

CONSTRUCTION SKILLS NETWORK

Labour Market Intelligence Report



Wales

5-year outlook 2022-2026

WALES

The volume of construction work in Wales is slightly below the UK forecast of 3.2% at an annual average rate of approximately

↑ **2.8%**

Key sectors for future growth

↑ **New build private housing**
Public non-housing
Housing repair & maintenance

Strongest recruitment requirement levels

↑ **Bricklayers** (540 per year)
Electrical trades (280 per year)
Plumbing and HVAC trades (280 per year)

Major projects in Wales include the £500m Dowlais Top to Hirwaun section of the A465 and Welsh Water plans to invest £360m per year in capital expenditure through to 2025

+ **£860m**

KEY INFORMATION

The annual recruitment requirement in Wales of 2.1% per year is slightly above the UK average of 2.0% and means an extra 11,500 workers will be needed from 2022 to 2026.



UK Macroeconomic 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 Wales has some notable sector differences to the overall UK structure.

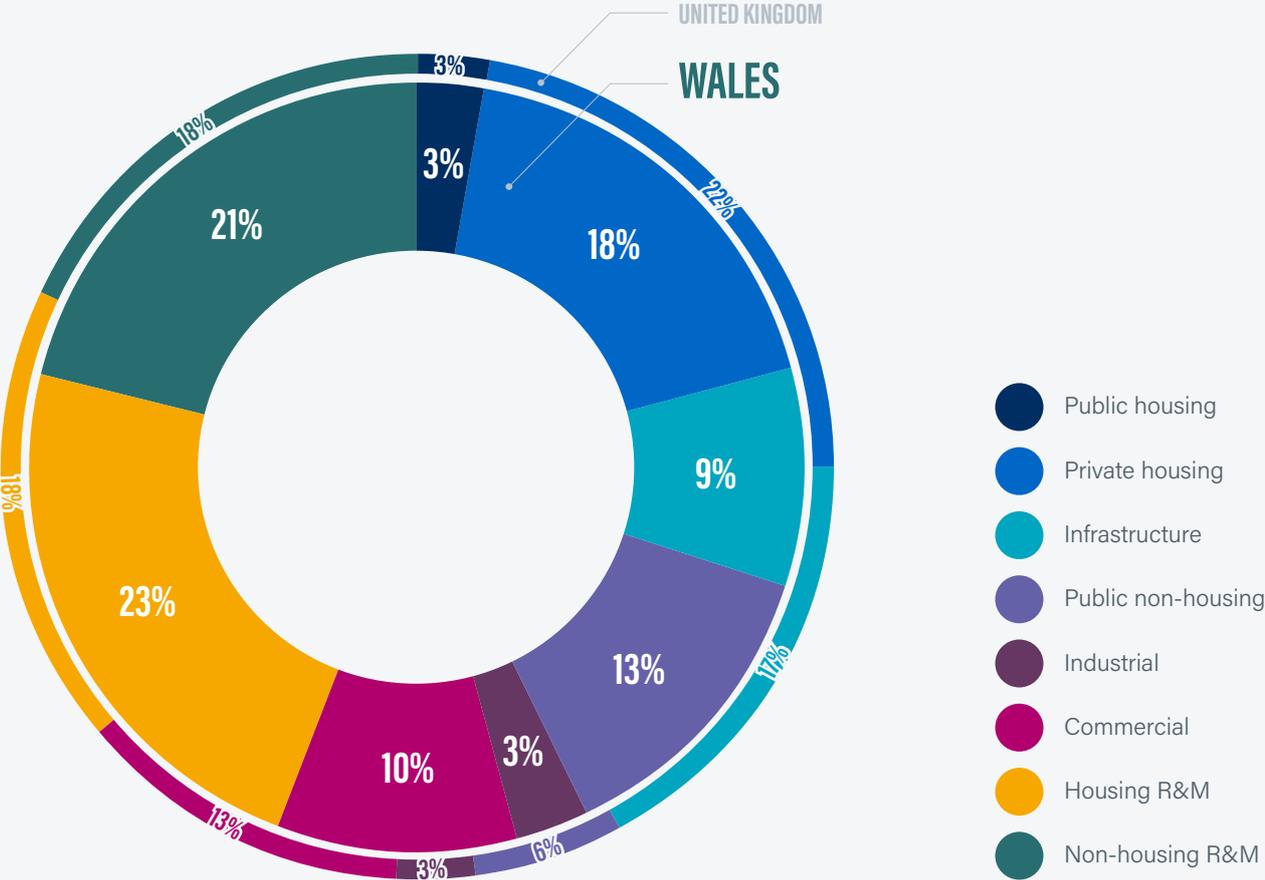
Set to account for 13% of total output in 2021, the public non-housing sector is more than double the comparable UK level, and housing repair & maintenance (R&M) work, at 23% of total output, is the main sector for work in Wales. These sectors, along with private housing and non-housing R&M work, will be the main areas of work in Wales over the next five years.

