



# INDUSTRY INSIGHTS

Construction Skills Network  
Forecasts 2016–2020

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Greater London 2016–2020



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## SECTION 1

# SUMMARY – GREATER LONDON

# 3.5%

The capital's total construction output is forecast to grow by an annual average of 3.5% over the next five years. Construction employment is anticipated to increase by an average yearly rate of 2%, reaching 444,120 by 2020 just below its 2008 peak level. At 0.9% of base 2016 employment, Greater London has one of the lowest annual recruitment requirements (ARR). The region's ARR is also well below the UK rate of 1.7%.

### Key Findings

The region is predicted to see annual average growth rate of 3.5% in its total construction output between 2016 and 2020, lagging only Wales and the South West, the two regions that will benefit most from nuclear new build projects.

The infrastructure sector is likely to be the best performing, both in the short and long run. There are a number of large projects currently going on within the rail sub-sector such as Crossrail and new schemes that are likely to start under our forecast period such as High Speed 2 (HS2). For HS2 we have assumed that main construction work will start in 2019 with early work based around London. Outside the rail sub-sector, another sizeable project anticipated to start is the Thames Tideway Tunnel.

Yearly expansion of 4.9% on average is forecast for the public non-housing sector. The biggest scheme anticipated over the next five years is University College London's £1bn 'Olympicopolis' development. By 2020 output is projected to be around 69% of its 2010 peak.

The commercial market is likely to see average annual increases of 2.9% over the forecast period. Most of this growth is predicted to be seen in the short term as work on large regeneration schemes takes place.

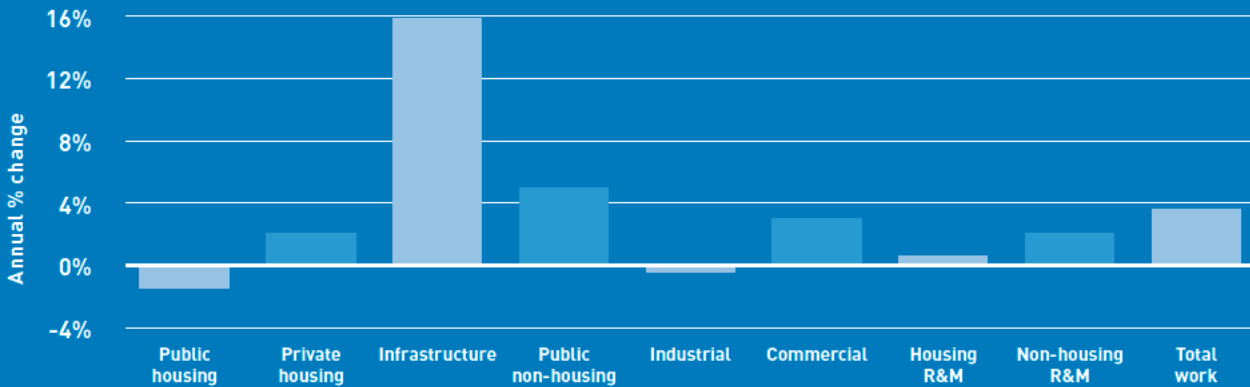
In 2015 construction work began on the £3.5bn regeneration of Silvertown Quays whilst the £1bn redevelopment of Croydon town centre is due to commence this year.

The largest annual average falls of 1.5% have been predicted for the public housing sector. For local councils and housing associations in England, 2015 saw a couple of key government announcements likely to negatively impact balance sheets. Firstly, both are required to decrease their rents by 1% a year from 2016/17 to 2019/20. Secondly, it has been revealed that Right to Buy will be extended to housing associations. Both are likely to make it harder for social housing providers to attract private finance.

In 2014 the capital accounted for around 15.4% of UK construction employment and this is likely to increase to 16.3% by 2020. Over the next five years construction employment is likely to rise by 2% per year on average in Greater London, one of the highest rates compared with other regions and devolved nations.

At 3,650 extra employees required per year over the forecast period, the region's ARR is just 0.9% of base 2016 employment, lower than the UK rate of 1.7%. Given the strong inflows that London naturally benefits from, there are only a handful of occupational categories that have an ARR above 2.5% of base 2016 employment.

## ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2020 – GREATER LONDON



Source: CSN, Experian. Ref: CSN Explained, Section 3, Note 2

## REGIONAL COMPARISON 2016-2020

Region	Annual average % change in output	Change in total employment	Total ARR
North East	1.5%	3,260	3,160
Yorkshire and Humber	2.4%	8,360	3,230
East Midlands	1.0%	1,210	3,110
East of England	2.3%	13,950	3,910
Greater London	3.5%	42,670	3,650
South East	0.9%	2,110	1,730
South West	4.4%	25,850	6,480
Wales	7.1%	17,490	5,440
West Midlands	1.7%	10,200	3,030
Northern Ireland	3.0%	4,660	1,760
North West	2.6%	22,430	6,650
Scotland	0.5%	-7,360	4,270
<b>UK</b>	<b>2.5%</b>	<b>144,830</b>	<b>46,420</b>

Source: CSN, Experian. Ref: CSN Explained, Section 3, Note 2

■ The best performing sector is infrastructure with an average yearly growth of 15.8%. ■



## SECTION 2

# THE OUTLOOK FOR CONSTRUCTION IN GREATER LONDON

### 2.1 Construction output in Greater London – overview

In 2014 total construction output increased by 17% to £27.66bn, a new high. Both the new work and repair and maintenance (R&M) sectors experienced growth, of 22% and 9% respectively.

Of the new work sectors the private housing market reached a record high as it saw the greatest rise of 62% to £5.4bn. A new peak was also posted in the public housing sector as it jumped by 51% to £2.3bn. Double digit expansion was also seen in the industrial (35%) and commercial (27%) markets whilst the public non-housing sector registered the smallest increase of 5%. The infrastructure sector was the only sector to experience a fall, of 33% to £2.6bn.

### 2.2 Industry structure

The diagram, Construction Industry structure 2014 – UK vs. Greater London, illustrates the sector breakdown of construction in Greater London, compared to that in the UK. Effectively, the percentages for each sector illustrate what proportion of total output each sector accounts for.

In 2014, Greater London's new work sector accounted for 68% of total construction output, much higher than the national share of 62%.

The structure of the London construction market shows some considerable differences compared with the UK as a whole. At 26% of total construction output, the share of the commercial sector in the capital is much bigger than the UK share (19%). More emphasis is also placed on the region's public housing sector (8% vs 4%). In contrast, the housing R&M (16% vs 19%), non-housing R&M (16% vs 19%), and infrastructure (8% vs 11%) sectors were significantly smaller compared to the UK.

### 2.3 Economic overview

The expected performance of a regional or national economy over the forecast period (2016–2020) provides an indication of the construction sectors in which demand is likely to be strongest.

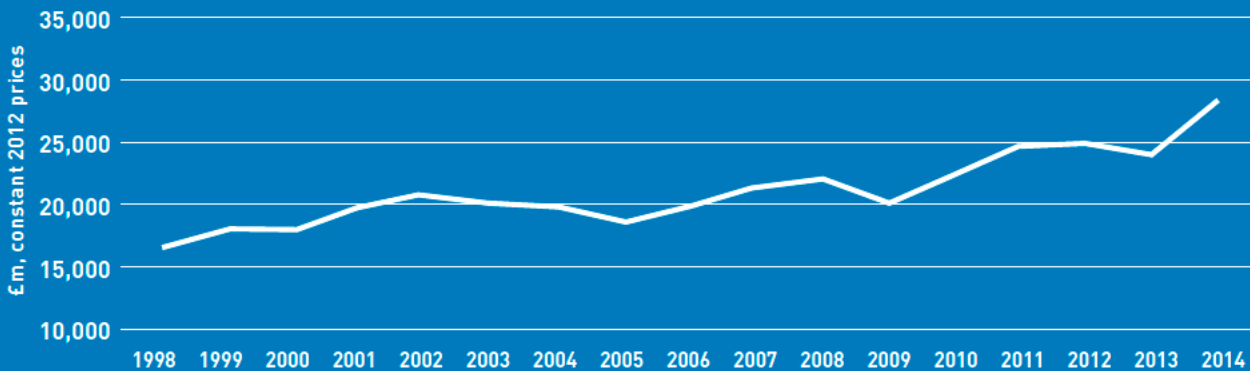
### 2.4 Economic structure

In 2014 gross value added (GVA) in the capital went up for the fifth consecutive year, by 4.1%, to £339.4bn in 2012 prices. As a share of the UK, the region accounted for 22.4% of GVA in 2014.

