



UK Industry Performance Report

Based on the UK Construction Industry
Key Performance Indicators

2017



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UK Industry Performance Report 2017

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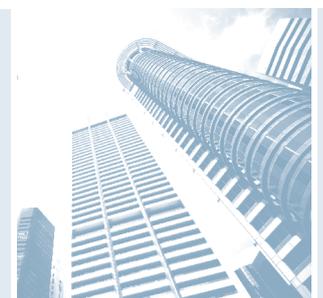
Glenigan - Robert Davis, Allan Wilén

CITB - Lee Bryer

Constructing Excellence - Don Ward

Department for Business, Innovation and Skills - Frances Pottier, Liam Cavin

BRE SMARTWaste - Stuart Blofeld, Maggie Blackwell



Introduction

CITB



The new UK Construction Key Performance Indicators (KPI) report reflects on all projects completed in 2016. For most people, 2016 will be remembered for the UK's referendum vote and the decision to leave the European Union. This marked a watershed moment in British politics, presenting a major challenge to all industries, and a possible turning point for construction.

Heading into 2016, optimism for the 12 months ahead was reasonably high for the construction sector following a period of sustained, if not spectacular, growth.

At the time, results from CITB's Employer Panel revealed that most businesses experienced this optimism – with only 3% of respondents feeling that there were no growth opportunities. Housing was seen as the area of most opportunity, followed by further expansion in infrastructure (which was already at record levels) and the potential return to higher growth in public non-residential.

It is fair to say at this point, the outlook for construction had improved and looked set to continue into 2016.

However, 2016 became very much a year of two halves. The first half of the year saw a consolidation of growth in both of output and employment. While the second half (post-referendum), saw a contraction in new orders, declining levels of confidence, and the re-emergence of skills shortages. Indeed, CITB research indicated that the difficulty of finding suitably skilled staff had returned to near prerecession levels by mid-2016 – with a fifth of firms reporting it as a key business challenge, reflecting the largely positive position with regards workloads.

This KPI report largely reflects this year of two halves. An industry on the up, but still with some hard work to do.

The current KPIs paint a positive picture for 2016, with rising levels of client and contractor satisfaction, along with time predictability of construction. However, they point towards a host of challenges that have not really gone away, particularly in terms of profitability and productivity, which continue to lag. While profitability has ticked up slightly, it remains down against the longterm trend, reflecting a wider concern regarding squeezed margins.

With other data indicating average margins stuck at around 2%, and several of the industry's largest contractors booking losses, there is less room for the poorly performing, and this inevitably impacts on investment in areas such as training.

Weaker industry growth, general industry-wide cost pressures for materials, fuel, and labour, and heightened political uncertainty have made for increasingly challenging trading conditions. It is therefore probably little surprise that some people measures have stalled, and even dipped compared to the previous survey. In this sense the KPIs demonstrate that issues remain in terms of investment in skills and the need to diversify the workforce, which although improved over the longterm still have room for improvement.

Concerningly, staff loss, the rate at which direct employees have been leaving firms, has accelerated for a second year. The median firm lost 8.5% of their direct employees during the year surveyed – up from the low of 6.3% in the 2015 survey. A trend that is reflected in CITB's own research which points to increasing numbers of employers using labour only sub-contractors. While sub-contracting is fundamentally important to the operation of the industry in terms of the management of risk, it poses significant challenges for training in respect of increased workforce mobility and shortterm working patterns.

Introduction

CITB (*cont.*)



The latest KPIs tracked a small decline in the proportion of employees qualified to NVQ Level 2 or higher, and the number of training days per employee in 2015, down from 1.5 to 1.3 days. While both are encouragingly above the long-term average, their fall is a concern. Particularly as training is ultimately tied to the investment ability of firms, and may be cut to reduce costs during times of increasing hardship.

Of course we recognise that this is a challenge, especially with tight margins and a price competitive market, but that is why CITB, through its continued reform of employer funding, is helping employers invest in the skills that are most important to their businesses both now and for the future.

Returning to our assessment of last year's survey findings, we would assert that a reduction in training and skills could prove to be counter-productive by creating greater costs due to inefficiency and skills gaps. This is particularly the case in the context of Brexit when so many questions are being raised about the availability of labour and skills beyond the UK. Now is the time to invest to mitigate skills shortages that might be brought about by a change in migration policy.

Firms need to improve the skills available to them by investing in training and widening their talent pool. Even more so if the industry is to face up to the challenges of Brexit, meeting the government's ambitious house building plans, and making the most of new technology and more innovative ways of working.

The proportion of women in the workforce and people aged under 24 have both increased in the KPI report, which suggests that some inroads might be being made into highlighting career opportunities in the industry. However, the proportion of people from black or minority ethnic backgrounds is unchanged, and still remains well below a level that represents the wider population. Underlining that, firms are missing out on a large pool of potential talent at a time when recruiting new entrants to the industry is amongst the foremost of challenges.

Whilst the KPI results are largely positive, the slowdown in output growth throughout 2016 and into 2017 suggest that tough operating conditions will continue to prevail over the medium term. This is mainly as a result of continued political uncertainty. It is likely that this will play a major role in investment decisions, including investment in skills.

As a result, CITB will need to work closely with industry and partners to ensure that, through appropriate funding interventions, more people – both those already in the industry and those entering it – are developing the skills and knowledge needed.

Our interventions need to be appropriate and practical, but also measurable. Having a series of benchmarks to gauge the industry performance and provide a reflection of our own impact is as important now as it ever has been. It is for this reason that CITB continues to support the Construction KPIs.

A handwritten signature in blue ink, appearing to read 'Lee Bryer', with a stylized, cursive script.

Lee Bryer

Research Manager, CITB

Executive Summary

Glenigan



The latest set of KPIs provide a valuable assessment of the industry's recent performance, its strengths and weaknesses, and its ability to address the challenging market conditions forecast for the next few years.

The latest set of KPIs is based upon projects completed during 2016, a period of slowing construction output growth as the flow of new projects starting on site was disrupted in the immediate aftermath of the EU referendum vote. However many of the projects reaching completion started on site in earlier years.

The KPIs reveal improved client satisfaction with the industry's performance and that a rising proportion of projects are being delivered on time and to budget.

Overall client satisfaction is high with 90% of clients rating the finished product as 8 out of 10 or better, building on the rise seen in the previous three surveys. Two-thirds of projects were completed on or ahead of schedule and 65% were completed to budget or better. Contractors' overall satisfaction with clients and the consultancy team has also improved.

Unfortunately, whilst client satisfaction has improved, industry profitability and productivity growth remain low.

Looking ahead firms are potentially facing a period of volatile industry workload and structural change as the UK economy and the construction industry adapt to life outside of the EU. This is likely to increase the pressure on firms' margins and intensify the need for firms and the industry as a whole to raise productivity.

Up-skilling the workforce, containing costs and efficiency improvements, including through the greater use of offsite manufacture and integrated working, will be priorities if the industry is to secure improved margins and greater productivity.

The Construction Industry Key Performance Indicators provide firms with benchmarks covering the industry's economic performance, workforce and environmental performance. The KPIs enable firms to appraise their own performance against their peers and help identify where they can secure future improvements that will help enhance their competitive position and win work.

A handwritten signature in blue ink, appearing to read 'Allan Wilén'. The signature is fluid and cursive, with a horizontal line extending to the right.

Allan Wilén

Economics Director, Glenigan

Key Performance Indicators

2017

Economic Indicators

Overall, the economic KPIs reveal an industry delivering sustained improvements to its performance and enhancing client satisfaction. The latest set of KPIs were compiled from projects completed during 2016; a period of heightened political and economic uncertainty and a slowing in construction output growth.

Client satisfaction has improved, building on the recovery seen in the previous survey.

Contractors are similarly more satisfied with their clients and consultancy teams, including increased satisfaction with payment provision.

Client Satisfaction

Clients rated their 'overall satisfaction with the finished product' as 8 out of 10 or higher on 90% of surveyed projects. This is a sharp 5 percentage point (pp) improvement on the 2016 survey and builds on the improvement seen in the previous results and puts the 2017 figure above the previous record 87% achieved during 2010 and 2011.

Client Satisfaction with the service received from contractors also rose to 81%, from 77% last time around. This is the strongest performance since 2010, when 82% gave a rating of 8 out of 10 or higher.

On 80% of projects, clients scored 'value for money' as eight out of ten or higher. This is 2 pp up from 2016, but remains shy of the 82% peak seen in 2009.

The KPI for the clients' rating of the 'condition of the facility in respect to defects' has improved, with 78% of clients rating the impact of defects as 8 out of 10 or better. This is up from 73% in the last survey and just above the previous peak of 77% set in 2009.

Key Performance Indicators

2017 (cont.)

Contractor Satisfaction

Contractors' satisfaction with their clients and consultancy teams improved in the latest survey. The rise appears to have been supported by increased satisfaction both about the information provided for the project and payment provision on their project.

Overall contractor satisfaction with the performance of the client and consultancy team extended the improvement seen in the 2016 survey, with 77% of contractors rating performance as 8 out of 10 or better, against 74% in the 2016 survey. This year's performance is a new peak exceeding the previous 2012 figure of 75%.

Contractors working on larger schemes were more likely to be satisfied with their client relationship than those on the smallest projects of less than £1 million. 84% of contractors on £5 million plus projects gave an overall satisfaction rating of 8 out of 10 or higher, compared to 76% on schemes of less than £1 million. Similarly a higher proportion of contractors were satisfied with the clients' provision of information on larger projects. However, contractors were generally more satisfied with payment arrangements on smaller schemes, with 83% of contractors on projects of less than £1 million giving an 8 plus rating and 89% of contractors on £1 million to £5 million giving such ratings. This compares to 79% of contractors on £5 million plus projects.

There has been a further improvement in contractor satisfaction with the client's provision of information; 76% gave a rating of 8 out of 10 or better. This new peak level exceeds the 73% level seen in the 2012.

Contractor satisfaction with payment also improved. A record 85% of contractors gave a rating of 8 or above, compared to 79% in the last survey.

Profitability

Industry profitability improved, rising from 2.5% to 2.7%, partially reversing the fall seen in the previous survey.

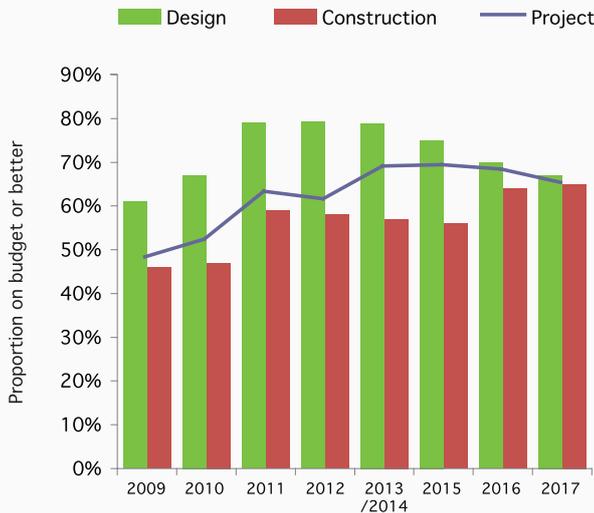
There was a sharp jump in **productivity** in 2010 in the immediate aftermath of credit crunch as contractors made more efficient use of a slimmed down workforce. Subsequently surveys have seen far weaker productivity growth. Productivity in the 2017 survey fell by 2.1% in real terms as the industry was impacted by rising costs and disrupted workloads.



Key Performance Indicators

2017 (cont.)

Cost Predictability



N.B KPI Results relate to projects completed during previous year

Predictability

The latest results show an improvement in cost and time predictability, especially for the design process.

