European Construction Sector Observatory

Country profile **Ireland**

December 2020

In a nutshell

In 2019, Ireland's GDP amounted to EUR 336.5 billion, exhibiting a 5.5% growth over the previous year. The growth was mainly driven by a robust domestic demand and investment in construction[1].

Reflecting this macro-economic trend, the **number of enterprises** in the Irish broad construction sector considerably increased by 100.2% between 2010 and 2019, totalling 147,932. This growth was mainly driven by the increase in the number of enterprises in the narrow construction (+115.8%), the real estate activities (+70.0%), the manufacturing (+59.8%) and the architectural and engineering activities (+50.5%) sub-sectors over the same reference period.

Number of enterprises in the narrow construction sub-sector between 2010 and 2019 ↑ **115.8%**

In parallel, the **volume index of production** in the broad construction sector recorded an increase of 59.5% during 2015-2019, mainly driven by a 65.8% increase in the construction of buildings and a 30.7% growth in the construction of civil engineering, over the same period.

Volume index of production in the construction of buildings between 2015 and 2019 ↑ **65.8%**

Similarly, **turnover** in the broad construction sector grew by 36.1% between 2010 and 2017, reaching EUR 36.9 billion. It further increased to EUR 77.5 billion in 2019, marking a 186.1% acceleration since 2010. This overall increase was mainly driven by the turnover growth in the narrow construction (+241.4%), the manufacturing (+180.2%), the architectural and engineering activities (+92.3%), and the real estate activities (+21.0%) sub-sectors over the 2010-2019 period.

Turnover in the narrow construction sub-sector between 2010 and 2019 ↑ **241.4%**

Moreover, the **gross operating rate** of the broad construction sector, which is used to assess the profitability of the sector, stood at 14.2% in 2017, as compared to the 2010 level of -12.0%. This is below the EU-27 average of 16.6%. Among the sub-sectors, the real estate activities sub-sector remained the most profitable (27.8%) in 2017, followed by the manufacturing (15.9%), the narrow construction (13.0%), and the architectural and engineering activities (10.5%) sub-sectors respectively.

In terms of employment, there were 378,599 **persons employed** in the Irish broad construction sector in 2019, registering a 142.5% increase over the 2010 level (156,119 persons). This was mainly driven by the growth registered in the number of persons employed in the narrow construction (+169.4%), the real estate activities (+94.0%), the manufacturing (+87.3%) and the architectural and engineering activities (+83.1%) sub-sectors, over the 2010-2019 period.

Number of persons employed in the narrow construction sub-sector between 2010 and 2019 ↑ **169.4%**

The Irish construction sector suffers from a **shortage of skilled labour**, requiring an additional 40,000 to 50,000 new construction workers until

2027. This will be a key challenge to address, to ensure the growth of the construction sector. To address this issue, the government has launched several initiatives including the **National Skills Strategy 2025** and **Action Plan for Jobs,** which aims at improving and expanding workers' skills, including digital skills.

Housing is still a pressing issue in Ireland, given increasing homelessness due to shortages of social housing. The government has taken a range of measures to support housing supply, including the construction of social housing.

As part of Project Ireland 2040, EUR 7.5 billion has been allocated for the 2022-2027 period in the National Development Programme (NDP).

The NDP notably aims at investing EUR 11.6 billion over the 2018-2027 period to facilitate the delivery of 112,000 additional social housing homes.

The government has also launched the Rebuilding Ireland Action Plan, aiming to deliver 47,000 new social homes by the end of 2021. This would amount to an average of 25,000 new dwellings per year. Moreover, the 2020 budget announced the extension of the Help-to-Buy (HTB) scheme to 2021. This scheme offers the first-time buyers (FTBs) a refund of 5.0% of the property value under certain conditions. Hence, the prospect of the housing market remains positive.

In addition to the housing market, the civil engineering market is expected to drive part of the development in the Irish construction sector. More specifically, the government is expected to support the development of **public infrastructure** such as roads, schools, rail, hospitals, housing and other vital societal construction. A total investment of EUR 116.0 billion has been planned for public infrastructure and capital works, under the Ireland NDP 2018-2027, as part of the Project Ireland 2040. Furthermore, as part of the Strategic Investment Priorities over the period 2018-2027, a total of EUR 6.6 billion is planned to be invested to build national routes until 2027.

The Irish construction sector was the only one in the European Union to shut down completely during second quarter (Q2) of 2020 amid the COVID-19 pandemic. The sector is expected to face some challenges including finance raising, skills shortages and project delays due to strict measures like social distancing and lockdown[2]. According to recent reports, projects worth EUR 17.9 billion have been halted in Ireland due to the shutdown[3].

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Key figures

Construction market

The **number of enterprises** in the broad construction sector in Ireland totalled 147,932 in 2019[4] (Figure 1), representing a substantial increment of 100.2% over the 2010 level (73,881). Enterprises in the narrow construction sub-sector represented 76.7% of the total, followed by the real estate activities (13.1%), the architectural and engineering activities (7.9%) and the manufacturing (2.3%) sub-sectors respectively. Over the period 2010-2019, the narrow construction sub-sector experienced the highest increase (+115.8%), followed by the real estate activities (+70.0%), the manufacturing (+59.8%) and the architectural and engineering activities (+50.5%) sub-sectors.

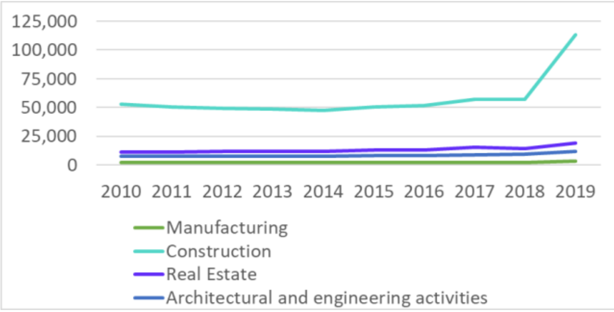
According to the figures released by the Central Statistics Office (CSO) Ireland in July 2020, the construction sector accounts for one-fifth of all enterprises in Ireland. This is the largest share in comparison to EU Member States economies[5].

Number of enterprises in the narrow construction sub-sector between 2010 and 2019 ↑ **115.8%**

The volume index of production in the broad construction sector has been growing since 2015, increasing by 59.5% over the 2015-2019 period. The growth was mainly driven by the increase recorded in the volume index of production for the construction of buildings (+65.8%) and the construction of civil engineering (+30.7%), over the same reference period (Figure 2).

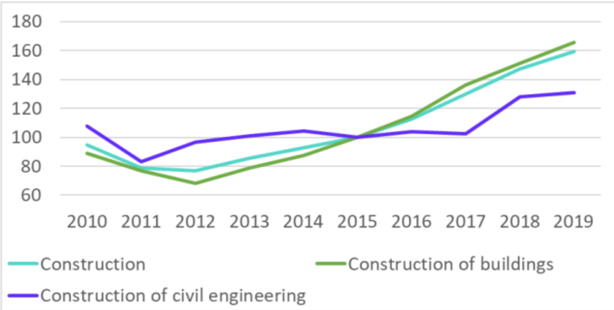
Volume index of production in the construction of buildings between 2015 and 2019 ↑ **65.8%**

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



Source: Eurostat, 2020.

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

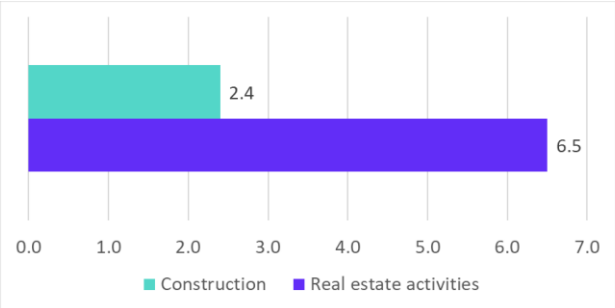


Source: Eurostat, 2020.

The **total added value at factor cost[6]** of the broad construction sector amounted to EUR 29.6 billion in 2019[7], with the narrow construction sub-sector accounting for the largest share (79.6%, i.e. EUR 23.6 billion). It is followed by the manufacturing (7.4%, i.e. EUR 2.2 billion), the architectural and engineering activities (6.6%, i.e. EUR 2.0 billion) and the real estate activities (6.4%, i.e. EUR 1.9 billion) sub-sectors.

The **share of gross value added (GVA) of the broad construction sector** as a percentage of GDP[8] stood at 9.0% in 2017[9], below the EU-27 average of 16.4%. In 2019[10], the share of GVA of the narrow construction and the real estate activities[11] sub-sectors as a percentage of GDP stood at 2.4% and 6.5% respectively (Figure 3).

Figure 3: Gross value added as a share of GDP in the Irish broad construction sub-sectors in 2019 (%)



Source: Eurostat, 2020

Ireland is statistically divided into three regions (at NUTS 2 level) including Northern and Western, Southern, and Eastern and Midland. Between 2010 and 2017[12], the GVA of the Eastern and Midland region from the narrow construction sub-sector experienced the highest increase of 300.1%, followed by the Northern and Western (+235.2%) and the Southern (+156.1%) regions. With regards to the real estate activities sub-sector, the GVA for the Eastern and Midland, Southern, and Northern and Western regions experienced increases of 80.0%, 59.2% and 35.7% respectively, during the same reference period. The Eastern and Midland region accounted for the highest share of GVA in both the real estate activities and narrow construction sub-sectors, being 56.9% (EUR 9.5 billion) and 49.2% (EUR 3.7 billion), respectively, in 2017[13].

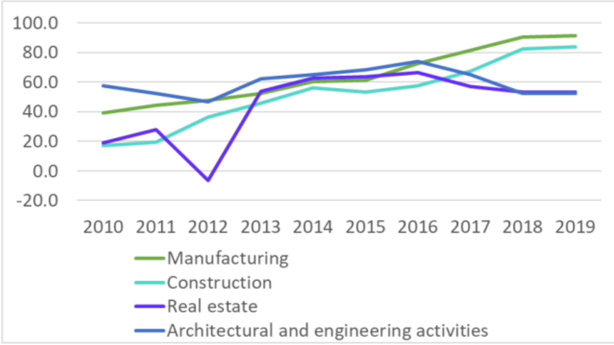
Productivity

Apparent labour productivity[14] in the broad construction sector increased from EUR 24,479 in 2010 to EUR 66,691 in 2017[15], marking a significant increase of 172.4%.

With regards to the sub-sectors, labour productivity in the narrow construction sub-sector increased by 383.6% during 2010-2019[16], the highest growth among all the sub-sectors, growing from EUR 17,300 to EUR 83,665. This was followed by a 182.6% growth in the real estate activities sub-sector (from EUR 18,800 to EUR 53,121) over the same period. Productivity in the manufacturing sub-sector also witnessed an increase of 134.5%, going from EUR 38,997 to EUR 91,460 between 2010 and 2019. On the contrary, productivity in the architectural and engineering activities sub-sector declined by 9.1% from EUR 57,600 to EUR 52,339 over the same reference period.

Labour productivity in the narrow construction sub-sector during 2010-2019 **383.6%**

Figure 4: Labour productivity in the broad construction sector in Ireland between 2010 and 2019 (EUR k)



Source: Eurostat, 2020.

Turnover and profitability

In 2017, the **turnover** of the broad construction sector in Ireland amounted to EUR 36.9 billion, which is a 36.1% increase compared to 2010 (EUR 27.1 billion). It further increased to EUR 77.5 billion in 2019[17], representing a significant increase of 186.1% compared to the 2010 level. In 2019, more than three quarters (i.e. 78.1%) of the total turnover originated from the narrow construction sub-sector. This was followed by the architectural and engineering activities (9.0%), the manufacturing (7.0%) and the real estate activities (6.0%) sub-sectors respectively. Notably, over the period 2010-2019, the narrow construction sub-sector registered the highest growth in turnover (+241.4%), reaching EUR 60.5 billion in 2019. The second highest growth of 180.2% was experienced by the manufacturing sub-sector, reaching EUR 5.4 billion. It was followed by the architectural and engineering activities (+92.3%) and the real estate activities (21.0%) sub-sectors during the same reference period, reaching EUR 6.9 billion and EUR 4.6 billion in 2019, respectively.

