Living Better** programme (*Habiter Mieux*), the ANAH provides advice and financial aid of up to EUR 10,000 to support renovation. The amount of support depends on the income level of the beneficiaries, covering 35.0% and 50.0% of the renovation costs for moderate-income and low-income households, respectively. Furthermore, if the renovation works result at least in a 25.0% reduction in energy consumption, an additional premium can be obtained from the **Thermal Renovation Support Fund** (*Fonds d'aide à la rénovation thermique* – FART), which covers 10.0% of the incurred costs and amounts to EUR 2,000 and EUR 1,600 for moderate-income and low-income households, respectively<sup>186</sup>.

## TO 4 – Single Market

**As per the 2021 EU Single Market Scoreboard, France performed below the EU-27 average in four areas, better than EU-27 average in four areas and average in two out of the total ten metrics<sup>187</sup>.**

In relation to the EU Single Market Scoreboard 2021 metrics, France's performance was below average in infringements, IMI (Internal Market Information System), SOLVIT (staffing) and professional qualifications. It performed above average in terms of transposition of law, e-Certis, public procurement and Your Europe metrics – the EU's single digital gateway aimed at providing access to information, procedures, assistance and problem-solving

services. Lastly, the country scored average in terms of EURES (European Employment Services) as well as trade in goods and services<sup>188</sup>.

As per the European Commission's Retail Restrictiveness Indicator, France is considered the most restrictive Member State in context of operational restrictions<sup>189</sup>. Similarly, the 2018 OECD Product Market Regulation indicator ranked France as the 6th most restrictive country out of 34 advanced economies. With regards to architectural and real estate activities, France has a lower business churn rate as compared to other EU Member States. This reflects a lower degree of dynamism and competition within regulated professional services<sup>190</sup>.

The French government has initiated several measures to promote and develop its domestic SMEs environment. For instance, adopted in 2019, the Action Plan for Business Growth and Transformation (PACTE – '*Plan d'Action pour la Croissance et la Transformation des Entreprises*'), aims to simplify the obligations connected with employee thresholds (currently 199 obligations for SMEs), thereby helping them to expand. It also intends to streamline regulations for entrepreneurs by creating a single online platform for business formalities, which is expected to be in place between 2021 and 2023<sup>191</sup>.

The French construction sector is generally compliant with the Services Directive (2006/123/EC), which aims to remove obstacles to the cross-border provision of services within the single market. In fact, France has not established horizontal authorisation schemes for construction service providers, since building control procedures offer a sufficient level of control, thus removing any associated regulatory burdens<sup>192</sup>. Furthermore, France adopted performance-based standards that facilitate mutual recognition of technical rules between Member States. However, regarding the overall level of restrictiveness of building permit schemes, France is more restrictive in terms of mutual recognition, particularly with regards to insurance and liability requirements. Indeed, many cross-border service providers face difficulties in obtaining the national insurance products required by law to enter the French construction market<sup>193</sup>.

Regarding the implementation of **Eurocodes**, all Eurocode parts have been published as National Standards, with National Annexes being published

on all but 8 Parts (2 on EN 1993, 1 on EN 1997 and 5 on EN 1999). Moreover, 22 Eurocode Parts are compulsory for seismic and fire-resistant design, but there is no framework enforcing their use in public procurement. No other national standards are used in parallel with Eurocodes.

## TO 5 – International competitiveness

As per World Bank Doing Business 2020 report, France was ranked 1<sup>st</sup> out of 190 economies in the ease of trading across border, achieving score of 100<sup>194</sup>.

As per the report, in France it takes only one hour to be documentary compliant and almost zero hour to be border compliant. In terms of costs, businesses don't need to spend any amount to be border and documentary compliant<sup>195</sup>.

With regards to the **internationalisation of construction SMEs**, the export value of all construction-related projects in France stood at EUR 2.7 billion in 2020, representing a decrease of 2.7% as compared to its 2010 level of EUR 2.8 billion. France's share of exports of all construction-related products in 2019 stood at 9.8% of the total production value, lower than the EU-27 average of 11.3% for the same reference period. This further declined to 9.6% in 2020.

Exports value of all construction-related products between 2010 and 2020

↓ 2.7%

In the context of **inward FATS (foreign affiliates statistics)**<sup>196</sup>, value added at factor cost in the narrow construction sub-sector decreased by 29.1% between 2010 and 2018<sup>197</sup>. Similarly, turnover in the narrow construction sub-sector decreased by 4.9% over the 2010-2018 period, totalling EUR 8.2 billion in 2018<sup>198</sup>. Likewise, in the context of **outward FATS**, turnover in the narrow construction sub-sector also increased by 76.6% over the same reference period, totalling EUR 46.2 billion in 2018<sup>199</sup>.

With regards to start-ups, France has launched several support initiatives. For instance, French Tech, an ecosystem which brings together start-ups, investors, builders and policymakers, providing support to the 120 fastest growing companies, seed funds and tech-hubs to help them expand. In fact, the amount of capital risk provided to French start-ups amounted to EUR 5.4 billion in 2020<sup>200</sup>.

Vivapolis, the umbrella brand gathering all French stakeholders (companies, investors, policymakers, universities, etc.), actively works in the field of sustainable cities and promotes French expertise and know-how abroad. It organises international forums, B2B meetings, business missions and conferences across the globe, giving participant companies the opportunity to network, secure business partners and contracts<sup>201</sup>. Vivapolis works in close cooperation with Business France, the major supporter of the internationalisation of French firms. It provides market information to companies trying to expand abroad, as well as B2B networking events across the globe. Moreover, financial support is provided through *Bpifrance*, which offers loans and guarantees for exporting companies<sup>202</sup>. Under the *Bpifrance*, the export credit can be granted both to French firms and to their international clients, covering up to 85.0% of the export value defined in the contract<sup>203</sup>.