Project costs were on budget or better for 65% of projects. Whilst slightly below the level seen in recent surveys, project cost predictability remains on a positive long term trend.

Design costs came in on or under budget on 67% of the surveyed projects. Whilst this is the lowest level since 2010, cost predictability remains ahead of pre-2010 survey results.

Predictability in the **cost of construction** improved slightly, with 66% of projects coming in to budget or better. This is a 1 percentage point improvement on the peak set in last year's survey.

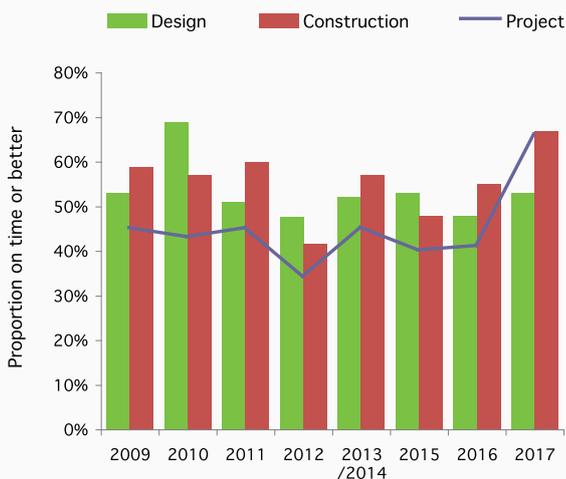
The latest results point to a strengthening in time predictability, especially for the construction phase.

Projects, as a whole, came in on time or better 66% of the time. This is a marked improvement on the 2016 survey results.

The predictability of the **design phase** has improved. The design was delivered on time or better for 53% of all projects, this compares with 48% of projects in the 2016 survey.

The **construction phase** was on time or better for 67% of projects, building on the improvement seen in the previous survey.

Time Predictability



N.B KPI Results relate to projects completed during previous year

Key Performance Indicators

2017 (cont.)

Respect for People

Staff turnover slowed to 2.4%. This compares to 2.7% in 2016 and 5.3% in 2015. The slower rate of turnover may reflect an easing in hiring pressures as industry workloads grew more slowly last year.

Indeed weaker industry growth appears to have prompted firms to contract their workforce. Whilst staff turnover has fallen, the rate at which direct employees have been leaving firms has accelerated for a second year. The median firm lost 8.5% of their direct employees during the year surveyed; this was up from the low of 6.3% in the 2015 survey, although it was still below the 9.1% seen in 2012.

Median % staff turnover



The median firm provided 1.3 **training days** per employee in 2015, down from 1.5 days in the last survey, but above the average 1.1 days recorded over the previous 10 years.

A median of 1.3 days were lost per employee per year to **sickness absence**, down slightly on the 1.4 days recorded in the 2016 survey.

On average 5% of employees were covered by Investors in People commitment & recognition.

The latest survey tracked a small decline in the proportion of employees qualified to NVQ Level 2 or higher; 70% of employees at the median firm were qualified to this level against 72% in the previous survey.

The 2017 results recorded a sharp fall in the proportion of employees with CSCS cards: 42% of direct employees at the median company held a CSCS card compared to 75% in the 2016 survey. Changes to the operation and coverage of the Construction Skills Certification Scheme may have contributed to the drop in the proportion of employees with cards.

Women accounted for 23% of the workforce in the median firm in the latest survey. This compares to 12% in the previous survey; the difference between the two years appears to reflect the uneven distribution of women across different businesses in the industry. Women account for 12% of the UK construction employees according to the ONS Labour Force Survey.

Indicators covering the age breakdown of the workforce were mixed. 15% of the median company's workforce was aged over 55, up from 10% in the previous survey. Employees aged under 24 accounted for 7% of the workforce of the median firm, up from 5% in the previous survey.

Black and minority ethnic accounted for 4% of the industry's workforce, unchanged from the previous survey. Given that roughly 14% of the UK population is from an ethnic minority background, this suggests that not only is the industry not representative of the communities in which it operates, but that firms are also missing out on a large pool of potential talent at a time when recruiting new entrants to the industry is amongst the foremost of challenges.

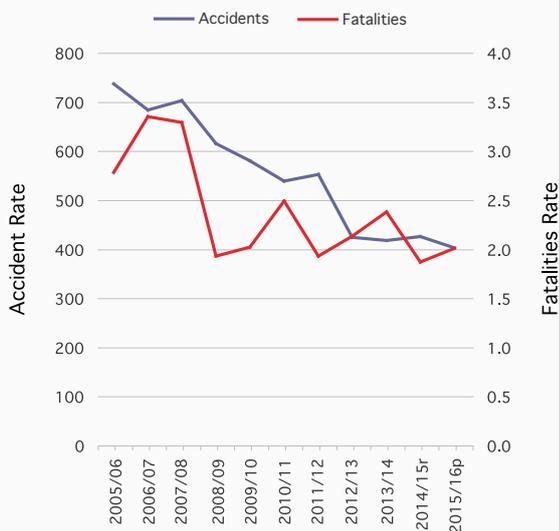
Key Performance Indicators

2017 (cont.)

The official HSE statistics have recorded a sustained improvement in the industry's Accident Incident Rate over the last decade. However a change in reporting requirements created a break in this series between the 2012 and 2014 result. Companies now report all over-7-day injuries, compared to over-3-days previously. This had the effect of lowering the reportable accident incidence rate from 550 per 100,000 employees in 2011/12 to 422 in 2012/13.

The overall AIR rate stood at 400 accidents per 100,000 employees during the 2015/16 financial year, the latest for which HSE data is available. This is a 5.7% decline on 2014/15, more than reversing the small rise seen during the previous year and re-asserting the downward trend seen over the last 15 years.

Accidents & Fatalities



Source: HSE N.B. Break in accident rate series from 2013/14

Less encouragingly, the fatality rate rose to a 2.0 per 100,000 employees in 2015/16, up from the record low of 1.8 recorded for the previous year.

Environmental

On-site energy usage has risen in 2017 survey. Median energy use, at 305kg CO2 per £100k of project value (2015 prices), is 23% higher than 2016. The rise may in part reflect changes in the mix of projects completed during the year, with an increase in the proportion of more energy intensive new build projects.

The KPI for median **waste removed** from sites improved this year. On average 16.8 m3 of waste was removed from site per 100k project value (in 2015 prices). This was 8% down from 18.3 in 2016 and is the lowest reading in the survey's history.

Mains water use increased for a second consecutive year from the record low recorded in 2015. In real terms (2015 prices) water usage increased to 5.8 m3 / £100k project value, from 5.1 in the 2016 survey.

Median **commercial vehicle movements** fell to 15.7 per £100,000 of project value (2015 prices), continuing the improving trend seen in the previous year's survey results.

Key Performance Indicators

2017 (cont.)

Housing

Client's overall satisfaction with housing projects has improved. The proportion of clients rating satisfaction with the overall product as 8 out of 10 or higher increased to 84% against 82% in the previous survey. This builds on the improvement in customer satisfaction seen in the previous survey, although satisfaction levels remain slightly below the previous peak of 88% seen in 2011.

Satisfaction with service received also slipped back during the latest survey, with 68% giving a rating of 8 out of ten or more, compared to 77% in the previous survey.

Clients' satisfaction with the **impact of defects** at handover declined, with 56% scoring 8 out of 10. This compares with 77% in the 2016 survey.

The overall **cost predictability** of housing projects improved markedly with 61% of projects being to budget or better. Predictability of design cost was lower, with 60% of respondents seeing their design costs come in to cost or better. In contrast the cost predictability over the construction phase has improved with 65% reporting costs had been to budget or better.

The **time predictability** of projects has improved with 63% of projects delivered to time or better. The time predictability of the design stage slipped back, with 54% reporting design was completed to time or earlier compared to 57% in the previous survey. The time predictability of the construction phase of projects remained high, with 67% completed to time or earlier.

Non-Housing

There has been a broad strengthening in non-residential clients' satisfaction.

The KPI for **client satisfaction** of non-housing projects remains high with 85% giving a rating of at least 8 out of 10. Satisfaction with respect to **defects** has improved, with the proportion of clients rating their impact as 8 out of 10 or better rising 5 percentage points to 77%. Satisfaction with **service** slipped back, with the proportion rating service as 8 out of 10 or better declining from 77% to 75%.

The overall **cost predictability** of projects improved, with 74% of non-residential projects completed to budget; against 68% in 2015.

Design cost predictability was unchanged on the previous survey with 73% completed to budget or better. The predictability of construction costs improved for a second year, with 73% of projects being to cost or better.

Time predictability was improved for projects included in the latest survey. 59% of projects were completed on time overall, up from 40% in the previous survey. The design phase was also improved with 57% of projects completed on schedule, against 42% of projects in the previous survey. Similarly the construction phase delivered on time for 58% of schemes.

Key Performance Indicators

2017 (cont.)

Consultants

Clients' overall satisfaction with their consultants has improved since the last KPI survey. The proportion of clients rating their consultants overall performance at 8 out of 10 or better rose from 77% in the 2016 survey to 79%. This is a new high for this performance measure.

Clients' perception of value for money slipped back with 72% rating this aspect as 8 or higher out of 10 against 77% in the previous survey. Satisfaction with service also declined with 72% rating service as 8 out of 10 or higher, compared with 79% in the previous survey. Satisfaction with the timely delivery was unchanged with 77% giving a rating of 8 or more out of 10.

Economic KPIs - All Construction

Year-on-Year Comparisons



KPI	Measure	Performance														Trend	
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	Last Year	Last 10 Years
Client Satisfaction - Product	% scoring 8/10 or better	78%	80%	83%	84%	82%	83%	86%	87%	87%	83%	82%	81%	85%	90%	▲	▲
Client Satisfaction - Service	% scoring 8/10 or better	71%	74%	77%	79%	75%	77%	84%	82%	80%	75%	75%	73%	77%	81%	▲	▲
Client Satisfaction - Value for Money ¹	% scoring 8/10 or better	73%	74%	79%	80%	75%	75%	82%	77%	81%	78%	75%	74%	76%	80%	▲	▲
Contractor Satisfaction - Performance - Overall ¹	% scoring 8/10 or better	64%	65%	63%	62%	62%	64%	69%	69%	75%	74%	69%	74%	77%	77%	▲	▲
Contractor Satisfaction - Provision of Information - Overall ¹	% scoring 8/10 or better	57%	59%	58%	56%	56%	59%	63%	64%	73%	69%	69%	73%	76%	76%	▲	▲
Contractor Satisfaction - Payment - Overall ¹	% scoring 8/10 or better	67%	66%	65%	65%	63%	63%	67%	71%	77%	80%	79%	81%	85%	85%	▲	▲
Defects - Impact at Handover ¹	% scoring 8/10 or better	68%	68%	72%	77%	73%	73%	77%	75%	68%	74%	71%	73%	73%	78%	▲	▲
Predictability Cost - Project ¹	% on cost or better	52%	50%	48%	45%	46%	49%	48%	52%	63%	61%	69%	69%	68%	65%	▼	▲
Predictability Cost - Design	% on cost or better	65%	62%	63%	66%	64%	65%	61%	67%	79%	79%	79%	75%	70%	67%	▼	▼
Predictability Cost - Construction	% on cost or better	52%	49%	48%	44%	49%	48%	46%	47%	59%	58%	57%	56%	64%	65%	▲	▲
Predictability Time - Project ¹	% on time or better	44%	44%	46%	44%	58%	45%	45%	43%	45%	34%	45%	40%	41%	66%	▲	▲
Predictability Time - Design	% on time or better	53%	55%	52%	57%	58%	58%	53%	69%	51%	48%	52%	53%	48%	53%	▲	▼
Predictability Time - Construction	% on time or better	59%	60%	62%	60%	65%	58%	59%	57%	60%	42%	57%	48%	55%	67%	▲	▲
Profitability ¹	Median % profit before interest & tax	5.4%	7.0%	8.1%	7.9%	8.2%	9.6%	9.9%	7.7%	5.0%	2.7%	2.1%	2.8%	2.5%	2.7%	▶	▼
Productivity (VAPE Current Values) ¹	Median value added/ FTE employee (£000)	31.1	32.6	34.2	38.2	42	45.5	46.2	49.5	58.5	60	63.8	66	68.2	68.2	▼	▲
Productivity (VAPE Constant 2015 Values) ¹	Median value added/ FTE employee (£000)	43.1	46.4	45.7	49.0	50.3	51.7	49.9	51.5	61.2	64.7	64.2	64.1	65.0	63.7	▼	▲

¹ Data not available before the first year shown.