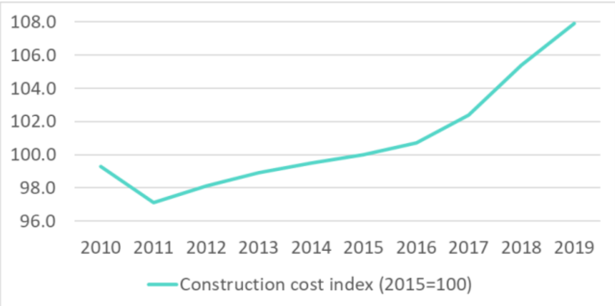
Turnover in the narrow construction sub-sector between 2010 and 2019 **241.4%**

The **gross operating surplus** of the broad construction sector, which was negative in 2010 turned positive in 2013 and ultimately amounted to EUR 5.2 billion in 2017[18].

The **gross operating rate** of the broad construction sector[19], which gives an indication of the sector's profitability, stood at 14.2% in 2017[20], demonstrating the significant recovery of the sector since the 2010 level of -12.0%. This is below the EU-27 average of 16.6%. The real estate activities were the most profitable (27.8%) sub-sector in 2017, followed by the manufacturing (15.9%), the narrow construction (13.0%) and the architectural and engineering activities (10.5%) sub-sectors.

In parallel, **construction costs** also witnessed a steady increase, with the construction cost index rising by 7.9% between 2015 and 2019 (Figure 5).

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



Source: Eurostat, 2020.

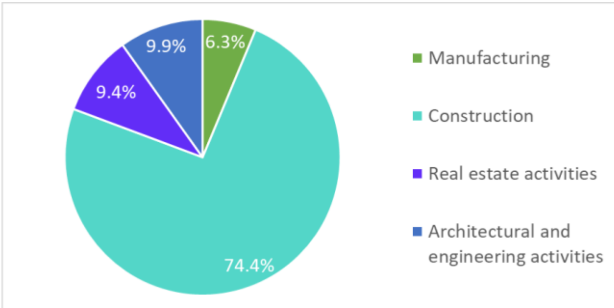
Employment

In 2019[21], there were 378,599 **persons employed** in the Irish broad construction sector, a significant increase of 142.5% compared to the 2010 level (156,119 persons). The narrow construction sub-sector employed 74.4% (i.e. 281,631 persons) of the total workforce in the broad construction sector in 2019, followed by the architectural and engineering activities (9.9%, i.e. 37,396 persons), the real estate activities (9.4%, i.e. 35,741 persons) and lastly the manufacturing (6.3%, i.e. 23,831 persons) sub-sectors (Figure 6). Further, the narrow construction sub-sector experienced the highest growth in the number of persons employed during 2010-2019, being 169.4%. This was followed by the real estate activities (+94.0%), the manufacturing (+87.3%) and finally the architectural and engineering activities (+83.1%) sub-sectors, over the same reference period.

Number of persons employed in the narrow construction sub-sector between 2010 and 2019 ↑ **169.4%**

Regarding **employment by specific occupations**, the number of professionals in the narrow construction sub-sector experienced the largest increase (+340.7%) between 2010 and 2019. This was followed by clerical support workers (+68.4%). However, in the manufacturing sub-sector, crafts and related trades workers witnessed the highest growth with an increment of 54.7%, while the demand for professionals rose by 34.0% over the same period. On the contrary, the same sub-sector witnessed a decline in the demand for managers (-28.4%) and elementary occupations (-26.0%) between 2010 and 2019.

Figure 6: Percentage of persons employed per construction sub-sectors in Ireland in 2019



Source: Eurostat, 2020.

In addition, the **number of self-employed workers** in the narrow construction sub-sector accounted for 15.5% of the total self-employed persons in the general economy in 2019. This is considerably above the EU-27 average of 11.9% and the 2010 level (12.8%). Further, self-employed workers in the real estate activities sub-sector accounted for 0.8% of the total self-employed persons in the general economy in 2018[22]. This is on par with the 2010 level (0.8%) and slightly below the EU-27 average of 1.3%.

Full-time employment in the narrow construction, the manufacturing and the real estate activities sub-sectors increased by 60.3%, 23.2% and 8.2% respectively between 2010 and 2019. In contrast, **part-time employment** in the manufacturing and the narrow construction sub-sectors registered declines of 31.2% and 22.3% respectively during the same reference period.

2

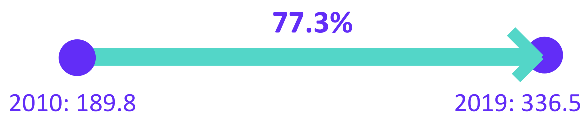
Macroeconomic indicators

Economic development

In 2019, the GDP stood at EUR 336.5 billion, exhibiting a significant increment of 77.3% compared to 2010 level, with an annual growth rate of 5.5% in 2019.

Private consumption and investment in construction were the main drivers of economic growth in Ireland in 2019. However, UK's withdrawal from the EU, which served as the main trading partner for Ireland and acted as a land bridge to the continent, has certainly made the economic outlook clouded for Ireland with heightened uncertainty[23]. The potential GDP in 2019 was EUR 329.5 billion, resulting in a positive **output gap** of 2.1%. Further, the **inflation rate** in Ireland stood at 0.9% in 2019 having been fluctuating since 2010. This was 0.2 percentage points (pps) above the 2018 level of 0.7%.

Irish GDP over 2010-2019 (EUR billion)

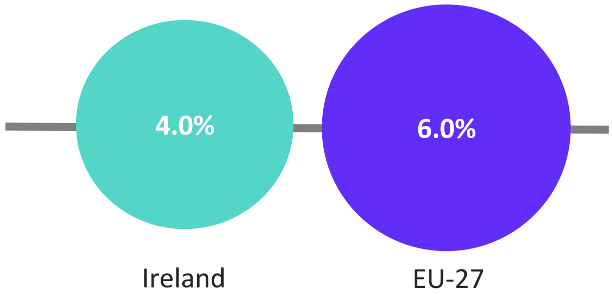


Demography and employment

In 2019, the average unemployment rate (between 25-64 years) in Ireland stood at 4.0%, below the EU-27 average of 6.0% and 8.5 pps below the 2010 levels.

Unemployment decreased continuously since 2012 when it had reached the peak of 13.5%. Further, youth unemployment (below age of 25) reduced to 12.5% in 2019, marking a continuously decreasing trend since 2012 (30.8%), and below the EU-27 average of 15.1%.

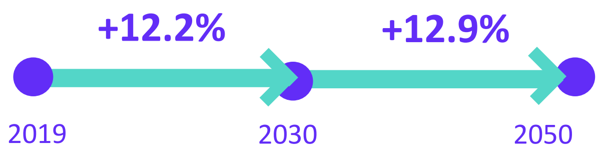
Unemployment rate in Ireland and the EU-27 in 2019



In terms of demographics, the **total population** in Ireland amounted to 4.9 million people in 2019, which is 8.2% higher than the 2010 level. This is expected to increase further by 12.2% between 2019 and 2030 and 12.9% between 2030 and 2050. In 2019, the **working age population** made up 65.4% of the total population in Ireland, slightly above the EU-27 average of 64.6%. By 2050, the share of the working age population will have decreased to 58.8%, while people aged 65 or above will make up 24.7% of the overall population.

This shift in terms of population may imply an increasing need for adequate care buildings and infrastructures. This in turn may generate more opportunities for the broad construction sector.

Projected population evolution in Ireland



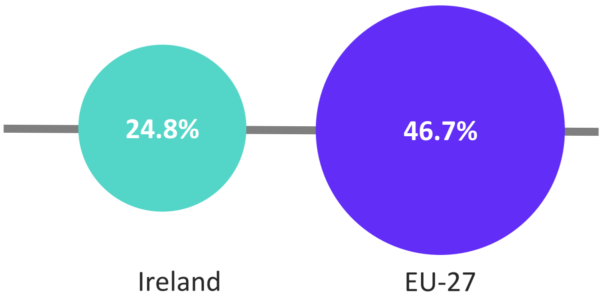
While **net migration** has been negative since 2010, it turned positive in 2014 for the first time in a decade, reflecting in part the improved economic situation in the country and income convergence. However, in 2019, the net migration stood at 30,937 representing a 29.4% decline compared to 43,835 in 2018. Migration and labour mobility to

Ireland has also helped fill labour and skill shortages.

Public finance

In 2019, **general government expenditure** in Ireland accounted for 24.8% of GDP, only half of the EU-27 average, situated at 46.7%. In the same year, **general government deficit** accounted for -0.4% of GDP, while the EU-27 average stood at -0.6%. Further, general **government gross debt** amounted to 58.8% of GDP, considerably below the EU-27 average of 77.8%.

General government expenditure relative to GDP

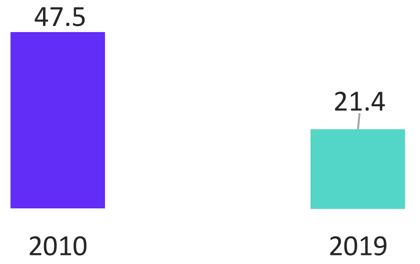


Entrepreneurship and access to finance

In terms of development of financial system, Ireland ranked 42nd out of 141 economies (down from 37th in 2018), according to the 2019 Global Competitiveness Report[24].

The country ranked 45th in terms of venture capital availability. Also, it ranked lower in terms of domestic credit to private sector and financing of SMEs, where the country ranked 74th in terms of both these indicators[25].

The crisis had a severe impact on credit availability for Irish companies. Indeed, **loans to non-financial corporations** in the general economy witnessed a continuous decline since 2010 (EUR 101.1 billion), falling by 60.4% and reaching EUR 40.1 billion in 2019. In addition, the situation for Irish SMEs has worsened significantly, with outstanding credit extended to them dropping by 55.0% between 2010 and 2019, from EUR 47.5 billion to EUR 21.4 billion.



Loans to non-financial corporations in Ireland (in billion EUR)

In terms of access to finance, around 7.7% of Irish businesses felt that the willingness of banks to provide loans had deteriorated. The high cost of borrowing and onerous collateral demands by banks have worsened the situation[26].

Ireland ranked 23rd out of 190 in 2019, in terms of starting a business as per the World Bank 2020 Doing Business Report. The country performed especially well on parameters such as 'Paying Taxes', 'Protecting Minority Investors' and 'Resolving Insolvency'[27].

Ireland's performance stands well above the EU-28[28] average when it comes to entrepreneurship, which is reflected in its 3rd place ranking, in the EU-28 for this Small Business Act for Europe (SBA) area[29]. In fact, the country enjoys the highest score in the entire EU region on four out of 12 entrepreneurship indicators; share of high growth enterprises (16.3% versus 10.7% in EU-28); high job creation expectation rate (43.7 versus the EU-28 average of 21.5); high status given to successful entrepreneurs (83.9% versus EU-28 average of 69.2%); and media attention given to entrepreneurship (73.4% versus EU-28 average of 56.9%)[30].

The Irish government's key priority has been to help SMEs mitigate exposure to potential Brexit risks. Key among them has been the "**Brexit Loan Scheme**" launched by the Strategic Banking Corporation of Ireland (SBCI) in 2018. This scheme provides loans ranging from EUR 25,000 to EUR 1.5 million at a nominal interest rate of 4.0%, or even lower to SMEs and small mid-cap firms. The **'Seed and Venture Capital Scheme'** (2019-2024) was also introduced for start-ups to provide EUR 175.0 million in government funding available to them as risk capital[31].

The Seed and Venture Capital Scheme now has an additional funding of EUR 10.0 million available to invest in portfolio of companies hit hardest by the pandemic[32].

Additionally, in terms of other measures, the country's early stage tech investor National Digital Research Centre (NDRC) launched an **accelerator programme for tech start-ups**. NDRC teamed up with Enterprise Ireland for this programme, which aims to prepare budding entrepreneurs to meet demands of both investors and the market. This is part of Enterprise Ireland's overall strategy to increase the number of quality start-ups in Ireland with a potential to employ more than ten people and achieving EUR 1.0 million in export sales within three years of inception. Yet another step in this direction includes the introduction of the **'Competitive Start Fund'**, which provides critical early-stage funding to start-ups and entrepreneurs to test the feasibility of their products and services in the marketplace. A maximum of EUR 50,000 in equity funding can be received by successful applicants[33].