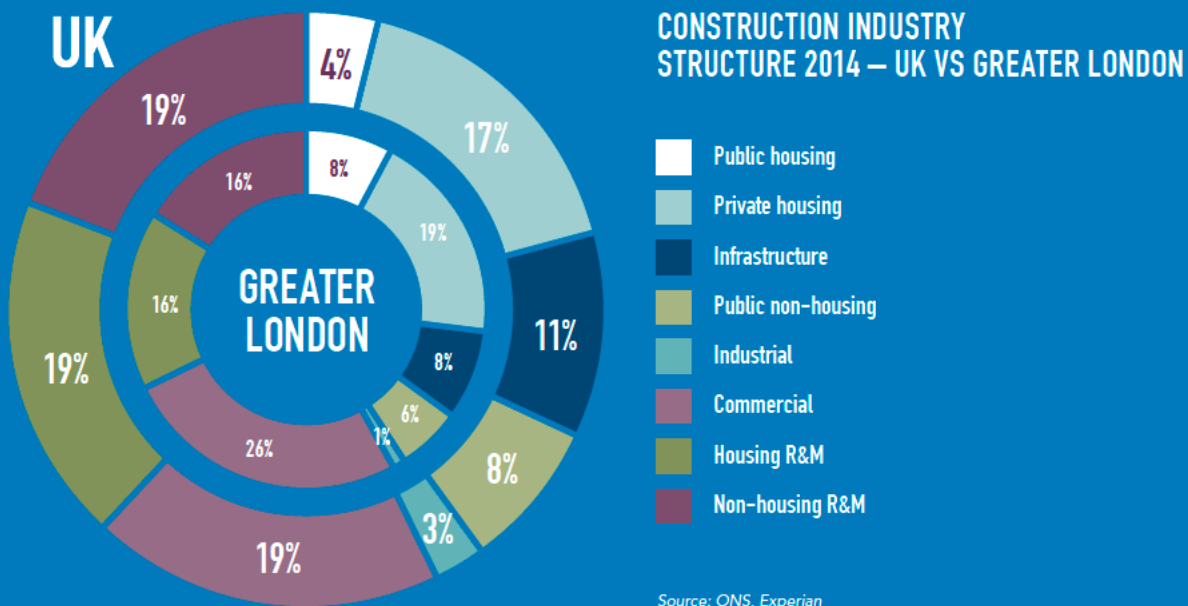
Professional and other private services was the largest sector, accounting for 32.6% of the region's GVA in 2014, whilst the finance and insurance one took the next biggest share, at 15.6%. The public services and information and communication sectors were ranked third and fourth respectively while wholesale and retail was the fifth largest market. Of the top five sectors, finance and insurance was the only one to experience a fall in output, of 0.8%.

Greater London has a higher than average exposure to the services sector whilst other sectors such as manufacturing and construction are underrepresented compared to the UK as a whole.

## CONSTRUCTION OUTPUT 1998-2014 – GREATER LONDON



Source: ONS. Ref: CSN Explained, Section 3, Note: 1



Source: ONS, Experian

## ECONOMIC STRUCTURE – GREATER LONDON (£ BILLION, 2012 PRICES)

Selected sectors	Actual 2014	Forecast Annual % change, real terms					
		2015	2016	2017	2018	2019	2020
Professional and other private services	110.7	3.9	3.5	3.3	3.5	3.2	3.1
Finance and insurance	52.9	1.7	3.9	4.4	4.0	3.6	3.4
Public services	48.6	0.3	0.0	0.1	0.8	1.6	2.5
Information and communication	34.9	6.1	4.7	3.6	3.4	3.1	3.0
Wholesale and retail	29.7	4.2	2.6	2.5	2.6	2.6	2.6
<b>Total Gross Value Added (GVA)</b>	<b>339.4</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.1</b>	<b>2.9</b>	<b>3.0</b>

Note: Top 5 sectors, excluding construction. Source: Experian. Ref: CSN Explained, Section 3, Note 3



## 2.5 Forward looking economic indicators

Over the next five years GVA is projected to grow at an annual average rate of 3%, higher than the national average of 2.4%.

Of the top five sectors, finance and insurance GVA is anticipated to see the strongest average annual expansion of 3.9% whilst the biggest sector, professional and other private services is likely to experience annual average increases of 3.3%. The weakest of the large sectors is predicted to be public services, rising by 1% per annum.

Real household disposable income is expected to rise by an annual average of 2.2% over the forecast period, higher than the UK rate of 1.9%.

The capital's working population is projected to continue to grow strongly in the five years to 2020 and given the ever increasing competition for jobs, the current low unemployment rate should start creeping up over the same timeframe.

## 2.6 New construction orders – overview

In 2014 total construction orders rose by 10% to £13.5bn, around 96% of their 2007 peak. New orders in the commercial market recorded the strongest jump of 66% to £6bn. A rise of 17% was seen in the private housing sector (£4.1bn) whilst the public non-housing and industrial sectors also experienced growth of 11% and 3% respectively. In contrast, the largest decrease of 69% to £561m was recorded in the public housing sector, taking new orders down to their lowest level since 2003, while the infrastructure sector saw a decline of 37% to £1bn.



## 2.7 New construction orders – current situation

In the first six months of 2015, all new orders declined by 3% to £6.2bn compared with the corresponding period in the preceding year. The infrastructure sector recorded the strongest jump of 69% to £352m whilst a rise of 6% was seen in the private housing market (£2.2bn). In contrast, the commercial sector experienced flat growth at £2.6bn. The largest decrease of 36% to £217m was recorded in the public housing sector while the public non-housing sector saw a decline of 32% to £644m. The industrial market registered the smallest drop of 14% to £121m.

## 2.8 Construction output – short-term forecasts (2016–2017)

Regional Office for National Statistics (ONS) output statistics are published in current prices and are therefore inclusive of any inflationary effect. At the time of writing, regional ONS construction output statistics were only available for the first two quarters of 2015.

In the first half of this year total construction output growth continued as it went up by 8% to £14.9bn on an annual basis. However, across the new work sectors there was a mixed picture. Output in the commercial market registered the biggest increase of 29% to £4.3bn whilst strong growth of 21% to £3.1bn was also seen in the private housing sector. In contrast, the public housing sector recorded the largest decrease of 25% to £863m. Output declines of 11% and 5% were also experienced in the infrastructure (£1.1bn) and public non-housing (£754m) sectors respectively. The smallest fall of 3% to £110m was posted in the industrial sector.

In 2015 total construction output in the capital is estimated to have increased by 3% to £28.5bn in 2012 prices. Output is expected to rise by an annual average of 6.4% over the next two years. Growth is forecast to be stronger in the new work sector compared with the R&M sector (8.7% vs. 1.3%).

Infrastructure output is likely to experience the strongest annual average expansion of 20.7% over the short term due to several sizeable projects that are currently on site or about to start. Ongoing schemes include work on Crossrail, London Bridge station and the Victoria station upgrade. This year work on the £1bn Northern Line Extension scheme is likely to commence and it is hoped that the project will reduce journey times to the City and West End to just under 15 minutes. The extension is designed to pave the way for the regeneration of the Vauxhall, Nine Elms and Battersea areas. In the second half of 2016 work is also expected to start on the £4.2bn Thames Tunnel, the largest ever Nationally Significant Infrastructure Project. The scheme will cover 24 construction sites across London under three separate main contracts worth a total of up to £2.3bn – West (£300m–£500m), Central (£600m–£950m) and East (£500m–£800m).