² The measure for this KPI was changed in 2000; thus 1999 data was not reported. In order to regularise the volatile mix of financial data by company size from year to year, in 2006 a standard method of weighting by number of employees.

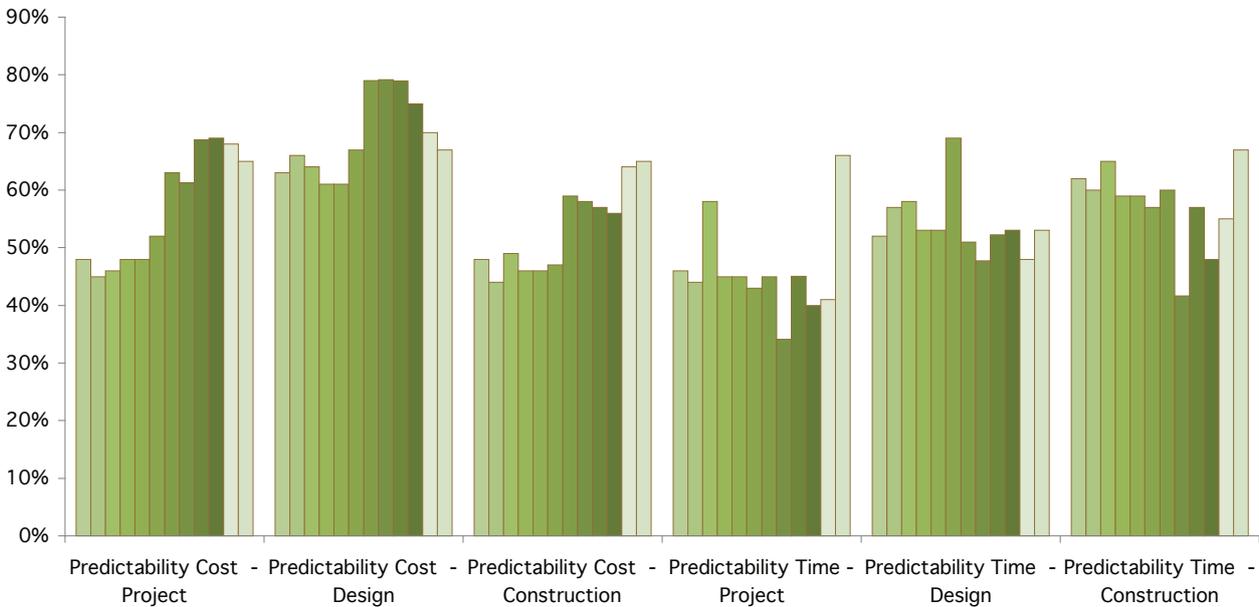
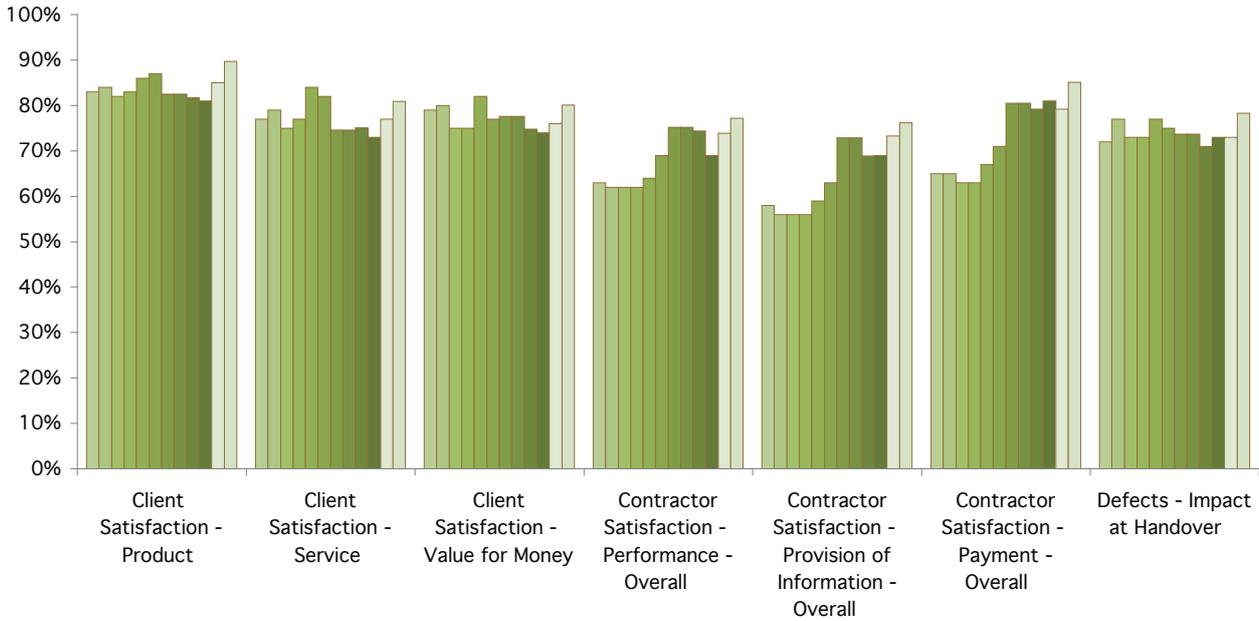
³ Current values are deflated by the "All Construction Output Price Index" for the first years KPI to arrive at constant values.

Economic KPIs - All Construction

Year-on-Year Comparisons (cont.)



■ 2005 ■ 2006 ■ 2007 ■ 2008 ■ 2009 ■ 2010 ■ 2011 ■ 2012 ■ 2013/14 ■ 2015 ■ 2016 ■ 2017

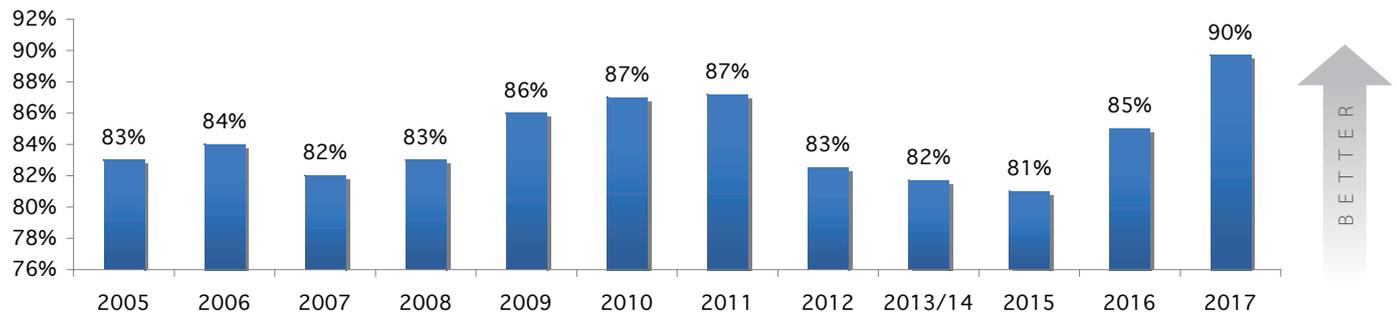


Economic KPIs - All Construction

Individual KPI Trends



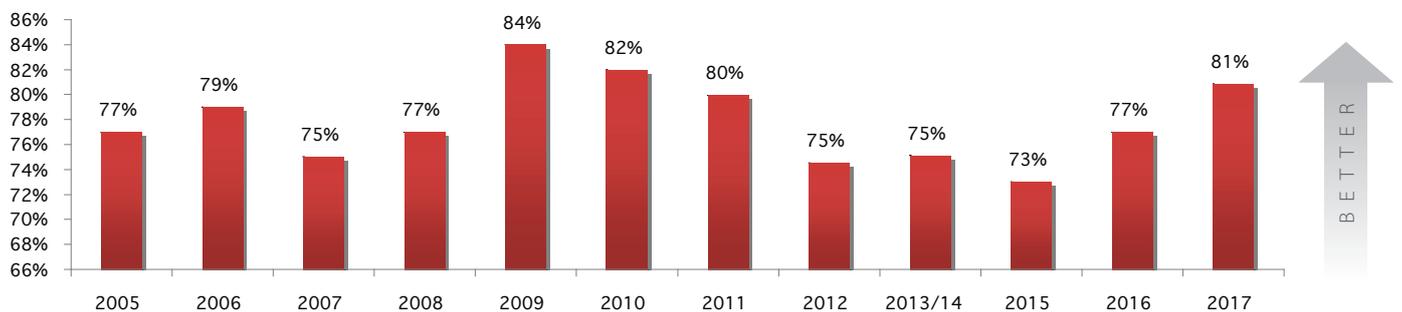
Client Satisfaction - Product



The annual KPI surveys ask clients to rate how satisfied they were with the completed facility on a scale from 1-10. The KPI is the percentage of clients that awarded a score of 8 out of 10 or higher.

The KPI rose for a second consecutive year, climbing to an all time high of 90%.

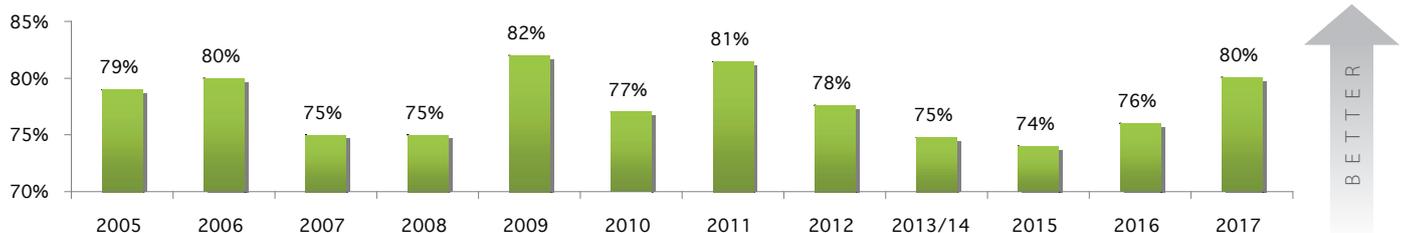
Client Satisfaction - Service



The annual KPI surveys ask clients to rate how satisfied they were with the service provided by the project team on a scale from 1-10. The KPI is the percentage of clients that awarded a score of 8 out of 10 or higher.

Client satisfaction rose to 81%, building on the improvement seen in the 2016 survey.

Client Satisfaction - Value for Money



The annual KPI surveys ask clients to rate how satisfied they were with the value for money provided on the project on a scale from 1-10. The KPI is the percentage of clients that awarded a score of 8 out of 10 or higher.

