

European Construction Sector Observatory



In a nutshell

In 2020, Finland's GDP stood at EUR 223.7 billion, representing an increase by 6.2% from 2010 level. However, it has declined annually by 2.8%, which reflects the impact of COVID 19 global pandemic on the country's economy.

The **number of enterprises** in the broad construction sector in Finland stood at 89,079 in 2020¹, representing an increase of 26.0% since 2010. This was driven by an increase in the number of enterprises in the real estate activities (+92.6%), the narrow construction (+7.1%) and the architectural and engineering activities (+2.2%) sub-sectors, offsetting a decrease in the manufacturing sub-sector (-19.5%), over the 2010-2020 period.

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



In parallel, the **volume index of production** in the broad construction sector witnessed a growth 13.3% over the 2015-2020 period. This was driven by a growth in volume index of construction of buildings (+13.7%) and construction of civil engineering (+11.5%) over the same period.

Similarly, the **total turnover** of the broad construction sector in 2018 amounted to EUR 65.8 billion, representing a growth of 55.0% over the period 2010-2018. It increased to EUR 70.8 billion further in 2020². This represented an increment of 66.8% since 2010 and 7.6% since 2018.

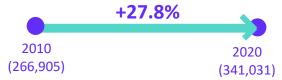
Total turnover of the broad construction sector between 2010 and 2020



The **gross operating rate**³ of the broad construction sector, an indicator of the sector's profitability, stood at 14.2% in 2018, slightly below the 2010 level (14.8%) and also below the 2018⁴ EU-27 average (16.7%). This may be partly explained by the increase in **construction cost index**, which grew by 10.9 index points (ip) over the 2010-2018 period.

In terms of employment, there were 341,031 **persons employed** in the broad construction sector in 2020⁵, representing a 27.8% increase since 2010. This was driven by increases in the real estate activities sub-sector (+46.8%), the narrow construction (+33.4%) and the architectural and engineering activities (+30.0%) sub-sectors, offsetting a decrease in the manufacturing sub-sector (-8.6%), over the 2010-2020 period.

Number of persons employed in the Finnish broad construction sector



Growing households income, declining mortgage interest rates, and an increasing urbanisation rate contributed to a strong housing demand, which drove the housing index price up (+6.4% between 2015 and 2020). In parallel, the housing supply has grown — though not at the same pace as the demand. The residential **building permits index** grew by 25.0% in 2020 as compared to the 2015 level.

Residential building permits index between 2015 and 2020

25.0%

However, the market was significantly affected by the pandemic in March 2020. The total transaction volume amounted to EUR 5.6 billion, 13.0% lower than previous year.

In order to strengthen the country's **infrastructure**, EUR 7.0 billion was invested by the public and private sector in the civil engineering market, forming 19.0% of the total value of construction in 2020 (EUR 36.9 billion). Out of this, EUR 5.1 billion was spent on new investments and EUR 1.9 billion under maintenance⁶. The Finnish government is expected to invest EUR 748.0 million for the development and maintenance of the transport network over the 2022-2025 period.

Finland will receive approximately EUR 2.1 billion in grants from the Recovery and Resilience Facility.

The Finnish Recovery and Resilience Plan (RRP), approved by the European Commission in October 2021, will significantly help the country emerging from the COVID-19 pandemic crisis and fostering its green and digital transition. The plan includes investments of EUR 110 million to reduce the climate and environmental impacts of the building stock. Among other initiatives, the plan encompasses a reform of the public employment services to increase the employment rate⁷.

Despite such developments, the Finnish construction sector still faces some major hindrances. The most important relates to shortages of skilled labour. In a recent survey conducted by the Finland Chamber of Commerce, more than half of the respondents from various industries stated that they have not gotten enough applicants for job vacancies. Their operations have

also been hampered by the shortage of skilled labour in the country.

The second most important issue faced by the construction sector is the **implementation of digital technologies and innovation**. The share of firms in the Finnish construction sector reporting 'no **innovation**' stood at 58.0%, being the highest as compared to manufacturing (30.0%), services (40.0%) and infrastructure (50.0%) sectors.

The COVID-19 pandemic had impacted the entire Finnish economy as a whole and the construction sector in particular in 2020. However, since the gradual lifting of restrictions imposed in order to tackle the pandemic, signs of recovery, especially witnessed in the sales in housing market have been observed. The recovery in the economy and in the construction sector in particular were backed by government's support measures. One such initiative, encompassing businesses from all the sectors, was the launch of Business cost support (Yritysten kustannustuki). This financial support (ranging from EUR 2,000 to EUR 500,000) aims to cover costs of businesses that experienced a marked decrease in turnover due to the adverse impact of COVID-19.



As a result of such initiatives aimed at supporting small businesses along with gradual revival of the construction sector due to increased housing demand and sales together with the government's futuristic plans for infrastructure development, the outlook of the Finnish construction sector looks optimistic and promising.

Table of Contents

In a nutshell	2
1 Key figures	5
Construction market	5
Productivity	6
Turnover and profitability	6
Employment	7
2 Macroeconomic indicators	9
Economic development	
Demography and employment	9
Public finance	9
Entrepreneurship and access to finance	
3 Key economic drivers of the construction sector	
Business confidence	
Domestic sales	
Export of construction-related products and services	
Access to finance in the construction sector	
Access to housing	14
Infrastructure	16
4 Key issues and barriers in the construction sector	17
Company failure	
construction sector	Error! Bookmark not defined.
Trade credit	17
Late payment	
Time and cost of obtaining building permits and licenses	
Skills shortage	
Sector and sub-sector specific issues	
5 Innovation in the construction sector	
Innovation performance	
Eco-innovation and digitalization	
6 National and regional regulatory framework	
Policy schemes	
Building regulations	
Insurance and liability related regulations	
7 Current status and national strategies to meet Construction 2020 object	
TO 1 – Investment conditions and volumes	
TO 2 – Skills	
TO 3 – Resource efficiency / Sustainable construction	
TO 4 – Single Market	
TO 5 – International competitiveness	
8 Outlook	26

1

Key figures

Construction market

The number of enterprises in the broad construction sector totalled 89,079 in 2020⁸, representing an increase of 26.0% since 2010.

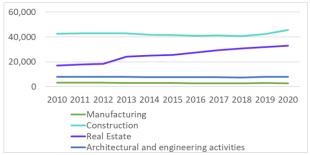
This was mostly driven by a 92.6% increase in the number of enterprises in the real estate activities sub-sector over the 2010-2020 period. It was followed by the narrow construction and the architectural and engineering activities sub-sectors, which increased by 7.1% and 2.2% respectively over the same period. Conversely, the manufacturing sub-sector witnessed a decline of 19.5%.

In 2020, the narrow construction sub-sector accounted for 51.1% (i.e. 45,506) of the total number of enterprises in the broad construction sector, followed by the real estate activities sub-sector, which accounted for 36.9% (i.e. 32,898). Similarly, the architectural and engineering activities sub-sector accounted for 9.0% (i.e. 8,024) and the manufacturing sub-sector accounted for 3.0% (i.e. 2,652) of the total enterprises in 2020.

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



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



Source: Eurostat, 2021.

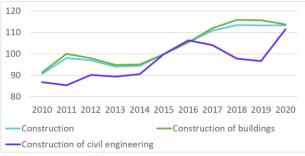
Over the period 2015-2020, the **volume index of production** in the broad construction sector increased by 13.3%. This was driven by a growth in

volume index of construction of buildings (+13.7%) and construction of civil engineering (+11.5%) over the same period.

Volume index of production in the construction of buildings between 2015 and 2020



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



Source: Eurostat, 2021.

The total value added at factor cost⁹ of the broad construction sector amounted to EUR 24.3 billion in 2020, representing a 54.0% growth since 2010¹⁰.

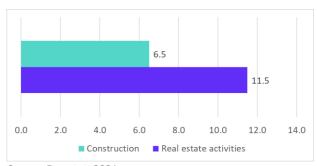
This was mainly driven by the architectural and engineering activities sub-sector, where value added increased to EUR 3.0 billion in 2020, representing 62.5% growth since 2010. It was followed by the narrow construction sub-sector, which increased to EUR 12.8 billion in 2020, representing 57.9% growth since 2010. The manufacturing and the real estate activities sub-sectors also increased to EUR 2.9 billion and EUR 5.3 billion in 2020 respectively, representing 55.3% and 41.0% increases from 2010 levels.

Overall, the narrow construction sub-sector accounted for 52.8% of the total value added at factor cost in the broad construction sector in 2020. It was followed by the real estate activities (22.8%),

architectural and engineering activities (12.5%) and manufacturing (12.0%) sub-sectors in 2020.

The **share of gross value added** of the broad construction sector in the GDP was 20.5% in 2018¹¹, higher than the EU-27 average (16.5%). In 2020, the share of gross value added in the narrow construction and real estate activities sub-sectors stood at 11.5% and 6.5% respectively (Figure 3).

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



Source: Eurostat, 2021.

Finland comprises five regions namely Länsi-Suomi, Helsinki-Uusimaa, Etelä-Suomi, Pohjois-ja-Itä-Suomi and Aland. The gross value added is spread unequally over these territories. The gross value added by Helsinki-Uusimaa region in the narrow construction sub-sector increased by 52.7% over the 2010-2018¹² period, the highest among the regions. This was followed increases in Länsi-Suomi (+38.8%) and Pohjois-ja-Itä-Suomi (+35.0%), over the same period. In the real estate activities subsector, the gross value added by Helsinki-Uusimaa increased by 45.2% over the 2010-2018¹³ period, the highest among the regions. This was followed by increases in Etelä-Suomi (+40.5%) and Länsi-Suomi (+35.9%), over the same period.

In 2018¹⁴, the regions *Helsinki-Uusimaa* and *Länsi-Suomi* collectively accounted for 59.3% of the total gross value added in the narrow construction sub-sector, while they accounted for 60.2% of the total gross value added in real estate activities sub-sector.

Productivity

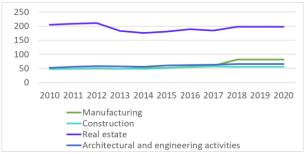
The **apparent labour productivity**¹⁵ in the Finnish broad construction sector has increased from EUR 59,164 in 2010 to EUR 72,030 in 2018¹⁶ (+21.7%)¹⁷, being well above the EU-27 average of EUR 51,960. This growth is also reflected in all the sub-sectors until 2020.

The labour productivity in the manufacturing sub-sector grew by 69.9% between 2010 and 2020¹⁸, reaching EUR 81,681. This was followed by the architectural and engineering activities sub-sector, which increased by 25.0% in the same period, reaching EUR 65,631. Similarly, the narrow construction sub-sector increased by 18.4% over the same reference period, reaching EUR 55,522. Conversely, the labour productivity in the real estate activities sub-sector, though being the highest in comparison to the other sub-sectors, declined by 3.9% over the period 2010-2020, reaching EUR 197,106 (Figure 4).

Labour productivity in the manufacturing sub-sector between 2010 and 2019



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



Source: Eurostat, 2021.

According to the European Investment Bank Investment Survey (EIBIS) 2020 for Finland, the share of firms in the construction sector operating at or above full capacity stood at 73.0%, being the highest in comparison with other sectors – manufacturing (38.0%), services (42.0%) and infrastructure (39.0%). This also represented an increment from previous year¹⁹.

Turnover and profitability

The **total turnover** of the broad construction sector in 2018 amounted to EUR 65.8 billion, representing a growth of 55.0% over the period 2010-2018. Further, in 2020²⁰ it increased to EUR 70.8 billion, representing an increment of 66.8% since 2010 and 7.6% since 2018. The growth over the 2010-2020 period was driven by subsequent increases in all four sub-sectors — the real estate activities sub-sector (+75.3%), the narrow construction sub-sector (+73.8%), the architectural and

engineering activities sub-sector (+58.6%) and the manufacturing sub-sector (+38.2%).

Overall, the narrow construction sub-sector accounted for 59.3% of the total turnover (i.e. EUR 42.0 billion) in the broad construction sector in 2020. It was followed by the real estate activities (18.7%, i.e. EUR 13.3 billion), the manufacturing (13.9%, i.e. EUR 9.9 billion) and the architectural and engineering activities (8.1%, i.e. EUR 5.7 billion) sub-sectors.

Turnover of the broad construction sector between 2010 and 2020

↑ 66.8%

The **gross operating surplus** of the broad construction sector amounted to EUR 9.4 billion²¹ in 2018²², a 49.1% increase compared to the 2010 level. This was primarily driven by 198.5% increase in the manufacturing sub-sector, followed by architectural and engineering activities (+87.8%), the narrow construction (+41.1%) and real estate activities (+29.2%) sub-sectors over the 2010-2018 period.

Overall, in 2018, the real estate activities sub-sector accounted for 43.4% (EUR 4.2 billion) of the total gross operating surplus in the broad construction sector, being the highest among sub-sectors. It was followed by the narrow construction sub-sector which accounted for 34.1% (EUR 3.2 billion) of the total. The manufacturing and the architectural and engineering activities sub-sectors accounted for 14.9% (EUR 1.4 billion) and 6.4% (EUR 600.6 million) of the total.

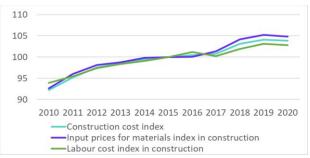
Gross operating surplus in the manufacturing sub-sector between 2010 and 2018

198.5%

At the same time, the **gross operating rate**²³ of the broad construction sector, which indicates the profitability of the sector, stood at 14.2% in 2018, slightly lower than in 2010 level (14.8%) and also below the 2018²⁴ EU-27 average (16.7%). The real estate activities sub-sector remained the most profitable, with a gross operating rate of 33.7% in 2018, followed by the manufacturing (13.5%), architectural and engineering activities (11.3%) and the narrow construction (8.5%) sub-sectors.

The **construction cost** index had been on an increasing trend since over the 2015-2019 period. However, due to impact of COVID-19 the cost index slumped in 2020. Over the 2015-2020 period, the construction cost index increased by 3.9%, however, it declined by 0.2 index point (ip) in 2020 over the previous year. The overall growth for the 2015-2020 period was driven by increases in the input prices for materials index (+4.8%) and labour cost index (+2.8%) (Figure 5).

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

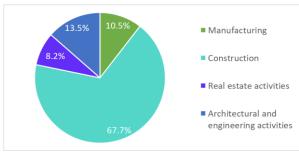


Source: Eurostat, 2021.

Employment

In 2020²⁵, there were 341,031 **persons employed** in the broad construction sector, representing a 27.8% increase since 2010. The narrow construction sub-sector employed 231,012 persons, comprising 67.7% of the total workforce employed in the broad construction sector in 2020. It was followed by the architectural and engineering activities, which employed 46,169 persons, comprising 13.5% of the total workforce in 2020. The manufacturing and the real estate activities sub-sectors employed 10.5% (35,781 persons) and 8.2% (28,069 persons) of the total workforce in 2020.

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



Source: Eurostat, 2021.

With regards to growth in the number of persons employed among the construction sub-sectors for the 2010-2020 period, the highest growth was recorded for the real estate activities sub-sector (+46.8%), followed by the narrow construction (+33.4%) and the architectural and engineering activities (+30.0%) sub-sectors. Contrarily, the manufacturing sub-sector witnessed a decline of 8.6% over the same period.

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



As for employment by specific occupations in the sub-sector, the number manufacturing professionals increased by 59.6% over the 2010-2020 period. It was followed by the number of technicians and associate professionals, which increased by 19.3% over the same period. Contrarily, the number of managers followed by number of persons employed under elementary occupations declined significantly by 71.4% and 33.7%, respectively over the same period. With regards to the narrow construction sub-sector, the number of professionals, followed by number of technicians and associate professionals increased by 85.6% and 68.7%, respectively over the same period. Whereas the number of managers, followed by number of clerical support workers declined by 83.0% and 8.5%, respectively over the same period.

The number of **self-employed** workers in the narrow construction sub-sector slightly increased by 2.3% over the 2010-2020 period. This represents 13.8% of the self-employed in the general economy in 2020, slightly above the EU-27 average of 11.7%. Over the same period, in the real estate activities

sub-sector, the number of self-employed workers increased by 5.0%, which represented 1.5% of the self-employed in the overall economy in 2020, slightly above the EU-27 average of 1.6%.