The one sector that's noticeably lower than the corresponding UK structure is infrastructure, at 9% in Wales compared to 17% for the UK. There isn't the same strength of investment in the likes of road, rail, energy, and water infrastructure in Wales when compared to other areas of the UK.

Housing R&M total output

23%

CONSTRUCTION INDUSTRY STRUCTURE 2021 WALES VS UK



2021 view

Total annual output 2021

£5.5bn

Total estimated output 2022

£5.7bn



In 2021 construction output in Wales is estimated to have grown by just over 20%, which is higher than the UK level of growth.

2021 view

Output in Wales is recovering from drops in both 2019 and 2020. With a value of nearly £5.5bn (2019 prices) in 2021, output is still 14% lower than the average between 2016-2018, due mainly to reductions in infrastructure and commercial sector work. We expect the growth seen in 2021 to continue into 2022, although at a much reduced rate.

CONSTRUCTION OUTPUT 2003 - 2022 WALES

Source: ONS
Ref: CSN explained, Section 4: Note 1



Output Forecast 2022 - 2026

In Wales, the volume of work will grow by an annual average rate of 2.8%, which is slightly below the UK rate of 3.2%. All sectors will see growth over the forecast, with new work being just stronger than R&M, and all following a pattern of higher growth in the earlier years, which dips to be closer to the longer-term growth trends, towards the latter years.

Although the industrial sector has the highest annual average growth rate, the higher volumes of work in the private housing, and R&M sectors means that they will contribute the biggest gains in output. We're forecasting private housing output to increase by £185m across the forecast, followed by housing R&M at £177m, and non-housing R&M at £131m, whereas industrial output will rise by £48m.

