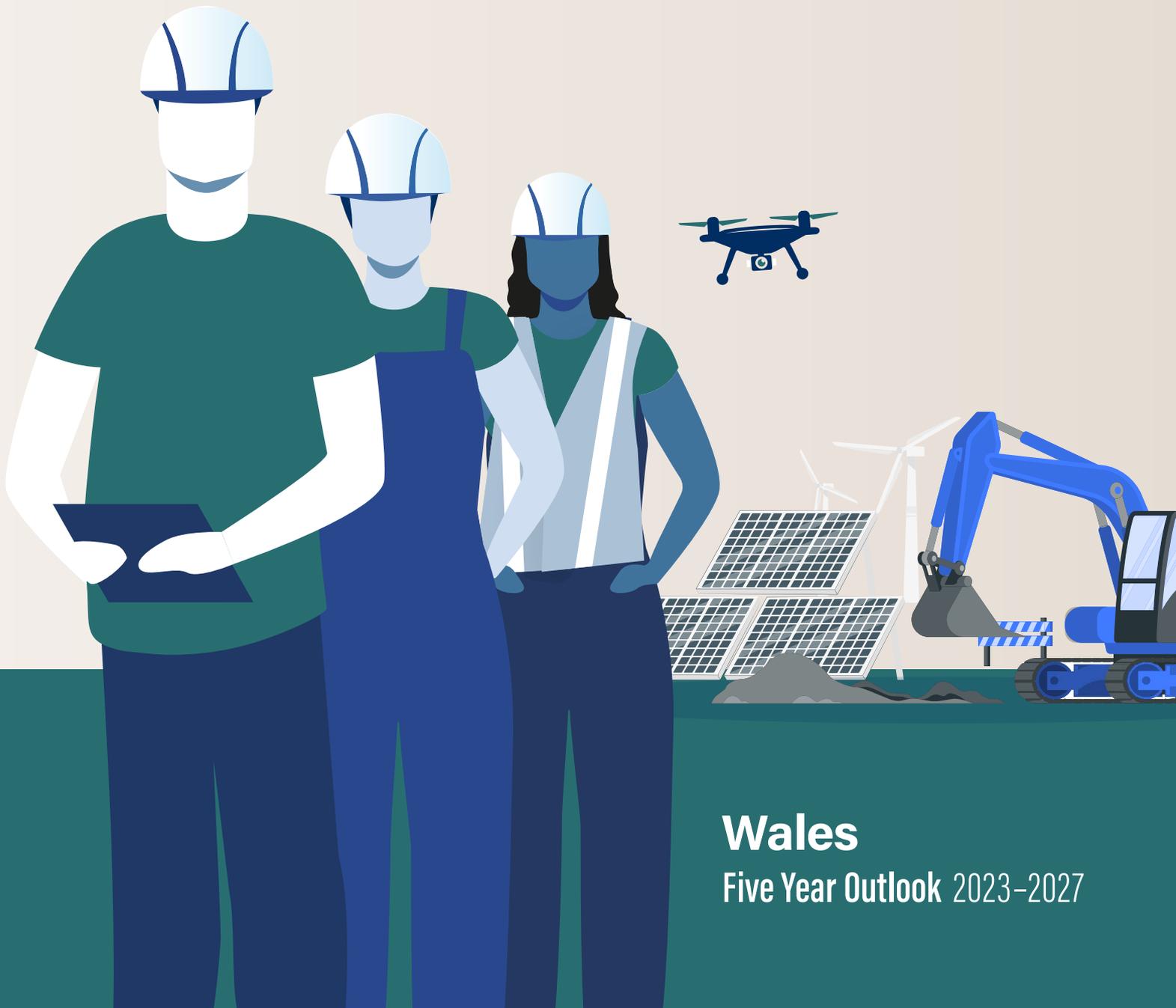


**CONSTRUCTION SKILLS NETWORK**

# The skills construction needs



**Wales**

Five Year Outlook 2023–2027



# WALES

The volume of construction work in Wales will grow, slightly below the UK forecast of 1.5% by an annual average rate of