In parallel, the number of **full-time employees** in the real estate activities and the narrow construction sub-sectors increased by 41.2% and 8.1%, respectively, over the 2010-2020 period. However, the manufacturing sub-sector witnessed a decrease of 10.1% in the number of full-time employees over the same period.

With regards to number of **part-time employees**, all the sub-sectors experienced increase over the 2010-2020 period. Specifically, in the narrow construction, the manufacturing and the real estate activities sub-sectors number of part-time employees increased by 28.1%, 13.6% and 10.2% respectively, in the same reference period.

In terms of regional employment, in the narrow construction sub-sector, *Aland* recorded the largest increase (+40.5%) in the number of persons employed over the 2010-2018²⁶ period. It was followed by Helsinki-Uusimaa (+26.3%) and Pohjois- ja Itä-Suomi (+14.2%) over the same reference period. Helsinki-Uusimaa, Länsi-Suomi and Pohjois- ja Itä-Suomi collectively comprised of 78.8% of the total number of persons employed over the same period. In the real estate activities sub-sector, *Aland* recorded the largest increase (+27.3%) in the number of persons employed over the 2010-2018²⁷ period. It was followed by Helsinki-Uusimaa (+13.6%)and Länsi-Suomi (+6.0%). Helsinki-Uusimaa, Länsi-Suomi and Etelä-Suomi collectively comprised of 81.5% of the total number of persons employed over the same period.

2

Macroeconomic indicators

Economic development

In 2020, Finland's **GDP** reached EUR 223.7 billion representing 6.2% growth since 2010, but an annual decline of 2.8%. In 2020, the **potential GDP** of Finland reached EUR 232.0 billion, resulting in a negative **output gap** of -3.6%. This highlights the impact of the global COVID-19 pandemic on the Finnish economy, despite some signs of stabilisation have been apparent since late spring in 2020²⁸.

The **inflation rate** has also decreased annually from 1.1% in 2019 to 0.4% in 2020, remaining below the EU-27 average of 0.7%.

Demography and employment

Finland's total population stood at 5.5 million people in 2020. By 2050, the total population is expected to reach 5.3 million, representing a 4.3% decrease in comparison to 2020. The working age population accounted for 62.0% (3.4 million) of the total population in 2020. It is expected to reduce to 58.8% (3.1 million) of the total population by 2050. The ageing population accounted for 22.3% (1.2 million) of the total population in 2020. Contrary to the working age population, this is expected to increase to 28.2% (1.5 million) of the total population by 2025. This clearly indicates a potential increase in demand for infrastructures (hospitals, care homes, access infrastructure), which could in turn provide further opportunities for the construction sector.

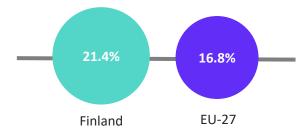
With respect to **unemployment** in Finland, the average unemployment rate increased to 6.2% in 2020, in comparison with 2019 (5.4%). However, this is lower than the 2010 levels (6.7%) and 2020 EU-27 average (6.3%).

According to the data agency's Labour Force Survey, there were 235,000 people without jobs as of January 2021 in Finland. There were 41,000 more unemployed people in January 2021 than in the same period last year²⁹.

These changes in employment status can be attributed to the ongoing pandemic, which has impacted Finland's economy negatively. Several industries have been hit hard by restrictions imposed in order to contain the spread of virus³⁰.

In parallel, **youth unemployment** also experienced a substantial increase from 17.2% in 2019 to 21.4% in 2020, in line with the 2010 level. It also lies above the 2020 EU-27 average (16.8%). Moreover, the **net migration rate** has also increased by 27.4%, from 13,756 in 2010 to 17,526 in 2020.

Youth unemployment rate in 2020

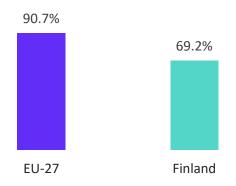


In its 2021 budget, Finnish government has announced to take measures to strengthen the economy, aiming to have an employment-generating impact amounting to 80,000 new jobs. The measures decided in the budget session, combined with the Government's earlier employment measures, are expected to generate 31,000 - 36,000 jobs³¹.

Public finance

In 2020, general government expenditure in Finland accounted for 56.7% of GDP, which represents a significant increases from the previous year (53.2%) and 2010 level (53.9%). It also lies above the EU-27 average (53.4%) in 2020. Finland's general government deficit in 2020 stood at -5.4% of GDP lower than the previous year (-0.9%) and 2010 level (-2.5%). However, it was higher than the 2020 EU-27 average (-6.9%). For the same year, the general government gross debt in Finland stood at 69.2% of the GDP, higher than the previous year

(59.5%) and 2010 level (46.9%), but lower than the EU-27 average in 2020 (90.7%).



Government gross debt (% of GDP) in 2020

Entrepreneurship and access to finance



According to the World Bank Doing Business 2020 report, Finland ranked 31st out of 190 countries in ease of starting a business. This marks an improvement with the previous year's ranking (43rd)^{32,33}.

As per the report, starting a business in Finland requires three procedures, taking 13 days and costing 0.7% of income per capita³⁴. However, as per the **Global Entrepreneurship Report**, Finland performs significantly below the EU-27 average on several entrepreneurship indicators such as – entrepreneurship being considered a desirable career choice (Finland: 40.3% and EU-27 average: 59.5%), entrepreneurial intentions (Finland: 10.4% and EU-27 average: 13.4%) and total early-stage entrepreneurial activity (Finland: 6.7% and EU-27 average: 8.6%)³⁵.

As a result of the COVID-19 pandemic, many Finnish entrepreneurs and small and medium enterprises (SMEs) were impacted in 2020. Therefore, the **Ministry of Economic Affairs and Employment** is working on an entrepreneurship strategy to strengthen entrepreneurship in Finland. Several support instruments were introduced offering financial support to these businesses³⁶.

Until 31st August 2020, businesses that experienced a marked decrease in turnover due to COVID-19 could receive financial support to cover their business costs. This support, known as the **Business**

cost support (*Yritysten kustannustuki*), ranged from EUR 2,000 to EUR 500,000³⁷.

Moreover in 2020, the Finnish sole entrepreneurs could apply for a EUR 2000 COVID-19 crisis support to cover their business expenses. This measure is named as **Operating support for sole entrepreneurs** (*Kuntien yksinyrittäjien tuki*). The conditions to qualify for the grant are a specific minimum turnover and full-time entrepreneurship³⁸.



In terms of access to finance, Finland ranked 80th out of 190 countries for the ease of getting credit³⁹. This is a decline from previous year's ranking (60th)⁴⁰.

Access to finance is one of the most important concerns for SMEs in Finland. According to the EIBIS 2020 report, around 5.6% of all the Finnish firms were considered to be financially constrained, lower than the previous year (6.0%). In the general economy, the highest levels of dissatisfaction amongst SMEs regarding access to finance are with the cost of finance (13.0%) and collateral requirements (9.0%)⁴¹.

According to **Survey on the Access to Finance of Enterprises (SAFE) 2020 report**, the degree of importance of access to finance grew significantly from 4.0% in 2018 to 8.0% in 2019. However, in 2020 it reduced a little (7.0%). The rising macroeconomic uncertainty influenced the availability of external finance. Especially the developments in the general economic outlook have negatively affected access to finance⁴².

Furthermore, the reported needs and availability of financing reflected the impact of the COVID-19 pandemic. There had been significant increases in the need bank loans and credit needs in 2020. Bank loans were relevant for around 59.0% of the SMEs in Finland in 2020, whereas credit lines were relevant for 67.0% of SMEs⁴³.

In 2020, the outstanding loans to non-financial corporations stood at EUR 96,836 billion, representing 68.4% increment since 2010⁴⁴.

In order to boost access to finance in Finland, the government introduced **Finnvera's**⁴⁵ **additional funding for SMEs** (*Finnveran lisärahoitus pk-yrityksille*) in 2020. As per the scheme, the government enables the provision of additional

Country Fact Sheet Finland

financing of EUR 10.0 billion to businesses through Finnvera. The maximum amount of a single SME Guarantee granted for an enterprise at one time is EUR 120,000. The objective of this scheme is to increase Finnvera's authorisations is to ensure the continued availability of sufficient financing. Between March and April 2020, Finnvera had already made 10,000 financing and amendment decisions affecting SMEs⁴⁶.

Another such scheme launched by TESI (Finnish Industry Investment Ltd.) in April 2020, aims to

ensure the continuity of companies' operations over the crisis due to COVID-19. Through this scheme, named **Stabilisation financing for medium-sized companies in a corona situation** (*Tesin vakautusrahoitus keskisuurille yrityksille koronatilanteessa*), TESI invests in medium-sized companies in sudden and temporary difficulties due to the coronavirus and which are able to overcome their financial problems with additional financing. A typical investment in the scheme ranges between EUR 2.0 to EUR 15.0 million⁴⁷.

3

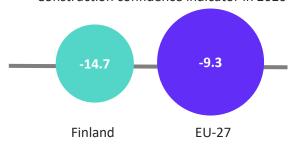
Key economic drivers of the construction sector

Business confidence

Over the 2010-2020 period, consumer confidence and industry confidence indicators deteriorated, whereas the construction confidence indicator showed an improvement. However, all three indicators experienced a decline in 2020, in comparison with the previous year.

The **consumer confidence indicator** for Finland stood at -6.3 in 2020, lower than both 2010 level (3.2) and 2019 level (-4.1). This is however above the 2020 EU-27 average (-14.6). Likewise, the **industry confidence indicator** reached -16.1 in 2020, lower than both 2010 level (2.9) and 2019 level (-3.5). This also stood above the 2020 EU-27 average (-14.4). On the contrary, the **construction confidence indicator** increased to -14.7 in 2020, higher than the 2010 level (-18.8). However, it was still below the 2020 EU-27 average (-9.3) and the 2019 level (5.7).

Construction confidence indicator in 2020



In parallel, the **investment ratio** increased to 22.7% in 2020, slightly higher than 2010 level (21.9%) and EU-27 average (21.8%). Conversely, the **investment per worker** in the broad construction sector reached EUR 96,183 in 2018, representing a 3.4% decline since 2010. Amongst the sub-sectors, the **investment per person employed by industry** increased to EUR 12,200 in 2018⁴⁸ in the

manufacturing sub-sector, representing a growth of 248.6% since 2010. This was followed by the real estate activities sub-sector, where investment reached EUR 164,700 in 2018⁴⁹, representing 73.9% growth from 2010. The investment in the architectural and engineering activities reached EUR 2,100 in 2018⁵⁰, witnessing 40.0% growth since 2010. Lastly, investment in the narrow construction sub-sector increased by 5.9% since 20101, reaching EUR 5,400 in 2018⁵¹.

Finland's construction confidence has witnessed a steep decline in 2020, from the second quarter onwards, having plunged to -24.7 in June 2020. Such trend continued until the first quarter of 2021, recording -26.0 in February. However, from the second quarter in 2021, it started recovering and by the end of July the construction confidence reached -1.3, in line with March 2020⁵².

Domestic sales

The ranking of the top five amongst most sold construction products in Finland has changed since 2010. Specifically, 'Prefabricated wooden buildings (162320)', which ranked first in 2010, has shifted down ranking third in 2020. Similarly, 'Windows, French windows etc. (162311)', ranking third in 2010, changed to rank fourth in 2020. However, in 'Prefabricated structural components (236112)' and 'Ready-mixed concrete (236310)' retained their rankings as second and fifth from 2010. Lastly, 'Other structures and parts of structures etc. (251123)' which ranked first in 2020, did not hold any ranking in 2010. The top five most domestically sold construction products are presented in Table 1, including a comparison with the most sold in the EU-27. These represented

60.5% of total domestic construction product sales in 2020.

Table 1: Five Most domestically sold construction products in Finland and in the EU in 2020

	Finland			EU-27
	Product	Value (EUR m)	Share in construction products domestic sales (%)	Product
1	Other structures (group 251123)	855.9	18.9	Other structures (group 251123)
2	Prefabricated structural components (group 236112)	746,.2	16.5	Ready-mixed concrete (group 236310)
3	Prefabricated wooden buildings (group 162320)	448.2	9.9	Doors, windows and their frames (group 251210)
4	Windows, French windows (group 162311)	373.9	8.3	Prefabricated buildings of metal (group 251110)
5	Ready-mixed concrete (group 236310)	316.2	7.0	Prefabricated structural components (group 236112)

Source: PRODCOM, 2021.

Export of construction-related products and services

The ranking of the top five amongst most exported construction products has witnessed changes in three product groups. The first being 'Builders joinery and carpentry etc. (162319)' which ranked second in 2010, moved downwards to third position in 2020. Similarly, 'Doors, windows and their frames etc. (251210)' ranking fifth in 2010, moved up by one position, ranking fourth in 2020.' Prefabricated wooden buildings (162320)', which ranked first in 2010, moved down to fifth rank in 2020. The top five most exported construction products from Finland and the EU-27 are summarised in Table 2. Together, the top five most exported construction products from Finland made up 71.7% of all construction products exports in 2020.

Table 2: Five Most exported construction products in Finland and in the EU in 2020

	Finland			EU-27
	Product	Value (EUR m)	Share in construction products exports (%)	Product
1	Other plywood, veneered panels (group 162116)	232.7	23.0	Ceramic tiles and flags (group 233110)
2	Other plywood, veneered panels (group 162118)	225.5	22.3	Other structures (group 251123)
3	Builders' joinery and carpentry (group 162319)	165.1	16.4	Fibreboard of wood (group 162115)
4	Doors, windows and their frames (group 251210)	52.8	5.2	Doors, windows and their frames (group 251210)
5	Prefabricated wooden buildings (162320)	48.1	4.8	Builders' joinery and carpentry (group 162319)

Source: PRODCOM, 2021.

In terms of **cross-border provision of construction services**⁵³, Finland exported EUR 127.0 million of construction services worldwide in 2020 marking a 68.7% decrease as compared to the 2013⁵⁴ (EUR 406.0 million). Notably, 66.9% of total exports (EUR 85.0 million) in 2020 were made to EU-27 countries, compared to 37.4% (EUR 152.0 million) in 2013⁵⁵. In parallel, Finland imported a total of EUR 335.0 million in construction services from the world in 2020, a 42.0% decline since 2013⁵⁶ (EUR 578.0 million), with EUR 209.0 million (62.4% of the total imports) from the EU-27 countries, compared to EUR 425 million (73.5% of the total imports) in 2013⁵⁷. Overall, Finland reported a **trade deficit** of EUR 208.0 million in 2020.

Access to finance in the construction sector

According to **SAFE Report 2020**, the availability of financing in Finland had decreased significantly as compared to the previous year. Specifically, the availability of bank loans witnessed greatest decline, followed by availability of credit lines, equity and leasing. The trend of declining availability of bank loans was also reflected in the country's narrow construction sector⁵⁸.



The credit extended to firms in the Finnish narrow construction sub-sector reached EUR 3.0 billion in 2020, representing an annual decline of 0.7%. However, this also represents a growth of 27.6% since 2010.

With regards to bank loans, between April and September 2020, 21.0% of SMEs in Finland applied for them (EU-27 average: 35.0%). However, 2.0% did not apply because of fear of rejection (EU-27 average: 4.0%). Likewise, 15% of SMEs in Finland applied for credit lines (EU-27 average: 31.0%) and 2.0% of SMEs did not apply because of fear of rejection (EU-27 average: 4.0%)⁵⁹.

Specific to the Finnish construction sector, around 27.0% of firms are pessimistic about external finance, whereas 10.0% of them are pessimistic about internal finance in 2020. In comparison with other sectors, the construction sector had the highest number of firms categorised as 'financially constrained' in 2020, which included firms that got rejected when applied for financing, firms which received lesser amount when applied for financing, firms which considered financing too expensive and firms which were discouraged to apply⁶⁰.

With regards to different attributes of access to finance, the share of firms in the construction sector in Finland dissatisfied with collateral requirements in 2020 were the highest (25.0%), in comparison with other sectors (manufacturing: 9.0%, services: 8.0% and infrastructure: 4.0%⁶¹.



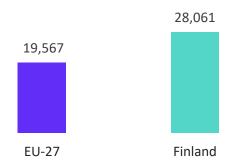
Around 53.0% of the firms in the construction sector have reported availability of finance as a long-term barrier in Finland, being highest among other sectors (manufacturing and infrastructure sectors: 45.0% and services sector: 43.0%)⁶².

