European Construction Sector Observatory

Country profile **Ireland**

December 2021

In a nutshell

Over the 2010-2020 period, Ireland GDP increased by 87.4%, from EUR 188.8 billion in 2010 to EUR 353.8 billion in 2020. This represents an increase of 5.9% as compared to the 2019 levels (EUR 334.2 billion). In 2021, the country's GDP is forecast to grow significantly by 14.6% (Y-o-Y), reaching EUR 405.3 billion.

Reflecting this macroeconomic trend, the **number of enterprises** in the Irish broad construction sector considerably increased by 13.1% between 2010 and 2020, totalling 83,577. This growth was mainly driven by the increase in the number of enterprises in the real estate activities (+65.0%), and the architectural and engineering activities (+36.0%) sub-sectors over the same reference period.

Number of enterprises in the broad construction sector between 2010 and 2020 ↑ **13.1%**

In parallel, the **volume index of production** in the broad construction sector recorded an increase of 31.4% during 2015-2020, mainly driven by a 39.2% increase in the construction of buildings, offsetting the decline registered in the construction of civil engineering (-4.0%), over the same reference period.

Similarly, **turnover** in the broad construction sector in Ireland amounted to EUR 41.9 billion, which is a 54.9% increase compared to 2010 (EUR 27.1 billion). It further increased to EUR 42.8 billion in 2020[1], representing an increase of 58.0% compared to the 2010 level. This overall increase was mainly driven by the turnover growth in the architectural and engineering activities (+89.4%), the narrow construction (+51.5%), manufacturing (+37.5%), and the real estate activities (+25.2%) sub-sectors.

Turnover in the broad construction sector between 2010 and 2020 ↑ **58.0%**

Moreover, the **gross operating rate** of the broad construction sector[2], which gives an indication of the sector's profitability, stood at 16.2% in 2018[3], demonstrating the significant recovery of the sector since the 2010 level of -12.0%. This is below the EU-27 average of 16.7%.

In terms of employment, there were 212,287 **persons employed** in the Irish broad construction sector in 2020, marking an increase of 36.0% compared to the 2010 level (156,119 persons). This was mainly driven by the growth registered in the number of persons employed in the real estate activities (+88.2%), the architectural and engineering activities (+65.4%) and the narrow construction (+26.5%) sub-sectors between 2010 and 2020.

Number of persons employed in the narrow construction sub-sector between 2010 and 2020 ↑ **26.5%**

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.

Another pressing issue in Ireland is housing, given the 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 aims at investing EUR 11.6 billion over the 2018-2027 period to facilitate the delivery of 112,000 additional social housing homes.

> **In October 2021, the Irish government announced a budget of EUR 6.0 billion for the Department of Housing, Local Government and Heritage for the year 2022[4].**

This includes EUR 4.0 billion to be spent on housing for all, the single biggest allocation for housing investment by any Irish Government ever in a year.

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. In October 2021, the Irish government announced the largest national development plan in the history of the state as it introduced spending proposals for the next decade (2021-2030). The plan includes a total investment of EUR 165.0 billion until 2030 on various capital projects such as housing and transport infrastructure. The investment will consist of extra money for cross-border projects, with capital funding for the government's Shared Island initiative to be "at least doubled" to EUR 1.0 billion until 2030.

> **Under its EUR 989.0 million Recovery and Resilience Plan (RRP), Ireland has allocated EUR 164.0 million for the electrification and upgrade of Cork commuter rail and EUR 155.0 million for energy efficiency in residential and public building[5].**

The plan also supports the digitalisation of businesses, mainly of small and medium sized enterprises (SMEs) in Ireland, with an investment of EUR 85.0 million. Also, the Irish plan promotes digital skills by providing connectivity and information and communications technology (ICT) equipment to disadvantaged learners in schools (EUR 64.0 million), as well as by supporting the development of digital skills in Irish education at all levels[6].

Lastly, as part of the RRP, the government has also allocated EUR 27.0 million to support access to the labour market for jobseekers and EUR 114.0 million to support the reskilling and upskilling of workers with a strong focus on green, digital and future-proof skills[7].

> **The Irish construction sector has an overall positive outlook. Non-residential and civil engineering market are expected to be the primary growth drivers. Public sector infrastructure, digitalisation, a shift towards a circular and green economy, backed by EU funding, are expected to dominate the sector's growth.**

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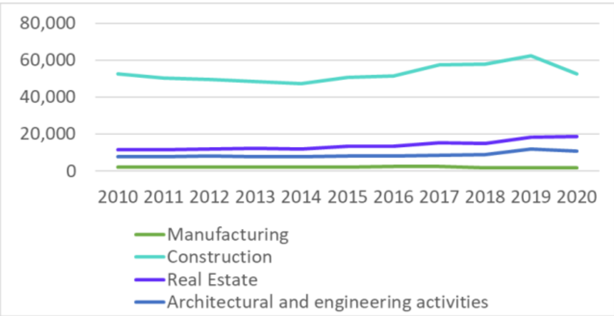
Key figures

Construction market

The **number of enterprises** in the broad construction sector in Ireland totalled 83,577 in 2020[8] (Figure 1), representing an increment of 13.1% over the 2010 level (73,881). Enterprises in the narrow construction sub-sector represented 63.0% of the total, followed by the real estate activities (22.4%), the architectural and engineering activities (12.7%) and the manufacturing (1.9%) sub-sectors respectively. Over the period 2010-2020, the real estate activities sub-sector experienced the highest increase (+65.0%; totalling 18,740), followed by the architectural and engineering activities (+36.0%; totalling 10,590) sub-sectors. Conversely, the manufacturing sub-sector experienced a decline of 23.7% between 2010 and 2020, ending at 1,621 enterprises; while the number of enterprises in the narrow construction sub-sector marginally grew (+0.04%) during the reference period, totalling 52,626 in 2020.

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



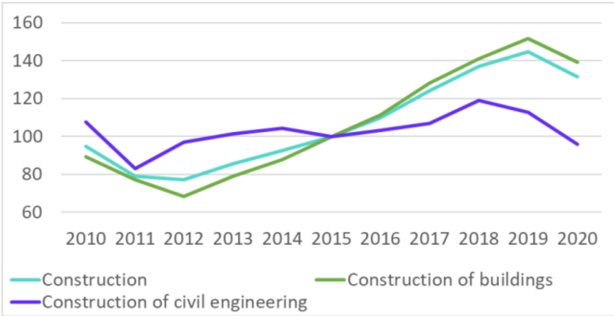
Source: Eurostat, 2021.

Number of enterprises in the broad construction sector between 2010 and 2020 **13.1%**

The volume index of production in the broad construction sector has been growing since 2015, increasing by 31.4% over the 2015-2020 period. The growth was mainly driven by the increase recorded in the volume index of production for the construction of buildings (+39.2%), offsetting the decline registered in the construction of civil engineering (-4.0%), over the same reference period (Figure 2).

Volume index of production in the construction of buildings between 2015 and 2020 **39.2%**

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

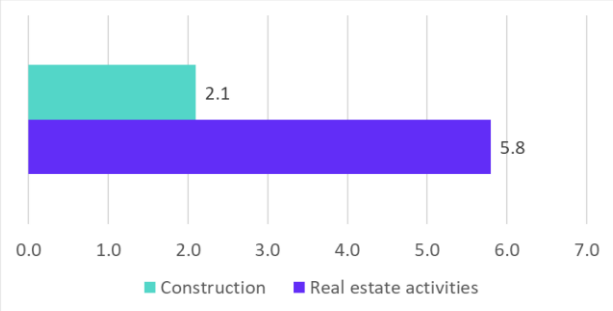


Source: Eurostat, 2021.

The **total added value at factor cost**[9] of the broad construction sector amounted to EUR 15.8 billion in 2020[10], with the narrow construction sub-sector accounting for the largest share (62.0%, i.e. EUR 9.8 billion). It is followed by the architectural and engineering activities (16.2%, i.e. EUR 2.6 billion), the real estate activities (15.6%, i.e. EUR 2.5 billion), and the manufacturing (6.1%, i.e. EUR 1.0 billion) sub-sectors.