## ECONOMIC INDICATORS – GREATER LONDON (£ BILLION, CURRENT PRICES – UNLESS OTHERWISE STATED)

Selected sectors	Actual	Forecast					
	2014	Annual % change, real terms					
	2014	2015	2016	2017	2018	2019	2020
Real household disposable income	183.8	3.5	2.5	2.5	2.3	1.6	2.1
Household spending	152.6	4.1	2.9	2.9	2.9	2.8	2.8
Working age population (000s and as % of all)	5,734	67.4%	67.6%	67.6%	67.6%	67.7%	68.0%
House prices (£)	384,856	7.5	5.1	4.0	3.5	3.7	4.4
LFS unemployment (millions)	0.40	-8.0	0.2	3.5	1.8	1.5	1.1

Source: ONS, DCLG, Experian

## NEW CONSTRUCTION ORDERS GROWTH 1998-2014 – GREATER LONDON VS. GB



Source: ONS. Ref: CSN Explained, Section 3, Note 4

## NEW WORK CONSTRUCTION ORDERS – GREATER LONDON (£ MILLION, CURRENT PRICES)

	Actual	Annual % change				
	2014	2010	2011	2012	2013	2014
Public housing	561	22.9	-32.2	-1.6	187.2	-69.2
Private housing	4,107	102.4	35.3	-15.3	103.5	16.7
Infrastructure	1,040	43.9	-12.9	26.3	-53.3	-37.2
Public non-housing	1,577	-11.0	-39.9	-21.1	31.6	10.8
Industrial	227	70.9	11.4	-49.5	122.2	3.2
Commercial	6,016	19.5	6.5	-16.7	25.2	65.6
<b>Total new work</b>	<b>13,528</b>	<b>24.5</b>	<b>-7.6</b>	<b>-5.2</b>	<b>22.9</b>	<b>10.2</b>

Source: ONS. Ref: CSN Explained, Section 3, Note 4



The public non-housing sector is predicted to see double digit growth of 11% over the next two years. A strong increase in output is forecast for this year as work begins on University College London's £1bn 'Olympicopolis' development, which is one of the largest projects the sector has seen in a while. The rise in output in 2017 is predicted to be more moderate as new sizeable schemes starting on site dry up.

Annual average expansion of 9.6% has been forecast for the commercial market. There are a number of large current and new projects that are expected to place over the short term, which is likely to keep growth buoyant. Work on the £3.5bn regeneration of Silvertown Quays began last year. The 62 acre site will include a new business quarter, restaurants, shops, space for technology and creative start-ups as well as around 3,000 new homes. In order to attract businesses to the area a range of different spaces will be made available that are flexible as well as affordable.

The £1bn redevelopment of Croydon town centre is due to commence this year. Once complete it will incorporate around 200,000 square feet of new leisure, retail and residential space.



## 2.9 Construction output – long-term forecasts (2016–2020)

In the five years to 2020 Greater London's construction output is expected to rise by an annual average of 3.5%.

Over the longer term infrastructure is forecast to be the best performing sector with an average yearly growth of 15.8%, higher than the corresponding UK rate of 6.1%. This is hardly surprising given the number of schemes that are either taking place or about to start. The strongest rise in output is projected in 2019 as main construction work on High Speed 2 begins, and this should more than compensate for the completion of the Crossrail and Thameslink projects.

The public non-housing sector is predicted to see annual average expansion of 4.9%, more moderate compared to the short-term rate. Apart from the £1bn 'Olympicopolis' development mentioned above, at present there are no plans to start other large schemes over the next five years. Local councils are still anticipated to be suffering from the ongoing austerity measures and are therefore unlikely to be starting work on sizeable developments. However, there is likely to be a steady stream of smaller education-related projects over the forecast period.

An average yearly rise of 2.9% is expected for the commercial sector. The majority of this growth is projected to come under the short term and in 2018 the sector is expected to reach a new high of £9.4bn. The strong growth rates for both the finance and insurance and professional and other private services sectors should keep demand for office premises high over the forecast period.

After five years of very strong expansion, growth in private housing output is expected to slow to more sustainable levels over the forecast period. Output in the sector is already at historic highs and it is expected to grow by around 2% a year.

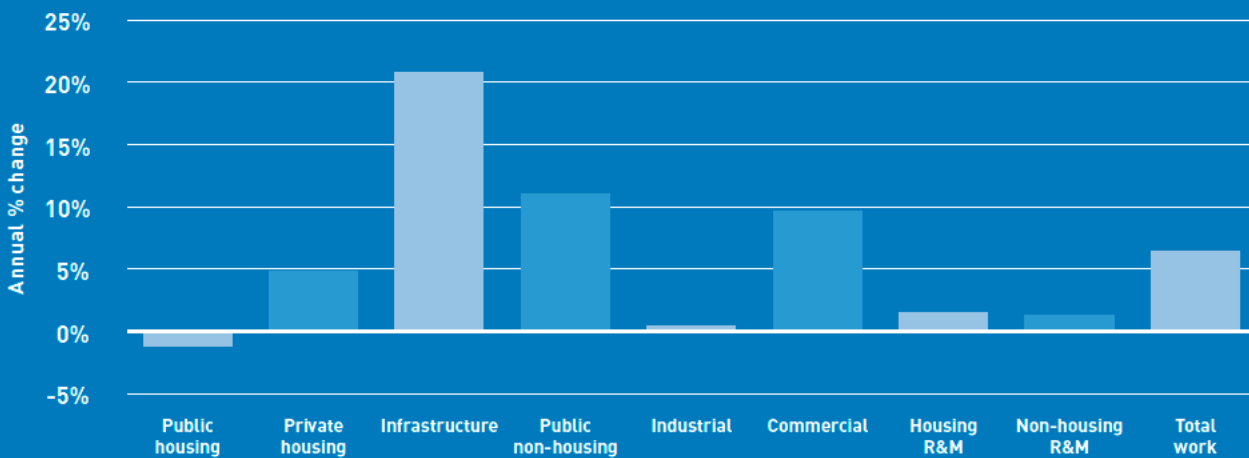
However, announcements made in the 2015 Autumn Statement relating to housing could impact these forecasts, which were locked prior to their release. The government has indicated that it expects to see up to 400,000 'affordable' homes developed across the country by 2020. The questions around this announcement have to be how much more does this entail above current build rates and secondly, affordable to whom? Nevertheless, it could lead to extra homes being built in the capital and therefore lead to higher growth in output than was previously expected. Similarly, the new London Help to Buy scheme may provide an upside risk to our forecasts. Buyers with a 5% deposit will be given a loan worth up to 40% of the property and this is going to be interest free for five years.

## CONSTRUCTION OUTPUT – GREATER LONDON (£ MILLION, 2012 PRICES)

	Actual	Forecast annual % change			Annual average
	2014	2015	2016	2017	2016-2017
Public housing	2,259	-10%	-8%	6%	-1.3%
Private housing	5,391	3%	4%	5%	4.7%
Infrastructure	2,148	20%	17%	25%	20.7%
Public non-housing	1,580	-9%	16%	6%	11.0%
Industrial	231	-7%	-2%	2%	0.3%
Commercial	7,104	9%	11%	8%	9.6%
<b>Total new work</b>	<b>18,713</b>	<b>4%</b>	<b>8%</b>	<b>9%</b>	<b>8.7%</b>
Housing R&M	4,408	2%	2%	1%	1.4%
Non-housing R&M	4,538	-2%	0%	2%	1.2%
<b>Total R&amp;M</b>	<b>8,946</b>	<b>0%</b>	<b>1%</b>	<b>1%</b>	<b>1.3%</b>
<b>Total work</b>	<b>27,659</b>	<b>3%</b>	<b>6%</b>	<b>7%</b>	<b>6.4%</b>

Source: Experian. Ref: CSN Explained, Section 3, Notes 1 and 2

## ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2017 – GREATER LONDON



Source: Experian. Ref: CSN Explained, Section 3, Note 2

Construction in the capital will grow on average by 3.5% per year.



The public housing sector is likely to experience the biggest annual average falls of 1.5%. Last year it was announced that both councils and housing associations will be obliged to decrease their rents by 1% a year from 2016/17 to 2019/20. This combined with the announcement of the extension of Right to Buy to housing associations inevitably exacerbates the already difficult operating environment for the sector.

### 2.10 Beyond 2020

Work on the £3bn Houses of Parliament refurbishment is scheduled to begin in early 2021 and last around five years. It has been revealed that as part of the project docks may be built that would accommodate two boats. One will take away rubble whilst the other will be used to bring in replacement stonework, generators, air conditioning units and bronze window frames. A Deloitte report published during summer last year stated that if politicians did not temporarily move out whilst work was underway then the project could cost more than £7bn and take much longer to complete.

Also in the pipeline is the prospect of Crossrail 2, running across the city from the South West to the North/North East, although the route has yet to be finalised. The hope is that the route will be operational by 2030, which would probably entail a start in the early 2020s.