Access to housing

The **number of households** in Finland experienced a continuous increase, reaching 2.7 million in 2020, which is 9.4% higher than in 2010. At the same time, with regards to Finland's **urbanisation rate**, the share of the population living in cities and greater cities also grew continuously, from 54.8% in 2010 to 59.9% in 2018⁶³. Housing construction is high mostly due to people relocating from rural to urban areas

seeking better lifestyle and career⁶⁴. According to the 2021 report by the World Population Review, around 85.0% of the people living in Finland live in or around a major city⁶⁵.

The **mean equivalised net income** has experienced a 19.3% increase since 2010, reaching EUR 28,061 in 2019, leading to a higher household purchasing power. This is considerably higher than the 2019 EU-27 average of EUR 19,567. Further in 2020, the mean equivalised net income in Finland increased to EUR 28,683, representing 21.9% growth since 2010 and 2.2% annual growth.



Mean equivalised net income in 2019

Mortgage interest rates have been declining considerably since 2011 and reached a historical low of 0.9% in 2020 (Figure 7). As a result, housing loans to households have experienced a continuous growth. Indeed, total outstanding residential loans have increased by 30.8%, from EUR 76.7 billion in 2010 to EUR 100.3 billion in 2019⁶⁶.

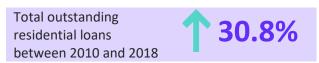
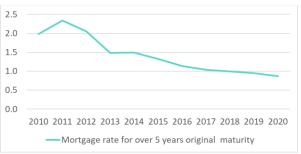


Figure 7: Mortgage rates for loans for over five years original maturity (%) between 2010 and 2020



Source: ECB MFI Interest Rate Statistics, 2021.

The declining mortgage interest rates coupled with increasing housing loans resulted in a rise in the households' **indebtedness**. The average size of a housing loan per household unit stood at EUR 106,120.0 in 2020, representing an annual

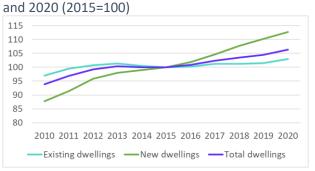
growth of 3.5%. Household-dwelling units in Greater Helsinki had the largest housing loans, EUR 157,280, on average. This represents an annual increment of 5.6%. Housing loans were lowest among those with housing loans in Northern and Eastern Finland, EUR 83,710, on average⁶⁷.

In 2020, there were around 1.5 million indebted household dwelling units in Finland. This represented 53.0% of the total household dwelling units. The total debt of such households amounted to EUR 131.6 billion, thus representing 3.4% increase since 2019. In 2020, household dwelling units paid EUR 1.6 billion as interests, 1.4% less than in 2019⁶⁸.

In order to reduce indebtedness among Finland's household dwelling units, the Ministry of Finance proposed a limit (60.0%) to the loan to value ratio (selling price ratio), in October 2019. It is applicable to housing companies⁶⁹ and the authorities in Finland had also started preliminary work in January 2020 to establish a comprehensive credit registry by 2023⁷⁰.

The **housing price index** increased by 6.4% between 2015 and 2020 (Figure 8), driven by a 3.0% increase in the price of existing dwellings and 2.7% increase in the price of new dwellings. Further in 2021, the prices of existing dwellings in housing companies rose in various parts of Finland, especially in the second quarter of 2021. Around 55.0% more transactions of existing dwellings in housing companies were made through real estate agents than one year ago. Specific to Helsinki, housing prices were up by 6.5% as compared to previous year and in the rest of Finland it rose by 4.0%, until second quarter in 2021⁷¹.

Figure 8: House price index in Finland between 2010



Source: Eurostat, 2021.

To meet the increasing demand of houses in Finland, the residential **building permits** (indexed values) grew by 25.0% in 2020 as compared to the

2015 level. After having decreased considerably by 31.0 index points (ip) over the 2017-2019 period, it again witnessed an increment in 2020 by 5.0 ip. Mirroring the trend in residential building, the permits in 'two and more dwelling buildings' also witnessed an overall increase of 35.0% in 2020 since 2015, though witnessing a decline of 31.0 ip over the 2017-2019 period. Contrarily, the permits in 'one-dwelling buildings' dropped by 2.0% over the 2015-2020 period.

The Finnish property market was significantly affected by the pandemic in March 2020. The total transaction volume amounted to EUR 5.6 billion, 13.0% lower than previous year. However, 50.0% of the total annual volume was generated during the first quarter of the year, which was one of the most active quarters ever. Between April and September, only EUR 1.2 billion of transactions were carried out, whereas the last quarter of the year was again more active, with a total volume of EUR 1.5 billion⁷².

Moving on to 2021, the year started off witnessing large numbers of property sales in Finland. In particular, sales of detached houses increased in January and February by 19.8%, compared to the same period in the previous year. First-time homebuyers were active in record numbers, and the number of loans applied by first-time buyers was up 29.0% from February 2019. Demand had been particularly high for large family homes⁷³.

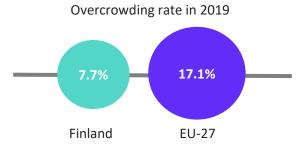
According to Statistics Finland, EUR 7.4 billion was spent on new residential building construction in 2020, which forms 20.1% of the total value of construction in 2020 in Finland. Moreover, around EUR 8.1 billion was spent as repair costs for residential buildings in 2020, forming 22.0% of the total value of construction in 2020 in Finland⁷⁴.

With regards to the rental market, the **actual rentals for housing** in Finland increased substantially by 10.0% over the period 2015-2020. It also experienced an annual increment of 1.4% in 2020. Around 920,000 dwellings, representing almost 34.0% of the total stock, are rented dwellings in Finland. Rented housing is more common in the largest cities than in the whole country on average. In the Helsinki metropolitan area, some 45.0% of all dwellings are rented. The Finnish rental residential sector has increasingly attracted foreign investors in recent years. The market has attracted both

specialised residential funds as well as investors who were previously active in other property sectors. As of 2020 in total, foreign investors currently own around 21,000 rental dwellings in Finland⁷⁵.

The majority of buildings are **owner-occupied** in Finland. However, the share of owners in Finland have reduced from 74.3% in 2010 to 70.7% in 2020. Furthermore, in 2020, 74.9% of people earning **above 60.0% of the median equivalised income** were house owners, while this percentage went down to 40.6% for people earning **below 60.0% of the median equivalised income**.

Finland's **housing cost overburden rate**⁷⁶ stood at 4.0% in 2019, below the EU-27 average of 9.4%⁷⁷ and 2010 level of 4.2%, indicating issues around affordability. However, it slightly increased to 4.1% in 2020⁷⁸. Likewise, the **overcrowding rate**⁷⁹ in Finland stood at 7.7% in 2019, below the EU-27 average of 17.1%⁸⁰, but above the 2010 level of 6.1%. In 2020, it dropped to 7.6%⁸¹. Lastly, the **severe housing deprivation rate**⁸² in Finland stood at 0.9% in 2019, below the EU-27 average of 4.0%⁸³, in line with the 2010 level. Further in 2020, it increased to 1.0%⁸⁴.



Tackling the problem of **homelessness** has been the main focus area of Finnish government since the 1980s⁸⁵. The problem has decreased considerably, with 2020 being the eighth consecutive year of decrease for single people. However, the homelessness of young people under the age of 25 remained at the same level as the previous year. The long-term homelessness has also decreased since 2008, but with the exception of 2020. The issue of homelessness is mostly concentrated in large cities, especially in Helsinki. At the end of 2020, there were 4,341 homeless people living alone, which is 259 less than in 2019. Similarly, the number of homeless families and couples was 201 by 2020 end, which is

63 less than in 2019. However, the number of people classified as long term homeless was 1,054, which represented an increment by 93 compared to 2019⁸⁶.

The long-term decline in homelessness has brought international attention to Finland and highlighted it as a model country for the treatment of homelessness. The programme of the present includes the government elimination homelessness by 2027. The reduction of homelessness has also been taken into account in the between the municipalities and the state in the Helsinki region, where one aim is to halve homelessness by 202387.

To reduce homelessness by 2023, the Finnish Ministry of the Environment launched three-year cooperation programme with urban regions, service providers and organisations. Municipalities involved in the programme have been able to apply for discretionary government transfers for development of social and health care services reducing homelessness⁸⁸.

Infrastructure

As per the 2019 Global Competitiveness Report, Finland ranked 22nd out of 141 economies in terms of its infrastructure⁸⁹.

It performed best in terms of the efficiency of seaport services (3rd), air transport services (4th) and train services (7th). It scores worst in terms of liner shipping connectivity (75th) and airport connectivity (46th), followed by railroad density (42nd). In terms of transport infrastructure, it ranked 27th out of 141 economies⁹⁰.

According to Finland's Budget Plan for 2022-2025, the aims to revitalise economy through public investment, such as infrastructure projects, followed by investments in research, development and innovation, higher education, know-how development and employment services. As per the plan, the government is expected to invest the substantial amounts on an annual basis for the development and maintenance of the transport network in Finland: over the 2022-2025 period it is expected to invest EUR 215.0 million, EUR 181.0, EUR 179.0 and EUR 173.0 million annually⁹¹.

4

Key issues and barriers in the construction sector

Company failure

Business demography in the broad construction sector in Finland generally witnessed more company deaths than births over the 2010-2018⁹² period.

Specifically, in the narrow construction sub-sector, the company births decreased by 17.6%, over the 2010-2018⁹³ period, reaching 3,522 in 2018. Similarly, in the real estate activities and architectural and engineering activities sub-sector, it recorded declines of 43.7% and 15.5% over the same period, thus reaching 2,585 and 712, respectively in 201894. Regarding the number of deaths, in narrow construction company sub-sector, it reached 2,640 in 2018, representing a 29.9% decline since 2010. In the architectural and engineering activities sub-sector, the number of company deaths reached 769 in 2018, representing an insignificant decline of 0.5% since 2010. Contrarily, in the real estate activities sub-sector, it stood at 3,212 in 2018, marking a 23.1% growth since 2010.

During the first quarter in 2020, the number of bankruptcies in Finland rose (even before the COVID-19 pandemic took hold). Altogether 722 companies filed for bankruptcy in Finland during the first three months of this year, an increase of 14.0% over the same quarter of 2019. As per Statistics Finland, the number of bankruptcies in the first quarter do not yet reflect the impact of the coronavirus epidemic on business and industry⁹⁵.

However, further in 2020, the number of bankruptcy declarations declined across nearly all sectors. During the first eight months of the year bankruptcies declined by 8.6% annually. A total of 1,591 bankruptcy declarations were filed by the end

of August, which is 149 less than during the same period in 2019. The decline in number of bankruptcies was observed across all sectors of the economy with the exception of the raw materials and mining sector⁹⁶.



Specific to the Finnish construction sector, the bankruptcies shrank by 15.0% between January and August 2020, compared to last year. This is reportedly the steepest decline observed for this period in bankruptcies⁹⁷.

However, moving on to 2021, contradicting the trend in the economy as a whole, the bankruptcies increased the most between January and July in the construction sector along with agricultural, forestry and fisheries sectors. Specifically, in the construction sector, the number of bankruptcies registered between the period January to July 2021 in the Finnish construction sector stood at 307, representing 7.2% increment from 285 bankruptcies registered for the same period previous year⁹⁸.

Trade credit

According to the SAFE Report 2020, the reported requirement of trade credit in Finland increased significantly amongst SMEs. However, with regards to its availability, it showed a noteworthy decline. This clearly reflected the impact of the COVID-19 pandemic on the country's access to trade credit⁹⁹.

In 2020, trade credit was relevant for around 32.0% of SMEs in Finland, higher than the EU-27 average (28.0%). Around 11.0% of SMEs in Finland had reportedly used it between April and September 2020, below the EU-27 average (14.0%). As compared to previous year, the use of trade credit

had also increased for SMEs in Finland in 2020. However, the share of SMEs applying for trade credit in 2020 was still lower in Finland, as compared to EU-27 average (27.0% as compared to 31.0%). There was also a smaller share of Finnish SMEs, who didn't for apply trade credit¹⁰⁰.

With regards to obtained result for SMEs that applied for trade credit, around 78.0% of Finnish SMEs received everything, above the EU-27 average (67.0%). Around 18.0% of Finnish SMEs received about 75.0% of what they had applied, above the EU-27 average (11.0%). Moreover, in terms of availability of trade credit during April to September 2020, in Finland, 6.0% of the SMEs reported that it improved (EU-27 average: 13.0%), another 6.0% believed that it had deteriorated (EU-27 average: 15.0%), whereas for 83.0% of SMEs the condition remained unchanged (EU-27 average: 65.0%)¹⁰¹.

Late payment

In 2020, the share of SMEs facing late payment issues in Finland stood at 45.0%, slightly above the EU-27 average (44.0%), however, below the previous year (48.0%)¹⁰².

In 2020, the share of SMEs facing late payment issues in Finland stood at 45.0%, slightly above the EU-27 average (44.0%), however, below the previous year (48.0%). Around 10.0% of SMEs in Finland reported facing late payment issues regularly, in line the previous year, but below the EU-27 average (13.0%)¹⁰³.

As a consequence of late payments, major share (38.0%) of the Finnish SMEs reported that it affected their production or operations, and for half of such SMEs (19.0%), this had been a regular problem. Around 30.0% of them reported that it affected payments to suppliers, and 15.0% of them had come across this problem regularly. For 17.0% of SMEs, there were delays in repayments of loans or they reportedly had to use additional financing sources, due to late payments, and for 8.5% of them this had been a regular issue¹⁰⁴.

As per the **European Payment Report 2020**, in Finland 46.0% of firms in Finland agree that the widening gap between payment terms and duration of pay is a real risk to the sustainable growth of their business. Around 40.0% of firms have said their company has a code of ethics in place designed to encourage a prompt payment culture. Moreover,

61.0% of firms agree that paying suppliers late is a governance issue and should be addressed internally. For around 71.0% of firms, building and maintaining trust with suppliers and partners is depended on timely payments. Around 40.0% of the firms have reported that late payments will cause them to dismiss employees. Finally, 81.0% of firms have accepted longer payment terms than they were comfortable with, in order to maintain healthy client relationships¹⁰⁵.

Amongst the business areas impacted due to late payment, for around 51.0% for SMEs and 53.0% of large corporations, liquidity is main impacted area. This is followed by not hiring new employees, being reported by 43.0% of SMEs and 49.0% of large corporations. The other issues which get aggravated due to late payment are dismissing employees, threating survival of business, income loss, additional interest, prohibiting innovation and prohibiting growth of the company¹⁰⁶.

The late payment situation in Finland aggravated at the onset of the COVID-19 pandemic. Specific to the construction sector, in March 2020, around 47.0% of the firms reported of facing somewhat negative impact on the financial situation. Around 21.0% of the firms reported of facing significant negative impacts and 9.0% of firms reported of facing significant considerable negative impacts on the financial situation¹⁰⁷.

Time and cost of obtaining building permits and licenses

According to the World Bank Doing Business 2020 report, Finland ranked 42nd in 2019 with respect to **"Dealing with construction permits"** 108,109. This is worse than the year before (34th)110. Although the number of procedures required to build a warehouse111 (17) is higher than the OECD high-income average (12.7), the time needed to complete them stands at 65 days, which is lower than the OECD average (152.3 days) (Table 3). Moreover, the cost of completing the formalities to build a warehouse represented 0.7% of the value of the warehouse, below the OECD high-income average of 1.5%112.

Table 3: Construction procedures timing and costs in Finland

Procedure	Time to complete	Associated costs
Obtain building permit maps and extract from the Real Estate Office	12 days	EUR 235.0
Obtain official opinion on the connection of the wastewater drain and water pipeline	7 days	no charge
Schedule start-up meeting	7 days	no charge
Obtain extract from the Trade Register	0.5 day	EUR 3.0
Notify the neighbours of the building permit application	1 day	no charge
Obtain report on the height of the intended construction	0.5 day	no charge
Obtain building permit	38 days	EUR 8,867.0
Receive foundation work inspection	1 day	no charge
Receive location inspection from the Real Estate Office	1 day	EUR 1,520.0
Receive structure inspection	1 day	no charge
Receive ventilation inspection	1 day	no charge
Receive sewer and water pipeline inspection	1 day	no charge
Report information to the Finnish Tax Agency	1 day	no charge
Request and obtain water connection	3 days	EUR 4,826.0
Receive fire inspection from the Public Rescue Service	1 day	EUR 200.0
Receive final inspection	1 day	no charge
Obtain occupancy permit	4 days	no charge

Source: Doing Business 2020.

