



European Construction Sector Observatory

Country profile **Hungary**

September 2021



In a nutshell


In 2020, Hungary's GDP declined annually by 5.0%, reaching HUF 39,021.4 billion (EUR 109.0 billion). The declining GDP of Hungary reflects the impact of COVID 19 global pandemic on the country's economy.

Mirroring the trend in the general economy, the **number of enterprises** in the broad construction sector in Hungary decreased annually by 10.0%, reaching 149,045 in 2020¹. At the same time, the number of enterprises increased by 15.2% when compared to the 2010 level (129,409). This was driven by an increase in the number of enterprises in the narrow construction (+21.6%), the architectural and engineering activities (+20.0%) and the real estate activities (+6.7%) sub-sectors, over the 2010-2020 period.

Similarly, the **volume index of production** in the broad construction sector grew by 39.8% over the 2015-2020 period. This was driven by significant increases in volume index of production in construction of buildings (58.2%) and construction of civil engineering (24.9%) over the same period.

Correspondingly, the **total turnover** of the broad construction sector in 2018 amounted to EUR 34.3 billion, increasing by 49.1% from the 2010 level (EUR 23.0 billion). It further increased to EUR 34.9 billion in 2020², marking a growth of 51.9% since 2010 and 1.9% since 2018. This was driven by increases in the narrow construction (+69.7%), the architectural and engineering activities (+50.9%), the manufacturing (+33.8%), and the real estate activities (+20.4%) sub-sectors over the 2010-2020 period.

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

 **69.7%**

Additionally, the **gross operating surplus** of the broad construction sector reached EUR 6.3 billion in 2018³, marking 122.7% increment from 2010 level (EUR 2.8 billion). Likewise, the **gross operating rate**⁴ of the broad construction sector, an indicator of the sector's profitability, stood at 18.5% in 2018, above the 2010 level (12.4%).

In terms of employment, there were 423,230 **persons employed** in the broad construction sector in 2020, representing 13.6% increase from 2010 level (372,684). This was driven by a growth in the architectural and engineering activities (+23.2%), the narrow construction (+17.5%) and the real estate activities (+10.1%) sub-sectors over the 2010-2020 period. Contrarily, the manufacturing sub-sector witnessed a decline of 6.5% over the same period.

The **housing market** has witnessed continuous price increases since 2015. In fact, the house price index increased by 77.7% between 2015 and 2020. With regards to housing demand, the number of transactions in Hungary's residential property market reached 15,630, exceeding the 15,000 mark for the first time in last ten years. These increases were mostly driven by increasing disposable incomes, increasing urbanisation, lowering interest rates, but also government measure. The government announced lowering VAT on new housing construction to 5.0%, against Hungary's standard rate of 27.0% and approval of USD 10,000 (EUR 8,410.8) as grants for home renovations. This is expected to give a further boost to the housing market.

The Hungarian government continues to prioritise investments in **infrastructure**, as a means to foster economic growth. Under Hungary's 2021 budget, a

continuation of the infrastructure development programme has been announced, which includes the extension of motorways to the state borders and the connection of the regional centres to the high-speed road network. Furthermore, in 2020, the European Investment Bank (EIB) Group invested almost EUR 345.0 million in infrastructure in Hungary⁵. In addition, in 2020, the government spent significant resources to develop the country's infrastructure. Around EUR 650 million was spent for highway developments, EUR 500 million for refurbishing the public road network, and EUR 410 million for developing the railway network⁶.

Under its Recovery and Resilience Plan (RRP), Hungary plans to invest part of its overall a budget (EUR 7.2 billion) in the following key policy areas: green transition, healthcare, research, digital, cohesion and public administration⁷.

Hungary has notably allocated EUR 723.0 million for extending the capacity of the Budapest suburban rail network and EUR 663.0 million towards the development of a competitive urban and suburban public transport fleet in Budapest. Hungary has also committed EUR 57.0 million towards eliminating rail bottlenecks on the TEN-T corridor and EUR 86.0 million for deploying central traffic management on TEN-T railway lines. Additionally, the country has planned to invest around EUR 454.0 million to support residential solar systems and electrification of heating systems in combination with solar systems. Last, Hungary has also allocated EUR 188.0 million for the construction and renovation of social housing, improvement of housing conditions as well as EUR 33.0 million for the development and

promotion of community renewable energy production and use.

Since the gradual lifting of restrictions imposed in order to tackle the pandemic, the Hungarian economy along with the construction sector has shown signs of recovery. This is partly linked to the implementation of government's support measures.

One such initiative amongst all the measures and initiatives announced by the Hungarian government was the launch of **Funding for Growth Scheme (FGS) Go!** (*Növekedési Hitelprogram Hajrá!*) in April 2020. It aims to support domestic companies facing difficult situation due to the effect of the pandemic on economic activity.

Despite such developments, the Hungarian construction sector still faces some major challenges. The most important relates to **shortages of skilled labour**. With respect to the Hungarian construction sector, more than 60.0% of the companies complained about the shortage of labour in the early 2020. While in other EU Member States such as Poland, the shortage is partly offset by migrant labour, this is not the case in Hungary. Indeed, the government has put in place strict migration policies, which prevents migration flows of labour migrants.

As a result of government initiatives supporting the development of infrastructures and the housing market in the country, the future of the Hungarian construction sector looks rather optimistic. To be sustainable, more will need to be done to tackle the issue of skills and labour shortage in the sector.

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Key figures

Construction market

The **number of enterprises** in the Hungarian broad construction sector totalled 149,045 in 2020⁸ (Figure 1), representing a 15.2% increase compared to the 2010 level (129,409). However, it decreased significantly by 10.0% from the previous year. The increase over the period 2010-2020 was driven by increase in the number of enterprises in the narrow construction (+21.6%), the architectural and engineering activities (+20.0%) and the real estate activities (+6.7%) sub-sectors. However, the manufacturing sub-sector experienced a 19.8% decline over the same reference period.

The narrow construction sub-sector accounted for more than half (54.9%) of the total number of enterprises in the broad construction sector in 2020, adding up to 81,893 enterprises. This was followed by the real estate activities (23.8%, i.e. 35,426 enterprises), the architectural and engineering activities (17.4%, i.e. 25,881 enterprises) and manufacturing (3.9%, i.e. 5,845 enterprises) sub-sectors.

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

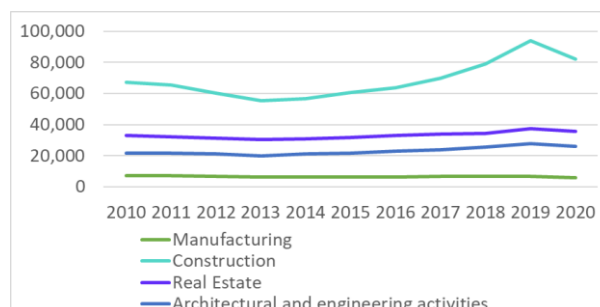
↑ 21.6%

Volume index of production in the narrow construction sub-sector recorded a 39.8% increase over the 2015-2020 period. However, there was a decline of 14.1 index points (ip) between 2019 and 2020. The increase between 2015 and 2020 in the narrow construction sub-sector was driven by increases in volume index of production in construction of buildings (58.2%) and construction of civil engineering (24.9%) over the same period.

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

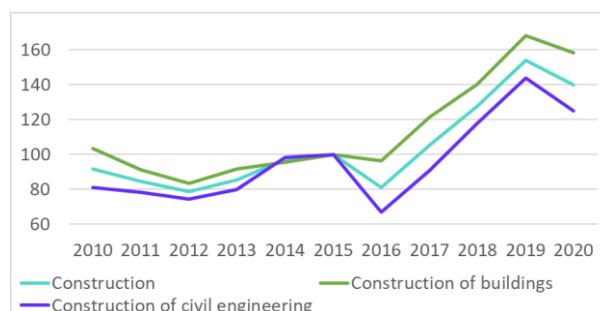
↑ 58.2%

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



Source: Eurostat, 2021.

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



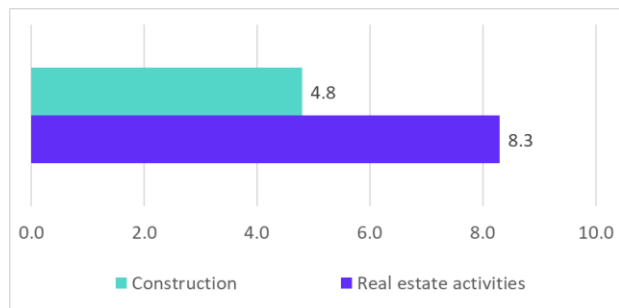
Source: Eurostat, 2021.

The **total value added at factor cost**⁹ of the broad construction sector amounted to EUR 10.1 billion in 2020¹⁰, representing 83.4% increase since 2010. Further, the narrow construction sub-sector accounted for 52.6% (EUR 5.3 billion) of the total added value in 2020, followed by the real estate activities (24.9%, i.e. EUR 2.5 billion), the manufacturing (11.6%, i.e. EUR 1.4 billion) and the architectural and engineering activities (10.9%, i.e. EUR 1.1 billion) sub-sectors.

The **share of the gross value added (GVA)** of the broad construction sector in the GDP stood at 14.1% in 2018¹¹, slightly above the 2010 level (13.3%), however, below the EU-27 average in 2018 (16.5%). Further in 2020, the share of GVA of the real estate activities sub-sector in the GDP stood at 8.3%, below the EU-27 average (10.3%). Similarly,

the share of GVA of the narrow construction sub-sector in the GDP in 2020 stood at 4.8%, below the EU-27 average (5.1%) (Figure 3).

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



Source: Eurostat, 2021.

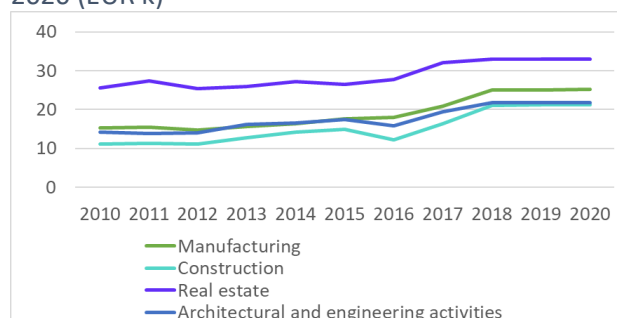
While there are eight NUTS-2 statistical regions in Hungary, the **gross value added** was concentrated mainly in the regions of *Budapest* and *Pest*. The top three regions in terms of GVA in the narrow construction sub-sector were Budapest (23.2%, i.e. EUR 1.6 billion), Pest (15.4%, i.e. EUR 1.1 billion) and *Dél-Alföld* (13.2%, i.e. EUR 918.8 million) in 2019¹². Further, in the real estate activities sub-sector, the top three regions in terms of GVA were *Budapest* (44.1%, i.e. EUR 5.2 billion), *Pest* (13.2%, i.e. EUR 1.5 billion) and *Nyugat-Dunántúl* (8.5%, i.e. EUR 988.6 million) in 2019¹³.

Productivity

The **apparent labour productivity**¹⁴ in the Hungarian broad construction sector registered a 61.1% increase, from EUR 14,771 in 2010 to EUR 23,802 in 2018¹⁵. However, this was lower as compared to the EU-27 average of EUR 51,960 in 2018¹⁶.

In respect to sub-sectors, the narrow construction sub-sector reported the largest increase in labour productivity, from EUR 11,200 in 2010 to EUR 21,243 in 2020¹⁷ (+89.7%). This was followed by the manufacturing sub-sector, which reported an increase from EUR 15,358 in 2010 to EUR 25,151 in 2020 (+63.8%). The architectural and engineering activities sub-sector saw an increase from EUR 14,200 in 2010 to EUR 21,788 in 2020 (+53.4%). Lastly, the real estate activities sub-sector reported an uptick from EUR 25,600 in 2010 to EUR 32,971 in 2020 (+28.8%).

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



Source: Eurostat, 2021.

Turnover and profitability

The **total turnover** of the broad construction sector in 2018 amounted to EUR 34.3 billion, representing an increase of 49.1% as compared to the 2010 level (EUR 23.0 billion). Moreover, it increased to EUR 34.9 billion in 2020¹⁸, marking a growth of 51.9% since 2010 and 1.9% since 2018. This was mainly driven by a substantial increase in all four sub-sectors, namely the narrow construction (+69.7%), architectural and engineering activities (+50.9%), manufacturing (+33.8%), and the real estate activities (+20.4%) sub-sectors over the 2010-2020 period.

In 2020, the largest share of the turnover came from the narrow construction sub-sector, which accounted for 61.3% (i.e. EUR 21.4 billion) of the total. It was followed by the real estate activities (18.6%, i.e. EUR 6.5 billion), manufacturing (11.4%, i.e. EUR 4.0 billion), and the architectural and engineering activities (8.7%, i.e. EUR 3.1 billion) sub-sectors.

Turnover in the narrow construction sub-sector between 2010 and 2020 **↑ 69.7%**

The **gross operating surplus** of the broad construction sector amounted to EUR 6.3 billion in 2018¹⁹, 122.7% higher than the level registered in 2010 (EUR 2.8 billion). Notably, the highest growth was registered by the narrow construction sub-sector (+232.3%) during 2010-2018, followed by the architectural and engineering activities (+148.5%), manufacturing (+116.8%) and the real estate activities (+40.7%) sub-sectors, over the 2010-2018 period.

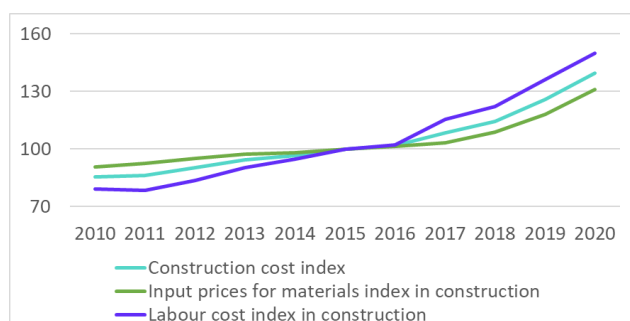
Gross operating surplus in the narrow construction sub-sector between 2010 and 2018

↑ 232.3%

In line with this, the **gross operating rate**²⁰ of the broad construction sector, which gives an indication of the sector’s profitability, stood at 18.5% in 2018, above the EU-27 average of 16.7%. This also represents an increment of 6.1 percentage points (pp) from 2010 level. All the four sub-sectors showed significant improvements in their respective profit margins when compared with the 2010 levels. In particular, the real estate activities sub-sector registered the highest profit margin in sales (29.9%) in 2018, followed by the architectural and engineering activities (20.6%), narrow construction (15.5%) and manufacturing (14.8%) sub-sectors.

In parallel, **construction costs** index increased by 39.4% during the 2015-2020 period, mainly driven by a 49.7% rise in the labour cost index and 31.1% increase in the input prices for materials in construction over the same reference period (Figure 5).

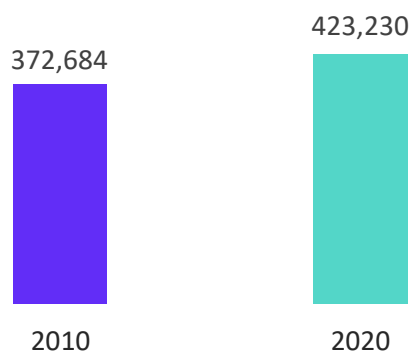
Figure 5: Construction cost index between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

Employment

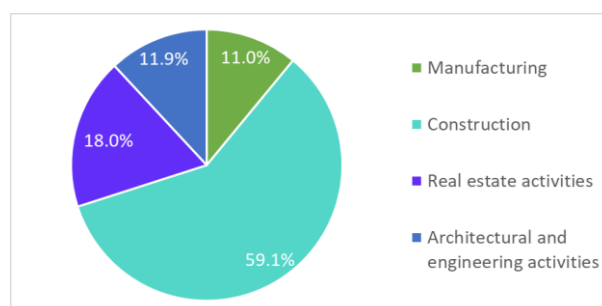
In 2020²¹, there were 423,230 **persons employed** in the Hungarian broad construction sector, registering a 13.6% increase compared to the 2010 level (372,684 persons). In 2019, the narrow construction sub-sector accounted for 59.1% (250,026 persons) of the total workforce in the broad sector. This was followed by the real estate activities sub-sector employing 18.0% (76,319 persons), the architectural and engineering activities sub-sector employing 11.9% (50,441 persons) and the manufacturing sub-sector employing 11.0% (46,445 persons).



Number of people employed in the broad construction sector

Over the 2010-2020 period, the number of persons employed in the architectural and engineering activities sub-sector grew by 23.2%, followed by the narrow construction (+17.5%) and the real estate activities (+10.1%) sub-sectors. On the contrary, the manufacturing sub-sector witnessed 6.5% decline in the number of persons employed over the same period (Figure 6).

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



Source: Eurostat, 2021.


In 2018²², the number of persons employed in narrow construction sub-sector as a share of the total number of persons employed in the general economy stood at 8.5%, below the 2010 level (8.7%) and the EU-27 average for 2018 (9.4%). SMEs (small and medium enterprises) in the broad construction sector employed around 91.7% of the total number of persons employed in the broad construction sector, higher than the EU-27’s average for 2018 (87.1%), but below the 2010 level of 92.3%. This highlights significance of SMEs in the Hungarian construction sector.

With regards to **regional employment** in the narrow construction sub-sector, *Budapest, Pest* and *Dél-Alföld* accounted for 25.3%, 13.6% and 11.3% of the total number of employees in 2019²³,

respectively, being the highest amongst regions. Out of these three, the number of persons employed grew highest in the *Pest* region (+49.2%), followed by *Dél-Alföld* (+42.7%) and *Budapest* (+18.1%) over the 2010-2019 period. In the real estate activities sub-sector, *Budapest*, *Pest* and *Közép-Dunántúl* accounted for 55.0%, 8.3%, 7.9% to the total number of employees in 2019²⁴, respectively, being the highest amongst regions. Out of these three, the number of persons employed grew highest in the *Közép-Dunántúl* (+25.2%), followed by *Budapest* (+22.1%) and *Pest* (+15.1%) over the same period.

As for the **employment by specific occupation** in the manufacturing sub-sector, the number of professionals increased by 102.9% over the 2010-2020 period, being the highest among other specific occupations. On the contrary, the number of managers witnessed a decline of 40.1%, being the highest over the same period. In the narrow construction sub-sector, the number of professionals again recorded the highest increment by 116.0% over the same period. Similarly, the largest decline (-54.1%) was witnessed by number of managers over the same period.

Additionally, the number of **self-employed workers** in the narrow construction sub-sector increased by 33.4% over the 2010-2020 period. It represented 15.1% of the total self-employed persons in the general economy in 2020. This is well above the EU-27 average of 11.7% and the 2010 level of 12.8%. In the real estate activities sub-sector, the number of self-employed workers increased by 52.8% over the same period. This represented 1.6% of the total self-employed persons in the general economy in 2020, in line with the EU-27 average and higher than the 2010 level (1.2%).

Self-employed workers in the real estate activities sub-sector between 2010 and 2020  **52.8%**

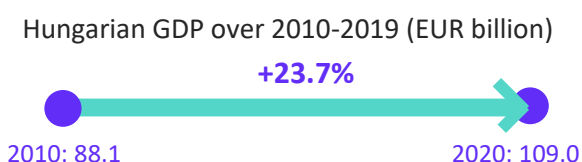
In parallel, **full-time employment** in the narrow construction, the real estate activities and the manufacturing sub-sectors increased by 33.4%, 25.0% and 23.6% respectively between 2010 and 2020. The **part-time employment** in the manufacturing and the narrow construction sub-sectors grew by 35.2% and 13.9% respectively during the 2010-2020 period. However, the real estate activities sub-sector recorded a decrease of 6.3% between 2011²⁵ and 2020.

2

Macroeconomic indicators

Economic development

The Hungarian economy declined in terms of **GDP** in 2020, reaching HUF 39,021.4 billion (EUR 109.0 billion). Though having increased by 23.8% from 2010 level (HUF 39,021.4 billion (EUR 88.1 billion)), it declined by 5.0% in comparison to 2019 (HUF 41,056.5 billion - EUR 114.7 billion). As Hungary's **potential GDP** for 2020 stood at HUF 40,620.8 (EUR 113.4 billion), a negative **output gap** of -3.9 could be observed in 2020.



In parallel, owing to a rise in demand and wage growth, the **inflation rate** has been continuously increasing since 2015, rising to 3.4% in 2020 (in line with the previous year) from 0.1% in 2015.

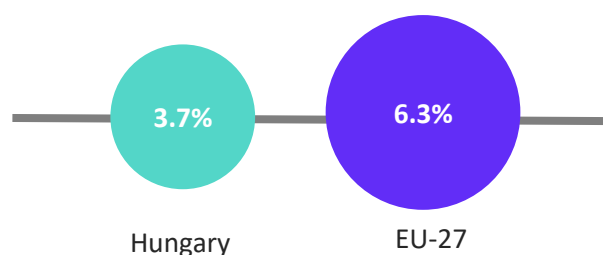
Demography and employment

In terms of demographics, Hungary's **total population** reached 9.8 million in 2020. It is projected to decrease to 9.6 million by 2030 (-1.6%) and to 9.3 million by 2050 (-5.1%). The **working age population** in Hungary stood at 6.4 million in 2020, accounting for 65.5% of the total population. The same is projected to decrease to 5.4 million by 2050 (-15.5%). By 2050, this share will shrink to 58.4% of the total population. The **ageing population** in Hungary reached 1.9 million in 2020, accounting for 19.9% of the total population. This is expected to reach up to 2.6 million by 2050 (+32.3%). By 2050, the share of ageing population will increase up to 27.7% of the total population in Hungary. However, the increasing **net migration** has significantly contributed to the increase in population. The net migration stood at 33,562 in 2019²⁶ (191.4% increase since 2010). However, with the recent

policies put in place by the government, the net migration rate is expected to decline in 2020.

Though Hungary's **unemployment rate** has been declining continuously since 2010, reaching 2.8% in 2019, it rose to 3.7% in 2020. However, it lies below the EU-27 average of 6.3% in 2020. The **youth unemployment rate** (below the age of 25) stood at 12.8% in 2020, higher than the previous year (11.4%), but much below the 2010 level (26.4%) and the EU-27 average in 2020 (16.8%).

Unemployment rate in Hungary and the EU-27 in 2020



Public finance

In 2020, **general government expenditure** in Hungary accounted for 51.6% of GDP, which represents a significant increase from the previous year (45.7%). However, it lies below the EU-27 average (53.4%) in 2020. Hungary's **general government deficit** in 2020 stood at -8.1% of GDP as compared to -2.1% in the previous year and -6.9% for EU-27 average in 2020. For the same year, the **general government gross debt** in Hungary was 80.4% of the GDP, higher than the previous year (65.5%), but lower than the EU-27 average in 2020 (90.7%).

Additionally, the Hungarian Central Bank has adjusted its **official interest rate** downwards, from 5.5% in 2010 to 0.8% in 2020, in an effort to spur private consumption in the economy.

Entrepreneurship and access to finance



According to the World Bank **Doing Business 2020** report, Hungary ranked 52nd out of 190 countries in ease of starting a business. This is an improvement in comparison with previous year's ranking (53rd)^{27,28}.

As per the report, starting a business in Hungary requires six procedures, taking seven days and costing 4.5% of income per capita²⁹.

The Hungarian government seeks to promote **entrepreneurship** and build an entrepreneurial culture through a series of measures targeted primarily at young people. As a part of government's strategy of boosting entrepreneurship, Hungary's National Research, Development and Innovation Office and the Ministry for Innovation and Technology launched the **Hungarian Start-up University Program (HSUP)** (*Magyar Start-up Egyetem Program*) in February 2020.

It is Hungary's first higher education-level start-up program which is a two-semester e-learning course focusing on innovative thinking and the start-up world and allowing students to acquire practical knowledge of building an innovative business from an idea. This program aims to acquaint Hungarian students with the world of innovation, modern entrepreneurial knowledge and the world of start-ups. Another aim is the commercial utilization of research and development results in higher education institutions.

Another similar initiative aiming to boost entrepreneurship among women was Hungary's participation in the **Academy for Women Entrepreneurs' (AWE) global network** in 2021. AWE is an entrepreneurship promotion program that provides women entrepreneurs with the knowledge, tools, and network they need to create and grow their businesses. It enables women from all over the world to deepen their entrepreneurial skills and build their business model through facilitated online education and continuous mentorship. Hungary will launch the Academy through the United States Embassy in Budapest in association with The Foundation for Sustainable Enterprises. The 10-month long program will utilise

global best practices adapted to the local environment to best serve Hungarian participants³⁰.

AWE Hungary is seeking women from outside of Budapest with unrealised enterprise ideas, or whose businesses are in a very early stage, and who are motivated to launch or further build their businesses. In addition to the training materials, mentoring, and networking, the participants will have the opportunity to pitch their business ideas in front of an expert jury in November 2021. A total of EUR 21,067 will be distributed as seed funding to the three to five most promising entrepreneurs based on their submitted business plans and presentations³¹.



In terms of access to finance, Hungary ranked 37^h out of 190 countries for the ease of getting credit³².

Access to finance is amongst the top concerns for SMEs in Hungary. According to the **European Investment Bank Survey (EIBIS) 2020**, around 13.0% of all the Hungarian firms were considered to be financially constrained, representing an increase of five percentage points from the previous year. The highest level of dissatisfaction recorded amongst Hungarian firms were with the cost of finance (9.0%) and the collateral requirements (8.0%)³³.

According to **Survey on the Access to Finance of Enterprises (SAFE) 2020 report**, the degree of importance of access to finance grew significantly between 2018 and 2019 and continued at the same level in 2020. However, the rising economic uncertainty at a macro level in 2020 has impacted the availability of external finance for SMEs. Especially the developments in the general economic outlook as a result of the pandemic has affected access to finance negatively³⁴.

As compared to the 2019, there has been an increase in 2020 in the need of all sources of external financing, whereas the availability of all the financing sources had decreased³⁵.

The highest increase in the need of external financing was observed for trade credit, followed by bank loans, credit lined and leasing. Contrarily, the largest decrease in the availability of external financing was observed for trade credit, followed by credit lines, leasing and bank loans³⁶.

The demand for leasing and grants stood the highest amongst the sources of financing in 2020. It was reported to be relevant for 44.0% of in SMEs, followed by credit lines (40.0%), internal funds (28.0%), bank loans (21.0%), other loans (17.0%) and trade credit (10.0%)³⁷.

The **outstanding loans to non-financial corporations** in the general economy has increased to HUF 14,389.4 billion (EUR 40.2 billion) in 2020. This represents a growth of 156.6% from 2010 level (HUF 5608.4 billion (EUR 15.7 billion)).

Outstanding loans to
non-financial
corporations between
2010 and 2020

↑ 156.6%

However, the willingness of banks in providing bank loans have decreased considerably in 2020 as compared to 2019³⁸. Between April 2020 and

September 2020 around 15.0% of SMEs reported that availability of bank loans has improved (19.0% in the EU-27 average), whereas 8.0% reported it of having deteriorated (14.0% in the EU-27 average). Around 45.0% of SMEs reported of noticing no change in the availability of bank loans³⁹.

In order to improve the access to finance in Hungary, the Hungarian Central Bank launched **Funding for Growth Scheme (FGS) Go!** (*Növekedési Hitelprogram Hajrá!*) in April 2020. It aims to support domestic companies facing difficult situation due to the effect of the pandemic on economic activity. The program aims at helping micro enterprises and SMEs, to which it allocates HUF 1,000 billion in addition to the HUF 500 billion, as a loan, available through the previous "FGS Fix" program. The loan can be applied to payment of wages in the absence of sales revenue, or it can also be used for loan repayment.

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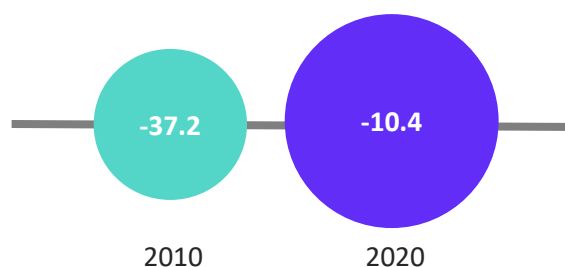
Key economic drivers of the construction sector

Business confidence

Over the 2010-2020 period, business confidence improved for consumer confidence and construction confidence indicators, whereas the industry confidence indicator experienced a decline. However, all three indicators experienced a decline in 2020, in comparison with the previous year.

The **consumer confidence indicator** for Hungary reached to -20.3 in 2020, above the 2010 level (-26.5). However, it lies below the EU-27 average for 2020 (-14.6) and 2019 level (-4.1). The **industry confidence indicator** dipped to -13.9 in 2020 from -2.0 in 2010 and 5.4 in 2019. This is however slightly bigger than the EU-27 average for 2020 (-14.4). Lastly, the **construction confidence indicator** increased to -10.4 in 2020 from -37.2 in 2010. This, however, lies significantly below the 2019 level (20.1) and also stands below the EU-27 average for 2020 (-9.3).

Construction confidence indicator in Hungary



The **investment ratio** showed an improvement from 19.9% in 2010 to 25.9% in 2020, however, it has declined from 2019 level (26.5%), which had been the peak for the decade.

In parallel, **investment per worker** increased by 18.9% in 2018⁴⁰, reaching EUR 21,354 as compared

to EUR 17,964 in 2010. Following the uptrend, in terms of sub-sectors, investment per worker in the architectural and engineering activities sub-sector registered the highest increase of 150.0% between 2010 and 2018⁴¹, reaching EUR 3,500 in 2018. This was followed by the narrow construction and real estate activities sub-sectors, rising by 71.4% and 67.5% over the same period reaching EUR 3,600 and EUR 27,800, respectively, in 2018.

As a result of the global pandemic COVID-19, the cyclical downturn proved to be strong in most sectors in Hungary. At the same time, in industry and construction sectors this downturn may have been almost entirely corrected⁴².

The revival of the construction sectors had been possible through the action plan announced by the government in spring 2020. It included five different schemes, under which one of the schemes aimed at protection of key sectors by means of investment promotion programmes, preferential loans with capital and guarantee subsidy, by supporting infrastructural developments and applying tax cuts. The Hungarian construction sector was also among the key sectors to be covered under this scheme according to the action plan⁴³.

Domestic sales

The ranking of the **most domestically sold construction products** in Hungary has experienced quite a few changes since 2010. Out of the top five ranked products, four product groups showed an increase in their sales value over the 2010-2019⁴⁴ period, namely, 'Prefabricated buildings of metal' (group 251110) (+356.0%), 'Tiles, flagstones, bricks and similar articles' (+182.3%), 'Ready-mixed concrete' (group 236310) (+128.8%) and 'Prefabricated structural components for building

etc.' (group 236112) (+101.1%). The top five most domestically sold construction products, accounting for 50.2% of the total construction products sold domestically in 2019, are presented in the table below, including a comparison with the most sold products in the EU-27 region.

Table 1: Five most domestically sold construction products in Hungary and in the EU in 2019⁴⁵

Hungary				EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Other structures and parts of structures, etc. (group 251123)	491.8	19.2	Other structures and parts of structures, etc. (group 251123)
2	Ready-mixed concrete (group 236310)	312.5	12.2	Doors, windows and their frames, etc. (group 251210)
3	Prefabricated buildings of metal (group 251110)	165.8	6.5	Ready-mixed concrete (group 236310)
4	Prefabricated structural components for building etc. (group 236112)	164.1	6.4	Prefabricated buildings of metal (group 251110)
5	Tiles, flagstones, bricks etc. (group 236111)	154.9	6.0	Prefabricated structural components for building etc. (group 236112)

Source: PRODCOM, 2021.

Export of construction-related products and services

The ranking of the **most exported construction products** experienced many fluctuations since 2010. Over the 2010-2019⁴⁶ period, the 'Windows, French windows and their frames' (group 162311) experienced a growth of 13.9% in the sales value. Other product groups such as 'Other structures and parts of structures' (group 251123), 'Fibreboard of wood etc.' (group 162115), 'Oriented strand board' (group 162113) and 'Particle board' (group 162112) did not have sales value recorded for 2010. The top five most exported construction products from Hungary and the EU-27 are summarised in Table 2. Together, these accounted for 52.4% of all construction products exports in 2019⁴⁷.

Table 2: Five most exported construction products in Hungary and in the EU in 2019⁴⁸

Hungary				EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Other structures and parts of structures, etc. (group 251123)	202.3	22.1	Ceramic tiles and flags (group 233110)
2	Windows, French windows and their frames, etc. (group 162311)	103.6	11.3	Other structures and parts of structures, etc. (group 251123)
3	Fibreboard of wood or other ligneous materials (group 162115)	73.2	8.0	Fibreboard of wood or other ligneous materials (group 162115)
4	Oriented strand board (OSB) (group 162113)	54.5	5.9	Doors, windows and their frames, etc. (group 251210)
5	Particle board (group 162112)	46.5	5.1	Marble, travertine, alabaster, etc. (group 237011)

Source: PRODCOM, 2020.

In terms of **cross-border provision of construction services**⁴⁹, Hungary exported EUR 266.4 million of construction services worldwide in 2020 marking a 14.0% decrease as compared to the 2011⁵⁰ level (EUR 309.9 million). Notably, 93.2% of total exports (EUR 248.2 million) in 2020 came from EU-27 countries, compared to 76.2% (EUR 236.1 million) in 2011. In parallel, Hungary imported a total of EUR 257.9 million in construction services from the world in 2020, a 57.6% growth since 2011 (EUR 163.6 million), with EUR 248.9 million (almost 96.5%) coming from the EU-27 countries, compared to 75.4% (EUR 123.4 million) in 2011. Overall, Hungary reported a **trade surplus** of EUR 8.5 million in 2020.

Access to finance in the construction sector

Mirroring the trend in the general economy in Hungary, **access to finance** is one of the major concerns for the Hungarian construction sector as well. As per the **EIBIS 2020**, a higher share (13.5%) of firms in the Hungarian construction sector were considered to be '**financially constrained**', following the manufacturing sector (16.0%). The majority of

firms in the construction sector were rejected for the financing they applied, while a lower share considered access to finance too expensive⁵¹.

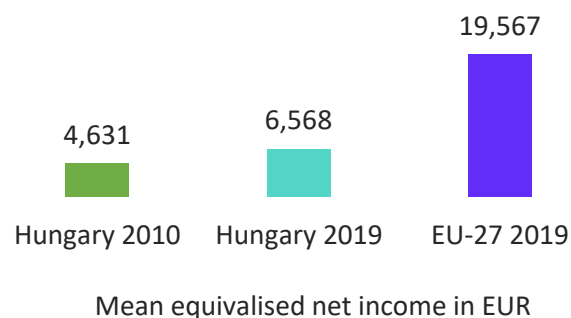
Around 37.0% of the construction firms reported availability of finance as a long term barrier. The highest level of dissatisfaction regarding access to finance among the construction firms in Hungary regard the cost of financing and collateral requirements. This was followed by maturity and amount of finance being the reason for dissatisfaction⁵².

According to **SAFE 2020 report**, between April 2020 and September 2020, around 37.0% of SMEs in Hungary actually applied for credit lines (31.0% in the EU-27 average), whereas 3.0% did not apply because of fear of rejection (4.0% in the EU-27 average). Regarding, bank loans, between the same period around 20.0% of SMEs in Hungary actually applied for it (35.0% in the EU-27 average), whereas 2.0% did not apply because of fear of rejection (4.0% in the EU-27 average). During the same period, 26.0% of SMEs in Hungary applied for other external financing (18.0% in the EU-27 average)⁵³.

Between April 2020 and September 2020, around 22.0% of Hungarian SMEs reported that the bank lending had improved (21.0% in the EU-27 average), whereas for 17.0% it had deteriorated (15.0% in the EU-27 average). Between the same time period, 19.0% of Hungarian SMEs reported an increase in the need of bank loans (31.0% in the EU-27 average), whereas for 9.0% the need had decreased (11.0% in the EU-27 average)⁵⁴.

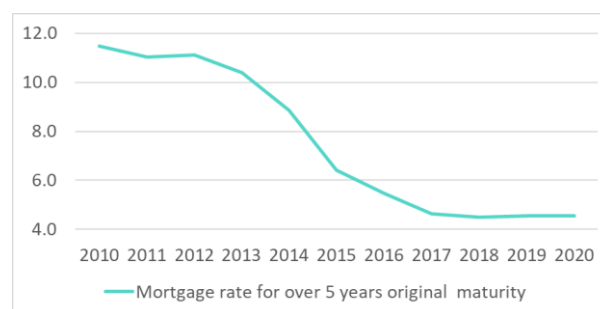
Access to housing

The **number of households** in Hungary increased by 2.8%, from 4.0 million in 2010 to 4.1 million in 2020. While in 2010, **the share of population living in densely populated areas** stood at 31.4%, it rose marginally to 32.0% in 2020. Similarly, the share of population living in intermediate urbanised areas went up from 20.4% in 2010 to 35.7% in 2020. Meanwhile, Hungary's **mean equivalised net income** reached EUR 6,568 in 2019, below the 2019 EU-27 average (EUR 19,567). It further increased to EUR 7,258 in 2020, representing a 56.7% growth from 2010 level (EUR 4,631)



Furthermore, the **interest rate on mortgages** (for loans over five years of original maturity) also witnessed a decline of 6.9 pp between 2010 and 2020, reaching 4.5% in 2020, compared to 11.5% in 2010 (Figure 7).

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



Source: ECB MFI Interest Rate Statistics, 2021.

The total **outstanding residential loans to households** declined from EUR 24.7 billion in 2010 to EUR 13.7 billion in 2019⁵⁵ (-44.4%).

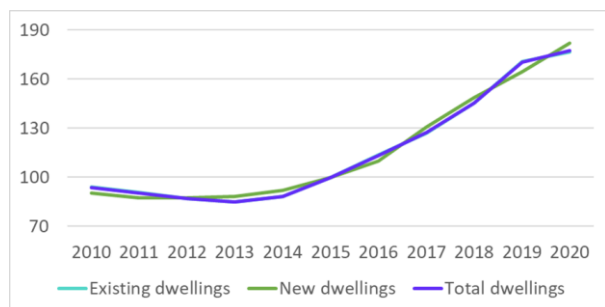
According to Hungary's Convergence Programme (2021-2025), the household loan as a whole expanded in 2020 even amid restrictions. This was supported by increased interest in prenatal baby support and housing loans, as well as loan repayment moratorium. The loan portfolio increased by EUR 2.9 billion last year. As a result, in December 2020, the outstanding portfolio was 14.5% higher than 2019⁵⁶.

With regards to issuance of new housing loans in Hungary in 2020, it reached up to HUF 928.0 billion (EUR 2.6 billion), which means a 1.8% increase compared to 2019, despite the COVID-19 crisis⁵⁷.

The **house price index** of total dwellings has been increasing gradually since 2015, witnessing a 77.7% growth between 2015 and 2020. This was led by 82.0% and 76.7% rise in the house price index of new and existing dwellings, respectively, over the

same period. This increase was primarily driven by the rise in disposable incomes and low interest rates. In parallel, the **rental price index** for housing experienced a gradual increase over the years, rising by 29.9% between 2015 and 2020.

Figure 8: House price index⁵⁸ in Hungary between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

House prices in Hungary kept rising sharply in the first quarter of 2021. While prices increased by 2.9% in Budapest in Q1 2021, compared to the same period in the previous year, houses in rural cities experienced an even sharper appreciation of 13.2%⁵⁹.

Driven by a robust demand, Hungary's residential property market has continued to soar in March 2021. The number of transactions reached 15,630, exceeding the 15,000 mark for the first time in last ten years. The increase in transactions, as a result of rising demand due to rise in disposable income coupled with low interest rates have collectively driven the housing price in Hungary⁶⁰.

In 2020, **building permits index** for residential buildings, one-dwelling buildings and two or more dwelling buildings in Hungary witnessed an increment of 80.3%, 79.8% and 80.6% from 2015, respectively. However, as compared to 2019, there were notable declines in 2020 in the building permit index for residential buildings (-110.8 index points), one-dwelling buildings (-34.2 index points) and two or more dwelling buildings (-170.6 index points). This clearly highlights the impact of the global pandemic COVID-19 on home building.

Number of building permits for residential dwellings between 2015 and 2020

↑ 80.3%

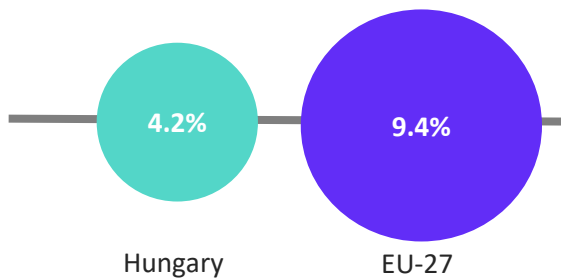
The building permits in Hungary rose significantly by 22.4% in 2021 annually. In absolute terms, it reached 15,274 in the first six months, even though the number of new projects in Budapest declined⁶¹.

In 2021 (in the first six months), the number of building permits issued in Hungarian cities with population over 50,000 witnessed an annual increment of 71.7%, reaching 3,372. In smaller cities it increased by 48.9%, reaching 4,784 permits, whereas in towns it increased to 4,301 permits, representing an annual increase of 76.9%. On the contrary, in Budapest, the building permits dropped to 2,817, representing an annual decline of 42.1%. These increases were spurred by government's 2021 scheme of slashing down VAT rates for home building to 5.0% (Chapter 6 – Policy Schemes)⁶².

Hungary has one of the highest **home ownership** rates among the EU-27 Member States, with 91.3% of the building stock being owner-occupied in 2020, as compared to 89.7% in 2010. In parallel, 8.7% of building stock was occupied by tenants in 2020, as compared to 10.3% in 2010. This can be partly attributed to lower interest rates, homebuilding subsidies and other state policies favouring home ownership. At the same time, the home ownership rate for the population earning **above 60.0% of the median equalised income** reached to 92.4% in 2020 as compared to 90.5% in 2010. Whereas the home ownership rate for the population earning **below 60.0% of the median equalised income** stood as high as 83.2% in 2020, slightly below the 2010 level of 84.2%.

Hungary's **housing cost overburden rate**⁶³ stood at 4.2% in 2019, below the EU-27 average of 9.4%⁶⁴ and 2010 level of 11.3%, indicating issues around affordability. However, it slightly increased to 5.2% in 2020⁶⁵. Conversely, the **overcrowding rate**⁶⁶ in Hungary stood at 20.3% in 2019, above the EU-27 average of 17.1%⁶⁷, but below the 2010 level of 47.2%. In 2020, it dropped to 19.0%⁶⁸. Lastly, the **severe housing deprivation rate**⁶⁹ in Hungary reached 7.8% in 2019, above the EU-27 average of 4.0%⁷⁰, but below 2010 level of 47.2%. Further in 2020, it decreased to 7.6%⁷¹.

Housing cost overburden rate in 2019



Infrastructure

According to the 2019 Global Competitiveness Report⁷², Hungary ranked 27th out of 141 economies in infrastructure⁷³.

With an overall rank of 30th out of 141 economies, Hungary performed well in transport infrastructure. In particular, it ranked 9th in railroad density, 37th in road connectivity and 46th in efficiency of train services. In contrast, the country lagged in airport

connectivity (62nd), efficiency of air transport services (70th), quality of road infrastructure (71st)⁷⁴.

Under Hungary's 2021 budget, the **infrastructure development programme** will be continued with the extension of motorways to the state border and the connection of regional centres to the high-speed road network. In addition to EU co-financed rail projects and the development of the Hungarian section of the Budapest-Belgrade railway line – some rail infrastructure investments enhancing economic growth will continue to be financed from national budgets⁷⁵.

The RRP includes infrastructural development plans in the public sector covering the construction and renovation of university buildings (EUR 179.0 million), vocational institutions (EUR 263.0 million), and day care nurseries (EUR 111.0 million)⁷⁶. Further infrastructure projects related to transport are also planned as described in Chapter 7 - Current status and national strategies to meet Construction 2020 objectives

4

Key issues and barriers in the construction sector

Company failure

The **business demography** in the Hungarian broad construction sector has changed significantly between 2010 and 2018⁷⁷. Specifically, the number of **company births** in the narrow construction sub-sector increased by 128.6%, from 6,156 in 2010 to 14,075 in 2018. This was followed by the real estate activities sub-sector, where company births increased by 51.6%, from 3,300 in 2010 to 5,002 in 2018. Lastly, company births in the architectural and engineering activities sub-sector increased by 156.0%, from 1,070 in 2010 to 2,739 in 2018.

Number of company births in the narrow construction sub-sector between 2010 and 2018

 **128.6%**

In parallel, the number of **company deaths** in the narrow construction sub-sector declined by 38.3%, from 8,509 in 2010 to 5,251 in 2018. Similarly, the real estate sub-sector witnessed a decrease of 18.3% in company deaths, from 3,127 in 2010 to 2,555 in 2018. Contrarily, the architectural and engineering activities sub-sector experienced a 12.6% increase in company deaths from 1,203 in 2010 to 1,354 in 2018.

However, in 2020, the business demography in Hungary had been negatively impacted due to the global pandemic COVID-19 and will also impact the businesses in the long run. Specific to the firms in construction sector, almost half of the firms (49.0%) have reported that they expect their supply chain to be impacted in the long run, whereas 33.0% of them have reported that their service or product portfolio could possibly be impacted⁷⁸.

In order to help businesses deal with temporary solvency problems, avoid bankruptcy, reduce

regulatory burden and improve market access, the IFKA Industrial Development Non-profit Limited, Budapest Institute of Banking Private Limited Company and Ministry for Innovation and Technology had introduced **Development of operational and management skills of Hungarian SMEs** (*Magyar kkv-k működési és vezetési gyakorlatának fejlesztése*) in January 2020. It helps companies in crisis management to avoid bankruptcy. It develops the knowledge material necessary for the foundation of measures of the SME Strategy for policy makers and implementers. Within the framework, templates and process descriptions are developed, which helps companies to analyse their operations and carry out the generation change in any part of the country⁷⁹.

Trade credit

As per the SAFE Report 2020, 10.0% of SMEs reported trade credit to be relevant for their businesses in Hungary, below the EU-27 average of 28.0%. Around 2.0% of SMEs have reported using trade credit between April 2020 to September 2020, below the EU-27 average of 14.0%⁸⁰.

Furthermore, around 28.0% of Hungarian SMEs applied for trade credit between April 2020 to September 2020, slightly below the EU-27 average of 31.0% while about 25.0% of SMEs did not apply due to sufficient internal funds, below the EU-27 average of 33.0%. In contrast, almost 5.0% SMEs did not apply out of fear of rejection⁸¹.

Lastly, around 13.0% of SMEs concluded that the availability of trade credit between April 2020 to September 2020 in Hungary improved, in line with the EU-27 average, whereas 11.0% of them reported of it getting deteriorated, below the EU-27

average of 15.0%. Around 46.0% of SMEs reported of witnessing no change in the availability of trade credit, lower than the EU-27 average of 65.0%⁸².

As per the Hungary Payment Practices Barometer 2020, trade credit was currently involved in 51.0% of the business to business (B2B) sales of businesses surveyed in Hungary, down from 2019 (68.0%). The main reason for downfall in trade credit was poorer payment behaviour by the customer (reported by 35.0% of respondent)⁸³.

Late payment

According to **SAFE Report 2020**, around 44.0% of SMEs in Hungary were **paid late** in general, at par with the EU-27 average. However, this is lower than in 2019 (51.0%). Around 13.0% of SMEs have reported facing late payment issues regularly in 2020, at par with the EU-27 average, but less than 2019 (20.0%). As a consequence of late payments, 31.0% of SMEs reported that it affected payments to suppliers, while 24.0% of SMEs reported that it affected business operations. Around 16.0% of SMEs reported that it affected investments or new hiring and for 9.5% of the SMEs, repayments of loans were delayed⁸⁴.

As per the **European Payment Report 2020**, around 64.0% of the companies in Hungary consider the risk of a pan-European recession (due to COVID-19 pandemic) as the primary factor explaining late payments of the customers. Around 45.0% of companies agree that growing macroeconomic uncertainty has caused them to extend their payment terms to suppliers over the past year. Moreover, around 78.0% of the companies in Hungary reported having adjusted to the late payment pattern of customers, in order to maintain a healthy client relationship.

Amongst the different impacts of late payment in businesses, liquidity squeeze had been the highest impact reported by Hungarian SMEs (50.0%), followed by not hiring new employees (45.0%), a threat to survival (38.0%), loss of income (37.0%), additional interest charges (35.0%), dismissing employees (35.0%), hampering innovation (30.0%) and hampering growth of the company (26.0%).

With regards to addressing the issue of late payments, around 62.0% of Hungarian businesses would like to see voluntary initiatives from corporations in order to solve the problem of late

payment. This is perceived as even more relevant as, in 2020, around 43.0% of businesses believe that the risk of late/non-payments from debtors will increase in the 2021.

Specific to the **Hungarian construction sector**, late payments affected 40.0% of the total value of B2B invoices in 2020 (up from last year's 17.0%). Due to the global pandemic COVID-19, around 35.0% of businesses reported having to wait longer to turn overdue invoices into cash, on average up to 20 days past the invoice due date. To contain the costs incurred by late payments, 27.0% of businesses most often delayed payments to suppliers. According to 51.0% of firms, the greatest potential challenge to profitability in 2021 is the collection of outstanding invoices⁸⁵.

The increase in day sales outstanding (DSO) above 10.0% were reported by 40.0% of firms in Hungary's construction sector in 2020. As a result, the current DSO in Hungarian construction sector is 90-day average (well above the 60-day average for construction sector in Eastern Europe^{86,87}.

Time and cost of obtaining building permits and licenses

According to the World Bank's Doing Business Report 2020, in terms of '**Dealing with construction permits**', Hungary stood 108th out of 190 countries. This is two positions better than the previous year (110th)⁸⁸. Completing the formalities to build a warehouse⁸⁹ requires 22 administrative procedures (much higher than the OECD high-income average of 12.7) and takes 192.5 days (compared to the 152.3 days for OECD high-income average) (Table 3). The estimated cost to complete the formalities is approximately 0.6% of the warehouse value, considerably lower than the OECD high-income average of 1.5%.

Table 3: Construction procedures timing and costs in Hungary

Procedure	Time to complete	Associated costs
Request and obtain certificate of site ownership and site map from the Földhivatal	1 day	HUF 9,250 (EUR 27.5)
Obtain a geodetic survey of the site	7 days	HUF 200,000 (EUR 594.0)
Request and obtain urban planning approval	30 days	No charge

Country Fact Sheet Hungary

Procedure	Time to complete	Associated costs
Obtain a geo-technical report	14 days	HUF 100,000 (EUR 297.0)
Request and obtain a utility statement from Budapest Waterworks Ltd.	1 day	No charge
Request and obtain authorization from the water authorities	30 days	HUF 6,500 (EUR 19.3)
Request and obtain fire protection authorization	30 days	HUF 3,000 (EUR 8.9)
Request and obtain authorization from Public Health Department	15 days	HUF 8,700 (EUR 25.8)
Request and obtain authorization from the sewage authorities	15 days	No charge
Request and obtain construction license	25 days	HUF 105,000 (EUR 311.8)
Receive on-site inspection from the Municipality	1 day	No charge
Set up e-construction log	0.5 days	HUF 7,860 (EUR 23.3)
Receive unscheduled inspection from Building Control Authority	1 day	No charge
Request and obtain water connection from Budapest Waterworks Ltd.	10 days	HUF 400,000 (EUR 1,188.0)
Request and obtain sewerage connection	21 days	HUF 33,500 (EUR 99.5)
Close e-construction log	0.5 days	No charge
Submit the new geodetic map to the land Registry	10 days	HUF 120,000 (EUR 356.4)
Receive on-site inspection to check on the quality of water	10 days	HUF 29,000 (EUR 86.1)
Receive final inspection from the Fire Protection Department	1 day	No charge
Receive final inspection from the Public Health Department	1 day	No charge
Receive final inspection from the Building Department	1 day	No charge
Obtain occupancy permit and register the building with the Land Registry	51 days	HUF 120,300 (EUR 357.3)

Source: Doing Business overview for Hungary, World Bank, 2020.

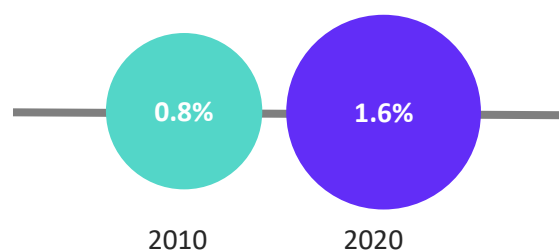
Skills shortage

The **job vacancy rate**⁹⁰ in the narrow construction sub-sector increased from 0.8% in 2010 to 1.6% in 2020. However, it has declined consecutively from 2018 (3.2%) and 2019 (2.7%) levels. Similarly, the job vacancy rate in the real estate activities

sub-sector also increased from 0.3% in 2010 to 0.8% in 2020, but has declined consecutively from 2018 (1.6%) and 2019 (1.4%) levels.

Shortage of labour in the Hungarian construction sector had been declining gradually over each quarter since 2019. In the fourth quarter of 2019, the number of job vacancies in Hungary's construction sector stood at 3,894 (1.4% of the total vacancies in the construction sector in EU-27), which reduced to 2,882 (1.2% of the total vacancies in the EU-27) by first quarter of 2020. It further reduced to 2,771 in the second quarter of 2020 (1.3% of the total vacancies in the EU-27)⁹¹.

Job vacancy rate in the narrow construction sub-sector in Hungary



Adult participation in education and training in the narrow construction sub-sector increased from 1.4% in 2010 to 3.9% in 2020. However, it has declined significantly from 2019 level (5.1%).

Moreover, the number of **tertiary students in engineering, manufacturing and construction** increased by 47.1%, from 6,280 in 2010 to 9,235 in 2019⁹². This was mostly driven by a 68.3% growth in the number of students in engineering and trade. The number of students in manufacturing and processing and architecture and building also increased by 15.9% and 5.4% respectively over the 2010-2019 period⁹³.

Shortage of skilled workers in Hungary has been a persisting issue, especially in sectors employing high-skilled workers. Generally, labour shortages in the economy (specifically in the **construction sector**) in Hungary are compensated by migrant workers^{94,95}. However, the country's more restrictive immigration policies may have contributed to the labour shortages⁹⁶.

According to a data, there were 75,000 foreign employees in 2019 in Hungary, out of whom 44,000 were Ukrainians, 8,000 Romanians, 7,000 Slovaks, 3,500 Serbians, and 2,000 Chinese, and most of the foreign workers were employed in the **construction sector**⁹⁷. Further in 2020, due to significant influx of labour between sectors of the national economy, employment increased significantly in different economic sectors, including the **construction sector**⁹⁸.

With respect to the Hungarian construction sector, more than 60.0% of the companies complained about the shortage of labour in the early 2020. Moving on to second quarter it reduced to 50.0% and by 2020 end it reached below 40.0%. However, in 2021, it again rose above the 40.0% mark highlighting the aggravated situation of the labour shortage in the Hungarian construction sector⁹⁹.

As a result, in order to accelerate the economic recovery from the global pandemic COVID-19 and to alleviate the issue of labour shortage, the Hungarian government is loosening rules for foreign workers¹⁰⁰. In 2021, the government has made announcements of **allowing in temporary workers from non-EU states**. However, some employment agencies will be allowed to import skilled labour under strict conditions. Supported by the investments and European Union funds, the Hungarian **construction sector** along with manufacturing and information technology sectors are struggling to attract employees¹⁰¹.

This temporary move of the government of attracting skilled workers aims to help the fast restart of the economy, being the fastest to restart in Europe¹⁰². In specific terms, this step is aimed at helping meet a 5.5% annual economic growth target for this year. The Hungarian government will also provide subsidised state loans for local companies that are seeking to purchase foreign rivals¹⁰³.

According to **SAFE Report 2020**, between April 2020 and September 2020 around 18.0% of SMEs in Hungary reported '**availability of skilled staff**' as second most pressing problem, after finding customers. This is just below the EU-27 average of 19.0%¹⁰⁴.



According to the European Investment Bank Survey (EIBIS) 2020, around 59.0% of Hungarian construction companies have reported '**availability of skilled staff**' as a long-term barrier. This is second most pressing long term barrier after the barrier of '**uncertainty about future**' for the construction companies¹⁰⁵.

Sector and sub-sector specific issues

Material efficiency and waste management

In the European Union, construction and demolition waste (CDW) form as one of the biggest waste streams. In 2019¹⁰⁶, CDW accounted for around 25.0%-30.0% of all waste generated in the EU. CDW mainly consists of several materials, including concrete, bricks, gypsum, wood, glass, metals, plastic, solvents, asbestos and excavated soil, many of which can be recycled¹⁰⁷. With regards to waste from construction activities, in 2018¹⁰⁸ Hungary reported 621.0 kg per capita of non-hazardous waste and 3.0 kg per capita of waste classified as hazardous. This represents 53.3% increase in the total waste generation (non-hazardous and hazardous) as compared to 2010 levels. Still, this figure is inconsequential when compared to the EU-27 average of 1,870.0 kg per capita. In addition, Hungary also recycled the majority of (89.1%) CDW in 2016¹⁰⁹. Around 9.4% of waste were backfilled and the remaining 1.4% were landfilled¹¹⁰.

As per the **2018 OECD (Organisation for Economic Co-operation and Development) Environmental Performance Review of Hungary**, the country had made progress in decreasing waste generation, improving the waste management infrastructure and boosting the recycling of both municipal wastes, and CDW. The amount of landfilled construction and demolition waste, the country's largest waste stream, has decreased by 44.0% since 2009. Although recycling and recovery of municipal waste has also progressed, most such waste still ends up in landfills¹¹¹.

Under its EUR 7.2 billion Recovery and Resilience Plan (RRP), Hungary has allocated EUR 171.0 million for developing waste management infrastructure¹¹².

The EU Waste Framework Directive (2008/98/EC) had set the CDW recycling rate for EU countries at 70.0% for 2020¹¹³. The National Prevention Programme “*Országos Megelőzési Program 2014-2020*” as part of the National Waste Management Plan aimed at achieving this target by preventing generations of CDW and transforming the construction material classification system (including permitting materials intended for reuse)¹¹⁴.

Climate and energy

Emissions of greenhouse gases (carbon dioxide, methane and nitrous oxides) from activities in the narrow construction and real estate sub-sectors amounted to 1,274,480 tonnes and 392,232 tonnes in 2019¹¹⁵, respectively. The former has increased by 69.9% since 2010, whereas the latter has declined by 32.1%. According to European Environment Agency, in 2018, around 13,100 premature deaths in Hungary were attributable to bad air quality, mostly to fine particulate matter. As declared by the EU in February 2021, Hungary has breached legal limits on air pollution from

particulate matter, in some regions for as long as 12 years¹¹⁶.

Therefore, as per the National Energy and Climate Plan, Hungary has committed to decrease **greenhouse gas emission** by 7.0% relative to its 2005 levels by 2030¹¹⁷. This is being primarily done by phasing out coal-fired power plants. Greenhouse gas emissions from transport have also increased strongly over the last five years and these are projected to increase further under current policies. Therefore, the government intends to address transport emissions by promoting electromobility. EU Funds have also contributed to the reduction of emissions in Hungary. However, the national projections indicate that existing measures will deliver a shortfall of 3 percentage points relative to the 7.0% target of reduction of emissions by 2030¹¹⁸.

With respect to the Hungarian construction sector, around 55.0% of the firms have already invested or plan to invest in the next three years in measures to tackle the impact of weather events and reduction in carbon emissions¹¹⁹.

5

Innovation in the construction sector

Innovation performance

According to the European Innovation Scoreboard 2020, Hungary is classified as an 'Emerging Innovator'. It has been consistently improving its performance since 2012¹²⁰.

According to the report, Hungary's main strengths, in the context of innovation, include sales impacts, digitalisation and linkages. However, its weakest dimensions are innovators, human resources and employment impacts. The country scores high in government support for business R&D, medium and high tech goods exports and foreign doctorate students. Whereas, Hungary's low scoring indicators include business process innovators (SMEs), employment in innovative enterprises and design applications¹²¹.

This **business enterprise R&D expenditure (BERD)** in Hungary has been fluctuating since 2010 (Figure 9). Specifically, in the narrow construction sub-sector it reached EUR 19.6 million in 2018¹²², representing an increase of 621.2% since 2010. In the real estate activities sub-sector, it reached its peak at EUR 6.3 million in 2014 but dropped to EUR 3.1 million in 2018¹²³. This represented an overall growth of 133.9% over the 2010-2018 period. The BERD in the professional, scientific and technical activities sub-sector reached EUR 71.0 million in 2018¹²⁴, representing a growth of 45.6% since 2010.

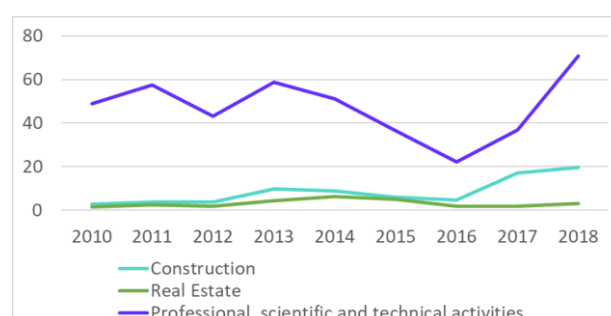
BERD in the narrow construction sub-sector between 2010 and 2018

↑ 621.2%

In parallel, the total **R&D personnel** (full-time equivalents – FTE¹²⁵) in the narrow construction sub-sector substantially increased by 524.7% from 89 in 2010 to 556 in 2018¹²⁶. Similarly, the FTE in the real estate activities sub-sector increased by 61.4%, from 57 in 2010 to 92 in 2018¹²⁷. Lastly, the FTE in

the professional, scientific and technical activities sub-sector reached 2,118 in 2018¹²⁸ from 1,375 in 2010, marking an increase of 54.0%.

Figure 9: Business enterprise R&D expenditure (BERD) per construction sub-sector in Hungary between 2010 and 2018¹²⁹ (EUR m)



Source: Eurostat, 2021.

Moreover, the number of **construction-related patent applications** have been fluctuating between 2010 and 2020. From eight in 2010, it reached to nine in 2014 (the peak for the decade), but again dropped to four in 2020. Nevertheless, no Hungarian construction-related firm ranks within the top 1,000 EU companies by R&D investments (industrial sector ICB-3D) in 2018/19¹³⁰.

According to the SAFE Report 2020, the proportion of innovative enterprises among SMEs in Hungary stood at 34.0%, being the lowest amongst entire EU-27 Member States¹³¹.

Eco-innovation and digitalization

According to the EU Eco-Innovation Index 2021, Hungary stood at the 24th position with a score of 69, below the EU-27 average score of 121. However, this shows an improvement as compared to previous year's ranking (27th) and score (54)¹³².

As per the report, Hungary has been categorised under 'countries catching up with eco-innovation'. The country's performance has continued to decline over the years. In 2021, it scored below the EU-27

average on all five indicators namely; eco-innovation inputs, eco-innovation activities, eco-innovation outputs, resource efficiency outcomes and socio-economic outcomes. However, amongst these five, the best performing indicator is eco-innovation activities (score of 75.0). The worst performing indicator is socio-economic outcomes (score of 0.0)¹³³.

According to the **European Commission Digital Economy and Society Index (DESI) 2020**, Hungary ranks 21st, with a score of 47.5 out of the EU-28¹³⁴ countries (average score: 52.6). As compared to the previous year, Hungary improved its score in connectivity, use of internet services, integration of digital technology, digital public services. Contrarily, the score in human capital decreased compared to the previous year¹³⁵.

Despite these improvements, the pace of integration of digital technologies among Hungarian companies is slow and the adoption rate of digital business solutions and Industry 4.0 technologies is the lowest among other EU member states¹³⁶.

As per the EIBIS 2020, the number of firms reporting 'no innovation' were the highest in the Hungarian construction sector. Moreover, in terms of implementation of digital technologies, the share of firms in the Hungarian construction sector (38.0%) were the least in comparison with other sectors (manufacturing sector: 69.0% and services sector: 60.0%)¹³⁷.

Specific to the Hungarian construction sector, around 1.0% of the firms in used augmented or virtual reality in comparison with 11.0% of the firms in the EU-27 average. Around 4.0% of the firms used 3-D printing technology, in comparison with 10.0% in the EU-27 average. Usage of drones were implemented by 14.0% of the firms, whereas in the EU-27 average it was 19.0%. Contrarily, the share of Hungarian construction firms implementing internet of things (IoT) was 26.0%, higher than the EU-27 average 22.0%¹³⁸.

Under its EUR 7.2 billion Recovery and Resilience Plan (RRP), Hungary has allocated EUR 257.0 million for developing digital services targeting people with reduced self-sufficiency¹³⁹.

Moreover, as introduced in the RRP, the Hungarian government has planned to invest EUR 269.0 million on the **21st Century Vocational Training Institution**

Development Programme¹⁴⁰. The programme would focus on energy development of buildings, ensuring the use of renewable energy sources building systems, developing workshops, transforming educational spaces, modern educational technology, vocational training tools, IT and material tools¹⁴¹.

In order to support innovation activities of SMEs that have not received EU funded support from other resources and boost innovation as a whole in the Hungarian economy, the National Office for Research, Development and Innovation introduced **KKV Start Innovation Program (KKV Start Innováció Program)** in May 2020. The program covering innovation activity, adaptive innovation activity and/or development activity among SMEs has a budget of HUF 120.0 billion (EUR 340.0 million)¹⁴².

In terms of the **building information modelling (BIM)** in Hungary, there are no set laws or binding obligation on public authorities for using the technology. The contracting authorities in the country still have the option of imposing BIM on tenderers, but this has not been done yet¹⁴³.

Moreover, despite clients wishing to use BIM, they face considerable practical challenges, such as the standardisation of terminology, processes, and interfaces. Additionally, various aspects of specific sectorial laws, such as copyright and software law and laws affecting data privacy, data security, and big data, among others, must be carefully considered¹⁴⁴.

However, the Hungarian Standard Institution has implemented more than 30 European and International BIM standards, and two of them have been translated to Hungarian. The government is supporting the market to work out methods to fulfil these standards¹⁴⁵.

Amongst the recent projects having used BIM used in Hungary is the Prologis Park Budapest Harbour built by Logistics real estate firm Prologis in 2020. The facility, named Building 11, has been designed with BIM (Building Information Modelling), an intelligent 3D-model-based process that gives architectural, engineering and construction (AEC) professionals the ability to plan, design, construct and manage buildings and infrastructure more efficiently¹⁴⁶.

6

National and regional regulatory framework

Policy schemes

Since 2016, the Hungarian government has been implementing the **Home Purchase Subsidy Scheme for Families (CSOK)**, a comprehensive scheme aimed at supporting families and boosting the construction sector. The programme provides a family with housing allowance of HUF 10.0 million (EUR 27,719), for couples with at least three children, for the purchase of a newly built property¹⁴⁷. Families are also eligible to apply for loans of up to HUF 10.0 million (EUR 27,719) at a preferential interest rate of 3.0%¹⁴⁸. With regards to construction of a new property, beneficiaries could benefit from a VAT refund on related construction costs of up to HUF 5.0 million (EUR 13,860)¹⁴⁹. In November 2018, the Hungarian Parliament approved a proposal to extend the implementation of the 5.0% VAT rate up to end 2023. However, the proposed extension would only be applicable to properties that have a final building permit by November 1, 2018¹⁵⁰.

The CSOK Programme had considerably impacted the recovery of the housing market in Hungary. More than HUF 248.0 billion (EUR 0.7 billion) were disbursed as subsidies under the Family Housing Subsidy Scheme to over 80,000 households between January 2016 and February 2019¹⁵¹. By August 2019, around 114,000 families had applied for the family allowance under the programme, with 50.0% of recipients having two children and 37.0% having three¹⁵².

In January 2021, the Hungarian Government announced a non-refundable home renovation subsidy to families raising or expecting children by way of refunding certain part of their home renovation costs¹⁵³.

This denotes an expansion of the pre-existing Family Housing Allowance measure, which aims to promote home creation. Under this scheme, eligible families can get back 50.0% of their proven improvement expenses following the completion of the renewal, but up to a maximum HUF 3.0 million (EUR 8,500). It covers families expecting or raising at least one child, whereas young people will be exempt from personal income tax from 2022. The subsidy can be applied for within 60 days after completing the home renovation and also paying the bills by the families, or until 31st December 2022 the latest^{154,155}.

Over the 2019-2020 period, the Hungarian government introduced various measures to support the housing market. The eligibility criteria for subsidised housing loans and CSOK were eased to broaden the scope of potential applicants. Since July 2019, subsidised housing loans (with a maximum 3.0% interest rate) were also made accessible for applicants looking to buy second-hand homes (limited to HUF 10.0 million or EUR 27,719 for two children and HUF 15.0 million or EUR 41,579 for three children). Furthermore, the previous value threshold for second-hand homes (HUF 35.0 million or EUR 97,017) was abolished¹⁵⁶.

The scope of the subsidised family housing loan and family housing scheme was also expanded to cover disadvantaged villages of less than 5,000 inhabitants to buy second-hand homes that require extensive renovation. Housing support was also provided through family planning schemes. For instance, the outlook of mortgage reduction subsidies was extended. Now debt reduction amounting to HUF 1.0 million (EUR 2,772) can be applied at the birth of the second child, which

further increased to HUF 4.0 million (EUR 11,088) at the birth of the third child¹⁵⁷.

In order to help eligible families to take advantage of the home renovation subsidy, a **subsidised home renovation loan** was also introduced by the Government in 2021. Eligible families can apply for this subsidised loan that are eligible for the non-refundable home renovation subsidy. The subsidised home renovation loan is collateralised and its amount can be up to HUF 6.0 million (EUR 17,000). The loan can be distributed by credit institutions from 1st February 2021, from their own funding sources. If the client takes out the subsidised loan, the application for the non-refundable home renovation subsidy itself can be submitted after 1st March 2021¹⁵⁸.

The Hungarian government expects the housing stimulus to revive the economy in 2021, after the disruptions caused by the global pandemic COVID-19 in 2020. However, the steep rise in housing prices acts as a headwind. As a result, in 2021, the government has introduced measures favouring the housing sector which includes lowering VAT on new housing construction to 5.0%, against Hungary's standard rate of 27.0% and approval of EUR 8410.8 as grants for home renovations¹⁵⁹.

Moreover, families who use the Family Housing Subsidy Scheme (CSOK) will be able to claim back 5% VAT when buying or building their new home. The government has also announced that it will grant a full duty exemption to those who buy new or used real estate with CSOK from January 2021. Therefore 2021 onwards, the maximum amount of the Family Housing Subsidy Scheme, up to HUF 10 million (EUR 28,000), can also be used for the creation of a multigenerational home - for the attic refurbishment of new family homes¹⁶⁰.

The home creation measures announced in 2020 will significantly impact growth such that the annual number of newly built dwellings could exceed 20,000 throughout the forecast horizon until 2025. The value added of housing segment as a share of GDP is expected to be around 0.7% on an annual average, which is 0.3 percentage points higher than the forecast performance in the absence of these measures. Additionally, within the framework of Home Renovation Programme, more than 100,000 dwellings can be modernised in both 2021 and

2022, which will increase the value added for national economy by 0.4% in each year. Overall, it can be stated that the Home-creating Programme, through the housing constructions and renovation, will provide effective support for the realization of 1.1% value added to the national economy during 2021-2022¹⁶¹.

As per the RRP, Hungary plans to invest around EUR 188.0 million towards the construction and renovation of 600 social-rented homes and the renovation of 2,500 existing buildings in order to improve housing conditions. Additionally, the country has also allocated EUR 33.0 million towards community renewable energy production and use¹⁶².

With these investments, the Country's aim is to alleviate housing poverty, build new houses and improve housing conditions. It also focuses on modernising housing and promoting social mobility by operating a housing agency system¹⁶³.

Building regulations

The primary regulations that deal with the design and implementation of building projects are detailed in the Civil Code (Act V of 2013). However, parties can deviate from such rules. Other important legislation includes the **Construction Act** (Act LXXVIII of 1997), which is supplemented by the simple application procedure, as well as **Government Decrees** No. 191/2009, 194/2009, 312/2012 and 266/2013¹⁶⁴. Government's Decree 191/2009 (IX 15) on works in the construction sector included detailed provisions related to the content of the construction contract.

In 2016, the government introduced a revised law on the construction of buildings, which simplified the lengthy building permit procedure. As such, the construction of residential buildings (not exceeding 300.0 square meters) was allowed to take place without an immediate building permit but by simple notification to the building authorities followed by application afterwards¹⁶⁵.

Insurance and liability related regulations

In 2017, the Hungarian government announced a compulsory professional liability insurance of designers and contractors under the Government Decree (**353/2016 XI.18.**) for the construction of

buildings under 300.0 square meters. Liability insurance is also available for construction companies which cover any material or personal injury caused to a third party¹⁶⁶. The Decree stipulates that the construction and the design contract must contain a declaration of the contractor or the designer stating that he/she is covered by the required professional liability insurance. Without this declaration, no construction works could be initiated¹⁶⁷.

Furthermore, as per the construction contract, contractors may be required to take out voluntary insurances at their own expense. These may include:

- Construction All Risk (CAR) insurance, to provide coverage to construction activities;
- Liability insurance to cover losses, damages and injuries to the employees of the contractor, and/or to third parties;

- Professional indemnity insurance to cover losses and damages originating from errors or omissions by the contractor throughout the duration of the works.

Liabilities related to the provision of professional, construction and installation services are governed by the Civil Code, as well as the Act LXXVIII of 1997 on the Formation and Protection of the Built Environment (the "Construction Act")¹⁶⁸. The general limitation period is five years. The time limit within which a claim for damages and defects can be filed is six months, although it can be extended up to one, three or ten years, according to the circumstances¹⁶⁹. For newly built residential dwellings specifically, Government Decree 181/2003 (XI 5) stipulates a mandatory guarantee period of three years¹⁷⁰.

7

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total investment by the broad construction sector¹⁷¹ has generally increased over the past several years (Figure 10). Particularly, investment by the narrow construction sub-sector increased by 134.6% over the 2010-2019¹⁷² period, reaching EUR 929.4 million. Similarly, investment by real estate activities sub-sector increased by 27.6% over the same period, reaching EUR 4.7 billion.

Investment by the narrow construction sub-sector between 2010 and 2019



134.6%

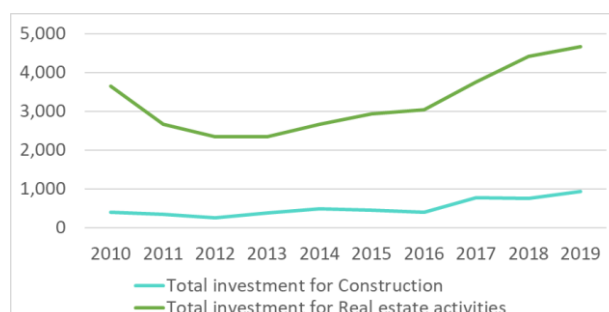
In terms of investment in **intellectual property products**, the narrow construction sub-sector invested EUR 33.9 million in 2019¹⁷³, representing a 229.1% growth since 2010. On the contrary, the investment in intellectual property products by the real estate activities sub-sector amounted to EUR 11.7 million in 2019¹⁷⁴, a 49.4% decline compared to the 2010 level. The investment in **machinery and equipment** has also risen substantially at the back of high capacity utilisation, easy financing conditions and foreign direct investment inflows¹⁷⁵.

Investment in intellectual property products by the narrow construction sub-sector between 2010 and 2019



229.1%

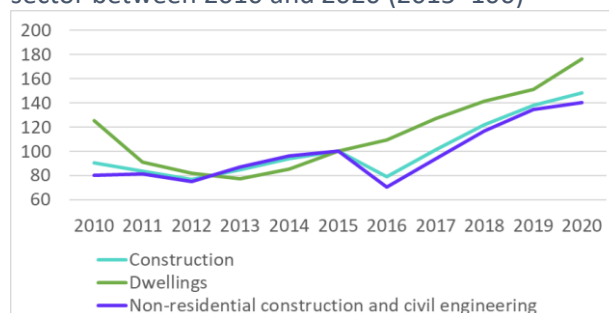
Figure 10: Investment by the Hungarian broad construction industry between 2010 and 2019 (EUR m)



Source: Eurostat, 2021.

The investment index in the broad construction sector¹⁷⁶ experienced a 48.1% increase between 2015 and 2020 (Figure 11). Similarly, investment in dwellings as well as non-residential construction and civil engineering increased by 76.5% and 40.3%, respectively, over the 2015-2020 period. In absolute terms, investment in the broad construction sector totalled EUR 19.9 billion in 2019¹⁷⁷, out of which EUR 4.7 billion was invested in dwellings and EUR 15.2 billion was devoted to non-residential and civil engineering¹⁷⁸.

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



Source: AMECO, 2021.

Investment index in dwellings by the whole economy between 2015 and 2020

 **76.5%**

Total **inland infrastructure investment** as a share of GDP reached 2.2% in 2019¹⁷⁹, higher than the 2010 levels of 1.1%. Investment in **rail infrastructure** in Hungary experienced a surge of 223.5%, from EUR 272.0 million in 2010 to EUR 879.8 million in 2019¹⁸⁰. Similarly, the country experienced a 172.4% increase in its **road infrastructure** investment over 2010-2019¹⁸¹, from EUR 840.2 million to EUR 2.3 billion. The investment in **air infrastructure** increased by 102.5%, from EUR 50.6 million in 2010 to EUR 102.5 million in 2019¹⁸². Lastly, the investment in **inland waterways** increased by 20.4%, from EUR 748,120.5 in 2010 to EUR 900,898.7 in 2019¹⁸³.

In parallel, investment in **air infrastructure maintenance** increased from EUR 8.2 million in 2010 to EUR 26.2 million in 2019¹⁸⁴ (+218.3%). Similarly, investment in **rail infrastructure maintenance** increased from EUR 439.7 million in 2010 to EUR 669.3 million in 2019¹⁸⁵ (+52.2%). The investment in **road infrastructure maintenance** increased from EUR 328.6 million in 2010 to EUR 375.7 million in 2019¹⁸⁶ (+14.3%). However, the investment in **inland waterways infrastructure maintenance** decreased from EUR 3.2 million in 2010 to EUR 2.2 million in 2019¹⁸⁷ (-31.8%).



In 2020, the European Investment Bank (EIB) Group invested almost EUR 345.0 million in infrastructure in Hungary¹⁸⁸.

In parallel, Hungary also benefitted from investments from the **European Fund for Strategic Investments** (EFSI). As of January 2021, the total financing under the EFSI in Hungary amounted to EUR 767.0 million, which is set to trigger EUR 4.6 billion in additional investments. With regards to infrastructure and innovation projects, nine projects had been approved by the EIB with EFSI backing. These projects required up to EUR 562.0 million of the total financing, which is set to trigger EUR 1.8 billion of total investment¹⁸⁹.

During 2020, more than HUF 13.0 trillion (EUR 36.9 billion) worth of development was implemented in Hungary, which is 7.3% lower than the previous

year. Nevertheless, developments have increased by a total of 61.0% since 2010, thus Hungary's investment rate increased from 20.1% in 2010 to 27.3% in 2020. The dynamics of public investments over the forecast horizon is also affected by the allocation of funds from EU budget cycles. By the end of 2020, a total of EUR 31.7 billion were awarded for infrastructure projects. Looking ahead, over the period of **2021-2027**, Hungary has been allotted EUR 22.5 billion as fund from the **Cohesion Policy**¹⁹⁰.

Under its EUR 7.2 billion **Recovery and Resilience Plan (RRP)**, Hungary has allocated EUR 723.0 million towards extending the capacity of the Budapest suburban rail network, EUR 663.0 million towards development of competitive urban and suburban public transport fleet in Budapest and EUR 151.0 million towards developing zero-emission bus transport¹⁹¹.

Under the RRP, Hungary has also committed EUR 57.0 million towards eliminating rail bottlenecks on the TEN-T corridor as well as EUR 86.0 million for deploying central traffic management on TEN-T railway lines¹⁹².

As the Economy Protection Fund played a key role in financing the economic protection measures, there was a significant overspending of HUF 3,088.2 billion (EUR 8.8 billion) by the end of 2020, which was possible as the fund had no ceiling. As a result, investments implemented from domestic sources also accelerated¹⁹³.

The government has spent a significant amount on transportation development. In 2020, EUR 650.0 million was spent from the domestic appropriation for highway developments, EUR 500.0 million was paid out from the solely domestic appropriations for refurbishing the public road network, and EUR 410.0 million was disbursed from the domestic appropriation for developing the railway network¹⁹⁴.

From this appropriation "**Modern Cities Programme**", EUR 140 million was paid for numerous developments modernising the major provincial cities and increasing competitiveness, attractiveness for tourists and quality of life. Despite the pandemic, government investment increased both in nominal terms and in proportion to the GDP in 2020, compared to the previous year¹⁹⁵.

Hungary's **2021 Budget** bill was used to create an **Economy Protection Fund (EPF)** with a HUF 2,610 billion (EUR 7.4 billion) to help the economy recovering from the economic crisis caused by the pandemic and to maintain the economy's capacity to grow. As the amendment of the 2021 Act provides additional resources for measures and programmes to re-launch the economy, the funds allocated for this purpose will be used under the **Economy Restarting Action Plan** which has a budget of HUF 2,504 billion (EUR 7.1 billion). Out of this budget, around HUF 477 billion (EUR 1.4 billion) has been allocated for infrastructure developments¹⁹⁶.

Out of the budget of Economy Restarting Action Plan, around HUF 477.0 billion (EUR 1.4 billion) has been allocated for infrastructure developments¹⁹⁷.

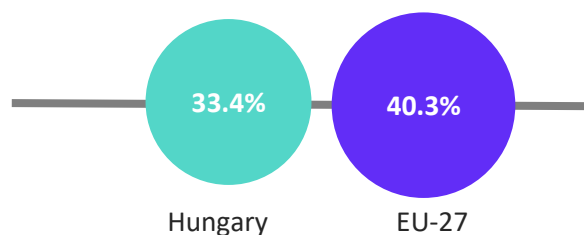
From 2022 onwards, the re-launch of the economy will focus on measures and programmes (e.g. housing, infrastructure development, tourism and agriculture development) that will support economic development in the long run as well. Under **infrastructure development**, public road and railroad developments, creation of industrial parks, regional development tasks, and capital city developments of similar significance as those implemented in the previous years shall be considered¹⁹⁸.

The **household renovation spending** reached EUR 223.4 million in 2019¹⁹⁹, representing a 47.7% increase from 2010 level. This also represents 0.3% of total household disposable income, the same as in 2010.

TO 2 – Skills

While Hungary educational performance has improved, it remains below the EU-27 average. This is the case in the share of **early leavers from education and training** in Hungary, which is higher (11.8%) as compared with the EU-27 average (10.2%) in 2019²⁰⁰. However, the rate of early leavers from education and training decreased for the first time in three years in 2019. The **tertiary educational attainment** in Hungary in 2019²⁰¹ stood at 33.4%. Though this shows an improvement from 2009 (24.0%), it lies below the EU-27 average (40.3%). Hungary's **adult participation in learning** in 2019²⁰² (5.8%), was also below the EU-27 average (10.8%)²⁰³.

Tertiary educational attainment in 2019



The **employment rate of recent graduates** by educational attainment in Hungary stood at 85.6% in 2019²⁰⁴, above the EU-27 average of 80.9%. This gives an indication of a strong demand for highly skilled workers in Hungary. However, the growing demand for highly skilled workforce is still not met by the number of tertiary graduates. Moreover, **public expenditure on education** as a percentage of GDP in Hungary in 2019²⁰⁵ also stood higher than the EU-27 average of (5.1% as compared to 4.6%)²⁰⁶.

According to the 2020 State Budget Act, expenditure on primary and general secondary education is nearly HUF 600.0 billion (EUR 1,810 million), similar to the 2019 level²⁰⁷.

Regarding **vocational education and training (VET)**, the employment rate among recent graduates stood at 86.3% in 2019 (against an EU-27 average of 79.1%). This also corresponds to the overall high share (84.3%) of employment among the population aged 25-55 in Hungary. The higher employment rate among recent VET graduates is also the result of government efforts to prioritise and support VET – making it more attractive²⁰⁸.

Under its RRP, Hungary plans to promote digital skills for all ages. The country's target includes equipping with basic digital skills all citizens aged 16-74 to 70% by 2025²⁰⁹. Currently, basic digital skills uptake in Hungary stands below the EU-27 average (49% compared to 58% in the EU) for the population aged 16-74²¹⁰.

The Hungarian government introduced a law for VET in 2019 which aimed to attract more students to both vocational tracks. The law introduced major changes to the vocational tracks, before the full roll-out of the previous reform introduced in 2016/2017. Moreover, the government allocated additional HUF 35.0 billion (EUR 106.0 million) to increase teachers' salaries in VET in 2020²¹¹.

In 2020, when the national education and training sector was impacted by the global pandemic

COVID-19, international mobility programmes were suspended and March onwards, the education process continued digitally, with remote learning, homework and assessment²¹².

Further in 2021, the government launched new financial incentive mechanisms in order to boost the attractiveness of VET and raise the prestige of Initial VET (IVET) institutions²¹³.

With regards to IVET, every learner in an IVET institution receives a general scholarship as an enabler for completing the programme to acquire a first vocational qualification listed in the national register of basic occupations. Moreover, school year 2021/22 onwards, disadvantaged learners who show good academic results can apply for the *Apáczai* scholarship, aiming to promote talent development and reduce inequalities. Furthermore, young people studying to acquire their first vocational qualification listed in the national register of vocational occupations are entitled to a lump sum allowance after completing their studies, to promote entrepreneurship²¹⁴.

TO 3 – Resource efficiency / Sustainable construction

As per the **National energy and Climate Plans (NECP) for 2021-2030 under the EU Energy Union**, in 2030, Hungary aims to reach a final energy consumption level that does not exceed the value of 2005, i.e. 785.0 pascal joules (PJ). In addition, the final energy intensity of the GDP should not exceed 0.429 tonnes of oil equivalent (toe)/HUF million in 2030. The NECP further states that if final energy consumption exceeds the level for 2005, such increase should exclusively derive from carbon-neutral energy resources. The energy consumption with additional measures in the residential sector is also expected to decrease by 31.0% compared to the scenario with existing measures²¹⁵.

Along with the NECP, in early 2020, the Hungarian government adopted a new **National Energy Strategy**, aimed at redefining its national energy and climate policy priorities until 2030 with an outlook until 2040. Underneath this strategy, Hungary's primary objective is to reduce its greenhouse gas emissions by at least 40.0% by 2030 as compared to the 1990 level. The government also adopted a national climate neutrality target for

2050, which is defined in its **National Clean Development Strategy²¹⁶**.

With regards to building renovation strategy, in Hungary, 40.0% of primary energy is consumed in buildings, with residential buildings accounting for the largest share of about 60.0%. The renovation of residential buildings and non-residential buildings is therefore set as one of the priorities of the NECP 2021-2030²¹⁷.

The long-term renovation strategy has been under preparation during the submission of the final NECP. The renewed survey of the national building stock, based on the updated building certification method, was expected to be carried out in 2020²¹⁸.

There are new measures aiming at the public sector buildings, including building register and stricter legal requirements for energy savings measures in public buildings. Energy auditors and “policy officers” are expected to help implement the measures. Promoting the “use of ESCO-type financing solutions” is one of the two principal instruments to trigger energy savings in the new period and save the use of public budgets²¹⁹.

However, the Hungarian plan lacks non-refundable support for the energy renovation of residential buildings. While the government plans to renovate 1.4 million flats in the next five years, this should be supported with a comprehensive energy housing renovation scheme, including a 30.0% to 40.0% non-refundable element²²⁰.

As per Hungary's **Energy Performance of Buildings Directive 2016**, the renovation targets were set in the **National Building Energy Strategy** for the period 2015-2020 with an outlook to 2030. In total, a target on 49 PJ/year primary energy savings was set for 2020; out of which 40 PJ/year was estimated to come from the residential, 4 PJ/year from the public and 5 PJ/year from the tertiary sector. By 2030, the target was set to 111 PJ/year²²¹.

As per the **National Building Energy Strategy**, approved in 2015, energy conservation of 40 PJ is possible with an invested amount of HUF 1,760 billion (EUR 5.0 billion); its target for 2030 is primary energy conservation of 111 PJ/year in the energy consumption of buildings. In accordance with this and in consideration of recent years, building energy investment costs considered in the NECP will amount to approximately HUF 5,300 billion

(EUR 15.0 billion) up to 2030. The obligations that has been set under Articles 7(a) and 7(b) of Directive 2012/27/EU and its expected main targets for Residential buildings for the period 2021-2030 in Hungary is estimated at 34.0 PJ, as per the NECP²²².

According to EIBIS 2020 report, the share of **Hungarian construction firms investing in measures to improve energy efficiency** stood at 42.0%, higher than the previous year (30.0%). Though the share was higher than firms in the services sector, it was still lower than firms in the manufacturing and infrastructure sectors²²³.

In the RRP, Hungary has planned to invest around EUR 454.0 million to support residential solar systems and electrification of heating systems in combination with solar systems²²⁴.

Hungary aims to achieve at least 200,000 households with a roof-installed solar panel having an average output of 4 kilowatt (KW) by 2035. In addition, Hungary's strategic goal is to increase the installed capacity of residential heat pumps to almost 400 megawatt (MW) by 2030 (from 45-50 MW in 2017)²²⁵.

TO 4 – Single Market

As per the Single Market Scoreboard 2020, performance of Hungary has deteriorated from the previous year, especially in terms of transposition and infringements²²⁶.

Hungary's performance in **transposition deficit** stood at 0.5%, being slightly below the EU-28²²⁷ average of 0.6%. This also marked an improvement by 0.4 percentage point from the previous year report. The **overdue directives** also dropped to five, representing an improvement from nine in the previous year report. However, the **average delay** increased to 21.7 months, above the EU-28²²⁸ average (11.5 months) and also above the previous report (9.3 months). The **conformity deficit** also deteriorated to 1.5%, from 1.2% in the previous report. This was also worse than the EU-28²²⁹ average (1.2%). The deteriorated performance in the transposition is due to the limited use of the EU Pilot tool because of which the number of directives presumed to have been incorrectly transposed has increased²³⁰.

In terms of **infringements**, pending cases rose to 36 in comparison with 29 in the last year. It is also much higher than the EU-28²³¹ average of 29. This is also due to the limited use of the EU Pilot tool, as a result of which Hungary has seen an increase in the number of infringement proceedings. The **average case duration** has also increased to 32.2 months, from 31.6 months in the last report. However, this is still below the EU-28²³² average of 34.8 months. The **compliance with court rulings** also increased to 24.5 months, higher than the previous year (20.8 months). However, this was also below the EU-28²³³ average of 29.5 months²³⁴.

Hungary's performance in the **Internal Market Information System** has continued very well. Its performance was above the European Environment Agency (EEA) average in all five indicators. The country also has the highest **trade integration** in the single market for goods. The integration for services is also above the EU-28²³⁵ average²³⁶.

Nonetheless, the country's performance in the **public procurement** field was satisfactory but could be further improved²³⁷. In fact, the country had low scores in the single bidder, cooperative procurement, decision speed and missing seller registration numbers indicators²³⁸. However, corruption in Hungary presents a significant risk to business, particularly in the public procurement and tax administration sectors, which suffer from high levels of corruption. Public procurement is vulnerable to irregularities at the local level because of strong informal relations between businesses and political actors²³⁹.

Hungarian firms have reported circulation of bribery and irregular payments in the economy²⁴⁰.

On February 2021, Hungary was asked to reform its public procurement laws by the EU, in order to curb systemic fraud, before the implementation of the Recovery and resilience Facility²⁴¹.

Budapest is due to receive nearly EUR 6.3 billion in grants from the Facility set up by the EU. It is therefore of prime importance for the country to reform its public procurement to ensure the effectiveness of the said funding.

The Hungarian public procurement system was victim of irregularities in nearly 4.0% of its spending of EU funds for the period 2015-2019, compared to the EU-28²⁴² average of 0.36%²⁴³.

Finally, regarding the implementation of **Eurocodes**, all EN Eurocode parts are published as National Standards, with National Annexes being published on 38 Parts. Although they are not compulsory and no regulatory framework enforces their use in public procurement, Eurocodes are the only means of structural design in Hungary. No other national standards are used in parallel with them²⁴⁴.

TO 5 – International competitiveness


As per the Global Competitiveness Index 2019 report, Hungary ranked 47th out of 141 economies, improving by one position from the previous year's ranking (48th out of 140)²⁴⁵.

According to the index, in trade openness, Hungary ranked the best in trade tariffs (7th) and border clearance efficiency (27th). Contrarily, its performance in rank was worse in prevalence of non-tariff barriers (70th) and complexity of tariffs (113th)²⁴⁶.

The **internalisation of construction products** in the Hungarian construction sector has shown signs of growth for the past few years. The export values of all construction-related products increased from EUR 760.8 million in 2010 to EUR 911.7 million in 2019²⁴⁷, representing an increase of 19.8%. However, the share of exports of all construction-related products dropped to 37.0% in 2019²⁴⁸ from 55.6% in 2010. This is still above the EU-27 average of 11.3%.

Export value of all construction-related products between 2010 and 2019  19.8%

Similarly, the export value of architectural services increased by 23.8% from EUR 46,969 in 2010 to EUR 58,142 in 2020. However, this had declined significantly by 61.6% from the previous year (EUR 151,368).

Export value of architectural services between 2010 and 2020  23.8%

In the context of **inward FATS** (Foreign affiliates statistics)²⁴⁹, **value added at factor cost** in the manufacturing, the narrow construction and the real estate activities sub-sectors increased by 56.2%, 35.5% and 2.7% respectively, over the 2010-2018²⁵⁰ period. The **turnover** in the manufacturing sub-sector increased by 38.1% over the same period. Contrarily, in the narrow construction and the real estate activities sub-sectors it witnessed a decline by 12.6% and 6.3% respectively, over the same period.

In terms of **outward FATS**²⁵¹, **turnover** and **number of persons employed** in the manufacturing sub-sector decreased by 14.6% and 38.9% respectively over the 2010-2018²⁵² period. Similarly, turnover and number of persons employed in the real estate activities sub-sector decreased by 38.9% and 4.5% respectively over the 2012-2018²⁵³ period.

The **Foreign Direct Investment** in Hungary for the broad construction sector has increased in recent years. Specifically, in the manufacturing sub-sector, the **direct investment abroad (DIA)** increased by 190.7% over the 2014-2017²⁵⁴ period. The **direct investment in the reporting economy (DIRE)** in the manufacturing sub-sector increased by 129.8%, over the 2013-2017²⁵⁵ period. Similarly, in the narrow construction sub-sector the DIA and DIRE increased by 25.3% and 13.7%, respectively, over the 2013-2017²⁵⁶ period. Lastly, in the real estate activities sub-sector, the DIA increased by 103.4% over the 2013-2016²⁵⁷ period and DIRE increased by 3.6% over the 2013-2017²⁵⁸ period.



As per the 2021 SME Country Fact Sheets, Hungarian SMEs lag behind the EU-27 average in internationalisation activities. The SMEs' share in export activities was low, representing only 20.0%-25.0% of overall exports in 2019²⁵⁹.

To strengthen the international competitiveness of the Hungarian SMEs, the Hungarian Ministry for Foreign Affairs and Trade implemented the **Export Development Tender Program** (*Exportfejlesztési Pályázati Program*) on January 2020. This measure aims to promote foreign market activity of domestic small and medium-sized enterprises^{260,261}. It supports SMEs with export activities to better compete in the international arena.

Within the framework of the tender, support can be requested primarily for appearing at foreign exhibitions and fairs, organising product presentations, marketing activities, or obtaining certificates. Depending on the grant category, the Ministry provides a maximum grant of up to HUF 10.0 million (EUR 28,000) to the best projects that meet the conditions of call for proposals until the budget depletes. A maximum of 60.0% of total costs can be financed from this grant^{262,263}.

8

Outlook

After witnessing an annual decline of 5.0% in 2020 due to the pandemic, the Hungarian economy is expected to revive and register growth post 2021.

The Hungarian GDP is expected to grow annually by 5.0% in 2021 and 5.5% in 2022, thus reaching HUF 43,222.5 billion (EUR 122.2 billion).

In parallel, the **volume index of production** in the broad construction sector is projected to decline annually by 2.3 ip in 2021 and then increase annually by 11.0 ip in 2022. This growth will be driven by overall increases in the volume index of production in construction of buildings and construction of civil engineering by 6.5 ip and 8.7 ip, respectively over the 2020-2022 period.

The **turnover** of the broad construction sector is projected to increase annually by 4.8% in 2021, reaching a value of EUR 36.6 billion. The narrow construction sub-sector is expected to contribute to major share (61.3%) in the total turnover in 2021, which is also expected to increase annually by 4.7%, being the highest among sub-sectors.

Likewise, the **total value added** of the broad construction sector is expected to increase annually by 4.8% in 2021, reaching EUR 10.6 billion. This is forecasted to be driven majorly by an annual growth in the value added of the narrow construction sub-sector (+4.8%), which is also expected contribute to maximum share (52.6%) in the total value added, amongst other sub-sectors.

Conversely, the number of **persons employed** in the broad construction sector is also expected to annually increase by 4.9% to 443,925 in 2021. Most of this increase is forecasted to come from the annual increase in the architectural and engineering activities sub-sector (+6.5%).

The narrow construction sub-sector is expected to contribute a major share (59.0%) in total number of persons employed in 2021.

Number of persons employed in the broad construction sector 2010 and 2021  **19.1%**

Despite the pandemic, in 2020, the Hungarian **housing market** continued to soar in terms of housing prices, demand and supply (building permits). These are expected to drive the market forward in coming years, backed by government's favourable development efforts to promote home building announced in 2021²⁶⁴. In fact, based on these measures (for example VAT reduction on sale of newly built homes from 27.0% to 5.0% and claiming back 5.0% VAT when buying or building new home), the government is expecting the housing stimulus to revive the economy after the disruptions caused by the pandemic²⁶⁵.

In the RRP, Hungary has allocated around EUR 188.0 million towards the construction and renovation of social housing and improvement of housing conditions²⁶⁶.

The **non-residential construction** and investments in **civil engineering** is one of the key strategies of Hungary to support the economic growth of the construction sector. Government plans to invest around EUR 3.6 billion in railways by 2022 in order to drive the sector ahead²⁶⁷. Moreover, Hungary has been allotted EUR 22.5 billion as fund from the Cohesion Policy for the period of 2021-2027. Out of the budget of Economy Restarting Action Plan in Convergence Programme of Hungary 2021-2025, around EUR 1.4 billion has been allocated for infrastructure developments in Hungary²⁶⁸.

Under its EUR 7.2 billion Recovery and Resilience Plan (RRP), Hungary has allocated EUR 723.0 million towards extending the capacity of the Budapest suburban rail network, EUR 663.0 million towards development of competitive urban and suburban public transport fleet in Budapest and EUR 151.0 million towards developing zero-emission bus transport²⁶⁹.

The country has also committed EUR 57.0 million towards eliminating rail bottlenecks on the TEN-T corridor and EUR 86.0 million for deploying central traffic management on TEN-T railway lines.

In continuation of the government's fight against the pandemic, the 2021 budget act created an

Economy Protection Fund (EPF) with a HUF 2,610 billion (EUR 7.4 billion) to help the economy recover from the economic crisis caused by the pandemic and to maintain the economy's capacity to grow²⁷⁰.

In conclusion, the Hungarian construction sector's outlook stays positive in the long term, particularly due to the planned investment by the government in railway and roads, and EU funded infrastructure projects. Considering the changes implemented in the housing policies, the housing market is also expected to contribute to the growth of the construction sector.

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