↑ **1.1%**

Fastest sector rate of growth expected for

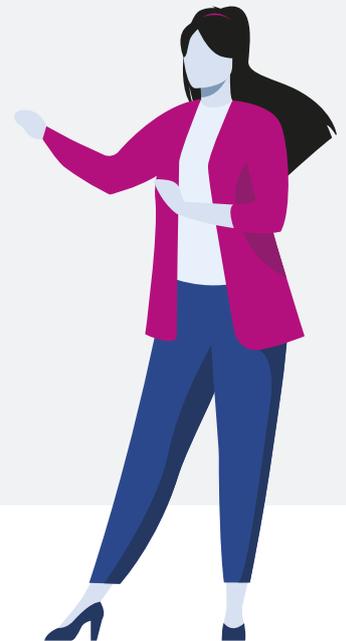
↑ **Industrial Commercial**      **Private housing**

The occupations with the strongest additional recruitment requirement levels:

↑ **Bricklayers** (420 per year)  
**Electrical trades** (380 per year)  
**Roofers** (200 per year)

Major projects in Wales include:

⊕ **Shaping Swansea regeneration** (£1bn)  
**Dowlais Top to Hirwaun section of the A465** (£500m)  
**Welsh Government budget for decarbonisation of social housing up to 2024/25** (£580m)



Key facts and figures

2022

2023

2024

2025

2026

2027

2028

2029

The annual recruitment requirement rate in Wales of 1.6% per year is marginally below the UK average of 1.7% and means an extra 9,100 workers will need to be recruited from 2023 to 2027.



# UK Macroeconomic backdrop

Having bounced-back in 2021, with an annual increase in gross domestic product (GDP) of 7.5%, the UK's economic growth in 2022 slowed in the first half of the year, before declining by -0.2% in Q3. November's monthly data release points to the UK entering a recession by the end of 2022, when, as forecast, there will have been two consecutive quarters of declines in GDP.

The economic challenges were highlighted by monthly GDP at the end of September 2022 being 0.2% below its pre-pandemic level (February 2020), and in real terms, the UK is the only G7 economy where a shortfall relative to its pre-pandemic level exists. The S&P Global/CIPS Purchasing Managers Indices (PMI) shows business activity declining for three consecutive months as the UK composite index fell to 47.2 in October from 49.1 in September and 49.6 in August, with a reading of less than 50 indicating a decline.

Inflationary pressure on household budgets continues to drive up Consumer Price Index (CPI) inflation, which hit a 41-year high of 11.1% annually in October 2022. Inflation is expected to remain high well into the first half of 2023 and tackling this, while keeping mortgage rises down, is a priority for Government. However, as set out in the 2022 Autumn Statement, this requires difficult decisions to address Government debt and deficit through a combination of tax rises and controlling public sector spending.

The prevailing view of independent forecasters, the Bank of England (BoE), the Office for Budget Responsibility (OBR) and the UK's Chancellor when delivering his Autumn Statement in parliament, is that the UK is set to face a period of recession with GDP declines

through 2023 and possibly into 2024, before the economy then begins to pick up. However, the suggestion is that it will be a shallower recession when compared to the recent falls seen during 2020 and 2008.

While the UK economic conditions in 2022 were challenging, construction output held up better than expected. When GDP declined by -0.2% in Q3, construction output increased by 0.6% and is on track to show an annual increase of over 4% by the end of 2022, with new housing and repair and maintenance sectors being key contributors. However, growth has increasingly been driven by the backlog of work as new orders have fallen and are now at their weakest since June 2020.

It's unlikely that construction output will continue to outperform the economy, which is why we are expecting a decline in output during 2023 that picks up in 2024. The commercial, infrastructure and industrial sectors look set to weather this slightly better than new housing or housing repair and maintenance. Housing repair and maintenance work is likely to be squeezed as households reprioritise their spending, and there are signs of a slowdown in the housing market with fewer new buyer enquiries and a reduction in mortgage approvals.

We still see the construction industry having a long-term challenge when it comes to recruiting workers. Vacancy levels remained high throughout 2022, unemployment rates are low, inactivity due to ill health is rising, and construction will be competing against other industries to attract and retain the workers it needs.

Although the next five years will see a period of recession followed by slow growth, the UK construction industry will still account for at least 6% of UK GDP, have an annual output value of over £170bn and a workforce of over 2.6m. Recruiting and developing the workforce for the future will help to ensure that the industry is able to contribute to growth opportunities such as building the volume of homes the country needs, the infrastructure for energy and transport, and retrofitting the built environment to meet net zero targets.