3

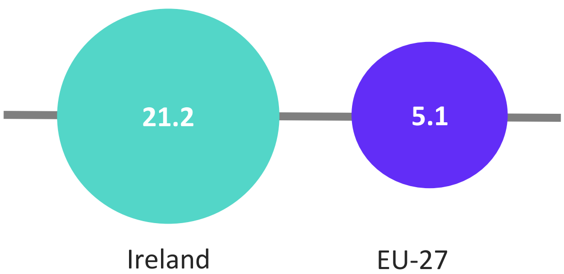
Key economic drivers of the construction sector

Business confidence

Though business confidence in Ireland has shown signs of improvement since 2010, when compared to the 2018 level, all three indicators (mentioned below) have shown a declining trend.

This is partly attributable to the withdrawal of UK from the EU and negative business sentiments[34]. After dropping to -23.8 in 2010, the **consumer confidence** indicator has been improving gradually, entering positive territory in 2015 (5.1) and again falling to -2.6 in 2019 (+8.9 in 2018). However, this is still better when compared to the EU-27 average of -6.2 in 2019. The **construction confidence** indicator, which reached a bottom low of -36.1 in 2010, improved to 31.9 in 2018 and finally settled at 21.2 in 2019. This again is well above the EU-27 average of 5.1 in 2019. Lastly, the **industry confidence** indicator in 2019 almost ended up on par with the 2010 level (11.8 in 2019 vs 11.3 in 2010) after reaching 21.4 in 2018, while the EU-27 average stood at -4.8 in 2019.

Construction confidence indicator (2019)



The **investment ratio**, which stood at 16.5% in 2010, started recovering, reaching its peak of 40.4% in 2019 – reflecting the past positive trends in terms of confidence indicators. However, the impact of Brexit is still to be seen in the coming years. The **investment per worker** in the Irish broad construction sector grew by 20.9% from EUR 60,775 in 2010 to EUR 73,505 in 2017[35].

In terms of sub-sectors, investment per worker in the real estate activities sub-sector registered the highest increment of 327.3% between 2010 and 2017[36], rising from EUR 2,200 to EUR 9,400. This was followed by a 214.3% rise in the narrow construction sub-sector which grew to EUR 4,400 in 2017[37] from EUR 1,400 in 2010. Over the same period, investment per worker in the architectural and engineering activities sub-sector increased from EUR 2,600 to EUR 3,100, marking an increase of 19.2% overtime.

Investment per worker in the real estate activities sub-sector between 2010 and 2017 ↑ **327.3%**

Domestic sales

The ranking of the five **most domestically sold construction products** in Ireland has experienced some changes in recent years. The top five most domestically sold construction products, together, accounted for 57.9% of all Irish domestic construction product sales in 2019. 'Ready-mixed concrete' and 'Doors, windows and their frames', which belonged to the top five list, witnessed sales growth of 95.3% and 102.9% respectively over the period 2010 and 2019. The product group 'Barrels and coopers' products of wood' saw the largest increase in sales value, rising by 340.0% between 2010 and 2019. It grew from EUR 8.1 million in 2010 to EUR 35.5 million in 2019. Notably, this product group has a sales share of only 1.6% and does not belong to the top five most domestically sold construction products in Ireland. The second highest growth in sales value was observed by ‘Prefabricated buildings of metal’ rising by 117.6% with a share of 5.8% in the total sales. Table 1 presents the top five most domestically sold construction products, both in Ireland and the EU-27.

Table 1: Five most domestically sold construction products in Ireland and in the EU-27 in 2019

	Ireland			EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Ready-mixed concrete (group 236310)	381.2	16.9	Other structures (group 251123)
2	Tiles, flagstones, bricks and similar articles, etc. (group 236111)	284.5	12.6	Doors, windows, etc. (group 251210)
3	Portland cement, aluminous cement, etc. (group 235112)	238.0	10.6	Ready-mixed concrete (group 236310)
4	Other structures and parts of structures, etc. (group 251123)	202.1	9.0	Prefabricated buildings of metal (group 251110)
5	Doors, windows and their frames (group 251210)	199.7	8.9	Prefabricated structural components (group 236112)

Source: PRODCOM, 2020.

Export of construction-related products and services

The ranking of the **most exported products** also experienced fluctuations in recent years. The top five most exported products together accounted for 72.5% of the total construction exports in 2019. Product groups belonging to the top five list, such as ‘Prefabricated structural components for buildings etc.’, ‘Portland cement, aluminous cement etc.’, ‘Doors, windows and their frames etc.’ experienced significant growth in their export value, rising by 538.9%, 123.5% and 105.3% respectively between 2010 and 2019. However, the highest increase of 2591.4% was recorded by ‘Tiles, flagstones, bricks and similar articles’ over the same period, with an export share of just 2.1% in total construction related exports in 2019. This was followed by a 1673.6% rise in the export of ‘Articles of cement, concrete or artificial stones’ having a share of merely 1.1% in 2019.

The top five most exported construction products from Ireland and the EU-27 are summarised in Table 2.

Table 2: Five most exported construction products in Ireland and EU-27 in 2019

	Ireland			EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Portland cement, aluminous cement, etc. (group 235112)	176.0	24.0	Ceramic tiles and flags (group 233110)
2	Fibreboard of wood or other ligneous materials (group 162115)	162.0	22.1	Other structures and parts of structures (group 251123)
3	Prefabricated structural components for building, etc. (group 236112)	82.1	11.2	Fibreboard of wood or other ligneous materials (group 162115)
4	Oriented strand board (OSB) (group 162113)	69.2	9.4	Doors, windows and their frames (group 251210)
5	Doors, windows and their frames (group 251210)	41.9	5.7	Marble, travertine, etc. (group 237011)

Source: PRODCOM, 2020.

In terms of the **cross-border provision of construction services**[38], Ireland **exported** EUR 76.0 million worldwide in 2018[39], with all of it going to the EU-28[40] countries. This represents a 40.7% increase compared to the 2012[41] level (EUR 54.0 million exported worldwide). In parallel, the country **imported** construction services worth EUR 300.0 million in 2018, all of it coming from the EU-28 countries. Ireland, therefore recorded a **trade deficit** of EUR 224.0 million in 2018. This represents a substantial increase of 286.2% as compared to a trade deficit of EUR 58.0 million in 2012[42].

Access to finance in the construction sector

As per the Survey on the Access to Finance of Enterprises (SAFE) 2019 report[43], **access to finance** remains the most important concern for 8.0% of Irish SMEs, above the EU-28[44] average of 7.0%.

The EIB Investment Survey for 2019 shows that 8.0% of firms in the construction sector are dissatisfied with the cost and collateral requirements of finance and 7.0% with the amount of financing[45].

The survey also suggests that the share of financially constrained firms stood at 10.0% in the construction sector and 12.0% in the infrastructure sector[46].

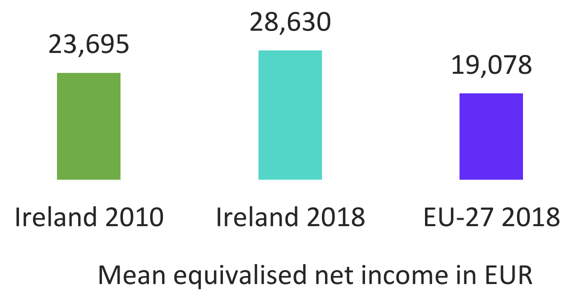
Access to finance in the Irish construction sector is increasingly difficult, with the credit extended to the Irish construction firms declining significantly. This trend continued in 2019, with total **outstanding credit extended** to the narrow construction sub-sector decreasing by 78.6% since 2010, from EUR 3.5 billion to EUR 742.0 million in 2019. In particular, outstanding credit extended for the construction of buildings fell by 86.5% over the 2010-2019 period, from EUR 1.6 billion to EUR 220.0 million. Likewise, outstanding credit to companies for civil engineering activities fell by 88.2% over the same period, from EUR 748.0 million to EUR 88.0 million. Outstanding credit extended for other construction activities decreased by 60.0%, from EUR 1.1 billion to EUR 434.0 million during 2010-2019.

Total outstanding credit to the narrow construction sub-sector between 2010 and 2019 **78.6%**

The EIB is expected to lend support of more than **EUR 1.0 billion** to Irish firms impacted by COVID-19 and Brexit. It is working closely with the Irish authorities to implement the National Recovery Plan. This follows a record EUR 1.1 billion of support in 2019, used to back social housing, clean transport, innovation and SME investment across the country[47]. The establishment of the Strategic Banking Corporation of Ireland (SBCI) by the Irish Ministry of Finance is another important step in this direction. Being a strategic SME funding organisation, its objective is to make access to finance for SMEs more flexible with a lower cost of borrowing.

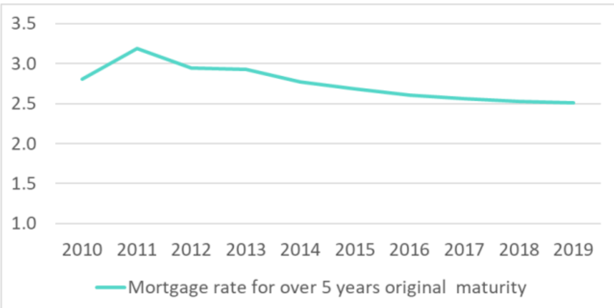
Access to housing

The **number of households** in Ireland continued to increase steadily, reaching 1.9 million in 2019 from 1.7 million in 2010, thus marking an increment of 11.4% overtime. While in 2010, the share of population living in densely-populated area stood at 33.1%, it rose to 35.9% in 2018[48]. However, the share of population living in intermediate urbanised areas declined to 23.5% from 27.7% over the same period. Meanwhile, the **mean equivalised net income** experienced a 19.5% increase between 2010 and 2018, reaching to EUR 28,630 from EUR 23,965. This is above the EU-27 average of 19,078.



Additionally, total **outstanding residential loans to households** declined considerably by 19.2%, falling to EUR 83.3 billion in 2018[49] from EUR 103.0 billion in 2010. Furthermore, the **interest rate on mortgages** (for loans over five years of original maturity) declined slightly, reaching 2.5% in 2019, compared to 2.8% in 2010 (Figure 7).

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

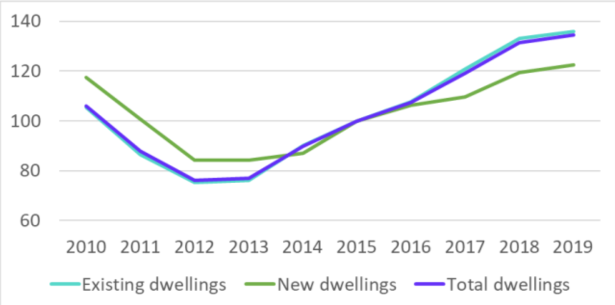


Source: Eurostat, 2020.

Since 2015, the **house price index** of existing dwellings has been increasing gradually, rising by 35.9% between 2015 and 2019. However, the increase was very steady between 2018 and 2019 with a 2.8 index points (ip) rise overtime. House price inflation also fell sharply from 13.3% in April 2018 to 1.4% in November 2019, giving some relief to house buyers with regards to affordability[50]. In parallel, house prices for new dwellings increased by 22.5% between 2015 and 2019, with an increment of 3.0 ip between 2018 and 2019 (Figure 8).

House price index of existing dwellings between 2015 and 2019 ↑ **35.9%**

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



Source: Eurostat, 2020.

In addition, housing rental inflation still remains high with rent for new or renewed tenancies increasing by 6.6% in Dublin and 9.2% outside Dublin in the third quarter of 2019. When compared with the same period last year, this represents a change of -3.0 pps and +2.3 pps, respectively. This is reflected in the fact that the stock of houses available for rent increased by 10.0% in Dublin, while it fell elsewhere in Ireland[51].

In parallel, the number of **building permits** for residential dwellings has increased significantly by 208.6% between 2015 and 2019. With regards to one-dwelling building permits, there was a 91.9% increase over the same period. Notably, the biggest increment was seen in building permits for two and more dwelling buildings, rising by 636.6% between 2015 and 2019.

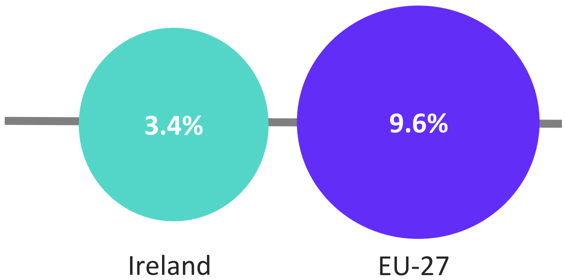
Number of building permits for residential dwellings between 2015 and 2019 ↑ **208.6%**

The housing shortage is exerting an upward pressure on prices. Combined with the relatively slower increase in disposable incomes and increasing housing and rental accommodation prices, housing affordability issues are rising – sometimes leading to homelessness[52]. In fact, the number of homeless people has surged, with homeless adults counting at 6,696 and homeless children standing at 3,752 in November 2019.