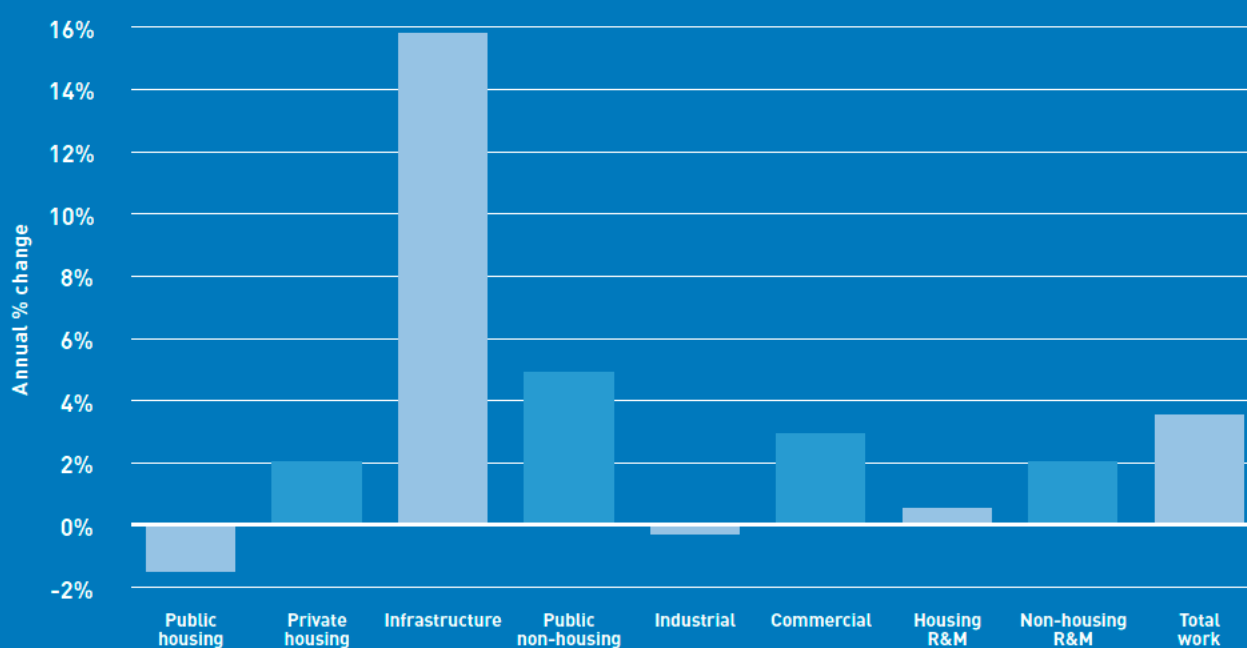


## CONSTRUCTION OUTPUT – GREATER LONDON (£ MILLION, 2012 PRICES)

	Estimate	Forecast annual % change					Annual average
	2015	2016	2017	2018	2019	2020	2016-2020
Public housing	2,026	-8%	6%	9%	3%	-15%	-1.5%
Private housing	5,564	4%	5%	-3%	2%	2%	2.0%
Infrastructure	2,581	17%	25%	-9%	43%	10%	15.8%
Public non-housing	1,440	16%	6%	3%	-3%	3%	4.9%
Industrial	215	-2%	2%	4%	-3%	-3%	-0.3%
Commercial	7,708	11%	8%	1%	0%	-5%	2.9%
<b>Total new work</b>	<b>19,534</b>	<b>8%</b>	<b>9%</b>	<b>-1%</b>	<b>7%</b>	<b>0%</b>	<b>4.5%</b>
Housing R&M	4,501	2%	1%	0%	0%	0%	0.5%
Non-housing R&M	4,456	0%	2%	2%	3%	3%	2.0%
<b>Total R&amp;M</b>	<b>8,957</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>1.3%</b>
<b>Total work</b>	<b>28,491</b>	<b>6%</b>	<b>7%</b>	<b>0%</b>	<b>5%</b>	<b>0%</b>	<b>3.5%</b>

Source: Experian. Ref: CSN Explained, Section 3, Notes 1 and 2

## ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2020 – GREATER LONDON



Source: Experian. Ref: CSN Explained, Section 3, Note 2



### SECTION 3

# CONSTRUCTION EMPLOYMENT FORECASTS FOR GREATER LONDON

## 3.1 Total construction employment forecasts by occupation

The table opposite presents actual construction employment (SICs 41–43, 71.1, and 74.9) in Greater London for 2014, the estimated total employment across 28 occupational categories in 2015 and forecasts for the industry for 2016 to 2020. A full breakdown of occupational groups is provided in Section 5 of CSN Explained.

Greater London accounted for 15.4% of construction employment in 2014 and this is projected to rise to 16.3% in 2020 by which point employment levels should be just

short of their 2008 peak. Overall the region's construction employment is likely to rise by 2% per year on average, well above the UK rate of 1.1%. Expansion is predicted for 26 of the 28 occupational categories, with strong demand particularly for some of the trades and logistics personnel.

In numbers terms this represents a rise of over 42,000 in construction employment in the capital, from around 401,500 in 2015 to a little over 444,000 in 2020.

In 2020, the largest construction trade occupation in the region is anticipated to be wood trades and interior fit out one, accounting for around 10% of the total workforce.



## TOTAL EMPLOYMENT BY OCCUPATION – GREATER LONDON

	Actual 2014	Estimate 2015	Forecast	
			2016	2020
Senior, executive, and business process managers	27,040	28,850	30,070	32,810
Construction project managers	13,270	13,370	13,660	14,300
Other construction process managers	31,820	31,800	32,800	35,010
Non-construction professional, technical, IT and other office-based staff	61,500	62,800	65,110	70,450
Construction trades supervisors	6,700	7,080	7,490	8,270
Wood trades and interior fit-out	37,630	40,000	42,400	45,380
Bricklayers	6,070	6,460	6,900	7,580
Building envelope specialists	21,280	22,630	23,920	25,370
Painters and decorators	17,050	18,190	19,010	19,030
Plasterers	3,580	3,490	3,590	3,550
Roofers	2,630	2,810	3,000	3,260
Floorers	2,630	2,800	2,950	3,120
Glaziers	4,290	4,580	4,780	4,860
Specialist building operatives nec*	9,990	9,670	10,090	10,110
Scaffolders	1,260	1,340	1,380	1,520
Plant operatives	5,360	5,690	5,950	6,640
Plant mechanics/fitters	3,050	2,960	3,020	2,720
Steel erectors/structural fabrication	2,870	2,940	3,040	3,050
Labourers nec*	16,510	15,900	16,080	15,590
Electrical trades and installation	19,600	20,780	21,550	21,390
Plumbing and HVAC Trades	18,820	18,210	19,050	19,680
Logistics	2,570	2,740	2,930	3,480
Civil engineering operatives nec*	1,850	1,960	1,990	2,220
Non-construction operatives	6,610	6,890	7,350	8,720
Civil engineers	8,530	9,070	9,370	10,040
Other construction professionals and technical staff	30,890	30,390	31,490	34,110
Architects	13,420	14,240	14,850	16,420
Surveyors	14,380	13,810	14,290	15,440
<b>Total (SIC 41-43)</b>	<b>323,980</b>	<b>333,940</b>	<b>348,110</b>	<b>368,110</b>
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>391,200</b>	<b>401,450</b>	<b>418,110</b>	<b>444,120</b>

Source: ONS, CSN, Experian. Ref: CSN Explained, Section 3, Notes 5 and 6 \*Not elsewhere classified.



### 3.2 Annual recruitment requirements (ARR) by occupation

The ARR is a gross requirement that takes into account workforce flows into and out of construction, due to factors such as movements between industries, migration, sickness, and retirement. However, these flows do not include movements into the industry from training, due to the inconsistency and coverage of supply data. Therefore, the ARR provides an indication of the number of new employees that would need to be recruited into construction each year in order to realise forecast output.

The total ARR for Greater London has a green light indicating that there is a low requirement for extra employees under our forecast period. At 3,650 extra employees required per year over forecast period, this is just 0.9% of base 2016 employment. The corresponding ARR rate for the UK is higher at 1.7%. London traditionally has a very low ARR as it naturally acts as a magnet for the construction workforce from other areas of the country and overseas.

In absolute terms the largest requirement is for building envelope specialists (1,210), equivalent to 33% of the region's total ARR. However, as a proportion of base 2016 employment, glaziers are likely to be most in demand (10%).

Please note that all of the ARR's presented in this section are employment requirements and not necessarily training requirements. This is because some new entrants to the construction industry, such as skilled migrants or those from other industries where similar skills are already used, will be able to work in the industry without the need for significant retraining.

Non-construction operatives is a diverse occupational group including all of the activities under the SICs 41–43, 71.1, and 74.9 umbrella that cannot be classified elsewhere, such as cleaners, elementary security occupations not elsewhere classified (nec) and routine inspectors and testers. The skills required in these occupations are highly transferable to other industries and forecasting such movement is hazardous given the lack of robust supportive data. Therefore, the ARR for non-construction operatives is not published.