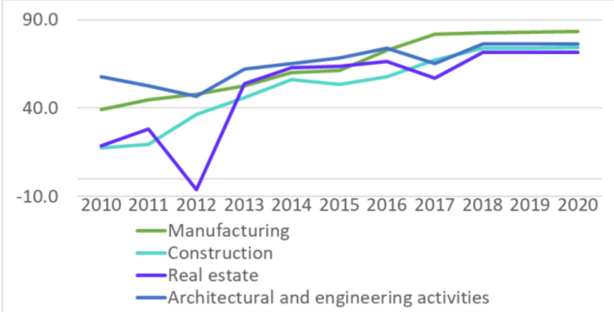
The **share of gross value added (GVA) of the broad construction sector** as a percentage of GDP[11] stood at 9.0% in 2017[12], below the EU-27 average of 16.5%. In 2020[13], the share of GVA of the narrow construction and the real estate activities[14] sub-sectors as a percentage of GDP stood at 2.1% and 5.8% respectively (Figure 3).

Figure 3: Gross value added as a share of GDP in the Irish broad construction sub-sectors in 2020 (%)



Source: Eurostat, 2021

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



Source: Eurostat, 2021.

Ireland is statistically divided into three regions (at NUTS 2 level) including Northern and Western, Southern, and Eastern and Midland. Between 2010 and 2018[15], the GVA of the Eastern and Midland region from the narrow construction sub-sector experienced the highest increase of 312.2%, followed by the Northern and Western (+247.4%) and the Southern (+169.6%) 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 113.5%, 84.7% and 70.7% 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 58.9% (EUR 11.8 billion) and 49.0% (EUR 3.9 billion), respectively, in 2018[16].

Productivity

Apparent labour productivity[17] in the broad construction sector increased from EUR 24,479 in 2010 to EUR 73,838 in 2018[18], marking a significant increase of 201.6%.

With regards to the sub-sectors, labour productivity in the narrow construction sub-sector increased by 329.5% during 2010-2020[19], the highest growth among all the sub-sectors, growing from EUR 17,303 to EUR 74,300. This was followed by a 279.6% growth in the real estate activities sub-sector (from EUR 18,800 to EUR 71,365) over the same period. Productivity in the manufacturing and architectural and engineering activities sub-sectors also witnessed increases of 113.8% and 32.1%, going from EUR 38,997 to EUR 83,365, and from EUR 57,600 to EUR 76,111, respectively, between 2010 and 2020.

Turnover and profitability

In 2018 the **turnover** in the broad construction sector in Ireland amounted to EUR 41.9 billion, which is a 54.9% increase compared to 2010 (EUR 27.1 billion). It further increased to EUR 42.8 billion in 2020[20], representing an increase of 58.0% compared to the 2010 level. In 2020, more than half (65.3%, i.e. EUR 26.8 billion) of the total turnover originated from the narrow construction sub-sector. This was followed by the architectural and engineering activities (16.6%, i.e. EUR 6.8 billion), the real estate activities (11.6%, i.e. EUR 4.8 billion), and the manufacturing (6.5%, i.e. EUR 2.7 billion) sub-sectors respectively. Notably, over the period 2010-2020, the architectural and engineering activities sub-sector registered the highest growth in turnover (+89.4%), followed by the narrow construction (+51.5%), manufacturing (+37.5%), and the real estate activities (+25.2%) sub-sectors.

Turnover in the narrow construction sub-sector between 2010 and 2020 ↑ **51.5%**

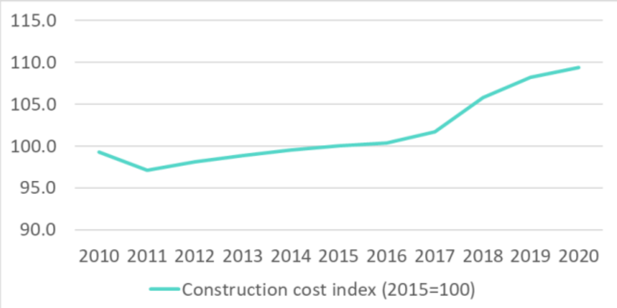
The **gross operating surplus** of the broad construction sector, which was negative in 2010 turned positive in 2013 and ultimately amounted to EUR 6.3 billion in 2018[21], against EUR 5.2 billion in 2017.

The **gross operating rate**[22] of the broad construction sector[23], which gives an indication of the sector's profitability, stood at 16.2% in 2018[24], demonstrating the significant recovery of the sector since the 2010 level of -12.0%. This is below the EU-27 average of 16.7%. The real estate activities were the most profitable (32.9%)

sub-sector in 2018, followed by the narrow construction (14.4%) and the architectural and engineering activities (13.6%) sub-sectors.

In parallel, **construction costs**[25] also witnessed a steady increase, with the construction cost index rising by 7.9% between 2015 and 2020 (Figure 5).

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

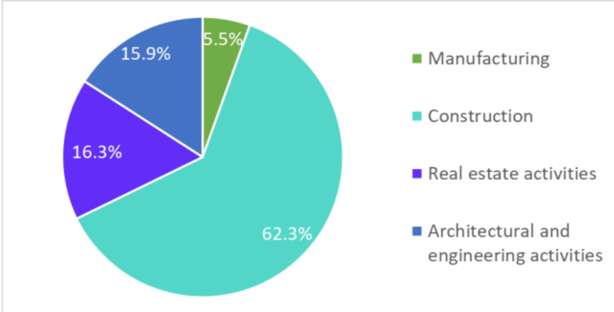


Source: Eurostat, 2021.

Employment

In 2020[26], there were 212,287 **persons employed** in the Irish broad construction sector, an increase of 36.0% compared to the 2010 level (156,119 persons). The narrow construction sub-sector employed 62.3% (i.e. 132,229 persons) of the total workforce in the broad construction sector in 2020, followed by the real estate activities (16.3%, i.e. 34,680 persons), the architectural and engineering activities (15.9%, i.e. 33,782 persons), and lastly the manufacturing (5.5%, i.e. 11,596 persons) sub-sectors (Figure 6). Further, the real estate activities sub-sector experienced the highest growth in the number of persons employed during 2010-2020, being 88.2%. This was followed by the architectural and engineering activities (+65.4%) and the narrow construction (+26.5%) sub-sectors between 2010 and 2020. Conversely, manufacturing sub-sector registered a decline of 8.9%, in terms of number of persons employed, over the same reference period.

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



Source: Eurostat, 2021.

Number of persons employed in the broad construction sector between 2010 and 2020 **36.0%**

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.

In addition, the **number of self-employed workers** in the narrow construction sub-sector accounted for 14.1% of the total self-employed persons in the general economy in 2020. This is considerably above the EU-27 average of 11.7% 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[27]. This is on par with the 2010 level (0.8%) and slightly below the EU-27 average of 1.3%.

In the context **of full-time employment** in the narrow construction, the real estate activities, and the manufacturing sub-sectors increased by 51.8%, 42.5% and 26.2% respectively between 2010 and 2020. In contrast, **part-time employment** in the manufacturing and the narrow construction sub-sectors registered declines of 19.5% and 38.9% respectively during the same reference period.

2

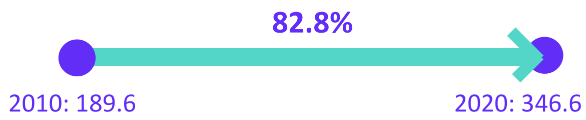
Macroeconomic indicators

Economic development

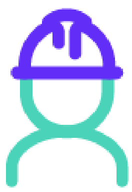
In 2020, the GDP stood at EUR 353.8 billion, exhibiting a significant increment of 87.4% compared to 2010 level, with a growth rate of 5.9% in 2020. It is forecast to grow at 14.6% in 2021, totalling EUR 405.3 billion[28].

In 2020, the country's economy expanded despite the COVID-19 pandemic, mainly due to surging exports which helped to counter a slump in domestic demand[29]. The potential GDP in 2020 was EUR 349.4 billion, resulting in a negative **output gap** of 0.8%. Further, the **inflation rate** in Ireland stood at -0.5% in 2020 having been fluctuating since 2010. This is below the 2019 level of 0.9%. Ireland's inflation is forecast to stabilise in 2021 at around 2.3%[30].

Irish GDP over 2010-2020 (EUR billion)



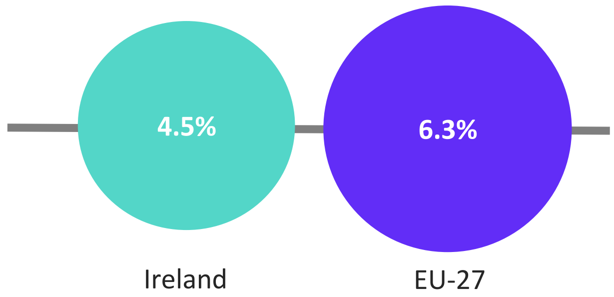
Demography and employment



In 2020, the average unemployment rate (between 25-64 years) in Ireland stood at 4.5%, below the EU-27 average of 6.3% and 8.0 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) increased to 15.3% in 2020, as compared to 12.5% in the previous year, after continuously decreasing since 2012 (30.8%), and below the EU-27 average of 16.8%.