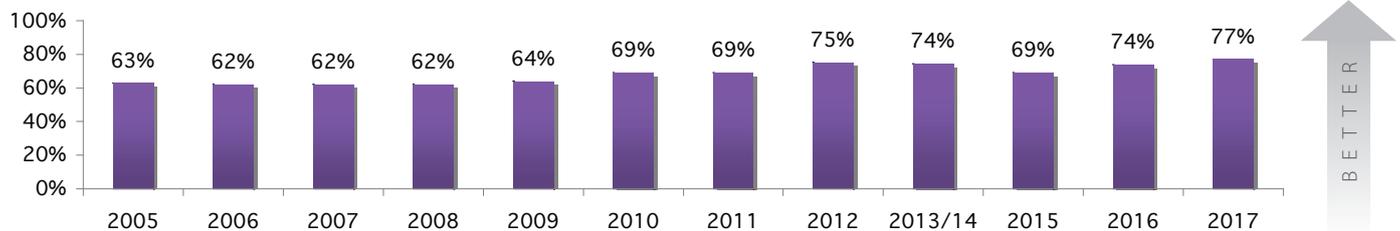
In 2017, 80% of projects scored 8 out of 10 or better, extending the improvement seen in the previous survey.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



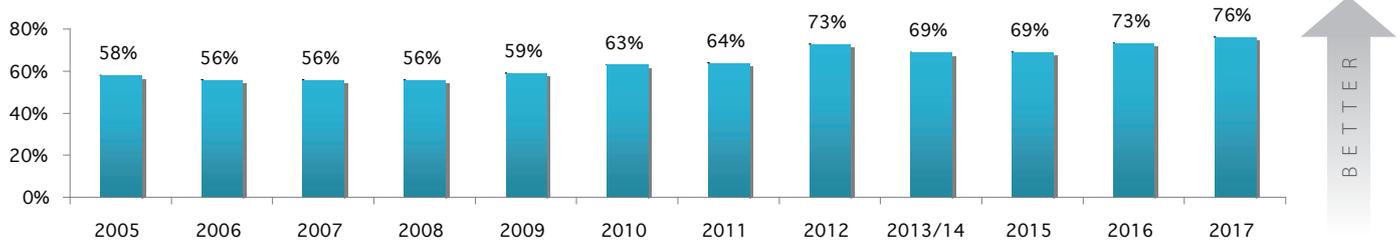
Contractor Satisfaction - Performance - Overall



The annual KPI surveys ask contractors to rate how satisfied they were with the overall performance of the client on a 1-10 scale. The KPI is the percentage of contractors that awarded a score of 8 out of 10 or higher.

The last year has seen contractors' rating of clients overall performance improve, with a new record of 77% awarding 8 out of 10 or more.

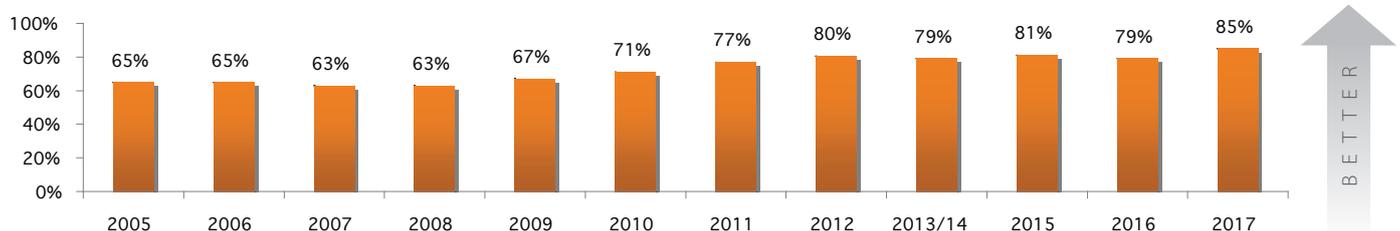
Contractor Satisfaction - Provision of Information



The annual KPI surveys ask contractors to rate how satisfied they were with the overall provision of information by the client on a 1-10 scale. The KPI is the percentage of contractors that awarded a score of 8 out of 10 or higher.

Contractors' perception of the information provided by clients has continued to improve over the last year. The score of 76% is the highest ever recorded.

Contractor Satisfaction - Payment



The annual KPI surveys ask contractors to rate how satisfied they were with the overall provision of payment by the client on a 1-10 scale. The KPI is the percentage of contractors that awarded a score of 8 out of 10 or higher.

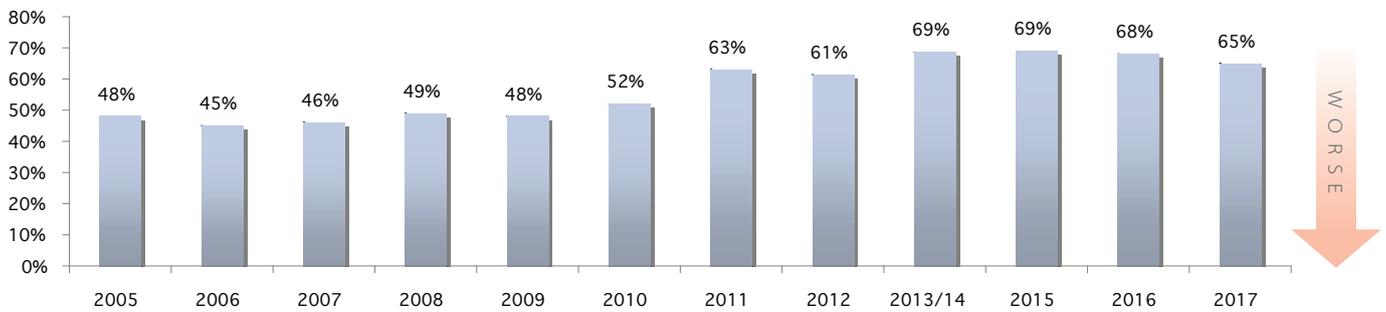
Contractors' rating of clients payment performance has improved sharply after a dip in the 2016 survey. Payment performance was rated 8 out of 10 or better by 85% of contractors, a new survey high.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



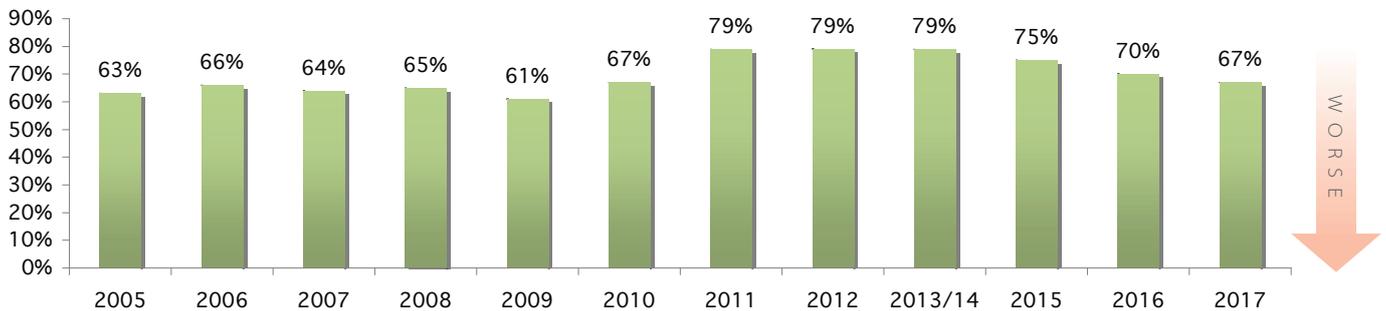
Predictability Cost - Project



Since 2000 the annual KPI surveys have assessed the cost predictability of the whole project (i.e. the combined cost of design and construction). The KPI is the proportion of projects that were on cost or better.

The KPI slipped back to 65%, a second consecutive decline from the all time high of 69% seen in the 2015 survey.

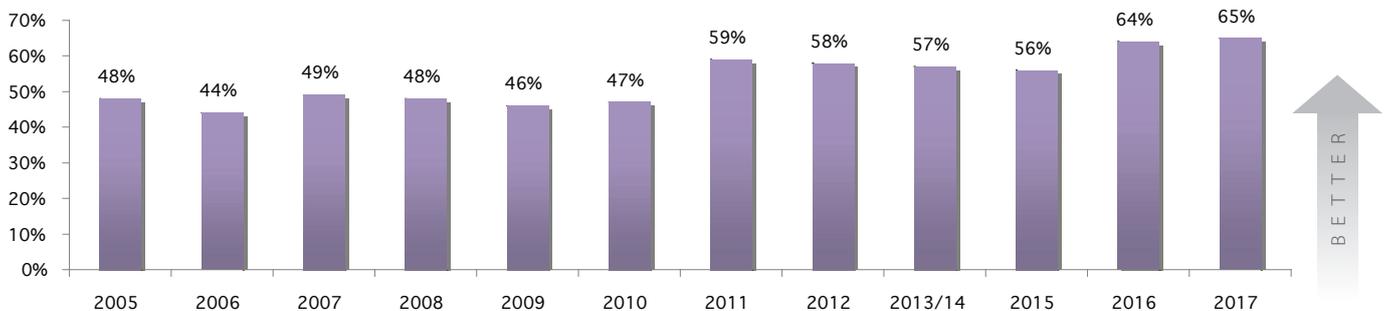
Predictability Cost - Design



The annual KPI surveys ask for the actual out-turn cost of design compared with the figure agreed at the start of that phase. The KPI is the proportion of projects that were on cost or better.

The KPI slipped back for a third year to 70%.

Predictability Cost - Construction



The annual KPI surveys ask for the actual out-turn cost of construction compared with the figure agreed at the start of that phase. The KPI is the proportion of projects that were on cost or better.

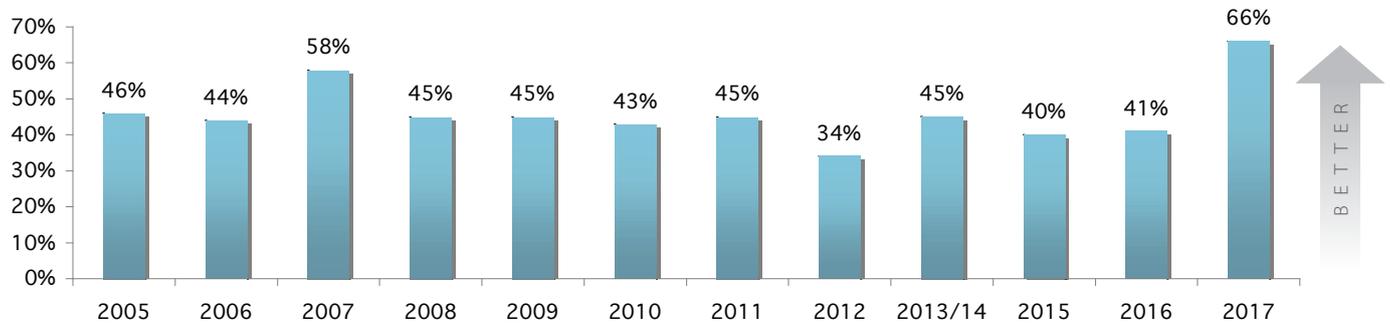
After a sharp improvement in 2016, this KPI has edged higher in the latest survey to a new record of 65%.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



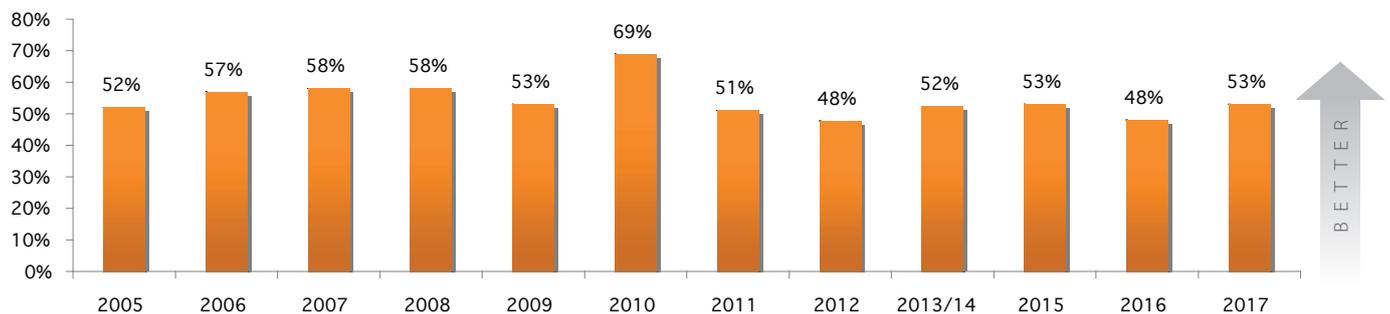
Predictability Time - Project



Since 2000 the annual KPI surveys have assessed the time predictability of the whole project (i.e. the combined time for design and construction). The KPI is the proportion of projects that were on time or better.

Projects, as a whole, came in on time or better 66% of the time. This is a significant improvement on previous surveys and a new record high.

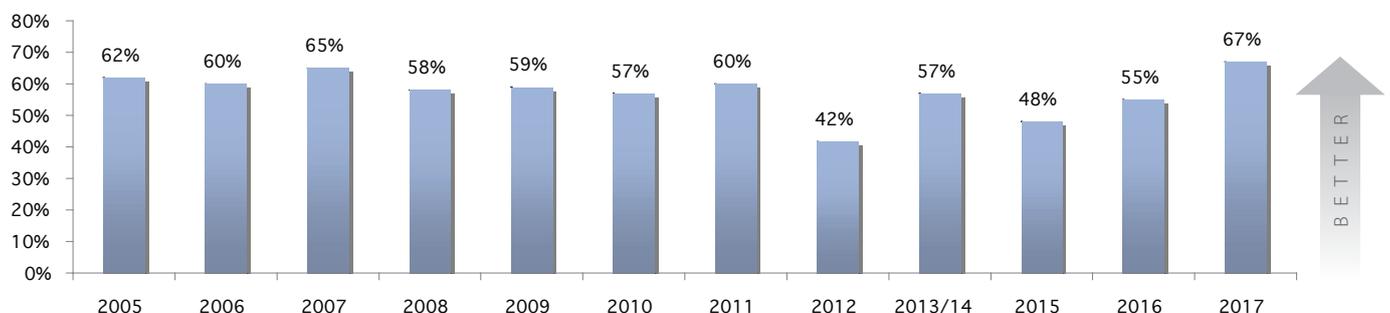
Predictability Time - Design



The annual KPI surveys ask for the actual out-turn time taken for the design phase compared with the length of time agreed at the start of that phase. The KPI is the proportion of projects that were on time or better.

The KPI rose to 53% in the 2017 survey, reversing the dip seen in the previous survey.

Predictability Time - Construction



The annual KPI surveys ask for the actual out-turn time taken for the construction phase compared with the length of time agreed at the start of that phase. The KPI is the proportion of projects that were on time or better.

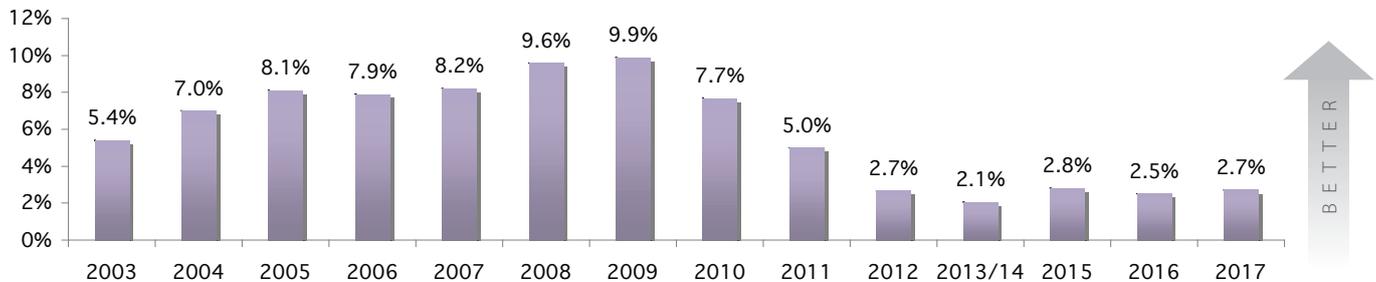
The KPI improved in 2017, extending the progress seen in the previous survey.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



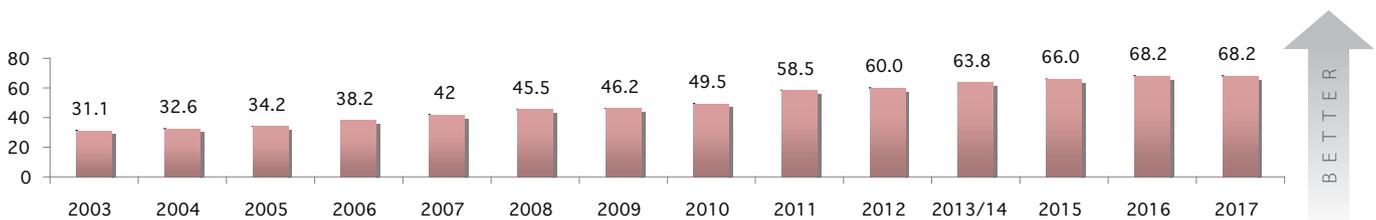
Profitability - Return on Sales (ROS)



In previous years data on profit before interest and tax (PBIT) has been obtained from firms filing annual accounts with Companies House. A snapshot of this data taken each January related to financial performance reported in the previous year. From 2012 the data has been collected directly from surveyed companies.

The 2017 survey recorded a small increase in profitability, with the median rising to 2.7%, partially reversing the decline seen in the previous survey.

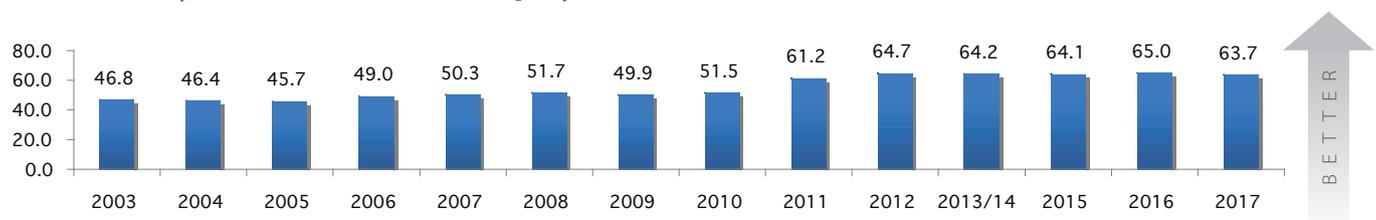
Productivity - Value Added Per Employee (VAPE) Current Values



In previous years data on value added (gross turnover less all bought-in supplies) has been obtained from firms filing annual accounts with Companies House. A snapshot of this data taken each January related to financial performance reported in the previous year. From 2012 the KPI has been calculated from data collected directly from surveyed companies.

Productivity rose sharply in the 2012 survey, suggesting businesses were making more efficient use of slimmed down workforces. This improvement was sustained with modest increases in the three subsequent surveys. At £68.2k the median value added per employee in the 2017 survey was unchanged on the previous year.

Productivity - Value Added Per Employee (VAPE) Constant 2011 Values



The data for each year is adjusted to 2012 values to remove the effect of inflation, using the 'implied output price deflator'. This is published by the ONS in Output in the Construction Industry monthly releases.

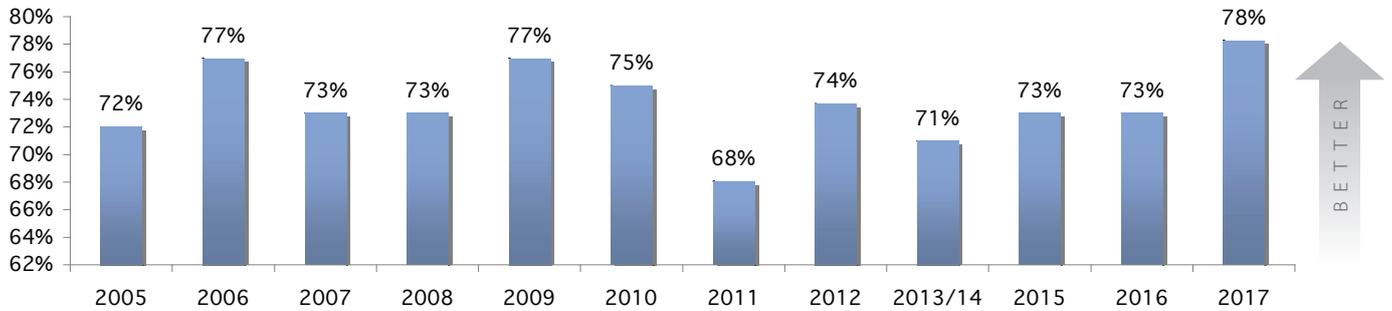
In 2017, the median value added per employee (adjusted) was £63.7k, a 2.1% decrease compared to the 2016 survey.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



Defects - Impact at Handover



The annual KPI surveys ask clients to rate the impact of defects in the project at the point of handover, on a scale from 1-10, where 10 represent zero defects. The KPI is the percentage of clients that awarded a score of 8 out of 10 or higher.

The 2017 KPI rose to a record high of 78%.

Respect for People KPIs - All Construction

Year-on-Year Comparisons



KPI	Measure	Performance														Trend	
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	Last Year	Last 10 Years
Staff Turnover - All Companies	Median % staff turnover	7.7%	7.1%	6.7%	5.9%	5.0%	6.3%	4.2%	2.5%	3.3%	2.1%	3.3%	5.3%	2.7%	2.4%	▼	▼
Sickness Absence - All Companies	Median number of days lost	1.8	1.7	1.5	1.4	1.7	1.7	1.7	1.7	1.0	1.7	1.4	1.6	1.4	1.3	▼	▼
Safety – Industry ¹	Mean accident incidence rate	1143	1162	1080	765	735	681	701	613	578	537	486	415	424	400	▼	▼
Working Hours	Median usual hours worked per week	41	41	40	40	40	40	40	40	40	40	40	40	40	39	▼	▼
Qualifications & Skills	Median % of direct employees qualified to NVQ Level 2 or higher	-	30%	33%	40%	33%	25%	22%	21%	31%	66%	71%	69%	72%	70%	▼	▲
Training	Median annual training days per full-time equivalent employee	0.8	0.8	1.0	1.0	0.9	1.0	1.1	1.2	0.6	1.5	1.2	1.2	1.5	1.3	▼	▲
Investors in People	Mean % of direct employees covered by IIP commitment & recognition	17%	19%	15%	11%	11%	12%	18%	17%	18%	14%	18%	18%	19%	5%	▼	▼
Staff Loss	Median % direct employees who left employment	-	-	-	-	-	-	-	-	-	9.1%	7.7%	6.3%	7.0%	8.5%	▲	▶
Construction Skills Certification Card	Median % direct employees that hold a CSCS	-	-	-	-	-	-	-	-	-	56%	61%	55%	75%	42%	▼	▼
Make-up of Staff - Women	Median % women employed	-	-	-	-	-	-	-	-	-	15%	19%	13%	12%	23%	▲	▲
	Mean % women employed	-	-	-	-	-	-	-	-	-	11%	12%	12%	12%	12%	▶	▶
Make-up of Staff - People from BME	Median % people from black or minority ethnic backgrounds	-	-	-	-	-	-	-	-	-	0%	0%	0%	0%	0%	▶	▶
	Mean % people from black or minority ethnic backgrounds	-	-	-	-	-	-	-	-	-	4%	3%	3%	4%	4%	▶	▶
Make-up of Staff - Aged under 24	Median % people employed aged under 24	-	-	-	-	-	-	-	-	-	8%	7%	6%	5%	7%	▼	▶
	Mean % people employed aged under 24	-	-	-	-	-	-	-	-	-	12%	10%	8%	8%	8%	▶	▼
Make-up of Staff - Aged over 55	Median % people employed aged over 55	-	-	-	-	-	-	-	-	-	11%	10%	10%	10%	15%	▲	▲
	Mean % people employed aged over 55	-	-	-	-	-	-	-	-	-	16%	12%	14%	17%	17%	▶	▲
Make-up of Staff - Disabled People	Median % people employed who are disabled	-	-	-	-	-	-	-	-	-	0%	0%	0%	0%	0%	▶	▶
	Mean % people employed who are disabled	-	-	-	-	-	-	-	-	-	1%	0.5%	0.3%	0.2%	0.3%	▶	▶

