



# European Construction Sector Observatory

Country profile **Austria**

November 2020




## In a nutshell

In 2019, Austria's GDP amounted to EUR 374.7 billion, exhibiting a 1.6% growth over the previous year. This also represents a 14.7% increase as compared to the 2010 level (EUR 326.7 billion). The growth was mainly driven by a strong domestic demand. However, falls in exports and equipment investment led to a slowdown in the annual GDP growth.

Reflecting this macro-economic trend, the **number of enterprises** in the broad construction sector grew by 15.3% between 2010 and 2019, totalling 77,351. This growth was mainly driven by the increase in the number of enterprises in the narrow construction (+20.4%), real estate activities (+11.8%), architectural and engineering activities (+11.5%) and manufacturing (+3.8%) sub-sectors over the same reference period.


Number of enterprises in the narrow construction sub-sector between 2010 and 2019  **20.4%**

Similarly, the **volume index of production** in the broad construction sector recorded an increase of 22.6% during 2015-2019, mainly driven by a 25.0% increase in the construction of buildings and a 12.0% growth in the construction of civil engineering, over the same period.

Volume index of production in the construction of buildings between 2015 and 2019  **25.0%**

Reflecting the increased volume index of production, the **turnover** in the broad construction sector marked a strong increase between 2010 and 2017 (+23.6%), reaching

EUR 87.8 billion. It further increased to EUR 93.6 billion, marking a 31.8% rise since 2010. This overall increase was mainly driven by the turnover growth in the architectural and engineering activities (+39.3%), the narrow construction (+35.3%), the manufacturing (+30.1%), and the real estate activities (+20.1%) sub-sectors over the 2010-2019 period.

Turnover in the architectural and engineering activities sub-sector between 2010 and 2019  **39.3%**

Similarly, the **gross operating rate** of the broad construction sector, which is used to assess the profitability of the sector, stood at 18.2% in 2017, 0.5 percentage points (pps) higher than in 2010 (17.7%). This is above the EU-27 average of 16.6%. Among the sub-sectors, the real estate activities remained the most profitable (44.1%), followed by the architectural and engineering activities sub-sector (19.6%), the manufacturing (10.9%) and the narrow construction (9.9%) sub-sectors in 2017 respectively.

In terms of employment, there were 509,384 **persons employed** in the Austrian broad construction sector, registering a 17.6% increase over the 2010 level (433,225 persons). This was mainly driven by the growth registered in the number of persons employed in the architectural and engineering activities sub-sector (+23.7%), followed by the narrow construction (+20.0%), the real estate activities (+16.3%) and the manufacturing (+2.8%) sub-sectors, over the 2010-2019 period.

Nevertheless, Austria lacks high-skilled labour and faces difficulties in attracting young people to work in the construction sector. In fact, the **job vacancy rate** in the narrow construction sub-sector increased from 2.3% in 2010 to 5.7% in 2019. Moreover, unemployment among low-skilled workers has doubled in Austria to over 20.0% since 2008.

The demand in the **housing market** is supported by declining interest rates on mortgage loans; rising households' income and increasing numbers of households (+9.0% between 2010 and 2019). Moreover, investments in dwelling increased by 34.7% between 2010 and 2018, reaching EUR 17.3 billion. However, the housing supply seems to be lagging behind the demand, which in turn drives up the house price index (+26.6% between 2015 and 2019).

In December 2019, the European Investment Bank (EIB) and Raiffeisenlandesbank Niederösterreich-Wien AG (RLB NÖ-Wien), an Austria-based bank, provided EUR 300.0 million to finance affordable housing in Austria.

With regards to the investment in **non-residential construction and civil engineering**, ÖBB Infrastruktur, entered into an agreement in June 2020 to invest EUR 1.1 billion in railway projects across three out of nine Austrian regions, namely Styria, Tirol and Vorarlberg. These investments are part of the broader **Transport Plan for Austria** (*Gesamt-verkehrsplan für Österreich*), which defines the country's policy and sets the objectives and priorities until 2025. All in all, this is expected to contribute to the creation of market opportunities as well as jobs for the construction sector.

The ongoing COVID-19 pandemic is expected to have a limited impact on the ongoing projects in Austria. Nevertheless, excess demand for housing is expected to support investment in the Austrian construction sector. Investment in infrastructure projects is also likely to be conducive to growth.

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# 1

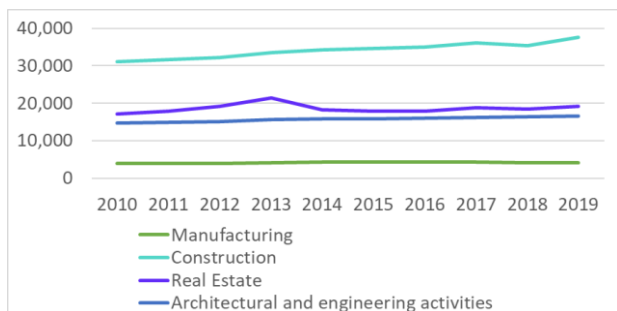
## Key figures

### Construction market

The **number of enterprises** in the broad construction sector in Austria totalled 77,351<sup>1</sup> in 2019, representing an increase of 15.3% since 2010 (Figure 1). This growth was mainly driven by the increase in the number of enterprises in the narrow construction (+20.4%), real estate activities (+11.8%), architectural and engineering activities (+11.5%) and manufacturing (+3.8%) sub-sectors between 2010 and 2019. In line with previous years, the narrow construction sub-sector accounted for 48.6% of all enterprises in the broad construction sector in 2019.

Number of enterprises in the broad sector between 2010 and 2019 ↑ **15.3%**

Figure 1: Number of enterprises in the Austrian broad construction sector between 2010 and 2019

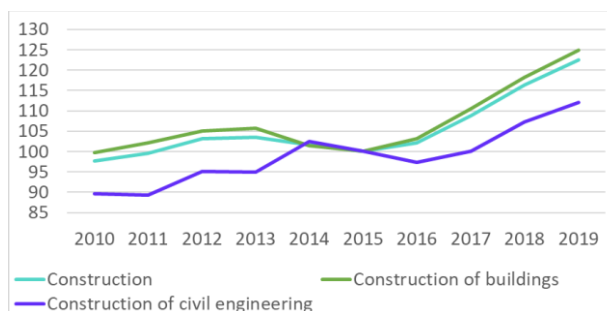


Source: Eurostat, 2020.

The **volume index of production** in the broad construction sector has been growing since 2015, increasing by 22.6% over the 2015-2019 period. Similarly, the volume index of production in the construction of buildings and construction of civil engineering rose by 25.0% and 12.0% respectively over the same period (Figure 2).

Volume index of production in the construction of buildings between 2015 and 2019 ↑ **25.0%**

Figure 2: Volume index of production in the Austrian construction sector between 2010 and 2019 (2015=100)

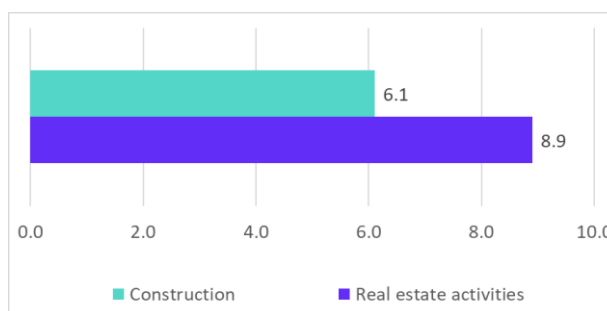


Source: Eurostat, 2020.

The **total added value<sup>2</sup> at factor cost** of the broad construction sector amounted to EUR 39.3 billion in 2019<sup>3</sup>, with the narrow construction sub-sector contributing to 50.0% of the total added value. It is followed by the real estate activities (28.3%), manufacturing (11.6%) and architectural and engineering activities sub-sectors (10.1%).

The **share of gross value added (GVA) of the broad construction sector** stood at 17.1% in 2017<sup>4</sup>, above the EU-27 average of 16.4%. In 2019, the share of GVA of the narrow construction and real estate activities sub-sectors stood at 6.1% (EU-27 average 5.0%) and 8.9% (EU-27 average 9.7%) respectively (Figure 3).

Figure 3: Gross value added as a share of GDP in the Austrian broad construction sector in 2019 (%)



Source: Eurostat, 2020.



Austria is statistically divided into nine regions (Länder) including Burgenland, Niederösterreich, Wien, Kärnten, Steiermark, Oberösterreich, Salzburg, Tirol, and Vorarlberg. In 2017, the three regions with the **biggest regional gross value added** in the narrow construction and real estate sub-sectors were the most populated ones, including Upper Austria (Oberösterreich), Lower Austria (Niederösterreich) and Vienna (Wien). They respectively accounted for 53.5% and 59.1% of the narrow construction and real estate sub-sectors' gross value added.

During the five weeks from March 09, 2020 to April 12, 2020, the value added in the Austrian construction sector declined by 37.0% on account of COVID-19 containment measures<sup>5</sup>.

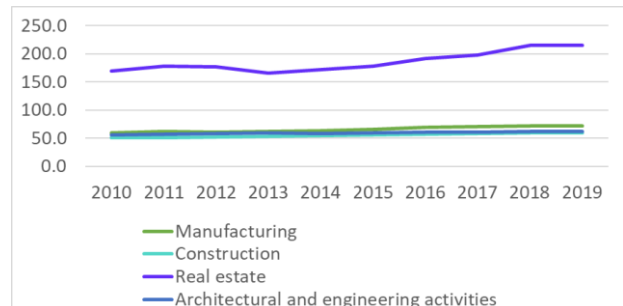
## Productivity

**Apparent labour productivity**<sup>6</sup> in the broad construction sector increased from EUR 64,718 in 2010 to EUR 75,137 in 2017<sup>7</sup>, representing a 16.1% increase over the period. This is well above the EU-27 average of EUR 50,079. The manufacturing sub-sector registered the highest increase (+19.8%) during the period, reaching EUR 70,932. This was followed by the real estate activities (+16.6%) and narrow construction (+15.2%) sub-sectors, reaching EUR 197,500 and EUR 58,400 respectively in 2017. Similarly, the architectural and engineering activities sub-sector grew from EUR 55,500 in 2010 to EUR 60,700 in 2017 (+9.4%). Over the 2017-2019 period, the manufacturing and architectural and engineering activities sub-sectors recorded a slight increase of 0.8% and 1.3% respectively, reaching EUR 71,469 and EUR 61,497 respectively. At the same time, the narrow construction and real estate activities sub-sectors reported growth of 2.3% and 8.7%, over the same period, totalling EUR 59,722 and EUR 214,767 in 2019 respectively (Figure 4).

Labour productivity in the real estate activities sub-sector between 2010 and 2019

↑ 26.8%

Figure 4: Labour productivity in the broad construction sector in Austria over 2010-2019 (EUR k)



Source: Eurostat, 2020.

## Turnover and profitability

In 2017, the **total turnover** of the Austrian broad construction sector totalled at EUR 87.8 billion, a 23.6% increase compared to 2010. In 2019<sup>8</sup>, it increased to EUR 93.6 billion, representing a 31.8% increase over the 2010-2019 period. The growth in the sector was mainly driven by the architectural and engineering activities and narrow construction sub-sectors which registered a growth of 39.3% and 35.2% respectively between 2010 and 2019. Similarly, the manufacturing and real estate activities sub-sectors recorded an increase of 30.1% and 20.1% in the same period. In 2019, the narrow construction sub-sector accounted for more than half of the total turnover (58.2%, i.e. EUR 54.4 billion), followed by the real estate activities (18.3%, i.e. EUR 17.1 billion), the manufacturing (15.0%, i.e. EUR 14.1 billion), and the architectural and engineering activities (8.5%, i.e. EUR 7.9 billion) sub-sectors.

Turnover in the architectural and engineering activities sub-sector between 2010 and 2019

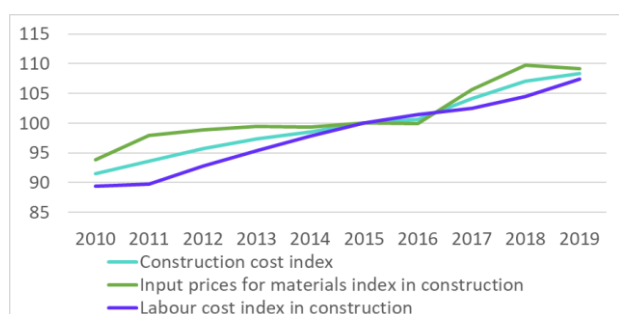
↑ 39.3%

Similarly, the **gross operating surplus** of the broad construction sector amounted to EUR 16.0 billion in 2017<sup>9</sup>, reporting a 27.5% growth compared to the 2010 level (EUR 12.5 billion). Within the sub-sectors, the highest increase was registered by the real estate activities (+31.6%) during 2010-2017, followed by the architectural and engineering activities (+28.1%), the manufacturing (+23.6%) and the narrow construction (+21.7%) sub-sectors.

At the same time, the **gross operating rate**<sup>10</sup> of the broad construction sector, which is used to assess the profitability of the sector, stood at 18.2% in 2017<sup>11</sup>, 0.5 percentage points (pps) higher than in 2010 (17.7%). This is above the EU-27 average of 16.6%. The real estate activities sub-sector registered the largest profit margin on sales (44.1% in 2017), followed by the architectural and engineering activities sub-sector (19.6% in 2017). The manufacturing and narrow construction sub-sectors had the lowest gross operating rate, standing at 10.9% and 9.9% in 2017 respectively.

