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# Construction Skills Network Scotland 2014-2018

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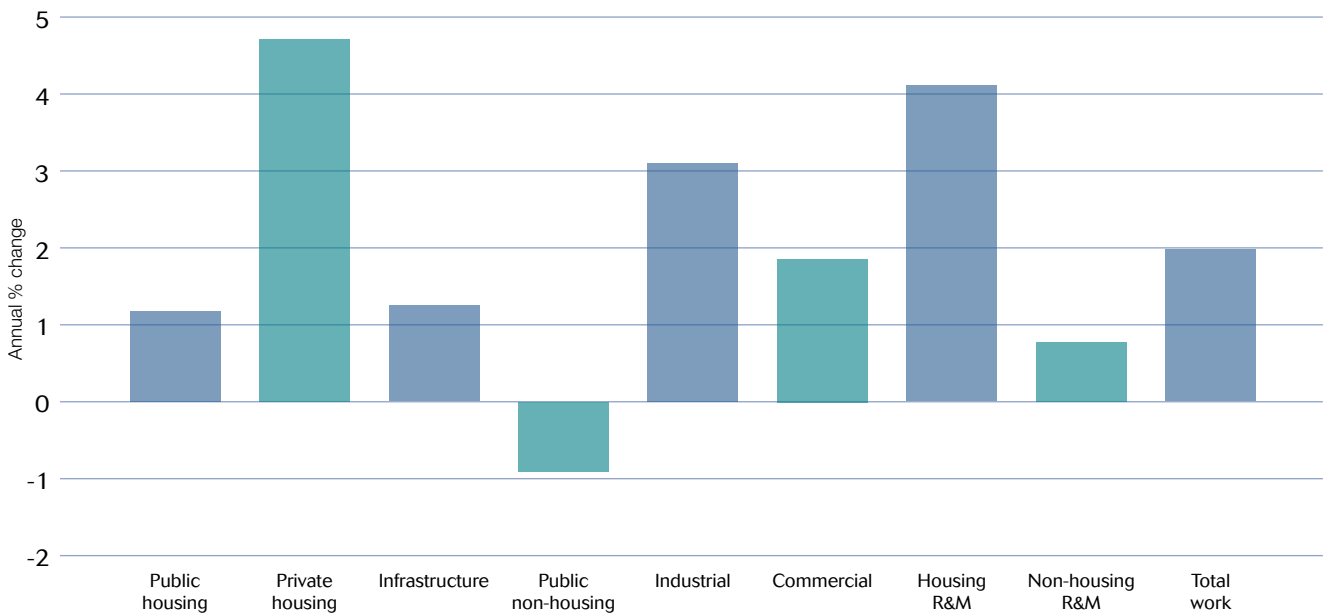
## CSN explained

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# 1 Summary – Scotland

Scotland is projected to see annual average output growth of 2% over the 2014 to 2018 period, slightly lower than the UK average of 2.2%. Average growth rates are expected to be the same for the new work and repair and maintenance (R&M) sectors. This translates into an annual average employment growth rate of 1.1% for Scotland, roughly in line with the UK average (1.2%). However, the devolved nation’s annual average recruitment requirement (ARR), at 5,960, is the second highest in the UK and equates to 2.8% of base 2014 employment.

**Annual average construction output growth 2014-2018 – Scotland**



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



## 1.1 Key findings

After a year of strong expansion in 2010, Scottish construction output fell in the following two years, with a 5% decline in 2011 and a deeper 13% contraction in 2012. However, activity is expected to have picked up by 7% in 2013. Construction output at 2005 prices is estimated to be £8.3bn in 2012, the lowest annual figure since 1994; thus the recovery in 2013 is from a low base.

Output in the private housing sector is projected to expand at an annual average rate of 4.7% over the forecast period, the strongest growth across the industry in Scotland. The pipeline includes a number of sustainable housing developments, the largest of which is the £1.5bn Owenstown development in the Douglas Valley.

At the other end of the scale, public non-housing activity is expected to see an annual average decline in the five years to 2018 at a rate of 0.9%, the only new work sector projected to see a contraction over the period. Nevertheless, the sector is expected to return to growth in the second half of the forecast period, as the impact of public expenditure cuts eases. The Scottish Government's draft budget for 2014–2015 shows the capital departmental expenditure limit (DEL) for health to be around £250m for that period, well below the £400m estimated expenditure in the previous year. Further cuts of £163m are planned for the 2015–2016 period.

An improving economic scenario should lead to increased investment in commercial construction, which is forecast to see annual average output increases of 1.8%, although it can take a little time for this to transfer to activity on the ground. Work is set to commence in 2014 on a £1bn mixed-use development in West Lothian, but real growth will be led by the return of speculative development in the Edinburgh and Glasgow office markets.

Employment growth is projected to average 1.1% a year in the 2014–2018 period, roughly in line with the UK average of 1.2%.

Scaffolders are expected to be the occupational category with the strongest growth rate in the five years to 2018, at 4.9% (annual average), followed by project managers (3.6%) and other construction process managers (3.4%). The majority of occupational categories (21 out of 28) should see an increase in employment over the forecast period.

Scotland's annual recruitment requirement (ARR) is 5,960, which is equivalent to 2.8% of base 2014 employment, well above the UK average of 1.5%. In absolute terms, the trade sector with the largest requirement is painters and decorators, at 850. In terms of base 2014 employment, logistics personnel have the highest requirement, at a little over 9%.

### Regional comparison 2014–2018

	Annual average % change in output	Change in total employment	Total ARR
North East	2.4%	2,660	2,680
Yorkshire and Humber	2.2%	8,590	3,170
East Midlands	1.1%	5,910	1,980
East of England	3.0%	24,220	5,150
Greater London	2.0%	27,490	1,290
South East	2.9%	28,900	1,600
South West	3.5%	16,700	6,370
Wales	3.4%	9,490	3,570
West Midlands	0.8%	-2,090	380
Northern Ireland	2.3%	3,400	1,280
North West	1.3%	10,300	2,970
Scotland	2.0%	12,240	5,960
UK	2.2%	147,810	36,400

Source: CSN, Experlan  
ref. CSN Explained, Section 3, Note 2

## 2 The outlook for construction in Scotland

### 2.1 Construction output in Scotland – overview

Construction output in Scotland is estimated to have dropped by 13% in 2012 to £8.3bn at 2005 prices. This was the second consecutive year of decline and the fifth out of the last six.

Activity fell across all sectors except housing R&M, where it was flat, with new work contracting by 17% and R&M overall by 4%.