## ANNUAL RECRUITMENT REQUIREMENT BY OCCUPATION – GREATER LONDON

	2016-2020
Senior, executive, and business process managers	350
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	420
Bricklayers	-
Building envelope specialists	1,210
Painters and decorators	<50
Plasterers	160
Roofers	-
Floorers	200
Glaziers	480
Specialist building operatives nec*	-
Scaffolders	-
Plant operatives	120
Plant mechanics/fitters	-
Steel erectors/structural fabrication	-
Labourers nec*	-
Electrical trades and installation	-
Plumbing and HVAC Trades	-
Logistics	200
Civil engineering operatives nec*	-
Civil engineers	480
Other construction professionals and technical staff	-
Architects	-
Surveyors	-
<b>Total (SIC 41-43)</b>	<b>3,170</b>
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>3,650</b>

Source: CSN, Experian. Ref: CSN Explained, Section 3, Notes 5 and 6 \*Not elsewhere classified.



## SECTION 4

# COMPARISONS ACROSS THE UK

# 2.5%

The overall UK forecast of an annual average rise in output of 2.5% over the 2016 to 2020 period is a little higher than the 2.1% seen in the last growth period for construction between 1995 and 2007. However, it disguises some quite different regional/devolved nation performances, from expected expansion of over 7% in Wales to just 0.5% in Scotland.

Wales and the South West are top of the growth rankings and have remained so for some time, but their strong performance is heavily predicated on nuclear new build projects at Hinkley Point and Wylfa. Greater London is also projected to have a strong infrastructure sector, with the work starting on the Northern Line extension and Thames Tideway and High Speed 2 in the pipeline. These projects should more than offset completion of the Crossrail and Thameslink schemes.

While growth in London and the East of England is expected to be robust, the forecast for the South East is relatively poor with a dearth of major projects in the pipeline, the £2bn Paramount Park scheme excepted. Therefore the forecasts are less South East England centric than they sometimes can be.

Northern Ireland is likely to be one of the faster growing regions in the five years to 2020, although construction output will be coming back from a very low base and there are concerns that current political uncertainties could delay the start of public projects.

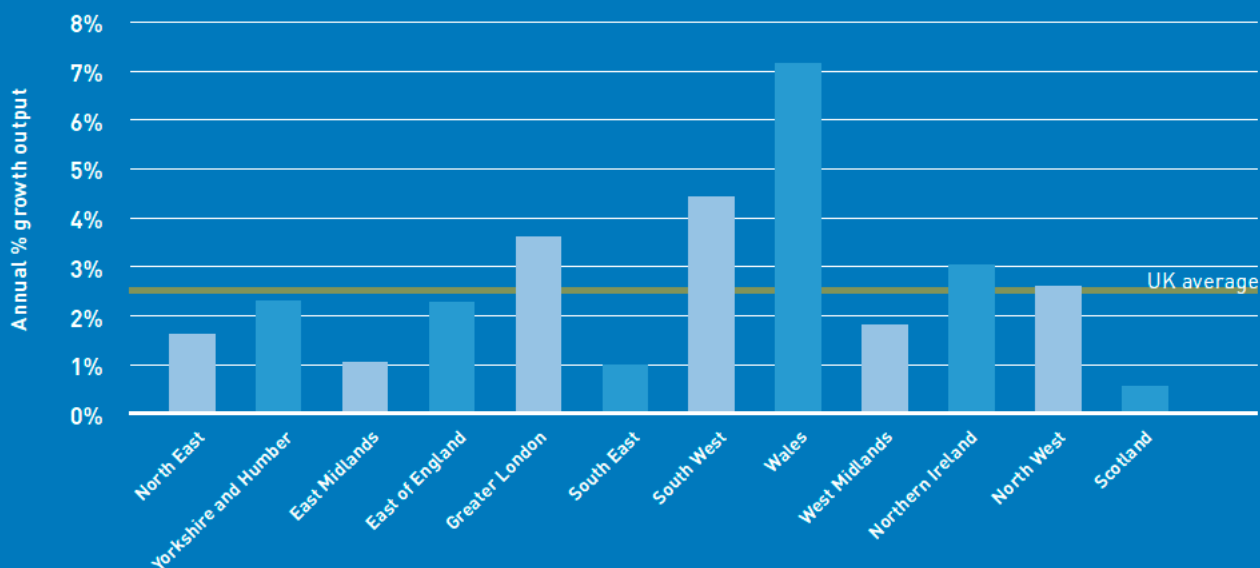
Scotland is seeing an exceptionally high level of investment in infrastructure at present, with output in 2014 around twice its previous 10 year average and due to increase even further in 2015. Thereafter projects, such as the current spate of motorway upgrades, begin to complete and activity in the sector is likely to fall sharply, bringing the overall Scottish construction growth rate down to only about half a per cent a year on average.

Employment growth across the regions and devolved nations tends to mirror that of output, but at a lower level to take account of expected productivity gains and with some minor adjustments depending on whether output growth is in high or low labour intensive sectors. Annual employment growth across the UK as a whole is projected to average 1.1% over the 2016 to 2020 period, with a high of 2.9% in Wales and a low of a 0.7% a year decline in Scotland. Despite the fact that nuclear new build is not particularly labour intensive, Wylfa is a very big project in a small market, therefore it will add nearly 2% to construction employment in Wales in 2020. The impact is smaller in the South West, which has a bigger construction market, but even there it will help to drive good employment growth of over 2% a year on average. In Scotland the converse is true and a sharp fall in infrastructure output, despite its relatively low labour input, is likely to lead to a drop in construction employment north of the border post 2016.

The pattern of ARR can look significantly different from the profile of output and employment, as some regions and devolved nations have historically strong net inflows and some suffer from large net outflows. The most extreme examples of this trend tend to be Greater London and Wales. London has a relatively low ARR despite strong projected employment growth (2% a year) as it acts as a natural magnet for construction workers throughout the UK and beyond, therefore its ARR ratio to base 2016 employment is low at 0.9%. At the other end of the scale Wales tends to suffer strong net outflows, in particular to the North West and South West of England and this, combined with a buoyant output and employment growth forecast, means its ARR ratio to base 2016 employment is a high 4.7%.

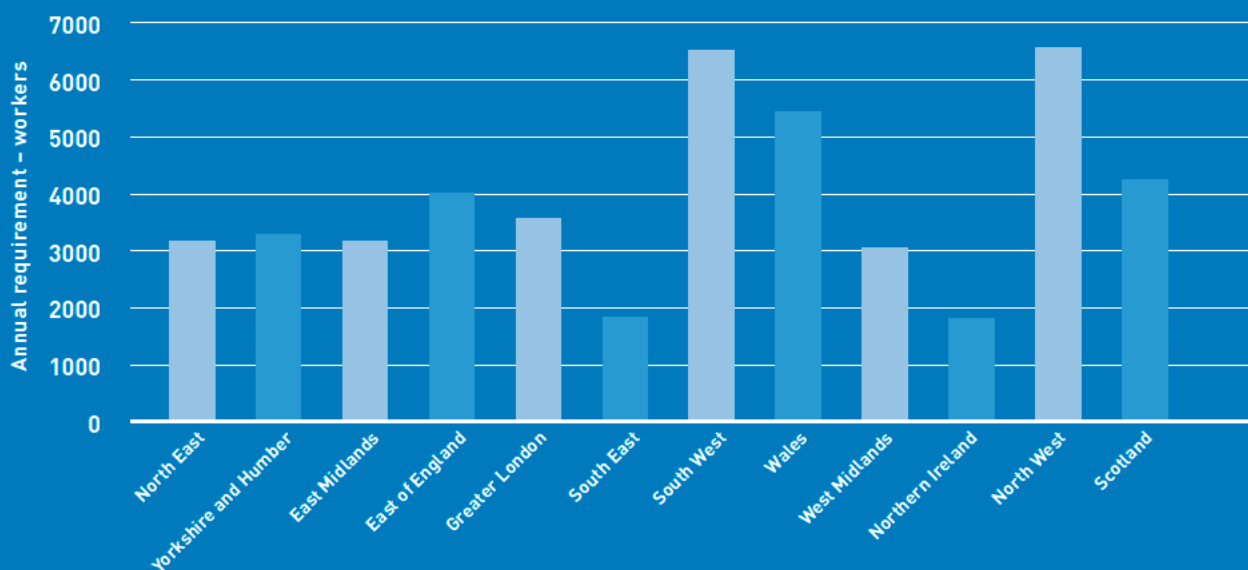


### ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH BY REGION 2016-2020



Source: Experian. Ref: CSN Explained, Section 3, Note 2

### ANNUAL RECRUITMENT REQUIREMENT (ARR) BY REGION 2016-2020



Source: CSN, Experian

Employment in Greater London will grow on average by 2% per year, higher than the UK average of 1.1%.



