

CONSTRUCTION SKILLS NETWORK

Labour Market Intelligence Report



SCOTLAND



The volume of construction work in Scotland will grow, slightly below the UK forecast of 3.2%, by an annual average rate of approximately



Fastest sector rate of growth expected for

Industrial

Strongest recruitment requirement levels

Electrical trades (1,040 per year) Labourers (890 per year) Other construction professionals and technical staff (600 per year)

Scottish Water's capital investment plans for water and waste services, estimated between 2021 and 2027 to total more than

£5bn

KEY INFORMATION

The annual recruitment requirement in Scotland of 2.2% per year is above the UK figure of 2.0% and means an extra 25,250 workers will be needed from 2022 to 2026.

UK Macroenocomic backdrop

In 2020 and 2021, the UK went through several lockdowns in response to the spread of the Covid-19 virus.

The adverse impact on the economy was more severe in 2020 when Gross Domestic Product (GDP) contracted by nearly 10%, but the rollout of the Covid-19 vaccination programme, which started in late 2020 together with progressively less restrictive lockdown measures has meant that 2021 was a period of relative growth and improved confidence.

Macroeconomic indicators suggested that the economy would face a mixed start to 2022 as growth weakened towards the end to 2021 in response to the rapidly increasing numbers of Covid-19 cases associated with the Omicron variant and a fall in consumer confidence and retail activity. The major purchase index also fell and consumers' views on the economy and on their personal finances also worsened, driven by concerns over the higher cost of living and the prospect of looming interest rate increases. However, the impact of the Omicron variant appears to have passed without significant economic damage and economic forecasts at the start of 2022 had an average of over 4% GDP growth for the year, after allowing for the expected squeeze on real incomes and household consumption.

While supply chain issues that initially emerged in 2021 continued to blight the construction industry, leading to associated rise in input costs, there were signs that this had started to ease slightly by the end of the year. In January 2022 GB monthly construction output had increased by 1.6% to £14.6bn, which was the highest monthly output figure since February 2020. The IHS Markit/CIPS UK Construction PMI® Total Activity Index increased from 56.3 in January 2022 to 59.1 in February, pointing towards an increase in construction activity.

The cautious optimism at the start of 2022 would have also been helped by the easing of Covid-19 restrictions across the UK. However, increasing supply chain costs and inflation were brought firmly back into focus following Russia's invasion of Ukraine at the end of February, which subsequently led to the introduction of economic sanctions on Russia that have exacerbated already rising global commodity prices, especially oil and gas, food, and raw materials for industrial production. As a result, economic forecasts are now being revised down for the UK in 2022 and 2023 as higher energy and food prices drive up inflation and squeeze the cost of living for many.

Although the macroeconomic pressures will undoubtedly have an impact on construction work as aggregate demand weakens in the short to medium-term, we still see the greatest challenge the construction industry faces over the next five years being the recruitment of sufficient numbers of people to fill the growing number of vacancies. The UK economy is in the grip of the tightest labour market for several decades and going into 2022, construction vacancies were nearly double the level seen in 2019. This shows little sign of easing, even with a weakening of demand, which points towards growing competition in the job market. Recruiting workers will be a major task and means construction employers will need to refresh the way they recruit. Employing fully skilled workers is unlikely to meet the expected shortfall because, to put it bluntly, the workers aren't available; they have left industry through retirement, emigration, or choice.

To prepare for growth, the industry must consider recruiting from a wider and more varied range of sources while approaches to recruitment need to adapt to help construction companies attract from as wide a base of potential workers as possible. Without the workers and skills required, industry will be unable to capitalise on the growth opportunities that are identified in the 2022-2026 Outlook to build the volume of homes the country needs, construct the infrastructure to ensure the economy thrives and retrofit our built environment to meet net zero targets.

Early indicators suggest that the economy will face a mixed start to 2022.

Structure

The construction industry in Scotland has some notable sector differences to the overall UK structure.

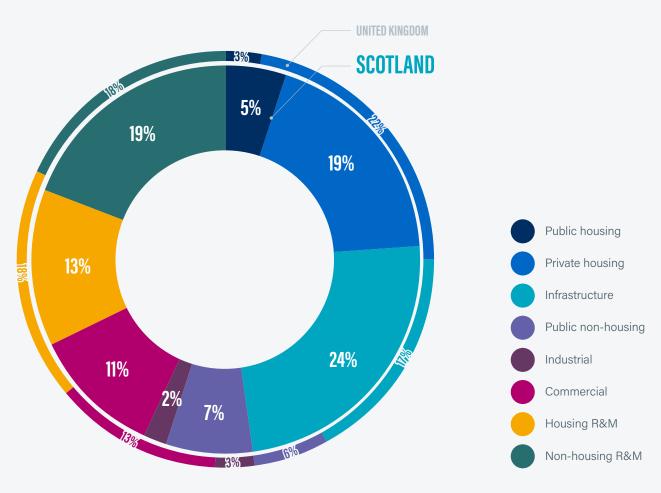
Set to account for 24% of total output in 2021, the infrastructure sector continues to be important for Scotland and has been leading the recovery in work from the pandemic. As public housing and non-housing also account for higher shares of output in Scotland, it highlights that Scottish Government capital investment plans will continue the be important for these sectors.

The one sector that's slightly lower than the corresponding UK structure is housing repair and maintenance (R&M), at 13% compared the UK figure of 18%. The reason for this looks to be Scotland seeing a 30% drop in work for this sector during 2020, compared to a UK drop of nearly 14%.

Infrastructure total output



CONSTRUCTION INDUSTRY STRUCTURE 2021 SCOTLAND VS UK





Total annual output 2021



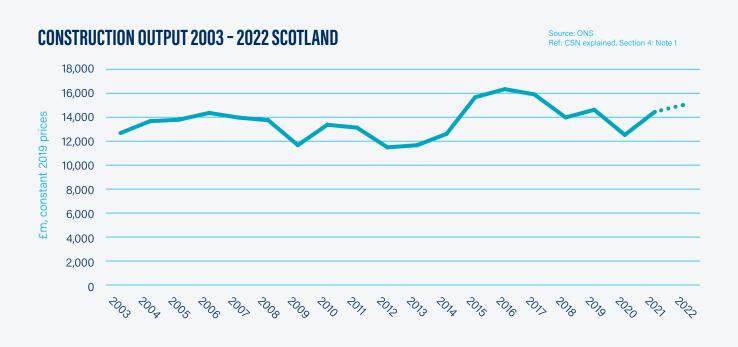
Total estimated output 2022

£15.0bn

2021 has seen a strong pick up in output with estimates for the end of year just over 15% up on 2020, and growth in most sectors.

2021 view

Growth in infrastructure, a recovery in private housing work and growth in repair & maintenance work were the main contributors, while both commercial and public housing work continued to decline. Overall, we expect growth to continue into 2022, although at a slightly lower rate.



Output forecast 2022 - 2026

The volume of work will grow by an annual average rate of 2.7% for Scotland, which is slightly below the UK rate of 3.2%. Long term growth rates are expected to be similar for new work and R&M, however, all sectors will see growth over the forecast. In general, there is higher growth in the earlier years, which dips to be closer to the longer-term growth trends that have been seen, towards the latter years.

Although the industrial sector has the highest annual average growth rate (6.1%), the higher volumes of work in the infrastructure, private housing and R&M sectors means that they will contribute the biggest gains in output. We're forecasting infrastructure output to increase by over £430m across the forecast, followed very closely by private housing at just under £430m, and non-housing R&M by over £380m, whereas industrial output will rise by around £110m.

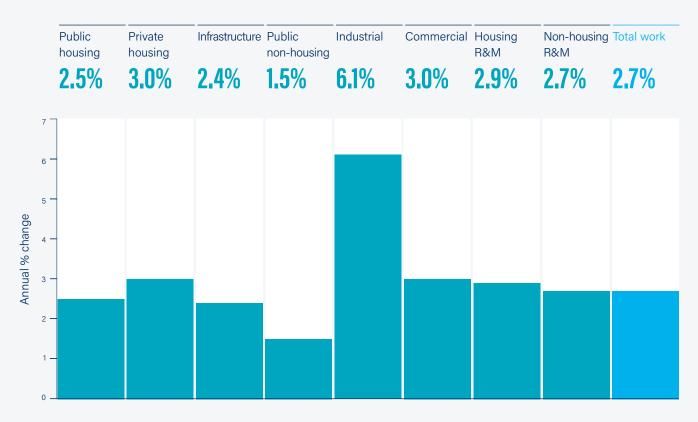
Industrial sector has the highest annual average growth rate

6.1%

Forecast

ANNUAL AVERAGE OUTPUT GROWTH BY SECTOR 2022-2026 SCOTLAND

Source: Experian Ref: CSN Explained, Section 4, Note 2



CONSTRUCTION OUTPUT - Scotland	Actual	Forecast (Annual % change, real terms)					Annual average
(£ MILLION, 2019 PRICES)	2021	2022	2023	2024	2025	2026	2022-2026
Public housing	733	3.6%	1.1%	3.6%	2.2%	2.2%	2.5%
Private housing	2,662	5.2%	3.4%	3.2%	1.8%	1.6%	3.0%
Infrastructure	3,432	6.7%	0.4%	2.1%	1.8%	1.0%	2.4%
Public non-housing	1,026	-2.1%	2.3%	4.5%	1.0%	2.0%	1.5%
Industrial	332	18.5%	6.4%	5.8%	0.3%	0.3%	6.1%
Commercial	1,530	0.8%	5.2%	3.3%	2.9%	2.5%	3.0%
New work	9,716	4.6%	2.5%	3.1%	1.8%	1.6%	2.7%
Housing R&M	1,931	5.3%	4.6%	2.3%	0.6%	1.6%	2.9%
Non-housing R&M	2,755	2.6%	3.7%	2.3%	2.9%	1.9%	2.7%
Total R&M	4,687	3.7%	4.1%	2.3%	1.9%	1.7%	2.7%
Total work	14,403	4.3%	3.0%	2.8%	1.9%	1.6%	2.7%

The annual average growth rate is the rate of growth between the end of 2021 and the end of 2026, i.e., five-year period.

Source: Experian Ref: CSN Explained, Section 4, Note 2

The infrastructure sector is benefiting from Scottish Water's investment plans, estimated at over £5bn from 2021 through to 2027.

Before the Covid-19 pandemic, infrastructure activity was beginning to ramp up again, with some big wind farm schemes, such as those in the Firth of Forth, ongoing or in the pipeline. The Moray Firth East project exported its first power in June 2021, 50% of the turbines are now installed and it is expected to be fully operational in 2022, providing enough power for close to 1m homes. Moray West will comprise 85 turbines and is set to become operational in 2024/25. The sector is also benefiting Scottish Water's investment plans, estimated at over £5bn from 2021 through to 2027.

Councils in the north of Scotland are seeking reassurance from the Scottish Government of its commitment to the programme for the remaining 10 (of 12) sections to dual the A9 from Perth to Inverness, initially planned to be complete by 2025 at a total cost of £3bn. However, there is plenty of work left in this scheme, although it is looking increasingly unlikely that the 2025 deadline for completion will be met. Indeed, four more schemes have been given the green light on this project.

Construction work on Aberdeen's new maternity hospital and cancer centre commenced earlier in 2021, with costs

for the project having increased by around £50m. This takes the overall value to over £200m. Both NHS Grampian and the Scottish Government gave the green light for the development to go-ahead. This project provides positive uplift to construction activity in the public nonhousing sector, with work expected to complete by 2023.

Preparatory work began last September on Fife College's new Dunfermline campus. The campus will be located on a 58-acre purpose-built low carbon site in the eastern expansion area of Dunfermline and is due to open in time for the 2024/25 academic year. The build is part of the proposed Dunfermline Learning Campus – a venture to relocate Fife College's Dunfermline Campus, St Columba's RC High School and Woodmill High School to a purpose-built new campus, at a cost of £180m.

In East Ayrshire, the local council has approved the Strategic Housing Investment Plan 2021-26, totaling £154m. The plans could deliver up to 1,229 affordable homes for East Ayrshire Council, as well as registered social landlord partners throughout the area. A9 dualling total cost of

⁺£3bn

Aberdeen's new maternity hospital valued at

£200m

Strategic Housing Investment Plan valued at

⁺£154m

Workforce forecast

The level of output growth in Scotland gives an annual average increase of 0.6% in the construction workforce, very slightly lower than the UK-wide rate of 0.8%. Scotland showed a bit more of a workforce reduction between 2019 and 2020 when compared to the UK, however it looks to have had a marginal dip in 2021. The 232,100 construction workforce in place at the end of 2020 is estimated to have slipped to 231,700 at the end of 2021, however we expect it to grow to 234,000 in 2022 and then 238,700 by the end of 2026.

TOTAL WORKFORCE BY OCCUPATION	Actual	Estimate	Forecast	
- SCOTLAND	2020	2021	2022	2026
Senior, executive, and business process managers	13,300	14,500	14,500	14,600
Construction project managers	3,600	3,900	3,900	3,900
Other construction process managers	16,700	15,800	15,700	17,100
Non-construction professional, technical, IT, and other office-based staff	32,700	34,800	35,000	34,700
Construction trades supervisors	4,200	3,900	4,100	4,100
Wood trades and interior fit-out	21,800	20,700	21,200	22,000
Bricklayers	5,400	5,100	5,400	5,500
Building envelope specialists	3,900	3,700	3,900	3,900
Painters and decorators	7,900	7,500	7,600	7,700
Plasterers	3,200	3,500	3,600	3,700
Roofers	4,000	4,100	4,100	4,200
Floorers	3,200	3,100	2,900	2,900
Glaziers	1,900	1,900	1,900	2,100
Specialist building operatives nec*	4,000	3,800	3,800	3,700
Scaffolders	3,000	3,300	3,100	3,100
Plant operatives	4,700	4,500	4,800	5,100
Plant mechanics/fitters	3,900	4,100	4,100	4,200
Steel erectors/structural fabrication	2,700	2,600	2,800	2,900
Labourers nec*	10,900	11,400	11,700	12,300
Electrical trades and installation	21,200	20,400	20,600	21,600
Plumbing and HVAC Trades	10,900	10,400	10,300	10,300
Logistics	2,100	2,300	2,400	2,300
Civil engineering operatives nec*	2,700	2,900	3,000	3,100
Non–construction operatives	3,800	3,600	3,700	3,700
Total (SIC 41-43)	191,700	192,000	194,100	198,900
Civil engineers	6,200	6,700	7,100	7,400
Other construction professionals and technical staff	23,700	22,500	22,200	21,700
Architects	2,900	3,200	3,300	3,500
Surveyors	7,600	7,200	7,300	7,300
Total (SIC 41-43, 71.1, 74.9)	232,100	231,700	234,000	238,700

Source: ONS, CSN, Experian Ref: CSN Explained, Section 4, Notes 5 and 6

Annual Recruitment Requirement (ARR)

The average annual recruitment requirement in Scotland is set to average 2.2% per year, based on 2021 workforce levels, which is slightly higher than the UK figure of 2.0%. This means the construction industry would have to increase current recruitment by 5,050 new workers each year to deliver the expected work between the start of 2022 and end of 2026. The following occupations have some of the strongest recruitment requirement values:

- Electrical trades (1,040 per year)
- Labourers (890 per year)
- Other construction professionals
 and technical staff (600 per year).

Labourers also have a high demand relative to their workforce level (7.8%) and there will be pressure on civil engineers (7.1%), logistics workers (5.7%), glaziers (5.7%), and architects (5.6%). For occupations that have no ARR value on the table, indication is that recent levels of recruitment will be able to meet future need if they are maintained.

ANNUAL RECRUITMENT REQUIREMENT BY OCCUPATION – Scotland	ARR as % of 2021 workforce	ARR value per year
Senior, executive, and business process managers	-	-
Construction project managers	-	-
Other construction process managers	2.0%	310
Non-construction professional, technical, IT, and other office-based staff	0.4%	140
Construction trades supervisors	-	-
Nood trades and interior fit-out	1.2%	240
Bricklayers	2.9%	150
Building envelope specialists	-	<50
Painters and decorators	-	-
Plasterers	2.0%	70
Roofers	5.3%	220
Floorers	-	<50
Glaziers	5.7%	110
Specialist building operatives nec*	1.8%	70
Scaffolders	2.4%	80
Plant operatives	-	-
Plant mechanics/fitters	-	-
Steel erectors/structural fabrication	1.9%	50
abourers nec*	7.8%	890
Electrical trades and installation	5.1%	1,040
Plumbing and HVAC Trades	-	-
logistics	5.7%	130
Civil engineering operatives nec*	-	-
Non-construction operatives	-	-
Total (SIC 41-43)		3,500
Civil engineers	7.1%	480
Other construction professionals and technical staff	2.7%	600
Architects	5.6%	180
Surveyors	3.2%	230
Fotal (SIC 41-43, 71.1, 74.9)	2.2%	5,050

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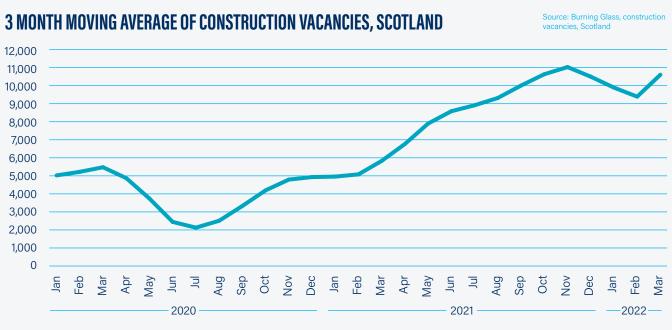
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When looking at the workforce and ARR forecast it is important to note that in 2021, Scotland, like other areas of the UK has seen a strong increase in construction job vacancies, with companies having difficulty in finding suitably skilled workers. This has led to skills shortages being reported over a range of occupations and wage rates increasing as companies look to attract workers. While there are indications of a drop in construction vacancies towards the end of 2021, they have picked up in 2022 and levels are still far higher than before the impact of Covid-19.

The ARR was developed to give a forwardlooking view of where extra recruitment demand is needed, therefore it takes account of existing trends, such as the movement of people into and out of the construction industry that we'd expect to happen, although on an annual basis. Recruitment to fill vacancies would be one aspect of movement of workers into the industry, however companies can look to fill this through a number of routes.

Companies can:

- Attract skilled workers who are already working elsewhere in the construction industry, although this obviously moves existing workers around rather than meet overall industry need
- Attract skilled workers who have left the industry back into construction. This would be either those who have left to work in other industries or those that have become unemployed/inactive
- Attract and train new entrants into the workforce from those leaving school, further education, or higher education
- Improve the retention of workers within the industry
- Look at how productivity can be improved.