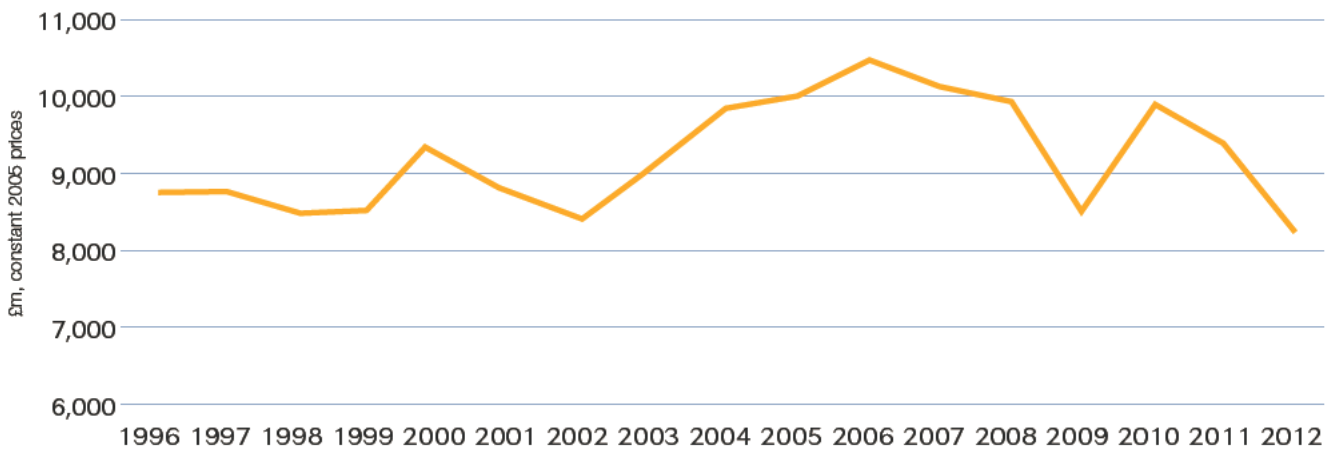
The worst performing sector was public non-housing as public expenditure cuts continued to impact capital spending, particularly on health and education facilities. However, output in 2010 and 2011 was at historically high levels, so some decline was inevitable.

Public housing output also fell sharply, by 28%, although it also was coming down from a historically high level. Public housing starts fell sharply in the first three quarters of 2013, totalling 1,840 units, a decline of 41% compared to the same period of 2012. Completions followed suit, with a 39% contraction to 2,413 units over the same period.

The decline of 12% in infrastructure output in 2012 was more surprising, given that main works on the Forth Replacement Crossing only started towards the end of 2011, making 2012 the first full year of activity on the project. However, output at 2005 prices dropped below the £1bn mark for the first time since 2007.

The private construction sectors – housing, industrial and commercial – remained weak in an economy in which gross value added (GVA) contracted by 0.6% in 2012.

#### Construction output – Scotland 1996-2012



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

### 2.2 Industry structure

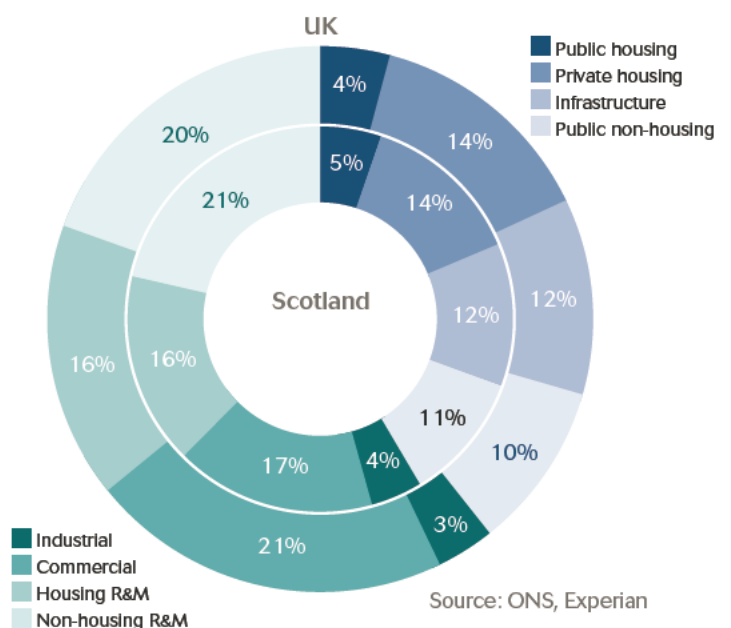
The diagram, Construction Industry structure 2012 – UK vs. Scotland, illustrates the sector breakdown of construction in Scotland compared to that in the UK as a whole. Effectively, the percentages for each sector illustrate the proportion of total output accounted for by each sector.

New work accounted for 62% of construction output in Scotland in 2012, which was slightly lower than the UK average of 64%. Structurally, the Scottish and UK markets were very similar. The only difference greater than 1% was in the commercial construction sector, which is proportionally smaller in Scotland compared with the UK as a whole (17% vs. 21%).

### 2.3 Economic overview

The expected performance of a regional or national economy over the forecast period (2014–2018) provides an indication of the construction sectors in which demand is likely to be strongest.

#### Construction Industry structure 2012 UK vs. Scotland



Source: ONS, Experian

## 2.4 Economic structure

GVA in Scotland totalled £105.9bn in 2012 at 2010 prices, a contraction of 0.6% compared with the previous year. This is 4% down on its 2008 peak and, on current forecasts, it will not return to peak level until 2015. Scotland's share of UK GVA remained stable at 7.9%.

The Scottish economy remains slightly weighted towards public services and manufacturing and away from professional and other private services, finance and insurance, and the up-and-coming sector of information and communication.

Public services took a 21.6% share of GVA in Scotland in 2012, compared with 19.2% across the UK as a whole, while the shares for professional and other private services were 22.2% and 24.3% respectively. However, the former sector saw an expansion of 3.3% in 2012, compared with a 1.8% contraction in the latter sector. For a brief moment in 2010, professional and other private services took over from public services as the largest sector in Scotland, but that situation reversed in 2011 and 2012.