# CSN EXPLAINED

This appendix provides further details and clarification of some of the points covered in the report.

**Section 1** gives an overview of the underpinning methods that are used by the CSN, working in partnership with Experian, to produce the suite of reports at a UK, national and regional level.

**Section 2** provides a glossary to clarify some of the terms that are used in the reports.

**Section 3** has some further notes relating to the data sources used for the various charts and tables. This section also outlines what is meant by the term 'footprint', when talking about the areas of responsibility that lie with a Sector Skills Council (SSC) or Sector Bodies.

**Section 4** explains the sector definitions used within the report and provides examples of what is covered in each.

**Section 5** gives a detailed breakdown of the 28 occupational groups into the individual standard occupational classification (SOC) codes that are aggregated to provide the employment and recruitment requirement.

**Section 6** concludes this appendix by giving details about the range of LMI reports, the advantages of being a CSN member and details of who to contact if readers are interested in joining.





## SECTION 1

# CSN METHODOLOGY

## Background

**The Construction Skills Network** has been evolving since its conception in 2005, acting as a vehicle for ConstructionSkills to collect and produce information on the future employment and training needs of the industry.

ConstructionSkills is the Sector Skills Council for Construction and produces robust labour market intelligence that provides a foundation on which to plan for future skills needs and to target investment.

The CSN functions at both a national and regional level. It comprises a National Group, 12 Observatory groups, a forecasting model for each of the regions and countries, and a Technical Reference Group. An Observatory group currently operates in each of the nine English regions and also in Wales, Scotland and Northern Ireland.

Observatory groups currently meet twice a year and consist of key regional stakeholders invited from industry, Government, education and other SSCs and Sector Bodies, all of whom contribute their local industry knowledge and views on training, skills, recruitment, qualifications and policy. The National Group also includes representatives from industry, Government, education and other SSCs and Sector Bodies. This Group convenes twice a year and sets the national scene, effectively forming a backdrop for the Observatories.

At the heart of the CSN are several models that generate forecasts of employment requirements within the industry for a range of occupational groups. The models are designed and managed by Experian under the independent guidance and validation of the Technical Reference Group, which is comprised of statisticians and modelling experts.

The models have evolved over time and will continue to do so, to ensure that they account for new research as it is published as well as new and improved modelling techniques.

Future changes to the model will only be made after consultation with the Technical Reference Group.

## The model approach

The model approach relies on a combination of primary research and views from the CSN to facilitate it. National data is used as the basis for the assumptions that augment the models, which are then adjusted with the assistance of the Observatories and National Group. Each English region, Wales, Scotland and Northern Ireland has a separate model (although all models are interrelated due to labour movements) and, in addition, there is one national model that acts as a constraint to the individual models and enables best use to be made of the most robust data (which is available at the national level).

The models work by forecasting demand and supply of skilled workers separately. The difference between demand and supply forms the employment requirement. The forecast total employment levels are derived from expectations about construction output and productivity. Essentially, this is based upon the question 'How many people will be needed to produce forecast output, given the assumptions made about productivity?'

The annual recruitment requirement (ARR) is a gross requirement that takes into account workforce flows into and out of construction, due to such factors as movements between industries, migration, sickness and retirement. However, these flows do not include movements into the industry from training, although robust data on training provision is being developed by CITB in partnership with public funding agencies, further education, higher education and employer representatives. Thus, the ARR provides an indication of the number of new employees that would need to be recruited into construction each year in order to realise forecast output.

Estimates of demand are based upon the results of discussion groups comprising industry experts, a view of construction output and integrated models relating to wider national and regional economic performance. The models are dynamic and reflect the general UK economic climate at any point in time. To generate the labour demand, the models use a set of specific statistics for each major type of work to determine the employment, by trade, needed to produce the predicted levels of



construction output. The labour supply for each type of trade or profession is based upon the previous year's supply (the total stock of employment) combined with flows into and out of the labour market.

The key leakages (outflows) that need to be considered are:

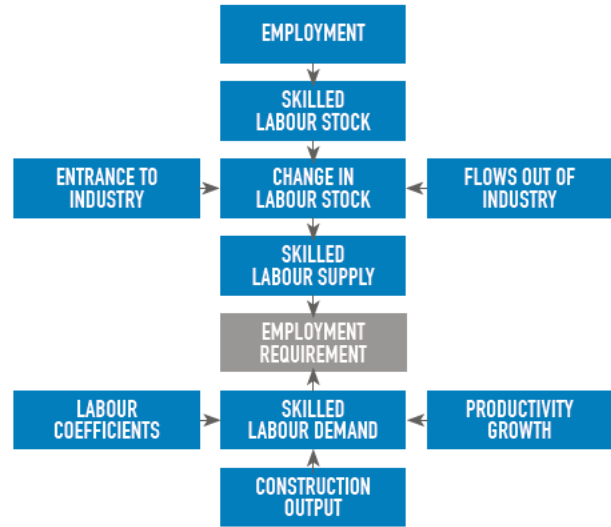
- Transfers to other industries
- International/domestic out migration
- Permanent retirements (including permanent sickness)
- Outflow to temporary sickness and home duties.

The main reason for outflow is likely to be transfer to other industries.

Flows into the labour market include:

- Transfers from other industries
- International/domestic immigration
- Inflow from temporary sickness and home duties.

The most significant inflow is likely to be from other industries. A summary of the model is shown in the flow chart.





## SECTION 2

# GLOSSARY OF TERMS

**Building envelope specialists** – any trade involved with the external cladding of a building other than bricklaying, e.g. curtain walling.

**Demand** – this is calculated using construction output data from the Office for National Statistics (ONS) and the Department of Finance and Personnel Northern Ireland (DFP), along with vacancy data from the National Employer Skills Survey, produced by the Department for Education and Skills. These data sets are translated into labour requirements by trade using a series of coefficients to produce figures for labour demand that relate to forecast output levels.

**GDP** (gross domestic product) – total market value of all final goods and services produced. A measure of national income. GDP = GVA plus taxes on products minus subsidies on products.

**GVA** (gross value added) – total output minus the value of inputs used in the production process. GVA measures the contribution of the economy as a difference between gross output and intermediate outputs.

**Coefficients** – to generate the labour demand, the model makes use of a set of specific statistics for each major type of work, to determine employment by trade or profession, based upon the previous year's supply. In essence, this is the number of workers of each occupation or trade needed to produce £1m of output across each sub-sector.

**LFS** (Labour Force Survey) – a UK household sample survey that collects information on employment, unemployment, flows between sectors and training. Information is collected from around 53,000 households each quarter (the sample totals more than 100,000 people).

**LMI** (labour market intelligence) – data that is quantitative (numerical) or qualitative (insights and perceptions) on workers, employers, wages, conditions of work, etc.

**Macroeconomics** – the study of an economy at a national level, including total employment, investment, imports, exports, production and consumption.

**Nec** – not elsewhere classified, used as a reference in LFS data.

**ONS** (Office for National Statistics) – organisation producing official statistics on the economy, population and society at both a national and local level.

**Output** – total value of all goods and services produced in an economy.

**Productivity** – output per employee.

**SIC codes** (Standard Industrial Classification codes) – from the United Kingdom Standard Industrial Classification of Economic Activities produced by the ONS.

**SOC codes** (Standard Occupational Classification codes) – from the United Kingdom Standard Occupational Classification produced by the ONS.

**Supply** – the total stock of employment in a period of time, plus the flows into and out of the labour market. Supply is usually calculated from LFS data.



## SECTION 3

# NOTES AND FOOTPRINTS

### Notes

- 1 Except for Northern Ireland, output data for the English regions, Scotland and Wales is supplied by the Office for National Statistics (ONS) on a current price basis. Thus, national deflators produced by the ONS have been used to deflate prices to a 2005 constant price basis, so that the effects of inflation have been stripped out.
- 2 The annual average growth rate of output is a compound average growth rate, i.e. the rate at which output would grow each year if it increased steadily over the forecast period.
- 3 Only selected components of gross value added (GVA) are shown in this table and so do not sum to the total.
- 4 For new construction orders, comparison is made with Great Britain rather than the UK, owing to the fact that there are no orders data series for Northern Ireland.
- 5 Employment numbers are rounded to the nearest 10.
- 6 The tables include data relating to plumbers and electricians. As part of SIC 43, plumbers and electricians working in contracting are an integral part of the construction process. However, it is recognised by ConstructionSkills that SummitSkills has responsibility for these occupations across a range of SIC codes, including SIC 43.2.
- 7 A reporting minimum of 50 is used for the annual recruitment requirement (ARR). As a result some region and devolved nation ARR forecasts do not sum to the total UK requirement.
- 8 The Employment and ARR tables show separate totals for SIC41–43 and SIC41–43, 71.1 and 74.9. The total for SIC41–43 covers the first 24 occupational groups on the relevant tables and excludes civil engineers, other construction professionals and technical staff, architects and surveyors. The total for SIC41–43, 71.1 and 74.9 includes all occupations.