**THE UK IS THE ONLY  
G7 ECONOMY WHERE A  
SHORTFALL RELATIVE  
TO ITS PRE-PANDEMIC  
LEVEL EXISTS.**

# Structure

The construction industry in **Wales** has some significant differences to the UK structure.

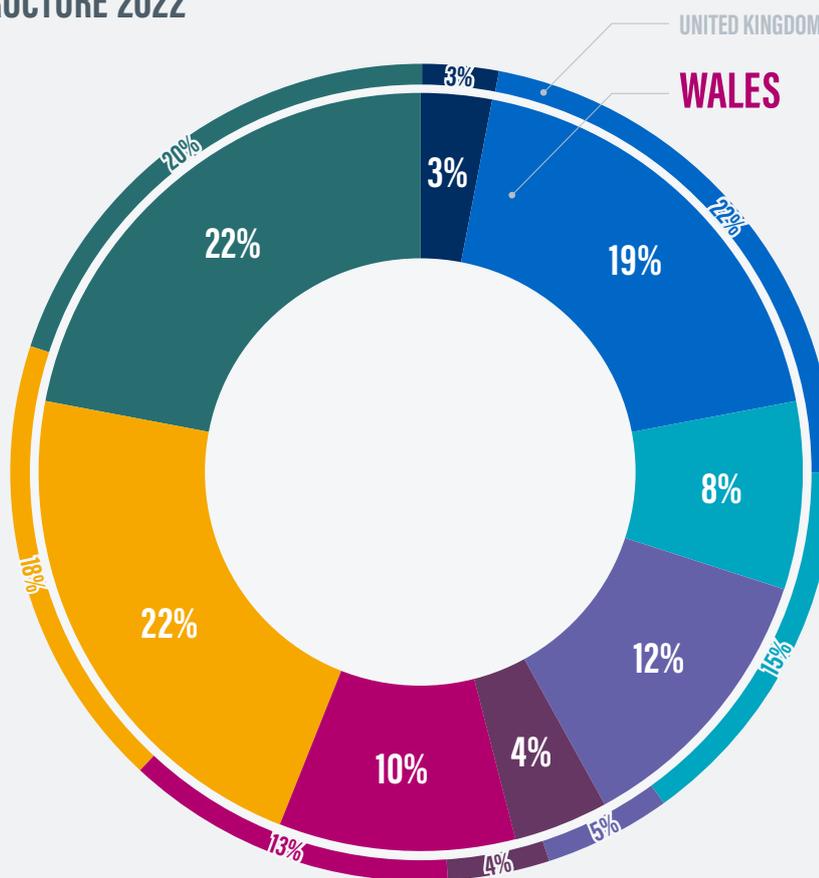
The construction industry in Wales has 8,055 businesses<sup>1</sup> with more than one employee, which is 14% of all employers in Wales. In 2022 the industry is estimated to have total output of nearly £5.7bn which is structured as shown in the chart. Wales has some notable sector differences to the overall UK structure

with the public non-housing sector more than double the comparable UK level. Housing R&M work and non-housing R&M work both account for 22% of output, and with private housing accounting for 19%, these sectors are the main areas of work in Wales.

The one sector that remains noticeably lower than the corresponding UK structure is infrastructure, at 8% in Wales compared to 15% 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.

## CONSTRUCTION INDUSTRY STRUCTURE 2022 WALES VS UK

- Public housing
- Private housing
- Infrastructure
- Public non-housing
- Industrial
- Commercial
- Housing R&M
- Non-housing R&M



Housing R&M output

# 22%

# 2022 view

Total annual output 2022

**£5.7bn**

Total estimated output 2023

**£5.6bn**



In 2022, construction output in Wales is expected to grow by 3.6%, which is close to the UK level of growth.