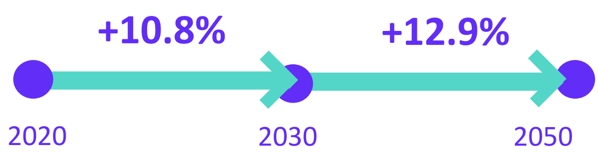
Unemployment rate in Ireland and the EU-27 in 2020



In terms of demography, the **total population** in Ireland amounted to 5.0 million people in 2020, which is 9.3% higher than the 2010 level (4.6 million people). This is expected to increase further by 10.8% between 2020 and 2030 and 12.9% between 2030 and 2050. In 2020, the **working age population** made up 65.3% of the total population in Ireland, slightly above the EU-27 average of 64.3%. 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

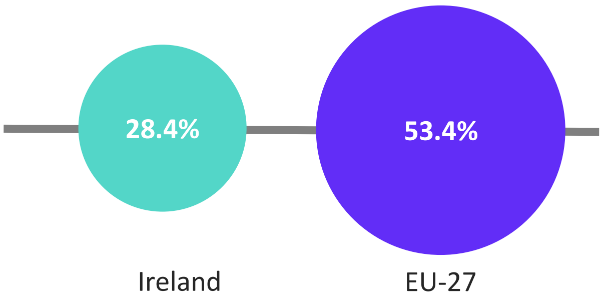


While **net migration** has been negative since 2010, it turned positive in 2014 for the first time in a decade, reflecting in part the improved economic situation in the country and income convergence. However, in 2020, the net migration stood at 18,273, representing a 42.7% decline compared to the previous year level of 31,870. Migration and labour mobility to Ireland are among the factors that also contributed to fill labour and skill shortages.

Public finance

In 2020, **general government expenditure** in Ireland accounted for 28.4% of GDP, well below the EU-27 average of 53.4%. In the same year, **general government deficit** accounted for -5.0% of GDP, while the EU-27 average stood at -6.9%. Further, general **government gross debt** amounted to 59.5% of GDP, considerably below the EU-27 average of 90.7%.

General government expenditure relative to GDP



Entrepreneurship and access to finance

According to the World Bank Doing Business 2020 Report, Ireland ranked 23rd out of 190 countries in ease of starting a business, with a score of 94.4[31].

As per the report, starting a business in Ireland requires three procedures, taking 11 days and costing 0.1% of per capita income. This is the OCED high income countries average, requiring 4.9 procedures, taking 9.2 days and costing 3.0% of per capita income. Moreover, the paid-in minimum capital required (i.e., the amount that the entrepreneur needs to deposit in a bank or with a notary before registration and up to three months following incorporation) is almost 0.0% of per capita income in Ireland, well below the OECD high-income average (7.6% of income per capita)[32].

According to **Global Entrepreneurship Monitor 2020**, 50.2% of the Irish adult population perceive that there are good opportunities for starting a firm in the country, and 14.6% of the adult population, currently not involved in entrepreneurial activities, intended to start a business in the coming three years. Moreover, 39.9% of adult population in Ireland consider entrepreneurship as a 'good career choice'[33].

Overall, Ireland's **loans to non-financial corporations** declined by 63.1% over the 2010-2020 period, from EUR 101.1 billion in 2010 to EUR 37.3 million in 2020. This situation affected also Irish SMEs, with outstanding credit extended to them dropping by 59.3% between 2010 and 2020, from EUR 47.5 billion to EUR 19.3 billion.

Loans to non-financial corporations between 2010 and 2020 ↓ **63.1%**

According to the **Survey on the Access to Finance of Enterprises (SAFE)** Report 2021, 6.8% of SME respondents reported that **access to finance** is the most important problem their firm is facing, below the EU-27 average of 9.8%[34].

Moreover, the combined challenges of COVID-19 pandemic and Brexit are further exacerbating the ongoing challenges faced by Irish SMEs in access to finance, mainly smaller/micro firms. According to the Central Bank of Ireland's SME Market Report 2020, over a third of Irish SMEs have unpaid invoices, for an amount equal to about one fifth of a typical firm's 2019 revenue[35].

The Irish government helps businesses access to finance through a number of measures. Such as:

- The **Microenterprise Loan Fund Scheme** offers support in the form of loans for up to EUR 25,000, available to start-up, newly established, or growing microenterprises employing less than 10 people.
- the **COVID-19 Credit Guarantee Scheme** facilitates up to EUR 2.0 billion in lending to eligible businesses that have been adversely impacted by the COVID-19 pandemic.
- the **Brexit Loan Scheme**, launched by the Strategic Banking Corporation of Ireland (SBCI) in 2018, 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 **Future Growth Loan Scheme** provides up to EUR 800.0 million of loans to eligible

businesses in Ireland over 7-10 years to support strategic long-term investment.

- the **COVID-19 Working Capital Scheme** offers loans under the scheme ranging from EUR 25,000 to EUR 1.5 million to eligible Irish businesses that have been negatively impacted by the outbreak of COVID-19[36].

Moreover, 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[37].

In September 2020, the Seed and Venture Capital Scheme now has an additional funding of EUR 10.0 million available to invest in portfolio of companies impacted by the COVID-19 pandemic[38].

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 aspiring entrepreneurs, starting to succeed or become interested in entrepreneurships, 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[39].

3

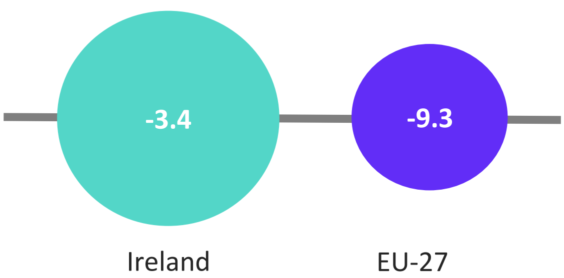
Key economic drivers of the construction sector

Business confidence

Though business confidence in Ireland has shown signs of improvement since 2010, when compared to the 2019 level, all three indicators (namely consumer, construction and industry confidence) declined in 2020. This is mainly due to the impact of COVID-19 pandemic and restrictive measures taken to control its spread.

After dropping to -23.8 in 2010, the **consumer confidence** indicator improved gradually, entering positive territory in 2015 (5.1) and again falling to -2.6 in 2019, after +8.9 in 2018. However, it further reduced to -12.3 in 2020, which is however better than the EU-27 average of -14.6. The **construction confidence** indicator, which reached a bottom low of -36.1 in 2010, improved to 31.9 in 2018 and however decreased to -3.4 in 2020 (against 21.2 in 2019). This again is well above the EU-27 average of -9.3 in 2020. Lastly, the **industry confidence** indicator in 2020 stood at -2.8, lower than the previous year level of 11.8 and the 2010 level of 11.3. This is considerably above the EU-27 average of -14.4 in 2020.

Construction confidence indicator (2020)



The **investment ratio**, which stood at 16.9% in 2010, witnessed a constant growth in the following years, reaching its peak of 46.6% in 2019 – in line with positive trends in terms of confidence indicators. However, it decreased to 30.5% in 2020.

The **investment per worker** in the Irish broad construction sector grew by 11.1% from EUR 60,775 in 2010 to EUR 67,523 in 2019[40].

In terms of sub-sectors, investment per worker in the real estate activities sub-sector registered the highest increment of 527.3% between 2010 and 2018[41], rising from EUR 2,200 to EUR 13,800. This was followed by a 185.7% rise in the narrow construction sub-sector which grew to EUR 4,000 in 2018[42] 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 5,700, marking an increase of 119.2% overtime.