### Footprints for Built Environment Sector Bodies

ConstructionSkills is responsible for SIC 41 Construction of buildings, SIC 42 Civil engineering, SIC 43 Specialised construction activities and SIC 71.1 Architectural and engineering activities and related technical consultancy.

The table summarises the SIC codes (2007) covered by ConstructionSkills:

ConstructionSkills	
SIC Code	Description
41.1	Development of building projects
41.2	Construction of residential and non-residential buildings
42.1	Construction of roads and railways
42.2	Construction of utility projects
42.9	Construction of other civil engineering projects
43.1	Demolition and site preparation
43.3	Building completion and finishing
43.9	Other specialised construction activities nec
71.1*	Architectural and engineering activities and related technical consultancy

\*The Building Futures Group has a peripheral interest in SIC 71.1.





## The sector footprints for the other Sector Bodies covering the Built Environment:

### SummitSkills

**Footprint** – plumbing, heating, ventilation, air conditioning, refrigeration and electrotechnical.

**Coverage** – Building services engineering.

ConstructionSkills shares an interest with SummitSkills in SIC 43.21 Electrical installation and SIC 43.22 Plumbing, heat and air-conditioning installation. ConstructionSkills recognises the responsibility of SummitSkills across SIC 43.21 and SIC 43.22; thus data relating to the building services engineering sector is included here primarily for completeness.

### The Building Futures Group

**Footprint** – property services, housing, facilities, management, cleaning.

**Coverage** – property, housing and land managers, chartered surveyors, estimators, valuers, home inspectors, estate agents and auctioneers (property and chattels), caretakers, mobile and machine operatives, window cleaners, road sweepers, cleaners, domestics, facilities managers.

The Building Futures Group has a peripheral interest in SIC 71.1 Architectural and engineering activities and related technical consultancy.

### Energy and Utility Skills

**Footprint** – electricity, gas (including gas installers), water and waste management.

**Coverage** – electricity generation and distribution, gas transmission, distribution and appliance installation and maintenance, water collection, purification and distribution, waste water collection and processing, waste management.





## SECTION 4

# DEFINITIONS: TYPES AND EXAMPLES OF CONSTRUCTION WORK

### **Public sector housing – local authorities and housing associations, new towns and government departments**

Housing schemes, care homes for the elderly and the provision within housing sites of roads and services for gas, water, electricity, sewage and drainage.

### **Private sector housing**

All privately owned buildings for residential use, such as houses, flats and maisonettes, bungalows, cottages and the provision of services to new developments.

### **Infrastructure – public and private**

#### **Water**

Reservoirs, purification plants, dams, water works, pumping stations, water mains, hydraulic works etc.

#### **Sewerage**

Sewage disposal works, laying of sewers and surface drains.

#### **Electricity**

Building and civil engineering work for electrical undertakings, such as power stations, dams and other works on hydroelectric schemes, onshore wind farms and decommissioning of nuclear power stations.

#### **Gas, communications, air transport**

Gas works, gas mains and gas storage; post offices, sorting offices, telephone exchanges, switching centres etc.; air terminals, runways, hangars, reception halls, radar installations.

#### **Railways**

Permanent way, tunnels, bridges, cuttings, stations, engine sheds etc., signalling and other control systems and electrification of both surface and underground railways.

#### **Harbours**

All works and buildings directly connected with harbours, wharves, docks, piers, jetties, canals and waterways, sea walls, embankments and water defences.

#### **Roads**

Roads, pavements, bridges, footpaths, lighting, tunnels, flyovers, fencing etc.

### **Public non-residential construction<sup>1</sup>**

#### **Factories and warehouses**

Publicly owned factories, warehouses, skill centres.

#### **Oil, steel, coal**

Now restricted to remedial works for public sector residual bodies.

#### **Schools, colleges, universities**

State schools and colleges (including technical colleges and institutes of agriculture); universities including halls of residence, research establishments etc.

#### **Health**

Hospitals including medical schools, clinics, welfare centres, adult training centres.

#### **Offices**

Local and central Government offices, including town halls, offices for all public bodies except the armed services, police headquarters.

#### **Entertainment**

Theatres, restaurants, public swimming baths, caravan sites at holiday resorts, works and buildings at sports grounds, stadiums, racecourses etc. owned by local authorities or other public bodies.

#### **Garages**

Buildings for storage, repair and maintenance of road vehicles, transport workshops, bus depots, road goods transport depots and car parks.

#### **Shops**

Municipal shopping developments for which the contract has been let by a Local Authority.

#### **Agriculture**

Buildings and work on publicly financed horticultural establishments; fen drainage and agricultural drainage, veterinary clinics.

#### **Miscellaneous**

All work not clearly covered by any other headings, such as fire stations, police stations, prisons, reformatories, remand homes, civil defence work, UK Atomic Energy Authority work, council depots, museums, libraries.



## Private industrial work

Factories, warehouses, wholesale depots, all other works and buildings for the purpose of industrial production or processing, oil refineries, pipelines and terminals, concrete fixed leg oil production platforms (not rigs); private steel work; all new coal mine construction such as sinking shafts, tunnelling, etc.

## Private commercial work<sup>1</sup>

### Schools and universities

Schools and colleges in the private sector, financed wholly from private funds.

### Health

Private hospitals, nursing homes, clinics.

### Offices

Office buildings, banks.

### Entertainment

Privately owned theatres, concert halls, cinemas, hotels, public houses, restaurants, cafés, holiday camps, swimming pools, works and buildings at sports grounds, stadiums and other places of sport or recreation, youth hostels.

### Garages

Repair garages, petrol filling stations, bus depots, goods transport depots and any other works or buildings for the storage, repair or maintenance of road vehicles, car parks.

### Shops

All buildings for retail distribution such as shops, department stores, retail markets, showrooms, etc.

### Agriculture

All buildings and work on farms, horticultural establishments.

### Miscellaneous

All work not clearly covered by any other heading, e.g. exhibitions, caravan sites, churches, church halls.

## New work

### New housing

Construction of new houses, flats, bungalows only.

### All other types of work

All new construction work and all work that can be referred to as improvement, renovation or refurbishment and which adds to the value of the property.<sup>2</sup>

## Repair and maintenance

### Housing

Any conversion of, or extension to any existing dwelling and all other work such as improvement, renovation, refurbishment, planned maintenance and any other type of expenditure on repairs or maintenance.

### All other sectors:

Repair and maintenance work of all types, including planned and contractual maintenance.<sup>3</sup>

- 1 Where contracts for the construction or improvement of non-residential buildings used for public service provision, such as hospitals, are awarded by private sector holders of contracts awarded under the Private Finance Initiative, the work is classified as 'private commercial'.
- 2 Contractors reporting work may not always be aware of the distinction between improvement or renovation work and repair and maintenance work in the non-residential sectors.
- 3 Except where stated, mixed development schemes are classified to whichever sector provides the largest share of finance.



## SECTION 5

# OCCUPATIONAL GROUPS

### Occupational group

Description, SOC (2010) reference.