Skills shortage

The number of **job vacancies** in the narrow construction sub-sector¹¹³ increased to 2,898 in 2020 as compared to 1,902 vacancies in 2013¹¹⁴, experiencing a 52.3% increase in the 2013-2019 period. The **job vacancy rate** in the narrow construction and the real estate activities sub-sector in 2020 stood at 1.7% and 2.0% respectively.

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

† 52.3%

In addition, the **number of tertiary students** in engineering, manufacturing and construction decreased by 20.0%, from 12,223 in 2010 to 9,778 in 2019¹¹⁵. This was driven by a decline in both the

number of tertiary students in 'engineering and engineering trades' and 'manufacturing and processing' of 24.7% and 59.6% respectively over the 2010-2019 period. Conversely, the number of tertiary students in architecture and building increased by 16.8% over the same period.

Adult participation in education and training in the broad construction sector has been increasing since 2010. Particularly, in the narrow construction sub-sector, increased from 16.8% in 2010 to 21.3% in 2019. However, it dropped to 19.5% in 2020. In the real estate activities sub-sector, the participation rate was overall higher, but more prone to fluctuations. Indeed, this rate dropped from 30.5% in 2010 to 23.8% in 2014. It then picked up and reached 35.0% in 2018. After declining in 2019 to 29.6%, it again increased to 31.0% in 2020.

Finland has been facing **acute shortage of workers** as the country's working-age population has been decreasing at an alarming rate¹¹⁶. The situation has been further aggravated due to the COVID-19 pandemic, which had led to decline in immigration of foreign workers. Several work sites had to face forced closures with the suspension or cancellation of projects due to emergency measures. Unemployment rates have further increased due to mass layoffs. Specifically, in May 2020 the monthly unemployment rate spiked to 10.6%, before declining again to 7.7% in July 2020¹¹⁷.

In the autumn of 2020, 31 out of 200 occupations suffered from **labour shortage**, representing a slight rise in the in shortages from the assessment in previous autumn. Further, as of March 2021, the Employment and Economic Development Offices (TE Offices) defined 37 occupations as shortage occupations nationwide¹¹⁸.

As a result, the Finnish government has warned that the nation needs to **raise immigration levels** to 20,000-30,000 a year to maintain public services¹¹⁹. Moreover, Finnish start-ups are creating a joint careers site to **attract highly skilled overseas talent**¹²⁰. Despite the labour shortages pushing more Finnish companies to loosen their insistence on only hiring native Finnish workers, many foreigners have also complained of a broad **reluctance to recognise overseas qualifications**, and a prejudice against non-Finnish applicants¹²¹.



In a recent survey conducted by the Finland Chamber of Commerce, more than half of the respondents out of 1,297 companies from various industries stated that they simply have not gotten enough applicants for job vacancies. Their operations have also been hampered by the shortage of skilled labour in the country¹²².

Moreover, according to EIB Investment Survey 2020, the share of firms in the construction sector in Finland reporting availability of skilled staff as a long-term barrier was the highest (84.0%) in 2020, in comparison with other sectors in Finland such as services (75.0%), infrastructure (68.0%) and manufacturing (65.0%) sectors¹²³.

Sector and sub-sector specific issues

Material efficiency and waste management

Waste management in Finland is developed but the recycling rate still lies below the EU- 28^{124} average. This points to a room for improvement for waste management in the country. Municipal waste generation in Finland was above the EU- 28^{125} average and the recycling rate was 49.0% in 2017^{126} , above the EU- 28^{127} average of $47.0\%^{128}$.

Around 3,122,705 tonnes of municipal waste had been treated in Finland in 2019. Out of the total wastes treated, 55.6% went under energy recovery, 29.3% went under material recovery, 14.1% was treated by aerobic and anaerobic digestion, 1.0% of the wastes were landfilled and the remaining were incinerated without energy recovery¹²⁹.

The Finnish government has adopted a **National Waste Plan** which has set out objectives for waste management and waste prevention till 2023, as well as the measures for reaching these objectives. The plan has set detailed targets for four key areas: construction and demolition waste (CDW), biodegradable waste, municipal waste, as well as waste from electrical and electronic equipment¹³⁰.

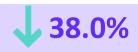
The EU has amended six waste directives and set targets for the recycling of municipal waste: in 2035, up to 65.0% of municipal waste should be recycled. In the future, the EU will demand more accurate

waste reporting and recycling rate statistics from its member countries, on the basis of which Finland will also reform its national legislation. Finland is still preparing the new **Waste Act of 2021**. In order to achieve the ambitious recycling targets set by the EU, the Finnish government is proposing to tighten separate collection obligations and extend producer responsibility in the new Waste Act¹³¹.

Specific to Finland's CDW, comprehensive targets have been established for 2023 by the National Waste Plan and each of these targets is coupled with a set of measures that will help in achieving them. The targets specified are reducing the volume of CDW; raising the material recovery rate of CDW to 70.0%; increasing the material recovery of CDW while managing related risks; and achieving greater accuracy and correctness in statistics on CDW. Finland's National Waste Plan to 2023 will enable intensified reuse and recycling of construction products, which will save unnecessary depletion of natural resources. Moreover, the adoption of new practices in the plan will promote safe material cycles and reinforce the recycled raw materials market¹³².

CDW generated in Finland in 2018¹³³ amounted to 2,849 kg per capita, depicting a decrease of 38.0% over the period 2010-2018. Around 1.6% (46.0 kg per capita) of the total CDW waste comprised hazardous waste and 98.4% (2,803.0 kg per capita) comprised of non-hazardous waste. Hazardous waste, however, showed an increment of 1433.3%, whereas non-hazardous waste declined by 39.0% over the period 2010-2018.

Construction and demolition waste in Finland between 2010 and 2018



In 2019, total construction waste generated by Finland stood at 13.7 million tonnes, which comprised of 11.7% of the total waste generated. Out of the total construction waste a major portion (96.9%) comprised of mineral wastes, followed by wood waste (2.8%), other waste (0.2%), household and mixed waste (0.1%) and the rest comprising of animal, vegetal and metallic waste. Around 287,000 tonnes, or 2.1% of the total wastes generated in 2019 from construction activities were categorised as hazardous wastes¹³⁴.

CDW in Finland is regulated by several acts and decrees, the main ones being the Government Decree on waste 179/2012 and the Government Act 646/2011 concerning the recovery of certain waste in earth construction¹³⁵. The former addresses the reduction of the quantity and harmfulness of CDW. It provides for the separate collection and recovery of CDW in order to reclaim it, according to the Waste Act 646/2011.

Climate and energy

Emissions of greenhouse gases (carbon dioxide, methane and nitrous oxides) from activities related to the narrow construction sub-sector and real estate in Finland amounted to a total of 1,284,070.5 and 131,685.2 tonnes in 2019¹³⁶, representing a 17.0% and 38.2% declines as compared to the 2010 levels.

According to Statistics Finland, the total emissions of greenhouse gases in 2020 corresponded to 48.3 million tonnes of carbon dioxide. Compared with the previous year, emissions decreased by 9.0%. The fall in emissions was affected by the warm winter, recent changes in the structure of electricity production and a decrease in transport performance¹³⁷.

In October 2020, the Ministry of Economic Affairs and Employment released Finland's long-term low greenhouse gas emission development strategy. It lays out scenarios and impact assessments concerning the national carbon neutrality target set for 2035 and developments in greenhouse gas emissions and removals by 2050¹³⁸.

As under the strategy the 2050 greenhouse gas emission reduction target (excluding the land use sector) is set at 87.5% and 90.0% under the continuous growth scenario and savings scenario¹³⁹ compared to 1990 levels¹⁴⁰.

5

Innovation in the construction sector

Innovation performance



In the European Innovation Scoreboard 2021, Finland has been classified as an Innovation Leader. Its overall score relative to EU-27 in 2021 stood at 134.5¹⁴¹.

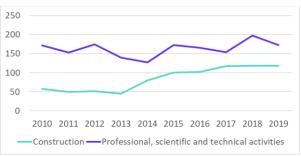
According to the scoreboard, Finland's strong innovation dimensions are use of information technologies, linkages and human resources. The top scoring indicators include lifelong learning, PCT applications and innovative patent collaborating with others. Contrarily, the country's weak innovation dimensions are environmental sustainability, sales impacts and firm investments. Resource productivity, government support for business R&D and non-R&D innovation expenditures comprise Finland's lowest scoring indicators¹⁴².

Business enterprise R&D expenditure (BERD) in the broad construction sector depicts an upward trend, with levels higher than in 2010 (Figure 9). Specifically, in the narrow construction sub-sector, it increased by 51.0% over the 2010-2019 period, reaching EUR 117.9 million in 2019¹⁴³. BERD in the professional, scientific and technical activities sub-sector, being prone to fluctuations, merely increased by 0.5% over the same period, reaching EUR 172.3 million in 2019¹⁴⁴ (the highest among the sub-sectors). Lastly, the real estate activities sub-sector reported the lowest BERD, which increased from EUR 2.3 million in 2010 to EUR 2.9 million in 2012¹⁴⁵.

BERD expenditure in the narrow construction sub-sector between 2010 and 2019



Figure 9: Business enterprise R&D expenditure (BERD) per construction sub-sector in Finland between 2010 and 2019 (EUR million)¹⁴⁶



Source: Eurostat, 2021.

In parallel, total **R&D personnel** (full-time equivalents – FTEs¹⁴⁷) in the broad construction sector followed a trend similar to BERD. The total FTEs in the narrow construction sub-sector grew by 33.5% over the 2010-2019 period, rising from 433 in 2010 to 578 in 2019¹⁴⁸. Conversely, the total FTEs in the professional, scientific and technical activities sub-sector experienced a decrease of 16.2% over the same period, going from 1,678 in 2010 to 1,407 in 2019¹⁴⁹. However, it was still the highest among the sub-sectors. Lastly, the real estate activities sub-sector reported the lowest FTE, which increased from nine in 2010 to 10 in 2012¹⁵⁰.

Total R&D personnel in the narrow construction sub-sector between 2010 and 2019



The **number of construction-related patent applications** in 2020 stood at 57. It has declined from its highest level in 2013 (81 patents) and the 2010 level (79 patents). This may be explained by the time gap often observed between R&D investments and patent application realisation.

According to the **2020 EU Industrial R&D Investment Scoreboard**, 17 companies from Finland ranked within the top 2,500 companies in R&D ranking globally. Two Finnish construction and

materials firms (YIT and Uponor) were listed on the R&D ranking of EU top 1,000 companies in 2020¹⁵¹.

According to the SAFE Report 2020, the proportion of innovative enterprises among SMEs in Finland stood at 74.0%, being the highest amongst EU-27 member states¹⁵².

Eco-innovation and digitalization

According to the EU Eco-Innovation Index 2021, Finland stood at the 2nd position with a score of 157, above the EU-27 average score of 121. This also shows an improvement as compared to previous year's score (154)¹⁵³.

As per the report, Finland has been categorised under 'eco-innovation leader'. The country's performance has continued to improve over the years. In 2021, it scored above the EU-27 average on three indicators eco-innovation eco-innovation outputs and socio-economic outcomes. However, it scored below the EU-27 average in two indicators – eco-innovation activities and resource efficiency outcomes. Amongst these the best performing indicator socio-economic outcomes (score: 234 and rank: 1st) and the worst performing indicator was resource efficiency outcomes (score: 44 and rank: 25th)¹⁵⁴.

According to the European Commission Digital Economy and Society Index (DESI) 2020, Finland ranked 1st, with a score of 72.3 out of the EU-28155 countries (average score: 52.6). The country's leading performance is due to its excellence in digital public services and the integration of digital technologies, enabled by active cooperation between the public and private sectors and an active start-up scene. Its human capital is one of its strongest competitive advantages where 76% of the population have basic or above basic digital skills, considerably above the EU-28¹⁵⁶ average (58.0%). Finland scored above all the five indicators including connectivity, human capital, use of internet services, integration of digital technology and digital public services, as compared to the previous year and the EU-28¹⁵⁷ average scores ¹⁵⁸.

Finland scored 59.2 in terms of **connectivity** in 2020, 4.7 points up from the previous year. It ranked 9th among EU-28¹⁵⁹ countries in this indicator, as compared to 6th in the previous year. In terms of **human capital**, Finland scored 78.4, showing a slight improvement from previous year's score (77.5). The

country has been consistently ranking 1st in this indicator over the last three years. The **use of internet services** in Finland has improved both in terms of score as well as ranking. In 2020, the score reached up to 76.3 from 71.8 in the previous year. Moreover, Finland ranked 1st under this indicator showing an improvement from the previous year's ranking (4th). In terms of the **integration of digital technology**, Finland has shown remarkable improvement as it scored 67.0 in 2020, (6.9 points up from 2019), ranking 2nd in this category. The country's score for **digital public services** stood at 87.0 in 2020 (5 points up from 2019). Finland ranked 4th in this category¹⁶⁰.

Despite these developments, the Finnish construction sector lags behind in implementing innovation as compared to the firms in other sectors. According to **EIBIS Report 2020**, the share of firms in the Finnish construction sector reporting 'no innovation' stood at 58.0%, being the highest as compared to manufacturing (30.0%), services (40.0%) and infrastructure (50.0%) sectors¹⁶¹.

The share of firms in the Finnish construction sector claiming to have undertaken innovations that are new to the national or global markets stood at 13.0%, well below the firms in manufacturing (39.0%), services (25.0%) and infrastructure (20.0%) sectors¹⁶².

Around 60.0% of the construction firms in Finland reported to have **implemented digital technologies partially**, whereas merely 1.0% of them have **fully** implemented digital technologies. This is also lowest in comparison to other sectors in Finland, where the share of firms implementing digital technologies partially and fully, both are comparatively greater¹⁶³.

Moreover, around 37.0% of the construction firms in Finland used drones in their work, above the EU-28¹⁶⁴ average (19.0%). Similarly, internet of things has been implemented by 31.0% of the construction firms in Finland, higher than the EU-28¹⁶⁵ average (22.0%). With regards to augmented or virtual reality, 28.0% of the construction firms in Finland have adopted it, above the EU-28¹⁶⁶ average (11.0%). Lastly, around 13.0% of the Finnish construction firms have used 3D printing, slightly above the EU-28¹⁶⁷ average (10.0%)¹⁶⁸.

Country Fact Sheet Finland

Finland is ranked among the top countries in the EU in context of innovation and digitalisation in the construction sector. The country has reached a high level of resource and energy efficiency, which has been driven by the wide acceptance and usage of **Building Information Modelling (BIM)**¹⁶⁹.

Throughout the country, implementing BIM has been a common practice, both in larger infrastructural and small residential projects. Moreover, most of the Finnish universities have long been offering masters and degree courses in BIM technologies¹⁷⁰. Despite BIM becoming mainstream

in building design, building control is still predominantly based on paper documents and 2D drawings¹⁷¹.

Among the noteworthy projects in Finland, the new Hospital Nova has used BIM models and Virtual Reality to involve over 350 staff in the building design. The Mall of Tripla and West Metro are also projects which have implemented BIM in construction 172,173.

6

National and regional regulatory

framework

Policy schemes

The social housing policies in Finland are implemented by the **Housing Finance and Development Centre of Finland** (Asumisen rahoitus- ja kehittämiskeskus – ARA), which is a governmental agency of Finland operating under the supervision of the Ministry of the Environment. ARA grants subsidies, grants and guarantees for housing and construction and controls and supervises the use of the ARA housing stock. In addition, ARA participates in projects related to the development of housing and expertise in the housing market and produces information services for the industry¹⁷⁴.

ARA has an **annual budget** of EUR 700,000 for supporting research and development projects. With its development budget, ARA can take part in pilot projects that promote housing construction; commission reports, templates, concepts, statistics, analyses and follow-up data; provide publicity to significant development projects in the fields of housing and housing construction and relay information to other actors and stakeholder groups in the industry¹⁷⁵. ARA's other activities include:

- Development of sustainable, high-quality and reasonably priced housing;
- Support for the improvement of the housing conditions of people with low or average incomes and special-needs groups;
- Monitoring and directing non-profit housing corporations;
- Development of the existing building stock and living environments;
- Direction and monitoring of the use of ARA's stock of buildings and management of the risks related to their loans together with the State Treasury;

- Dissemination of the results of research and development activities related to housing conditions and;
- Collections and analysis and dissemination of information on the housing market and maintains online and information services for the industry¹⁷⁶.

Presently, there are around 3.0 million apartments in Finland and three out of every 10 of them have been constructed using state subsidies (ARA construction). ARA is also in charge of the Social Housing Policy and promoting ecologically sustainable, high-quality and reasonably priced housing. Finland's central government supports both private and public housing through several programmes. These are:

- (i) Tax deductibility of the interest costs on mortgages;
- (ii) State subsidy for the constructor of rental, part-ownership and right-of occupancy housing;
- (iii) Interest subsidy loans for housing companies;
- (iv) Generally low property tax & No stamp duty for the first-time buyer; and
- (v) Rental housing subsidies for low-income residents¹⁷⁷.

ARA aims to promote renovation of the housing stock and improvements to its energy efficiency by implementing renovation start-up grants tied to interest subsidy loans and granted for renovations that make buildings more energy-efficient. The maximum grant per flat will be EUR 4,000¹⁷⁸.

ARA also aims to increase the volume of affordable ARA housing production in growing urban regions and carry out more renovations on the existing housing stock. It will also set a target of producing at least 10,000 newbuild flats with long-term state interest subsidies per year, more than half of which will be located in the Greater Helsinki region¹⁷⁹.

ARA is also responsible for financing sheltered and supportive housing with investment grants for special groups. Grants are awarded for construction as well as renovation or acquisition, and they vary from 10.0% to 50.0% of the approved construction or renovation costs. The bigger grants are reserved for apartments with more special housing solution needs¹⁸⁰.



ARA aims to reduce 50.0% of homelessness by 2023 and eradicate it completely by 2027 with the help of 'Housing First' principle. It will focus especially on making housing advice more readily available and on preventing homelessness, particularly among young people and migrants¹⁸¹.

Lately, state-subsidised housing (ARAVA) loans have been substituted by interest subsidy loans in Finland. Though ARAVA loans are no longer issued, the housing stock and loan portfolio financed with ARAVA loans continue to exist¹⁸². Moreover, the **ASP savings and subsidy scheme,** in order to aid first-time homebuyers aged 15 - 39, includes tax-exempt interest and bonus interest on deposits saved for purchasing a home with the interest subsidies paid for the housing loan¹⁸³.

Additionally, **right-of-occupancy housing** is a substitute for rented housing and owner-occupied housing. To become entitled, the resident must make a right-of-occupancy agreement and pay part of the purchase price of the apartment as a right-of-occupancy payment. The residents continue to pay a residence charge while living in the apartment¹⁸⁴.

In order to strengthen the position of tenants, the Finnish government will focus on measures that can prevent disproportionate rent increases within the limits of the current legislation. It will strengthen the position of tenants by amending the **Act on Joint Administration in Rental Buildings**, which regulates the decision-making power of residents in state subsidised rental and right-of-occupancy housing companies¹⁸⁵.

Among countries that report spending estimates in the 2021 Organisation for Economic Co-operation and Development Questionnaire on Social and Affordable Housing (OECD Quash), Finland provides the largest share of support to homebuyers (0.9% of GDP in 2018), primarily through subsidised mortgages¹⁸⁶.

The Finnish Association of Property Owners and Construction Clients (Rakli ry), from the private sector, has brought forward few measures to support the housing and construction sectors amid the pandemic situation¹⁸⁷. These contain legislative measures which aim at increasing new housing construction projects (e.g. abridged value-added taxation on the new construction of rental apartments), promote carbon-neutral to investments (e.g. subsidies for energy efficiency enhancement projects) and state aid to property owners for loss of rental yield due to the outbreak. Among the proposed measures, some do not involve direct financial support from the state, such as streamlining the planning and permitting procedures of construction projects¹⁸⁸.

Building regulations

Currently in Finland, two main legislations govern land use, spatial planning and construction activities. The Land Use and Building Act 132/1999 looks in the usage of land areas and the building activities conducted on them and aims to create a healthy, safe, comfortable and socially functional living environment. It includes provisions on town planning, municipal building ordinances, plot division, general building requirements and building permits, among others. It also defines some provisions related to the carrying out, supervision, inspection and approval of construction works¹⁸⁹. The Land Use and Building Act was most recently amended in 2017 (Act 230/2017). The latter entered into force in May 2017 and targets streamlining planning and construction regulation¹⁹⁰.

The building regulations, which relate to the construction of new buildings, are legally binding and can also be applied to renovation and alteration works under certain conditions. Conversely, building guidelines are not compulsory. The Code's regulations and guidelines cover general areas (e.g. the supervision of construction work, manual maintenance for the care and use of buildings, etc.),

aspects related to the strength of the structure's, insulation (thermal, sound, etc.), energy management, structural fire safety, general building planning and housing planning and building. Last, the energy consumption of buildings is regulated by the National Building Code of Finland, in accordance with the Finnish Land Use and Building Act¹⁹¹.

Insurance and liability related regulations

In Finland it is mandatory for a contractor to get statutory accident insurance, covering occupational accidents for employees under the Accidents at Work and Occupational Disease Act (459/2015). These contracts mostly include additional insurance requirements, such as the requirement for a construction building, all risk insurance cover to be taken out by the contractor, etc. Under the Finnish General Conditions for Building Contracts 1998, the contractor is solely responsible for supervision of the construction site and must also indemnify it. The insurance must also consider subcontracts and the employer's procurements. Almost all the insurance provide personalised construction companies insurance¹⁹².

Insurance products which cover the impairment to construction materials, personal injury and related property damages are often taken out. Certain insurance companies also provide packages considering financial damages, such as loss of income. However, the damages caused due to intentional or negligent actions are not covered¹⁹³.

The acquisition of statutory insurance is under the responsibility of employers carrying out construction work. These include earnings-related pension, health insurance pension, unemployment insurance and accident insurance. The YSE 1998 General Terms for Building Contracts (YSE 1998 conditions) require the main contractor to be

insured for both the construction works and the materials and supplies acquired for the construction activities, to cover the costs related to the repair of defects or the surety to the owner if the defects are not reparable. Furthermore, it is also common for contractors to take out additional insurances, such as loss-of-profits insurance, liability insurance or legal expenses insurance¹⁹⁴. In terms of the duration of liability, the YSE 1998 conditions provide for a 2year guarantee period for buildings, during which the contractor is obliged to repair defects. Following the expiry of the guarantee period, the contractor remains liable for 10 years after handover in case of defects resulting from gross negligence, uncompleted work, unsatisfactory quality or latent defects195.

The Housing Transaction Act 843/1994 deliberates (Asuntokauppalaki), which safeguarding of both housing companies 196 and consumers (i.e. buyers of housing shares), also forms the insurance and liability framework. It necessitates that security is lodged to protect against interrupted construction or a defect in the construction within the liability of seller¹⁹⁷. Security should cover dwellings in provisions construction stage and post-completion stage, hence ensuring that construction and housing transaction contracts are fulfilled¹⁹⁸.

The security covering the construction phase takes the form of a bank deposit or a bank guarantee amounting to at least 5.0% of the overall construction and repair price specified in the construction project and lasts at least three months after the approval of the building for use by the municipal authority. The security which covers the post-construction stage takes the form of bank security, corresponds to a minimum of 2.0% of the total transaction price of shares sold and lasts at least 15 months post closure of security for construction period¹⁹⁹.

7

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total **investment by the broad construction sector**²⁰⁰ has increased from 2010 to 2019²⁰¹. Particularly, investment by the narrow construction sub-sector has increased continuously since 2013, reaching EUR 1.1 billion in 2019²⁰². This is 49.6% higher than 2010 levels. Likewise, investment by the real estate activities sub-sector reached EUR 18.5 billion in 2019²⁰³, representing 16.2% growth from 2010 levels.

Total investment by the narrow construction sub-sector between 2010 and 2019

1 49.6%

In parallel, **investment in machinery** by the narrow construction and the real estate activities sub-sectors increased to EUR 773.1 million and EUR 227.9 million in 2019²⁰⁴, thus representing 147.8% and 184.9% growth from 2010 levels, respectively. Lastly, **investment in intellectual property** by the narrow construction sub-sector increased by 32.7% over the 2010-2019 period, reaching EUR 130.0 million in 2019²⁰⁵. The investment in intellectual property by the real estate activities sub-sector stood at EUR 31.0 million in 2019²⁰⁶, in line with the 2010 level.

Total investment in machinery by the real estate activities sub-sector between 2010 and 2019

184.9%

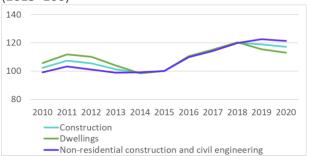
Figure 10: Investment by the Finnish broad construction sector between 2010 and 2019 (EUR million)



Source: Eurostat, 2021.

The **investment index in the broad construction sector**²⁰⁷ increased by 17.2% between 2015 and 2020 (Figure 11). In particular, investment in dwellings by the whole economy increased by 13.1% over 2015-2020. Similarly, investment in non-residential construction and civil engineering grew by 21.2% over the same period. In absolute terms, investment in the broad construction sector totalled EUR 34.7 billion in 2019²⁰⁸, of which EUR 16.8 billion was invested in dwellings and EUR 17.8 billion in other buildings and structures²⁰⁹.

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



Source: AMECO, 2021.

In addition, total inland infrastructure investment²¹⁰ as a share of GDP increased from 0.7% in 2010 to 0.8% in 2019²¹¹. In particular, over period 2010-2019²¹², the infrastructure investments for air transport infrastructure increased from EUR 45.0 million to EUR 304.0 million (+575.6%), for rail it increased from EUR 388.0 million to EUR 462.0 million (+19.1%), for road it increased from EUR 890.0 million to EUR 1.5 billion (+71.0%), for inland waterways it increased from EUR 2.0 million to EUR 3.6 million (+80.0%) and for sea it increased from EUR 69.0 million to EUR 86.9 million (+25.9%).

Total investment in air transport infrastructure between 2010 and 2019



Conversely, the expenditure in infrastructure maintenance over the period 2010-2019²¹³ had decreased for all areas, except rail infrastructure maintenance. Specifically, for air transport infrastructure it decreased from EUR 240.0 million to EUR 220.0 million (-8.3%), for road it decreased from EUR 667.0 million to EUR 494.0 million (-25.9%), for inland waterways it decreased from EUR 17.0 million to EUR 12.6 million (-25.9%) and for sea it decreased from EUR 106.0 million to EUR 99.0 million (-6.6%). On the contrary, the rail infrastructure maintenance over the period 2010-2019²¹⁴ increased from EUR 195.0 million to EUR 231.0 million (+18.5%).

According to Statistics Finland, in 2020, around EUR 7.0 billion was spent on civil engineering in the construction sector, forming 19.0% of the total value of construction (EUR 36.9 billion). Out of this, EUR 5.1 billion was spent on new investments and EUR 1.9 billion under maintenance²¹⁵.

Total maintenance in rail infrastructure between 2010 and 2019



The **household renovation spending** reached EUR 187.0 million in 2019²¹⁶, representing a 57.1% increase from 2010 level. This also represents 0.1% of total household disposable income, the same as in 2010.



In January 2021, Finland ranked 10th out of 28²¹⁷ EU Member States in terms of the total investment set to be triggered by European Fund for Strategic Investments (EFSI) as a proportion of GDP²¹⁸.

As per the ranking, Finland has benefitted from investments by the EFSI. As of January 2021, the total financing under the EFSI in Finland amounted to EUR 2.0 billion, which is set to trigger EUR 11.0 billion in additional investments. With regards to infrastructure and innovation projects, 34 projects had been approved by the EIB with EFSI backing. These projects required up to EUR 1.7 billion of the total financing, which is set to trigger EUR 7.0 billion of total investment²¹⁹.



In 2020, the EIB Group invested almost EUR 180.0 million in infrastructure in Finland²²⁰.

Moreover, the Finnish government is planning to increase public investment in the coming years in infrastructure. A substantial investment is being considered for sustainable transport infrastructure comprising development of new national transport system and three high-speed railroad lines. However, this project is still in an early stage of preparation²²¹.

The **Turku Urban Infrastructure** — which consists financing of a multi-sector investment programme for the City of Turku in Finland with a budget of EUR 334.0 million, is also a project partially financed by the EIB (EUR 150.0 million) in 2019. Investments under this project will take place over the 2017-2022 period and include both renovations and new targets. The project is expected to comprise small to medium-sized schemes related to education, culture, social housing, energy, transport and other urban infrastructure^{222,223}.

Finland had also applied for financial aids from the European Commission in six upcoming transport projects aiming to promote **Trans-European Transport Network (TEN-T)**. Funding has been sought from the Connecting Europe Facility (CEF). The projects includes:

 planning and upgrading of the Kouvola Kotka-Hamina rail link, for which the Ministry of Transport and Communications requires EUR 1.94 billion (total budget: EUR 3.88 million);

- development of rail traffic on the rail section Oulu-Laurila-Tornio-Haparanda, for which the Ministry of Transport and Communications requires EUR 1.6 million (total budget: EUR 3.2 million); and
- Finnish non-state actors are also applying for CEF financial assistance amounting to EUR 12.27 million. These projects are primarily related to the need for shoreside electricity to be available at TEN-T ports by the end of 2025.

These projects are estimated to be completed by December 2023²²⁴.

The Finnish government has also announced around EUR 111.0 million of investments for enhancing the country's infrastructure. Out of this, around EUR 40.0 million has been planned for investing in maintenance and repair works of rail and roads in Finland. Besides this budget, the government also proposed a maintenance budget of EUR 40.0 million for the annual transport route. Projects to be financed under the budget mentioned above include of a set of rail, road and offshore projects²²⁵.

Moreover, the Finnish government has set aside EUR 349.0 million for projects in the coming years. These would include the renewing of safety equipment and repairs of bridges in Kouvola and Hamina — Kotka railway; Kotolahti's railyard expansion; the electrification of the Ylivieska — lisalmi and Siilinjärvi — Ruokosuo railways and changes to safety equipment. A third rail on the Ylivieska — lisalmi railway; a traffic management system, safety equipment upgrades and the renewal of track model and track technical structures at Joensuu railyard are also planned²²⁶.

In 2021, the Finnish government has proposed a total budget authority of approximately EUR 130.0 million and an appropriation of EUR 13.5 million for three new transport infrastructure projects (lengthening of locks in the Saimaa Canal, improvement of highway four between Äänekoski and Viitasaari, phase one upgrading of the Tampere Jyväskylä rail connection)²²⁷.

Further in the budget, the government has proposed that EUR 2.1 billion for transport and communications network, EUR 784 million for transport and communication services and EUR 669 million to administration and joint expenditure for the administrative branch. Under the transport and

communications network, EUR 1.37 billion, would be allocated to the basic transport infrastructure management of roads, railways and waterways²²⁸.

The Ministry of Transport and Communications also proposed that an appropriation of EUR 28.5 million be allocated to projects promoting walking and cycling and to projects improving the operational environment for public transport in local government²²⁹.

An appropriation of EUR 6.0 million is proposed to be allocated for supporting purchases of electric cars and conversions of passenger vehicles. The aim of this support is to promote the renewal of the car fleet so that an increasing number of cars would use alternative propulsion or fuels and, at the same time, harmful emissions from transport would be reduced²³⁰.

In the 2021 budget, an appropriation of EUR 108.0 million is proposed to be allocated for purchasing and developing public transport services. It is proposed that EUR 89.0 million to be allocated for improving the competitiveness of vessels in maritime transport. An appropriation of EUR 5.0 million is proposed for continuing the national broadband project. Lastly, an allocation of EUR 19.0 million is proposed for the purchases and development of archipelago and ferry transport services²³¹.

In accordance with Finland's **third supplementary budget proposal for 2021**, a total authorisation of EUR 268.0 million is proposed for new transport projects, meaning electrification of the Oulu-Laurila-Tornio-Haparanda Digirail link and rebuilding of the Kirjalansalmi and Hesselund bridges on Highway 180, together with an increase of EUR 33.5 million in the authorisation for upgrading the Kouvola–Kotka/Hamina railway line. Around EUR 50.0 million in financing of basic road maintenance will also be brought forward from 2022 to the current year²³².

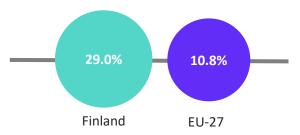
As per Finland's **Budget Plan 2022-2025**, Finland submitted a national Recovery and Resilience Plan to the Commission in spring 2021, which outlined the use of **EU Recovery and Resilience Facility** funding in Finland. With regards to the green transition, investments have been planned such as clean energy production, circular economy solutions and low-emission innovations, environmental

solutions in the construction sector and support for e-transport charging infrastructure²³³.

TO 2 - Skills

Finland performs well when it comes to skills, education, and training, with several indicators standing above the EU-27 average. For instance, in 2019²³⁴, early leavers from education and training in Finland stood at 7.3% (faring better than the 2009 level of 9.9%), lower than the EU-27 average of The country's tertiary educational attainment share in 2019²³⁵ reached 47.3% (above the 2009 level of 45.9%), still above the EU-27 average of 40.3%. Finland's employment rate of recent graduates by educational attainment was 84.4% in 2019²³⁶ (above the 2009 level of 77.8%), above the EU-28 average of 80.9%. Last, adult participation in learning for Finland reached 29.0% in 2019²³⁷ (up from the 2009 level of 22.1%), being above the EU-27 average of 10.8%²³⁸. These statistics reflect Finland's aspiration for better education²³⁹.

Share of adult participation in learning in 2019



However, the public expenditure on education as a percentage of GDP, though lying above the 2018²⁴⁰ EU-27 average (4.6%), has decreased over the 2009-2018²⁴¹ period, dropping from 6.5% to 5.5%²⁴².

By 2021, Finland is expected to make upper secondary education free of charge. The costs of the reform are estimated for the education material alone at around EUR 72.8 million annually. As per the new changes to be implemented, education, meals, school trips of more than five kilometres, health care and all learning materials and equipment, including laptops would be free²⁴³.

Stakeholders support the measure but consider that the cost of the overall reform that also includes the extension of the compulsory schooling age to 18, is underestimated. The central government covers approximately 29.0% of the primary and secondary

education budget and the rest is covered by local education providers and municipalities²⁴⁴.

Moreover, in recent years, the education budget has started increasing in Finland. In 2018, the **Ministry of Education and Culture** allocated EUR 6.6 billion to education, and EUR 6.4 billion in 2019. In 2020, the budget increased to EUR 6.9 billion²⁴⁵.

In 2020, the COVID-19 pandemic had affected the **VET** (vocational and educational training) in Finland. There has been a gradual shift towards distance learning for VET in the country. The international mobility of VET learners decreased by 78.0% (outgoing) and 75.0% (incoming) in 2020 compared to 2019²⁴⁶. Moreover, presently, many VET learners are leaving education and training early and about 15.0% of each generation in Finland is dropping out of secondary education. As a result, completion of VET has emerged as a challenge²⁴⁷.



According to the Finnish National Agency for Education around 40,500 students graduated from VET in spring (the most popular time to graduate) 2021, which is 4.0% less than the previous year²⁴⁸.

Therefore, the government has launched a programme which aims to increase the number of students completing upper secondary education, including VET. It provides investments amounting to EUR 235.0 million, which have been earmarked until 2023 for hiring new teachers and trainers. Moreover, in June 2020, the Ministry of Education and Culture launched a three-year programme (2020 – 2022) for quality and equity in VET²⁴⁹.

A VET quality strategy until 2030 is also being prepared, which replaces the 2011 strategy. It aims to ensure comprehensive quality management in VET institutions by applying customer-oriented approaches and clear targets, including for system efficiency²⁵⁰.

The General Government Fiscal Plan 2020-2023 has also announced an increment on the total annual expenditure on education by about EUR 518.0 million by 2023, with additional spending above 2020-2023 totalling EUR 455.0 million. Finland's 2020 budget plans a 6.0% increase in expenditure in general, vocational and tertiary education. From 2021, the higher education institutions in Finland will apply new funding models which will foster transitions from education to work²⁵¹.

Additionally, Finland's 2021 supplementary budget proposal includes an appropriation totalling EUR 111.0 million to alleviate the adverse impacts of the coronavirus on children and young adults. Around EUR 40.0 million is proposed for pre-primary, basic and early childhood education, around EUR 15.0 million for upper secondary education, and EUR 5.0 million for liberal adult education and vocational training. A further EUR 4.0 million is proposed for upper secondary funding. This funding seeks to offset the impacts of coronavirus, such a growing learning gap and deterioration in student welfare²⁵².

As Finland has begun implementing a national sustainable growth programme, the country's third draft supplementary budget for 2021 will launch reforms and investments under the European Union Recovery and Resilience Facility (RRF). The EU funding will be recognised in the budget of Finland as the reforms take place. The funding will be divided in four pillars, one of which will look into a higher employment rate and enhanced skills to boost sustainable growth. A total appropriation of EUR 134.9 million is proposed for reforms to promote employment and skills, of which EUR 30.9 million will be budgeted for 2021²⁵³.

TO 3 – Resource efficiency / Sustainable construction

Finland is committed to ambitious targets for improving energy efficiency. The energy efficiency agreements, made in alliance with government and industrial/municipal bodies, are a way of fulfilling the EU energy efficiency obligations specific to Finland. These agreements aim to improve efficient use of energy within sectors in the Finnish economy²⁵⁴.

As per the requirements of Directive 2012/27/EU on energy efficiency (EED), the Finnish government, in 2017, introduced the fourth **National Energy Efficiency Action Plan (NEEAP-4)**. It outlines the actions that will enable Finland to attain the targets detailed in the Government Programme and adopted in the EU for 2030, and to make methodical progress towards achieving an 80.0-95.0% reduction in greenhouse gas emissions by 2050²⁵⁵.

As per Finland's NEEAP-4, the energy efficiency agreement for local governments, launched in 2017, extends till 2025. It comprises of local authorities and governments. As per the agreement an energy saving target of at least 7.5% for the year 2025 and an interim target of 4% for the year 2020 had been specified²⁵⁶.

Moreover, in the agreement, the other measures relating to construction and buildings are:

- to provide directives for supervising engineering and construction in new developments and renovations (Article 5(7)(a)),
- to perform comprehensive energy audits, including energy audits and follow-up audits in existing buildings, commissioning audits in new buildings and identification of energy-saving potential in energy consumption other than that of buildings (Article 5(7)(b)),
- to organize energy consumption monitoring and the related personnel training and increase the coverage of monitoring that is performed on at least a monthly basis in the building stock and in other consumption (Article 5(7)(b)), and
- to ensure that energy-efficient equipment and systems can be purchased in new developments and renovation projects, regardless of the investment budget²⁵⁷.

In the buildings sector, the key energy efficiency measures laid down in NEEAP-4 relate to heat pumps in terraced and detached houses, the Höylä III energy efficiency agreement and energy performance regulations applicable to new developments. The annual energy savings effect by 2020 was expected to reach 15.0% of the sector's total energy consumption by 2020²⁵⁸.

In its Recovery and Resilience Plan, Finland announced its long-term target is to phase out oil heating by the beginning of 2030 and to reduce carbon dioxide emissions from the building stock by 90% between 2020 and 2050²⁵⁹.

It is expected that the phasing out oil heating in buildings will require total investments of about EUR 2 billion. Finland will use Recovery and Resilience Facility (RRF) particularly to encourage owners of low-rise residences to phase out oil heating and to bring forward these investments²⁶⁰.

To further support sustainable construction, the Finnish Ministry of the Environment launched a project back in 2005 — **Energy Efficient Home** (*Energiatehokas koti*). It aims to provide objective information to the constructors of new detached houses about the choices that will help in achieving, or getting closer to, zero energy in construction. In other words, the programme aims to promote almost zero-energy construction and the objectives of the Energy Performance of Buildings Directive (Article 9)²⁶¹.



As per a survey conducted in 2020, nearly 60.0% of the respondents would be prepared to renovate their homes with energy-efficient upgrades if their home loan margin was reduced in return. Among the respondents aged 18 to 40, around 70.0% were in favour²⁶².

Besides, aiming to attain a carbon-neutral society by 2035, the Finnish Ministry of the Environment has announced that in conjunction with city authorities, they are seeking a voluntary agreement to reduce emissions from construction sites. This programme, generally referred as "the Green Deal", supports the achievement of the emission reduction targets of the Finnish burden-sharing sector and is integrated into the social commitment to sustainable development²⁶³.

The Green Deal aims to make the construction sites fossil-free from 2025 onwards, 20.0% of which using electricity, biogas or hydrogen as a source of energy. The government would require 50.0% of them to be electricity, biogas or hydrogen from 2030²⁶⁴.

Finland is also aiming to achieve a carbon-neutral society by 2035. Therefore, it is developing policies and including legislation for low-carbon construction. This novel approach comprises of normative carbon limits for different building types before 2025. The Finnish Ministry of the Environment developed an assessment method for

this and has decided to develop a generic emission database. The database will include all main types of products and materials, sources of energy, modes of transportation as well as other processes such as site operations and waste management²⁶⁵.

The measures in place to achieve a carbon neutral society and improve the quality of construction comprise of:

- reform of the Land Use and Building Act by preserving municipalities' monopoly on land use and the land use planning hierarchy, advance the simplification of the land use planning process and strengthen municipalities' land policies
- advancing wood building and low-carbon construction by accelerating implementation of low-carbon construction roadmap, promoting the circular economy in construction, and continuing the wood building action plan until the end of 2022
- supporting repairs and renovations by promoting renovation of the ARA housing stock and improvements
- addressing indoor air problems by continuing the 'Healthy Premises 2028' programme and making the programme ambitious and examining its target-setting and scope such that it solves indoor air problems more effectively, and by helping people affected by indoor air problems²⁶⁶.

Helsinki has been preparing for an 'Energy Renaissance' programme which aims to speed up energy renovations made in privately-owned buildings. This will help in minimising the use of heating energy by a considerable amount in the entire building stock by 2035. Moreover, as more than 50.0% of emissions in the city come from buildings, the authorities have set a range of clear energy efficiency targets aimed at them. The authorities have also launched Climate Watch, an online tool that helps in measuring the progress on energy efficiency and other climate initiatives²⁶⁷.

Helsinki is also preparing for an 'Energy Renaissance' programme which aims to speed up energy renovations made in privately-owned buildings. This will help in minimising the use of heating energy by a considerable amount in the entire building stock by 2035²⁶⁸.

Additionally, the construction regulations specified that from 2018, all new buildings must have almost zero level of annual energy consumption. With this amendment, Finland implemented the requirements of the Energy Performance of Buildings Directive. This directive requires that in 2021, all new buildings should be almost zero-energy buildings. In the case of public buildings, this requirement had already come into force in 2019²⁶⁹.

TO 4 – Single Market



Performance of Finland in the metrics of EU Single Market Scoreboard has been consistently remarkable.

Finland's performance regarding the transposition deficit stood at 0.1% in 2019, representing an improvement from the previous tear (0.5%). The same for the 2019 EU-28²⁷⁰ average stood at 0.6%. The conformity deficit increased to 1.1% in 2019 from 0.6% in the previous year, whereas for the EU-28²⁷¹ average, it stood at 1.2%. It experienced an improvement in the number of pending cases under infringement (12 cases where six cases were new, and two cases closed) in 2019 compared to 2018 (eight pending cases). This also lies largely below the EU-28²⁷² average (29 cases). The average case duration reached down to 22.5 months, compared with 27.6 months in the previous year and 34.8 months for the 2019 EU-28²⁷³ average. However, the country scores slightly lower in terms of compliance with court rulings (27.6 months) as compared to the EU-28²⁷⁴ average of 29.5 months. Finland's average response time currently complies with the 70-day time limit in EU Pilot²⁷⁵.

Finland continues to maintain its excellent performance in terms of **Internal Market Information System**. Performance was mostly stable and well above the European Environment Agency (EEA) average in all five indicators. Finland was also very fast in answering requests, with an average of eight days, in comparison with EEA average (19 days). However, this has reduced in comparison with the previous year. Furthermore, the country's **trade integration** in the single market for goods is below the EU-28²⁷⁶ average, whereas its trade integration for services is in line with the EU-28 average. Finland's performance in **Public Procurement** was satisfactory²⁷⁷.

Corruption risks in Finland's public procurement sector are moderate to low. Practices of corruption such as favouritism in the decisions of government officials and diversion of public funds are rarely perceived by companies²⁷⁸.

However, a quarter of the businesses surveyed believe corruption has prevented their company from winning a public tender. Informal relationships between businessmen and public decision-makers, are also reported to influence procurement decisions, especially at the local level. The European Commission emphasised the need to make public procurement decisions more transparent, including all construction contracts above EUR 150,000 must tendered and companies would recommended to implement special due diligence procedures to counter corruption risks in the procurement process²⁷⁹.

With a broader aim of modernising the country's public procurement, in September 2019, the merger of two main procurement bodies (Hansel and KL-Kuntahankinnat) in Finland took place. This operation was aimed at establishing a single national purchasing body, serving contracting authorities at all levels of the government. Furthermore, this merger is expected to increase efficiency and centralise procurement expenditure, focusing on larger contracts towards a uniform system for public tendering²⁸⁰.

TO 5 – International competitiveness



Finland ranked 11th out of 141 economies in the 2019 Global Competitiveness Index, in line with the previous year's ranking²⁸¹.

According to the index, in trade openness, Finland raked the best in prevalence of non-tariff barriers (3rd), trade tariffs (7th) and border clearance efficiency (8th). On the contrary, it ranked 113th complexity of tariffs²⁸².

The internationalisation of construction products and services in the Finnish construction sector experienced a modest increase over the 2010-2019 period, however, it declined in 2020. Specifically, the export value of all construction-related products reached EUR 1.0 million in 2020, representing 6.5% and 8.9% decline since 2010 and 2019 respectively. The share of exports value of all

construction-related products as a percentage of total value of production had also decreased to 21.0% in 2020 as compared to 2010 (24.0%) and 2019 (23.0%) levels.

Between 2010 and 2020, the value of exports of architectural services experienced a significant decline of 98.0%, reaching EUR 41,076. This also represented an annual decline of 45.2%. The share of exports value as a percentage of turnover in architectural services also dropped to 0.1% in 2018²⁸³, as compared to 2010 level (1.0%).

Export value of architectural services between 2010 and 2020



In the context of **inward FATS** (**Foreign affiliates statistics**)²⁸⁴, value added at factor cost, turnover and number of persons employed in the manufacturing sub-sector increased by 44.1% and 17.1% respectively over the 2010-2018²⁸⁵ period. Similarly, value added at factor cost, turnover and number of persons employed in the narrow construction sub-sector increased by 17.1%, 50.3% and 4.5% respectively over the same period. Lastly, value added at factor cost, turnover and number of persons employed in the real estate activities sub-sector increased by 315.0%, 259.0% and 715.0% over the 2012-2018 period²⁸⁶.

In the context of **outward FATS**, turnover and number of persons employed in the manufacturing sub-sector increased by 8.3% and 7.5% respectively over the 2010-2018²⁸⁷ period. In the real estate activities sub-sector, turnover increased by 138.1% over the same period, whereas the number of persons employed decreased by 47.7%. Lastly, in the narrow construction sub-sector, the number of persons employed decreased by 16.5%, over the same period, whereas turnover decreased by 6.0% over the 2015-2018²⁸⁸ period.

With regards to **Foreign Direct Investment (FDI)**, the direct investment abroad (DIA) and direct investment in the reporting economy (DIRE) in the manufacturing sub-sector increased by 28.5% and 60.7%, respectively, over the 2013-2017²⁸⁹ period.

In the narrow construction sub-sector, the DIA decreased by 48.5%, whereas DIRE increased by 193.3%, over the same period. Lastly, in the real estate activities sub-sector, the DIA decreased by 86.2%, whereas DIRE increased by 89.1%, over the same period.

In order to facilitate and to speed up internationalisation of innovative SMEs in Finland, especially those who lack critical inhouse expertise, Business Finland launched 'Business Finland Into funding service (Innovaatio-osaaminen kasvun tueksi - INTO)' in July 2020²⁹⁰.