# 2022 view

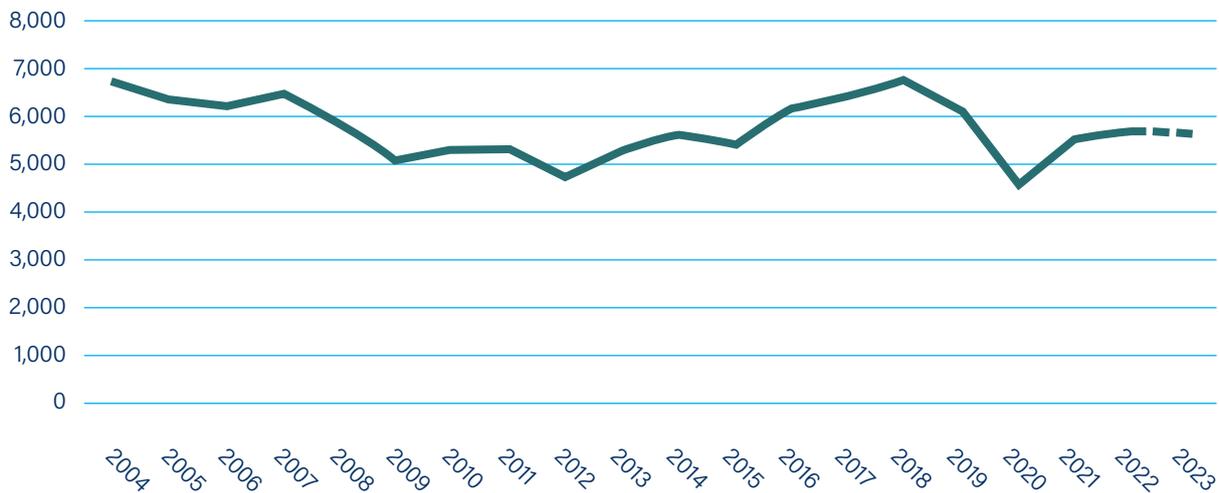
With a value of nearly £5.7bn (2019 prices) 2022 output is still 11% lower than the average between 2016-2018, due mainly to reductions in infrastructure and commercial sector work in both 2019 and 2020.

Looking forward into 2023, we're forecasting a slight drop in construction output due to the expected recession the UK and Wales are facing.

## CONSTRUCTION OUTPUT 2004 - 2023 WALES

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

£m, constant 2019 prices



## OUTPUT FORECAST 2023 - 2027

In Wales, the volume of work will grow by an annual average rate of 1.1%, which is slightly below the UK rate of 1.5%<sup>2</sup> and a downward revision compared to the 2022-2026 forecast. Long term growth rates are expected to be better for new work than R&M, and although most sectors are expected to show some growth, it will be very modest over the forecast. In general, 2023 and 2024 are likely to be challenging years for construction in Wales, and especially

for private housing and housing R&M work. From 2024, the industry returns closer to the longer-term growth trends that have been seen we move out of the expected recession.

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 gains in output.

We're forecasting private housing output to increase approximately £100m across the forecast, followed by housing R&M at around £80m.

Average growth rate for Wales

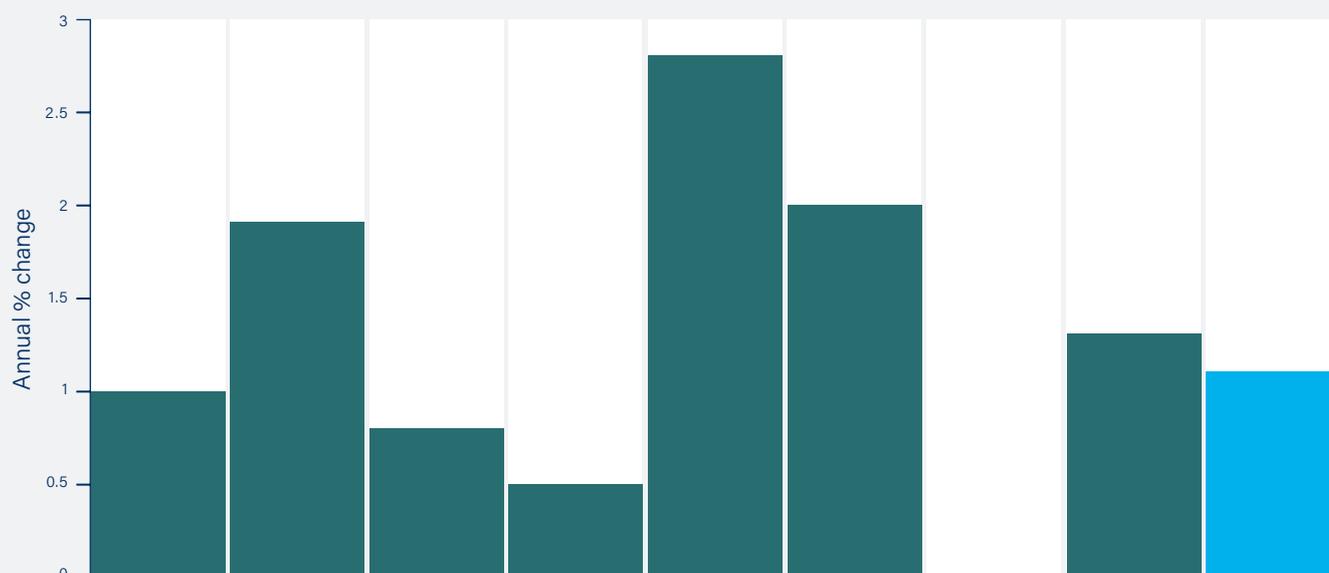
**1.1%**

# Forecast

## ANNUAL AVERAGE OUTPUT GROWTH BY SECTOR 2023-2027 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
<b>1.0%</b>	<b>1.9%</b>	<b>0.8%</b>	<b>0.5%</b>	<b>2.8%</b>	<b>2.0%</b>	<b>0.0%</b>	<b>1.3%</b>	<b>1.1%</b>



## CONSTRUCTION OUTPUT - WALES (£ MILLION, 2019 PRICES)

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

	Forecast	Forecast (Annual % change, real terms)					Annual average
	2022	2023	2024	2025	2026	2027	2023-2027
Public housing	170	-5.0%	11%	2.7%	3.0%	3.1%	1.0%
Private housing	1,080	-0.8%	2.7%	2.4%	2.5%	2.6%	1.9%
Infrastructure	451	0.0%	0.3%	1.7%	0.9%	0.8%	0.8%
Public non-housing	699	-2.8%	0.6%	1.0%	1.7%	1.9%	0.5%
Industrial	214	4.3%	3.8%	1.5%	2.2%	2.2%	2.8%
Commercial	583	0.9%	1.9%	2.4%	2.4%	2.3%	2.0%
<b>New work</b>	<b>3,198</b>	<b>-0.7%</b>	<b>1.8%</b>	<b>1.9%</b>	<b>2.1%</b>	<b>2.2%</b>	<b>1.5%</b>
Housing R&M	1,274	-4.4%	0.7%	0.8%	1.5%	1.7%	0.0%
Non-housing R&M	1,225	-0.1%	0.3%	2.5%	1.9%	2.0%	1.3%
<b>Total R&amp;M</b>	<b>2,499</b>	<b>-2.3%</b>	<b>0.5%</b>	<b>1.6%</b>	<b>1.7%</b>	<b>1.9%</b>	<b>0.7%</b>
<b>Total work</b>	<b>5,697</b>	<b>-1.4%</b>	<b>1.2%</b>	<b>1.8%</b>	<b>1.9%</b>	<b>2.0%</b>	<b>1.1%</b>

The annual average growth rate is the rate of growth between the end of 2022 and the end of 2027, i.e., a five-year period.

# 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.

Work started in May 2022 on the £590m Dowlais Top to Hirwaun section of the A465 Heads of the Valley Road and will run through to mid-2025. Main construction on the £60m A40 Llanddewi Velfrey to Redstone Cross improvements will run through to the autumn of 2023. Main work on the £15m dualling of the A4119 Coed Ely to Ynysmaerdy is now underway. The outcomes of the Welsh government reviews of the paused £300m Deeside "Red Route", the £50m Llandeilo bypass and the £135m Third Menai Crossing remain outstanding.

In non-residential construction, NHS Wales Shared Services Partnership are exploring procurement options to renew its healthcare framework. So far, 28 projects have been procured by NHS organisations since the current framework was introduced.

As seen in recent months, the collapse of the Jehu Group highlights the challenges faced by the industry with 104 staff redundant, despite the company having 15 live contracts across south-west England and Wales in place worth almost £100m.

 Road improvements to the A465

**£590m**

 Main construction on the A40

**£60m**

 Dualling of the A4119 Coed Ely to Ynysmaerdy

**£15m**

# Workforce<sup>3</sup> forecast

The low level of output growth in Wales means that the construction workforce isn't expected to change much over the next five years.

This is the pattern we're seeing in other nations and regions of the UK, and the UK is expected to show a very marginal increase of +0.1% for average workforce growth over the next five years.

The construction workforce of 111,600 in place at the end of 2022 is forecast to dip slightly to 111,000 in 2023 before picking back up to 111,500 by 2027. Effectively a static profile over the next five years, with only marginal variation across the occupations.