The response to skills shortages is likely to be a mix of these options, however, there are some challenges. The strength of the jobs market, certainly in the short to medium term, and relatively low levels of unemployment means that there will be increased competition for workers. Companies that are able to understand and meet what workers value the most are the ones that are more likely to be successful at attracting and retaining new staff. That could range from being able to offer long-term career opportunities with support to help development, through to good levels of pay, or flexible working to have a positive work/life balance. Construction companies in Scotland will be facing the issues identified in CITB's

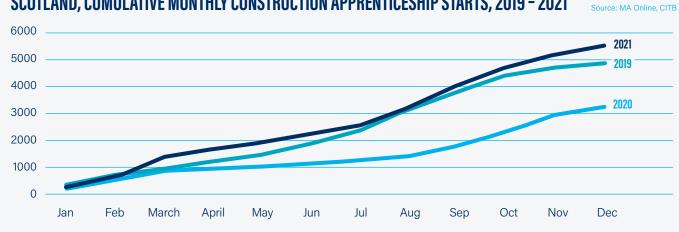
recently published *Rethinking Recruitment,* which highlights some of the challenges and how to support construction companies in overcoming them.

There are also recent trends in training to consider, with a CITB survey showing a GB wide drop in employer training, which was expected with the impact of Covid-19, along with recent figures on GB apprenticeship starts and wider vocational training being around 12% - 14% lower at the end of 2020/21 compared to 2018/19.

The trends for construction training in Scotland have seen a slightly different pattern. For apprenticeships there was a significant drop in starts during 2020, however 2021 has seen a strong recovery with number back to more than was seen in 2019.

For learners starting construction courses in Scottish further education, there was a slight dip in starts of 5% in 2020/21, which is less than other areas of Great Britain.

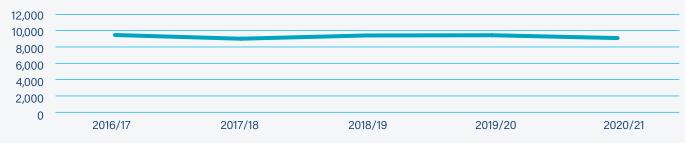
Both charts point to a slightly more positive picture of construction training in Scotland, when compared to England or Wales.



SCOTLAND, CUMULATIVE MONTHLY CONSTRUCTION APPRENTICESHIP STARTS, 2019 - 2021

YEAR 1 LEARNERS, CONSTRUCTION AND PROPERTY (BUILT ENVIRONMENT) SUPERCLASS, REGULATED QUALIFICATIONS, 2016/17 TO 2020/21

Source: Infact database, Scottish Funding Council.



CITB support to industry in Scotland

CITB Scotland will continue to support industry through various initiatives in 2022.

Initiatives such as trialling a condensed Work Experience model called Work Tasters to bring industry and college leavers closer together and funding £3m worth of Onsite Hubs to attract and train new entrants into in demand skills and regions of Scotland with highest skills gaps.

CITB has retained its Skills Development Scotland Managed Agency contract that provides roughly 32% of the apprenticeship market. This provides a one stop shop to support all construction employers with attracting, recruiting, and retaining apprentices, particularly the small and micro sized construction companies, who make up more than 90% of Scotland's construction industry, and struggle with this. CITB provides information on the financial support available to employers, how to recruit an apprentice, and how to find the right training provider, to help businesses to find, recruit, and train the ideal candidates. CITB is also working with industry and Skills Development Scotland as traditional apprenticeship frameworks are reviewed and updated with more relevant standards, ensuring that apprenticeships align with current job descriptions, skills gaps and latest evidence on emerging transferable meta-skills.

However, overcoming skills shortages in a more competitive labour market with increasing demand for construction workers will require combined action from CITB Scotland, construction companies and government. Without this, the construction industry will not be able to capitalise on the growth opportunities identified in the 2022-2026 Outlook to build the volume of homes the country needs, the infrastructure to ensure the economy thrives and retrofit our built environment to meet net zero targets.

£3m worth of Onsite Hubs to attract and train new entrants into in-demand skills and regions of Scotland with highest skills gaps.





For more information about the Construction Skills Network, contact: Ian Hill Industry Insight Manager Ian.Hill@citb.co.uk
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