- Data not available before first year shown

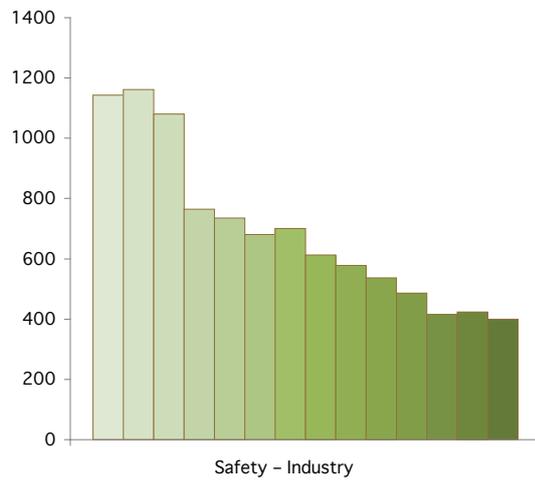
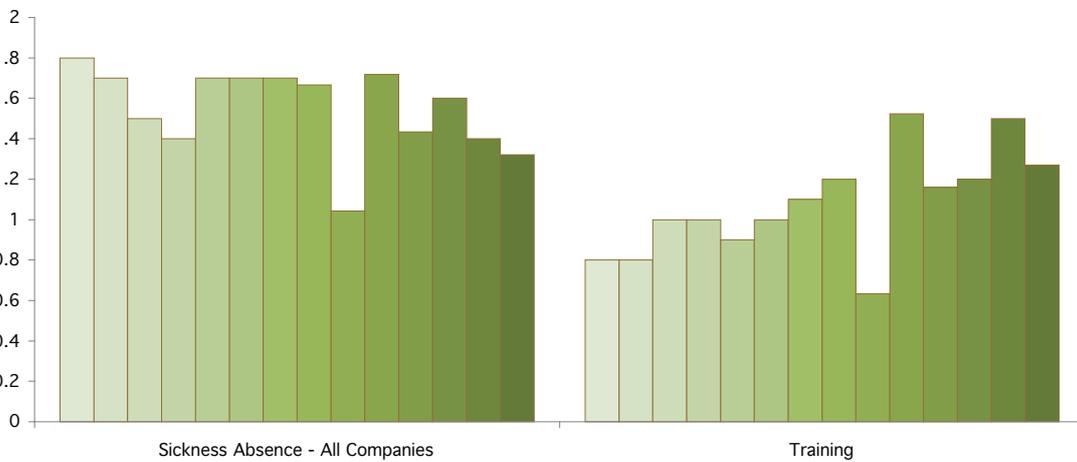
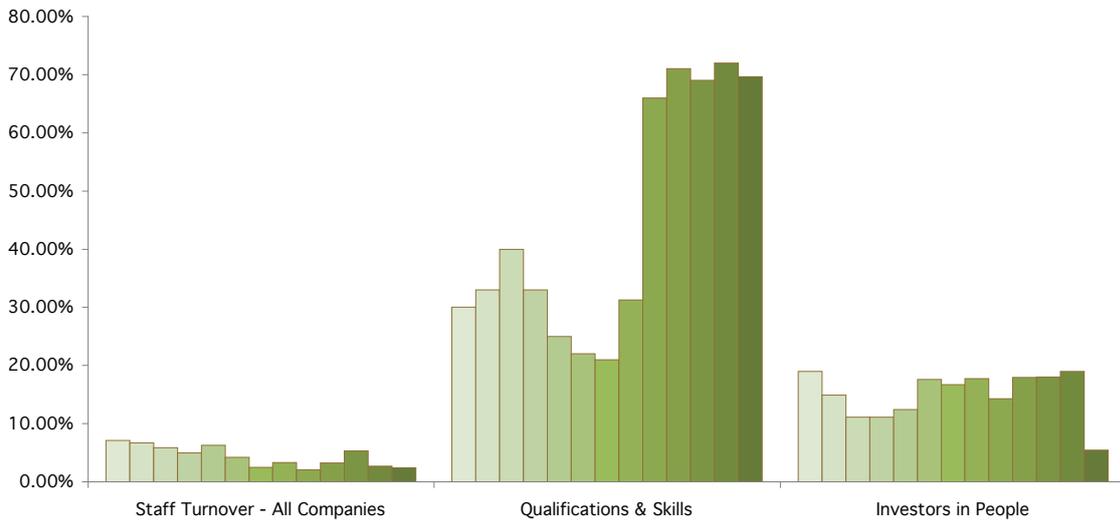
1 1 Based on "Rates of reported injury in Great Britain by main industrial classification" statistics published by the Health and Safety Executive

Respect for People KPIs - All Construction

Year-on-Year Comparisons (cont.)



2004 2005 2006 2007 2008 2009 2010 2011 2012 2013/14 2015 2016 2017



Environment KPIs - All Construction

Year-on-Year Comparisons



Supported by **BRE SMARTWASTE**

KPI	Measure	Performance														Trend	
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	Last Year	Last 10 Years
Construction Process Performance																	
Energy Use (Current Values)	Median energy use kg CO2 / £100k project value	288	322	293	293	273	192	241	249	267	196	214	199	247.9	326.2	▲	▲
Energy Use (Constant 2015 Values) ⁵	Median energy use kg CO2 / £100k project value	434	458	392	376	327	218	261	259	279	211	216	193	236.1	304.6	▲	▲
Mains Water Use (Current Values)	Median water use m3 / £100k project value	7.5	9.7	8.2	8.9	8.2	7.1	6.3	6.3	4.9	6.9	4.0	4.1	5.3	5.8	▲	▼
Mains Water Use (Constant 2015 Values) ⁵	Median water use m3 / £100k project value	11.3	13.8	11.0	11.4	9.8	8.1	6.8	6.5	5.1	7.4	4.1	4.0	5.1	5.4	▲	▼
Waste (Current Values)	Median waste removed from site m3 / £100k project value	43.5	47.1	41.6	37.0	39.1	36.9	36.6	35.1	26.7	19.4	22.6	21.6	19.2	18.0	▼	▼
Waste (Constant 2015 Values) ⁵		65.5	67.0	55.6	47.4	46.8	41.9	39.6	36.5	27.9	20.9	22.8	21.0	18.3	16.8	▼	▼
Commercial vehicle movements (Current Values)	Median movements onto site / £100k project value	44.0	34.5	29.4	30.4	29.4	26.5	28.3	23.1	19.7	16.1	11.2	20.0	16.7	16.8	▲	▼
Commercial vehicle movements (Constant 2015 Values) ⁵	Median movements onto site / £100k project value	66.3	49.1	39.3	39.0	35.2	30.1	30.6	24.0	20.6	17.4	11.3	19.4	15.9	15.7	▼	▼

1 Data not available before the first year shown.

2 Data not available after 2008.

3 Limited data use with caution.

4 Insufficient data to publish a result in 2008. The 2007 result used for 2008.

5 Current values are deflated by the "All Construction Output Price Index" for the first years KPI to arrive at constant values.

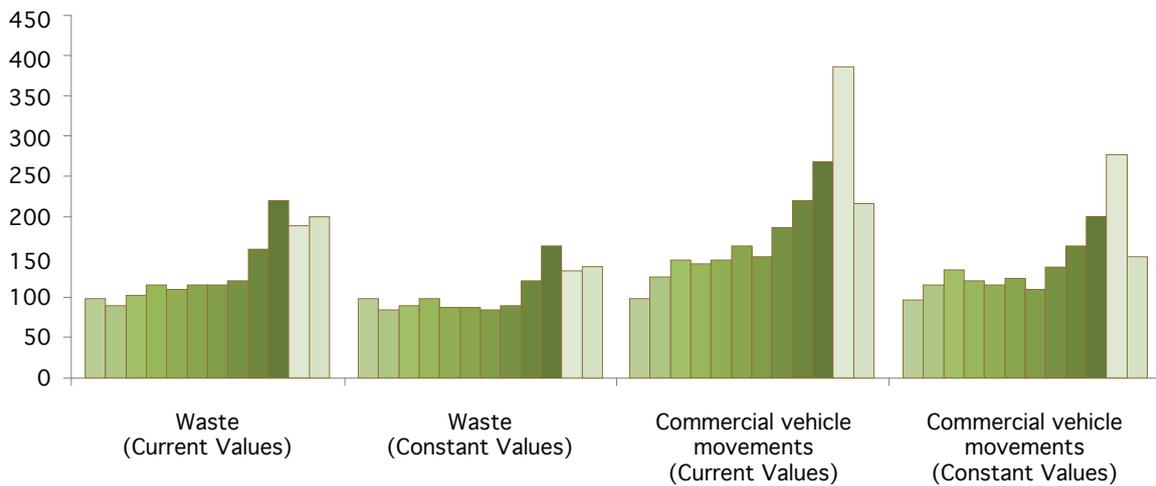
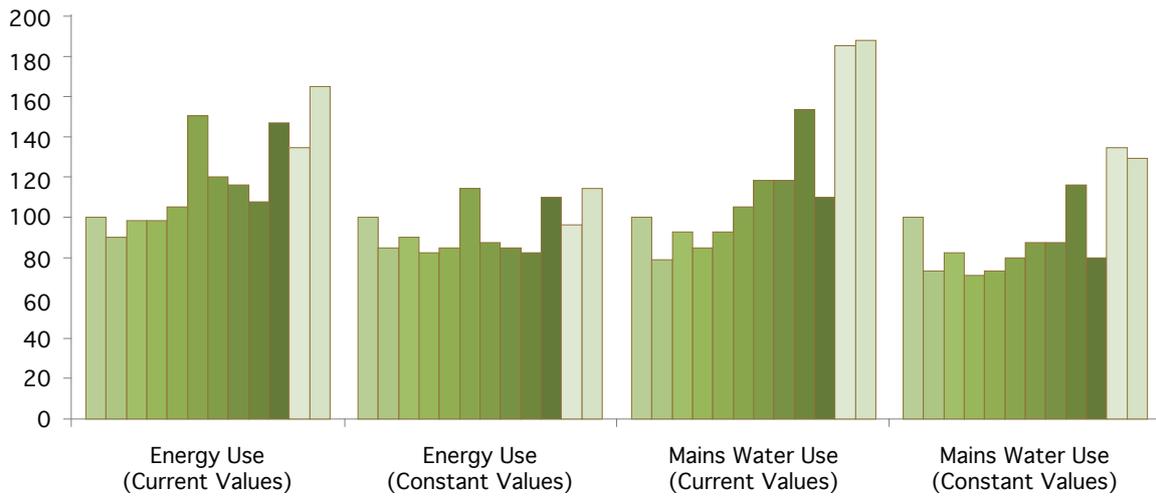
Environment KPIs - All Construction

Year-on-Year Comparisons (cont.)