Under this measure, SMEs aiming to enter export markets, can buy consultancy services to strengthen their innovation expertise and can also acquire industrial rights or hire an expert from a research organisation or large company on a temporary basis. The idea is to support the enterprise in buying the best possible consultancy services to strengthen their innovation expertise and encourage the efforts of SMEs to internationalise and become high growth enterprises including through participation in innovative clusters. A maximum funding of EUR 200,000 shall be provided to such SMEs for the purchase of consultancy services.

Similarly, in 2020, the Ministry of Economic Affairs and Employment launched a new programme for exports and international growth for 2020-2023. This programme will build up internationalisation capabilities by increasing the number of new exporting companies and by boosting the exports of those existing companies. In particular, companies involved in the low-carbon economy and circular economy will be supported. Other similar measures include Digital Trust Finland programme, which provides funds for innovation and business development in the digital trust area, and the Smart Life Finland programme, which supports SME growth and internationalisation in the health and wellbeing sector. The Smart Mobility Finland programme (2018-2022) also contributes to these areas²⁹¹.

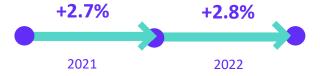
8

Outlook

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

The Finnish GDP is expected to grow annually by 2.7% in 2021 and 2.8% in 2022, thus reaching EUR 236.2 billion.

Expected GDP growth in 2021 and 2022



The **volume index of production** in the broad construction sector is expected to increase annually by 2.0 ip and 3.1 ip in 2021 and 2022 respectively. This is expected to be driven majorly by annual increases in the volume index of construction of civil engineering by 3.1 ip and 3.7 ip in 2021 and 2022 respectively. The volume index of construction of buildings is also expected to increase annually by 0.8 ip and 2.5 ip in 2021 and 2022 respectively.

The **turnover** of the broad construction sector is projected to increase annually by 5.4% in 2021, reaching a value of EUR 74.6 billion. The narrow construction sub-sector is expected to contribute to major share (59.1%) in the total turnover in 2021, whereas turnover in the architectural and engineering activities sub-sector is expected to increase annually by 8.1%, being the highest among sub-sectors.

Similarly, the **total value added** of the broad construction sector is expected to increase annually by 5.6% in 2021, reaching EUR 25.7 billion. This is forecasted to be driven majorly by an annual growth in the value added of the architectural and engineering activities sub-sector (+8.1%) in 2021. The narrow construction sub-sector is expected to

contribute to major share (52.5%) in the total turnover in 2021, amongst other sub-sectors.

In parallel, the number of **persons employed** in the broad construction sector is also expected to annually increase by 5.4% to 359,354 in 2021. Most of this increase is forecasted to come from the annual increase in the architectural and engineering activities sub-sector (+8.1%). The narrow construction sub-sector is expected to contribute a major share (67.5%) in total number of persons employed in 2021.

The Finnish housing market witnessed large numbers of property sales since 2021 start. The trend in increasing urbanisation rates coupled with increasing household income is expected to drive demand of housing in the country in coming years. Moreover, the declining interest rates of loans are also expected to drive the uptake of housing loans. Collectively these indicators along government's efforts of reducing homelessness by 2023 and to eliminate it by 2027 through its Housing First programme are expected to boost demand, supply and transaction volumes in the housing market in the coming years.

Moreover, as per the 2022 budget, in order to strengthen the economic situation in the construction sector, the government has proposed increasing the level of interest subsidy authorisations for state-subsidised housing production to EUR 1.8 billion. This is EUR 50.0 million more than in the budget for 2020 (including supplementary budgets). The employment in the construction sector will also be supported by increasing the investment mandate of the Senate Group enterprises to EUR 480.0 million²⁹².

With regards to non-residential construction and civil engineering activities, as per Finland's Budget Plan for 2022-2025 the government aims to revitalise economy through public investment, such as infrastructure projects, followed by

Country Fact Sheet Finland

investments in other sectors. Over the 2022-2025 period it is expected to invest EUR 748.0 million for the development and maintenance of the transport network.

In order to alleviate the impact of the pandemic and help the economy in recovering, the Finnish government had made a deal of EUR 64.2 billion in September 2020. The revenue is estimated at EUR 53.4 billion, leaving the budget EUR 10.8 billion euros in deficit. Finland appears to have endured a smaller economic impact than the euro area on average, with output contracting 4.5% in

the second quarter 2020 from the prior three-month period. The main risk for the economy continues to be weak global demand for its exports, which consist largely of industrial goods. The government has pushed back its goal to halt debt growth to the end of the decade from an initial pre-pandemic target of 2023²⁹³.

The government's measures to revive the economy and planned infrastructure projects in specific areas provide for an optimistic outlook for the Finnish construction sector.

References

- 1 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 2 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 3 The gross operating rate is the ratio of Gross Operating Surplus to Turnover, and is an indicator of profitability More recent data is not available. Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. Construction is seeking a new direction, https://www.rakennusteollisuus.fi/globalassets/suhdanteet-jatilastot/suhdannekatsaukset/2021/kevat/suhdannetiivistelma kevat21 eng.pdf COMMISSION STAFF WORKING DOCUMENT Analysis of the recovery and resilience plan of Finland, https://ec.europa.eu/info/sites/default/files/swd-2021-284 en.pdf Please note that this 2020 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 10 Please note that this 2019 data is a nowcast - please refer to the methodology notes for further details. 11 Data unavailable for subsequent years 12 Data unavailable for subsequent years 13 Data unavailable for subsequent years 14 Data unavailable for subsequent years 15 Apparent labour productivity refers to the Gross Value Added per person employed 16 Data unavailable for subsequent years 17 Please note that more recent data for labour productivity in the broad construction sector is not available. 18 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 19 01aa75ed71a1 20 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 21 The total does not include buying and selling of own real estate, renting and operating of own or leased real estate, and real estate activities on a fee or contract basis, since no data is available for this specific activity within the real estate sub-sector. 22 More recent data is not available. 23 The gross operating rate is the ratio of Gross Operating Surplus to Turnover, and is an indicator of profitability 24 More recent data is not available. 25 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 26 More recent data is not available. 27 More recent data is not available. Finland Economy, ecfin_forecast_summer_2020_fi_en.pdf, https://ec.europa.eu/economy finance/forecasts/2020/summer/ecfin forecast summer 2020 fi en.pdf 29 Coronavirus leads to growing unemployment in Finland, https://www.helsinkitimes.fi/finland/news-in-brief/18787-coronavirus-leads-togrowing-unemployment-in-finland.html 30 Ibidem. 31 Budget proposal for 2021 provides a route for exiting the COVID-19 crisis, https://minedu.fi/en/-/10616/budget-proposal-for-2021provides-a-route-for-exiting-the-covid-19-crisis 32 World Bank Group, Doing Business 2020, Economy Profile for Finland, $\underline{https://www.doingbusiness.org/content/dam/doingBusiness/country/f/finland/FIN.pdf}$ 33 As the publication of the WB Doing Business report 2021 was not available at the time of the writing, this report relies on the data provided by the 2020 edition World Bank Group, Doing Business 2020, Economy Profile for Finland, https://www.doingbusiness.org/content/dam/doingBusiness/country/f/finland/FIN.pdf 35 Finland - background document of the SME fact sheet 2021, https://ec.europa.eu/growth/sites/default/files/background documents of the sme fact sheets 2021.zip
- EIB Investment Survey 2020: Finland Overview, https://op.europa.eu/en/publication-detail/-/publication/259f07ac-433c-11eb-b27b-01aa75ed71a1

European Construction Sector Observatory

World Bank Group, Doing Business 2020, Economy Profile for Finland,

https://www.doingbusiness.org/content/dam/doingBusiness/country/f/finland/FIN.pdf

As the publication of the WB Doing Business report 2021 was not available at the time of the writing, this report relies on the data provided

36

37

38 39

40

Ibidem.

Ibidem.

by the 2020 edition

Country Fact Sheet Finland

42 SME access to finance conditions 2020 SAFE infographic report, https://ec.europa.eu/docsroom/documents/43869 43 Ibidem. 44 Ihidem. 45 Finnvera is a Finnish state-owned financing company. 46 Finnvera's additional funding for SMEs, https://tem.fi/en/-/finnveran-rahoitusvaltuuksia-korotetaan-koronaviruksen-vuoksi-lisarahoitusta-10-miljardia-euroa 47 Stabilization financing for medium-sized companies in a corona situation, https://www.tesi.fi/vakautusrahoitus-koronatilanteessa/ 48 Data not available for subsequent years. 49 Data not available for subsequent years. 50 Data not available for subsequent years. 51 Data not available for subsequent years. 52 Finland Construction Confidence Indicator, https://ycharts.com/indicators/finland construction confidence indicator 53 According to Eurostat, construction services comprises Construction Abroad (code 250) and Construction in the Compiling Economy (code 251). They do not include architectural services, or engineering services. 54 Figures before 2013 are not available. 55 Figures before 2013 are not available. 56 Figures before 2013 are not available. 57 Figures before 2013 are not available. 58 SME access to finance conditions 2020 SAFE infographic report, https://ec.europa.eu/docsroom/documents/43869 59 60 EIB Investment Survey 2020: Finland Overview, https://op.europa.eu/en/publication-detail/-/publication/259f07ac-433c-11eb-b27b-01aa75ed71a1 61 Ibidem. 62 Ibidem. 63 Data not available after 2018. 64 European Commission, Country Report Finland 2020, https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52020SC0525&from=EN 65 World Population Review, Finland Population 2019, http://worldpopulationreview.com/countries/finland-population/ 66 Data unavailable for 2020 67 Household-dwelling units in Greater Helsinki have the highest housing loans, https://www.stat.fi/til/velk/2020/velk 2020 2021-06-24_tie_001_en.html 68 Ibidem. 69 A housing company is a legal entity that owns one or more residential buildings. 70 European Commission, Country Report Finland 2020, https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52020SC0525&from=EN 71 Transactions of old dwellings in housing companies were more active in the second quarter than one year earlier, https://www.stat.fi/til/ashi/2021/06/ashi 2021 06 2021-07-30 tie 001 en.html 72 The Finnish Property Market 2021, https://kti.fi/wp-content/uploads/The Finnish Property Market 2021.pdf 73 Sales of detached houses up 20% in early 2021 – demand for large family homes exceeds supply, https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-homes-exceeds-https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-homes-exceeds-https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-homes-exceeds-https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-homes-exceeds-https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-homes-exceeds-https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-homes-exceeds-https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-homes-exceeds-https://www.helsinkitimes.fi/business/18911-sales-of-detached-houses-up-20-in-early-2021-demand-for-large-family-houses-up-20-in-early-2021-demand-for-large-family-houses-up-20-in-early suppl.html 74 Construction is seeking a new direction, https://www.rakennusteollisuus.fi/globalassets/suhdanteet-jatilastot/suhdannekatsaukset/2021/kevat/suhdannetiivistelma kevat21 eng.pdf 75 The Finnish Property Market 2021, https://kti.fi/wp-content/uploads/The Finnish Property Market 2021.pdf 76 The housing cost overburden rate is the percentage of the population living in households where the total housing costs represent more than 40% of disposable income. 77 This figure is an estimation, as per the website. 78 Eurostat, Housing cost overburden rate by age, sex and poverty status - EU-SILC survey. http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvho07a&lang=en 79 The overcrowding rate is defined as the percentage of the population living in an overcrowded household. 80 This figure is an estimation, as per the website. 81 Eurostat, Overcrowding rate. http://ec.europa.eu/eurostat/product?code=ilc_lvho05a&language=en&mode=view 82 Eurostat, Severe housing deprivation rate is defined as the percentage of population living in the dwelling which is considered as overcrowded, while also exhibiting at least one of the housing deprivation measures. Housing deprivation is a measure of poor amenities and is calculated by referring to those households with a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too 83 This figure is an estimation, as per the website. Severe housing deprivation rate, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdho06a&lang=en_ 85 The city with no homeless on its streets, January 2019, https://www.bbc.com/news/uk-england-46891392 86 Ibidem. 87 Ibidem.

Ibidem. 89 World Economic Forum, The Global Competitiveness Report 2018-2019 http://www3.weforum.org/docs/WEF TheGlobalCompetitivenessReport2019.pdf 90 91 Budget Plan For 2022-2025, Finland, https://ec.europa.eu/info/sites/default/files/2021-finland-stability-programme_fi.pdf 92 Data unavailable for subsequent years. 93 Data unavailable for subsequent years. 94 Data unavailable for subsequent years. 95 Bankruptcies up even before coronavirus crisis, https://yle.fi/uutiset/osasto/news/bankruptcies up even before coronavirus crisis/11317260 96 Bankruptcies down despite corona crisis, https://yle.fi/uutiset/osasto/news/bankruptcies down despite corona crisis/11546507 97 Ibidem. Number of Finnish companies in bankruptcy decreased so far this year, https://www.foreigner.fi/articulo/business/number-of-company-<u>bankruptcies-decreased-in-finland-this-year/20210818114244013437.html</u> 99 SME access to finance conditions 2020 SAFE infographic report, https://ec.europa.eu/docsroom/documents/43869 100 SME access to finance conditions 2020 SAFE report, https://ec.europa.eu/docsroom/documents/43872 101 102 SME access to finance conditions 2020 SAFE infographic report, https://ec.europa.eu/docsroom/documents/43869 103 Ibidem. 104 Ibidem. 105 European Payment Report 2020, https://www.intrum.com/media/8918/european-payment-report-2020 final.pdf 106 Ibidem. 107 Impacts of COVID-19 on the financial situation of employer companies in Finland in March 2020, by sector, https://www.statista.com/statistics/1105900/impacts-of-the-coronavirus-situation-on-employer-companies-by-sector-finland/ 108 World Bank Group, Doing Business 2020, Finland, https://www.doingbusiness.org/content/dam/doingBusiness/country/f/finland/FIN.pdf 109 As the publication of the WB Doing Business report 2021 was not available at the time of the writing, this report relies on the data provided by the 2020 edition. 110 Doing Business 2019 Report, https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019report web-version.pdf 111 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 eternal agencies. Finally, in this example the warehouse takes 30 weeks to construct, excl. all delays due to administrative and regulatory requirements. 112 World Bank Group, Doing Business 2020, Finland, https://www.doingbusiness.org/content/dam/doingBusiness/country/f/finland/FIN.pdf 113 Data for real estate activities not available. 114 Data unavailable for the period 2010-2012 Data unavailable for 2020. 116 Finland faces acute workforce shortage, eyeing experts from Southeast Asia, https://scandasia.com/finland-faces-acute-workforceshortage-eyeing-experts-from-southeast-asia/ 117 Monthly unemployment rate in Finland from January 2019 to July 2020, https://www.statista.com/statistics/523862/finland-monthlyunemployment-rate/ 118 37 occupations with shortage of workers in Finland, https://www.foreigner.fi/articulo/work-and-study/37-occupations-with-shortage-ofworkers-in-finland/20210327100944010715.html 119 Finland faces acute workforce shortage, eyeing experts from Southeast Asia, https://scandasia.com/finland-faces-acute-workforceshortage-eveing-experts-from-southeast-asia/ 120 Dubbed as 'world's happiest country', Finland seeks migrants to solve workforce crisis, https://www.newindianexpress.com/world/2021/jun/22/dubbed-as-worlds-happiest-country-finland-seeks-migrants-to-solve-workforcecrisis-2319817.html 121 Aging Finland seeks to attract skilled immigrants, https://www.dw.com/en/aging-finland-seeks-to-attract-skilled-immigrants/a-58005114 122 Helsinki Times, Three-quarters of Finnish firms affected by labour shortage, reveals survey, September 2021. https://www.helsinkitimes.fi/finland/finland-news/domestic/19893-three-quarters-of-finnish-firms-affected-by-labour-shortage-revealssurvey.html 123 EIB Investment Survey 2020: Finland Overview, https://op.europa.eu/en/publication-detail/-/publication/259f07ac-433c-11eb-b27b- 01aa75ed71a1 124 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose 125 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose 126 Data not available for subsequent years 127 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose 128 European Commission, Country Report Finland 2020, https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52020SC0525&from=EN 129 Appendix table 1. Municipal waste 2019, tonnes, https://www.stat.fi/til/jate/2019/13/jate 2019 13 2020-12-09 tau 001 en.html