Private housing output to increase by

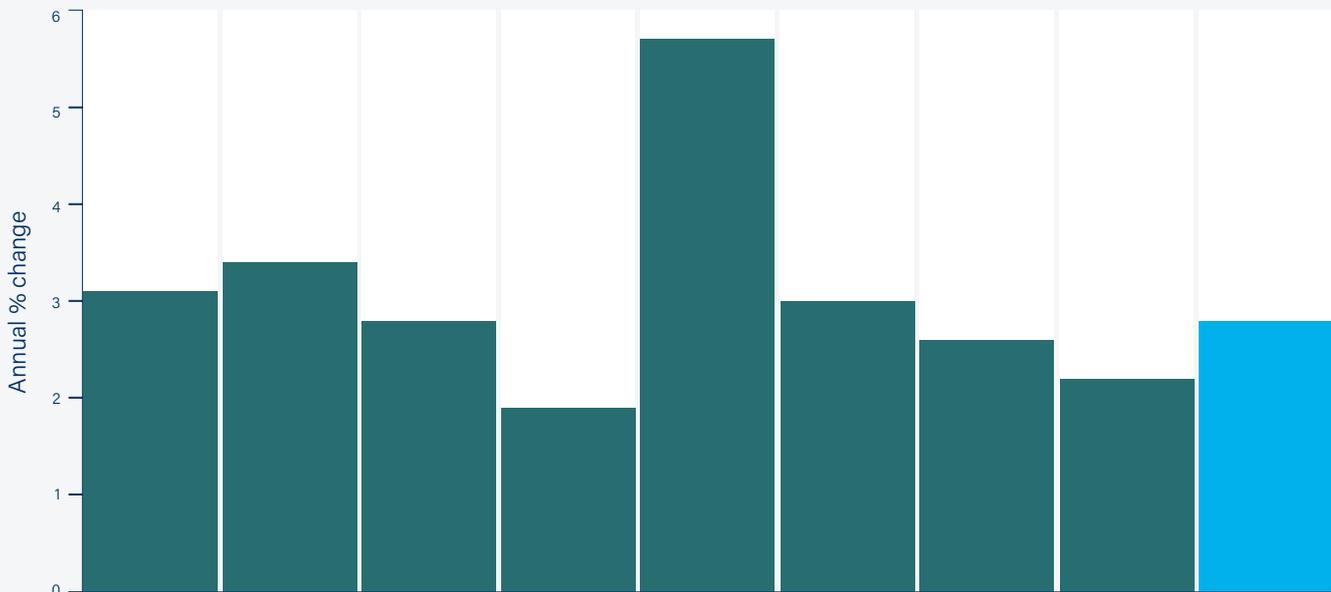
£185m

Forecast

ANNUAL AVERAGE OUTPUT GROWTH BY SECTOR 2022-2026 WALES

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

Public housing	Private housing	Infrastructure	Public non-housing	Industrial	Commercial	Housing R&M	Non-housing R&M	Total work
3.1%	3.4%	2.8%	1.9%	5.7%	3.0%	2.6%	2.2%	2.8%



CONSTRUCTION OUTPUT - WALES (£ MILLION, 2019 PRICES)

	Actual	Forecast (Annual % change, real terms)					Annual average
	2021	2022	2023	2024	2025	2026	2022-2026
Public housing	171	3.6%	2.1%	3.6%	3.2%	3.2%	3.1%
Private housing	1,004	3.3%	3.4%	5.1%	2.7%	2.6%	3.4%
Infrastructure	463	8.7%	1.4%	1.1%	1.8%	1.0%	2.8%
Public non-housing	731	-2.1%	4.3%	4.5%	1.0%	2.0%	1.9%
Industrial	152	16.4%	4.4%	5.8%	1.3%	1.3%	5.7%
Commercial	572	1.8%	4.3%	3.3%	2.9%	2.5%	3.0%
New work	3,093	3.2%	3.4%	4.0%	2.2%	2.2%	3.0%
Housing R&M	1,271	3.9%	3.6%	3.2%	0.8%	1.8%	2.6%
Non-housing R&M	1,134	1.6%	3.6%	1.1%	2.9%	1.9%	2.2%
Total R&M	2,404	2.8%	3.6%	2.2%	1.8%	1.8%	2.4%
Total work	5,497	3.0%	3.5%	3.2%	2.0%	2.0%	2.8%

Welsh Water plans to invest £360m per annum in capital expenditure (including maintenance) over the five years to March 2025.

Looking at some of the main projects in the pipeline, The £1bn Shaping Swansea regeneration project along with spending plans in the Welsh Government budget for £580m on decarbonisation of social housing up to 2024/25 will help deliver growth.

On the South Wales Metro, the new £100m Taff's Well depot and control centre is under construction. Overhead line electrification work will complete ahead of the introduction of the new tram-trains services in 2024. New platforms are being provided on the Merthyr, Treherbert, Aberdare and Rhymney lines with new stations being completed by December 2023 at Crwys Road and Loudon Square, Cardiff and Cardiff Bay.

Construction of the £500m Dowlais Top to Hirwaun section of the A465 running through to mid-2025 is the main road project, with others such as the £135m

A487 Caernarfon to Bontnewydd and the £30m A55 Abergwyngregyn to Tai'r Meibion improvements are due to complete in 2022. The Welsh government has placed on hold the development of the £300m Deeside "Red Route", the £50m Llandeilo bypass, and the £135m Third Menai Crossing, which are now the subject of reviews and could provide some uplift to the infrastructure sector if they progress.

Welsh Water plans to invest £360m per annum in capital expenditure (including maintenance) over the five years to March 2025. It is looking to use OFWAT's Direct Procurement for Customers to deliver a £100m+ construction scheme to provide long-term water supply resilience to Cardiff, Newport and several smaller towns located within the Merthyr Valley, including the first phase of a new water treatment works at Merthyr where it plans to complete procurement during AMP7.

Construction of a section of the A465 running through to mid-2025 will cost

+ **£500m**

Taffs well depot for South Wales Metro

+ **£100m**

Workforce forecast

The level of output growth in Wales gives an annual average increase of 1.0% in the construction workforce, just ahead of the UK-wide figure of 0.8%. Despite the drop in output, workforce levels in Wales didn't drop between 2019 and 2020, then only dipped slightly in 2021. The 111,500 construction workforce in place at the end of 2020 is estimated to have decreased very slightly to 110,800 in 2021, however, we are forecasting grown to 112,500 in 2022 before increasing to 116,300 by 2026.

TOTAL WORKFORCE BY OCCUPATION - WALES

	Actual	Estimate	Forecast	
	2020	2021	2022	2026
Senior, executive, and business process managers	4,600	4,200	4,200	4,700
Construction project managers	1,400	1,400	1,400	1,400
Other construction process managers	7,700	8,100	8,100	8,000
Non-construction professional, technical, IT, and other office-based staff	11,300	11,500	11,500	11,500
Construction trades supervisors	2,200	2,000	2,100	2,200
Wood trades and interior fit-out	12,500	13,300	13,100	12,900
Bricklayers	6,000	5,500	6,000	6,400
Building envelope specialists	4,500	4,100	4,300	4,700
Painters and decorators	6,000	6,100	6,000	6,000
Plasterers	4,000	4,200	4,300	4,500
Roofers	1,900	2,100	2,000	2,200
Floorers	200	200	200	200
Glaziers	700	800	800	700
Specialist building operatives nec*	4,300	3,900	3,900	4,000
Scaffolders	900	800	800	800
Plant operatives	1,700	1,600	1,400	1,900
Plant mechanics/fitters	1,800	1,900	1,900	1,800
Steel erectors/structural fabrication	1,200	1,100	1,300	1,400
Labourers nec*	4,700	4,400	4,600	4,900
Electrical trades and installation	6,800	7,200	7,200	7,500
Plumbing and HVAC Trades	8,600	8,000	8,200	8,700
Logistics	900	800	900	900
Civil engineering operatives nec*	1,600	1,500	1,600	1,700
Non-construction operatives	1,800	1,700	1,700	1,600
Total (SIC 41-43)	97,300	96,400	97,500	100,500
Civil engineers	2,600	2,600	2,800	3,000
Other construction professionals and technical staff	6,700	7,100	7,200	7,200
Architects	1,400	1,400	1,500	1,700
Surveyors	3,500	3,200	3,400	3,900
Total (SIC 41-43, 71.1, 74.9)	111,500	110,800	112,500	116,300

Workforce covers construction contracting, SIC 41, 42 & 43 along with supporting technical and professional workers in SIC 71 and 74.9

* Not elsewhere classified

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

Annual Recruitment Requirement (ARR)

The average annual recruitment requirement in Wales is set to average 2.1% per year, based on 2021 workforce levels, which is just higher than the UK figure of 2.0%. This means the construction industry would have to increase current recruitment by 2,300 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:

- **Bricklayers** (540 per year)
- **Electrical trades** (280 per year)
- **Plumbing and HVAC trades** (280 per year).

Bricklayers have the highest ARR value, relative to their share of the workforce

(9.8%), which is another indication of occupational demand. Other occupations that are likely to see demand pressure are steel erectors/structural fabrication (9.7%), architects (9.7%), and civil engineers (5.4%), where the ARR is high compared to their workforce level. 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 - WALES

	ARR as % of 2021 workforce	ARR value per year
Senior, executive, and business process managers	1.2%	50
Construction project managers	-	-
Other construction process managers	-	-
Non-construction professional, technical, IT, and other office-based staff	-	-
Construction trades supervisors	-	-
Wood trades and interior fit-out	-	-
Bricklayers	9.8%	540
Building envelope specialists	4.1%	170
Painters and decorators	-	-
Plasterers	1.2%	50
Roofers	4.9%	100
Floorers	-	-
Glaziers	-	-
Specialist building operatives nec*	-	-
Scaffolders	-	<50
Plant operatives	4.5%	70
Plant mechanics/fitters	-	-
Steel erectors/structural fabrication	9.7%	110
Labourers nec*	3.9%	170
Electrical trades and installation	3.9%	280
Plumbing and HVAC Trades	3.5%	280
Logistics	-	<50
Civil engineering operatives nec*	3.3%	50
Non-construction operatives	-	-
Total (SIC 41-43)		1,870
Civil engineers	5.4%	140
Other construction professionals and technical staff	-	-
Architects	9.7%	140
Surveyors	2.2%	70
Total (SIC 41-43, 71.1, 74.9)	2.1%	2,300

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Note: values may not sum to totals due to rounding

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

When looking at the workforce and ARR forecast it is important to note that in 2021, Wales, 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, levels are still higher than what was seen before the impact of Covid-19.

The ARR was developed to give a forward-looking 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 several 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.**

3 MONTH MOVING AVERAGE OF CONSTRUCTION VACANCIES, WALES

Source: EMSI Burning Glass, selected construction occupations, Wales



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 Wales 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 Wales have followed a similar pattern. For apprenticeships there was an 18% drop in starts for 2019/20 when compared to 2018/19, and Q1 and Q2 2020/21 figures were down on earlier

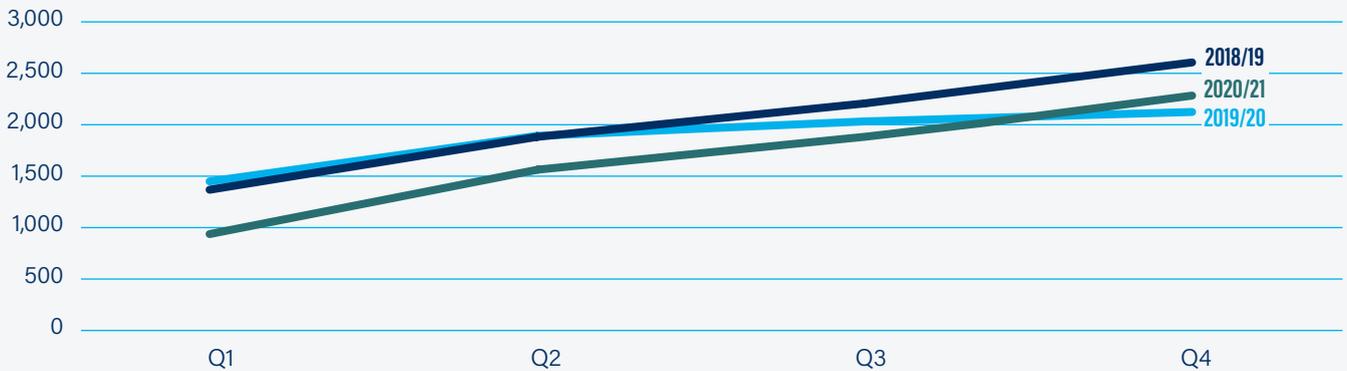
years. There was sign of a pickup in 2020/21, however, starts were still lower than 2018/19.

For learners achieving construction qualification in Wales, there was a 30% drop in qualification certificates issued in 2019/20, which has picked back up in 2020/21.

Both charts point to a similar picture of underlying training trends in Wales and England, with a reduction in 2019/20 recovering in 2020/21, though not quite back to pre-covid levels, at a time when there is increasing demand for workers. This indicates that there is some work to do in Wales to get construction training back to previous levels and then increase to meet current and future demand.

WALES, CUMULATIVE QUARTERLY APPRENTICESHIP STARTS, CONSTRUCTION SECTOR, 2018/19 - 2020/21

Source: StatsWales



CONSTRUCTION, PLANNING AND BUILT ENVIRONMENT QUALIFICATION CERTIFICATES ISSUED, LEVEL 2+, EXCLUDING ELECTRICAL QUALIFICATIONS, 2015/16 TO 2020/21

Source: Qualifications Wales.



Note: year runs from Q4 to following Q3 - i.e. Q4 2016 - Q3 2017

CITB support to industry in Wales

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

Initiatives such as taster and onsite training opportunities through 'See your Site', 'Try a Trade' and new construction specific traineeships to experience working in construction. This will engage new entrants to the industry, and we have developed four onsite hubs across Wales to get learners site ready and into sustained employment. We are also working with Careers Wales to help attract a more diverse future workforce into construction.

CITB provides grants for apprentices that construction employers take on, supporting and maintaining apprenticeship numbers in meeting

the construction industry need in Wales. Working with Welsh Government and training providers, CITB Wales leads the Welsh Government's Apprenticeship Framework Advisory Group.

Working with employers, training provider and colleges, we'll ensure that training standards and qualifications reflect changes to working practices and industry requirements. We will continue to support the roll out of the new suite of qualifications on the built environment for Wales including a GCSE and A Level and new apprenticeship qualifications in line with the new curriculum for Wales.

However, overcoming skills shortages in a more competitive labour market with increasing demand for construction workers will require combined action from CITB Wales, 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.

We'll ensure that training standards and qualifications reflect changes to working practices and industry requirements.

For more information about the Construction Skills Network, contact:

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