France has also implemented financial support measures for exporting companies to enable them to secure their cash flows and ensure international rebound after the COVID-19 crisis. These include: (i) extension of state guarantees to a six-months validity period for export pre financing, (ii) one-year extension of current prospecting insurance, as well as (iii) establishment of reinsurance for short-term export credits<sup>204</sup>.

Despite the government's on-going efforts, the lack of fluency in foreign languages, high production costs and unfavourable foreign markets regulations continue to remain some of the major obstacles to France's internationalisation<sup>205</sup>. Additionally, the COVID-19 pandemic shock has resulted in a temporary slump in competitiveness, with higher unit labour costs and lower export contracts. Nonetheless, this impact on cost competitiveness is expected to be partially reversed in the coming years<sup>206</sup>.

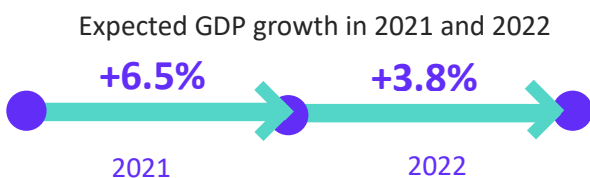


## 8

# Outlook

Over the 2020-2022 period, French GDP is expected to increase by 10.6%, primarily driven by massive infrastructural and digitalisation investment backed by EU funding.

French **GDP** is forecasted to increase by 6.5% in 2021 and then by 3.8% in 2022, totalling EUR 2.3 trillion and EUR 2.4 trillion in 2021 and 2022, respectively.



Subsequently, the **volume index of production** in the broad construction sector is expected to increase by 11.8 index points (ip) in 2021, mainly driven by a 13.5 ip and 10.6 ip rise in the construction of buildings and civil engineering sub-sectors, respectively. Similarly, **turnover** in the broad construction sector is forecast to grow by 5.7% in 2021, amounting to EUR 467.2 billion. The **total value added** of the broad construction sector is also expected to increase by 5.8% in 2021, reaching EUR 166.6 billion.

Conversely, the **number of persons employed** in the broad construction sector is also expected to increase by 5.8% in 2021, amounting to 2,430,007. Most of this growth is expected to come from the architectural and engineering activities (+6.3%), the real estate activities (+6.2%), the manufacturing (+5.8%) and the narrow construction (+5.6%) sub-sectors.

The French government is already undertaking several measures to promote the **residential construction market**. The housing tax has already been entirely removed for 80.0% of French households. With regards to the remaining 20.0% richest households, there will be a gradual decrease

in tax rate from 2021, followed by complete cessation of housing tax by 2023. Under its 2021-2026 NRRP, the French government has proposed the adoption of '**Climate and Resilience Law**' to underpin its green transition. Additionally, the plan also suggested revision of thermal regulation of new buildings ('**RE2020**'). Likewise, the French NRRP also advocated the implementation of the '**2019 Mobility Law**', a broad legislative initiative to update the general framework of mobility policies. The French NRRP has allocated EUR 5.8 billion for the renovation programme of its building stock in order to increase their energy efficiency.

In the context of the **non-residential construction and infrastructure sector**, under its **Grand plan d'investissement** (GPI) investment plan for the 2018-2023 period, the French government has allocated EUR 57.0 billion for the strategic development of the economy including EUR 9.0 billion for the thermal renovation of buildings, EUR 4.1 billion for infrastructure renovation and sustainable transportation along with EUR 7.0 billion for the development of renewable energies. Moreover, France is planning to invest EUR 13.7 billion until 2023 to improve its transport and mobility infrastructure. As per its NRRP, France has allocated EUR 4.4 billion for modernisation of its railway network. This includes a EUR 4.1 billion plan to recapitalise '**SNCF Réseau**', the railway infrastructure manager in France. Additionally, high speed railway projects likely to be approved soon include modernisation of the EUR 19.4 billion *Marseille - Nice* line as well as the EUR 26.0 billion greenfield *Turin-Lyon* project.

Overall, the French construction sector is expected to be on a recovery track from 2021 onwards, driven by large scale digitalisation and infrastructural projects backed by EU funding. Output in civil engineering will be the leading investment driver for the economy.

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The gross operating rate is the ratio of Gross Operating Surplus to Turnover and is an indicator of profitability.

Data related to subsequent years not available.

Please note that this 2018 data is a nowcast - please refer to the methodology notes for further details.

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.

Please note that this 2019 data is a nowcast - please refer to the methodology notes for further details.

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.

Data for other construction sub-sectors is not available.

Apparent labour productivity refers to the gross value added per person employed.

No data available for subsequent years

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The warehouse in this example is defined as a structure for general storage activities, with two stories, above ground and with total constructed area of approx. 1,300 square meters. 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 external agencies. Finally, in this example the warehouse takes 30 weeks to construct, excl. all delays due to administrative and regulatory requirements.

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This includes total investment (i.e. gross fixed capital formation) in dwellings and non-residential construction and civil engineering by investors in the general economy (e.g. industry, financial and non-financial services, households, agricultural sector, etc.).

The indicator gross fixed capital formation in non-residential and civil engineering refers to the Eurostat indicator «Other buildings and structures»

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