## TOTAL WORKFORCE BY OCCUPATION - WALES

	Actual	Estimate	Forecast	
	2021	2022	2023	2027
Senior, executive, and business process managers	4,200	4,200	4,100	4,200
Construction project managers	1,400	1,400	1,400	1,400
Other construction process managers	8,100	8,100	8,000	7,700
Non-construction professional, technical, IT, and other office-based staff	11,400	11,400	11,300	11,900
Construction trades supervisors	2,000	2,100	2,000	2,000
Wood trades and interior fit-out	13,200	13,000	12,800	12,300
Bricklayers	5,500	6,000	6,000	5,900
Building envelope specialists	4,100	4,300	4,300	4,400
Painters and decorators	6,100	5,900	5,800	5,600
Plasterers	4,200	4,200	4,200	4,100
Roofers	2,100	2,000	1,900	2,100
Floorers	200	200	200	200
Glaziers	800	700	700	700
Specialist building operatives nec*	3,900	3,900	3,800	3,700
Scaffolders	800	800	800	800
Plant operatives	1,600	1,400	1,400	1,600
Plant mechanics/fitters	1,900	1,900	2,000	1,700
Steel erectors/structural fabrication	1,100	1,200	1,300	1,300
Labourers nec*	4,400	4,600	4,600	4,700
Electrical trades and installation	7,100	7,100	7,100	7,200
Plumbing and HVAC Trades	8,000	8,200	7,900	8,200
Logistics	800	900	800	900
Civil engineering operatives nec*	1,500	1,600	1,700	1,800
Non-construction operatives	1,700	1,700	1,800	1,800
<b>Total (SIC 41-43)</b>	<b>96,100</b>	<b>96,700</b>	<b>96,000</b>	<b>95,800</b>
Civil engineers	2,600	2,800	2,900	3,000
Other construction professionals and technical staff	7,100	7,100	7,100	7,100
Architects	1,400	1,500	1,600	1,800
Surveyors	3,200	3,400	3,400	3,900
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>110,500</b>	<b>111,600</b>	<b>111,000</b>	<b>111,500</b>

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

# Annual Recruitment Requirement (ARR)

While the workforce levels are remaining static, there is still a need for the construction industry in Wales to increase its recruitment of new workers. In a typical year, the construction industry in Wales would recruit between 6,500 – 9,000 workers, the usual the movement of people into and out of the industry or workforce churn. When looking at the future recruitment demand, we recognise that a level of churn will always take place and take this into account to producing the ARR figure.

The ARR value of 1,820 workers per year in Wales, represents 1.6% of the 2022 workforce, which is almost the same rate as the UK rate of 1.7%. With output levels dropping and the workforce remaining static, it's to be expected that the ARR value would reduce when compared to the 2022-2026 outlook, however, it also shows that the industry will have to increase recruitment to maintain its level.

**The following occupations look set to have some of the strongest additional recruitment values:**

- Bricklayers (420 per year)
- Electrical trades (380 per year)
- Roofers (200 per year)

## ARR BY OCCUPATION - WALES

	ARR as % of 2022 workforce	ARR value per year
Senior, executive, and business process managers	2.4%	100
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	7.0%	420
Building envelope specialists	3.3%	140
Painters and decorators	-	-
Plasterers	-	-
Roofers	10.1%	200
Floorers	-	-
Glaziers	-	-
Specialist building operatives nec*	-	-
Scaffolders	-	<50
Plant operatives	-	-
Plant mechanics/fitters	-	-
Steel erectors/structural fabrication	9.6%	120
Labourers nec*	-	-
Electrical trades and installation	5.3%	380
Plumbing and HVAC Trades	-	<50
Logistics	8.2%	70
Civil engineering operatives nec*	8.9%	140
Non-construction operatives	-	-
<b>Total (SIC 41-43)</b>		<b>1,570</b>
Civil engineers	3.6%	100
Other construction professionals and technical staff	-	-
Architects	9.8%	150
Surveyors	-	<50
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>1.6%</b>	<b>1,820</b>

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

However, there would also be pressure on architects, civil engineering operatives and logistics staff where demand 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.

When looking at the workforce and ARR forecasts it is important to note that in 2022, Wales, like other areas of the UK has continued to see a high level of 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 2022, levels are still well above what was reported at the start of 2020, therefore we expect the labour market will continue to be highly competitive for the foreseeable future.