### Economic structure – Scotland (£ billion, 2010 prices)

Selected sectors	Actual	Forecast					
		Annual % change, real terms					
	2012	2013	2014	2015	2016	2017	2018
Professional and other private services	23.5	1.4	2.4	2.2	2.4	2.4	2.3
Public services	22.9	2.7	0.7	0.6	0.8	1.0	1.5
Manufacturing	12.1	0.5	1.4	0.9	1.0	0.9	0.7
Wholesale and retail	11.0	4.7	2.1	2.1	2.2	2.0	1.9
Finance and insurance	9.2	1.1	0.9	1.8	2.4	2.2	2.0
<b>Total Gross Value Added (GVA)</b>	<b>105.9</b>	<b>1.0</b>	<b>1.5</b>	<b>1.6</b>	<b>1.9</b>	<b>1.8</b>	<b>1.9</b>

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

## 2.5 Forward looking economic indicators

The Scottish economy is estimated to have expanded by about 1% in 2013, a better performance than the previous year but well down on the UK average (1.5%). A return to growth was seen in the professional and other private services (1.4%), finance and insurance (1.1%) and manufacturing (0.5%) compared with contractions in all in 2012. The best performing sector remained public services (2.7%), which is somewhat surprising given current public expenditure constraints.

Over the five years to 2018, GVA in Scotland is projected to grow at an annual average rate of 1.8%, a little lower than the UK average (2%). Expansion is expected to be strongest in the transport and storage, and information and communication sectors, which are

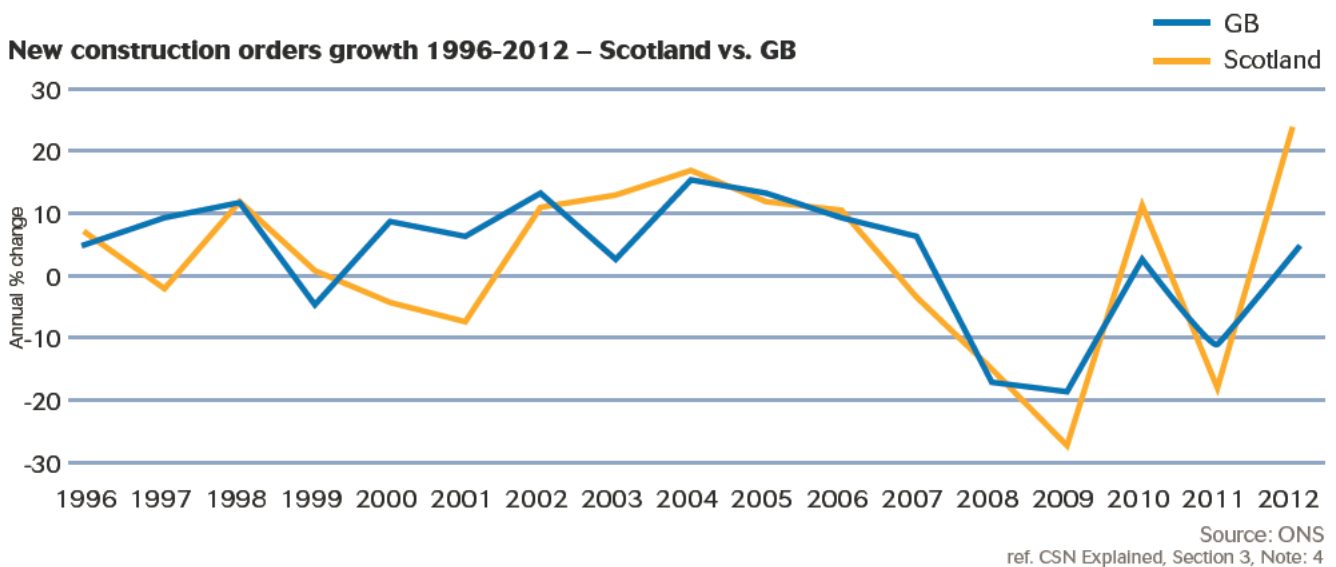
both forecast to grow by 2.6% a year on average. The information and communication sector has been the rising star across the UK as a whole in recent years as technological change increases the reliance of other sectors upon it, although the sector has lagged behind in Scotland and is likely to continue to do so.

Of the main sectors – professional and other private services, public services, manufacturing and wholesale and retail – strongest growth is predicted for professional and other private services, at 2.3% a year on average. Public services expansion is likely to be much more muted than in previous years, at an annual average rate of 0.9%, while manufacturing is expected to manage 1% a year and wholesale and retail 2.1%.

### Economic indicators – Scotland (£ billion, 2010 prices – unless otherwise stated)

	Actual	Forecast					
		Annual % change, real terms					
	2012	2013	2014	2015	2016	2017	2018
Real household disposable income	81.7	-0.7	0.9	1.2	1.6	1.8	2.1
Household spending	80.4	2.1	1.8	1.8	2.1	2.2	2.2
Working age population (000s and as % of all)	3,295	62.8%	63.2%	63.6%	63.8%	64.0%	64.0%
House prices (£)	179,446	0.1	1.9	2.4	2.5	2.8	3.1
LFS unemployment (millions)	0.21	-5.80	-2.39	-8.19	-4.89	-4.25	-5.22

Source: ONS, DCLG, Experian



Real household disposable income (RHDI) is estimated to have fallen for the second time in three years in 2013, by 0.7%. However, household consumption is likely to have risen by around 2%, suggesting that consumers in Scotland have been raiding their savings and/or increasing their debt during the past year. Slowly subsiding inflation and better earnings growth should lead to renewed expansion in RHDI in 2014 and, over the five years to 2018, growth should average 1.5% per annum. However, this will still lag behind projected household spending by half a percent a year over the forecast period.

Unemployment seems to have fallen faster in Scotland than the UK as a whole during 2013 on the LFS/ILO measure, with the rate in the former down to 7.4% compared with 7.8% in the latter. It is projected to continue to subside to 5.6% by 2018.

House prices in Scotland averaged £179,446 in 2012, according to the Office for National Statistics mix-adjusted series. Prices edged downwards by 1.2% in the third quarter of 2013, compared with the same three months of 2012. No real growth is expected for 2013, but after that they should start to accelerate slowly, reaching about 3% per year growth by 2018.

## 2.6 New construction orders – overview

After a big fall in 2011, new orders bounced back in 2012, rising by 24% to £4.8bn at current prices. However, they remained a third below their 2006 peak. Performance across the sectors was patchy. New orders more than doubled for the infrastructure sector, largely due to the placing of the main contract for work on the Forth Replacement Crossing. The industrial and commercial sectors both saw a 26% rise in the level of new orders after a long period of dormancy – five consecutive years of decline in the case of the commercial sector.

By contrast, but not surprisingly, both the public housing and public non-housing sectors suffered falls, of 13% and 6% respectively.