Supported by BRE SMARTWASTE

■ 2005 ■ 2006 ■ 2007 ■ 2008 ■ 2009 ■ 2010 ■ 2011 ■ 2012 ■ 2013/14 ■ 2015 ■ 2016 ■ 2017



Economic KPIs - All Housing

Year-on-Year Comparisons



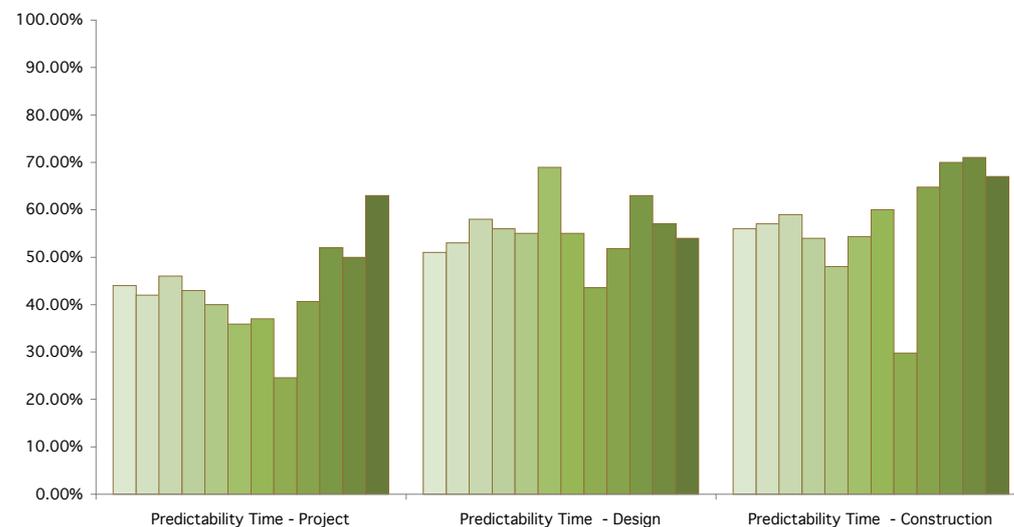
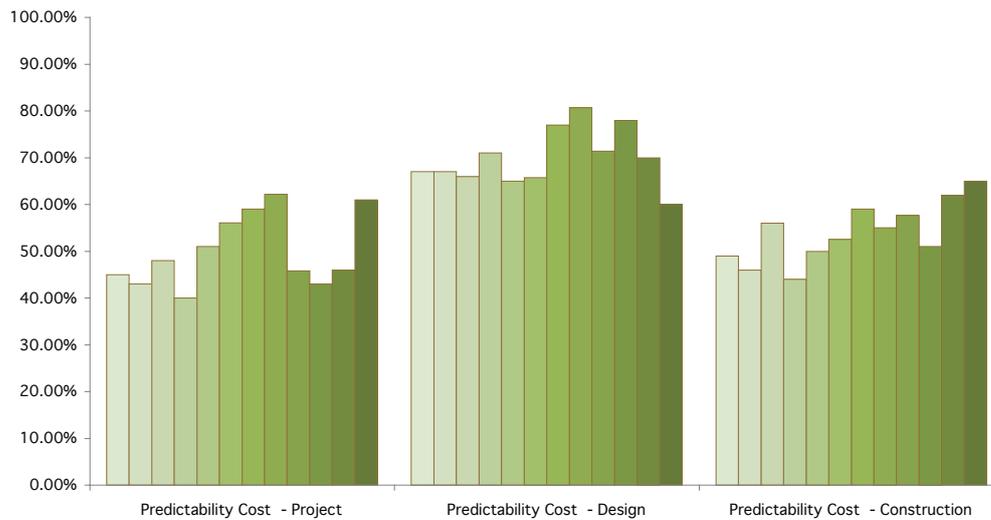
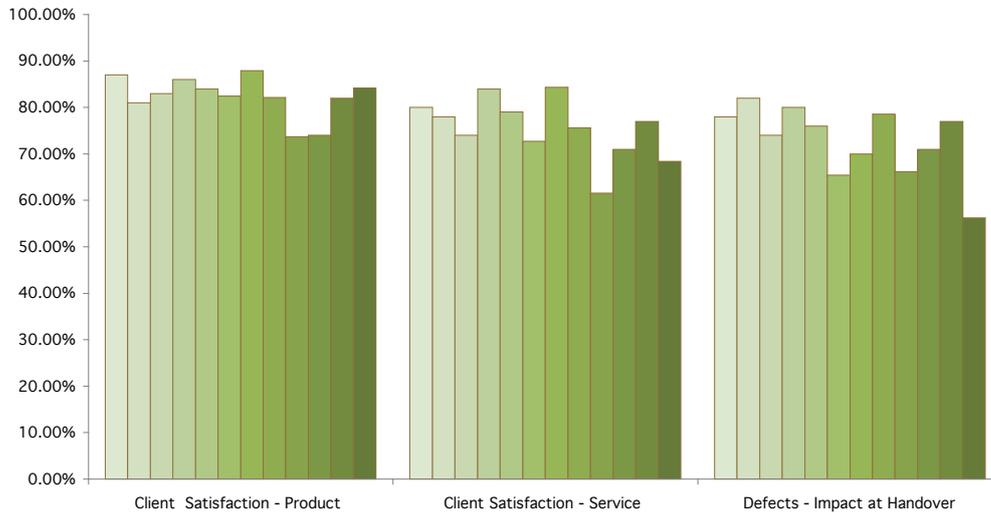
KPI	Measure	Performance														Trend	
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	Last Year	Last 10 Years
Client Satisfaction - Product	% scoring 8/10 or better	81%	86%	87%	81%	83%	86%	84%	82%	88%	82%	74%	74%	82%	84%	▲	▲
Client Satisfaction - Service	% scoring 8/10 or better	74%	80%	80%	78%	74%	84%	79%	73%	84%	76%	62%	71%	77%	68%	▼	▼
Defects - Impact at Handover	% scoring 8/10 or better	73%	78%	78%	82%	74%	80%	76%	65%	70%	79%	66%	71%	77%	56%	▼	▼
Predictability Cost - Project	% on cost or better	49%	60%	45%	43%	48%	40%	51%	56%	59%	62%	46%	43%	46%	61%	▲	▲
Predictability Cost - Design	% on cost or better	66%	66%	67%	67%	66%	71%	65%	66%	77%	81%	71%	78%	70%	60%	▼	▼
Predictability Cost - Construction	% on cost or better	48%	56%	49%	46%	56%	44%	50%	53%	59%	55%	58%	51%	62%	65%	▲	▲
Predictability Time - Project	% on time or better	46%	49%	44%	42%	46%	43%	40%	36%	37%	25%	41%	52%	50%	63%	▲	▲
Predictability Time - Design	% on time or better	51%	55%	51%	53%	58%	56%	55%	69%	55%	44%	52%	63%	57%	54%	▼	▼
Predictability Time - Construction	% on time or better	62%	62%	56%	57%	59%	54%	48%	54%	60%	30%	65%	70%	71%	67%	▼	▲

Economic KPIs - All Housing

Year-on-Year Comparisons (cont.)



2005 2006 2007 2008 2009 2010 2011 2012 2013/14 2015 2016 2017



Economic KPIs - All Non-Housing

Year-on-Year Comparisons



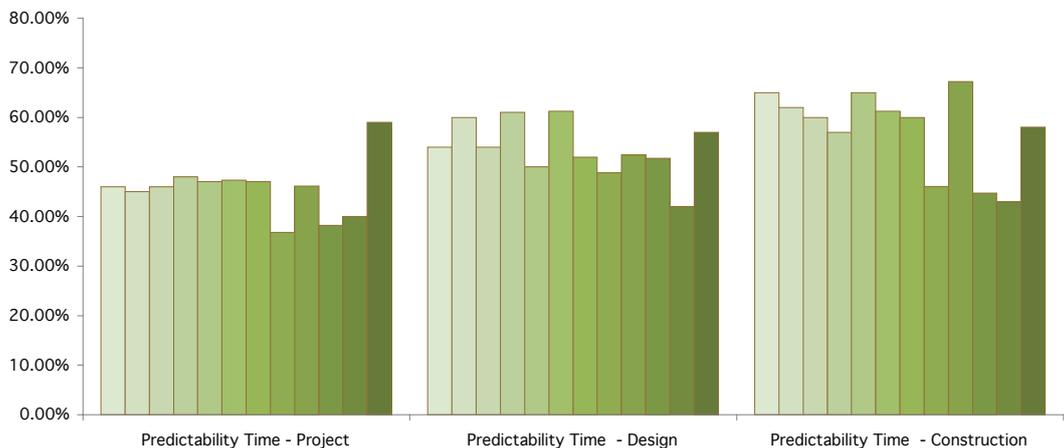
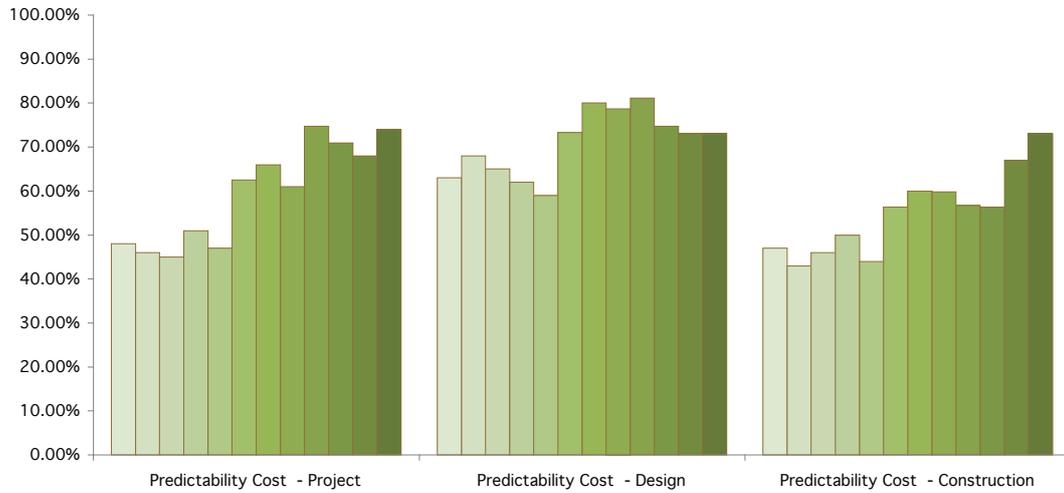
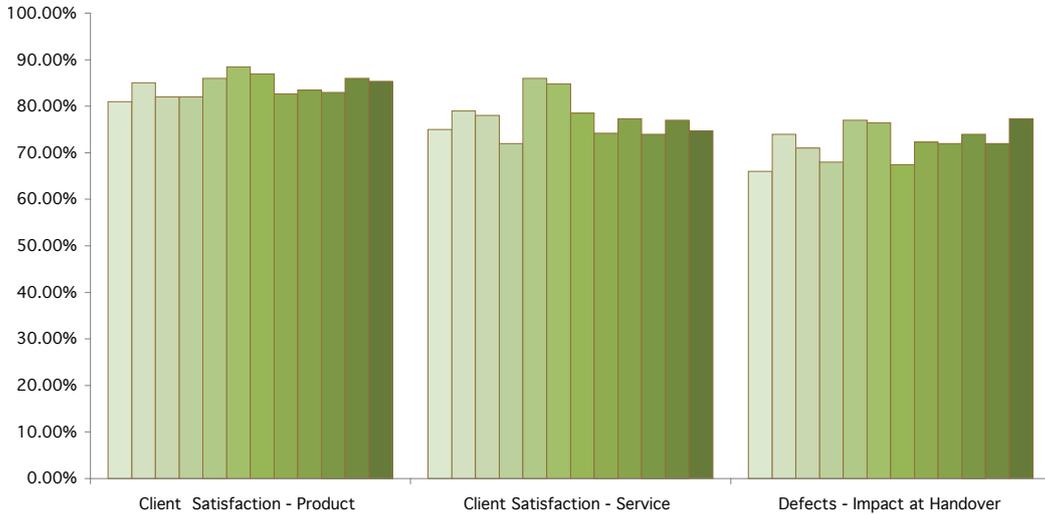
KPI	Measure	Performance														Trend	
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	Last Year	Last 10 Years
Client Satisfaction - Product	% scoring 8/10 or better	76%	77%	81%	85%	82%	82%	86%	88%	87%	83%	83%	83%	86%	85%	▼	▶
Client Satisfaction - Service	% scoring 8/10 or better	70%	73%	75%	79%	78%	72%	86%	85%	78%	74%	77%	74%	77%	75%	▼	▼
Defects - Impact at Handover	% scoring 8/10 or better	64%	60%	66%	74%	71%	68%	77%	76%	67%	72%	72%	74%	77%	77%	▲	▲
Predictability Cost - Project	% on cost or better	54%	50%	48%	46%	45%	51%	47%	63%	66%	61%	75%	71%	68%	74%	▲	▲
Predictability Cost - Design	% on cost or better	66%	63%	63%	68%	65%	62%	59%	73%	80%	79%	81%	75%	73%	73%	▶	▲
Predictability Cost - Construction	% on cost or better	52%	48%	47%	43%	46%	50%	44%	56%	60%	60%	57%	56%	67%	73%	▲	▲
Predictability Time - Project	% on time or better	46%	41%	46%	45%	46%	48%	47%	47%	47%	37%	46%	38%	40%	59%	▲	▲
Predictability Time - Design	% on time or better	57%	60%	54%	60%	54%	61%	50%	61%	52%	49%	52%	52%	42%	57%	▲	▲
Predictability Time - Construction	% on time or better	59%	59%	65%	62%	60%	57%	65%	61%	60%	46%	67%	45%	43%	58%	▲	▲