To fill vacancies and recruit new staff, construction companies can look at several routes such as:

**Attracting skilled workers who are already working elsewhere** in the construction industry, although this obviously moves existing workers around rather than meet overall industry need

**Attracting 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

**Recruiting and training new entrants into construction** from those leaving school, further education, higher education or migration

**Improving the retention of workers** within the industry

Looking at **how productivity can be improved.**

## MONTHLY UNIQUE ONLINE JOB POSTINGS - WALES

Source: Lightcast, selected construction occupations, Wales



## The response to skills shortages is likely to be a mix of these options, however, there are challenges.

The strength of the jobs market has been influenced by relatively low levels of unemployment (3.3%) and an increasing proportion of people who are classed as being economically inactive. This shift in people being economically inactive looks to be focused on a few areas with a noticeable increase in people over 50 years of age becoming inactive along with an increase in people with long-term illness.

The net effect is that the pool of available workers that all industries are looking to recruit within has been squeezed, leading to increased competition.

As highlighted in CITB's *Rethinking Recruitment* report, construction companies in Wales, and across the UK in general will have to look for new ways to attract, recruit and develop the workers they need both now, and in the future, and in a way that maximises the diverse pool of people looking for work.

The trends for construction training are positive. For apprenticeships there was an 18% drop in starts for 2019/20 when compared to 2018/19 and 2020/21 figures also remained low. However,

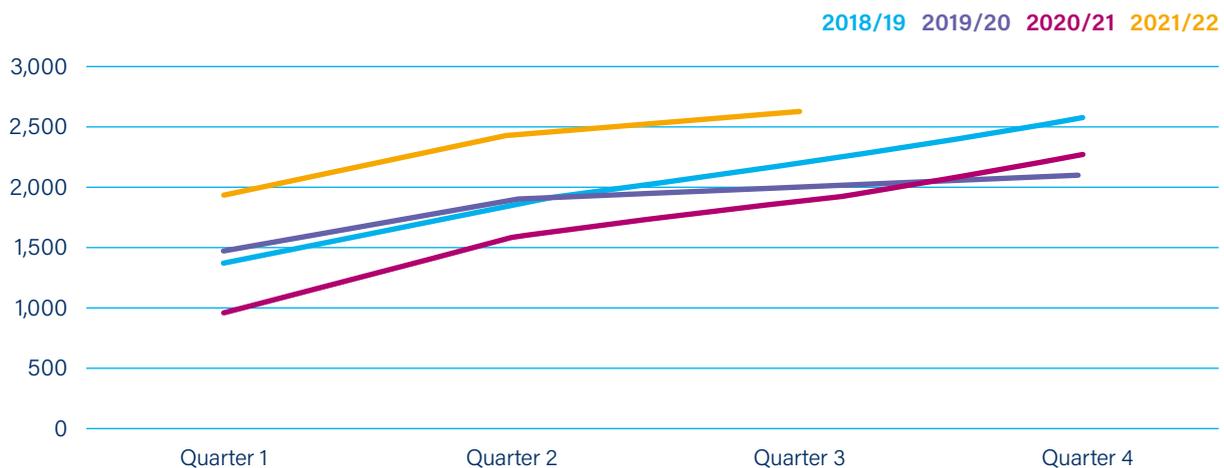
there has been a noticeable increase in starts for 2021/22 and they are on track to be above 2018/19 levels.

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 with a reduction in 2019/20 recovering in 2020/21 at a time when there is increasing demand for workers. This indicates that construction training is getting back to previous levels, although there is still work to increase this to meet current and future demand.

### WALES CUMULATIVE QUARTERLY APPRENTICESHIP STARTS FOR THE CONSTRUCTION SECTOR 2018/19 - 2021/22, Q3

Source: StatsWales



### CONSTRUCTION, PLANNING AND BUILT ENVIRONMENT, LEARNING ACTIVITIES AT FURTHER EDUCATION 2016/17 - 2020/21

Source: Stats Wales



# CITB support to the construction industry in Wales

CITB Wales **will continue to support industry** through various initiatives in 2022 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 three 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 such as the development of the Industrial Building Treatment apprenticeship framework and digital qualifications for the new construction apprenticeship framework.