#### Senior, executive, and business process managers

Chief executives and senior officials	1115
Financial managers and directors	1131
Marketing and sales directors	1132
Purchasing managers and directors	1133
Human resource managers and directors	1135
Property, housing and estate managers	1251
Information technology and telecommunications directors	1136
Research and development managers	2150
Managers and directors in storage and warehousing	1162
Managers and proprietors in other services nec*	1259
Functional managers and directors nec*	1139
IT specialist managers	2133
IT project and programme managers	2134
Financial accounts managers	3538
Sales accounts and business development managers	3545

#### Construction project managers

Construction project managers and related professionals	2436
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#### Other construction process managers

Production managers and directors in manufacturing	1121
Production managers and directors in construction	1122
Managers and directors in transport and distribution	1161
Waste disposal and environmental services managers	1255
Health and safety officers	3567
Conservation and environmental associate professionals	3550

### Non-construction professional, technical, IT, and other office-based staff (excl. managers)

IT operations technicians	3131
IT user support technicians	3132
Finance and investment analysts and advisers	3534
Taxation experts	3535
Financial and accounting technicians	3537
Vocational and industrial trainers and instructors,	3563
Business and related associate professionals nec*	3539
Legal associate professionals	3520
Inspectors of standards and regulations	3565
Programmers and software development professionals	2136
Information technology and telecommunications professionals nec*	2139
Estate agents and auctioneers	3544
Solicitors	2413
Legal professionals nec*	2419
Chartered and certified accountants	2421
Business and financial project management professionals	2424
Management consultants and business analysts	2423
Receptionists	4216
Typists and related keyboard occupations	4217
Business sales executives	3542
Bookkeepers, payroll managers and wages clerks	4122
Records clerks and assistants	4131
Stock control clerks and assistants	4133
Telephonists	7213
Communication operators	7214
Personal assistants and other secretaries	4215
Sales and retail assistants	7111
Telephone salespersons	7113
Buyers and procurement officers	3541
Human resources and industrial relations officers	3562
Credit controllers	4121
Company secretaries	4214
Sales related occupations nec*	7129
Call and contact centre occupations	7211



Customer service occupations nec*	7219
Elementary administration occupations nec*	9219
Chemical scientists	2111
Biological scientists and biochemists	2112
Physical scientists	2113
Laboratory technicians	3111
Graphic designers	3421
Environmental health professionals	2463
IT business analysts, architects and systems designers	2135
Conservation professionals	2141
Environment professionals	2142
Actuaries, economists and statisticians	2425
Business and related research professionals	2426
Finance officers	4124
Financial administrative occupations nec*	4129
Human resources administrative occupations	4138
Sales administrators	4151
Other administrative occupations nec*	4159
Office supervisors	4162
Sales supervisors	7130
Customer service managers and supervisors	7220
Office managers	4161
<b>Construction trades supervisors</b>	
Skilled metal, electrical and electronic trades supervisors	5250
Construction and building trades supervisors	5330
<b>Wood trades and interior fit-out</b>	
Carpenters and joiners	5315
Paper and wood machine operatives	8121
Furniture makers and other craft woodworkers	5442
Construction and building trades nec* (25%)	5319
<b>Bricklayers</b>	
Bricklayers and masons	5312
<b>Building envelope specialists</b>	
Construction and building trades nec* (50%)	5319
<b>Painters and decorators</b>	
Painters and decorators	5323
Construction and building trades nec* (5%)	5319
<b>Plasterers</b>	
Plasterers	5321
<b>Roofers</b>	
Roofers, roof tilers and slaters	5313
<b>Floorers</b>	
Floorers and wall tilers	5322

<b>Glaziers</b>	
Glaziers, window fabricators and fitters	5316
Construction and building trades nec* (5%)	5319
<b>Specialist building operatives not elsewhere classified (nec*)</b>	
Construction operatives nec* (100%)	8149
Construction and building trades nec* (5%)	5319
Industrial cleaning process occupations	9132
Other skilled trades nec*	5449
<b>Scaffolders</b>	
Scaffolders, staggers and riggers	8141
<b>Plant operatives</b>	
Crane drivers	8221
Plant and machine operatives nec*	8129
Fork-lift truck drivers	8222
Mobile machine drivers and operatives nec*	8229
<b>Plant mechanics/fitters</b>	
Metalworking production and maintenance fitters	5223
Precision instrument makers and repairers	5224
Vehicle technicians, mechanics and electricians	5231
Elementary process plant occupations nec*	9139
Tool makers, tool fitters and markers-out	5222
Vehicle body builders and repairers	5232
<b>Steel erectors/structural fabrication</b>	
Steel erectors	5311
Welding trades	5215
Metal plate workers and riveters	5214
Construction and building trades nec* (5%)	5319
Smiths and forge workers	5211
Metal machining setters and setter-operators	5221
<b>Labourers nec*</b>	
Elementary construction occupations (100%)	9120
<b>Electrical trades and installation</b>	
Electricians and electrical fitters	5241
Electrical and electronic trades nec*	5249
Telecommunications engineers	5242
<b>Plumbing and heating, ventilation, and air conditioning trades</b>	
Plumbers and heating and ventilating engineers	5314
Pipe fitters	5216
Construction and building trades nec* (5%)	5319
Air-conditioning and refrigeration engineers	5225

\*Not elsewhere classified



### Logistics

Large goods vehicle drivers	8211
Van drivers	8212
Elementary storage occupations	9260
Buyers and purchasing officers (50%)	3541
Transport and distribution clerks and assistants	4134

### Civil engineering operatives not elsewhere classified (nec\*)

Road construction operatives	8142
Rail construction and maintenance operatives	8143
Quarry workers and related operatives	8123

### Non-construction operatives

Metal making and treating process operatives	8117
Process operatives nec*	8119
Metalworking machine operatives	8125
Water and sewerage plant operatives	8126
Assemblers (vehicles and metal goods)	8132
Routine inspectors and testers	8133
Assemblers and routine operatives nec*	8139
Elementary security occupations nec*	9249
Cleaners and domestics*	9233
Street cleaners	9232
Gardeners and landscape gardeners	5113
Caretakers	6232
Security guards and related occupations	9241
Protective service associate professionals nec*	3319

### Civil engineers

Civil engineers	2121
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### Other construction professionals and technical staff

Mechanical engineers	2122
Electrical engineers	2123
Design and development engineers	2126
Production and process engineers	2127
Quality control and planning engineers	2461
Engineering professionals nec*	2129
Electrical and electronics technicians	3112
Engineering technicians	3113
Building and civil engineering technicians	3114
Science, engineering and production technicians nec*	3119
Architectural and town planning technicians*	3121
Draughtspersons	3122
Quality assurance technicians	3115
Town planning officers	2432
Electronics engineers	2124
Chartered architectural technologists	2435
Estimators, valuers and assessors	3531
Planning, process and production technicians	3116

### Architects

Architects	2431
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### Surveyors

Quantity surveyors	2433
Chartered surveyors	2434

*\*Not elsewhere classified*





## SECTION 6

# CSN WEBSITE AND CONTACT DETAILS

## The CSN website [citb.co.uk/csn](http://citb.co.uk/csn)

The CSN website functions as a public gateway for people wishing to access the range of labour market intelligence (LMI) reports and research material regularly produced by the CSN.

The main UK report, along with the 12 LMI reports (one for Northern Ireland, Scotland, Wales and each of the nine English regions) can be downloaded from the site, while other CITB research reports are also freely available on the CITB website. Having access to this range of labour market intelligence and trend insight allows industry, Government, regional agencies and key stakeholders to:

- Pinpoint the associated specific, skills that will be needed year by year
- Identify the sectors that are likely to be the strongest drivers of output growth in each region and devolved nation
- Track the macro economy
- Understand how economic events impact on regional and devolved nations' economic performance
- Highlight trends across the industry such as national and regional shifts in demand
- Plan ahead and address the skills needs of a traditionally mobile workforce
- Understand the levels of qualified and competent new entrants required to enter the workforce.

The website also contains information about:

- How the CSN functions
- The CSN model approach
- How the model can be used to explore scenarios
- CSN team contact information
- Access to related CITB research
- Details for those interested in becoming members of the network.

While the public area of the CSN website is the gateway to the completed LMI and research reports, being a member of the CSN offers further benefits.

As a CSN member you will be linked to one of the Observatory groups that play a vital role in feeding back observations, knowledge and insight into what is really happening on the ground in every UK region and nation. This feedback is used to fine tune the assumptions and data that goes into the forecasting programme such as:

- Details of specific projects
- Demand within various types of work or sectors
- Labour supply
- Inflows and outflows across the regions and devolved nations.

CSN members therefore have:

- Early access to forecasts
- The opportunity to influence and inform the data
- The ability to request scenarios that could address 'What would happen if...' types of questions using the model.

Through the members' area of the CSN website, members can:

- Access observatory related material such as meeting dates, agendas, presentations and notes
- Download additional research material
- Comment/feedback to the CSN team.

As the Observatory groups highlight the real issues faced by the industry in the UK, we can more efficiently and effectively plan our response to skills needs. If you would like to contribute your industry observations, knowledge and insight to this process and become a member of the CSN, we would be delighted to hear from you.

### Contact details

For further information about the CSN website, enquiries relating to the work of the CSN, or to register your interest in becoming a member of the CSN, please contact us at: [csn@citb.co.uk](mailto:csn@citb.co.uk)

**For more information about the  
Construction Skills Network, contact:  
Karen Hazelden  
Future Skills Researcher  
Policy and Research  
07730 802395  
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