The private housing sector also experienced a 17% decline in the level of new orders, although this was after two years of growth in 2010 and 2011.

### New work construction orders – Scotland (£ million, current prices)

	Actual	Annual % change				
		2012	2008	2009	2010	2011
Public housing	299	10.9	-9.9	29.4	-31.7	-13.3
Private housing	820	-27.0	-40.3	7.8	27.7	-16.6
Infrastructure	1,529	56.0	-36.6	13.2	-27.1	138.9
Public non-housing	723	-1.7	10.7	15.4	-42.5	-6.1
Industrial	373	-16.4	-32.0	47.1	-11.1	26.0
Commercial	1,072	-37.5	-39.2	-6.5	-10.2	26.3
<b>Total new work</b>	<b>4,816</b>	<b>-15.0</b>	<b>-27.4</b>	<b>11.6</b>	<b>-18.6</b>	<b>24.0</b>

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



**Construction output 2014-2015 – Scotland (£ million, 2005 prices)**

	Actual	Forecast			Annual average
		Annual % change			
	2012	2013	2014	2015	2014-15
Public housing	432	-7%	2%	1%	1.6%
Private housing	1,118	-1%	8%	4%	6.0%
Infrastructure	987	26%	8%	3%	5.7%
Public non-housing	888	-12%	-11%	-1%	-6.2%
Industrial	362	7%	8%	7%	7.6%
Commercial	1,399	21%	2%	-1%	0.5%
New work	5,186	8%	3%	2%	2.5%
Housing R&M	1,341	-13%	3%	4%	3.6%
Non-housing R&M	1,782	18%	-2%	2%	1.3%
Total R&M	3,123	5%	0%	3%	1.3%
Total work	8,308	7%	2%	2%	2.0%

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

**2.7 New construction orders – current situation**

In the first six months of 2013, new orders totalled £2.1bn in current prices, more than 3% up on the corresponding period of 2012, but nearly 25% below the second half of that year.

New orders were up by 36% year-on-year in the commercial construction sector, building on 2012's growth, while a strong rise was seen in the public non-housing sector (32%). New orders for public housing were still heading in a clear downward direction (-24%), and the infrastructure sector also saw a big fall (-25%), although this was inevitable given the strength of new orders in the sector in 2012.

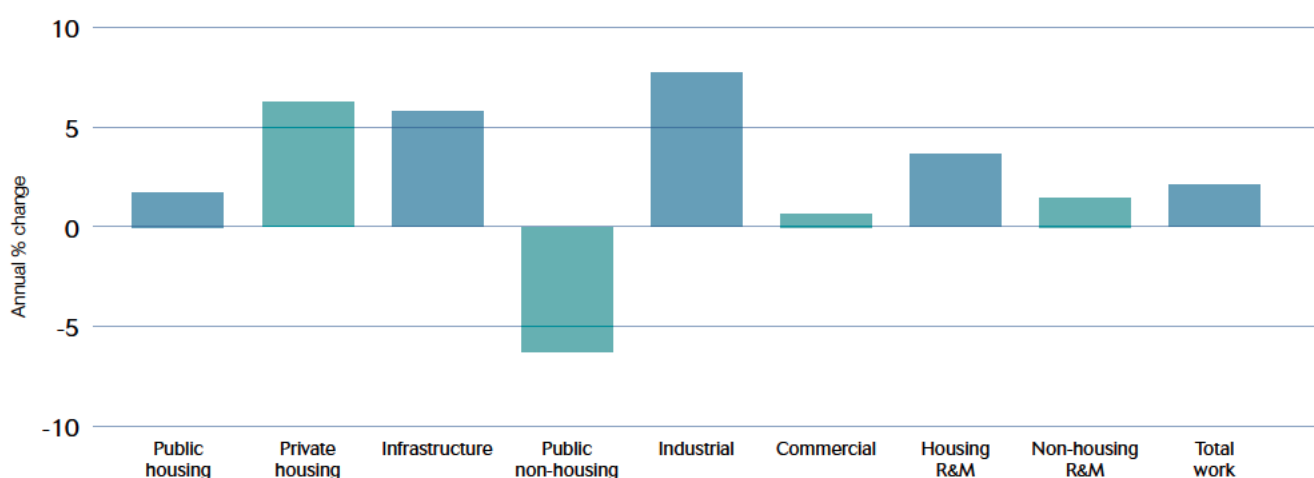
New orders in the private housing sector seem to have renewed growth after their decline in 2012.

**2.8 Construction output – short-term forecasts (2014-2015)**

Regional Office for National Statistics (ONS) output statistics are published in current prices and are thus inclusive of any inflationary effect. At the time of writing, ONS construction output statistics were only available for the first two quarters of 2013.

In the six months to June 2013, construction output in Scotland totalled £5bn in current prices, 6% above the corresponding period of 2012. New work output fared much better than R&M, with the former increasing by 14% and the latter falling by 6%.

Of the new work sectors, the strongest increases were seen in the infrastructure (£772m) and commercial (£945m) sectors, with year-on-year rises of 42% and 40% respectively. In contrast, public housing (£207m), private housing (£628m) and public non-housing construction (£451m) all saw falls of 12%, 9% and 9% respectively.

**Annual average construction output growth 2014-2015 – Scotland**

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

Scotland's annual average output growth of 2.0% over the 2014 to 2018 period is slightly lower than the UK average of 2.2%

For 2013 as a whole, construction output in Scotland is estimated to have increased by 7% in real terms. Annual average growth of 2% is projected for the short term. New work is set for growth of 2.5%, while R&M is forecast a 1.3% upturn.

Scotland's industrial sector is projected to be the strongest performer in the short

term, with annual average output growth of 7.6% over the two years to 2015. A number of medium-sized factory and warehouse projects should support growth in the short term, the largest being a new £50m malt whiskey distillery in the Highlands, with work expected to commence in early 2014 and to complete in 2015.

The private housing sector is expected to see growth averaging 6% over the next two years, although activity within the sector remains well below its 2005 peak. Work on a new eco village in Aberdeenshire, with an estimated value of £100m, is expected to begin in 2014 and continue for two years, which will help to keep the sector buoyant in the short-term.

Infrastructure output hit a seven-year low in 2012, but it bounced back strongly in 2013 and further growth is expected in the short term, with activity set to climb close to its 2010 peak by 2015. Work on the new £506m bypass, dubbed the 'Aberdeen Western Peripheral', is expected to begin in late-2014 and carry on until 2016, providing a significant boost to the sector.