In parallel, **construction costs** have been increasing steadily, with the construction cost index rising by 8.3% between 2015 and 2019 (Figure 5). This growth was mainly driven by a rise in input prices for materials (+9.2%) and labour costs (7.4%) in the same period.

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



Source: Eurostat, 2020.

## Employment

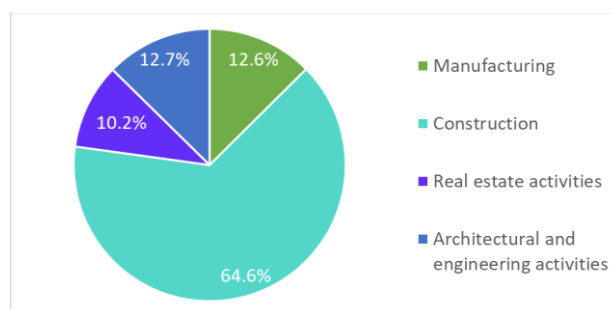
In 2019<sup>12</sup>, there were 509,384 **persons employed** in the Austrian broad construction sector, registering a 17.6% increase over the 2010 level (433,225 persons). The narrow construction sub-sector accounted for 64.6% of the total persons employed in the broad sector in 2019 (329,102 persons) and experienced a 20.0% increase since 2010 (Figure 6). The architectural and engineering activities sub-sector reported the largest increase (+23.7%) in the numbers of persons employed over the 2010-2019 period, employing 64,449 persons. It was followed by the real estate activities (+16.3%) and the manufacturing (+2.8%) sub-sectors, which employed 51,822 and 64,010 persons respectively in 2019.

Number of persons employed in the architectural and engineering activities sub-sector between 2010 and 2019

↑ 23.7%

In 2017<sup>13</sup>, **SMEs** in the broad construction sector employed almost 83.7% of the total number of persons employed in the broad construction sector.

Figure 6: Percentage of people employed by the broad construction sub-sectors in Austria in 2019



Source: Eurostat, 2020.

As for **employment by specific occupation**, the manufacturing and narrow construction sub-sectors experienced significant increases of 173.7% and 116.2% respectively for professionals between 2010 and 2019. Among all the sub-sectors, the largest decrease (-59.5%) was experienced in the narrow construction sub-sector for managers during the same period. Similarly, the manufacturing sub-sector experienced a 29.7% decline for elementary occupations during 2010-2019. On the contrary, the demand for technicians and associate professionals in the narrow construction, the manufacturing and the real estate activities sub-sectors grew by 55.9%, 14.5% and 10.2% respectively over the same reference period.

Demand for professionals in the manufacturing sub-sector between 2010 and 2019

↑ 173.7%

In addition, the number of **self-employed workers** in the narrow construction sub-sector accounted for 7.2% of the total self-employed persons in the general economy in 2019. This is considerably below the EU-27 average of 11.9% and slightly above the 2010 level (7.0%). In the real estate

activities sub-sector, the share of self-employed workers was about 1.3% in 2019, at par with the 2010 level (1.3%) and slightly below the EU-27 average of 1.4%.

In parallel, **full-time employment** in the narrow construction sub-sector increased by 6.2% between 2010 and 2019. While **part-time employment** in the narrow construction sub-sector grew by 14.1% in the same period.

Part-time employment in the narrow construction sub-sector between 2010 and 2019

 **14.1%**

Examining the trends by region (Länder) shows that the narrow construction sub-sector in Burgenland recorded the highest increase of 16.2% in the number of persons employed over the 2010-2017<sup>14</sup> period. This was followed by Wien (+10.1%) and Niederösterreich (+9.9%) over the same reference period. These three regions accounted for 40.5% of the country's employment for 2017 in the narrow construction sub-sector. With regards to the real estate activities sub-sector, the largest increase was registered in Niederösterreich (+17.2%), followed by Vorarlberg (+15.8%) and Burgenland (+7.7%) over the 2010-2017 period.



## 2

## Macroeconomic indicators

### Economic development

In 2019, Austria's **GDP** reached EUR 374.7 billion, marking a 1.6% growth over the previous year. This also represents a 14.7% increase as compared to the 2010 level (EUR 326.7 billion). The growth was primarily driven by the robust domestic demand. However, a fall in exports and equipment investment led to a slowdown in the annual growth<sup>15</sup>. The **potential GDP** stood at EUR 368.3 billion in 2019, resulting in a positive **output gap** of 1.7%. The **inflation rate** for 2019 stood at 1.5% , marking a 0.6 percentage points (pps) reduction over the 2018 level (2.1%)<sup>16</sup>.

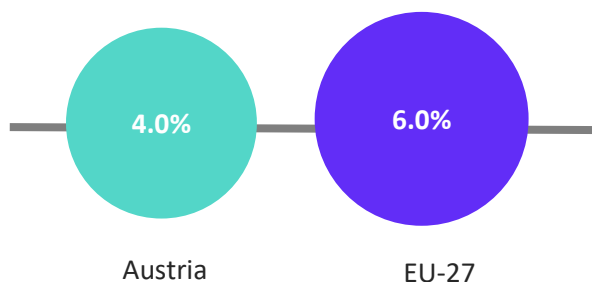
### Demography and employment



In 2019, the average unemployment rate (between 25-64 years) in Austria reached 4.0%, below the EU-27 average of 6.0%.

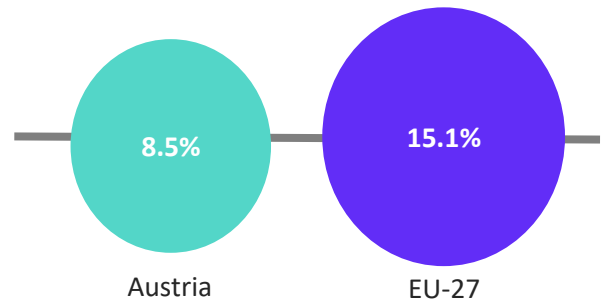
In 2019, the unemployment rate showed a slight improvement compared to the peak of 5.4% in 2016 and a 0.3 pp below the 2018 level. Similarly, **youth unemployment rate** (below age of 25) reduced to 8.5% in 2019 against 9.4% in 2018, and 9.5% in 2010. This is well below the EU-27 average of 15.1%.

Unemployment rate in 2019



The **total population** in Austria stood at 8.9 million people in 2019, representing a 6.2% growth since

Youth unemployment rate in 2019

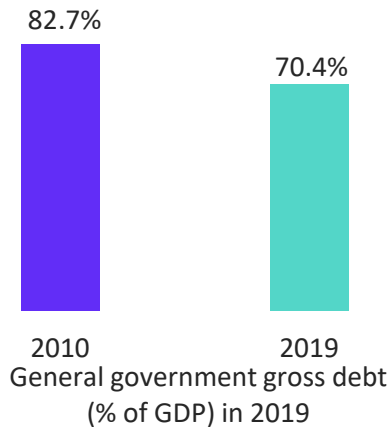


2010. It is expected to increase by 3.3% by 2030, and by 2.2% by 2050, reaching 9.3 million. Migration is the main driver of population growth in Austria<sup>17</sup>. In fact, the **net migration** increased to 40,723 in 2019, after a continuous decline between 2016 and 2018. This represents a significant rise of 85.3% over 2010 and a 16.5% increase over 2018.

At the same time, the **working age population** made up 66.7% of Austria's total population in 2019, above the EU-27 average of 64.6%. By 2050, this share is expected to reduce by 7.9 pps to 58.8%. In parallel, the proportion of people over 65 years old is expected to increase from 18.8% of all population in 2019 to 27.7% by 2050. This may generate further demand for elderly persons' infrastructures (hospitals, care homes, access infrastructure), and hence will create further opportunities for the Austrian construction sector.

### Public finance

In 2019, the **general government expenditure** represented 48.2% of GDP, below the 2010 level (52.8%) but higher than the EU-27 average of 46.7%. The **general government deficit** reached 0.7% of GDP in 2019, above the EU-27 average of 0.6%. In addition, general **government gross debt** stood at 70.4% of the country's GDP in 2019, lower than 2010 (82.7%). This is also below the EU-27 average of 77.8%.



## Entrepreneurship and access to finance



According to the Global Competitiveness Report 2019 by the World Economic Forum, Austria is ranked 17<sup>th</sup> out of 141 economies in the financing of SMEs<sup>18</sup>.

As per the report, Austria is ranked 30<sup>th</sup> in the financial system and 35<sup>th</sup> in domestic credit to the private sector (as % of GDP). It is ranked 38<sup>th</sup> in the context of venture capital availability<sup>19</sup>. In terms of entrepreneurship, Austria is ranked 21<sup>st</sup> in willingness to delegate authority and 34<sup>th</sup> in the growth of innovative companies. In the context of companies embracing disruptive ideas, Austria is ranked 59<sup>th</sup>.

According to the 2020 Doing Business Report, Austria is ranked 127<sup>th</sup> out of 190 countries, in starting a business. This is below its previous rankings (118<sup>th</sup> in 2018, 111<sup>th</sup> in 2017 and 106<sup>th</sup> in 2016)<sup>20</sup>.

Austria has taken several initiatives to encourage entrepreneurship and particularly start-ups, such as the country for start-ups strategy

(*Gründerlandstrategie*) or the recent Start-up Package that offers funding as well as education and training schemes favouring a start-up-friendly environment. Presented in May 2019, the Austrian Federal Ministry for Digital and Economic Affairs designed a comprehensive start-up package. It consists of risk capital financing for start-ups, education and training schemes for start-up employees as well as regulatory sandboxes (testing grounds for new business models) for start-ups<sup>21</sup>.

According to the Small Business Act for Europe (SBA) Fact Sheet 2019, Austria's performance is in line with the EU-28<sup>22</sup> average in terms of access to finance. Nevertheless, it is ranked high in the EU in terms of providing SMEs with loans. Austria scores the second lowest in the share of rejected SME loan applications and the highest in willingness of banks to provide loans to applicant SMEs that do not take recourse to other forms of financing.

The Austrian government has taken several measures to improve the conditions of access to finances for SMEs in the country, such as:

- in January 2019, the Vienna Stock Exchange started two new market segments to attract SMEs by providing easier, low-cost access to equity capital.
- revision of the crowdfunding law (*Alternativfinanzierungsgesetz / AltFG*) which has improved the crowdfunding framework in the country.
- starting from January 2019, provision of a legal framework for the "direct market plus" by the Federal Ministry of Finance. Vienna's stock exchange implemented this third market to provide Austrian SMEs and start-ups easier access to capital markets.

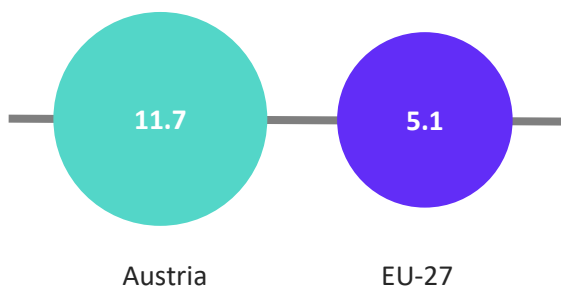
## 3

# Key economic drivers of the construction sector

## Business confidence

The **consumer confidence** indicator improved from -4.5 in 2010 to -2.7 in 2019. This is above the EU-27 average of -6.2 and below the 2018 level of 0.9. Similarly, the **industry confidence** indicator stood at -5.3 in 2019, slightly above the 2010 levels of -5.6 and EU-27 average (-4.8), remaining considerably below the 2018 levels (8.6). Similarly, the **construction confidence index** significantly improved to 11.7 in 2019, well above the 2010 level (-14.7) and the EU-27 average of 5.1. However, this is below the 2018 levels of 13.2.

Construction confidence indicator in 2019



The Austrian **investment ratio** has followed a similar trend, gradually increasing from 21.5% in 2010 to 24.1% in 2019. Conversely, **investment per worker** in the broad construction sector decreased by 9.0%, from EUR 73,229.7 in 2010 to EUR 66,674.2 in 2017<sup>23</sup>. In terms of sub-sectors, investment per worker in the architectural and engineering activities and real estate activities sub-sectors registered an decrease (-43.6% and -18.5%) from EUR 3,900 and EUR 191,600 in 2010 to EUR 2,200 and EUR 156,200 in 2017<sup>24</sup>, respectively. Similarly, investment per worker in the narrow construction sub-sector decreased by 6.1% from EUR 3,300 in 2010 to EUR 3,100 in 2017<sup>25</sup>.

## Domestic sales

The ranking of the five **most domestically sold** construction products in Austria has remained the same except “Mortars”, which were replaced by “Other structures and parts”. The top five most domestically sold construction products are presented in Table 1 including a comparison with the most sold in the EU-27. These represented 50.5% of total domestic construction product sales in 2019.

Table 1: Five most domestically sold construction products in Austria and in the EU in 2019

	Austria			EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Ready-mixed concrete (group 236310)	1,088.1	14.3%	Other structures (group 251123)
2	Other structures (group 251123)	971.8	12.8%	Doors, windows and their frames (group 251210)
3	Windows, French windows and their frames (group 162311)	723.5	9.5%	Ready-mixed concrete (group 236310)
4	Prefabricated wooden buildings (group 162320)	543.4	7.1%	Prefabricated buildings of metal (group 251110)
5	Doors, windows and their frames (group)	517.2	6.8%	Prefabricated structural components for building (group)

Austria			EU-27
Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
251210)			236112)

Source: PRODCOM, 2020.

## Export of construction-related products and services

The **top five most exported** construction products from Austria and the EU-27 are summarised in Table 2. Together, these made up 65.6% of all construction product exports in 2019. Also, “Builders' joinery and carpentry etc.”, which accounted for the highest (18.6%) share of product exports in 2019, registered a growth 46.1% during 2010-2019, reaching EUR 838.6 million.

Table 2: Five most exported construction products in Austria and in the EU in 2019

Austria			EU-27
Product	Value (EUR m)	Share in construction products exports (%)	Product
<b>1</b> Builders' joinery and carpentry (group 162319)	838.6	18.6%	Ceramic tiles and flags (group 233110)
<b>2</b> Other structures (group 251123)	787.5	17.5%	Other structures (group 251123)
<b>3</b> Particle board (group 162112)	739.0	16.4%	Fibreboard of wood (group 162115)
<b>4</b> Fibreboard of wood (group 162115)	360.1	8.0%	Doors, windows and their frames (group 251210)
<b>5</b> Assembled parquet panels (group 162210)	232.4	5.2%	Marble, travertine, alabaster etc. (group 237011)

Source: PRODCOM, 2020.

In terms of cross-border provision of construction services<sup>26</sup>, Austria exported services worth EUR 877.0 million worldwide in 2018<sup>27</sup>. This represents a 50.2% increase over the 2012<sup>28</sup> level (EUR 584.0 million) and a 12.7% increase compared with 2017 (EUR 778.0 million).

In 2018<sup>29</sup>, 82.7% of the total exports of construction services were going to the EU-27 (i.e. EUR 725.0 million), representing a 62.2% increase since 2012<sup>30</sup> (EUR 447.0 million). In parallel, Austria imported EUR 661.0 million of construction services from around the world in 2018, 88.1% of which came from the EU-27. The country thus achieved a worldwide **trade surplus** of EUR 216.0 million in 2018.

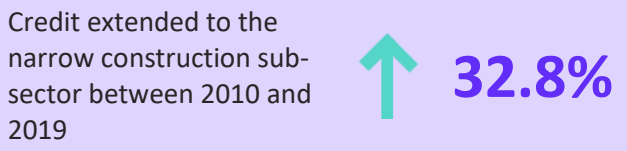
## Access to finance in the construction sector

Access to finance is not a major concern for Austrian SMEs. According to the Survey on the Access to Finance of Enterprises (SAFE) Report 2019, 5.0% of SMEs in Austria express that access to finance continues to be their most important concern. This is below the EU-28<sup>31</sup> average of 7.0%<sup>32</sup>. As per the report, bank loans are still the main source of financing for 47.0% of SMEs in Austria, slightly below the EU-28<sup>33</sup> average of 45.0%. Between April and September 2019, 20.0% Austrian SMEs applied for a bank loan, while 3.0% did not apply due to fear of rejection. Out of those who applied for a bank loan, 2.0% saw their applications rejected, which is well below the EU-28<sup>34</sup> average of 7.0%<sup>35</sup>.

**According to the EIB Investment Survey (EIBIS) 2019 report, Austrian firms in the infrastructure and construction sectors are more positive about their sector's external finance than manufacturing and service sector firms<sup>36</sup>.**

According to the report, approximately 33.0% of firms in the Austrian construction sector consider the availability of finance as a long-term impediment to investment. Also, the highest level of dissatisfaction among Austrian firms in the construction sector are with the collateral requirements (10.0%), followed by the maturity terms (3.0%) and the cost of finance (2.0%)<sup>37</sup>.

The **credit extended to the narrow construction sub-sector** increased from EUR 10.0 billion in 2010 to EUR 13.3 billion in 2019, representing a growth of 32.8% during the period. This reflects the improvements in the access to finance in the Austrian construction sector.



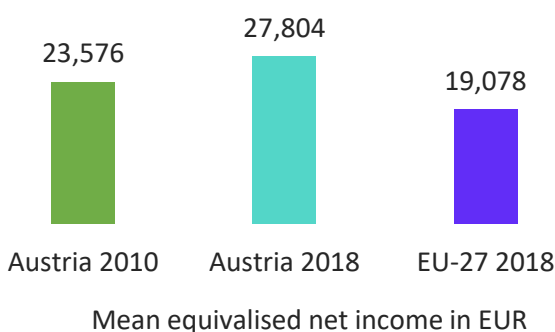
In March 2020, the European Commission approved Austrian guarantee schemes to support SMEs affected by the COVID-19 pandemic<sup>38</sup>.

The schemes will provide guarantees on working capital loans that will support SMEs to cover their short-term liabilities, despite the current loss of revenues due to the pandemic. The schemes complement the EUR 15.0 billion Austrian liquidity scheme that the Commission approved in April 2020.

### Access to housing

The **number of households** in Austria has been growing progressively, reaching 3.9 million in 2019. This represents a 9.0% increase in comparison to the 2010 levels (3.6 million). At the same time, the **share of the population living in intermediate urbanised areas** increased from 25.0% in 2010 to 30.5% in 2019. The ongoing rise in the number of households is one of the main drivers for the sustained demand for housing in the Austria – which tends to focus on urban areas.

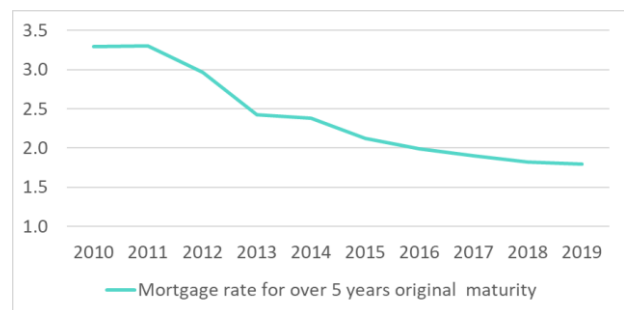
In parallel, the **mean equivalised net income** has gone up by 21.2% over the 2010-2019 period, reaching EUR 28,568. In 2018, it amounted to EUR 27,804, well above the EU-27 average of 19,078.



Moreover, housing loans to households picked up considerably, with the total **outstanding residential loans** growing by 41.2%, from EUR 80.0 billion in 2010 to EUR 112.9 billion in 2018<sup>39</sup>. This increase in residential loans is partly supported by the declining **interest rates** on mortgages (over 5 years original maturity), currently standing at its bottom low of 1.7% in 2019 as compared to 3.3% in 2010 (Figure 7).



Figure 7: Mortgage rates for loans for over 5 years original maturity (%) between 2010 and 2019



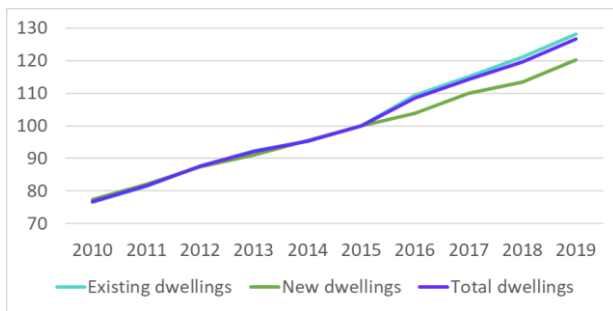
Source: ECB MFI Interest Rate Statistics, 2020.

In parallel, the **house price index** for total dwelling also increased by 26.6% over the 2015-2019 period, mostly driven by a 20.4% and 28.1% increase in new dwelling and existing dwelling over the same reference period, respectively (Figure 8).

The increase in high prices can be attributed to an accumulation of excess demand (i.e. higher housing demand than supply). In the third quarter of 2019, the residential property price index grew by 5.2% year-on-year (YoY). In Vienna, prices rose by 9.8% in the second quarter of 2019, before slowing down to 7.6% in the third quarter of 2019<sup>40</sup>.



Figure 8: House price index in Austria between 2010 and 2019 (2015=100)



Source: Eurostat, 2020.

From the supply side, the **number of new buildings approved for construction** throughout Austria stood at 27,609 in 2019, representing a 13.7% growth since the 2010 level (24,284). This was primarily driven by the rise in the number of new non-residential buildings (+32.8%) and new residential buildings (+8.1%) during the same reference period, totalling 7,300 and 20,309 respectively. In the first quarter of 2020, 6,221 new buildings were approved for construction, marking an annual decrease of 5.5%. The decline was primarily due to the outbreak of COVID-19<sup>41</sup>.

Number of new buildings construction approved between 2010 and 2019 ↑ **13.7%**

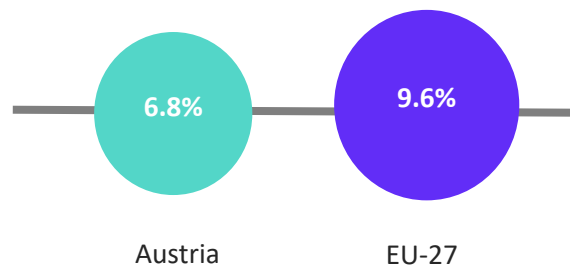
Similarly, the **number of dwelling completed increased** from 18,054 in 2010 to 23,129 in 2018<sup>42</sup>, exhibiting a 28.1% rise during the period. The growth was primarily driven by a significant rise in the number of dwelling completed in non-residential buildings (+109.2%) and residential dwelling (+15.3%)<sup>43</sup>.

Number of dwelling completed in non-residential buildings between 2010 and 2018 ↑ **109.2%**

At the same time, the home ownership rate for the population earning **above 60% of the median equivalised income**<sup>44</sup> in Austria decreased from 62.3% in 2010 to 59.3% in 2019. It stood at 59.5% in 2018, below the EU-27 average of 74.0%. Similarly, for the **population earning below 60% of the median equivalised income**, the home ownership rate slightly reduced from 29.2% in 2010 to 28.9% in 2019. This is also lower than the 2018 level of 30.8% (EU-27 average: 49.8%).

The **overcrowding rate**<sup>45</sup> stood at 13.5%<sup>46</sup> in 2018, below the EU-27 average of 17.1%. In 2019, Austria's overcrowding rate increased to 15.1%. The **severe housing deprivation rate**<sup>47</sup> stood at 3.2% in 2018, still below the EU-27 average of 4.3%. It further decreased to 3.0% in 2019. Lastly, the **housing cost overburden rate**<sup>48</sup> stood at 6.8% in 2018 as compared to the EU-27 average of 9.6%. The housing cost overburden rate increased to 7.0% in 2019 in Austria.

Housing cost overburden rate in 2018



## Infrastructure



According to the World Economic Forum Global Competitiveness Index 2019, Austria ranks 10<sup>th</sup> out of 141 countries in its overall infrastructure quality<sup>49</sup>.

As per the report, Austria is ranked 6<sup>th</sup> in the quality of road infrastructure and 10<sup>th</sup> in the efficiency of train services. It also performs well in the context of railroad density (15<sup>th</sup> worldwide). In airport connectivity and efficiency of air transport services, Austria is ranked 37<sup>th</sup> and 39<sup>th</sup> respectively. In road connectivity, it is ranked 49<sup>th</sup> worldwide<sup>50</sup>.

Currently, Austria invests heavily in its transport infrastructure network. It is ranked among the European frontrunners in investments in its railway infrastructure, which amounted to EUR 218 per capita in 2019. With the investments, it is strengthening its freight transport capabilities and its global importance as a central hub in Europe for intercontinental traffic flows, thanks in part to its geographical location. Currently, four out of the nine network corridors of the Trans-European Rail Network go through Austria, and three of them through Vienna<sup>51</sup>.



## 4

# Key issues and barriers in the construction sector

## Company failure

The number of **company births** in the narrow construction sub-sector decreased from 3,341 in 2010 to 2,868 in 2017, representing a 14.2% decrease during the period. Correspondingly, the number of **company deaths** in the narrow construction sub-sector decreased from 2,753 in 2010 to 2,456 in 2017 (-10.8%).

Company births in the narrow construction sub-sector between 2010 and 2017  **14.2%**

At the same time, the architectural and engineering activities sub-sector experienced a 30.0% drop in company births (from 1,248 in 2010 to 873 in 2017) and a 5.9% decline in company deaths (from 1,009 to 949) during the same period. Company births in the real estate activities sub-sector also fell by 27.1%, from 1,018 to 742 between 2010 and 2017, while company deaths grew by 15.3% from 763 to 880 in the same reference period.

Company births in the architectural and engineering activities sub-sector between 2010 and 2017  **30.0%**

Insolvency law in Austria focuses on rescuing firms in order to increase the chances of recovering debts. A legal requirement was put in place where a firm may apply for reorganisation plans, provided it can pay a minimum quota of 20.0% of the debt within two years. Nevertheless, it is not very common for unsecured creditors to recover after a reorganisation. In fact, very often, bankruptcy proceedings are launched from the beginning<sup>52</sup>.

In 2019, the total number of insolvencies stood at 5,018, marking a slight increase of 0.8% over the previous year and a 16.9% decline as compared to the 2012 level (6,041). In the first quarter of 2020, the number of insolvencies decreased by 9.0%. However, it is expected to rise significantly mainly due to liquidity problems, primarily led by the outbreak of the COVID-19 pandemic<sup>53</sup>.

Furthermore, the outbreak of COVID-19 and the subsequent shutdowns and restrictions are impacting the operations of Austrian construction companies. *Strabag*, one of Austria's largest construction companies, halted its regular construction operations in approximately 1,000 sites across Austria during the lockdown<sup>54</sup>. Furthermore, *Porr AG*, another leading construction company in Austria, posted losses in the second quarter of 2020 due to the COVID-19 crisis<sup>55</sup>. This may affect to some extent the construction value chains.