Investment per worker in the narrow construction sub-sector between 2010 and 2018 ↑ **185.7%**

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 61.1% of all Irish domestic construction product sales in 2020. 'Ready-mixed concrete' and 'Doors, windows and their frames', which belonged to the top five list, witnessed sales growth of 84.8% and 63.4% respectively over the period 2010 and 2020. The product group 'Barrels and coopers' products of wood' saw the largest increase in sales value, rising by 283.4% between 2010 and 2020. It grew from EUR 8.1 million in

2010 to EUR 31.0 million in 2020. 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 94.7% with a share of 6.0% 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 2020

Ireland				EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Ready-mixed concrete (group 236310)	360.6	18.4	Other structures (group 251123)
2	Tiles, flagstones, bricks and similar articles, etc. (group 236111)	255.9	13.0	Ready-mixed concrete (group 236310)
3	Portland cement, aluminous cement, etc. (group 235112)	226.2	11.5	Doors, windows and their frames (group 251210)
4	Other structures and parts of structures, etc. (group 251123)	195.5	10.0	Prefabricated buildings of metal (group 251110)
5	Doors, windows and their frames (group 251210)	160.9	8.2	Prefabricated structural components (group 236112)

Source: PRODCOM, 2021.

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 74.6% of the total construction exports in 2020. 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 380.1%, 140.3% and 108.9% respectively between 2010 and 2020. However, the highest increase was recorded by 'Cement clinkers', which export grew from EUR 60.0 in 2010 to EUR 8.7 million in 2020, with an export share of just 1.3% in total construction related exports in 2020. 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 2020

Ireland				EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Portland cement, aluminous cement, etc. (group 235112)	189.3	27.4	Ceramic tiles and flags (group 233110)
2	Fibreboard of wood or other ligneous materials (group 162115)	155.7	22.6	Other structures and parts of structures (group 251123)
3	Oriented strand board (OSB) (group 162113)	65.7	9.5	Fibreboard of wood or other ligneous materials (group 162115)
4	Prefabricated structural components (group 236112)	61.7	8.9	Doors, windows and their frames (group 251210)
5	Doors, windows and their frames (group 251210)	42.6	6.2	Builders joinery and carpentry, etc. (group 162319)

Source: PRODCOM, 2021.

In terms of the **cross-border provision of construction services**[43], Ireland **exported** EUR 72.0 million worldwide in 2020, with all of it going to the EU-27 countries. This represents a 33.3% increase compared to the 2012[44] level (EUR 54.0 million exported worldwide). In parallel, the country **imported** construction services worth EUR 372.0 million in 2020, all of it coming from the EU-27 countries. Ireland, therefore recorded a **trade deficit** of EUR 300.0 million in 2020. This represents a substantial increase of 417.2% as compared to a trade deficit of EUR 58.0 million in 2012[45].

Access to finance in the construction sector

As per the Survey on the Access to Finance of Enterprises (SAFE) 2021 report, on average, 6.4% of the Irish respondent SMEs considered 'access to finance' as the most important issue, slightly below the EU-27 average of 7.1%[46].

According to the report, bank loans are still the main source of financing for 58.0% of SMEs in Ireland, above the EU-27 average of 45.7%. Between the period of April to September 2021, 13.9% of Irish SMEs applied for a bank loan, while 2.7% did not, because of fear of rejection. Out of those who applied for a bank loan, 59.0% received everything, which is below the EU-27 average of 71.3%[47].

The EIB Investment Survey for 2020 shows that 28.0% of firms in the construction sector are dissatisfied with the cost of collateral and 25% of them with the collateral requirements, in the context of access to finance[48].

The survey also suggests that the share of financially constrained firms stood at 16.0% in the Irish construction sector. Moreover, availability of finance is considered as a long-term barrier to investment by 58.0% of the firms in the construction sector[49].

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 2020, with total **outstanding credit extended** to the narrow construction sub-sector decreasing by 79.6% since 2010, from EUR 3.5 billion to EUR 708.0 million in 2020. In particular, outstanding credit extended for the construction of buildings fell by 84.3% over the 2010-2020 period, from EUR 1.6 billion to EUR 257.0 million. Likewise, outstanding credit to companies for civil engineering activities fell by 90.8% over the same period, from EUR 748.0 million to EUR 69.0 million. Outstanding credit extended for other construction activities also decreased by 64.8%, from EUR 1.1 billion to EUR 382.0 million between 2010 and 2020.

Total outstanding credit to the narrow construction sub-sector between 2010 and 2020 **79.6%**

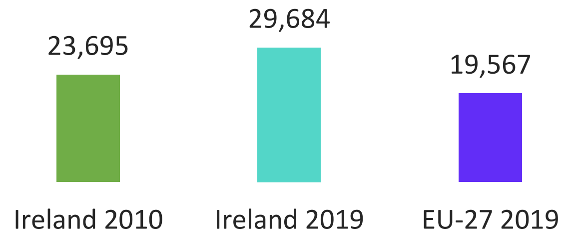
The Irish government provides financial support to construction firms. In 2020, a total of EUR 285.0 million of financing was approved for construction firms by the State agency established to fund the delivery of new homes, with EUR 49.0 million advanced to borrowers[50].

As per the latest annual report of Home Building Finance Ireland (HBFI), the financial assistance provided to Irish construction firms helped to support the development of 1,307 homes across 21 developments in 2020[51].

HBFI, established by the Irish Government in 2018 to address a shortfall in finance available for the construction of residential housing by providing finance at market rates to commercially viable developments, has approved total funding of EUR 395.0 million to support 1,850 homes since its inception[52].

Access to housing

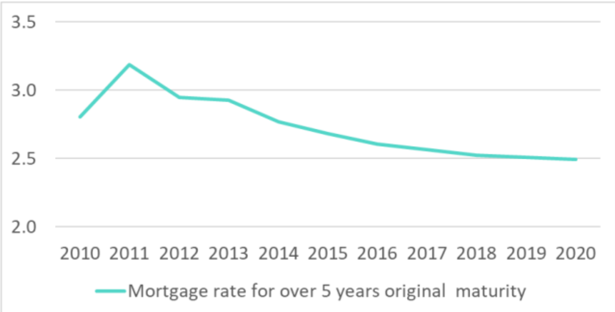
The **number of households** in Ireland continued to increase steadily, reaching 1.9 million in 2020 from 1.7 million in 2010, thus marking an increment of 11.1% overtime. While in 2010, the share of population living in densely populated area stood at 33.1%, it rose to 35.8% in 2019[53]. However, the share of population living in intermediate urbanised areas declined to 23.4% from 27.7% over the same period. Meanwhile, the **mean equivalised net income** experienced a 23.9% increase between 2010 and 2019[54], reaching EUR 29,684 from EUR 23,965. This is above the EU-27 average of 19,567.



Mean equivalised net income in EUR

Additionally, total **outstanding residential loans to households** declined considerably by 20.8%, falling to EUR 81.6 billion in 2019[55] 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 2020, compared to 2.8% in 2010 (Figure 7).

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

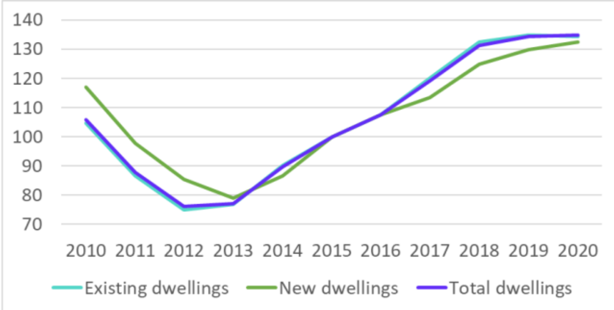


Source: Eurostat, 2021.

Since 2015, the **house price index** of existing dwellings has been increasing gradually, rising by 34.4% between 2015 and 2020. However, it experienced a slight decline of 0.4 index points (ip) between 2019 and 2020. Furthermore, house prices for new dwellings increased by 32.6% between 2015 and 2020, with an increment of 2.8 ip between 2019 and 2020 (Figure 8).

House price index of existing dwellings between 2015 and 2020 **34.4%**

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



Source: Eurostat, 2021.

According to an Ireland-based property website Daft.ie, during 2020, the average house price in Ireland rose strongly by 7.4% to EUR 269,522, mainly due to tight supply[56].

In the fourth quarter of 2020, the number of new dwelling completions stood at 7,400. This is a 15.9% increase as compared to the 6,387 completed in the fourth quarter of 2019. This marks a recovery from the impact of the COVID-19 pandemic and associated restrictions which particularly affected completions in the second quarter and third quarter of 2020. Overall, the **total number of new dwelling completions** in 2020 stood at 20,676, down by 1.9% from the previous year level of 21,087[57].

In addition, **housing rental price** index is following an increasing trend, growing by 30.1% between 2015 and 2020.

Rental price index for housing between 2015 and 2020 **30.1%**

In parallel, the number of **building permits** for residential dwellings has increased significantly by 241.4% between 2015 and 2020. With regards to one-dwelling building permits, there was a 78.7% increase over the same period. Notably, the biggest increment was seen in building permits for two and more dwelling buildings, rising by 838.6% between 2015 and 2020.

Number of building permits for residential dwellings between 2015 and 2020 **241.4%**

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[58].

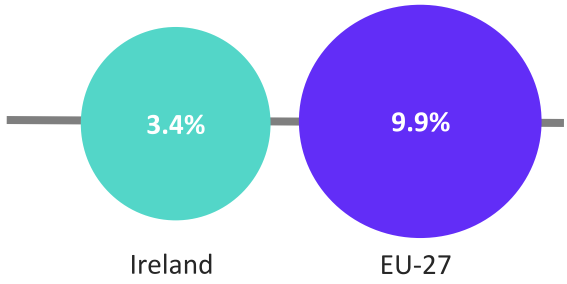
> **In fact, in August 2021, a total of 8,212 people were recorded as homeless in Ireland, with children accounting for more than a quarter (2,189) of those without a home in the country. The number of homeless adults stood at 6,023[59].**

In July 2021, the number of homeless adults in Ireland stood at 6,003. This marks an increase of 43.7% over the July 2015 level of 4,177 homeless adults[60]. The increase in homelessness has prompted warnings from homelessness charities, which have expressed concern that Ireland's homeless crisis will only worsen in the months to come amid rising rents and an increasing number of evictions[61].

At the same time, the home ownership rate for the population earning **above 60% of the median equivalised income**[62] in Ireland decreased from 76.6% in 2010 to 72.7% in 2019. This is slightly below the EU-27 average of 73.6%. However, it increased to 75.3% in 2020. Additionally, for the **population earning below 60% of the median equivalised income**, the home ownership rate reduced from 55.1% in 2010 to 41.9% in 2019, standing below the EU-27 average of 50.3%. It further reduced to 39.5% in 2020.

The **housing cost overburden rate**[63] stood at 3.4% in 2020, well below the EU-27 average of 9.9%[64]. The **overcrowding rate**[65] was at 4.8% in 2020, one of the lowest in the EU, and considerably below the EU-27 average of 17.8%[66]. Similarly, the **severe housing deprivation rate**[67] was 1.1% in 2019, below the EU-27 average of 4.0%. It increased to 1.7% in 2020[68].

Housing cost overburden rate in 2020



Infrastructure

> **According to the World Economic Forum Global Competitiveness Report 2019[69], Ireland ranks 40th out of 141 countries in terms of infrastructure[70].**

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. In the context of airport connectivity, it stood at 33rd position and 41st in efficiency of train services[71].

In 2018 the Irish government announced to invest EUR 116.0 billion in infrastructure until 2027 (The National Development Plan). The plan's priorities include energy and climate change projects, as well as housing, roads, and railway construction, and water system improvements[72].

In October 2021, the Irish government announced the largest national development plan in the history of the state as it introduced spending proposals for the next decade (2021-2030). The plan includes a total investment of EUR 165.0 billion until 2030 on various capital projects such as housing and transport infrastructure. The investment will consist of extra money for cross-border projects, with capital funding for the government's Shared Island initiative to be "at least doubled" to EUR 1.0 billion until 2030[73].

4

Key issues and barriers in the construction sector

Company failure

Over the period 2010-2018[74], **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 85.0% from 1,818 in 2010 to 3,364 in 2018[75]. Similarly, company births in the real estate activities and architectural and engineering activities sub-sectors increased by 22.4% and 51.3% respectively, reaching 841 and 507 in 2018[76].

Company births in the narrow construction sub-sector grew between 2010 and 2018 ↑ **85.0%**

Conversely, the number of **company deaths** in the narrow construction sub-sector declined by 91.3%, from 4,508 in 2010 to 387 in 2018[77]. Similarly, company deaths in the real estate activities and the architectural and engineering activities sub-sectors decreased by 89.6% and 82.8% respectively, reaching 94 and 108 in 2018[78].

Company deaths in the narrow construction sub-sector grew between 2010 and 2018 ↓ **91.3%**

In the first half of 2021, a total of 169 corporate insolvencies were recorded in Ireland, according to the latest corporate insolvency statistics report[79].

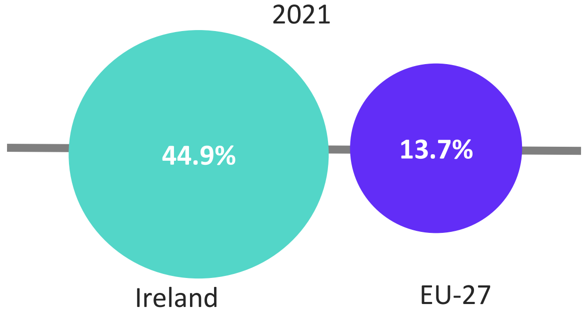
In particular, the Irish construction sector recorded 31 insolvencies during the first of 2021, representing 18.0% of total insolvencies recorded during the period. This marks an increase of 15.0% as compared to the previous year level of 27 insolvencies[80].

Trade credit

According to the Survey on the Access to Finance of Enterprises (SAFE) 2021 report, trade credit constitutes a relevant source of financing for 64.8% of Irish SMEs, double the EU-27 average of 27.8%[81].

As per the report, around 44.9% of SMEs have obtained trade credit from their business partners in the last six months (April - September 2021), well above the EU-27 average (13.7%) for the same reference period. Further, 31.8% of the SME respondents have applied for trade credit in the last six months, while the EU-27 average stands at only 29.6%. Out of the 31.8% of SMEs who applied for trade credit in the last six months, 72.4% SMEs received everything they applied for. This is above the EU-27 average of 71.6%. Also, 75.7% of the SME respondents consider that the availability of trade credit has remained unchanged over the past six months, and 72.0% expect that it will remain unchanged in the six months following the survey[82].

Share of companies using the trade credit in 2021



According to the Atradius Payment Practices Barometer 2020, the proportion of total B2B (business-to-business) sales made on credit in Ireland stood at 58.0% in 2020, above the western European average of 55.0%. 38.0% of the businesses surveyed reported an average one quarter increase in the total value of their credit sales compared to before the COVID-19 pandemic, while 55.0% of the businesses reported no change. Also, 61.0% of businesses surveyed reported to accept trade credit requests from businesses of all sizes to encourage sales on the domestic market (regional average: 53.0%)[83].

Late payment

According to the European Payment Report 2021, about 36.0% of Irish respondent firms say late payments to have a high impact and prohibits growth, below the EU average of 37.0%[84].

As per the report, 59.0% of Irish businesses believe that growing macroeconomic uncertainty has caused them to extend their payment terms to suppliers in 2020 as compared to the EU-28[85] average of 57.0%. On average, a business-to-business (B2B) customer in Ireland is allowed 41 days to pay dues, at par with the EU-28[86] average of 41 days. However, on average a B2B customer took 54 days to pay dues in 2021, down of 15 days with respect to 2020[87].

Further, 64.0% of Irish companies are more concerned than ever before about debtors' ability to pay on time, with 62.0% of companies expecting an increase in the risk of non-payment from debtors in the next 12 months[88].

Additionally, 49.0% of the respondents expect debtors' liquidity challenge due to the impact of COVID-19 affecting late payments. This is above the EU-28[89] average of 48.0%. At the same time, 42.0% of respondents in Ireland ranked "Risk of a pan-European recession" as one of the main payment challenges in terms of their customers paying on time and in full over the next 12 months. This is above the EU-28[90] average of 40.0%[91].

As per the SAFE 2021 report, around 7.8% of SMEs reported facing late payment issues on a regular basis, below the EU-27 average (11.8%)[92].

As per the report, 35.8% of SMEs reported that their payments to suppliers have been affected as a result of late payments by customers. For 19.6% of Irish SMEs, late payment affected production or operations, and for 16.7% it impacted investments or new hiring. 17.3% of SMEs also reported that their loans repayments have been delayed, or they have had to seek additional financing, as a result of late payments[93].

As per the Atradius Payment Practices Barometer survey report, published in November 2020, the total value of overdue invoices increased from 29.0% to 51.0% due to the onset of COVID-19 pandemic, marking a 76.0% year-on-year (Y-o-Y) increase[94].

As per the report, to turn overdue invoices into cash, 48.0% of respondents having to wait up to 18 days longer than last year. On average 10.0% of the total value of receivables was written off as uncollectable after the onset of the pandemic, above the Western Europe average of 7.0%. Moreover, the increase in late payments is also visible in the lengthening of DSO (Daily Sales Outstanding). Around 52.0% of the businesses respondents reported DSO increases of up to 10.0% (regional average: 57%)[95].

Furthermore, to limit liquidity shortages caused by late payments, 45.0% of Irish respondents increased the amount of time, costs and resources they spent on managing outstanding receivables (regional average: 37.0%). While 33% delayed paying their suppliers (regional average: 33.0%)[96].

As per the Atradius Payment Practices Barometer survey report, 51.0% of the total value of B2B invoices in Ireland's construction were impacted by the late payments. This is well above the previous year level of 24.0%[97].

With the onset of the COVID-19 pandemic, the situation has become quite difficult. According to the European Payment Report 2021, 64.0% (nearly two-thirds) of the Irish SME respondents are concerned about their debtors' ability to pay them on time. Moreover, around 20.0% of the respondents) believe that an uncertain trading environment is a major challenge to customer payments[98].

Time and cost of obtaining building permits and licenses

As per the 2020 World Bank's Doing Business Report[99], Ireland ranked 36th out of 190 economies in terms of 'dealing with construction permits', a decline from 28th position the previous year[100]. In 2019, 10 procedures and 164 days were required to complete administrative formalities to build a warehouse[101] 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%[102].

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[103]	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[104].

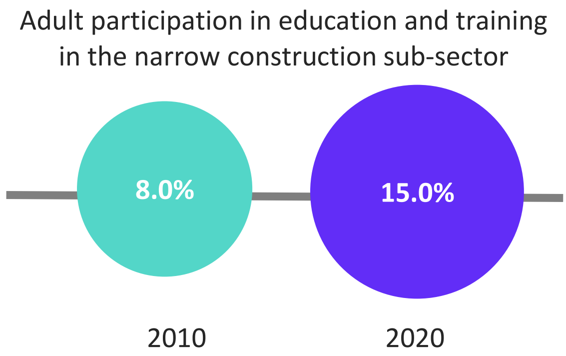
Skills shortage

The number of job vacancies in the narrow construction[105] sub-sector experienced an increase of 80.0%, rising from 125 in 2010 to 225 in 2020. However, it declined by 65.4% in 2020 over the previous year level of 650.

While the **job vacancy rate** in the narrow construction sub-sector witnessed a slight increase of 0.02 pps between 2010 and 2020, standing at 0.2% in 2020. However, in the real estate activities sub-sector, the job vacancy rate declined by 0.3 pps during the same reference period, from 0.5% to 0.2%.

The **number of tertiary students** in engineering, manufacturing and construction increased by 16.7% between 2010 and 2019[106], reaching 8,262 from 7,079. The number of tertiary students increased considerably in the engineering and engineering trades, as well as manufacturing and processing, witnessing increases of 83.4% and 76.6%, respectively, over the same period. On the contrary, tertiary students in architecture and building declined by 33.0% between 2010 and 2019[107].

Moreover, **adult participation in education and training[108]** in the narrow construction sub-sector grew from 8.0% in 2010 to 15.0% in 2020.



As per the EIB Investment Survey 2020 report, 81.0% of firms in the construction sector reported availability of skilled staff as a long-term barrier to investment[109].

The expansion of the construction sector is predicted to require an **additional 40,000 to 50,000 new construction workers** until 2027[110].

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[111].

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[112].

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[113]. 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 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[114,115]. In 2018[116], 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[117].

In 2018[118], approximately 6.2 million tonnes of CDW were collected in Ireland for treatment, significantly above 4.7 million tonnes in 2017[119].

Moreover, 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[120].

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 484,750.1 tonnes and 29,317.0 tonnes in 2019[121], respectively. While the former increased by 35.3% since 2010, the latter witnessed a decline of 17.8% over the same period.

Emissions in narrow construction sub-sector between 2010 and 2019 ↑ **35.3%**

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[122]. 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[123].

5

Innovation in the construction sector

Innovation performance

According to the European Innovation Scoreboard 2021[124], Ireland is classified as a strong innovator with an overall score of 121 in in 2020.

As per the report, the strongest innovation dimensions for Ireland are Linkages, Human resources and Attractive research systems. It scores high in terms of population with tertiary education, Innovative SMEs collaborating with others, and Employment in knowledge-intensive activities[125].

Between 2019 and 2021, the country's innovation performance declined mainly due to reduced performance on Government support for business R&D, Business R&D expenditures, Employment in innovative enterprises, Sales of innovative products, and Environment-related technologies. The country also scored low on the Climate change related indicators due to a low score on the Circular material use rate[126].

Business enterprise R&D expenditure (BERD) in the narrow construction sub-sector amounted to EUR 7.8 million in 2019[127], 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 a very low level of EUR 0.8 million in 2019[128]. However, BERD expenditure in the professional, scientific and technical activities sub-sector saw a massive increase of 388.4%, rising from EUR 29.1 million in 2010 to EUR 141.9 million in 2019[129].

Similarly, the total **R&D personnel** (full-time equivalents – FTE[130]) in the narrow construction sub-sector, which experienced a declining trend between 2011 and 2015, witnessed an increase in 2017[131]. 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[132], the highest across the sub-sectors. For the real estate activities sub-sector, this figure stood at only one in 2017[133], in line with its BERD expenditure.

During the 2010-2020 period, a total of 76 **construction-related patent applications** were registered in Ireland, with only three such application in the year 2020 (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, according to the 2020 EU R&D Scoreboard[134].

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[135]. 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[136].

The Construction Innovation Lab is a student-led initiative to assist higher education students with research topics identified by the construction sector[137].

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[138].

Eco-innovation and digitalisation

According to the 2021 Eco-Innovation Scoreboard (Eco-IS), Ireland ranked 14th in Europe with a score of 109, in comparison to the EU-27 average of 121 and was classified as an 'average eco-I performer'[139].

As per the report, Ireland's score was below the EU-27 average score of 100 on three out of five indicators, namely; **eco-innovation inputs** (score 73), **eco-innovation outputs** (score 128) and **socio-economic outcomes** (the worst performer) with a score of 37. However, the country outperformed the EU-27 average on **eco-innovation activities** and **resource efficiency outcomes**, scoring **120** and 167, respectively[140].

In the **European Commission Digital Economy and Society Index (DESI) 2021**, Ireland is ranked 5th out of the 27 EU member states with an overall score of 60.3, compared to the EU-27 average score of 50.7. The country performs very well on the integration of digital technology, and maintains its high scores (Ireland: 48.0; EU-27 average: 37.6) in the use of e-commerce by SMEs (for example, indicators for SMEs selling online and across borders are well above the EU averages). Ireland also scores well for digital public services (Ireland: 82.6; EU-27 average: 68.1), particularly in open data and providing digital public services for citizens and businesses[141].

Although the country performs above the EU-27 average in advanced digital skills (for example, for the indicators on ICT specialists, female ICT specialists and ICT graduates), the basic digital skills of the population are a little lower (53.0% against the EU-27 average of 56.0%)[142].

Ireland's Recovery and Resilience Plan consists of ambitious and comprehensive digital measures pertaining to all dimensions of the DESI. As part of the RRP, the government has allocated EUR 312.0 million towards the measures supporting digital objectives. This represents 32.0% of the plan's total allocation of EUR 989.0 million, well above the 20.0% target set out in the Recovery and Resilience Facility (RRF) Regulation[143].

In particular, the government has allocated EUR 85.0 million for the digitalisation of businesses, EUR 39.0 million for the investment in digital capacities and deployment of advanced technologies, and EUR 21.0 million towards the digital-related investment in R&D[144].

In 2014, the government's **Construction 2020 strategy**[145] 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[146] 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[147].

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[148].

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[149].

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[150].

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[151]. 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[152].

In order to cater to the knowledge and funding gaps that are preventing the digitisation of Irish SMEs, the Irish government launched a National Artificial Intelligence (AI) Strategy, in July 2021[153].

6

National and regional regulatory framework

Policy schemes

In 2014, the Irish government introduced the Construction 2020 strategy[154], 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[155].

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[156]. 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[157] (Housing Assistance Payment) homes, 3,800 RAS[158] (Rental Accommodation Scheme) homes and over 50,000 new homes[159].

In 2020, Rebuilding Ireland had set a target to deliver 27,517 social homes, in total. This target was not met and only 24,622 social homes were delivered by 2020. For 2021, a target of delivering 28,550 social homes were set. By the third quarter of 2021, 17,302 social homes were delivered[160].

Since 2016, Rebuilding Ireland has delivered over 44,228 social homes, through a combination of building, acquisition and leasing in addition to a further 97,799 flexible housing solutions under HAP and RAS[161].

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[162].

Housing First aims to help the homeless and people in need. 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[163]. This target has been surpassed and as of September 2021, 695 tenancies were delivered under Housing First[164].

Published in December 2021, the Housing First National Implementation Plan 2022-2026 provides for the creation of 1,319 additional tenancies over the period 2022 to 2026[165].

In September 2021, EIB signed an agreement to provide EUR 200.0 million for financing the HFA (Housing Finance Agency) Irish Social and Affordable Housing Development Programme for the next four years. The proposed Framework Loan to the Irish HFA would finance the retrofitting of existing rented social housing and the new construction of energy-efficient social and affordable housing throughout the country in the period 2021-2025[166].

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[167].

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[168].

In October 2020, the Residential Tenancies Act 2020 was passed. 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[169].

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[170].

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[171].

As part of Project Ireland 2040, EUR 7.5 billion has been allocated to the National Development Programme (NDP) for the 2022-2027 period. 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[172].

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[173].

In October 2021, the Irish government announced a budget of EUR 6.0 billion for the Department of Housing, Local Government and Heritage for the year 2022. This includes EUR 4.0 billion to be spent on housing for all, the single biggest allocation for housing investment by any Government ever in a year[174].

The government will add 11,820 new homes for the supply of social housing through build, acquisition and long-term leasing, with a focus on new build (9,000 homes). Also, it will provide support of EUR 676.0 million to deliver more affordable housing, including 4,130 affordable purchase and cost rental homes. Furthermore, EUR 194.0 million would be spent towards those experiencing homelessness and would be supported and helped to successfully exit homelessness[175].

The Help to Buy (HTB) incentive supports first-time buyers buy a newly-built house or apartment. It is also applicable to once-off self-build homes. It only applies to properties that cost EUR 500,000 or less. The scheme gives a refund of income tax and Deposit Interest Retention Tax (DIRT) paid in Ireland over the previous four tax years. In July 2020, the relief available to first-time-buyers was increased and has been has been extended in subsequent budgets. This increase is known as the 'Enhanced Help to Buy Scheme'[176].

As part of the 2022 budget, the extension of the Help-to-Buy (HTB) scheme to 2022 (until 31 December 2022) was announced[177].

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[178]. 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[179].

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[180]. In 2019, there were additional amendments to certain energy performance regulations. The amendment 183/2019[181] and 292/2019[182] 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[183]. 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. 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[184].

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[185]. 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*)[186]. 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). 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[187].

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[188].

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[189].

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[190].

7

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

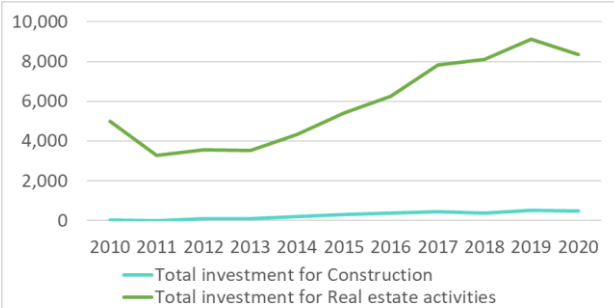
Total **investment by the broad construction sector**[191], has witnessed a substantial increase over the past years (Figure 8). Investment by the narrow construction sub-sector increased by 3,172.3% between 2010 and 2020, from EUR 14.8 million to EUR 484.3.0 million. Similarly, investment by the real estate activities sub-sector experienced a 67.1% increase between 2010 and 2020, from EUR 5.0 billion to EUR 8.3 billion.

Investments by the narrow construction sub-sector between 2010 and 2019	↑ 3,172.3%

In parallel, **investment in intellectual property products** by the narrow construction sub-sector reached to EUR 16.9 million in 2019[192] from EUR 6.3 billion in 2010, marking a 168.3% increase over the period. Similarly, investment by the real estate activities sub-sector for this category accelerated by 227.6%, reaching EUR 9.5 million in 2019[193] as compared to EUR 2.9 million in 2010.

Investment in intellectual property products by narrow construction sub-sector between 2010 and 2019	↑ 168.3%

Figure 8: Investment by the Irish broad construction sector between 2010 and 2019[194] (EUR m)



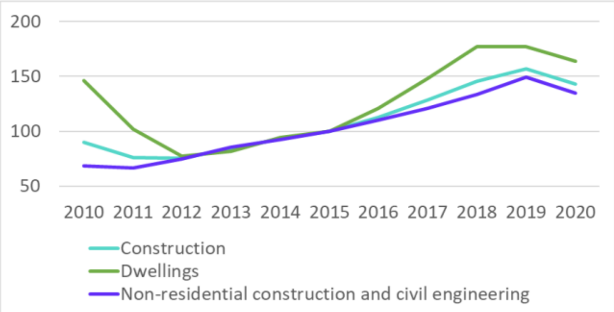
Source: Eurostat, 2021.

Total **investment index in the broad construction sector**[195] experienced a 42.7% increase between 2015 and 2020 (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 63.9% and 34.8% respectively over the same reference period.

In absolute terms, **investment in the broad construction sector** totalled EUR 92.7 billion in 2018[196], out of which EUR 7.6 billion were invested in dwelling and EUR 16.8 billion in non-residential construction and civil engineering[197].

Total investment index in the broad construction sector between 2015 and 2020	↑ 42.7%

Figure 9: Investment index in the Irish construction sector between 2010 and 2020 (2015=100)



Source: AMECO, 2021.

In contrast, investment in road infrastructure declined by 40.8%, from EUR 1.4 billion million in 2010 to EUR 837.0 million in 2019[198]. Similarly, **investment in road infrastructure maintenance** witnessed a decline of 54.5%, from EUR 165.0 million in 2010 to EUR 75.0 million in 2019[199].

Household renovation spending has generally seen a decreasing trend since 2010. It reached EUR 296.3 million in 2020, 15.9% lower than the peak of EUR 352.4 million recorded in 2010. This is, however, 2.4% above the previous year level of EUR 289.4 million. Renovation spending as share of household disposable income decreased from 0.4% in 2010 to 0.3% in 2013 and remained at the same level till 2019. It further reduced to 0.2% in 2020.

Household renovation spending between 2010 and 2020 **15.9%**

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 2021 and 2022 amount to EUR 8.6 billion and EUR 8.9 billion, respectively, which equate to 3.8% of GDP for each year[200].

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[201].

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[202].

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[203].

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[204].

EU investment in Irish infrastructure is also substantial. By 2020, EIB invested around EUR 150.0 million on infrastructure related projects in Ireland[205].

As part of the Recovery and Resilience Plan (RRP), the Irish Government has allocated around EUR 185.0 million towards the upgrade of the metropolitan commuter rail line in Cork[206].

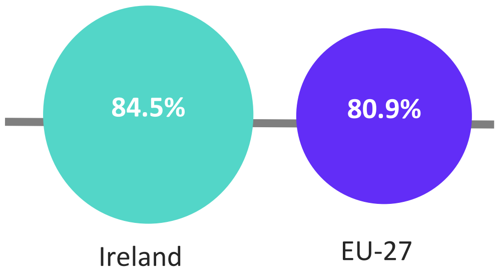
The investment plan includes allocations for supporting the green transition, such as future electrification. As part of the RRP, the government has planned to allocate a total of EUR 524.0 million towards the transportation sector for its recovery and improvement[207].

TO 2 – Skills

In Ireland, currently the share of upper secondary students enrolled in **VET (vocational education and training)** is 11.0% among 15-19 year-olds (OECD average: 37%), and 98.0% among 20-24 year-olds (OECD average: 62.0%)[208]. For **tertiary education**, the attainment rate in Ireland was 55.4% in 2019[209], one of the highest in the EU (EU-27 average: 40.3%). Also, the attainment rate among foreign-born people stood at 59.5% in 2019[210], among the highest in the EU[211]. Moreover, **the employment rate of recent graduates** in Ireland is slowly growing, and in 2019[212]it reached 84.5%, above the EU-27 average of 80.9%.

While the share of early leavers from education and training stood at 5.1% in 2019[213], the EU-27 average for this indicator was higher at 10.2%. Substantial progress was made in overall **adult participation in learning**, which increased from 9.0% in 2017 to 12.5% in 2018 and then reached to 12.6% in 2019[214], higher than the EU-27 average of 10.8%.

Employment rate of recent graduates, 2019



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)[215]. Between fourth quarter 2018 and fourth quarter 2019[216], Ireland witnessed a slight 0.1 percentage points YoY (year-on-year) decline in the share of working age (aged 15-64) third level graduates in the labour force at 49.1%. This already exceeded the 48.0% NSS 2020 target. Additionally, the share of people with lower secondary or lesser qualifications remained at the same level at 11.8% in the fourth quarter of 2019[217].

The government of Ireland has developed a revised version of the Pathways to Work strategy for the period 2020-2024. It is focused 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[218].

In 2019, to support new undergraduate places and courses in high-priority areas, such as science, engineering, ICT and construction, the Irish government provided EUR 24.0 million to tertiary institutions under pillar 2 of the government's human capital initiative[219].

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[220].

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[221].

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[222].

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[223].

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[224].

CIF also launched the website **apprentices.ie**, aiming to match employers and job seekers to suitable apprenticeships across the country[225].

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[226].

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'[227].

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 expected to achieve 16.2% out of the 20.0% energy efficiency target set out by 2020, according to the fourth National Energy Efficiency Action Plan (NEEAP 4)[228].

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[229].

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[230].

Ireland's National Energy and Climate Plan 2021-2030, submitted in 2020, sets out contributing towards the EU wide target of achieving at least 32.5% improvement in energy efficiency by 2030[231].

As per the plan, the country needs to achieve a 50.0% energy efficiency target for the public sector by 2030. It should also aim to deliver primary energy savings of 62,171GWh by 2030[232].

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[233].

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[234].

Moreover, 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 offers 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[235].

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[236]. 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[237].

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, were not be eligible for a reassessment until 2020[238].

As of November 2019, interventions on 142,323 fuel poor homes were completed under the scheme[239]. Since June 2018, the scheme covers an additional set of interventions, such as central heating and windows replacement[240].

The Better Energy Communities programme is a national retrofit initiative, which supports energy upgrades to existing buildings and facilities in the community sector[241].

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 2020, the programme helped finance 25 projects with total government funding of EUR 18.7 million offered. This supported energy efficiency upgrades in 656 homes and 240 non-domestic buildings. Under the 2021 budget, EUR 28.0 million is earmarked for grant support for community energy projects. Cumulatively, 18,856 homes and 2,810 non-domestic buildings benefited from energy efficiency upgrades. This has resulted in annual estimated total energy credits savings of 181.5 GWh[242].

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[243]. The pilot scheme is currently available in Dublin[244].

The H2020 project 'Turnkey Retrofit' launched its one-stop-shop for energy retrofitting of buildings in Ireland, France and Spain[245].

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[246].

Under the EUR 989.0 million Recovery and Resilience Plan (RRP), Ireland has allocated EUR 155.0 million for energy efficiency in residential and public building[247].

The plan supports carbon abatement measures through retrofitting and energy efficiency measures that have the potential to contribute to reducing greenhouse gas emissions.

TO 4 – Single Market

Ireland performed fairly well with respect to the 2021 EU Single Market Scoreboard metrics, particularly in terms of Internal Market

Information System and Trade Integration in the Single Market for services[248].

Ireland reported a transposition deficit of 1.3%, while the EU-27 average stood at 1.0%. The average delay in transposition now stands at 12.2 months, marking a decrease of 5.0 months from the last reported 17.2 months. This is higher than the EU-27 average of 7.4 months. From eight last reported, Ireland now has 13 overdue directives, with one directive being more than two years overdue. Conformity deficit also has increased from 1.1% to 1.3% compared to the EU-27 average of 1.4%. In terms of Infringements, Ireland reported 23 pending cases as compared to the EU-27 average of 31 cases. The average case duration has increased to 51.6 months (EU-27 average 37.3 months) from the 44.3 months previously reported[249].

Furthermore, Ireland continued to perform very well in terms of Internal Market Information System, with all five indicators standing above the EEA average. The speed in answering requests decreased but remained very good. In addition, its performance in Public Procurement is average[250].

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 some 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[251].

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[252].

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[253].

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[254].

TO 5 – International competitiveness

As per World Bank Doing Business 2020 report, Ireland ranked 52nd out of 190 economies in the ease of trading across border, achieving a score of 87.2[255].

As per the report, in Ireland, it takes only one hour to be documentary compliant and 24 hours to be border compliant. In terms of costs, businesses need to spend USD 75 and USD 305 to be documentary compliant and border compliant, respectively[256].

With regards to the **internationalisation of construction SMEs**, the **export value of all construction-related products** in Ireland stood at EUR 689.9 million in 2020, an increase of 80.0% over the 2010 level of EUR 383.2 million. Ireland's share of exports of all construction-related products in 2019 stood at 33.4% of the total production value, well above the EU-27 average of 11.3%. However, this share increased to 35.4% in 2020.

Export value of all construction-related products between 2010 and 2020 ↑ **80.0%**

Conversely, the export value of architectural services declined to EUR 10.4 million in 2020, as compared to EUR 13.5 million in 2010. This represents a decline of 23.1% over the period.

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 281.0% and 287.1% respectively, and it significantly increased by 9,436.9% in the narrow construction sub-sector between 2010 and 2018[258], as it stood at -11.1 in 2010 and 1,036.4 in 2018. Furthermore, turnover in the narrow construction, manufacturing and real estate activities sub-sectors grew by 103.5%, 191.0% and 451.1% respectively during the 2010-2018[259] period.

In terms of **outward FATS**[260], turnover in the manufacturing and narrow construction sub-sectors grew by 113.4% and 174.6% respectively, between 2010 and 2018[261]. Similarly, the number of people employed in the manufacturing and narrow construction sub-sectors increased by 74.6% and 65.3% respectively, during the same reference period.

With regards to the internalisation of SMEs, the government and the state agencies have taken several measures. **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[262]. 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[263].

'Prepare your Business for Customs', a series of interactive training workshops, are provided by Local Enterprise Offices across Ireland[264].

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[265].

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)[266].

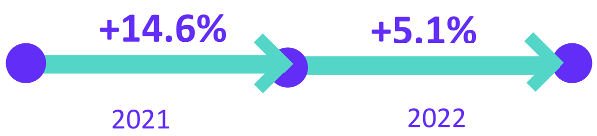
8

Outlook

After registering a GDP growth of 5.9% in 2020, as compared to 4.9% in 2019, the Irish economy is expected to revive and register fast growth in 2021 and afterwards.

Ireland's GDP is expected to grow by 14.6% in 2021, reaching EUR 405.3 billion and then by 5.1% in 2022, reaching EUR 426.0 billion.

Expected GDP growth in 2021 and 2022



In parallel, the **volume index of production** in the broad construction sector is expected to grow by 4.2 ip in 2021. This is projected to be mainly driven by 4.6 ip and 3.0 ip increases in the construction of buildings and the construction of civil engineering in 2021, respectively.

In turn, **turnover** in the broad construction sector is forecast to grow by 2.1% in 2021, reaching a value of EUR 42.0 billion. In a similar line, the **total value added** of the broad construction sector is expected to by 2.4% in 2021, reaching EUR 16.2 billion in 2021.

Following the same trend, the number of **persons employed** in the broad construction sector is also expected to increase by 2.5% to 217,563 in 2021. This growth is projected to come from all sub-sectors including the real estate activities (+7.0%), the manufacturing (+6.3%), the architectural and engineering activities (+5.2%), and the narrow construction (+0.3%) sub-sectors in 2021.

The main driver of the broad construction sector will continue to be the **housing market**. In October 2021, the Irish government announced a budget of EUR 6.0 billion for the Department of Housing, Local Government and Heritage for the year 2022. This includes EUR 4.0 billion to be spent on housing for all, the single biggest allocation for housing investment by any Government ever in a year.

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. The planned investments in 2021 and 2022 amount to EUR 8.6 billion and EUR 8.9 billion, respectively, which equate to 3.8% of GDP for each year.

As part of the Recovery and Resilience Plan (RRP), the Irish Government has allocated EUR 164.0 million for the electrification and upgrade of Cork commuter rail and EUR 155.0 million for energy efficiency in residential and public building. The plan also supports the digitalisation of businesses, mainly of small and medium sized enterprises (SMEs) in Ireland, with an investment of EUR 85.0 million.

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 6.0 billion in the Department of Housing's budget, could help the construction sector mitigate part of the COVID-19 impact.

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10 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
11 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.
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16 Data unavailable for subsequent years.
17 Apparent labour productivity refers to the Gross Value Added per person employed.
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20 Please note that this 2020 data is a nowcast. Please refer to the methodology for further information.
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