At the same time, the home ownership rate for the population earning **above 60% of the median equivalised income**[53] in Ireland decreased from 76.6% in 2010 to 74.2% in 2018[54]. This is slightly above the EU-27 average of 74.0%. Similarly, for the **population earning below 60% of the median equivalised income**, the home ownership rate reduced from 55.1% in 2010 to 48.3% in 2018[55], standing below the EU-27 average of 49.8%.

The **housing cost overburden rate**[56] stood at 3.4% in 2018[57], well below the EU-27 average of 9.6%[58]. The **overcrowding rate**[59] was at 2.7% in 2018, one of the lowest in the EU, and considerably below the EU-27 average of 17.1%[60]. Similarly, the **severe housing deprivation rate**[61] reached 0.8% in 2018[62], below the EU-27 average of 4.3%[63].

Housing cost overburden rate in 2018



Infrastructure

According to the World Economic Forum Global Competitiveness Report 2019[64], Ireland ranks 40th out of 141 countries in terms of infrastructure.

In particular, it performs well with respect to efficiency of air transport services and seaport services, ranking 26th and 30th out of 141 economies, respectively. It ranked 31st in terms of road connectivity and 32nd in railroad density[65]. In the context of airport connectivity, it stood at 33rd position and 41st in efficiency of train services. However, the country lags behind a bit, ranking

54th, where quality of road infrastructure is concerned. As per the EU Transport Scoreboard 2018, Ireland is close to completing the TEN-T Core Network for both road (91.0%) and conventional rail networks (92.0%)[66].

The Cohesion Policy for Ireland has allocated EU funding of EUR 125.0 million for sustainable growth and sustainable transport. Ireland is also a beneficiary of EU programmes such as the **Connecting Europe Facility**, which allocated EUR 107.0 million of EU funding to specific projects on strategic transport networks[67]. As part of government's commitment to climate friendly travel, Ireland's public transport is also likely to see a record **EUR 1.0 billion of** investment for the first time in 2020. The funding will support major infrastructural projects, such as the Metrolink and BusConnects[68].

4

Key issues and barriers in the construction sector

Company failure

Over the period 2010-2017[69], **business demography** in the broad construction sector has witnessed some improvement, with the number of company births rising and company deaths falling simultaneously. In fact, **company births** in the narrow construction sub-sector grew by 194.0% from 1,818 in 2010 to 5,345 in 2017[70]. Similarly, company births in the real estate activities and architectural and engineering activities sub-sectors increased by 148.6% and 96.7% respectively, reaching 1,708 and 659 in 2017[71].

Company births in the narrow construction sub-sector grew between 2010 and 2017	↑ **194.0%**

Conversely, the number of **company deaths** in the narrow construction sub-sector declined by 77.3%, from 4,508 in 2010 to 1,025 in 2017. Similarly, company deaths in the real estate activities and the architectural and engineering activities sub-sectors decreased by 72.6% and 58.6% respectively, reaching 247 and 260 in 2017.

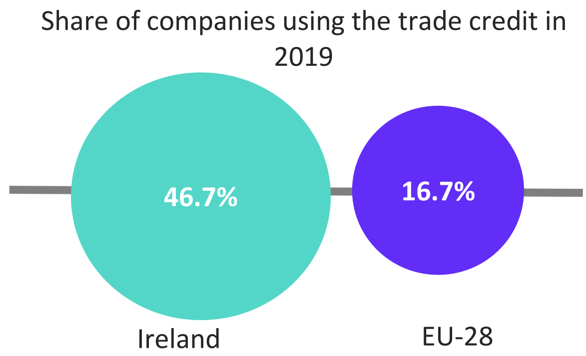
Company deaths in the narrow construction sub-sector grew between 2010 and 2017	↓ **77.3%**

According to the Euler Hermes' Insolvency estimates, the number of companies that became bankrupt in Ireland in 2019 reduced considerably to 568 from 1,525 in 2010 (767 in 2018). However, owing to the impact of COVID-19, it is forecasted to rise to 820 by the end of 2021[72].

Trade credit

According to the SAFE 2019 report, trade credit constitutes a relevant source of financing for 64.0% of Irish SMEs, double the EU-28[73] average of 31.0% in 2019[74].

As per the report, around 46.7% of SMEs have obtained trade credit from their business partners in the last six months. Further, 35.1% of the SME respondents have applied for trade credit in the last six months, while the EU-28 average stands at only 31.7%. Out of the 35.1% of SMEs who applied for trade credit in the last six months, 67.5% SMEs received everything they applied for. This is below the EU-28[75] average of 73.5% in 2019. Also, 71.0% of the SME respondents consider that the availability of trade credit has remained unchanged over the past six months, and 68.3% expect that I will remain unchanged in the six months following the survey[76].



According to the Atradius Payment Practices Barometer 2019, the proportion of total B2B (business-to-business) sales made on credit in Ireland increased significantly to 65.0% in 2019 (against 46.6% in the previous year), above the western European average of 60.4%. This extensive use of trade credit may signal a need to grow sales, both domestically and, in particular, on foreign markets, where the demand is set to remain weak due to uncertainties about global trade policies. To mitigate the default risk, the report specifies that in Ireland 35.0% of the respondents assess the creditworthiness of their prospective customers, which is at par with the western European average[77].

Late payment

As per the CRIBIS D&B Payment Study 2020, 47.0% of Irish companies paid their suppliers on time in 2019, higher than the EU-28[78] average of 44.3%[79].

The report further states that 47.4% of the companies made moderately late payments (up to 30 days) and 4.1% firms took 30 to 90 days to repay. Only 1.5% of Irish companies took more than 90 days to repay, while the EU-28[80] average stood at 3.9%. In particular, for the intermediate late payment class (between 30 days and 90 days on average), the highest value was seen in the construction sector, accounting for 6.2%. In 2019, the average Days Sales Outstanding (DSO) stood at 48 days, a level similar to that in 2019. This is below the European regional average of 51 days[81].

The Atradius Payment Practices Barometer 2019, reported that nearly a third (32.4%) of the total value of B2B invoices issued by the respondents over the past year remained outstanding at the due date. This stands above the western European average of 28.9%. Owing to these late payments from customers, 36.0% of the survey respondents in Ireland (western European average - 28.0%) had to delay payment of invoices to their own suppliers[82].

B2B customers in the Irish construction sector are offered the longest payment terms, averaging 37 days from invoicing[83].

According to the European Payment Report 2019, the average contractual payment terms allowed in B2B transactions increased to 32 days in 2019, from 28 days in 2018. For public administration-to-business transactions (PA2B), however, it decreased to 20 days from 31 days, in 2018. However, the actual time taken to repay was slightly higher than the contractual agreement for B2B (33 days) and for PA2B transactions (23 days). 47.0% of Irish companies viewed customer-end administrative inefficiencies as the main cause of late payment. Additionally, intentional late payment was flagged as an issue by 42.0% of companies[84].

With the onset of the COVID-19 pandemic, the situation has become quite difficult. According to the European Payment Report 2020, 28.0% of the Irish SME respondents expect late payments to have a high impact on liquidity squeeze. This is however much lower than the EU-28[85] average of 45.0%.

As per the European Payment Report 2020, 73.0% of overall SME respondents from the European real estate and construction sectors have agreed to accept longer payment terms in order to avoid damaging client relationships[86].

Time and cost of obtaining building permits and licenses

As per the 2020 World Bank's Doing Business Report[87], Ireland ranked 36th out of 190 economies in terms of 'dealing with construction permits', a decline from 28th position the previous year[88].

In 2019, 10 procedures and 164 days were required to complete administrative formalities to build a warehouse[89] in Ireland (Table 3). While the number of procedures is below the OECD high-income average of 12.7, the number of days is higher (164 against 152.3 days for the OECD high income average). In addition, the cost of obtaining a building permit for a warehouse represented 4.1% of the value of the warehouse in Ireland, considerably higher than the OECD high-income average of 1.5%[90].

Table 3: Construction procedures timing and costs in Ireland

Procedure	Time to complete	Associated costs
Publish notice of construction in approved newspaper	1 day	EUR 150
Obtain an ordinance survey map	0.5 day	EUR 77
Hold a pre-planning meeting with the Planning Department	21 days	No charge
Request and obtain planning permission	90 days	EUR 102,357
Request and obtain fire safety and disability access certificates	90 days	EUR 4,272
Submit a commencement notice	0.5 day	EUR 30
Request water and sewage connection	1 day	EUR 490
Receive inspection for feasibility of the connections and obtain connection offer	7 days	no charge
Obtain water and sewage connection	21 days	no charge Irish Water to decide on case by case basis
Submit the Certificate of Compliance on Completion and obtain approval	21 days	no charge

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

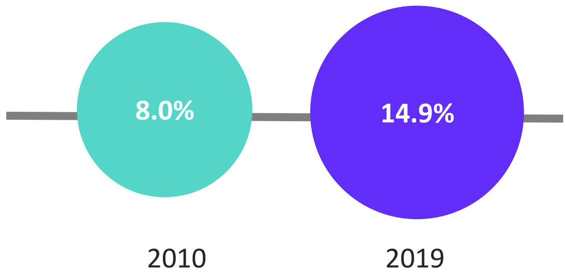
Skills shortage

The number of job vacancies in the narrow construction[91] sub-sector experienced a substantial increase of 271.4%, rising from 175 in 2010 to 650 in 2019.

While the **job vacancy rate** in the narrow construction sub-sector witnessed an increase of 0.3 pps between 2010 and 2019, rising from 0.3% to 0.6%, it remained at par with the 2010 level of 0.5% in the real estate activities sub-sector, in 2019. However, both these sub-sectors witnessed a decline in the job vacancy rate when compared to 2018, with the narrow construction sub-sector standing at 0.7% and the real estate activities sub-sector standing at 0.9%.

The **number of tertiary students** in engineering, manufacturing and construction increased slightly by 2.0% between 2010 and 2018[92], reaching 7,223 from 7,079. The number of tertiary students increased considerably in the engineering and engineering trades, as well as manufacturing and processing, witnessed a rise of 61.8% and 115.1%, respectively, over the same period. On the contrary, tertiary students in architecture and building declined by 48.0% between 2010 and 2018[93].

Adult participation in education and training in the narrow construction sub-sector



Vocational Education and Training (VET) as a post-secondary route is not popular in Ireland, with only 10.3% of upper secondary graduates taking such programmes in 2018. However, all of them benefitted from the work experience included in the programme and, consequently, their employment rate increased to 76.9% in 2018 from 71.9% in 2017. Also, the **employment rate of recent graduates** by educational attainment[94] stood at 84.5% in 2019, above the EU-27 average of 80.9%[95]. In parallel, **adult participation in education and training** in the narrow construction sub-sector[96], almost doubled, growing from 8.0% in 2010 to 14.9% in 2019.

The expansion of the construction sector is predicted to require an **additional 40,000 to 50,000 new construction workers** until 2027[97].

Due to the impending Brexit, a significant proportion (23.0%) of construction firms, are concerned about the ability to source the required talent for their projects[98].

Additionally, labour market restrictions might impact the free flow of skilled workers to and from the UK and Northern Ireland. This is expected to increase the shortage for certain skillsets such as engineers and skilled craftspeople, thereby further stretching the thin talent pools. This might have additional knock-on effects on the ability to meet NDP objectives and the production of housing stock[99].

With 17.0% of SMEs reporting a shortage of skilled staff and experienced managers as their biggest problem in 2019, **Skillnet** might help address this deficit in SMEs. Funded by the National Training Fund, Skillnet is the national business support agency that promotes and facilitates workforce learning. Though there are 69 Skillnet Training Networks that are both sectoral and regionally based, its reach still seems to be limited[100].

As the construction sector continues to grow strongly, construction firms in Ireland are increasingly resorting to hiring construction professionals from outside the country and even beyond the European region[101].

Sector and sub-sector specific issues

Material efficiency and waste management

Owing to the rise in economic activity, specifically in construction, **waste generated by the construction sector** has increased over recent years. CDW mainly consists of several materials, including concrete, bricks, gypsum, wood, glass, metals, plastic, solvents, asbestos and excavated soil, many of which can be recycled[102]. The bulk of CDW is made up for 81.0% of waste soil and stones, with the remainder segregated wastes such as rubble, concrete, bricks, glass, plastic, wood, metals and mixed CDW.

Since close to zero CDW was recycled in Ireland, the Environmental Protection Agency issued its first licence in January 2020 to process large volumes of Irish CDW. The licence allowed the processing of these materials to produce a reusable material known as “greenrock”, which will be used in the construction of a new road on an EPA-licensed site in Ireland[103,104]. In 2018[105], construction activities alone generated a total waste of 1,903,058 tonnes in Ireland. This was 18.2% higher than the waste generated in 2010, 1,609,762 tonnes[106].

In 2018[107], approximately 6.2 million tonnes of CDW were collected in Ireland for treatment, significantly above 4.7 million tonnes in 2017[108].

Ireland achieved 77.0% material recovery of non-hazardous, non-soil-and-stone CDW in 2018, surpassing the EU target of 70.0% by 2020[109].

Climate and energy

Emissions of greenhouse gases (carbon monoxide and dioxide, methane, and nitrous oxides) from the narrow construction and the real estate activities sub-sectors amounted to 493,543.9 tonnes and 62,297.2 tonnes in 2018, respectively. While the former increased by 33.8% since 2010, the latter witnessed an increment of 79.0% over the same period.

Emissions in the real estate activities sub-sector between 2010 and 2018 **79.0%**

Ireland uses the Dwelling Energy Assessment Procedure (DEAP), as its official procedure for calculating and assessing the energy required for space heating, ventilation, water heating and lighting, less savings from energy generation technologies. The DEAP is used to generate the energy performance certificates[110]. It is based on the UK Standard Assessment Procedure and is compliant with the EU Directive 2010/31/EU. DEAP was first introduced in 2006 and has gone through a number of updates so that it can meet regulatory, consumer and industry needs[111].

5

Innovation in the construction sector

Innovation performance

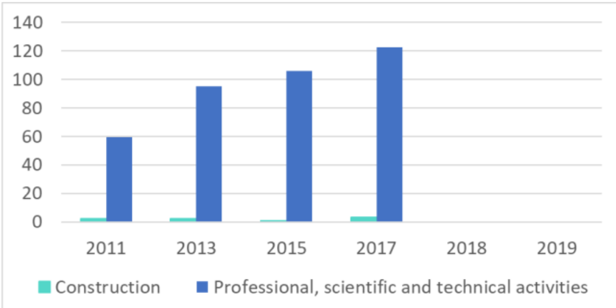
According to the European Innovation Scoreboard 2020[112], Ireland is classified as a strong innovator with an overall score of 122 in in 2019.

As per the report, the strongest innovation dimensions for Ireland are employment impacts, human resources and attractive research systems. It scores high in terms of population with tertiary education, employment in fast-growing enterprises of innovative sectors, employment in knowledge-intensive activities and international scientific co-publications. Conversely, innovation dimensions in which Ireland's performance were relatively weak include intellectual assets, finance and support and linkages. The country also scored low on indicators such as R&D expenditures in the public sector, design applications, private co-funding of public R&D expenditures and trademark applications[113].

Business enterprise R&D expenditure (BERD) in the narrow construction sub-sector amounted to EUR 3.2 million in 2017[114], while in 2010 there was no such expenditure recorded. Likewise, **BERD expenditure** in the real estate activities sub-sector, which was nil between 2010 and 2016, stood at an insignificant level of EUR 0.1 million in 2017[115]. However, BERD expenditure in the professional, scientific and technical activities sub-sector saw a massive increase of 320.7%, rising from EUR 29.1 million in 2010 to EUR 122.2 million in 2017[116].

BERD expenditure in the professional, scientific and technical activities sub-sector between 2010 and 2017 ↑ **320.7%**

Figure 8: Business enterprise R&D expenditure (BERD) per construction sub-sectors in Ireland (EUR m)[117]



Source: Eurostat, 2020.

In parallel, the total **R&D personnel** (full-time equivalents – FTE[118]) in the narrow construction sub-sector, which experienced a declining trend between 2011 and 2015, witnessed an increase in 2017[119]. The narrow construction sub-sector, which reported only nine FTE in 2015, went up to a record 28 FTEs in 2017. This is, however, still lower than the 2011 levels of 49 (-42.9%). Conversely, the professional, scientific and technical activities sub-sector reported a 231.1% increment in FTE, from 286 in 2010 to 941 in 2017[120], the highest across the sub-sectors. For the real estate activities sub-sector, this figure stood at only one in 2017[121], in line with its BERD expenditure.

During the 2010-2019 period, a total of 73 **construction-related patent applications** were registered in Ireland, with only one such application in the year 2019 (against 15 patent applications in 2010, being the highest in the decade). Two Irish construction & materials firms were also ranked among the top 1,000 EU companies by R&D spending (industrial sector ICB-3D), according to the 2019 EU R&D Scoreboard[122].

To foster R&D, the Irish government introduced **R&D tax credits** for the first-time way back in 2004 with subsequent amendments therein, which can be claimed by companies engaging in R&D

activities. Credits cover up to 25.0% of the eligible expenditure incurred for inventions, design, development or improvement of products, processes, techniques, formulas or software. The bulk of public support for Research & Innovation (R&I) in Ireland is provided through this tax credit only, rather than direct support. In the case of construction, companies that finance activities such as green building design or improvement and mechanical systems design, among others, qualify for R&D tax credits[123]. In the Budget for 2020, the R&D tax credits has been amended in relation to micro and small enterprises and will increase from 25.0% to 30.0%. A new provision has also been introduced allowing micro and small enterprises conducting pre-trading R&D to claim the credit before trading commences, limited to offset against VAT and payroll tax liabilities only[124].

The Construction Innovation Lab is a student-led initiative to assist higher education students with research topics identified by the construction sector[125].

The main objective of the lab is to align student research with sector needs, thus stimulating the revival of the sector through research and innovation and giving students the opportunity to pursue a sustainable career in construction[126].

Eco-innovation and digitalisation

According to the 2019 Eco-Innovation Scoreboard (Eco-IS), Ireland ranked 13th in Europe with a score of 97, in comparison to the EU-28[127] average of 100 and was classified as an 'average eco-I performer'[128].

As per the report, Ireland's score was below the EU-28[129] average score of 100 on three out of five indicators, namely; eco-innovation inputs (score 76), eco-innovation outputs (score 61) and socio-economic outcomes (the worst performer) with a score of 38. However, the country outperformed the EU-28 average on eco-innovation activities and resource efficiency outcomes, scoring 119 and 185, respectively.

In the **European Commission Digital Economy and Society Index (DESI) 2020**, Ireland is ranked 6th out of the 28 EU member states with an overall score of 61.8, compared to the EU-28[130] average score of 52.6. The country has outperformed the EU-28 average performance on four out of five indicators, namely, digital public services (80.6 versus 72.0), human capital (56.4 versus 49.3), use of internet services (62.1 versus 58.0), and integration of digital economy (74.3 versus 41.4). Integration of digital economy was the best performing area, ranked as number 1. However, the country scored below the EU-28[131] average in terms of connectivity (45.7 versus 50.1)[132].

Although Ireland performs well in the early stages of eco-innovation, its performance is relatively weak when it comes to technology development and diffusion. Irish SMEs continue to excel in e-commerce, with a growing 35.0% SMEs selling online and 18.0% selling outside the country. Both of these are well above the EU-28[133] average of 18.0% and 8.0% respectively. However, as per the European Investment Bank (EIB), the construction and manufacturing sectors, which together account for almost a third of Irish SMEs, are lagging behind other sectors in adopting digital technologies[134].

In 2014, the government's **Construction 2020 strategy** pledged to develop a public sector pilot called the Market-Led Clustering Programme. This initiative aims to stimulate collaboration between Irish based construction sector firms, other relevant sectors, and the research community. Its mission is to improve the sector's international competitiveness and contribute to national level policy goals, particularly in terms of climate change targets.

The Construction 2020 strategy further stresses the importance of **technological advancements**, such as developments in quality materials, the use of Building Information Modelling (BIM) and updating manufacturing facilities to increase productivity gains on construction projects. Estimates by Construction Industry Federation (CIF) indicate that the productivity of the Irish construction sector lags behind the EU-28[135] average by approximately 30%. SMEs specifically struggle to increase productivity linked to technological advancements. Big construction companies are better positioned to invest in BIM, 3D technologies and the use of drones in the construction process but channelling the use of these techniques down to smaller companies is a challenge[136].

The EU Eco-innovation observatory has highlighted the production of eco-cement in Ireland as a good practice in the construction sector. Ecocem Ireland manufactures cement with a carbon footprint 16 times lower than other cements produced in Ireland[137].

However, to support SMEs in BIM adoption, **Enterprise Ireland**, the government agency for the development and growth of Irish SMEs, offers grants to interested companies.

BIM-Implement is another programme supporting BIM adoption. It provides financing for the appointment of an approved BIM trainer and employee participation in BIM training. The maximum amount of the grant depends on the size of the company[138].

Under the programme, SMEs can receive up to EUR 31,500, accounting for 45% of the gross cost on the BIM implementation project. Medium and large enterprises can receive a grant of up to 35% (EUR 24,500) and 25% (EUR 17,500), respectively. Additionally, the **BIM-Enable** programme provides support for SMEs undertaking a BIM assignment. As part of it, Enterprise Ireland provides a grant amounting to EUR 6,300 to hire a BIM consultant for a limited period[139].

In 2019, Ireland's CIF formulated **Construction 4.0**, where 4.0 stands for the '4th Industrial Revolution'. This initiative will consider all policy developments and other matters in the area of Lean Construction and BIM[140]. Further, through this initiative, the CIF aims to work with relevant stakeholders such as government departments, state agencies and other authorities to develop policy and instruments concerning innovation, digitisation and continuous improvement in construction. Additionally, the **National BIM Council's (NBC) 2018-2021 roadmap to digital transition** points towards a more digitally connected construction sector. The roadmap aims at a 20% reduction from the 2018 levels of each of project delivery, construction exports and capital costs, thereby improving the overall efficiency and effectiveness of the Irish construction sector. Apart from this, the roadmap also has the objective of monitoring the development of standards such as the ones carried out by the European Standards Committee for Standardization (CEN) technical committee CEN/TC 442, as well as the International Organisation for Standardisation (ISO) ISO/TC 59/SC13[141].

The EU Eco-innovation observatory has highlighted the production of eco-cement in Ireland as a good practice in the construction sector. Ecocem Ireland manufactures cement with a carbon footprint 16 times lower than other cements produced in Ireland[142].

In order to cater to the knowledge and funding gaps that are preventing the digitisation of Irish SMEs, work is underway to adopt a National Digital & Artificial Intelligence Strategy[143].

6

National and regional regulatory framework

Policy schemes

In 2014, the Irish government introduced the Construction 2020 strategy, which aimed to restore a properly functioning, sustainable and dynamic construction sector. It consisted of 75 action points to tackle the most pressing issues in the sector. Among the areas addressed in the strategy are the housing and commercial property sectors. These areas include the dimensions of the planning process, access to finance, education and training for the sector, as well as competitiveness, innovation and internationalisation[144].

To tackle the housing shortage, as well as social housing and homelessness, the government launched the six-year plan, **Rebuilding Ireland – Action Plan for Housing and Homelessness** in July 2016. The plan is structured around five pillars, namely addressing homelessness, accelerating social housing, building more homes, improving the rental sector and utilising existing housing[145]. It is a EUR 6.0 billion, multi-annual, broadly based action plan which includes the delivery of over 1,38,000 social housing homes by the end of 2021. This will include 83,760 HAP[146] (Housing Assistance Payment) homes, 3,800 RAS[147] (Rental Accommodation Scheme) homes and over 50,000 new homes[148].

In 2019, Rebuilding Ireland had set a target to deliver 10,000 new social homes. This target was met and exceeded with 10,007 social homes delivered by the end of the fourth quarter of 2019. By the end of second quarter of 2020, around 725 additional homes were delivered under new build activity[149].

Since 2016, Rebuilding Ireland has delivered over 21,000 new homes, through a combination of build, acquisition and leasing in addition to a further 51,000 flexible housing solutions under HAP and RAS. This is almost 72,000 individuals and families whose social housing needs were met over a three-year period[150].

In order to reduce **homelessness**, one of the five pillars of Rebuilding Ireland, a budget of EUR 146.0 million was provided in 2019 to local authorities to meet the operational cost of delivering homeless services. This budget was further increased to EUR 166.0 million in 2020[151].

Housing First aims to help the homeless and people who have highly complex needs. It provides permanent secure accommodation with comprehensive services that help them maintain their tenancies. Published in September 2018, the National Implementation Plan for Housing First consists of targets for each local authority, with an overall national target of 663 tenancies to be delivered by 2021[152].

By 2019, 412 individuals were provided housing under the Housing First programme. This also included housing to 190 individuals since the publication of the National Implementation Plan[153].

In March 2019, EIB invested EUR 120.0 million for the Irish social housing construction programme. As part of the agreement, 534 new homes will be built in Dublin, Louth, Wicklow and Kildare in the first phase of Ireland's first social housing Public-Private Partnership[154].

In September 2020, the Irish government approved the funding of around EUR 18.0 million for the Disabled Persons Grant Scheme (DPG) and the Improvement Works in Lieu of Local Authority Housing Scheme[155].

The DPG scheme offers funding for extensions and adaptations to existing social housing stock for older people and the disabled such as grab rails, disabled access ramps, wet rooms, downstairs bedrooms etc. It also provides extensions in cases of overcrowding. The Improvement Works in Lieu of Social Housing Scheme (IWILs) supports local authorities in the improvement or extension of privately owned accommodation, where the applicant has been approved for social housing. It also allows those who are otherwise eligible for social housing to remain in private housing and for enhancements to that housing[156].

In October 2020, the Residential Tenancies Act 2020 was passed. The bill will now be sent to the President for early signature[157].

The bill modifies the Residential Tenancies Act 2004 to prevent any notices of termination served by landlords from taking effect during the period of level five restrictions[158].

The Residential Tenancies and Valuation Act 2020, which became effective on August 01, 2020 provides protection to tenants experiencing rent arrears due to COVID-19 from eviction and rent increases up to January 10, 2021. The protection offered under that act are applicable nationwide, subject to the tenant making an appropriate declaration[159].

The Government of Ireland is developing a national policy approach to Cost Rental, along with work on two pilot projects in Dublin. Cost Rental, is a housing scheme where the rents charged cover the cost of delivering, managing and maintaining the homes[160].

In addition, the government has entered into an agreement with the European Investment Bank (EIB) for the provision of Cost Rental advisory services. It is also is cooperating with the Land Development Agency's work examining the potential to deliver Cost Rental homes at scale on its land portfolio and the broader state land bank[161].

As part of Project Ireland 2040, EUR 7.5 billion has been allocated to the National Development Programme (NDP) for the 2022-2027 period[162].

In terms of social housing, the NDP aims at a planned capital investment of EUR 11.6 billion over the 2018-2027 period to facilitate the delivery of some 112,000 additional social housing homes[163].

Moreover, to enable use of appropriate state-owned land for the regeneration and development of new housing, the Ministry for Housing, Planning and Local Government established a **Land Development Agency** in September 2018. The agency aims to build 150,000 new homes in Ireland over the next 20 years at a cost of EUR 1.25 billion. These include social housing, affordable housing, private as well as rental housing. The agency already has an initial pipeline of state land capable of accommodating around 10,000 homes, with land for 3,000 homes already secured[164].

In October 2020, the Irish government announced a budget of EUR 5.2 billion for the Department of Housing, Local Government and Heritage for the year 2021. This includes EUR 3.3 billion to be spent in housing – a 24% increase on 2020 and the highest investment in housing by any government in a single year[165].

This budget will also be used for meeting the social housing needs of more than 28,500 additional households, which is expected to be met in 2021. The government will add 12,750 new homes for the supply of social housing through build, acquisition and long-term leasing. Also, it will provide support to the local authorities and approved housing bodies to deliver 9,500 new build homes in 2021[166].

As part of the 2020 budget, the extension of the Help-to-Buy (HTB) scheme to 2021 was announced. The scheme offers first time buyers (FTBs) a refund of 5.0% of the property value under certain conditions[167].

Building regulations

Building regulations aim to ensure the safety and welfare of people in and around buildings. These regulations are applicable to the design and construction of a new building or the extension, material alteration, or a material change of use, of an existing one. The minimum performance requirements that a building must achieve are set out in 12 parts. These cover structure, fire safety, site preparation and resistance to moisture, materials and workmanship, sound, ventilation, hygiene, drainage and conservation of fuel and energy, among others[168]. The fire safety standards for dwellings were also revised in 2017. These provided further technical guidance on early detection and warning systems, improved protection for occupants, as well as new fire safety requirements[169].

Since 2011 residential building regulations have consisted of a minimum threshold requirement for renewable energy supply for new residential buildings that can be met via renewable heat technologies[170]. In 2019, there were additional amendments to certain energy performance regulations. The amendment 183/2019[171] and 292/2019[172] European Union (Energy Performance of Buildings) Regulations 2019, were proposed in May and July 2019, respectively. The amendments which came into effect in November 2019, insert the provisions of the European Union (Energy Performance of Buildings) Regulations 2019 to the Building Regulations 1997. The Department of Housing also issues **Technical Guidance Documents** to accompany each part of the Building Regulations[173]. 31 local authorities can act as Building Control Authorities under the **Building Control Act**, as amended. These have the power to inspect buildings and monitor compliance with the requirements of the Building Regulations. Compliance with such requirements is under the responsibility of the designers, builders and owners of buildings.

In April 2020, the Irish government introduced the S.1. No. 113 of 2020, Building Control Regulations 2020[174].

As per these new regulations, it is not mandatory to obtain commencement notices, fire safety certificates, disability access certificates and certificates of compliance as required by the Building Control Regulations 1997 to 2018. This has been introduced in response to COVID-19[175].

The **Safety, Health and Welfare at work (Construction) Regulations 2013** explain the requirements for respecting the protection of workers on construction sites and apply to all construction projects. This includes the alteration, decoration, maintenance and repair of buildings and the installation, maintenance and removal of mechanical and other systems. The regulations oblige clients and designers to ensure that health and safety measures are considered before the project starts[176]. The **Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2019 (S.I. No. 129 of 2019),** signed in April 2019, facilitated the recognition of construction certifications from other member states by SOLAS (*tSeirbhís Oideachais Leanúnaigh agus Scileanna*)[177]. SOLAS, established in 2013, is a State agency engaged in developing a world class Further Education and Training (FET) sector to fuel Ireland's future.

In March 2020, the Minister of State signed in to law the Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2020 (S.I. No. 102 of 2020)[178].

The main objective of these regulations is to amend the Safety, Health and Welfare at Work (Construction) Regulations 2013 to 2019 to provide extension to the validity of safety awareness registration cards which cannot be renewed as a result of the COVID-19 pandemic[179].

Insurance and liability related regulations

Construction activities in Ireland are regulated by two main bodies of law, namely the **Law of contract and the Law of Torts**. The Law of Contract defines, amongst others, the principles of contractual liability. The Law of Torts regulates damages and injuries, originating from failure to comply with non-contractual obligations. Common law statutes also shape contractual relationships, and include the Civil Liability Act 1961, the Statute of Limitations as amended, and the Sale of Goods and Supply of Services Act 1980[180].

The contract explains the liability of the property developer (or the builder) towards the final client and defines the terms and conditions for the delivery of the building. The building development should be completed in accordance with the terms and conditions of the Building Regulations and with the planning permission. The liability of consultants and designers is based upon the obligation to exercise reasonable skill and care. Their negligence must be proven in order to hold them liable. According to the Statute of Limitations 1957, the general limitation period is six years for claims based on tort. For claims arising under contract, the limitation periods are six years for actions under simple contracts and twelve years for actions founded on contracts under seal. For claims with respect to personal injuries due to negligence, nuisance or breach of duty, the limitation period is three years. Under the Civil Liability Act 1961, parties that have contributed to a damage are jointly and severally liable.

There is no compulsory construction insurance required by law in Ireland. Nevertheless, standard contracts require parties to take out **public liability insurance**, which covers bodily injury or death to third parties or damage to third party property. Employer's liability insurance is also required, to cover loss, damage, injury or disease of employees. Other insurance types required are motor liability insurance and a professional indemnity insurance for design activities, which covers defective design due to negligence. Finally, standard contracts require a contractors' all-risks insurance, which covers damage to the construction works/plant/tools during the construction phase[181].

HomeBond insurance is also widespread, and covers newly built houses for a period of up to ten years in case of major structural defects, and five years for remedial work in the event of water ingress or smoke penetration caused by major structural defects, among others. A HomeBond guarantee is mandatory in order to benefit from local authority construction loan schemes. To date, more than 600,000 new homes have registered with HomeBond[182].

7

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total **investment by the broad construction sector**[183], has witnessed a substantial increase over the past years (Figure 9). Investment by the narrow construction sub-sector increased by 3348.0% between 2010 and 2018[184], from EUR 14.8 million to EUR 510.3 million. This significant increase is linked to the bottom low levels in the aftermath of the crisis. Similarly, investment by the real estate activities sub-sector experienced a 92.0% increase between 2010 and 2018[185], from EUR 5.0 billion to EUR 9.6 billion.

Investments by the narrow construction sub-sector between 2010 and 2018 ↑ **3,348.0%**

Investments by the real estate activities sub-sector between 2010 and 2018 ↑ **92.0%**

Similarly, **investment in intellectual property products** by the narrow construction sub-sector reached to EUR 16.1 million in 2018[186] from EUR 6.3 billion in 2010, marking a 155.6% increase over the period. Similarly, investment by the real estate activities sub-sector for this category accelerated by 1010.3%, reaching EUR 32.2 million in 2018[187] as compared to EUR 2.9 million in 2010.

Investment in intellectual property products by the real estate activities sub-sector between 2010 and 2018 ↑ **1,010.3%**

Figure 9: Investment by the Irish broad construction sector between 2010 and 2018[188] (EUR m)

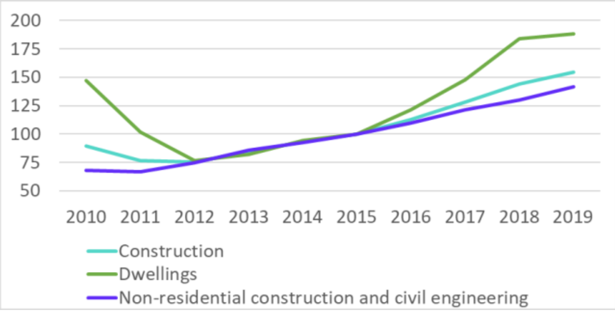
Source: Eurostat, 2020.

Total **investment index in the broad construction sector**[189] experienced a 54.2% increase between 2015 and 2019 (Figure 11). The growth was mainly driven by the investment in dwellings by the whole economy, as well as non-residential construction and civil engineering, which experienced growth of 88.3% and 41.8% respectively over the same reference period.

In absolute terms, **investment in the broad construction sector** totalled EUR 93.3 billion in 2017[190], out of which EUR 6.1 billion were invested in dwelling and EUR 14.2 billion in non-residential construction and civil engineering[191].

Total investment index in dwellings by the whole economy between 2015 and 2019 ↑ **88.3%**

Figure 10: Investment index in the Irish construction sector between 2010 and 2019 (2015=100)



Source: AMECO, 2020.

Household renovation spending has generally seen a decreasing trend since 2010. Indeed, it reached EUR 161.6 million in 2019, 54.2% lower than the peak of EUR 352.5 million recorded in 2010. Renovation spending as share of household disposable income decreased from 0.4% in 2010 to 0.1% in 2017 and remained at around the same level in 2018[192] as well.

Household renovation spending between 2010 and 2019 **54.2%**

While there is a need to improve quality of roads, transport infrastructure investment dropped substantially from 2015 and has not shown any signs of recovery since then. To address this issue, the government has developed several initiatives.

A total investment of EUR 116.0 billion has been planned for public infrastructure and capital works, under the Ireland NDP 2018-2027, as part of the Project Ireland 2040. The planned investments in 2019 and 2020 amount to EUR 7.3 billion and EUR 7.9 billion, respectively, which equate to 3.5% and 3.7% of GDP (EU-28[193] average is 2.7% of GDP).

Of the EUR 116.0 billion, around EUR 90.0 billion will come from taxpayers, while the remainder is expected to come from state-owned enterprises. The plan focuses on ten key priority areas for investments, which include housing and sustainable urban development, road networks and environmentally sustainable public transport, among others[194].

As part of the Strategic Investment Priorities over the period 2018-2027, a total of EUR 6.6 billion is planned to be invested to build national routes until 2027[195].

Some planned key road projects include the M20 motorway between Cork and Limerick costing EUR 900.0 million, the Galway Ring Road at EUR 550.0 million, as well as widening of M7 between Naas and Newbridge. Additionally, a number of existing roads will be upgraded, like the N4 between Collooney and Castlebaldwin, N8/N25 Dunkettle interchange, N21/N69 Limerick to Adare and then Foynes, M11 Gorey to Enniscorthy, N52 Ardee Bypass, and many more[196].

Furthermore, public transport infrastructure investments are also planned through a **EUR 2.5 billion Dublin Metro project** between Swords to Sandyford, linking the light rail system, Luas, the Dublin Area Rapid Transit (DART) and Dublin Airport. Last, **EUR 2.0 billion DART Expansion Programme** aims at expanding DART services along the Maynooth/Sligo line and also to include places like Drogheda and the M3 Parkway. New stations built at these places will have inter-connect facilities with Luas[197].

EU investment in Irish infrastructure is also substantial. For instance, the EIB has provided a series of funding for urban development, transport and composite infrastructure projects. These include the EUR 200.0 million Housing Finance Agency (HFA) Social and Affordable Housing Programme[198], the EUR 61.3 million Irish Social Housing PPP Programme[199], EUR 35.0 million County of Cork Investment Programme[200], and a EUR 350.0 million Dublin Airport Operational Resilience Upgrade[201].

COVID-19 has also impacted the Irish construction sector adversely due to preventive measures such as lockdown, social distancing etc. According to Construction Information Services (CIS), projects worth EUR 17.9 billion have been halted in Ireland due to the shutdown[202].

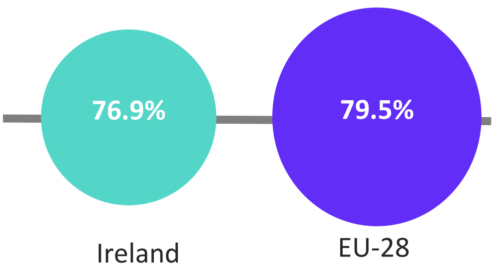
TO 2 – Skills

Public expenditure on education as a percentage of GDP in Ireland stood at 3.3% in 2018, while the EU-28[203] average was 4.6%.

VET (vocational education and training) is not popular in the country with only 10.3% of the upper secondary graduates taking up the programme in 2018. Ireland reports a lower than EU average employability for **VET graduates with secondary education**, standing at only 76.9% in 2018, compared to 79.5% for the EU-28[204]. For **tertiary education**, Ireland stood at 56.3% in 2018, higher than the EU-28 average of 40.7%[205]. It makes Ireland one of the EU-28 countries with the widest disparities in the employment rates of people with different skill levels.

While the share of early leavers from education and training stood at 5.0% in 2018, the EU-28[206] average for this indicator was higher at 10.6%. Substantial progress was made in overall **adult participation in learning**, which increased from 9.0% in 2017 to 12.5% in 2018, higher than the EU-28 average of 11.1%.

Employment rate of recent VET graduates, 2018



The National Skills Strategy (NSS) 2025 was introduced with the aim to provide a flexible education and training system capable of responding to a rapidly changing environment, and the ability to provide the skills needed over the next ten years. The strategy also seeks to increase participation in lifelong learning to 15% by 2025 (from 6.7% in 2014)[207]. Between fourth quarter 2017 and fourth quarter 2018, Ireland witnessed a 0.8 percentage points YoY (year-on-year) increase in the share of working age (aged 15-64) third level graduates in the labour force at 49.2%. This already exceeded the 48% NSS 2020 target. Additionally, the share of people with lower secondary or lesser qualifications witnessed a YoY decrease by 0.6 percentage points to 11.8%[208].

The Irish government has developed a revised version of the Pathways to Work strategy for the period 2020-2024. It focuses on reskilling groups of population that face significant barriers to employment. The construction sector is partly targeted, as it belongs to those sectors forecast to experience jobs expansion[209].

The Ireland Cabinet of Ministers announced the **Future Jobs Programme** in August 2018. The programme emphasises offering quality jobs, improving productivity and skills while increasing resilience of the workers in Ireland. The programme would help SMEs as well as other eligible companies invest more in R&D and encourage them to take up new technologies. It could also support SMEs in diversifying exports, integrating in global value chains and increasing workers' skills[210].

The Expert Group on Future Skills Needs (EGFSN) is an independent, non-statutory body, which advises the Irish Government on the current and future skills needs of the Irish economy[211].

As part of a 2019 work programme and a deliverable of **Future Jobs Ireland**, EGFSN has been assessing the construction sector skills related recommendations published by both the state and private industry over the years 2008-2018. The study aims at assessing various construction sector related issues and skillsets. Once the study is finalised, the EGFSN will determine if further action needs to be undertaken regarding the development of construction skills. It will serve as a solid foundation for any future upskilling related programmes in the Irish construction sector[212].

The Department of Education and Skills provides funding through SOLAS, the new Further Education and Training Authority and the Higher Education Authority for various training and education interventions. Specifically, these interventions support the upskilling and reskilling of unemployed people across sectors with growing employment prospects. Another instance is the **MOMENTUM programme**, rolled out in 2013, which provides free education and training projects for up to 12,000 long term jobseekers[213].

The Construction Industry Federation (CIF) is also playing an active role in upskilling construction workers. The organisation is engaging with SOLAS to develop innovative ways to upskill unemployed construction workers, increase their employability and attract the younger generation to the sector[214].

CIF launched a website targeting Irish construction workers living overseas and aiming to attract them back to Ireland to take up a job in the sector. The website, Cifjobs.ie, presents the jobs available in CIF member companies and allows potential candidates to engage directly with Irish construction companies[215].

CIF also launched the website **apprentices.ie**, aiming to match employers and job seekers to suitable apprenticeships across the country[216]. Furthermore, the **JobsPlus Scheme** was recently extended to the wet trades[217]. The scheme is an incentive from the Department of Social Protection to encourage and reward enterprises to employ a person that has been unemployed for over 12 months. Under the scheme, employers can claim grants between EUR 7,500 and EUR 10,000 for each position filled[218].

Further, replacing the Green Card type employment permit, **Critical Skills Employment Permits** is designed to attract highly skilled people into the labour market with the aim of encouraging them to take permanent residence in the state[219].

Construction Industry Register Ireland (CIRI) is an official online register of contractors carrying out construction works. The register means to increase quality services in the construction sector by vetting all companies who register to a set of standards. CIRI provides details on competent builders, contractors, specialist sub-contractors and traders. Its objective is 'to be recognised as the primary online resource used by consumers in the public and private procurement of construction services'[220].

A Home for Everyone, a part of a new CIF national competition, is a team-based project which is aimed at senior students. In this project, students work together to design a home that helps 'solve' climate change, the housing crisis and addresses inclusivity[221].

The submitted designs need to be eco-friendly, affordable and suitable for both older people and those with physical disabilities. The objective of the programme is to complement current teaching and career guidance principles[222].

TO 3 – Resource efficiency / Sustainable construction

Owing to the limited progress that has been made so far, and based on the measures currently placed and funded, Ireland is anticipated to achieve 16.2% out of the 20.0% energy efficiency target set out by 2020, as per the fourth National Energy Efficiency Action Plan (NEEAP 4)[223].

The energy efficiency saving target of 20.0% corresponds to energy savings of 31,925 GWh by 2020 and CO_2 savings amounting to 7,251 (kiloton) (kt). However, as per the NEEAP 4 estimates, current measures will be able to deliver energy savings of only 25,900 GWh by 2020[224].

Ireland's **National Renovation Strategy** sets out the measures currently in place to reduce emissions from buildings in the domestic, commercial, industrial and public sectors. The residential sector is of particular importance in this context, since it currently accounts for 27.0% of all energy usage in the country, emits 10.5 million tonnes of CO_2 annually and is the single largest source of emissions after transport, representing a significant proportion of the total emissions from the entire building sector[225].

The **Climate Action Plan** also explains the measures required in order to accelerate the retrofitting of existing buildings in Ireland. In this regard, EUR 25.0 million were allocated to a social housing retrofitting programme in 2019. With the purpose of tackling the decarbonisation challenges, the 2019 Climate Action Plan included, inter alia, retrofitting of 500,000 housed with increased energy efficiency and installation of 600,000 heat pumps. More than 12,000 households are receiving support from the EU Cohesion policy to improve the energy performance of their homes, leading to a reduction of greenhouse gas emissions by more than 57,00 tons of CO_2 eq. Additionally, the **National Development Plan 2018-2027** committed around EUR 30.0 billon to address the climate and energy transition[226].

Ireland is one of the few countries in the EU to have started green budgeting practices, which includes identifying and tagging all climate-related expenditure[227].

Additionally, the renovation of residential buildings is also addressed by the **Better Energy Programme**, the umbrella for a series of government schemes that provide grants to households for the energy efficient upgrade of their homes. The programme, initially launched in 2011, is managed by SEAI (Ireland's national sustainable energy authority).

The Better Energy Homes scheme provides fixed cash grants to homeowners to upgrade their homes (built before 2006) with energy efficiency measures, such as insulation and heating system upgrades, thus reducing energy use, costs and greenhouse emissions[228].

The scheme, launched in 2009, provides grants cover up to 30.0% of the cost of works and their amount depends on the type of intervention and building[229]. Between March 2009 and June 2018, interventions for a total of 219,998 homes were completed with the total grants paid amounting to EUR 225.4 million[230]. The programme also contributed to cumulative annual final energy savings of 994 GWh/year in 2016. This led the government to look for options to expand the scope of the grants[231].

The **Better Energy Warmer Homes** scheme funds energy efficiency improvements for dwellings built before 2006, occupied by elderly and vulnerable groups, i.e. beneficiaries receiving unemployment allowances and other kinds of social benefits. The scheme is partly funded by Ireland's EU Structural and Investment Funds Programmes 2014-2020, cofounded by the Irish government and the European Union through the European Regional Development Fund (ERDF). Eligible interventions include attic insulation, cavity wall insulation, external and internal wall insulations, and a few secondary measures like draught proofing, lagging jackets, low energy light bulbs, and energy advice, installed at no cost to the beneficiary. Homes that have previously received benefits under the scheme, will not be eligible for a reassessment until 2020[232].

As of November 2019, interventions on 142,323 fuel poor homes were completed under the scheme[233]. Since June 2018, the scheme covers an additional set of interventions, such as central heating and windows replacement[234].

That being said, firms in the construction sector in Ireland have the lowest share (31.0%) of building stock meeting high energy efficiency standards. They also allocate relatively smaller amounts of investments (5.0%) towards improvement of the energy efficiency of existing building stock[235]. The average share of new investments aimed at primarily improving energy efficiency stood at 7.0% in 2018 in Ireland, as opposed to 10% in EU-28.

The Better Energy Communities programme is a national retrofit initiative, which supports energy upgrades to existing buildings and facilities in the community sector[236].

The programme targets homes/areas at risk of energy poverty and is eligible to the private sector, community-based organisations, voluntary organisations and participating energy suppliers. In 2019, the programme helped finance 57 projects, which supported energy efficiency upgrades in 698 homes and 570 non-domestic buildings. The total project cost is estimated at EUR 65.8 million, with the government funding EUR 25.3 million of these costs. Under the 2020 budget, EUR 20.0 million is earmarked for grant support for community energy projects. Cumulatively, 18,200 homes and 570 non-domestic buildings benefited from energy efficiency upgrades. This has resulted in annual estimated CO_2 emission reductions of 34,676 tonnes and a total of 122.5 GWh of energy credits saved[237].

The **Warmth and Wellbeing Scheme** is a pilot scheme providing extensive energy efficiency upgrades free of charge to beneficiaries in energy poverty who are living with chronic respiratory conditions. The initiative is led by the Department of Communications, Climate Action and Environment in conjunction with the Department of Health and the Health Services Executive (HSE). The scheme is among the few which entail no cost to the owner of the home. Eligible interventions include attic insulation and ventilation, wall insulation and ventilation, window and door replacements and boiler replacement, including heating controls[238]. The pilot scheme is currently available in Dublin[239].