## Trade credit

According to the Payment Practices Barometer survey report, the proportion of total B2B sales made on credit in Austria significantly increased to 65.3% in 2019 (against 29.5% in the previous year), above the Western Europe average of 60.4%. The increased use of B2B trade credit by Austrian firms can be partly explained by the strong export growth. As per the survey, before making any trade credit decision, around 41.0% of the Austrian SMEs perform an assessment of the creditworthiness of prospective buyers. This is above the Western Europe average of 35.0%<sup>56</sup>.

According to the SAFE report 2019, trade credit does not constitute a relevant source of financing for 87.0% SMEs in Austria, as compared to the EU-28<sup>57</sup> average of 67.0%<sup>58</sup>.

As per the report, only 7.5% of Austrian SMEs have used trade credit as a source of financing in the past six months, below the EU-28 average of 16.7%. However, 5.1% of SMEs did not use it recently, below the EU-28<sup>59</sup> average of 14.0%<sup>60</sup>.

Furthermore, there is no indication of an increased need to use trade credit, with over 66.7% of SMEs reporting their credit requirement remains unchanged over the last six months. This is below the EU-28<sup>61</sup> average of 72.9%. 14.4% of Austrian SMEs consider that trade credit availability improved in 2019 (compared to EU-28<sup>62</sup> average of 15.2%), while 76.0% of respondents consider the availability to have remained unchanged (compared to EU-28<sup>63</sup> average of 70.7%) and most likely to stay the same in the near future<sup>64</sup>.

## Late payment



In 2019, 55.4% of firms in the Austrian construction sector made their payment by the due date, while 0.4% firms took more than 90 days, according to CRIBIS D&B Payment Study<sup>65</sup>.

As per the report, in 2019, 38.9% of the total Austrian firms paid their suppliers on time, as compared to the EU-28<sup>66</sup> average of 44.3%. In addition, the percentage of Austrian firms paying over 90 days late stood at 0.7% on average, well below the EU-28<sup>67</sup> average of 3.9%.

Furthermore, 36.0% of respondents in Austria ranked “Risk of a pan-European recession” as a main challenge of their customers paying on time and in full over the next 12 months, according to the European Payment Report 2020<sup>68</sup>. This is below the EU-28<sup>69</sup> average of 57.0%. At the same time, 45.0% respondents agreed that late payments have an adverse impact on their liquidity, at par with the EU-28<sup>70</sup> average of 45.0%. Lastly, 57.0% of Austrian SMEs prefer the introduction of new legislation to solve the problem of late payments, above the EU-28<sup>71</sup> average of 50.0%<sup>72</sup>.

The Late Payment directive which became effective on March 1, 2013, transposed the Recast Directive on Late Payment 2011/7/EU which states that payments in the EU must be made within 60 days. This has introduced an Eighth Chapter on Money Transfers (*Achter Abschnitt Zahlungsverzug*) into the Fourth Book of the Austrian Commercial Code<sup>73</sup>.

## Time and cost of obtaining building permits and licenses



According to the World Bank Doing Business 2020, Austria ranked 49<sup>th</sup> in “Dealing with construction permits” in 2019<sup>74</sup>.

As per the report, the number of administrative procedures required to build a warehouse<sup>75</sup> (11), is still lower than the OECD high-income average (12.1), but the time needed to complete the procedures stood at 222 days, considerably above the OECD high-income average (152.3) (Table 3). The cost of completing the formalities to build a warehouse represented 1.1% of the value of the warehouse, below the OECD high-income average of 1.5%. Obtaining the building permit takes 80 days and costs EUR 300<sup>76</sup>.

Table 3: Construction procedures timing and costs in Austria

Procedure	Time to complete	Associated costs
Obtain industrial operating permit	80 days	EUR 300
Obtain approval of heat and noise insulation	30 days	EUR 5,000
Obtain expert opinion on structural engineering	11 days	EUR 5,000
Obtain energy pass ( <i>Energieausweis</i> )	10 days	EUR 700
Receive on-site inspection prior to issuance of building permit	1 day	EUR 46
Obtain proof of land ownership	0.5 day	EUR 14
Hire a licensed engineer for construction supervision	1 day	EUR 4,800
Obtain building permit	80 days	EUR 300
Request and receive on-site inspection prior to commencement of construction	1 day	no charge
Request and obtain water and sewage connection	60 days	EUR 8,478
Notify the municipal authority about completion of construction works	1 day	EUR 22

Source: Doing Business 2020, Economy Profile Austria<sup>77</sup>

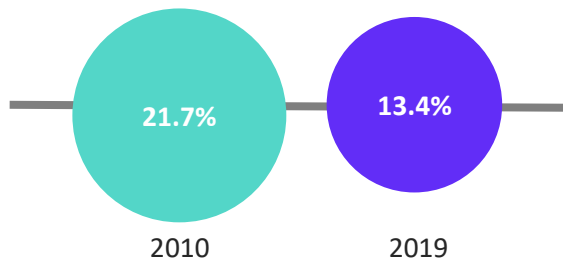
## Skills shortage

The **job vacancy rate** in the narrow construction sub-sector increased from 2.3% in 2010 to 5.7% in 2019. Conversely, the real estate activities sub-sector saw the job vacancy rate declining to 1.6% in 2019 as compared to 2.4% in 2010.

During 2010-2019, **adult participation in education and training** in the broad construction sector decreased. In the narrow construction sub-sector, the adult participation rate decreased from 12.1% in 2010 to 10.4% in 2019. Similarly, the adult participation rate in the real estate activities sub-sector deteriorated from 21.7% in 2010 to 13.4% in 2019.

In contrast, the **number of tertiary students** enrolled in engineering, manufacturing and construction significantly grew by 56.0% from 11,112 in 2010 to 17,330 in 2018<sup>78</sup>. 4,234 tertiary students were enrolled in architecture and building in 2018<sup>79</sup>, marking an increase of 52.6% as compared to the 2010 level of 2,775 students.

Adult participation in education and training in the real estate activities sub-sector



Furthermore, the Austrian government has recognised a shortage of construction-related professions. In 2019, the list of occupations experiencing a shortage specific to construction included construction joiners, building fitters, sheet metal fitters and construction fitters<sup>80</sup>.

Moreover, unemployment among low-skilled workers has doubled in Austria since 2008, to over 20.0%. Approximately 14.7% of adults have less than an upper secondary qualification, whereas the number of jobs that only require elementary skills is limited and expected to decrease. The Adult Education Initiative (*Initiative Erwachsenenbildung*) offers free access to education for socio-economically disadvantaged adults who do not possess basic skills or never graduated from lower secondary education<sup>81</sup>.

According to the Economic Chamber of Commerce in Austria (*Wirtschaftskammer Österreich*), Austria lacks high-skilled labour and faces difficulties in attracting young people to work in the construction sector, mostly due to a poor image of the sector<sup>82</sup>.

## Sector and sub-sector specific issues

### Material efficiency and waste management

In 2017<sup>83</sup>, Austria generated 153.4 tonnes of construction waste and demolition (CDW) per EUR million turnover, with non-hazardous and remaining hazardous CDW accounting for the largest share of total CDW<sup>84</sup>.

Austria is a leader among European countries in terms of the management of CDW. It recovers and reuses 92.0% of its CDW<sup>85</sup>. In 2016, Austria introduced the Recycled Construction Materials Regulation supporting the re-use of CDW components. The regulations introduced requirements for construction and demolition procedures that promote the re-use and recycling of C&D materials such as recovery-oriented demolition and obligatory selective dismantling of re-usable components prior to demolition. They also provide clarity to the end-of-waste criteria of CD materials<sup>86</sup>.

A law for Remediation of Contaminated Sites (*Altlastensanierungsgesetz*) in Austria states that a charge of EUR 9.2 will be levied on every ton of CDW not recovered in a proper and structurally engineered way<sup>87</sup>.

### Climate and energy

**Emissions of greenhouse gases** (carbon monoxide and dioxide, methane and nitrous oxides) in the narrow construction sub-sector stood at 2,186,396 tonnes in 2018<sup>88</sup>, representing a decline of 21.5% over the 2010 level (2,783,488 tonnes). Similarly, in the real estate sub-sector, the emissions of greenhouse gases reduced by 44.8%, from 57,530 tonnes in 2010 to 31,755 tonnes in 2018<sup>89</sup>.

Greenhouse gas emissions in the real estate activities sub-sector between 2010 and 2018

 **44.8%**

Greenhouse gas emissions in the narrow construction sub-sector between 2010 and 2018

 **21.5%**

Furthermore, Austria reported that it may miss its Europe 2020 greenhouse gas (GHG) emissions reduction targets due to an increase of emissions in the transport sector. In fact, the transport sector, which emitted approximately 23.9 million tons of carbon equivalent in 2018, expects an increase in emissions. Accordingly, it is expected that Austria will miss the target by more than 2.0% in 2020<sup>90</sup>.

## 5

# Innovation in the construction sector


## Innovation performance



According to the European Innovation Scoreboard 2020, Austria is positioned in the “Strong Innovators” performance group<sup>91</sup>.

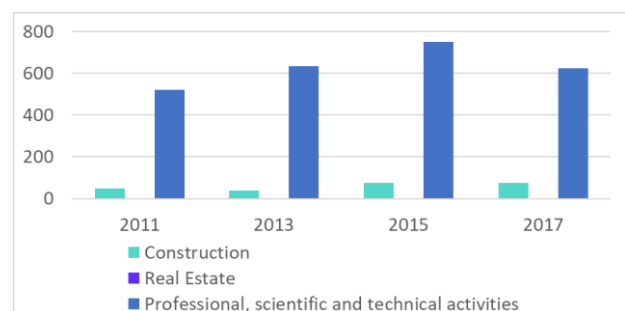
As per the report, Austria’s strongest innovation dimensions include linkages, innovators and attractive research systems. The country scores particularly well on public-private co-publications, innovative SMEs collaborating with others, international scientific co-publications, and foreign doctorate students. Its weakest innovation dimensions are employment impacts, an innovation-friendly environment and sales impacts. Austria also scores low on some innovation indicators including employment in fast-growing enterprises of innovative sectors, venture capital expenditures, exports of knowledge-intensive services, and non-R&D innovation expenditures<sup>92</sup>.

Austria’s strong performance in innovation is also reflected in the construction sector, where **Business enterprise R&D expenditure (BERD)** in the construction sector is above the 2011 level (Figure 9). In 2017<sup>93</sup>, BERD in the narrow construction sub-sector grew by 61.8% since 2011<sup>94</sup>, reaching EUR 76.8 million. Similarly, BERD in the real estate activities sub-sector increased to EUR 2.0 million in 2017<sup>95</sup>, registering a significant increase of 275.5% since the 2010 level. In the professional, scientific and technical activities sub-sector, BERD grew by 20.2% from EUR 519.8 million in 2010 to EUR 624.7 million in 2017.

BERD in the real estate activities sub-sector between 2011 and 2017  **61.8%**


Currently, Austria ranks second in the EU in the context of R&D intensity. The country has a national R&D expenditure target of 3.8% of GDP by 2020 and aims to become an innovation leader. However, it may not be able to achieve its target<sup>96</sup> as its R&D expenditure currently stands at 3.2% of GDP<sup>97</sup>.

Figure 9: Business enterprise R&D expenditure (BERD) per construction sub-sector in Austria (EUR m)



Source: Eurostat, 2020.

In parallel, the total **R&D personnel** (full-time equivalents – FTE)<sup>98</sup> increased in the narrow construction, real estate activities and professional, scientific and technical activities sub-sectors over the 2011-2017<sup>99</sup> period. In 2017, the number of FTE in the real estate activities sub-sector stood at 17, representing the highest increase (+88.9%) since 2011 among the sub-sectors. It was followed by the professional, scientific and technical activities sub-sector (+47.6%) which employed 4,743 FTE in 2017 as compared to 3,213 FTEs in 2011. Similarly, the number of FTE in the narrow construction sub-sector grew from 316 in 2011 to 401 in 2017 (+26.9%).

Total R&D personnel in the professional, scientific and technical activities sub-sector between 2011 and 2017  **47.6%**



The number of **construction-related patent applications** in Austria stood at 114 in 2019, as compared to 103 patents in 2010, marking a growth of 10.7% during the period. However, only two Austrian Construction and Material firms rank within the top 1,000 EU companies by R&D, according to the 2019 EU Industrial R&D Investment Scoreboard<sup>100</sup>.

### Eco-innovation and digitalisation

According to the EU Eco-Innovation Index 2018, Austria ranked 5<sup>th</sup> with a score of 119 on the Eco-Innovation Index, above the EU-28<sup>101</sup> average score of 100<sup>102</sup>.

Apart from **eco-innovation inputs** and **socio-economic outcomes**, Austria scored above the EU-28<sup>103</sup> average on three out of five indicators including eco-innovation activities, eco-innovation outputs and resource efficiency outcomes<sup>104</sup>.

As per the Digital Economy and Society Index (DESI) 2020, Austria is ranked 13<sup>th</sup>, with a 54.3 score, among the EU-28<sup>105</sup> countries (average score: 52.5). As compared to the previous year, Austria improved its score in connectivity, human capital, the use of internet services, integration of digital technology and digital public services<sup>106</sup>.

In terms of policies in the area of innovation, energy efficiency and the building sector, the Ministry of Transport, Innovation and Technology (BMVIT) launched the R&D programmes **Building of Tomorrow** and **City of Tomorrow**, as part of open4innovation. These programmes focus on developing new technologies and technological systems, as well as urban services for the city of the future. It builds on the results of previous research, notably the predecessors “House of the Future” and “Energy systems of the future”<sup>107</sup>. “**baubehoerde.at**” is a notable project which is ongoing under the City of Tomorrow programme. The objectives of this project are to evaluate the potential and limitations of digitalising building approval processes and to establish a Vision 2030 strategy for a digital building authority<sup>108</sup>.

Furthermore, the **Austrian Society for Construction Technology**, which brings together construction companies, developers, engineering

firms as well as academia, aims at developing state-of-the-art concrete and construction technology. Among other activities, it sets up working groups together with the **Austrian Research Promotion Agency (FFG)** to launch research projects around the themes of material technology, construction processes and building construction. The Economic Chamber of Commerce in Austria (Wirtschaftskammer Österreich) launched a new research company called the **Competence Centre for Construction Research (Kompetenzzentrum Bauforschung)**, in order to carry out research on the current trends and topics related to innovation and sustainability in the construction sector.

Austria implemented **BIM** (Building Information Modelling) standards in 2015, and over the years **ASI** (Austrian standards) have developed many standards for the execution of BIM. These standards include **ÖNORM A 6241-1 and A241-2**. Nevertheless, BIM is not being adopted in the country as expected. Few contractors are capable of working with BIM and not enough BIM coordinators are currently available<sup>109</sup>. Currently, 20.0% of SMEs use the BIM method in Austria. The percentage remains low mainly due to a lack of adequate training, resulting into a shortage of qualified specialist staff<sup>110</sup>. The use of BIM is not mandatory for public contracts in Austria.

The **Austrian Chapter of buildingSMART** represents the worldwide initiative for **Open BIM in Austria**. It operates in coordination with the **Chapters in Germany and Switzerland, as well as buildingSMART internationally**<sup>111</sup>.

The objective of buildingSMART Austria is to improve the quality and efficiency of construction projects in the real estate industry and in infrastructure projects<sup>112</sup>.

In order to tackle the problem of heterogeneity and inadequate quality in BIM training, buildingSMART Austria introduced the **BIM-Zert project** for the 2019-2020 period. Its objective is to develop a modular training model for different BIM application groups. Participants complete the course with a certification test at the end of the “Professional Certification Program” of buildingSMART International<sup>113</sup>.



## 6

# National and regional regulatory framework

## Policy schemes

In Austria, the Federal Republic is responsible for civil law regulation, including landlord and tenant law. It also addresses the level of rent within parts of the private market, condominium law and basic regulations on Limited Profit Housing Associations (LPHA). The nine *Länders* (provinces) of Austria are accountable for different forms of housing subsidy schemes, supervision of the LPHA, social welfare, regional planning and building codes. Their housing subsidy schemes include aid for individuals in terms of cash transfers (housing benefit; *Wohnbeihilfe*), subsidies for bricks and mortar (housebuilding subsidies; *Wohnbauförderung*) and subsidies for renovation and refurbishment<sup>114</sup>.

The social housing sector in Austria is formed by two segments of administratively allocated rental dwelling with market prices:

- first, the rental housing stock owned and managed by around 200 LPHAs (accounting for approximately 20.0% of the total housing stock)<sup>115</sup>
- second, the municipal rental housing stock (8.0% of all main residences, mainly concentrated in Vienna)<sup>116</sup>.

**The LPHAs build social housing dwelling (often with the financial support of housing subsidies) and subsequently rent under conditions defined under the Limited Profit Housing Act (*Wohnungsgemeinnützigkeitgesetz*)<sup>117</sup>.**

The social housing sector in Austria is larger than in other countries and is directed towards lower- and middle-income households. Especially in Vienna, where 62.0% of its citizens currently live in social housing. Almost one third of the 13,000 new apartments constructed in Vienna each year are

funded by the government and commissioned by housing associations<sup>118</sup>.

Firstly, the **developers' competition** process, initiated in the 1990s, allows architects, lawyers and other housing experts sit on the panels that judge bids to build new social housing complexes. This ensures developers compete with each other to offer high-quality, energy-efficient homes in the social housing context<sup>119</sup>. Secondly, a savings scheme named *Bausparvertrag*, addresses housing policy for private persons and families. It builds a society savings contract where households receive a state bonus worth 1.5% to 4% on the total amount to be saved (up to EUR 1,200 per year). This bonus is received within a pre-defined time period. The savings contract gives access to building society loans (*Bauspardarlehen*) at favourable conditions<sup>120</sup>. Typically, housing subsidies are targeted at low- and middle-income groups, while specialised subsidies at the regional level address barrier-free housing for the elderly or disabled. For instance, in Vienna, elderly residents can apply for a grant of up to EUR 4,200, to serve for renovations, facilitating the accessibility of residential buildings<sup>121</sup>. The favourable developments in the construction sector is also driven by the City of Vienna's housing construction programme, which aims to increase the annual number of new dwelling built by 30%<sup>122</sup>.

Next, Vienna's housing council administers the "**housing-ticket**" (*Wohn-ticket*), designed to provide additional financing for the social housing stock. To be eligible, individual applicants must earn less than EUR 47,210 annual net income, or EUR 79,600 for a family of three<sup>123</sup>. The programme offers special assistance for young residents, below the age of 30, who have been living with their parents for over 10 years, as well

as provisions for elderly people. The programme also includes a bonus for applicants who have been living in the city for over five years.

Despite the programmes in place, Austria does not have a national strategy to address homelessness and housing exclusion. This, to a large extent, is the responsibility of each of the nine federal provinces. In 2017, the total number of registered homeless people stood at 21,567 people, marking an increase of 21.0% since 2008. This included the 13,926 people who had registered as roofless, and 8,688 who were living in institutions for the homeless<sup>124</sup>.

**In December 2019, the European Investment Bank (EIB) and Raiffeisenlandesbank Niederösterreich-Wien AG (RLB NÖ-Wien), an Austria-based bank, announced the provision of EUR 300.0 million to finance affordable housing in Austria<sup>125</sup>.**

The proposed amount will be channelled through RLB NÖ-Wien into the construction of social and non-profit housing over the next four years. The funds are earmarked for use in the provinces where demand for affordable housing is particularly high<sup>126</sup>.

### Building regulations

The **building regulations** in Austria fall under the responsibility of the nine Austrian regional regions, the “Länder”. Starting from different energy requirements in the respective building codes, the “Länder” and the federal state agreed on the development of a harmonised implementation of the energy performance of buildings in 2006. This process is managed by the Austrian Institute of Construction Engineering (OIB) and by a working group of representatives of the nine “Länder”, who agreed on common methods and requirements, fixed in OIB guidelines which had to be implemented in each respective “Länder”<sup>127</sup>.

The building codes in Austria are set out by the governments of the nine Austrian regions. These codes are subsequently referred to the guidelines of the OIB<sup>128</sup>.

**The OIB guidelines serve as the basis for the harmonisation of building regulations and the construction engineering regulations in Austria. They are issued by the OIB and adopted by the federal regions into their Construction Law<sup>129</sup>.**

OIB guideline six, issued in 2007, consisted of all types of buildings, both residential and non-residential, including new and major renovations. The requirements included the heating and cooling demand (useful energy), and the final energy demand related to space heating and domestic hot water<sup>130</sup>.

In Austria, all new buildings and renovations of buildings must comply with *ÖNORMen* standards (Austrian standards), which are in line with European Directives and International Conventions such as the Framework Convention on Climate Change (Kyoto Protocol). After a building or renovation is complete, an energy certificate (*Energieausweis*) must be presented under the Act on the Presentation of Energy Certificates 2006 (*Energieausweis-vorlagegesetz*), which states how much CO<sub>2</sub>/m<sup>2</sup> will be emitted. In order to reduce CO<sub>2</sub> emissions and achieve the objectives of the Kyoto Protocol, the Austrian federal and the provincial governments offer subsidies for building and renovating buildings under certain circumstances which are laid out in the Act on Emission Certificates 2004 (amended in 2010) (*Emissionszertifikatgesetz*). This Act controls CO<sub>2</sub> reduction in the industrial sector and focuses on promoting the reduction of greenhouse gas emission in a cost-efficient and economically efficient way<sup>131</sup>.

### Insurance and liability related regulations

In Austria, professional indemnity insurance is mandatory by law for architects and consulting engineers. In general, parties from the construction sector are covered by insurance. Moreover, main available insurance products are third party liability insurance for construction firms, Contractors’ All Risk insurance, insurance of civil liability of the building owner, combined insurance packages for property developers and insurance of damage to building machinery and equipment<sup>132</sup>.

Construction contractors in Austria are subject to the **Austrian Trade Act** (section 94, No. 5 for national contractors and article 373a for foreign contractors of the EU). Under these regulated terms, liability insurance is mandatory and must cover personal and material damage. As per the new regulation (published in August 2013), it is also required to have insurance liability for financial

losses. The insured amount per insured event of damage must be a minimum of EUR 1.0 million, however not limited to that amount, depending on the company's revenue. The annual insured amount (aggregate limit) needs to be between EUR 3.0 million and EUR 15.0 million. The insurer must comply with mandatory regulations in order to be officially allowed to provide liability insurance in Austria<sup>133</sup>.

Furthermore, the conditions for non-binding insurance liability are published by the Austrian

Insurance Association. These policies cover the general conditions of insurance for the construction sector (**BW 2010**) and the general (**AHVB 2005**) and additional (**EHVB 2005**) conditions for liability insurance. These general conditions concerning the construction sector offer insurance coverage for the building contractor's supplies and actions, consisting of construction parts, materials and compounds limited to the sum insured at the insured's location<sup>134</sup>.

## 7

# Current status and national strategies to meet Construction 2020 objectives

## TO 1 – Investment conditions and volumes

Total investment by the broad construction sector<sup>135</sup>, has been quite stable from 2010 to 2018 (Figure 10). The investment by the narrow construction sub-sector increased by 1.2% over the 2010-2018<sup>136</sup> period, reaching EUR 1.3 billion. Similarly, investment by the real estate activities sub-sector increased by 1.7%, from EUR 19.5 billion in 2010 to 19.8 billion in 2018<sup>137</sup>.

In parallel, investment in intellectual property products by the narrow construction sub-sector increased by 75.8%, from EUR 183.7 million in 2010 to EUR 323.0 million in 2018<sup>138</sup>. Conversely, investment by the real estate activities sub-sector for this category decreased by 4.1%, reaching EUR 72.4 million in 2018<sup>139</sup> as compared to EUR 75.5 million in 2010.

Figure 10: Investments by the Austrian broad construction industry between 2010 and 2019 (EUR million)



Source: Eurostat, 2020.

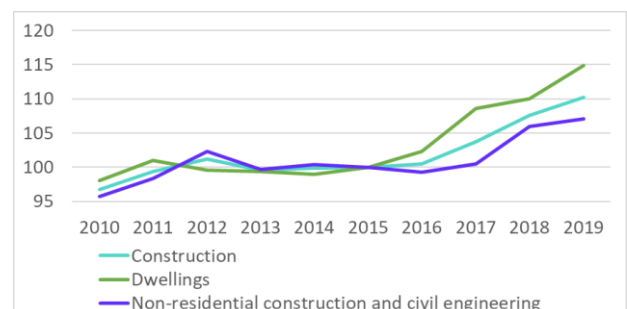
The investment index in the broad construction sector<sup>140</sup> has exhibited an upward trend over the 2010-2019 period with an overall increase of 10.2% (Figure 11). The growth was primarily driven by the investment in dwelling by the whole

economy and non-residential construction and civil engineering which experienced a growth of 14.9% and 7.1% respectively over the same reference period.

In absolute terms, investment in the broad construction sector totalled EUR 42.0 billion in 2018<sup>141</sup>, out of which EUR 17.3 billion were invested in dwelling and EUR 24.7 billion in non-residential buildings and civil engineering<sup>142</sup>.



Figure 11: Investment index in the Austrian construction sector between 2010 and 2019 (2010=100)



Source: AMECO, 2020.

Total inland infrastructure investment<sup>143</sup> as a share of GDP has remained fairly stable throughout the 2012-2018<sup>144</sup> period, standing at 0.6% of GDP (against 0.8% of GDP in 2010). Between 2010 and 2018<sup>145</sup>, investment in railway and inland waterways infrastructure decreased by 13.1% and 72.7%, reaching EUR 1.7 billion and EUR 3.0 billion respectively in 2018<sup>146</sup>. In contrast, investment in road infrastructure increased by 18.7% over the

same reference period, reaching EUR 463 million in 2018<sup>147</sup>.

Investment in inland waterways infrastructure between 2010 and 2018

↓ 72.7%

Similarly, **investment for rail and road infrastructure maintenance** increased over the 2010-2018 period<sup>148</sup>. Specifically, railway infrastructure maintenance grew by 62.8% over the same period, from EUR 344.0 million to EUR 560.0 million, whereas road maintenance marked an increase of 29.9%, growing from EUR 559.0 million in 2010 to EUR 726.0 million in 2018<sup>149</sup>.

Investment in railway infrastructure maintenance between 2010 and 2018

↑ 62.8%

The **Transport Plan for Austria** (*Gesamt-verkehrsplan für Österreich*) defines the country's policy and sets the objectives and priorities until 2025<sup>150</sup>. In particular, the **initiative Target Network 2025+** (*Zielnetz 2025+*) launched in 2011 is focused on the sustainable development of the railway network and constitutes a key element of overall transport strategy. The investments are aimed at providing further rail connections along the major axes between cities<sup>151</sup>. Target Network 2025+ plan was developed by ÖBB-Infrastruktur AG, in cooperation with the Federal Ministry of Transport, Innovation and Technology (BMVIT) and the Ministry of Finance together with external transport planners. The plan is gradually implemented via the network development plan of ÖBB-Infrastruktur AG and by individual route development plans<sup>152</sup>.

Austria's federal government, in 2016, approved the Austrian Federal Railways' infrastructure investment plan for 2017-2022, which seeks to invest EUR 15.2 billion into ongoing construction projects including the *Semmering* Base Tunnel, *Koralmb* Line and Brenner Base Tunnel, the rail network and the modernisation of stations over the next five years<sup>153</sup>.

**In June 2020, ÖBB Infrastruktur agreed to invest EUR 1.1 billion in railway projects across three Austrian regions, namely Styria, Tirol and Vorarlberg<sup>154</sup>.**

It will invest around EUR 460.0 million in the Styrian railway infrastructure, focusing on the maintenance of the network and major construction projects along the new southern route<sup>155</sup>.

Austria also benefits from EU support. In the current multiannual financial framework, the financial allocation from the EU cohesion policy funds for Austria, including national co-financing, stands at EUR 3.0 billion. This is equivalent to around 0.1% of the country's annual GDP. By the end of 2019, Austria allocated around EUR 2.6 billion (roughly 88.0% of the total) to specific projects and spent EUR 906.0 million on selected projects, representing a below average level of implementation<sup>156</sup>.

In November 2019, the EIB financed the "OEPNV GRAZ" project for rail and road infrastructure maintenance, with EUR 100.0 million. This project deals with the extension and enhancement of the tram infrastructure and improvement of the bus and tram fleet in Graz. The total cost of implementation is estimated to be around EUR 221.0 million<sup>157</sup>.

Furthermore, **household renovation spending** in Austria increased by 20.2% between 2010 and 2018<sup>158</sup>, from EUR 1.9 billion to EUR 2.2 billion. However, this is well below the EU-27 average of EUR 72.1 billion. Moreover, renovation spending as a share of disposable income has remained relatively stable in 2018<sup>159</sup> standing at 1.0%, just as it did in 2010. This is slightly above the EU-27 average of 0.9%. This could be partially explained with income growth and strong consumer confidence, favouring spending.

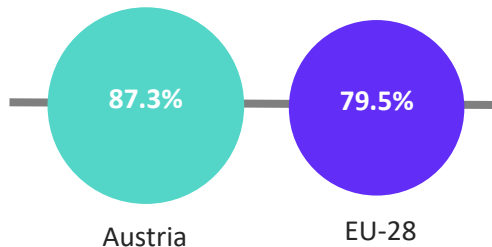
## TO 2 – Skills

In Austria, **vocational education and training (VET)** enjoys one of the highest rates of participation in the EU. In 2017<sup>160</sup>, participation in VET stood at 68.6%, as compared to the EU-28<sup>161</sup> average of 47.8%. Similarly, the **employment rate among recent VET graduates** remained high at 87.3% in 2018, well above the EU-28<sup>162</sup> average of 79.5%<sup>163</sup>. Moreover, the **share of early leavers from**



**education and training** marginally decreased from 7.4% in 2017 to 7.3% in 2018. This is below the EU-28 average of 10.6%<sup>164</sup>.

Employment rate of recent VET graduates, 2018



Furthermore, **adult participation in learning** (aged 25-64) stood at 15.1% in 2018, slightly below the 2017 level (15.8%) but above the EU-28<sup>165</sup> average of 11.1%<sup>166</sup>.

During 2019, the Federal Ministry for Digital and Economic Affairs introduced a review of apprenticeship programmes (*Lehrberufsscreening*) to develop updated and new apprenticeship training contents. It developed guidelines for the competence-oriented development of apprenticeships to inform all those accountable for the design, steering and implementation of competence-oriented job profiles, training and examination regulations<sup>167</sup>.

In the beginning of 2019, the Austrian Public Employment Service introduced the New Digital Skills initiative together with leading companies in five economic sectors including production, trade, tourism, construction and office/administration/IT. Its objective is to drive the adaptation of programmes and curricula in initial and continuing VET<sup>168</sup>.

**The PORR Group, a leading construction company in Austria, offers commercial trainee programmes (ufBAU Business) for university graduates to get a first hands-on experience in the construction sector<sup>169</sup>.**

### TO 3 – Resource efficiency / Sustainable construction

In Austria, the European Energy Efficiency Directive Act is implemented by the Austrian Energy Efficiency Act (*Energieeffizienzgesetz* - EEffG). Under this act, Austria is increasing its energy efficiency efforts aiming for a final energy

consumption of 1,050 Petajoules (PJ), and a cumulative energy savings of 310 PJ by 2020<sup>170</sup>.

Austria has taken several initiatives to improve energy efficiency across sectors, in particular for buildings, such as implementation of the Ecodesign Directive. This has improved the energy efficiency of household appliances<sup>171</sup>.

Furthermore, according to the Energy Efficiency Law energy suppliers must achieve savings of 0.7% of the previous year's consumption, 40.0% of which must come directly from households. Also, strict requirements for building regulations and thermal renovation of buildings have resulted in almost 50.0% more energy savings<sup>172</sup>.

These energy saving measures have contributed to a steady fall-off of energy intensity in the last decade. This has also resulted in a reduction in the overall energy consumption in 2018. Nevertheless, these measures are not enough to offset the increases in 2016-2017. Therefore, it is expected that Austria will not be able to meet its 2020 energy efficiency target<sup>173</sup>.

Furthermore, the Climate and Energy Funds provide financing for the installation of photovoltaic cells on residential buildings that contain at least two dwelling units. It is designed as a refund scheme to applicants, after the cells have been installed. In 2018, it provided a total of EUR 4.5 million in funding<sup>174</sup>.

The Energy Performance Certificate Law (*Energieausweisvorlagegesetz* - EAVG), adopted to implement the Directive on the Energy Performance of Buildings, stipulates that an **Energy Performance Certificate** (*Energieausweis*) must be provided during every building transaction (sale, lease, rental, etc.<sup>175</sup>). The certificates should contain information such as the building type, location, specific heating and cooling demand, primary energy demand, final energy demand, carbon dioxide emissions and energy efficiency classes (A ++ to G)<sup>176</sup>.

Several sustainable construction initiatives have been launched across Austria. These include the Austrian Society for a sustainable building economy (ÖGNI), the Austrian Programme on Technologies for Sustainable Development and Klimaaktiv<sup>177</sup>. The latter, Klimaaktiv, a climate protection initiative set up by the Austrian Ministry



of Agriculture, Forestry, Environment and Water Management, launched the programme *Bauen & Sanieren* (Building and Refurbishment). It aims to foster energy-efficient building and utilisation of renewable sources of energy. As part of the scheme, the Klimaaktiv building standard was developed to promote ecological construction by assessing energy performance; quality of planning and implementation; quality of building materials and construction; and core aspects of comfort and indoor air quality<sup>178</sup>.

**The Austrian Sustainable Building Council (ÖGNI) is a non-governmental organisation, founded in 2009, for establishing sustainability in the construction and real estate sectors. It focuses on the certification of sustainable buildings – Blue Buildings<sup>179</sup>.**

The objective of the ÖGNI is to demonstrate the added value of building certification to establish environmentally friendly and resource-saving buildings with high economic and social efficiency. It is also a cooperation partner of the DGNB (German Sustainable Building Council), whose certification system was adopted and adapted to Austria and has been continuously developed since then. It is the only Austrian council that is an “established member” of the World GBC (World Green Building Councils)<sup>180</sup>.

## TO 4 – Single Market



**According to the EU Single Market Scoreboard 2020, Austria performs well in terms of trade integration in the single market for goods and services<sup>181</sup>.**

As per the report, Austria’s transposition deficit stood at 0.7% in 2019, below the 1.0% threshold but still above the EU-28<sup>182</sup> average deficit of 0.6%. Its conformity deficit stood at 2.0% in 2019, above the previous year (1.1%) and the EU-28 average of 1.2%<sup>183</sup>. Due to limited use of the EU Pilot tool, Austria reported an increase in the number of infringement proceedings against it, reaching 35 pending cases in 2019. This is above the EU-28 average of 29 cases<sup>184</sup>.

In the context of Internal Market Information System, Austria performed very well in all the five indicators. Similarly, the country’s trade integration in the single market for goods and

services stood above the EU-28<sup>185</sup> average. Nevertheless, in terms of public procurement Austria’s performance was unsatisfactory in 2019<sup>186</sup>.

As a first step, Austria has reviewed its public procurement rules to address its low performance on key aspects of effective procurement. In 2018, the Federal Act on Public Procurement laid down new rules for e-procurement and the open data source. Nonetheless, the share of public contracts for works, goods and services which got published by the Austrian authorities and entities under EU procurement legislation was only 2.1% of GDP. This is almost half the EU-28 average<sup>187</sup> of 4.1%<sup>188</sup>.

Moreover, 2018 was marked by a noticeable investigation into price fixing in the Austrian construction sector, that resulted in 220 Austrian construction firms being under investigation<sup>189</sup>.

Austria has started to use public procurement in order to promote an ecological transition. Currently, Austrian public procurement stands at approximately EUR 40.0 billion a year. Moreover, the country has developed a toolbox for green public procurement. The government has also revised its action plan on sustainable public procurement to strengthen green public procurement<sup>190</sup>.

In terms of international equivalence of voluntary certification schemes, the SCC (Safety Certificate Contractors) and the VCA (*Veiligheid Gezondheid en Milieu Checklist Aannemers* - a certification for occupational safety) schemes are commonly recognised in Austria, Belgium and the Netherlands. Thanks to the requirements of simplification and mutual recognition in the Services Directive<sup>191</sup>, the acknowledgment of such schemes helps cross-border service providers.

## TO 5 – International competitiveness

**According to the Global Competitiveness Index 2019, Austria ranks 21<sup>st</sup> out of 141 economies<sup>192</sup>.**

As per the report, in terms of trade openness, Austria ranks seventh in trade tariffs out of 141 economies, 12<sup>th</sup> in border clearance efficiency and 24<sup>th</sup> in the prevalence of non-tariff barriers. It is ranked 113<sup>rd</sup> in complexity of tariffs<sup>193</sup>.

The **internalisation of construction products** in the Austrian construction sector has shown signs of growth for the past few years. **The export values of all construction-related products** increased from EUR 3.5 billion in 2010 to EUR 4.5 billion in 2019, marking an increase of 29.6%. Austria's share of exports of all construction-related products stood at 51.0% of the total production value in 2018, higher than the 2010 level of 43.9% and well above the EU-27 average of 11.4%. In 2019, the share slightly reduced to 49.6%.



Conversely, export value of architectural services experienced a decrease of 28.9% between 2010 and 2019, from EUR 10.4 million to EUR 7.4 million.



In the context of **inward FATS (Foreign affiliates statistics)**<sup>194</sup>, value added at factor cost in the narrow construction sub-sector decreased by 18.9%, while it increased by 70.4% in the real estate activities sub-sector between 2010 and 2017<sup>195</sup>. Similarly, the turnover in the narrow construction sub-sector declined by 11.6%, whereas it increased by 69.3% in the real estate activities sub-sector during the 2010-2017 period.

In terms of **outward FATS**<sup>196</sup>, turnover in the narrow construction sub-sector grew by 20.9%, while it declined by 36.3% in the real estate activities sub-sector between 2010 and 2017. In contrast, the number of people employed in the narrow construction and real estate activities

sub-sectors declined by 14.3% and 17.7% respectively during the same period.

According to the SBA Fact Sheet 2019, Austria performs above the EU average on internationalisation. In particular, the country scores well in terms of the involvement of its trade community; border agency co-operation, and SMEs with extra-EU exports of goods. On the other hand, the indicators reveal a need to simplify and improve customs procedures (as Austria ranks second lowest in the EU in that area)<sup>197</sup>.

During the 2018-2019 period, the Austrian government introduced two key measures. First, in December 2018, the Ministry for Digital and Economic Affairs adopted an internationalisation strategy, the foreign trade strategy (*Außenwirtschaftsstrategie*). It comprises of 63 measures as part of a roadmap to implement the EU's trade and investment agreement. It is also aimed at recruiting a skilled foreign workforce and at promoting Austria as a business location. It also supports start-ups and SMEs in their internationalisation efforts<sup>198</sup>.

The second initiative includes the expansion of the Global Incubator Network (GIN). GIN is a joint initiative by the *Forschungsförderungsgesellschaft* (FFG), and the Austrian Federal Promotional Bank (aws)<sup>199</sup>.

**GIN is a one-stop-shop for start-ups, investors and incubators. It connects the Austrian start-up ecosystem with international partners interested in Austrian and European markets**<sup>200</sup>.

It is focused on selected hotspots in Asia including Hong Kong, Israel, Japan, Mainland China, Singapore and South Korea<sup>201</sup>.

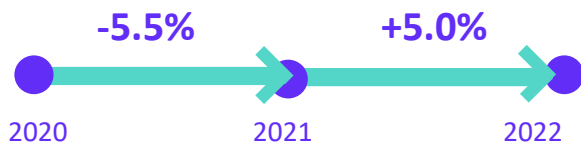
## 8

# Outlook

The Austrian economy is expected to decline in 2020 due to the COVID-19 pandemic that triggered the lockdown and the ensuing slump in economic activities. Nevertheless, the economy is expected to grow again in 2021.

Austria's GDP is projected to decline by 5.5% in 2020 and then increase by 5.0% in 2021, reaching EUR 371.8 billion in 2021.

Expected GDP growth between 2019-2021



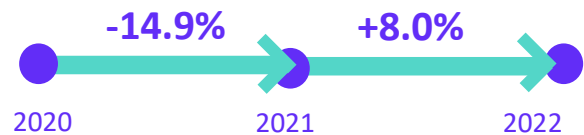
In parallel, the **volume index of production** in the broad construction sector is expected to decline by 9.1 ip annually in 2020, mainly due to a 13.5 ip and 1.3 ip decline in the construction of civil engineering and the construction of buildings in 2020, respectively. Conversely, the volume index of production in the broad construction sector is further expected to grow by 6.2 ip annually in 2021.

In turn, the **turnover** in the broad construction sector is forecasted to decline by 14.6% in 2020 and then increase by 8.0% in 2021, reaching a value of EUR 86.3 billion. Similarly, the **total value added** of the broad construction sector is expected to decrease by 13.8% in 2020 and then grow by 7.5% in 2021, reaching EUR 36.5 billion in 2021.

Following the same trend, the number of **persons employed** in the broad construction sector is also expected to decrease by 14.9% to 433,346 in 2020 and then increase by 8.0% to 468,156 in 2021. This decline is projected to come from the all the sub-sectors including the manufacturing (-17.7%), the narrow construction (-16.1%), the architectural and engineering activities (-11.2%),

and the real estate activities sub-sectors (-9.1%) in 2020.

Number of persons employed in the broad construction sector between 2020 and 2022



The main driver of the broad construction sector will continue to be the **housing market**. In December 2019, the European Investment Bank (EIB) and *Raiffeisenlandesbank Niederösterreich-Wien AG* provided EUR 300.0 million to finance affordable housing in Austria. Public investment in housing construction will hence keep playing a key role in mitigating house prices, and providing affordable housing to the population.

The **civil engineering** sector is expected to be driven by the government's focus on the development of road, port and railway infrastructure with the EU's support. The EUR 15.0 billion rail infrastructure investment plan of national rail operator Austrian Federal Railways (ÖBB), is expected to fuel growth rates in Austria's broad construction sector in the upcoming few years<sup>202</sup>.

In conclusion, the outlook for the Austrian construction sector is positive in the mid to long term, particularly due to the long-term infrastructure projects and investment in affordable housing. However, uncertainties persist in the sector due COVID-19-related measures such as lockdown and social distancing<sup>203</sup>.

# References

- 1 Please note that this 2019 data is a nowcast - please refer to the methodology notes for further details.
- 2 Please note that the share of each sub-sector in the value added of the broad construction sector should not be compared to the shares of the Gross Value Added in the GDP, since the GDP also includes taxes and excludes subsidies.
- 3 Please note that this 2019 data is a nowcast - please refer to the methodology notes for further details.
- 4 Data unavailable for subsequent years.
- 5 Oesterreichische Nationalbank- COVID-19 crisis, residential real estate market proves more robust in the first quarter of 2020 than commercial real estate market, June 2020. <https://www.oenb.at/en/Media/20200610.html>
- 6 Apparent labour productivity refers to the gross value added per person employed
- 7 Data unavailable for subsequent years.
- 8 Please note that this 2019 data is a nowcast - please refer to the methodology notes for further details.
- 9 Data unavailable for subsequent years.
- 10 The gross operating rate is the ratio of Gross Operating Surplus to Turnover, and is an indicator of profitability.
- 11 Data unavailable for subsequent years.
- 12 Please note that this 2019 data is a nowcast - please refer to the methodology notes for further details.
- 13 Data unavailable for subsequent years.
- 14 Data unavailable for subsequent years.
- 15 European Commission, Country Semester Report Austria 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 16 Ibidem.
- 17 Ibidem.
- 18 World Economic Forum, The Global Competitiveness Report 2019. [http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)
- 19 Ibidem
- 20 World Bank Group, Doing Business 2020, Economy Profile for Austria, <https://www.doingbusiness.org/content/dam/doingBusiness/country/a/austria/AUT.pdf>
- 21 SBA Fact Sheet 2019- Austria, <https://ec.europa.eu/docsroom/documents/38662/attachments/2/translations/en/renditions/native>
- 22 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes
- 23 Data unavailable for subsequent years.
- 24 Data unavailable for subsequent years.
- 25 Data unavailable for subsequent years.
- 26 According to Eurostat, construction services comprise Construction Abroad (code 250) and Construction in the Compiling Economy (code 251). They do not include architectural services, or engineering services.
- 27 Data unavailable for 2019.
- 28 Data unavailable for 2010 and 2011
- 29 Data unavailable for 2019.
- 30 Data unavailable for 2010 and 2011
- 31 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 32 SAFE Report 2019- Austria, <https://ec.europa.eu/docsroom/documents/38442>
- 33 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes
- 34 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes
- 35 Ibidem.
- 36 European Investment Bank- EIBIS 2019 – Austria overview, November 2019. [https://www.eib.org/attachments/efs/eibis\\_2019\\_austria\\_en.pdf](https://www.eib.org/attachments/efs/eibis_2019_austria_en.pdf)
- 37 Ibidem.
- 38 Eureporter- Commission approves Austrian guarantee schemes to support SMEs affected by #Coronavirus outbreak, April 2020. <https://www.eureporter.co/frontpage/2020/04/20/commission-approves-austrian-guarantee-schemes-to-support-smes-affected-by-coronavirus-outbreak/>
- 39 Data unavailable for 2019.
- 40 European Commission, Country Report Austria 2020, February 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 41 Statistik Austria, Building permit, Table- Apartments and new buildings approved from 2010 to 2019, [http://www.statistik.at/web\\_de/statistiken/menschen\\_und\\_gesellschaft/wohnen/wohnungs\\_und\\_gebaeudeerrichtung/baubewilligungen/index.html](http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/wohnen/wohnungs_und_gebaeudeerrichtung/baubewilligungen/index.html)
- 42 Data unavailable for 2019.
- 43 Statistik Austria, Completions, Table- Apartments and new buildings completed between 2005 and 2018,

- [http://www.statistik.at/web\\_de/statistiken/menschen\\_und\\_gesellschaft/wohnen/wohnungs\\_und\\_gebaeudeerrichtung/fertigstellungen/index.html](http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/wohnen/wohnungs_und_gebaeudeerrichtung/fertigstellungen/index.html)
- 44 Eurostat, Distribution of population by tenure status, type of household and income group – EU SILC Survey.  
[https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc\\_lvho02&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvho02&lang=en)
- 45 The overcrowding rate is defined as the percentage of the population living in an overcrowded household
- 46 Eurostat, Overcrowding rate. [http://ec.europa.eu/eurostat/product?code=ilc\\_lvho05a&language=en&mode=view](http://ec.europa.eu/eurostat/product?code=ilc_lvho05a&language=en&mode=view)
- 47 Eurostat, Severe housing deprivation rate is defined as the percentage of population living in the dwelling, which is considered as overcrowded, while also exhibiting at least one of the housing deprivation measures. Housing deprivation is a measure of poor amenities and is calculated by referring to those households with a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too dark.
- 48 The housing cost overburden rate is the percentage of the population living in households where the total housing costs represent more than 40 % of disposable income
- 49 World Economic Forum, The Global Competitiveness Report 2019.  
[http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)
- 50 Ibidem.
- 51 ABA Invest in Austria – Austria ranked second in railway investment, July 2019. <https://investinaustria.at/en/news/2019/07/investments-infrastructure.php#:~:text=Austria%20is%20well%20on%20track,rated%20second%20in%20the%20EU>
- 52 Euler Hermes Collection Profile- Austria,  
[https://www.eulerhermes.com/content/dam/onemarketing/ehndbx/eulerhermes\\_com/en\\_gl/erd/collection/Austria.pdf](https://www.eulerhermes.com/content/dam/onemarketing/ehndbx/eulerhermes_com/en_gl/erd/collection/Austria.pdf)
- 53 Oesterreichische Nationalbank- Financial Stability Report, July 2020. <https://www.oenb.at/en/Publications/Financial-Market/Financial-Stability-Report.html>
- 54 Coronavirus: Strabag closes all its Austrian construction sites, March 2020. <https://www.constructionglobal.com/construction-projects/coronavirus-strabag-closes-all-its-austrian-construction-sites>
- 55 Solid order backlog, results affected by COVID-19, August 2020. <https://porr-group.com/en/press/press-release/news/porr-half-year-report-2020/>
- 56 Artadius- Payment Practices Barometer, Austria: insolvencies expected to increase, October 2019.  
<https://group.atradius.com/publications/payment-practice-barometer-austria-2019.html>
- 57 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 58 SAFE Report 2019, <https://ec.europa.eu/docsroom/documents/38462>
- 59 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 60 Ibidem.
- 61 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 62 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 63 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 64 Ibidem.
- 65 CRIBIS Dun & Bradstreet- Payment Study 2020, [https://www.dnb.com/content/dam/english/business-trends/DNB\\_Payment\\_Study\\_2020.pdf](https://www.dnb.com/content/dam/english/business-trends/DNB_Payment_Study_2020.pdf)
- 66 Ibidem.
- 67 Ibidem.
- 68 Intrum: European Payment Report 2020, Special Edition COVID-19 White Paper  
[https://www.intrum.com/media/8279/epr-2020-special-edition-white-paper\\_final.pdf](https://www.intrum.com/media/8279/epr-2020-special-edition-white-paper_final.pdf)
- 69 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 70 Ibidem.
- 71 Ibidem.
- 72 Intrum: European Payment Report 2020, Special Edition COVID-19 White Paper  
[https://www.intrum.com/media/8279/epr-2020-special-edition-white-paper\\_final.pdf](https://www.intrum.com/media/8279/epr-2020-special-edition-white-paper_final.pdf)
- 73 Euler Hermes- Collection Profile Austria.  
[https://www.eulerhermes.com/content/dam/onemarketing/ehndbx/eulerhermes\\_com/en\\_gl/erd/collection/Austria.pdf](https://www.eulerhermes.com/content/dam/onemarketing/ehndbx/eulerhermes_com/en_gl/erd/collection/Austria.pdf)
- 74 World Bank Group, Doing Business 2020. <https://www.doingbusiness.org/content/dam/doingBusiness/country/a/austria/AUT.pdf>
- 75 The warehouse in this example is defined as a structure for general storage activities, with two stories, above ground and with total constructed area of approx. 1,300 square meters. The ground, on which the warehouse is built is owned by the company that will use it and valued at 50 times income per capita. There are architectural and technical plans prepared for the warehouse, which are also taken into account and counted as procedures if their preparation requires obtaining further documentation or getting prior approvals from external agencies. Finally, in this example the warehouse takes 30 weeks to construct, excl. all delays due to administrative and regulatory requirements.
- 76 World Bank Doing Business Report 2020, Economy Profile Austria,  
<https://www.doingbusiness.org/content/dam/doingBusiness/country/a/austria/AUT.pdf>
- 77 World Bank Doing Business Report 2020, Economy Profile Austria,  
<https://www.doingbusiness.org/content/dam/doingBusiness/country/a/austria/AUT.pdf>
- 78 Data unavailable for 2019.
- 79 Data unavailable for 2019.
- 80 Government of Austria, Shortage occupations list 2019,  
[https://www.migration.gv.at/fileadmin/user\\_upload/List\\_of\\_shortage\\_occupations\\_2019.pdf](https://www.migration.gv.at/fileadmin/user_upload/List_of_shortage_occupations_2019.pdf)
- 81 European Commission, Country Report Austria 2020, February 2020,  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>



## Country Fact Sheet Austria

- 82 Migration and Labour Integration in Austria, January 2019, [https://www.donau-uni.ac.at/dam/jcr:27600429-4a71-4101-9f6d-20cf671b6f88/biff1\\_2019\\_sopemi\\_report\\_labour\\_migration\\_austria\\_2017-18\\_final.pdf](https://www.donau-uni.ac.at/dam/jcr:27600429-4a71-4101-9f6d-20cf671b6f88/biff1_2019_sopemi_report_labour_migration_austria_2017-18_final.pdf)
- 83 Data unavailable for subsequent years.
- 84 Resource Efficient Use of Mixed Wastes, October 2017, [https://ec.europa.eu/environment/waste/studies/pdf/CDW\\_Final\\_Report.pdf](https://ec.europa.eu/environment/waste/studies/pdf/CDW_Final_Report.pdf)
- 85 Ibidem.
- 86 Social enterprises in Austria launch project to help re-use construction materials, <https://www.rreuse.org/social-enterprises-in-austria-launch-project-to-help-re-use-construction-materials/>
- 87 Ibidem.
- 88 Data unavailable for 2019.
- 89 Data unavailable for 2019.
- 90 European Commission- National Reform Programme 2020- Austria. [https://ec.europa.eu/info/sites/info/files/2020-european-semester-national-reform-programme-austria\\_en.pdf](https://ec.europa.eu/info/sites/info/files/2020-european-semester-national-reform-programme-austria_en.pdf)
- 91 European Commission, European innovation scoreboard 2020- The Netherlands, <https://ec.europa.eu/docsroom/documents/41885>
- 92 Ibidem.
- 93 Data unavailable for subsequent years.
- 94 Data unavailable for 2010.
- 95 Data unavailable for subsequent years.
- 96 European Commission, Country Report Austria 2020, February 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 97 European Commission, European innovation scoreboard 2020- The Netherlands, <https://ec.europa.eu/docsroom/documents/41885>
- 98 A full-time equivalent (FTE) is a unit to measure employed persons in a way that makes them comparable, although they may work a different number of hours per week. The unit is obtained by comparing an employee's average number of hours worked to the average number of hours of a full-time worker. A full-time person is therefore counted as one FTE, while a part-time worker gets a score in proportion to the hours worked.
- 99 Data unavailable for 2010.
- 100 The 2019 EU Industrial R&D Investment Scoreboard, [http://iri.jrc.ec.europa.eu/sites/default/files/contenttype/scoreboard/2019-12/SB2019\\_main%20stats\\_EU1000.xlsx](http://iri.jrc.ec.europa.eu/sites/default/files/contenttype/scoreboard/2019-12/SB2019_main%20stats_EU1000.xlsx)
- 101 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 102 European Commission, Eco-innovation in Austria, EIO Country Profile, 2018. [https://ec.europa.eu/environment/ecoap/indicators/index\\_en](https://ec.europa.eu/environment/ecoap/indicators/index_en)
- 103 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 104 European Commission, Eco-innovation in Austria, EIO Country Profile, 2018. [https://ec.europa.eu/environment/ecoap/indicators/index\\_en](https://ec.europa.eu/environment/ecoap/indicators/index_en)
- 105 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 106 European Commission- Digital Economy and Society Index (DESI) 2020: Austria, [https://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=66906](https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=66906)
- 107 Federal Ministry, Republic of Austria. <https://nachhaltigwirtschaften.at/en/sdz/>
- 108 Federal Ministry, Republic of Austria. <https://nachhaltigwirtschaften.at/en/sdz/projects/baubehoerde-at.php>
- 109 BIM adoption around the world: how good are we?, December 2018. <https://www.geospatialworld.net/article/bim-adoption-around-the-world-how-good-are-we/>
- 110 buildingSMART, <https://www.buildingsmart.co.at/bim-zert/>
- 111 Ibidem.
- 112 Ibidem.
- 113 Ibidem.
- 114 Institute for Real Estate Construction and Housing Ltd. Vienna / Austria, <http://iibw.at/index.php/en/housing-policy>
- 115 Housing Policy in Austria, May 2019. [http://www.ectp-ceu.eu/images/stories/Gen-assemblies/Madrid-May2019-conference/Housing%20Policy%20in%20Austria-Gerhard%20Vittinghoff%20-%20Madrid\\_may2019.pdf](http://www.ectp-ceu.eu/images/stories/Gen-assemblies/Madrid-May2019-conference/Housing%20Policy%20in%20Austria-Gerhard%20Vittinghoff%20-%20Madrid_may2019.pdf)
- 116 CEJSH, Privileged but challenged: the state of social housing in Austria in 2018, <http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.ddeee87a-698f-4f64-bc3f-00ca49426226>
- 117 CEJSH, Privileged but challenged: the state of social housing in Austria in 2018, <http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.ddeee87a-698f-4f64-bc3f-00ca49426226>
- 118 Vienna's Affordable Housing Paradise, February 2019. [https://www.huffingtonpost.in/entry/vienna-affordable-housing-paradise\\_n\\_5b4e0b12e4b0b15aba88c7b0?ri18n=true](https://www.huffingtonpost.in/entry/vienna-affordable-housing-paradise_n_5b4e0b12e4b0b15aba88c7b0?ri18n=true)
- 119 Ibidem.
- 120 Arbeiterkammer Wien, Bausparen. <https://wien.arbeiterkammer.at/beratung/konsumentenschutz/geld/sparen/Bausparen.html>
- 121 Wohnnet, 2018, Förderung für barrierefreien Umbau,
- 122 Bank Austria, Real Estate Report 2017, [https://www.bankaustria.at/files/RealEstate\\_AT\\_0917\\_e.pdf](https://www.bankaustria.at/files/RealEstate_AT_0917_e.pdf)
- 123 Vienna Residential Ticket- Income Limits, <https://wohnberatung-wien.at/footer/einkommenshoechstsgrenzen>
- 124 National strategies to fight homelessness and housing exclusion-Austria, <https://ec.europa.eu/social/BlobServlet?docId=21592&langId=en#:~:text=In%20Austria%2C%20there%20is%20no,of%20the%20nine%20federal%20provinces.>
- 125 European Investment Bank- Austria: EIB and RLB NÖ-Wien promote affordable housing, December 2019. <https://www.eib.org/en/press/all/2019-337-eib-and-rlb-no-wien-promote-affordable-housing>
- 126 Ibidem.



## Country Fact Sheet Austria

- 127 EPBD Implementation in Austria, <https://www.buildup.eu/sites/default/files/content/CA3-National-2012-Austria-ei.pdf>
- 128 Ibidem.
- 129 The OIB (Austrian Institute of Construction Engineering), <https://www.oib.or.at/en/homeen>
- 130 EPBD Implementation in Austria, <https://www.buildup.eu/sites/default/files/content/CA3-National-2012-Austria-ei.pdf>
- 131 Thomson Reuters Practical Law, Construction and Projects: Austria, 2011.  
[https://uk.practicallaw.thomsonreuters.com/7-505-8935?lrTS=20170505035239825&transitionType=Default&contextData=\(sc.Default\)&firstPage=true&bhcp=1#co\\_anchor\\_a545094](https://uk.practicallaw.thomsonreuters.com/7-505-8935?lrTS=20170505035239825&transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1#co_anchor_a545094)
- 132 ELIOS- Liability and insurance regimes in the construction sector: national schemes and guidelines to stimulate innovation and sustainability, <http://www.elios-ec.eu/sites/default/files/pdf/Eliospecialreporton27MemberStates.pdf>
- 133 Lexology- At a glance: construction contracts and insurance in Austria, June 2020.  
<https://www.lexology.com/library/detail.aspx?g=d4faf973-71cb-47bd-97f7-84e95c95f415>
- 134 Ibidem.
- 135 This includes total investment by the construction and real estate sub-sectors, defined as gross fixed capital formation, i.e. acquisitions minus disposal, of total fixed assets (e.g. machinery and equipment, vehicles, dwellings and other buildings).
- 136 Data unavailable for 2019.
- 137 Data unavailable for 2019.
- 138 Data unavailable for 2019.
- 139 Data unavailable for 2019.
- 140 This includes total investment (i.e. gross fixed capital formation) in dwellings and non-residential construction and civil engineering by investors in the general economy (e.g. industry, financial and non-financial services, households, agricultural sector, etc.).
- 141 Data unavailable for 2019.
- 142 The indicator gross fixed capital formation in non-residential and civil engineering refers to the Eurostat indicator «Other buildings and structures»
- 143 According to the OECD, inland infrastructure includes road, rail, inland waterways, maritime ports and airports and takes account of all sources of financing.
- 144 Data unavailable for 2019.
- 145 Data unavailable for 2019.
- 146 Data unavailable for 2019.
- 147 Data unavailable for 2019.
- 148 Data unavailable for 2019.
- 149 Data unavailable for 2019.
- 150 Federal Ministry for Transport, Innovation and Technology, Gesamtverkehrsplan für Österreich.  
[https://www.bmvit.gv.at/verkehr/gesamtverkehr/gvp/downloads/gvp\\_vorwort.pdf](https://www.bmvit.gv.at/verkehr/gesamtverkehr/gvp/downloads/gvp_vorwort.pdf)
- 151 OBB Group, Future Rail, Target Network 2025+, <https://infrastruktur.oebb.at/en/company/for-austria/future-rail-target-network>
- 152 Target Network 2025+: Austria's rail development master plan, June 2017. <https://www.globalrailwayreview.com/article/70544/target-network-2025-austria-rail-plan/>
- 153 International Railway Journal (IRJ), Austria plans €15bn rail infrastructure investment, October 2016.  
<http://www.railjournal.com/index.php/europe/austria-plans-E152bn-rail-infrastructure-investment.html>
- 154 Railway Pro- EUR 1 billion railway investment in three Austrian states, March 2020. <https://www.railwaypro.com/wp/eur-1-billion-railway-investment-in-three-austrian-states/>
- 155 Ibidem.
- 156 European Commission, Country Report Austria 2020, February 2020,  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 157 EIB, November 2019, <https://www.eib.org/en/press/all/2019-294-environmentally-friendly-transport-in-graz-eib-provides-eur-100-million>
- 158 Data unavailable for 2019.
- 159 Data unavailable for 2019.
- 160 Data unavailable for subsequent years.
- 161 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 162 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 163 European Commission, Education and Training Monitor 2019 Austria, [https://ec.europa.eu/education/sites/education/files/document-library-docs/et-monitor-report-2019-austria\\_en.pdf](https://ec.europa.eu/education/sites/education/files/document-library-docs/et-monitor-report-2019-austria_en.pdf)
- 164 European Commission, Country Report Austria 2020, February 2020,  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 165 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 166 European Commission, Country Report Austria 2020, February 2020,  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 167 Ibidem.
- 168 Ibidem.
- 169 PORR, aufBAU Business - Commercial trainee program for university graduates, <http://www.porr.at/index.php?id=4115&L=1>
- 170 European Commission, Country Report Austria 2020, February 2020,  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 171 Ibidem.

- 172 Ibidem.
- 173 Ibidem.
- 174 Wohnet, KLIEN Förderung für Photovoltaik. <https://www.wohnet.at/finanzieren/foerderungen/flimafonds-photovoltaik-foerderung-32719419>
- 175 Bundeskanzleramt Österreich, General information about the energy performance certificate. <https://www.help.gv.at/Portal.Node/hlpd/public/content/21/Seite.210400.html>
- 176 Bundeskanzleramt Österreich, Inhalt eines Energieausweises. <https://www.help.gv.at/Portal.Node/hlpd/public/content/21/Seite.210460.html>
- 177 AUSTRIA: Construction-related laws and regulations. [http://www.ecoenergy-bg.net/Success\\_Guide/part2/construction\\_laws.pdf](http://www.ecoenergy-bg.net/Success_Guide/part2/construction_laws.pdf)
- 178 Federal Ministry for Agriculture, Forestry, Environment and Water Management, Klimaaktiv – The Austrian Climate Protection Initiative. December 2015. [http://www.klimaaktiv.at/dms/klimaaktiv/publikationen/klimaaktiv/ka\\_english/ka\\_allgemein\\_englisch\\_boa.pdf](http://www.klimaaktiv.at/dms/klimaaktiv/publikationen/klimaaktiv/ka_english/ka_allgemein_englisch_boa.pdf)
- 179 World Green Building Council- Austrian Sustainable Building Council. <https://www.worldgbc.org/member-directory/austrian-sustainable-building-council>
- 180 World Green Building Council- Buildings & Energy Brochure. [https://worldgbc.org/sites/default/files/O%CC%88GNI\\_Brochure\\_Buildings%26Energy.pdf](https://worldgbc.org/sites/default/files/O%CC%88GNI_Brochure_Buildings%26Energy.pdf)
- 181 European Commission, EU Single Market Scoreboard 2020 – Austria. [https://ec.europa.eu/internal\\_market/scoreboard/performance\\_by\\_member\\_state/at/index\\_en.htm](https://ec.europa.eu/internal_market/scoreboard/performance_by_member_state/at/index_en.htm)
- 182 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 183 Ibidem.
- 184 Ibidem.
- 185 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 186 European Commission, EU Single Market Scoreboard 2020 – Austria. [https://ec.europa.eu/internal\\_market/scoreboard/performance\\_by\\_member\\_state/at/index\\_en.htm](https://ec.europa.eu/internal_market/scoreboard/performance_by_member_state/at/index_en.htm)
- 187 As the EU-27 average data was not available, the EU-28 average was used for comparative purposes.
- 188 European Commission, Country Report Austria 2020, February 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 189 Reuters, UPDATE-1 Austria widens investigation into price fixing in construction industry. <https://www.reuters.com/article/austria-construction-price-fixing/update-1-austria-widens-investigation-into-price-fixing-in-construction-industry-idUSL5N1TA2LF>
- 190 European Commission, Country Report Austria 2020, February 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0519&from=EN>
- 191 European Commission, Simplification and mutual recognition in the construction sector under the Services Directive. November 2015. <http://bookshop.europa.eu/en/simplification-and-mutual-recognition-in-the-construction-sector-under-the-servicesdirectivepBET0116073/?pgid=lq1Ekni0.1ISR00OK4MycO9B0000ImInipsk;sid=egc3ESImSpk3EHSUXQyptkADN2QpY4DIBlc=?CatalogCatalogID=9cQKABstREYAAAEjKJEY4e5L>
- 192 World Economic Forum, The Global Competitiveness Report 2019. [http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)
- 193 Ibidem.
- 194 Inward FATS describe the overall activity of foreign affiliates resident in the compiling economy. A foreign affiliate within the terms of inward FATS is an enterprise resident in the compiling country over which an institutional unit not resident in the compiling country has control.
- 195 Data unavailable for subsequent years.
- 196 Outward FATS explains the activity of foreign affiliates abroad controlled by the compiling country.
- 197 European Commission (2019). 2019 SBA Fact Sheet – Austria. <https://ec.europa.eu/docsroom/documents/38364/attachments/2/translations/en/renditions/native>
- 198 Ibidem.
- 199 Ibidem.
- 200 Global Incubator Network Austria, <https://www.gin-austria.com/>
- 201 Ibidem.
- 202 Fitch Solutions, Austria Infrastructure Report, Q3 2019 , <https://store.fitchsolutions.com/infrastructure>
- 203 EY- COVID-19 impacts on the Austrian Real Estate Market 2020. [https://assets.ey.com/content/dam/ey-sites/ey-com/de\\_at/topics/covid-19/covid19-impacts-real-estate-market-austria-final.pdf?download](https://assets.ey.com/content/dam/ey-sites/ey-com/de_at/topics/covid-19/covid19-impacts-real-estate-market-austria-final.pdf?download)