The only sector which is forecast to decline in the short term is public non-housing construction, with a predicted fall of 6.2% in each year to 2015. Declines in activity are predicted for both 2014 and 2015, with a double-digit contraction in the former. While a number of projects are currently on site under the £1.2bn Scottish Futures Trust programme, work is spread out to 2018, so its annual impact is limited.

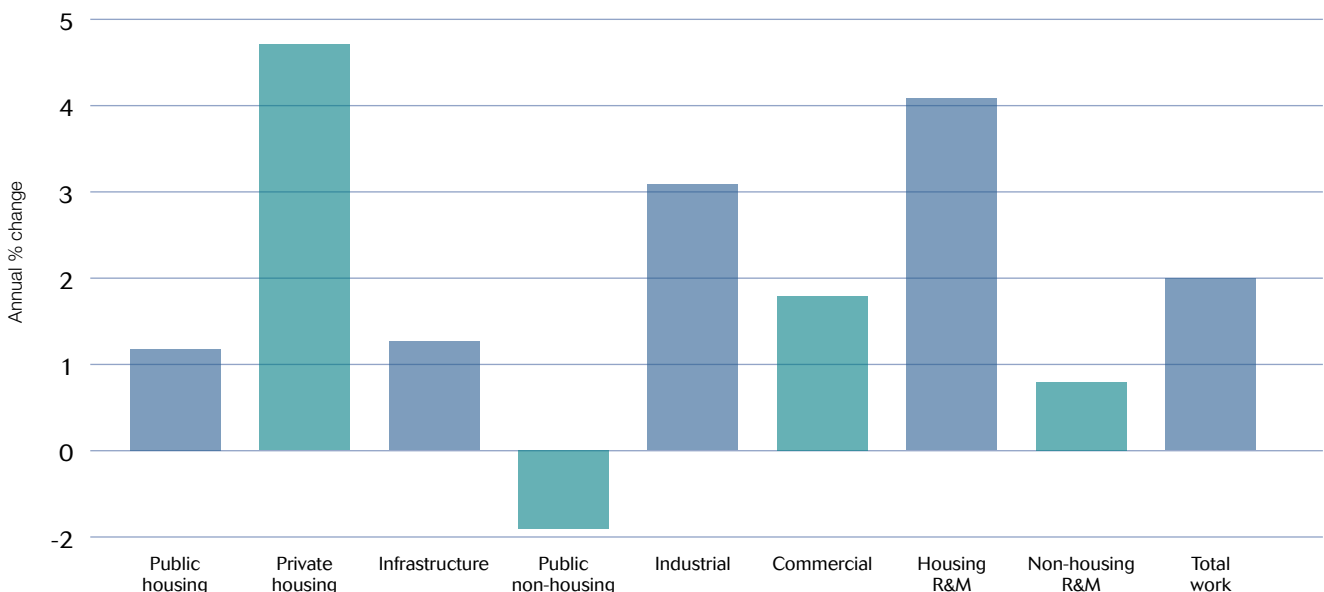
### 2.9 Construction output – long-term forecasts (2014-2018)

Prospects for the Scottish construction industry over the five-year period to 2018 should remain similarly positive, with the annual average growth of 2%. New work and R&M are expected to perform similarly.

Private housing construction is projected to expand at a rate of 4.7% a year on average over the five years to 2018, with consistent growth across the entire forecast period, making it the fastest growing sector. Schemes such as Help to Buy have been benefitting the sector, although there are concerns about what will happen once the mortgage guarantee funding runs out. Beyond these incentives, private housing demand should increase in line with economic improvement, further easing of consumer credit conditions and increases to real wages. However, by 2018, output in the sector is still projected to be only 48% of its 2005 peak. On the project side, the Hometown Foundation's 3,200-unit sustainable housing development in the Douglas Valley should help support growth, with a £1.5bn investment between 2014 and 2019.

Industrial construction is forecast to be the next strongest sector, with an annual average growth rate of 3.1% over the five years to 2018, although the largest upturns are expected in the first three years of the forecast period, with growth thereafter flattening out. The most notable project for the sector is the new business park in Aberdeen, which consists of offices and storage warehouses. Work on site is expected to begin in early 2014 and continue until 2023.

Annual average construction output growth 2014-2018 – Scotland



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

**Construction output 2014-2018 – Scotland (£ million, 2005 prices)**

	Estimate	Forecast Annual % change					Annual average	
		2013	2014	2015	2016	2017		2018
Public housing	402	2%	1%	0%	0%	0%	3%	1.2%
Private housing	1,102	8%	4%	4%	4%	3%	4%	4.7%
Infrastructure	1,242	8%	3%	0%	-2%	-3%		1.2%
Public non-housing	779	-11%	-1%	6%	0%	0%	2%	-0.9%
Industrial	386	8%	7%	0%	1%	0%		3.1%
Commercial	1,690	2%	-1%	5%	1%	2%		1.8%
New work	5,600	3%	2%	3%	1%	1%		2.0%
Housing R&M	1,166	3%	4%	5%	4%	3%		4.1%
Non-housing R&M	2,098	-2%	2%	2%	2%	0%		0.8%
R&M	3,265	0%	3%	3%	3%	1%		2.0%
Total work	8,865	2%	2%	3%	1%	1%		2.0%

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

Improvement in economic factors should increase investment within commercial construction, which is forecast to see annual average output increases of 1.8%. Work is set to commence in 2014 on a £1bn mixed-use development in West Lothian with an estimated completion date of 2017. However, it is likely to be the return of speculative office development in the main Scottish markets – Edinburgh and Glasgow – that will drive growth in the sector over the forecast period.

Public non-housing construction is the only sector which is forecast to see a decline over this period, at an annual average rate of 0.9%. Activity within the sector is set to remain well below its 2011 high throughout the forecast period. Lack of public spending remains the largest issue, although levels are expected to return to moderate growth by the second half of the forecast period. Sizeable projects include the £800m scheme to rebuild 55 schools, as outlined by the Scottish Futures Trust. Work is currently on site for this programme and it should near completion by the end of 2018.

## 2.10 Beyond 2018

In most regions and devolved nations, it is mainly large infrastructure projects that have already been proposed to begin after 2018, largely in the transport and energy sub-sectors, and Scotland is no exception to this.

Renewable energy generation facilities are planned for Falkirk, North Ayrshire and Aberdeenshire, while the long-term project to dual the A9 between Perth and Inverness will probably start within this forecast period but will continue well beyond it. Rail improvements on the Central Belt, Aberdeen-Inverness axis, and on the Highland main line are also in the Scottish Government's long-term plans.