The H2020 project 'Turnkey Retrofit' launched its one-stop-shop for energy retrofitting of buildings in Ireland, France and Spain[240].

Owing to the recent announcement of **'Renovation Wave'** by the European Commission, a homeowner centric platform **'Solutions4Renovation'** was launched to ease the renovation journey, thereby increasing the renovation rate and depth across EU. With a view to meeting the 2050 decarbonisation goals set by EU, this programme will address key drivers of building renovation that go beyond a desire to reduce energy bills and increase asset value[241].

TO 4 – Single Market

Ireland performed fairly well with respect to the 2020 EU Single Market Scoreboard metrics, particularly in terms of Internal Market Information System, Point of Single Contact and Trade Integration in the Single Market for services[242].

Ireland reported a transposition deficit of 0.8%, while the EU-28[243] average stood at 0.6%. The average delay in transposition now stands at 17.2 months, marking an increase of 4.9 months from the last reported 12.3 months. This is higher than the EU-28[244] average of 11.5 months. From nine last reported, Ireland now has eight overdue directives, with two directives being more than two years overdue. Conformity deficit also has increased from 1.0% to 1.1% compared to the EU-28 average of 1.2%. In terms of Infringements, Ireland reported 26 pending cases as compared to the EU-28 average of 29 cases. The average case duration has also reduced slightly to 44.3 months (EU-28 average 34.8 months) from the 46 months previously reported[245].

Furthermore, Ireland continued to perform very well in terms of Internal Market Information System, with three out of five indicators standing above the EEA average. It took only nine days on average in answering requests. In addition, its performance in Public Procurement is average, with satisfactory performance in six out of 12 indicators, namely – no calls for bids, cooperative procurement, award criteria, decision speed, SME contractors and missing calls for bids[246].

In Ireland, favouritism in the decisions of government officials is fairly uncommon and even diversion of public funds is not that frequent. Likewise, instances of bribes and irregular payments in the process of awarding public contracts and licences are rare. However, some companies question the transparency of government tenders, while other successful bidders report delays in the finalisation of contracts. Further, companies have also complained about the difficulty in receiving compensation for work completed and original tenders not accurately describing the actual conditions on the ground[247].

Ireland has notified the European Commission about two technical regulations under the Single Market Transparency Directive in 2018, considerably below the average of 24 notifications per member state[248].

In line with the requirements of the Services Directive, the government has set up a **Point of Single Contact (PSC)** located in the Internal Market Unit of the Department of Jobs, Enterprise and Innovation. The PSC provides information on the procedures to be followed by Irish/EU businesses intending to operate in Ireland[249].

In terms of the provision of cross-border construction services and, specifically, the admission of qualifications, foreign engineers and overseas professional engineering organisations can obtain recognition of their professional qualifications through the **Mutual Recognition Agreements** between Engineers Ireland (the national professional body). For certain regulated engineering functions (e.g. chartered engineer), application for recognition with Engineers Ireland is required under the Professional Qualifications Directive 2005/36/EC[250].

With regards to the implementation of Eurocodes, all EN Eurocode parts have been published as National Standards, with no National Annexes being published on 14 Parts. Though the use of Eurocodes is voluntary, it may be used as a method of indicating compliance with the Irish Building Regulations. However, 25 Eurocode Parts were made obligatory for the design and construction of road structures, as required by the National Roads Authority, and their use in public procurement is regulated[251].

In light of the Brexit negotiations, one of the key repercussions on the Irish construction sector is linked to the UK leaving the EU Single Market, consequently affecting trade between the two countries. The ability of Irish construction companies to work across both jurisdictions could be impaired, particularly for SMEs, which may not have the capacity to deal with any ensuing changes in regulations. While supply chain difficulties and delays in procurement are some of the greatest impending challenges of Brexit, Irish construction firms also have key potential opportunities. These include increased domestic firm activity as the number of UK construction firms competing in the market will decline. In addition to an influx of businesses, an increase of workers from the UK may also help address the skills challenge in the domestic sector[252].

TO 5 – International competitiveness

Ireland ranked 24th out of 141 economies in the 2019 Global Competitiveness Index, down from 23rd in 2018, its best position over the last few years[253].

The country ranked 7th in terms of trade tariffs, 21st and 26th in terms of prevalence of non-tariff barriers and border clearance efficiency, respectively. It was ranked 43rd in the context of trade openness. However, the country's performance was poor in terms of complexity of tariffs, ranking as low as 113th in 2019[254].

Ireland's performance in terms of internationalisation is broadly in line with the EU-28[255] average. The country is placed among the top performers in terms of formalities automation (2.0 versus 1.7), and has also outperformed the EU-28 average by a considerable margin in terms of extra-EU online exporters (12.5 versus 5.0). However, the country performs poorly in terms of availability of information on internationalisation (1.7 versus 1.8), involvement of trade community (1.5 versus 1.7), advance rulings (1.6 versus 1.8), border agency co-operation (1.3 versus 1.4), and SMEs with extra-EU exports of goods (6.6 versus 9.8). The proportion of Irish SMEs with extra-EU exports of goods was 6.6%, well below the EU-28 average of 9.8%. However, the country was in line with the EU-28 average in terms of SMEs with extra-EU imports of goods with 11.8%, as compared to EU-28 average of 11.6%[256].

The **internationalisation of construction products** in the Irish construction sector has shown signs of growth consistently over the decade. **The export values of all construction-related products** increased from EUR 383.2 million in 2010 to EUR 733.1 million in 2019, marking an increase of 91.3% overtime. Moreover, the country's share of exports of all construction-related products stood at 37.1% of the total production value in 2018, above the 2010 level of 30.9% and considerably above the EU-27 average of 11.4%. This declined to 33.4% in 2019.

Export value of all construction-related products between 2010 and 2019 ↑ **91.3%**

Conversely, the export value of architectural services declined to EUR 5.9 million in 2019, as compared to EUR 13.5 million in 2010. This represents a decline of 56.5% over the period.

Export value of all architectural services between 2010 and 2019 ↓ **56.5%**

In the context of **inward FATS (foreign affiliates statistics)**[257], value added at factor cost in the manufacturing and real estate activities sub-sectors significantly increased by 256.1% and 216.9% respectively, while it dropped by 2890.1% in the narrow construction sub-sector between 2010 and 2017[258]. Similarly, turnover in the manufacturing and real estate activities sub-sectors grew by 148.4% and 238.4% respectively, whereas it declined by 28.6% in the narrow construction sub-sector during the 2010-2017 period.

In terms of **outward FATS**[259], turnover in the manufacturing and narrow construction sub-sectors grew by 87.0% and 48.0% respectively, between 2010 and 2017. Similarly, the number of people employed in the manufacturing sub-sector increased by 52.0%, while it declined by 17.4% in the narrow construction subs-sector during the same reference period.

One of the primary focuses of all recent government policies has been to prepare Irish SMEs for the potential impact of Brexit. Owing to its geographical proximity, as well as cultural and trade relations with the UK, Irish SMEs are particularly vulnerable to the challenges of Brexit. Therefore, the government has established advisory clinics and services to guide SMEs on risk mitigation and potential alternative support measures[260]. One of the key measures and contingency plans, is the **'Brexit Loan Scheme (BLS)'**, established following the 2018 budget. The scheme is operated by the SBCI on behalf of the government and offers affordable working capital to SMEs facing challenges as a result of Brexit. The EUR 23.0 million exchequer funding originally announced has been further leveraged to provide a fund of up to EUR 300.0 million over the lifetime of the scheme through the European Investment Bank (EIB) Group[261].

The Brexit: Act on Initiative scheme enables exposed businesses to create strong contingency plans and identify potential risks and opportunity areas that Brexit may pose to their businesses[262].

The initiative provides tailored advice from consultants on the impacts of Brexit on businesses free of cost. The risk mitigation measures are particularly aimed at financial and currency management, strategic sourcing, customs and logistics[263].

Enterprise Ireland (EI) plays a fundamental role in this respect. As the state agency for the promotion, growth and development of Irish companies in international markets, it provides both financial and non-financial assistance. The **Internationalisation Grant** aims to help beneficiaries explore business opportunities abroad by supporting their market research activities, employees' salaries (including foreign travel), costs related to participation in trade fairs, external consultancy fees, etc. The grant can cover up to 50% of eligible expenditure, up to a maximum of EUR 35,000[264]. EI also organises trade fairs and missions abroad across a variety of sectors, of which construction, and particularly smart building technologies, is a key target[265].

'Prepare your Business for Customs', a series of interactive training workshops, are provided by Local Enterprise Offices across Ireland[266].

These workshops are open to all businesses from all sectors and are conducted in every region. They assist businesses in understanding the key customs concepts, documentation and processes that are necessary when trading with the UK post Brexit[267].

Finally, academia is also participating in the internationalisation of the Irish construction sector by offering courses for companies to develop the required competencies to expand abroad. An example is the School of Engineering of the Waterford Institute of Technology, which offers a six days **Construction Internationalisation Continuing Professional Development (CPD)** course in cooperation with EI and the CIF. It addresses key issues for the successful internationalisation of construction firms, including strategy, marketing, law, finance, culture and Building Information Modelling (BIM)[268].

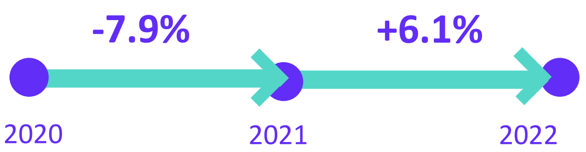
8

Outlook

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

Ireland's GDP is projected to decline by 7.9% in 2020 and then increase by 6.1% in 2021, reaching EUR 328.6 billion in 2021.

Expected GDP growth between 2020-2022

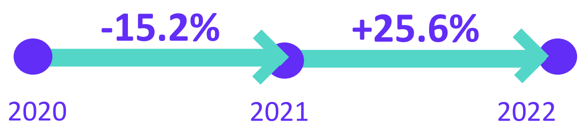


In parallel, the **volume index of production** in the broad construction sector is expected to decline by 18.6 ip annually in 2020, mainly due to 19.4 ip and 15.2 ip declines in the construction of buildings and the construction of civil engineering in 2020, respectively. Conversely, the volume index of production in the broad construction sector is further expected to grow by 9.2 ip annually in 2021.

In turn, **turnover** in the broad construction sector is forecast to decline by 14.0% in 2020 and then increase by 27.1% in 2021, reaching a value of EUR 84.7 billion. Similarly, the **total value added** of the broad construction sector is expected to decrease by 13.8% in 2020 and then grow by 27.9% in 2021, reaching EUR 32.6 billion in 2021.

Following the same trend, the number of **persons employed** in the broad construction sector is also expected to decrease by 15.2% to 321,199 in 2020 and then increase by 25.6% to 403,379 in 2021. This decline is projected to come from all sub-sectors including the real estate activities (-26.1%), the architectural and engineering activities (-21.2%), the manufacturing (-16.2%), and the narrow construction (-12.9%) sub-sectors 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 October 2020, the government announced a budget package amounting EUR 5.2 billion for 2021 for the Department of Housing, Local Government and Heritage. This includes EUR 3.3 billion to be spent in housing. Public investment in housing construction will hence play a key role in mitigating house prices and providing affordable housing to the population. 5.2

The **civil engineering** sector is expected to be driven by the government's investment in infrastructure and capital projects. A total investment of EUR 116.0 billion has been planned for public infrastructure and capital works, under the Ireland NDP 2018-2027, as part of the Project Ireland 2040. Key projects include the Atlantic Road Corridor, including the M20 Cork-Limerick motorway; the construction of a second runway at Dublin Airport, the EUR 2.5 billion Dublin Metro Project and the EUR 2.0 billion DART Expansion Programme, among others.

In conclusion, the outlook for the Irish construction sector is positive in the mid to long-term, particularly due to the long-term infrastructure projects and investment in affordable housing. Moreover, the planned capital investment, and the around EUR 5.0 billion in the Department of Housing's budget, could help the construction sector mitigate part of the COVID-19 impact[269].

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

8 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.

9 Data unavailable for subsequent years.

10 Please note that this 2019 data is a nowcast. Please refer to the methodology for further information.

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14 Apparent labour productivity refers to the Gross Value Added per person employed.

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17 Please note that this 2019 data is a nowcast. Please refer to the methodology for further information.

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