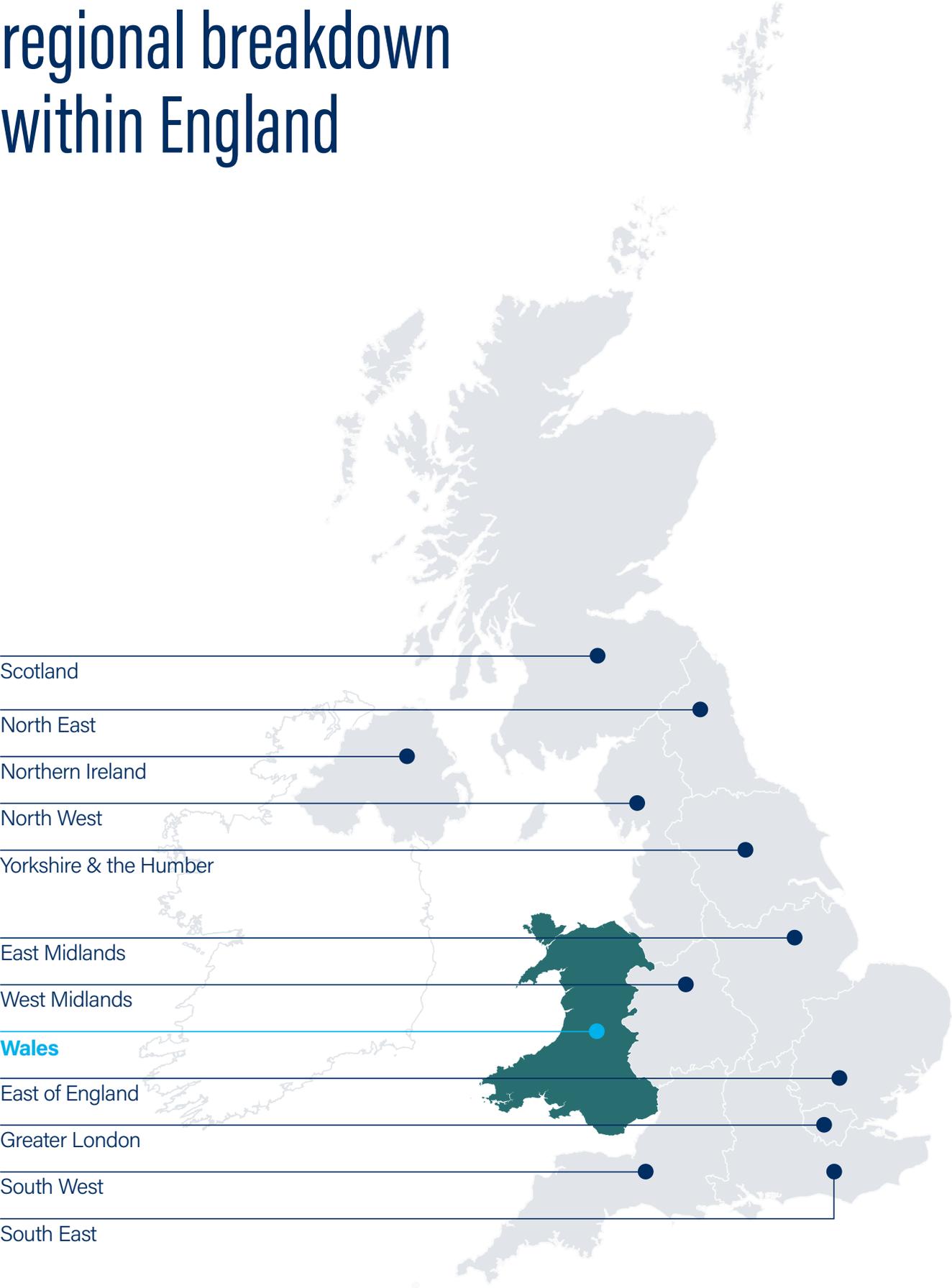
However, overcoming skills shortages in a more competitive labour market at a time when the economy will be in a recession requires combined action from CITB Wales, construction companies and government. Having a workforce

that is competent and trained to make the most of the future opportunities is vital to ensuring Wales has the volume of energy efficient homes it needs, the infrastructure to ensure the economy thrives, and to tackle the retrofit of the built environment to meet net zero targets. As the report sets out, Welsh construction over the next five years will continue to support around 111,000 workers and contribute around £5.7bn worth of output each year from an industry that accounts for 14% of all business that employ people in Wales.

The Welsh construction industry will continue to contribute around

**£5.7bn**

# Overview of the UK and regional breakdown within England



# For more information about the Construction Skills Network, contact:

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