From recycling to a circular economy The National Waste Plan 2030, http://julkaisut.valtioneuvosto.fi/handle/10024/160889 131 New Waste Act 2021 in Finland - stricter reporting requirements call for effective material flow management, https://blog.pinja.com/en/new-waste-act-2021-reporting-requirements-for-effective-material-flow-management 132 From Recycling to a Circular Economy National Waste Plan to 2023, http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/160889/SY 01en 18 WEB.pdf?sequence=1&isAllowed=y 133 Data not available for subsequent years 134 Appendix table 1. Waste generation by industry, 2019, 1,000 tonnes, https://www.stat.fi/til/jate/2019/jate 2019 2021-06-16 tau 001 en.html See more information at https://www.ym.fi/en- US/The environment/Legislation and instructions/Waste legislation/Waste legislation(3832) 136 Data for 2020 unavailable. 137 Greenhouse gas emissions decreased by 9 per cent, https://www.stat.fi/til/khki/2020/khki 2020 2021-05-21 tie 001 en.html 138 Finland's long-term low greenhouse gas emission development strategy, https://unfccc.int/sites/default/files/resource/LTS Finland Oct2020.pdf 139 The Continuous Growth and Savings scenarios describe alternative pathways to achieve the emission reduction target set by Finland and the European Union by 2050 140 Finland's long-term low greenhouse gas emission development strategy, https://unfccc.int/sites/default/files/resource/LTS Finland Oct2020.pdf 141 European innovation scoreboard 2021, https://ec.europa.eu/docsroom/documents/45913 142 143 Data not available for 2020. 144 Data not available for 2020. Data for subsequent years. 146 Data regarding business enterprise R&D expenditure in the real estate activities was not available for the years subsequent to 2012 147 A Full-Time Equivalent (FTE) is a unit to measure employed persons in a way that makes them comparable, although they may work a different number of hours per week. The unit is obtained by comparing an employee's average number of hours worked to the average number of full-time workers. A full-time person is therefore counted as one FTE, while a part-time worker gets a score in proportion to the 148 Data not available for 2020. 149 Data not available for 2020. 150 Data for subsequent years. 151 The 2020 EU Industrial R&D Investment Scoreboard, http://iri.jrc.ec.europa.eu/scoreboard/2020-eu-industrial-rd-investment-scoreboard 152 SAFE Report 2020, https://ec.europa.eu/docsroom/documents/43869 153 The Eco-Innovation Scoreboard and The Eco-Innovation Index, https://ec.europa.eu/environment/ecoap/indicators/index_en 154 Ibidem. 155 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 156 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 157 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 158 Digital Economy and Society Index (DESI) 2020 Finland, https://digital-strategy.ec.europa.eu/en/policies/desi-finland 159 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 160 161 EIB Investment Survey 2020: Finland Overview, https://op.europa.eu/en/publication-detail/-/publication/259f07ac-433c-11eb-b27b- 01aa75ed71a1 162 Ibidem. 163 Ibidem. 164 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 165 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 166 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 167 As the EU-27 average data was not available, the EU-28 average was used for comparative purpose. 168 EIB Investment Survey 2020: Finland Overview, https://op.europa.eu/en/publication-detail/-/publication/259f07ac-433c-11eb-b27b-01aa75ed71a1 169 BIM Europe: adoption and implementation levels - PART 2, http://biblus.accasoftware.com/en/bim-europe-adoption-andimplementation-levels-part-2/ 170 BIM Europe: adoption and implementation levels - PART 2, http://biblus.accasoftware.com/en/bim-europe-adoption-andimplementation-levels-part-2/ 171 How BIM is Revolutionizing Building Control in Finland, https://aec-business.com/how-bim-is-revolutionizing-building-control-in-finland/ 172 BIM Europe: adoption and implementation levels - PART 2, http://biblus.accasoftware.com/en/bim-europe-adoption-and-implementationlevels-part-2/ 173 New hospital in Finland uses BIM to involve staff in design process, https://www.pbctoday.co.uk/news/bim-news/hospital-nova-bim/75315/ 174 ARA implements Finland's housing policy, https://www.ara.fi/en-US/About ARA/ARA implements Finlands housing policy(843) 175 ARA develops, https://www.ara.fi/en-US/Housing development

Country Fact Sheet Finland

176	ARA implements Finland's housing policy, https://www.ara.fi/en-US/About ARA/ARA implements Finlands housing policy(843)
177	Housing stock constructed with state subsidies, https://www.ara.fi/en-us/ARA housing stock
178	3.1.1 Housing Policy, https://valtioneuvosto.fi/en/marin/government-programme/housing-policy
179	Ibidem.
180	Housing for special groups, http://www.asuminen.fi/en-US/Housing/Housing for special groups
181	3.1.1 Housing Policy, https://valtioneuvosto.fi/en/marin/government-programme/housing-policy
182	Rented housing legislation, https://www.ym.fi/en-US/Housing/Legislation and instructions/Legislation on rental living
183	Owner-occupied housing legislation, https://www.ym.fi/en-
	US/Housing/Legislation and instructions/Legislation on owneroccupied housing
184	Right-of-occupancy housing, http://www.asuminen.fi/en-US/Housing/Rightofoccupancy housing
185	3.1.1 Housing Policy, https://valtioneuvosto.fi/en/marin/government-programme/housing-policy
186	Public Spending on Financial Support to Homebuyers and Homeowners, https://www.oecd.org/els/family/PH2-1-Public-spending-support-to-home-buyers.pdf
187	7. What long-term measures are discussed or adopted to support the construction industry? https://cms.law/en/int/expert-guides/cms-
	expert-guide-to-covid-19-impact-on-construction-industry/finland
188	Ibidem
189	Ministry of the Environment, Land Use and Building Act. http://www.ym.fi/en-
	us/Land use and building/Legislation and instructions/The Land Use and Building Act
190	See more information at https://www.ym.fi/fi-
	FI/Maankaytto ja rakentaminen/Lainsaadanto ja ohjeet/Maankaytto ja rakennuslaki/Kysymyksia ja vastauksia muutoksista maankay
191	tto ja rakennuslakiin Ministry of the Environment, The National Building Code of Finland. http://www.ym.fi/en-
	us/Land use and building/Legislation and instructions/
192	Construction and projects in Finland: overview, https://uk.practicallaw.thomsonreuters.com/1-637-
402	5172?transitionType=Default&contextData=(sc.Default)&firstPage=true
193	Ibidem
194	International Comparative Legal Guides, Construction & Engineering Law 2016 – Finland. July 2016. https://www.iclg.co.uk/practice-areas/construction-and-engineering-law/construction-law-2016/finland
195	European Liability Insurance Organisation Schemes 2, Official records, Liability and Insurance regimes on 28 EU Member States, 2015. http://www.elios-ec.eu/sites/default/files/european-liability-and-insurance-regimes-mapping.pdf
196	A housing company, also known as housing cooperative, is a legal entity that owns one or more residential buildings and apartments.
	When buying an apartment, buyers actually purchase shares of the housing company, proportional to the size of the apartment. The
197	shareholders are thus joint owners of the housing company.
	Finnish Competition and Consumer Authority, Housing defects. http://www.kkv.fi/en/facts-and-advice/defects-and-delays/asuntokaupan-virhe/ virhe/uuden-osakehuoneiston-virhe/
198	European Liability Insurance Organisation Schemes 2, Official records, Liability and Insurance regimes on 28 EU Member States, 2015.
199	http://www.elios-ec.eu/sites/default/files/european-liability-and-insurance-regimes-mapping.pdf
200	Ibidem.
200	This includes total investment by the construction and real estate sub-sectors, defined as gross fixed capital formation, i.e. acquisitions minus disposal, of total fixed assets (e.g. machinery and equipment, vehicles, dwellings and other buildings).
201	Data not available for 2020.
202	Data not available for 2020.
203	Data not available for 2020.
204	Data not available for 2020.
205	Data not available for 2020.
206	Data not available for 2020.
207	This includes total investment (i.e. gross fixed capital formation) in dwellings and non-residential construction and civil engineering by
208	investors in the general economy (e.g. industry, financial and non-financial services, households, agricultural sector, etc.).
209	Data not available for 2020.
203	The indicator gross fixed capital formation in non-residential and civil engineering refers to the Eurostat indicator «Other buildings and structures»
210	According to OECD, Inland infrastructure includes road, rail, inland waterways, maritime ports and airports and takes account of all sources
	of financing, https://data.oecd.org/transport/infrastructure-investment.htm
211	Data not available for 2020.
212	Data not available for 2020.
213	Data not available for 2020.
214	Data not available for 2020.
215	Construction is seeking a new direction,
	https://www.rakennusteollisuus.fi/globalassets/suhdanteet-ja-
	tilastot/suhdannekatsaukset/2021/kevat/suhdannetiivistelma kevat21 eng.pdf
216 217	tilastot/suhdannekatsaukset/2021/kevat/suhdannetiivistelma kevat21 eng.pdf Data unavailable for 2020.

218 Investment Plan results, Breakdown of results by country and sector from the European Fund for Strategic Investments, https://ec.europa.eu/commission/strategy/priorities-2019-2024/jobs-growth-and-investment/investment-plan-europe/in 219 Investment Plan: Finland. investment/investment-plan-europe/investment-plan-results/investment-plan-finland en 220 Finland and the EIB. https://www.eib.org/en/projects/regions/european-union/finland/index.htm 221 European Commission, Country Report Finland 2020, https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52020SC0525&from=EN 222 Finland: City of Turku and EIB sign EUR 150 million financing agreement, https://www.eib.org/en/press/all/2019-027-city-of-turku-andeib-sign-eur-150-million-financing-agreement 223 Turku Urban Infrastructure, https://www.eib.org/en/projects/pipelines/all/20160986 224 Finland applies for EU financial assistance for several transport projects, https://www.lvm.fi/en/-/finland-applies-for-eu-financialassistance-for-several-transport-projects-1033243 225 Infrastructure Investments for Finland in 2019, http://www.innoconnections.com/news/infrastructure-investments-for-finland-in-2019.html 226 Ibidem 227 Budget proposal for 2021 provides a route for exiting the COVID-19 crisis, https://minedu.fi/en/-/10616/budget-proposal-for-2021provides-a-route-for-exiting-the-covid-19-crisis Budget of Finnish Ministry of Transport & Communications to be €3.54B, <a href="https://masstransit.network/mass-transit-news/budget-of-finnish-budget-of-finnish-budg ministry-of-transport-communications-to-be-3-54b 229 Ibidem. 230 Ibidem. 231 Ibidem. 232 Government agrees third supplementary budget proposal for 2021, https://valtioneuvosto.fi/en/-/10616/government-agrees-thirdsupplementary-budget-proposal-for-2021 233 Finland's Budget Plan 2022 2025, https://ec.europa.eu/info/sites/default/files/2021-finland-stability-programme_fi.pdf 234 Data unavailable for 2020. 235 Data unavailable for 2020. 236 Data unavailable for 2020. 237 Data unavailable for 2020. 238 Education and training monitor 2020 - Finland, https://op.europa.eu/en/publication-detail/-/publication/586d02e8-2498-11eb-9d7e-01aa75ed71a1/language-en/format-PDF/source-171316210 239 Vocational education and training in Finland: short description, https://www.cedefop.europa.eu/files/4176 en.pdf 240 Data not available for subsequent years. 241 Data not available for subsequent years. 242 Education and training monitor 2020 - Finland, https://op.europa.eu/en/publication-detail/-/publication/586d02e8-2498-11eb-9d7e-01aa75ed71a1/language-en/format-PDF/source-171316210 243 Ibidem. 244 Ibidem. 245 Ibidem. 246 Finland: fewer VET graduates and reduced international mobility, https://www.cedefop.europa.eu/en/news-and-press/news/finlandfewer-vet-graduates-and-reduced-international-mobility 247 Finland: Compulsory education extended to upper secondary education, including VET, https://www.cedefop.europa.eu/en/news-andpress/news/finland-compulsory-education-extended-upper-secondary-education-including-vet Finland: fewer VET graduates and reduced international mobility, https://www.cedefop.europa.eu/en/news-and-press/news/finlandfewer-vet-graduates-and-reduced-international-mobility 249 Education and training monitor 2020 - Finland, https://op.europa.eu/en/publication-detail/-/publication/586d02e8-2498-11eb-9d7e-01aa75ed71a1/language-en/format-PDF/source-171316210 250 251 European Commission, Country Report Finland 2020, https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52020SC0525&from=EN 252 Government agrees third supplementary budget proposal for 2021, https://valtioneuvosto.fi/en/-/10616/government-agrees-thirdsupplementary-budget-proposal-for-2021 253 254 Energy Efficiency Agreements, https://energiatehokkuussopimukset2017-2025.fi/en/agreements/ 255 Finland's National Energy Efficiency Action Plan NEEAP-4, https://ec.europa.eu/energy/sites/ener/files/documents/fi neeap 2017 en.pdf 256 257 Ibidem 258 Ibidem 259 European Commission, Recovery and Resilience Plan 2021- Finland. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163363/VN 2021 69.pdf?sequence=1&isAllowed=y 260 261 Energiatehokas koti -hanke, https://www.energiatehokaskoti.fi/ajankohtaista/energiatehokas koti -hanke

Country Fact Sheet Finland

262	Construction with green finance helps against climate change, https://www.finanssiala.fi/en/columns/construction-with-green-finance-helps-against-climate-change/ ?
263	Finland starts targeting emissions in the Construction Sectors, <a "="" 10.5334="" articles="" bc.30="" href="https://bellona.org/news/eu/2020-05-finland-starts-targeting-emissions-in-targeting-emission-</th></tr><tr><td>264</td><td>the-construction-sectors</td></tr><tr><td>265</td><td>Ibidem</td></tr><tr><td>203</td><td>Reduced carbon footprints of buildings: new Finnish standards and assessments, https://journal-buildingscities.org/articles/10.5334/bc.30/
266	3.1.1 Housing policy, https://valtioneuvosto.fi/en/marin/government-programme/housing-policy
267	Helsinki to unleash energy efficiency potential in buildings, https://agreenerlifeagreenerworld.net/2019/12/11/helsinki-to-unleash-energy-efficiency-potential-in-buildings/
268	Ibidem.
269	Ministry of the Environment, The National Building Code of Finland. http://www.ym.fi/en-us/Land-use-and-building/Legislation-and-instructions/
270	As the EU-27 average data was not available, the EU-28 average was used for comparative purpose
271	As the EU-27 average data was not available, the EU-28 average was used for comparative purpose
272	As the EU-27 average data was not available, the EU-28 average was used for comparative purpose
273	As the EU-27 average data was not available, the EU-28 average was used for comparative purpose
274	As the EU-27 average data was not available, the EU-28 average was used for comparative purpose
275	Finland - The Single Market Scoreboard - European Commission,
	https://ec.europa.eu/internal market/scoreboard/ docs/2020/07/member-states/fi en.pdf
276	As the EU-27 average data was not available, the EU-28 average was used for comparative purpose
277	Ibidem
278	Finland Corruption Report, September 2020, https://www.ganintegrity.com/portal/country-profiles/finland/
279	Ibidem.
280	European Commission, Country Report Finland 2020, https://eur-lex.europa.eu/legal-
	content/EN/TXT/PDF/?uri=CELEX:52020SC0525&from=EN
281	The Global Competitiveness Report 2019, http://www3.weforum.org/docs/WEF TheGlobalCompetitivenessReport2019.pdf
282	Ibidem.
283	Data not available for subsequent years.
284	Inward FATS describe the overall activity of foreign affiliates resident in the compiling economy. A foreign affiliate within the terms of inward FATS is an enterprise resident in the compiling country over which an institutional unit not resident in the compiling country has control.
285	Data unavailable for subsequent years.
286	Data unavailable before 2012 and after 2018.
287	Data unavailable for subsequent years.
288	Data unavailable before 2015 and after 2018.
289	Data unavailable before 2013 and after 2017.
290	Business Finland Into funding service (Innovaatio-osaaminen kasvun tueksi - INTO), https://www.businessfinland.fi/en/for-finnish
291	customers/services/funding/research-and-development/into/ Finland - background document of the SME fact sheet 2021,
202	https://ec.europa.eu/growth/sites/default/files/background documents of the sme fact sheets 2021.zip
292	Budget proposal for 2021 provides a route for exiting the COVID-19 crisis, https://minedu.fi/en/-/10616/budget-proposal-for-2021
293	provides-a-route-for-exiting-the-covid-19-crisis
	Finland Strikes Deal on \$76 Billion Expansionary Budget for 2021, https://www.bloomberg.com/news/articles/2020-09-16/finland-strikes