Private housing output, with an annual average growth rate of 4.7% over the forecast, shows the strongest growth for the sectors in Scotland



## 3 Construction employment forecasts for Scotland

### 3.1 Total construction employment forecasts by occupation

The table presents actual construction employment (SICs 41–43, 71.1 and 74.9) in Scotland for 2012, the estimated total employment in 28 occupations in 2013 forecasts for the industry as a whole between 2014 and 2018. A full breakdown of occupational groups is provided in Section 5 of CSN Explained.

In line with the 2% expected annual average growth for construction output in Scotland, employment in the devolved nation is expected to increase by around 1.1% a year on average over the five years to 2018. Output growth is expected in each year of the forecast period, and employment growth is expected to follow a similar trend, albeit with a delayed effect.

The largest construction-specific occupations in Scotland are wood trades and interior fit-out (10.5%) followed by other construction professionals and

technical staff (10.1%). Wood trades and interior fit-out's share of total construction employment for Scotland is slightly higher than the UK average (9.9%) and this is believed to reflect the higher level of timber-framed housing in the devolved nation.

Employment growth is forecast to be strongest for scaffolders (4.9% a year on average), followed by construction project managers (3.6%) and other construction process managers (3.4%). The majority of occupational categories (21 out of 28) should see an increase in employment over the forecast period.

### 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, due to the inconsistency and coverage of supply data, these flows

#### Total employment by occupation – Scotland

	Actual	Estimate	Forecast	
	2012	2013	2014	2018
Senior, executive, and business process managers	10,710	10,460	10,580	11,090
Construction project managers	3,110	3,330	3,480	3,980
Other construction process managers	14,800	14,280	14,900	16,880
Non-construction professional, technical, IT and other office-based staff	26,390	24,530	24,560	24,950
Construction trades supervisors	4,480	4,900	4,730	3,910
Wood trades and interior fit-out	22,940	20,700	21,290	23,250
Bricklayers	5,110	4,780	4,730	4,580
Building envelope specialists	4,910	4,890	4,930	5,100
Painters and decorators	8,690	9,490	9,510	9,610
Plasterers	2,800	2,500	2,430	2,220
Roofers	4,890	5,210	5,270	5,490
Floorers	2,570	2,800	2,810	2,850
Glaziers	2,620	2,560	2,560	2,550
Specialist building operatives nec*	3,340	3,230	3,170	2,970
Scaffolders	2,010	1,790	1,910	2,270
Plant operatives	3,430	3,740	3,880	4,360
Plant mechanics/fitters	3,690	3,670	3,800	4,330
Steel erectors/structural fabrication	1,640	1,710	1,690	1,610
Labourers nec*	9,720	9,590	9,450	9,020
Electrical trades and installation	18,870	16,860	17,360	18,810
Plumbing and HVAC Trades	11,970	12,450	12,330	12,280
Logistics	1,920	1,720	1,760	1,880
Civil engineering operatives nec*	2,600	2,320	2,330	2,370
Non-construction operatives	3,960	3,530	3,480	3,210
Civil engineers	7,400	8,090	8,190	8,550
Other construction professionals and technical staff	21,970	23,470	24,040	25,740
Architects	4,220	3,770	4,060	3,750
Surveyors	7,540	7,260	7,510	8,240
<b>Total (SIC 41-43)</b>	<b>177,170</b>	<b>171,040</b>	<b>172,940</b>	<b>179,570</b>
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>218,300</b>	<b>213,630</b>	<b>216,740</b>	<b>225,850</b>

Source: ONS, CSN, Experian. Ref. CSN Explained, Section 3, Notes 5 and 6

\*Not elsewhere classified

do not include movements into the industry from training. 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.

The ARR for the 28 occupations within Scotland's construction industry is illustrated in the table. The figure of 5,960 is indicative of the average requirements per year for the industry, based on the output forecasts for Scotland. This takes into account 'churn' i.e. the flows into and out of the industry, excluding training flows.

In absolute terms, the largest requirement is for painters and decorators (850) but, as a proportion of projected 2014 employment, logistics personnel have the highest requirement at 9%. Scotland's ARR of 5,960 is equivalent to 2.8% of base 2014 employment, higher than the UK average (1.5%).

CITB's 2012 Workforce Mobility and Skills report provides some useful figures on geographical migration of the construction workforce. According to the report, 83% of the construction workforce in Scotland originated there, the fourth highest proportion after Northern Ireland (96%), Wales (86%) and the North East (85%). Some 6%

of Scotland's workforce originated from outside the UK, the largest external contributor.

Note that all of the ARRs 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 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 nec (not elsewhere classified), 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.

Finally, for certain occupations there will be no appreciable requirement over the forecast period, partly due to the recession creating a 'pool' of excess labour.

### Annual recruitment requirement by occupation – Scotland

	2014-2018
Senior, executive, and business process managers	400
Construction project managers	110
Other construction process managers	-
Non-construction professional, technical, IT and other office-based staff	1,430
Construction trades supervisors	90
Wood trades and interior fit-out	710
Bricklayers	-
Building envelope specialists	60
Painters and decorators	850
Plasterers	-
Roofers	-
Floorers	-
Glaziers	-
Specialist building operatives nec*	-
Scaffolders	90
Plant operatives	170
Plant mechanics/fitters	310
Steel erectors/structural fabrication	<50
Labourers nec*	310
Electrical trades and installation	-
Plumbing and HVAC Trades	530
Logistics	160
Civil engineering operatives nec*	130
Non-construction operatives	-
Civil engineers	590
Other construction professionals and technical staff	-
Architects	-
Surveyors	-
<b>Total (SIC 41-43)</b>	<b>5,370</b>
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>5,960</b>

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

## 4 Comparisons across the UK

The strongest growth in construction output is expected in the South West and Wales, as both will benefit from new nuclear build projects during the forecast period. Even though main construction works at Wylfa, Wales, are not due to start until mid-2017 at the earliest, this is a very large project in a relatively small market, making its impact on overall construction output similar to Hinkley Point in the South West, despite the latter starting three years earlier.

Once the South West and Wales are stripped away, the south east corner of England is again due to do rather better than the rest of the UK. The South East benefits disproportionately from growth in the private housing sector which takes a larger share of output in the region than the UK average (18% vs. 14%). This combined with a higher than average growth rate (5.7% vs. 4.6%) helps boost overall expansion in the South East's construction sector (with an annual average growth of 2.9% to 2018). The East of England has a slightly stronger average growth rate of 3% a year. The main reasons for the region's higher than average increase in construction output are good growth in private housing, combined with higher than average infrastructure

expansion when work starts on the site of the Sizewell C new nuclear project at the beginning of 2018. In addition, strong growth in industrial construction is linked to the development of distribution and logistics facilities around London Gateway Port.