Economic KPIs - All Non-Housing

Year-on-Year Comparisons (cont.)



2005 2006 2007 2008 2009 2010 2011 2012 2013/14 2015 2016 2017



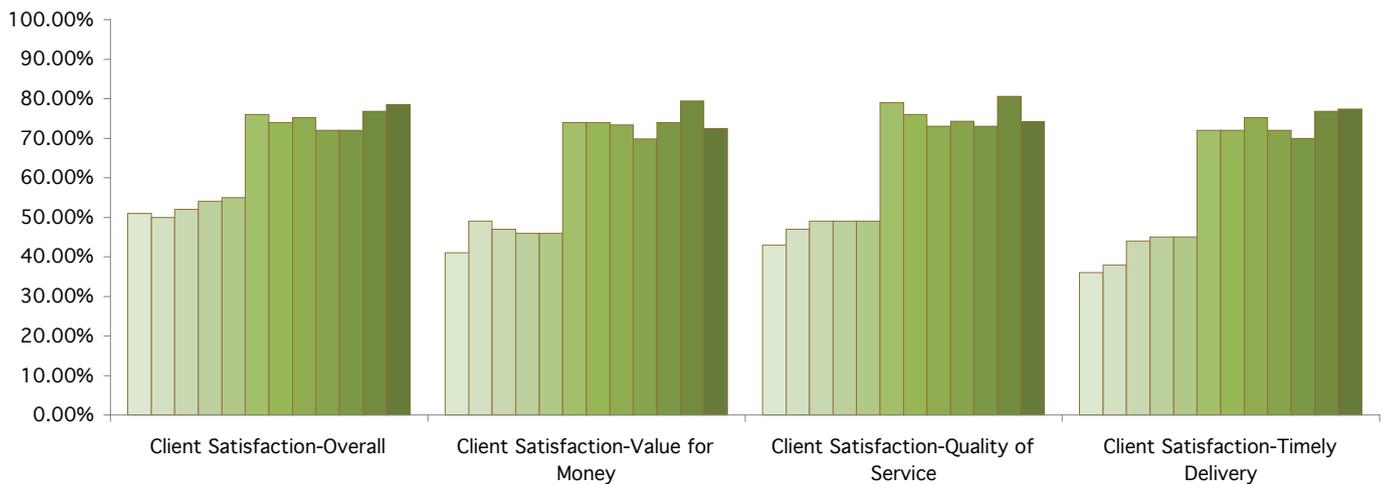
Construction Consultant KPIs

Year-on-Year Comparisons



KPI	Measure	Performance															Trend	
		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	Last Year	All Years
Client Satisfaction-Overall	% scoring 8/10 or better	45%	42%	48%	51%	50%	52%	54%	55%	76%	74%	75%	72%	72%	77%	79%	▲	▲
Client Satisfaction-Value for Money	% scoring 8/10 or better	39%	37%	45%	41%	49%	47%	46%	46%	74%	74%	73%	70%	74%	79%	72%	▼	▲
Client Satisfaction-Quality of Service	% scoring 8/10 or better	42%	43%	45%	43%	47%	49%	49%	49%	79%	76%	73%	74%	73%	81%	74%	▼	▲
Client Satisfaction-Timely Delivery	% scoring 8/10 or better	41%	38%	42%	36%	38%	44%	45%	45%	72%	72%	75%	72%	70%	77%	77%	▶	▲

2005
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Introducing Glenigan



We are the trusted provider of UK construction project leads, market analysis and company intelligence.

Our products and services are designed to deliver **measurable growth** for companies operating across the built environment. We open doors for main and specialist contractors, material manufacturers and service providers to form successful working relationships, aided by our extensive network of key industry partnerships.

We are here to help your business succeed - whether you want to **find** new work opportunities, **forecast** construction market trends or simply **focus** on what you do best.

Glenigan is built on three clear principles which have formed the foundation of our service for more than 40 years.

1. World-class data

World-class data is our specialist subject. We combine comprehensive information gathering with expert analysis to deliver trusted insight into UK construction activity. Our rigorous research processes, coupled with exclusive information from leading industry associations, means we provide the most complete coverage of projects at every stage of the construction cycle.

2. Product innovation

We continually push the boundaries of digital development to provide the most innovative construction intelligence products on the market. Our award winning systems translate detailed data into real-time opportunities, saving you valuable time and resource.

3. Customer commitment

Customers are at the heart of everything we do. We are committed to helping businesses succeed by focusing on your requirements, and working together to achieve the best possible results.



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About

CITB



CITB is the Industry Training Board for the construction industry and a partner in ConstructionSkills, the Sector Skills Council

Its role is to work with employers to encourage training, which helps to build a safe, professional and fully qualified workforce.

The support and funding CITB provides helps companies to improve skills, increase their competitiveness, and respond to challenges such as the low carbon agenda, reducing costs on site and recruiting the best talent for the sector.

CITB works with the industry and its clients to ensure the construction sector has the right skills, in the right place, at the right time.

Research

CITB provides research and labour market intelligence that benefits the UK construction industry. Combining analysis of industry change, primary research and forecasting capabilities, it has established a strong evidencebase that addresses the needs of a wide range of key industry stakeholders and ensures that skills planning and training decisions can be made with the most up-to-date insight.

For further information on CITB's research, visit www.citb.co.uk/research

Bespoke Research Services

CITB's bespoke research services can help those responsible for construction and infrastructure programmes, related training and assessing economic benefits.

Referring to the right research helps to improve the quality of construction projects, saves time and money, and addresses the issues that make the difference between success and failure.

CITB has a range of unique tools, data, and research and forecasting techniques that provide targeted research solutions that relate to skills and employment needs.

CITB can provide:

- Expertise in all areas of the industry
- Unrivalled knowledge and a network of experts
- Access to unique data

To find out more about how CITB's bespoke research services can support your business, visit www.citb.co.uk/research/consultancy/bespoke-research-services

About

BRE SMARTWaste

Environmental management solution

www.bresitesmart.com

SMARTWASTE

delivered by bre

SmartWaste is the **#1** online tool for environmental data used by over 13,700 users in over 21,500 locations



Solutions:

- Carbon management
- Ecology monitoring
- Energy management
- Environmental data management
- Materials procurement
- Reporting
- Training
- Transport management
- Waste management
- Water management

Benefits:

- Make environmental compliance simple
- Meet environmental standards i.e. BREEAM
- Improve environmental performance
- Identify cost savings and save time
- Continual upgrades from a collaborative community



“Since adopting SmartWaste Kier has achieved a 5% increase in the amount of construction waste it reuses or recycles, and a 20% reduction in the amount of construction, demolition and excavation waste it sends to landfill.”

Peter Johnson, Construction Division, Sustainability Manager at Kier Group

About BRE

BRE is a world leading multi-disciplinary building science centre with a mission to improve the built environment through research and knowledge generation. Building a better world together. SiteSmart® is a suite of quality, environmental, health and safety solutions for the Built Environment by BRE and includes SmartWaste®.

SITESMART
delivered by bre

Quality, Environmental,
Health and Safety solutions
for the Built Environment
you can trust by BRE

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About

Constructing Excellence



Excellence through Collaboration

Transformation is coming, join us to put 'Words into Action'

Constructing Excellence is movement to stimulate and drive much needed change in the construction sector. Our thought leading members from the entire demand and supply chain - clients, industry and users – share a passion for change through innovation and collaboration.

Constructing Excellence is funded and governed nationally by corporate membership, and invites anyone who wants to be part of the change process not only to attend our events but to become active members of the movement at this critical time.

Our national members, collectively employ over 250,000 people in the sector and turn over around £60 billion. Our client members at the heart of the organisation spend around £10 billion each year on construction projects, accounting for nearly 20% of new build spend in the sector.

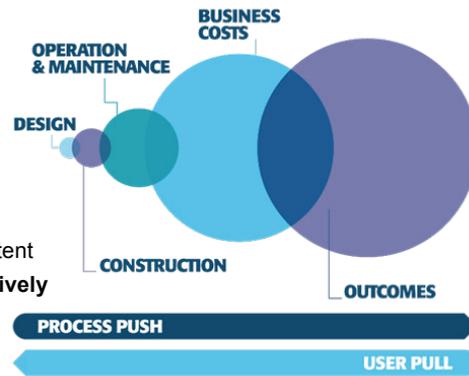


Show what good looks like

Our new Co-Chairs Phil Wilbraham, Mark Farmer and David Whysall believe that industry improvement will be driven by putting 'words into action', and this means integrated teams across all sectors sharing, learning, and working together to drive best practice and innovation.

Our goal is to enable a new delivery model featuring:

- Increased **standardisation** and **pre-manufactured** content
- **Digitally enabled integrated** teams working **collaboratively** with **long-term relationships** and **aligned commercial arrangements**
- A **client-led** transformation by **procuring** smartly.



Get involved

Join us in setting the delivery model for tomorrow's national infrastructure and built environment. Get in touch to find out how your organisation can become part of the UK's leading movement for change devoted to delivering excellence in the built environment.



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UK Industry Performance Report

Based on the UK Construction Industry
Key Performance Indicators

2017