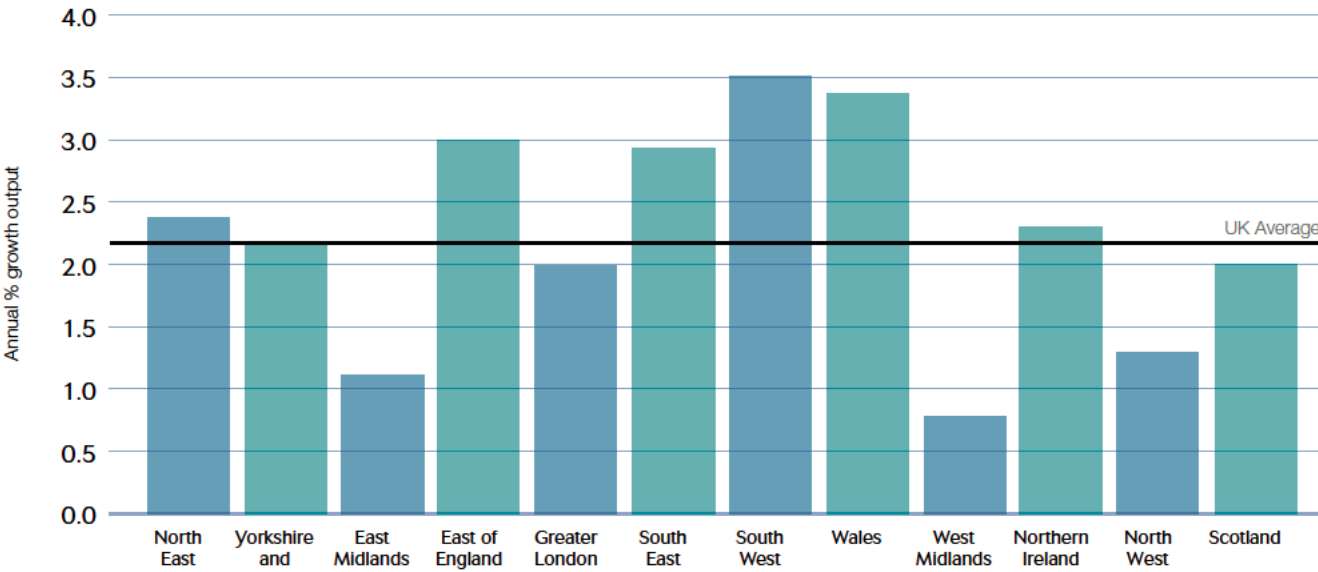
Interestingly however, Greater London's projected annual average output growth rate of 2% is slightly below the UK average (2.2%). Greater London is the only region to have experienced expansion in construction output in real terms over the five years to 2012; therefore activity in some sectors may be close to peaking. For example, infrastructure activity is projected to decline by an annual average of 2.4% in the five years to 2018, as projects such as Crossrail and Thameslink wind down in the second half of the forecast period.

Despite the South West and Wales being the strongest areas in output terms, they do not top the employment rankings. Infrastructure work has a smaller labour requirement than other sectors and so impacts employment much less than output. The East of England has the strongest employment growth rate, of 2% a year on average over the forecast period. This is due to two factors – a strong output growth rate and the region's higher than average share of the much more labour intensive R&M sectors compared with the UK as whole (45% vs. 36%). All regions are expected to see employment growth except the West Midlands, where output growth of just 0.8% a year on average is not enough to drive expansion of employment given anticipated productivity gains.

Concerns about prospective skills shortages have been increasing in some quarters recently, which may initially seem surprising given the industry's position in the recovery cycle. Construction output in 2013 is likely still to be 15% below its 2007 peak, and employment is likely to be 13% down on its 2008 peak. This would suggest that a substantial pool of construction workers is waiting to re-enter the industry. However, many of these workers may have taken jobs in other sectors, or retired. Questions remain about the number of workers who will come back into the industry as growth continues and, of these, how many will have been out of the industry for such a length of time that they will require some level of retraining.

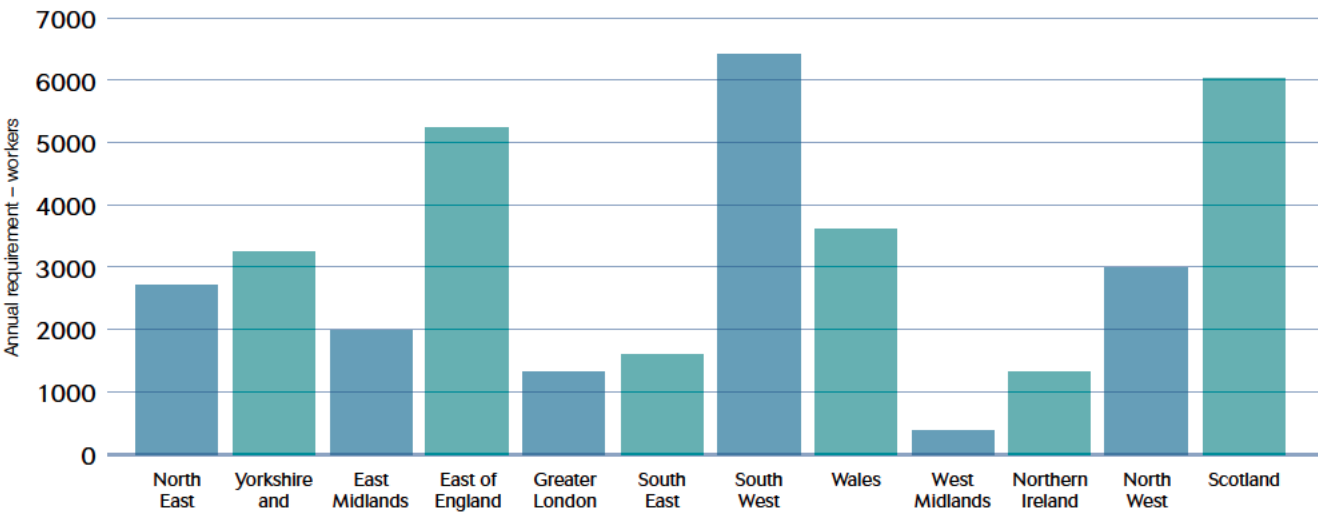


Annual average output growth by region 2014-2018



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

Annual recruitment requirement (ARR) by region 2014-2018



Source: CSN, Experian

Scotland's annual average recruitment requirement (ARR), at 5,960, is the second highest in the UK



# 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.

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.





# 1 CSN methodology

## Background

The **Construction Skills Network** has been evolving since its conception in 2005, acting as vehicle for ConstructionSkills to collect and produce information on the future employment and training needs of the industry. CITB, CIC and CITB-ConstructionSkills Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction, to produce robust labour market intelligence which 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, 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. 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 which 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 annual recruitment requirement 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:

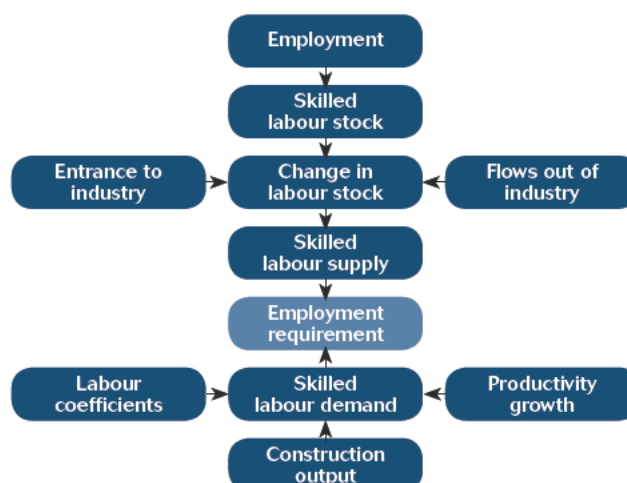
- Transfers to other industries
- International/domestic OUT migration
- Permanent retirements (including permanent sickness)
- Outflow to temporary sickness and home duties.

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.



## 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 which 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.



## 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 SIC 41-43 and SIC 41-43, 71.1 and 74.9. The total for SIC 41-43 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 SIC 41-43, 71.1 and 74.9 includes all occupations.

### Footprints for Built Environment SSCs

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 below summarises the SIC codes (2007) covered by ConstructionSkills:

### The sector footprints for the other SSCs 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 Standard Industrial Classifications (SIC) 43.21 and 43.22; thus data relating to the building services engineering sector is included here primarily for completeness.

#### AssetSkills

**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.

AssetSkills 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.

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

AssetSkills has a peripheral interest in SIC 71.1

## 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.

## 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
Book-keepers, 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

\*Not elsewhere classified

Sales supervisors	7130	Tool makers, tool fitters and markers-out	5222
Customer service managers and supervisors	7220	Vehicle body builders and repairers	5232
Office managers	4161		
<b>Construction trades supervisors</b>		<b>Steel erectors/structural fabrication</b>	
Skilled metal, electrical and electronic trades supervisors	5250	Steel erectors	5311
Construction and building trades supervisors	5330	Welding trades	5215
		Metal plate workers and riveters	5214
<b>Wood trades and interior fit-out</b>		Construction and building trades nec* (5%)	5319
Carpenters and joiners	5315	Smiths and forge workers	5211
Paper and wood machine operatives	8121	Metal machining setters and setter-operators	5221
Furniture makers and other craft woodworkers	5442		
Construction and building trades nec* (25%)	5319	<b>Labourers nec*</b>	
		Elementary construction occupations (100%)	9120
<b>Bricklayers</b>		<b>Electrical trades and installation</b>	
Bricklayers and masons	5312	Electricians and electrical fitters	5241
		Electrical and electronic trades nec*	5249
<b>Building envelope specialists</b>		Telecommunications engineers	5242
Construction and building trades nec* (50%)	5319		
<b>Painters and decorators</b>		<b>Plumbing and heating, ventilation and air conditioning trades</b>	
Painters and decorators	5323	Plumbers and heating and ventilating engineers	5314
Construction and building trades nec* (5%)	5319	Pipe fitters	5216
		Construction and building trades nec* (5%)	5319
<b>Plasterers</b>		Air-conditioning and refrigeration engineers	5225
Plasterers	5321		
		<b>Logistics</b>	
<b>Roofers</b>		Large goods vehicle drivers	8211
Roofers, roof tilers and slaters	5313	Van drivers	8212
		Elementary storage occupations	9260
<b>Floorers</b>		Buyers and purchasing officers (50%)	3541
Floorers and wall tilers	5322	Transport and distribution clerks and assistants	4134
		<b>Civil engineering operatives nec*</b>	
<b>Glaziers</b>		Road construction operatives	8142
Glaziers, window fabricators and fitters	5316	Rail construction and maintenance operatives	8143
Construction and building trades nec* (5%)	5319	Quarry workers and related operatives	8123
<b>Specialist building operatives nec*</b>		<b>Non-construction operatives</b>	
Construction operatives nec* (100%)	8149	Metal making and treating process operatives,	8117
Construction and building trades nec* (5%)	5319	Process operatives nec*	8119
Industrial cleaning process occupations	9132	Metal working machine operatives	8125
Other skilled trades nec*	5449	Water and sewerage plant operatives	8126
		Assemblers (vehicles and metal goods)	8132
<b>Scaffolders</b>		Routine inspectors and testers	8133
Scaffolders, staggers and riggers	8141	Assemblers and routine operatives nec*	8139
		Elementary security occupations nec*	9249
<b>Plant operatives</b>		Cleaners and domestics	9233
Crane drivers	8221	Street cleaners	9232
Plant and machine operatives nec*	8129	Gardeners and landscape gardeners	5113
Fork-lift truck drivers	8222	Caretakers	6232
Mobile machine drivers and operatives nec*	8229	Security guards and related occupations	9241
		Protective service associate professionals nec*	3319
<b>Plant mechanics/fitters</b>		<b>Civil engineers</b>	
Metal working production and maintenance fitters	5223	Civil engineers	2121
Precision instrument makers and repairers	5224		
Vehicle technicians, mechanics and electricians	5231		
Elementary process plant occupations nec*	9139		

\*Not elsewhere classified

## 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





## 6 CSN website and contact details

### The CSN website

[citb.co.uk/research/construction-skills-network](http://citb.co.uk/research/construction-skills-network)

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 twelve 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 which 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 issues
- 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 contact with the CITB research team CSN members can:

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

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:

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**Research and Development**

**Research Analyst**

**0344 994 4400**

**[ian.hill@citb.co.uk](mailto:ian.hill@citb.co.uk)**



**[citb.co.uk](http://citb.co.uk)**



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CITB, CIC and CITB-ConstructionSkills Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction.