



UK Industry Performance Report

Based on the UK Construction Industry
Key Performance Indicators

2018



Contents

UK Industry Performance Report 2018

Introduction	03	Productivity - (VAPE Current Values)	20
Ministerial Foreword	05	Productivity - (VAPE Constant 2011 Values)	20
Executive Summary	06	Defects - Impact at Handover	21
Key Performance Indicators 2018			
Economic Indicators	07	Respect for People KPIs - All Construction	
Client Satisfaction	07	Year-on-Year Comparisons	
Contractor Satisfaction	08	KPI Summary Table	22
Profitability	08	KPI Group Trend Graph	23
Predictability	09	Environment KPIs - All Construction	
Respect for People	10	Year-on-Year Comparisons	
Environmental Indicators	11	KPI Summary Table	24
Housing	12	KPI Group Trend Graph	25
Non-Housing	12	Economic KPIs - All Housing	
Consultants	13	Year-on-Year Comparisons	
Economic KPIs - All Construction			
Year-on-Year Comparisons			
KPI Summary Table	14	KPI Summary Table	26
KPI Group Trend Graph	15	KPI Group Trend Graph	27
Economic KPIs - All Construction			
Individual KPI Trend Graphs			
Client Satisfaction - Product, Service & Value For Money	16	Economic KPIs - All Non-Housing	
Contractor Satisfaction - Overall - Performance, Provision of Information & Payment	17	Year-on-Year Comparisons	
Predictability Cost - Project, Design & Construction	18	KPI Summary Table	28
Predictability Time - Project, Design & Construction	19	KPI Group Trend Graph	29
Profitability	20	Construction Consultants KPIs	
Year-on-Year Comparisons			
About			
		Glenigan	31
		CITB	32
		BRE SMARTWaste	33
		Constructing Excellence	34

The KPI Team

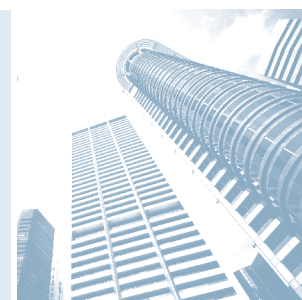
Glenigan - Robert Davis, Allan Wilén

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, which covers all projects completed in 2017, reflect a relatively stable and generally positive performance that is in itself reassuring during a period of much uncertainty and many unknowns. However, some areas of previously high performance have slipped back, most notably in terms of client and contractor satisfaction levels, which is a potential concern going forward.

Heading into 2017, optimism for the 12 months ahead was reasonably high for the construction sector, although there was an indication that this sentiment was not as strong as the previous 12 month period; perhaps suggesting that more testing times lay ahead.

At the time, results from CITB's Employer Panel revealed that most businesses remained fairly positive, with around a third (35%) expecting turnover to increase, while approaching half (47%) expected turnover to remain at about the same level. However, firms were almost twice as likely to expect turnover to decrease in 2017 (15%) than did over 2016 (7%).

In terms of output, 2017 was a good year for construction, perhaps unexpectedly so in hindsight, given the much more muted growth experienced since. Research by CITB indicated that the difficulty of finding suitably skilled staff had returned to pre recession levels with a fifth of firms reporting it as a key business challenge, reflecting the largely positive position with regards workloads. While one in six firms reported issues concerning the costs of operation such as compliance with regulation, labour and material costs, getting finance to expand, or late payments. If measures of business challenges are anything to go by the sector was enjoying a strong if somewhat unexpected purple patch.

Accordingly the current KPIs paint a largely positive, but mixed picture for 2017, with rising levels of time productivity and profitability, but a decline in client and contractor satisfaction. The decline in client satisfaction in respect of value for money comes despite improved performance in defects, while contractors have concerns with the client's provision of information and payments.

While profitability has ticked up slightly and cost predictability has improved, the former remains well below the long term trend, while the latter suggests that contractors are (at best) just getting "less bad" at margin-based pricing.

The KPIs, taken together with other indicators, point towards a host of challenges relating to the client and contractor relationship that seemingly refuse to go away and which continue to blight the sector; the emphasis of costs not value, and lack of transparency and collaboration. Of course there are exceptions, but on the whole low margins, pricing models and financial fragility means the industry has evolved a survivalist culture and subsequent commercial behaviours to meet the harsh environment it faces. This has undoubtedly led to short-termism and low investment cultures that prevail across the sector, and will perhaps provide the greatest hindrance to modernise through digitisation and automation.

Returning to our assessment of this year's survey findings perhaps one of the more concerning indicators tucked away in these KPIs is the time predictability of the construction phase, which at 59% is significantly down from the record high of 67% seen in the 2017. In retrospect this might be seen as precursor to the delays to projects (particularly a number of high-profile examples) that the sector has experienced in 2018.

There is little question that heightened political uncertainty has made for increasingly challenging trading conditions, which is compounded by the industry's tendency to under-invest in people. It is therefore probably little surprise that several key people measures have stalled, and even contracted (quite considerably in some cases) compared to the previous survey.

Introduction

CITB (*cont.*)



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 long term still have room for improvement.

Increased staff turnover and the time lost per employee per year to sickness absence, both up sharply on the 2017 survey, suggest that the economic pressures are also being felt in the workforce. This may reflect an increase in hiring pressures as industry workload grew, but it also has implications for delivering future growth; particularly in the context of Brexit and efforts to improve health and wellbeing.

Encouragingly the indicators show that training days per employee have increased in 2017, but the proportion of employees qualified to NVQ Level 2 or higher is significantly down, which seen together add weight to the notion that the industry is primarily concerned with meeting short-term needs.

There is little question that Brexit probably poses the most immediate risk to construction, but in many respects the problems that the industry faces now are longstanding and deeply ingrained, and Brexit only serves to bring these into sharper focus. Whether it is cost pressures related to the availability of materials, the increasing difficulty in recruitment of skills and labour, or delays in investment decisions, these have been ever-present issues for the past two decades (if not longer).

However, in the current context we would assert that any reduction in training and skills could prove to be counter-productive in the long-term by creating greater costs due to inefficiency and skills gaps. While there is no immediate restrictions on people moving to the UK from EU countries it was in 2017 the lowest it has been for nearly four years, and we know that there is currently no provision in the proposed immigration policy allowing low skilled workers (as construction trades are currently classified) into the UK following Brexit. Now is the time to invest to mitigate skills shortages that might be brought about by changes 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.

A slowdown in output growth throughout 2018 and probably until 2021 suggest that tough operating conditions will continue to prevail over the medium term, and 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, those entering it – are developing the skills and knowledge needed for now and the future.

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 and probably will be over the next few years. 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

Ministerial Foreword

The Department for Business, Energy and Industrial Strategy



Construction Key Performance Indicators (KPIs) have long been regarded as an important tool for the construction industry. They enable companies to assess their performance against industry benchmarks, target areas for improvements, and increase performance. These KPIs continue to be utilised to great effect by the construction industry to improve the service provided to clients and raise profitability. Therefore, on behalf of the Government, I am pleased to be able to endorse the work undertaken by Glenigan in partnership with CITB, Constructing Excellence, and BRE SMARTWaste in publishing these KPIs, and the contribution they are making to the success of the construction industry.

The year's figures are encouraging; the recent hard work of the industry to improve their performance reflects an industry that is client focused in both the housing and non-housing economic KPIs. Industry profitability also improved for the second consecutive year, and there was a sharp 10.4% jump in productivity, while overall client satisfaction remains high.

The construction sector has a very important role to play in achieving the vision set out in our modern Industrial Strategy. As such the government continues to support the construction industry through the Construction Sector Deal, with a partnership that aims to maximise the sector's productivity through innovative technologies and a more highly skilled workforce.

The latest KPIs provide a valuable assessment of the industry's recent strengths and weaknesses. I hope that contractors, sub-contractors and consultants assess and improve their performance against industry KPIs, as those who do will be best placed to take advantage of new opportunities.

Richard Harrington MP

Parliamentary Under Secretary of State

Department for Business, Energy and Industrial Strategy

Executive Summary

Glenigan



The 2018 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 2017, a year of heightened political and economic uncertainty which disrupted construction workloads and was accompanied by rising material and energy costs and growing concerns over labour availability. Many of the projects covered by the survey were awarded and started on site in earlier years, requiring contractors to accommodate these additional pressures within established build programmes and budgets.

The KPIs reveal a dip in client satisfaction with the industry's performance, although client satisfaction remains at historically high levels.

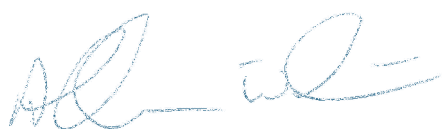
Overall client satisfaction is still high with 87% of clients rating the finished product as 8 out of 10 or better, but this is slightly down on the record 90% seen in the previous surveys. Clients' satisfaction with service and value for money fell more steeply, potentially reflecting the pressures faced by the industry from rising costs and reduced labour availability.

Contractors' satisfaction with the industry's clients also slipped. A fall in overall satisfaction has been accompanied by declines in satisfaction about both the information provided for the project by the client and over payment provision.

Looking ahead firms are facing a sustained 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. Accordingly, a marked rise in productivity over the last year is encouraging.

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 over the coming years.

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.



Allan Wilén

Economics Director, Glenigan

Key Performance Indicators

2018

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 2017; a period during which construction workloads were disrupted by heightened political and economic uncertainty and growing concerns over labour availability.

Client Satisfaction

Client satisfaction remains high, but has fallen from the record levels seen in the 2017 survey. 87% of clients rated their overall satisfaction with the finished product as 8 out of 10 or higher. This compares with 90% in the previous survey, but is in line with the previous record high of 87% achieved during 2010 and 2011.

Client satisfaction with the service received from contractors dropped back to the 2016 level, with 77% rating their satisfaction as 8 out of 10 or higher. This compares to 81% in the previous survey.

On 73% of projects, clients scored value for money as eight out of ten or higher. This is 7 percentage points down from 2017 and the lowest rating since 2003.

The KPI for the clients' rating of the condition of the facility in respect to defects has improved, with 82% of clients rating the impact of defects as 8 out of 10 or better. This is up from 78% in the last survey and a record high.

Key Performance Indicators

2018 (cont.)

Contractor Satisfaction

Contractors' satisfaction with their clients and consultancy teams also dipped in the latest survey. The fall in overall satisfaction has been accompanied by declines in satisfaction about both the information provided for the project and payment provision on their project.

Overall contractor satisfaction with the performance of the client and consultancy team fell back from the peak level set in the 2017 survey, with 71% of contractors rating performance as 8 out of 10 or better, against 77% in the 2017 survey.

Contractors working on larger schemes were less likely to be satisfied with their client relationship than those on smaller projects of less than £1 million. 67% of contractors on £5 million plus projects gave an overall satisfaction rating of 8 out of 10 or higher. This compares to 71% on schemes of less than £1 million and 86% of contractors on schemes of £1 million to £5 million.

Similarly, a lower proportion of contractors on larger projects were satisfied with the clients' provision of information (67%) and payment arrangements (63%). Contractors were generally most satisfied with the client's provision of information on schemes of £1 million to £5 million, with 86% giving a rating of 8 out of 10 or higher. Satisfaction was also highest for payment arrangements on this size of project, with 91% of contractors on such projects giving an 8 plus rating.

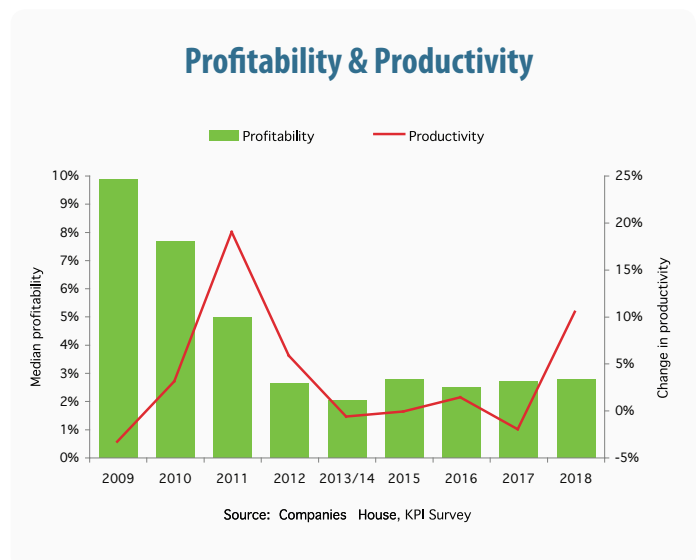
There has been a decline in contractor satisfaction with the client's provision of information; 70% gave a rating of 8 out of 10 or better, down from the 76% level seen in the 2017 survey.

Contractor satisfaction with **payment** also fell. Only 80% of contractors gave a rating of 8 or above, compared to 85% in the last survey.

Profitability

Industry profitability improved slightly for a second consecutive year, rising from 2.7% to 2.8%, partially reversing the fall seen in the previous survey.

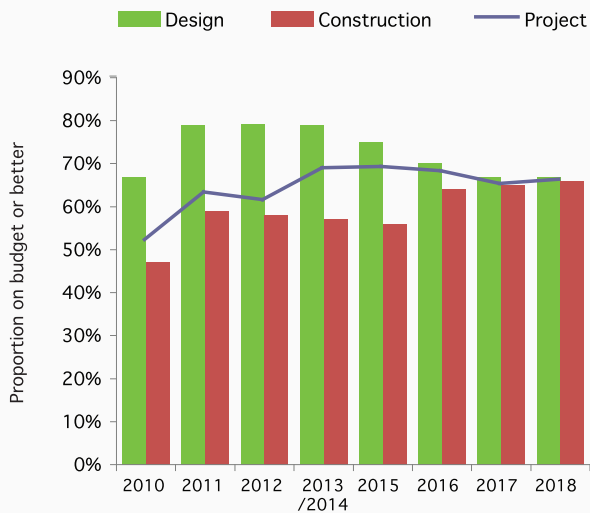
There was a sharp 10.4% jump in productivity during 2017 in real terms. The rise is in sharp contrast to the 2.1% decline during the previous year and follows five years of weak or declining productivity growth.



Key Performance Indicators

2018 (cont.)

Cost Predictability



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

Predictability

The latest results show an improvement in cost predictability, while overall time predictability of projects was little changed.

Project costs were on budget or better for 66% of projects. This is an improvement on the 65% seen in the previous survey.

The predictability of **design costs** were unchanged on the previous year, coming in on or under budget on 67% of the surveyed projects. Although this is the lowest level since 2010, cost predictability is ahead of pre-2010 survey results.

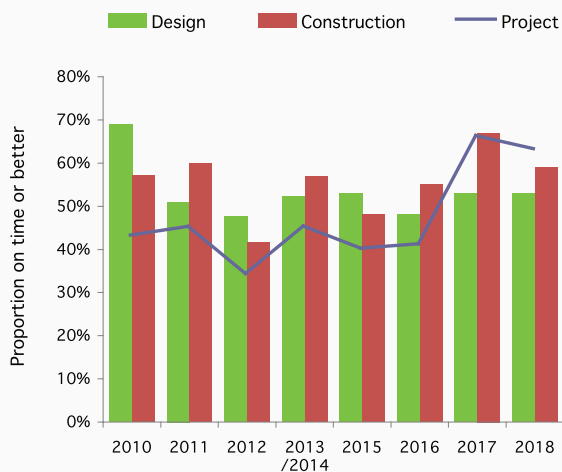
Predictability in the **cost of construction** improved, with 66% of projects coming in to budget or better. This compares with 65% of projects in the previous survey.

Projects, as a whole, came in on time or better 63% of the time. This is slightly down on the record high published in the 2017 survey results.

The **design phase** was delivered on time or better for 53% of all projects. This matches the 2017 result.

The **construction phase** was on time or better for 59% of projects, down from the record high of 67% seen in the 2017.

Time Predictability



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

Key Performance Indicators

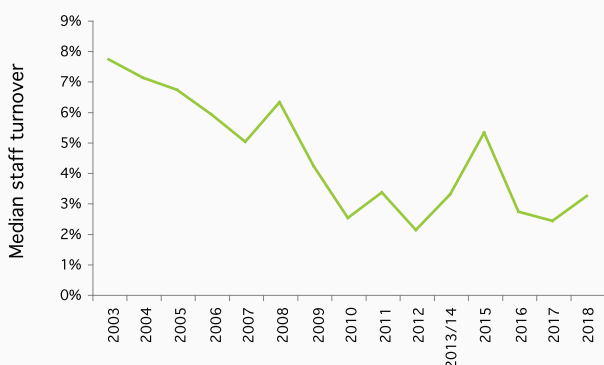
2018 (cont.)

Respect for People

Staff turnover rose to 3.2%. This is above the 2.6% seen in 2017 and 2.7% in 2016, although below the 5.3% in 2015. The faster rate of turnover may reflect an increase in hiring pressures as industry workload grew and there was reduced availability of overseas labour.

Whilst staff turnover has increased, the rate at which direct employees have been leaving firms has slowed last year. This follows two years of increased labour loss. The median firm lost 6.1% of their direct employees during the year surveyed; this was down from the low of 8.5% in the previous survey.

Median % staff turnover



The median firm provided 2.2 **training days** per employee in 2017, up from 1.3 days in the last survey and nearly twice the average 1.2 days recorded over the previous 10 years.

A median of 2.3 days was lost per employee per year to **sickness absence**, up sharply on the 1.3 days recorded in the 2017 survey.

On average 18% of employees were covered by Investors in People commitment & recognition.

The latest survey recorded a sharp decline in the proportion of employees qualified to NVQ Level 2 or higher; 32% of employees at the median firm were qualified to this level against 70% in the previous survey.

The latest survey recorded a sharp rise in the proportion of employees with CSCS cards: 86% of direct employees at the median company held a CSCS card compared to 42% in the 2017 survey.

Women accounted for 26% of the workforce in the median firm in the latest survey. This compares to 23% in the previous survey. 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, unchanged on the previous survey. Employees aged under 24 accounted for 2% of the workforce of the median firm, down from 7% in the previous survey. However, on average, under-24s accounted for 11% of a firms' employees, up from 8% in the 2017 survey.

Black and minority ethnic accounted for 5% 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

2018 (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.

After the progressive decline in the **Accident Incident Rate** in recent years, the overall AIR rate, at 399 accidents per 100,000 employees during the 2016/17 financial year, was little changed in the previous year.

Environmental

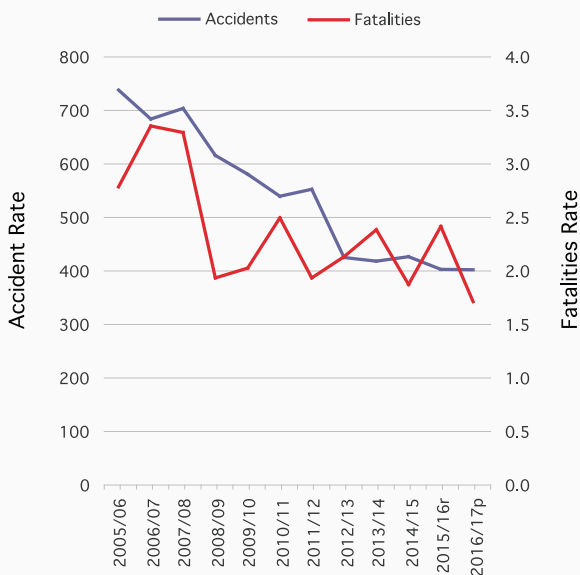
On-site energy usage rose in the 2018 survey. Median energy use, at 370.6kg CO2 per £100k of project value (2016 prices), was 14% higher than in the 2017 survey. The rise may in part reflect changes in the mix of projects completed during the year, with an increase in the proportion of more energy intensive new build projects.

The KPI for median **waste removed** from sites rose in 2018. On average 18.4 m3 of waste was removed from site per 100k project value (in 20156 prices). This was 2% up from 18.0 in 2017, partially reversing the decline in waste seen in the previous survey.

Mains water use edged higher, up 2% on the usage recorded in previous survey. There has been a progressive rise in mains water usage in recent surveys. In real terms (2016 prices), at 18.4 m3 / £100k project value water usage is 56% up on the record low recorded in 2014, but still below the levels seen prior to 2010.

Median **commercial vehicle movements** fell 13% to 14.7 per £100,000 of project value (2016 prices).

Accidents & Fatalities



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

Encouragingly the fatality rate fell during 2016/17 to a new low of 1.7 per 100,000 employees.

Key Performance Indicators

2018 (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 90% against 84% in the previous survey. This builds on the improvement in customer satisfaction seen in the previous two surveys and is a new peak level.

Satisfaction with **service** received rose sharply in the latest survey, with 86% giving a rating of 8 out of 10 or more, compared to 68% in the previous survey.

Clients' satisfaction with the impact of **defects** at handover rose, with 68% scoring 8 out of 10. This compares with 56% in the 2017 survey.

The overall **cost predictability** of housing projects was unchanged with 61% of projects being to budget or better. Predictability of design cost and construction were similarly unchanged with 60% of respondents seeing their design come in to cost or better, and 65% reporting that the construction phase had been to budget or better.

The **time predictability** of projects was unchanged with 63% of projects delivered to time or better. The time predictability of the design stage slipped slightly, with 53% reporting that design was completed to time or earlier compared to 54% in the previous survey. The time predictability of the construction phase of projects improved, with 69% completed to time or earlier up from 67% in the previous survey.

Non-Housing

Non-residential clients' satisfaction remains high.

87% of clients of non-housing projects rated their satisfaction with their overall project as 8 out of 10 or higher. Satisfaction with respect to **defects** has also improved, with the proportion of clients rating their impact as 8 out of 10, rising 7 percentage points to 84%. Satisfaction with **service** was unchanged on last year, with 75% rating service as 8 out of 10.

The overall **cost predictability** of projects improved, with 76% of non-residential projects completed to budget; against 74% in 2016.

Design cost predictability improved slightly with 74% completed to budget or better. The predictability of construction costs improved for a third consecutive year, with 74% of projects being to cost or better.

Time predictability has deteriorated with only 57% of projects completed on time, down from 59% in the previous survey. The design phase was also weaker with 56% of projects completed on schedule, against 57% of projects in the previous survey. Similarly, at the construction phase, 52% of projects were completed on time compared to 58% of schemes in the previous survey.

Key Performance Indicators

2018 *(cont.)*

Consultants

Clients' overall satisfaction with their consultants has weakened. The proportion of clients rating their consultants' overall performance at 8 or better out of 10 slipped from 79% in the 2017 survey to 75%.

Clients' perception of value for money was unchanged with 72% rating this aspect as 8 or higher out of 10. Satisfaction with service improved with 76% rating service as 8 out of 10 or higher, compared with 74% in the previous survey. Satisfaction with the timely delivery was down slightly with 76% 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	2018	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%	87%	▼	▲
Client Satisfaction - Service	% scoring 8/10 or better	71%	74%	77%	79%	75%	77%	84%	82%	80%	75%	75%	73%	77%	81%	77%	▼	▲
Client Satisfaction - Value for Money	% scoring 8/10 or better	73%	74%	79%	80%	75%	75%	82%	77%	81%	78%	75%	74%	76%	80%	73%	▼	▶
Contractor Satisfaction - Performance - Overall	% scoring 8/10 or better	64%	65%	63%	62%	62%	62%	64%	69%	69%	75%	74%	69%	74%	77%	71%	▼	▲
Contractor Satisfaction - Provision of Information - Overall	% scoring 8/10 or better	57%	59%	58%	56%	56%	56%	59%	63%	64%	73%	69%	69%	73%	76%	70%	▼	▲
Contractor Satisfaction - Payment - Overall	% scoring 8/10 or better	67%	66%	65%	65%	63%	63%	67%	71%	77%	80%	79%	81%	79%	85%	80%	▼	▲
Defects - Impact at Handover	% scoring 8/10 or better	68%	68%	72%	77%	73%	73%	77%	75%	68%	74%	71%	73%	73%	78%	82%	▲	▲
Predictability Cost - Project	% on cost or better	52%	50%	48%	45%	46%	49%	48%	52%	63%	61%	69%	69%	68%	65%	66%	▲	▲
Predictability Cost - Design	% on cost or better	65%	62%	63%	66%	64%	65%	61%	67%	79%	79%	79%	75%	70%	67%	67%	▶	▲
Predictability Cost - Construction	% on cost or better	52%	49%	48%	44%	49%	48%	46%	47%	59%	58%	57%	56%	64%	65%	66%	▲	▲
Predictability Time - Project	% on time or better	44%	44%	46%	44%	58%	45%	45%	43%	45%	34%	45%	40%	41%	66%	63%	▼	▲
Predictability Time - Design	% on time or better	53%	55%	52%	57%	58%	58%	53%	69%	51%	48%	52%	53%	48%	53%	53%	▶	▶
Predictability Time - Construction	% on time or better	59%	60%	62%	60%	65%	58%	59%	57%	60%	42%	57%	48%	55%	67%	59%	▼	▶
Profitability	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%	2.8%	▲	▲
Productivity (VAPE Current Values)	Median value added/ FTE employee (£000)	31.1	32.6	34.2	38.2	42	45.5	46.2	49.5	58.5	60.0	63.8	66.0	68.2	68.2	71.8	▲	▲
Productivity (VAPE Constant 2016 Values) ¹	Median value added/ FTE employee (£000)	46.8	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	70.3	▲	▲

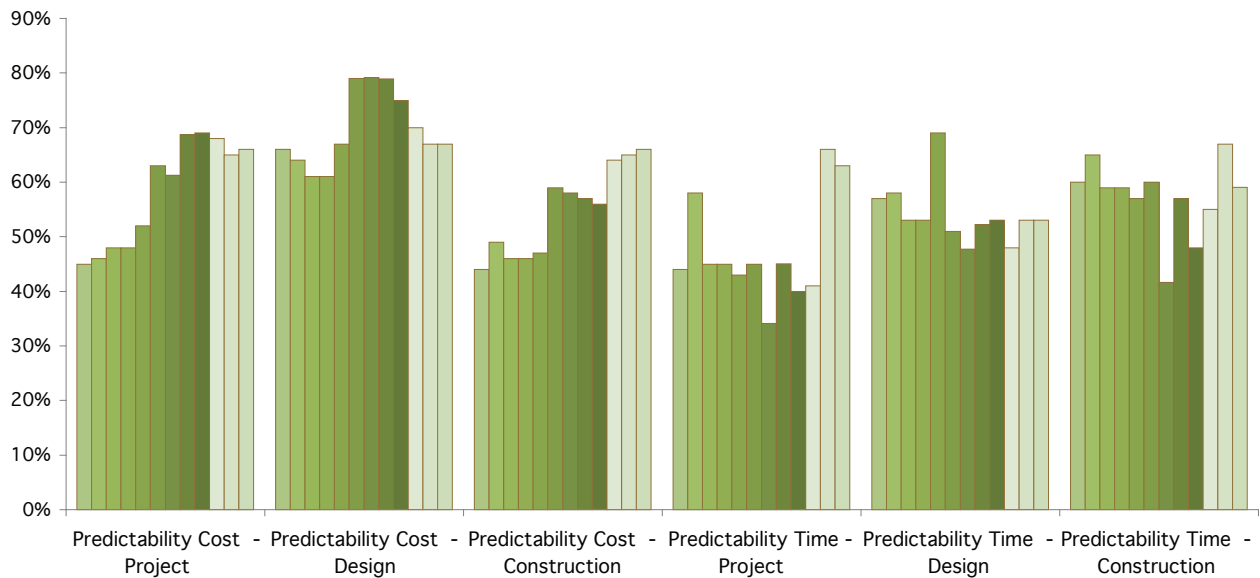
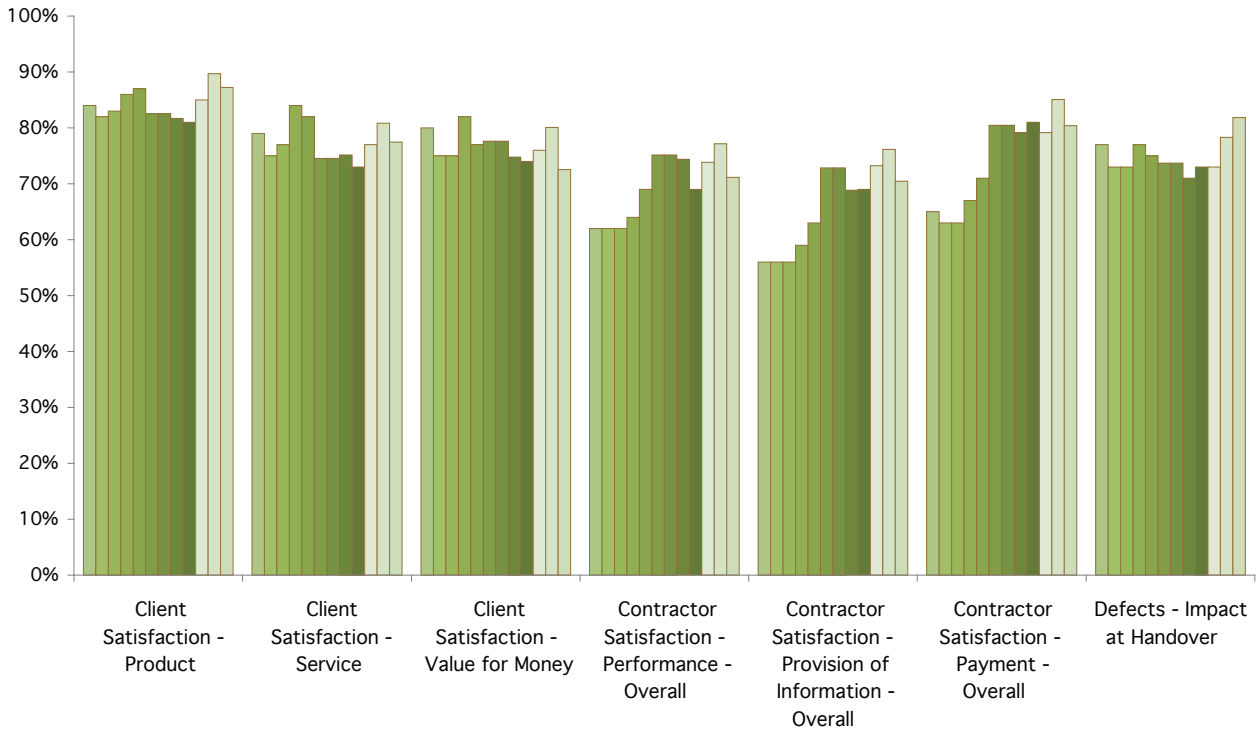
¹ Current values are deflated by the "All Construction Output Price Index" to arrive at constant values.

Economic KPIs - All Construction

Year-on-Year Comparisons (cont.)



2006 2007 2008 2009 2010 2011 2012 2013/14 2015 2016 2017 2018

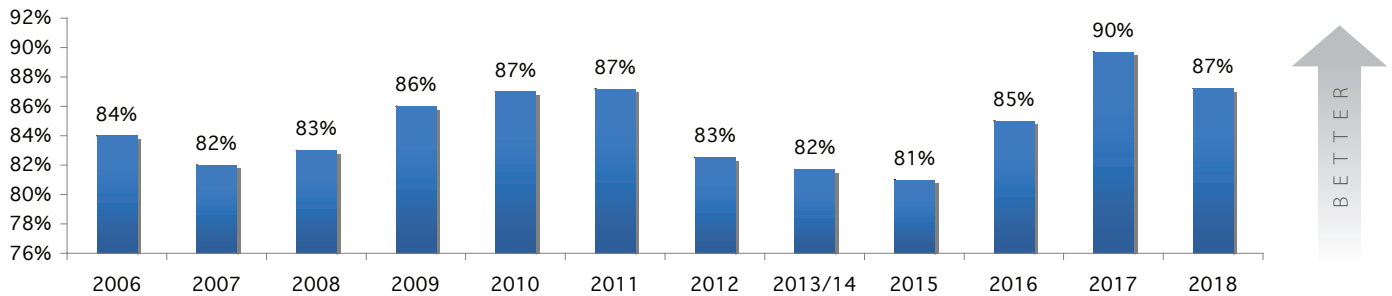


Economic KPIs - All Construction

Individual KPI Trends



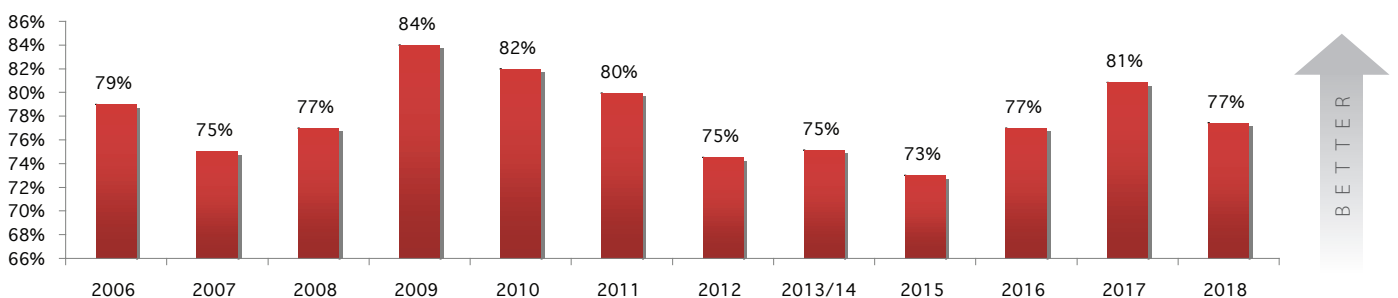
Client Satisfaction - Product



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.

Client satisfaction remains at a high level despite the KPI slipping back from the all-time high of 90% in 2017.

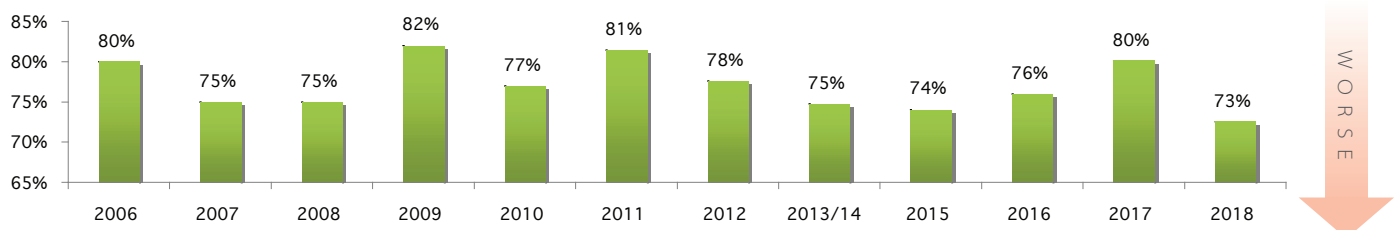
Client Satisfaction - Service



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 with service fell back to 77% in 2018. The KPI matches the 2016 result and is ahead of the weak performance recorded between 2012 and 2015.

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.

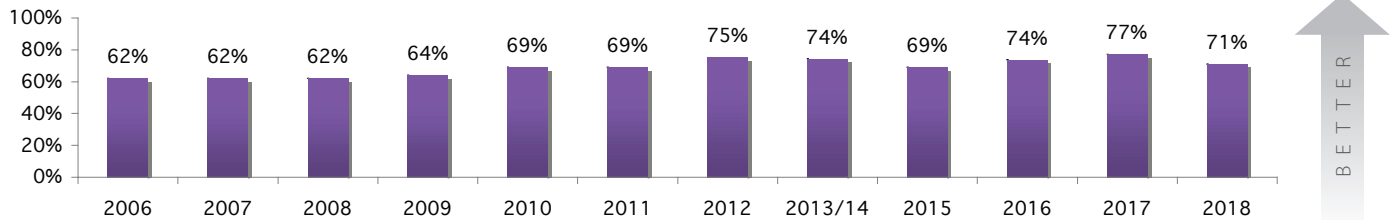
In 2018, 73% of projects scored 8 out of 10 or better, reversing the rising trend seen in the previous two surveys.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



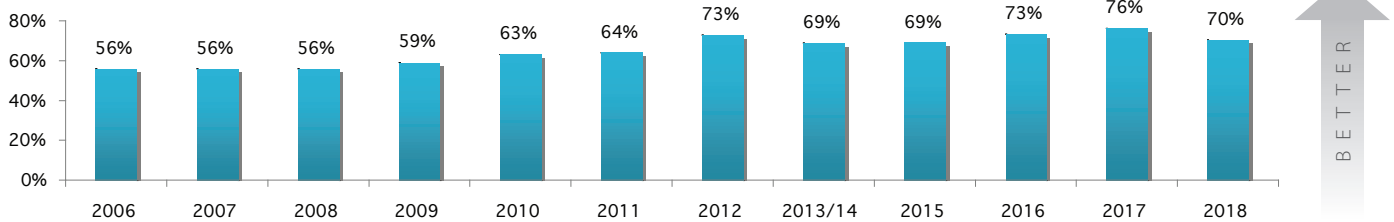
Contractor Satisfaction - Performance - Overall



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 falter, reversing most of the improvement seen in the preceding two years.

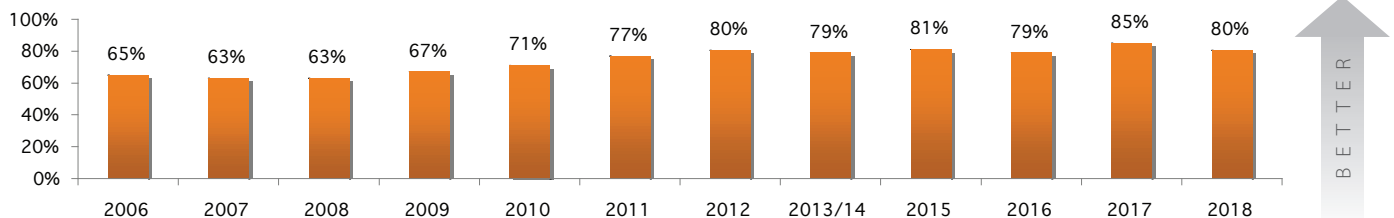
Contractor Satisfaction - Provision of Information



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 fallen. The score of 70% is close to the levels seen in 2015 & 2016, but still firmly ahead of the pre-2012 survey results.

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.

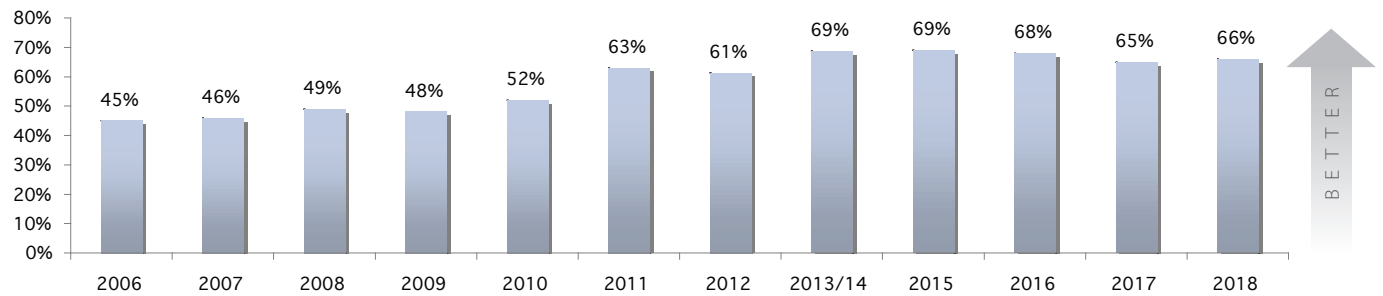
The last year has seen contractors' rating of clients' payment performance slip to 80% from the new survey high of 85% seen in 2015.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



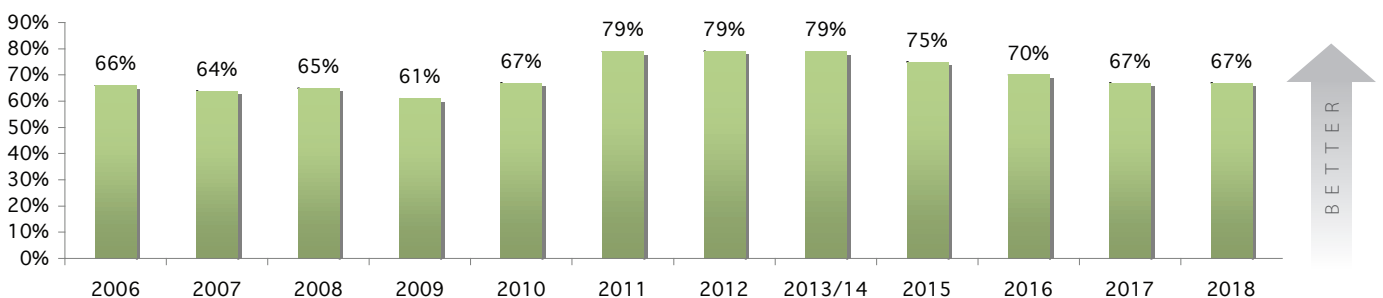
Predictability Cost - Project



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 improved slightly to 66%, having slipped back over the last two surveys from the all-time high set in 2015.

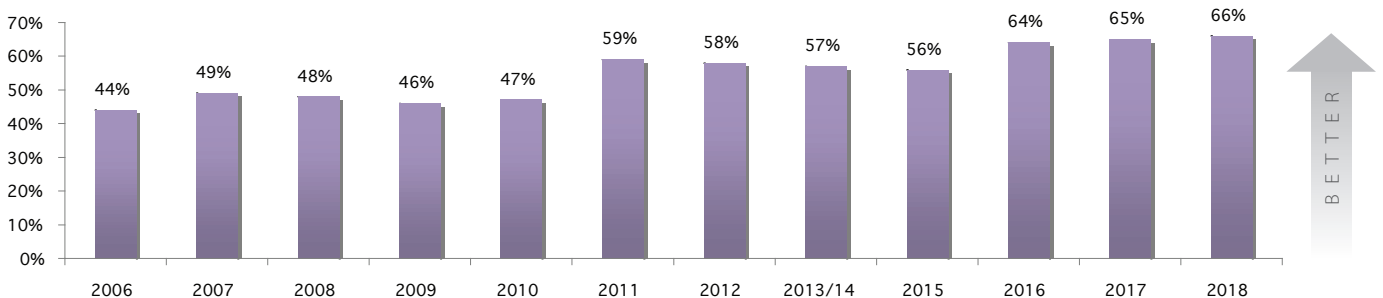
Predictability Cost - Design



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 was unchanged on 2017 at 67%.

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.

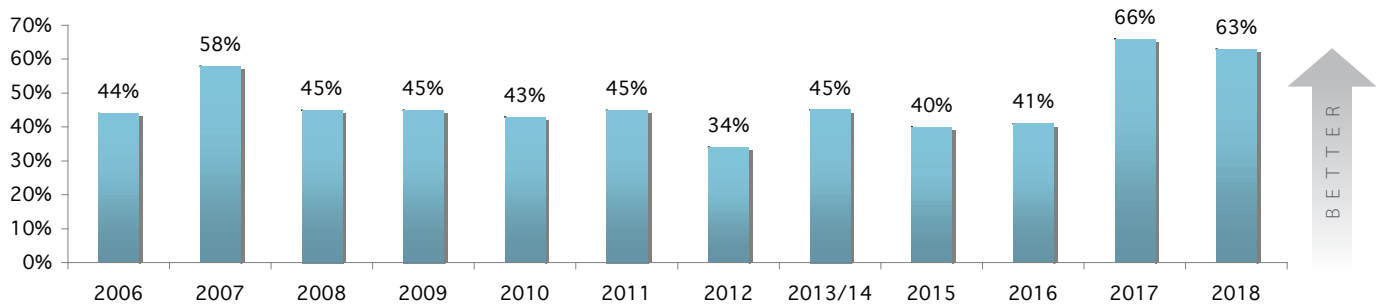
This KPI has increased slightly in 2018 to a new survey high of 66%.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



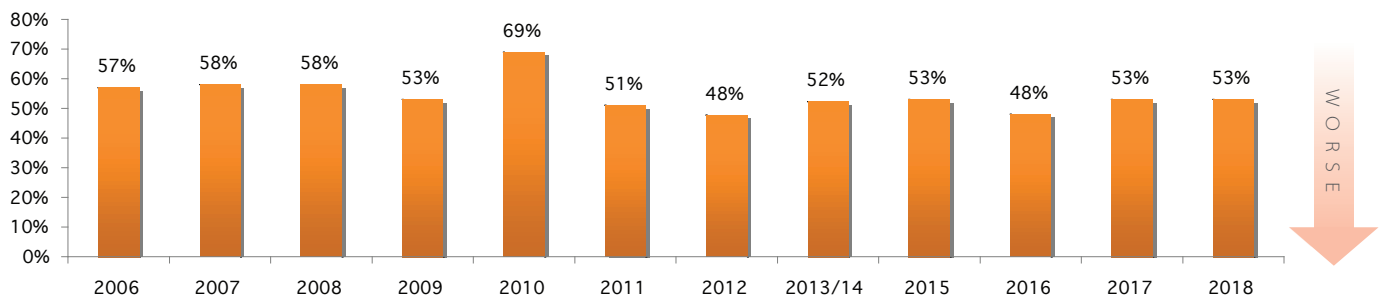
Predictability Time - Project



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 63% of the time. This is slightly down on the record high set in 2017.

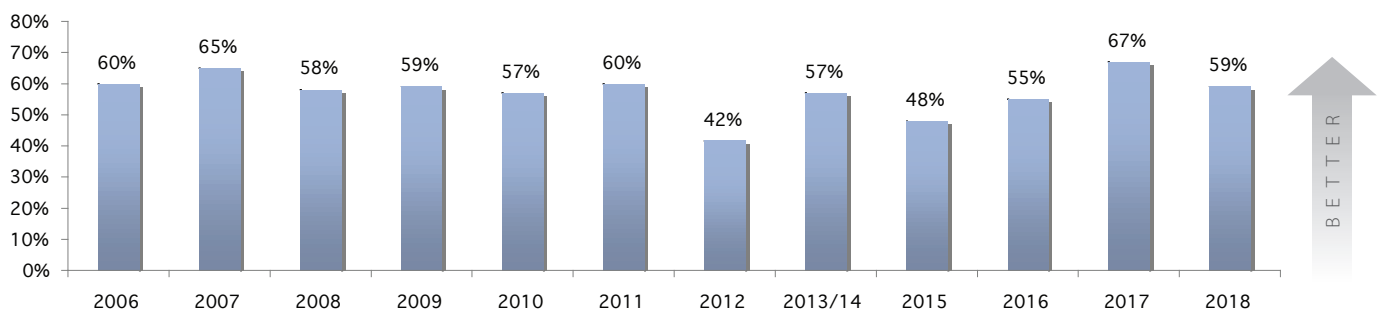
Predictability Time - Design



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.

At 53% the KPI was unchanged on the 2017 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 slipped back in 2018, after two years of strong improvement, but remains on an improving long-term trend.

Economic KPIs - All Construction

Individual KPI Trends (cont.)



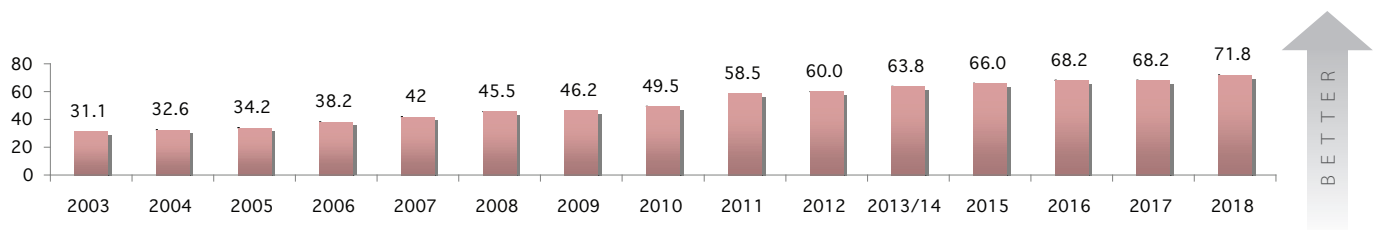
Profitability - Return on Sales (ROS)



Since 2012 the data has been collected directly from surveyed companies. In previous years data on profit before interest and tax (PBIT) had 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.

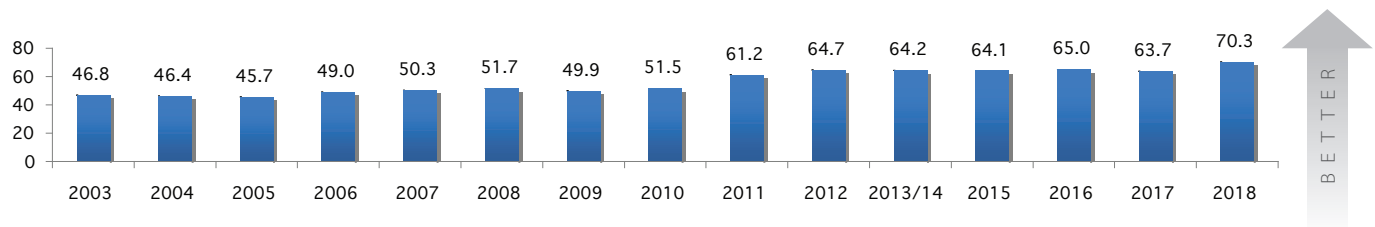
The 2018 survey recorded a small improvement in profitability, with the median rising to 2.8

Productivity - Value Added Per Employee (VAPE) Current Values



Productivity rose sharply in 2018, suggesting businesses were making more efficient use of their workforces. This improvement follows a pause in productivity growth in 2017. In 2018 the median value added per employee was £71,800.

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.

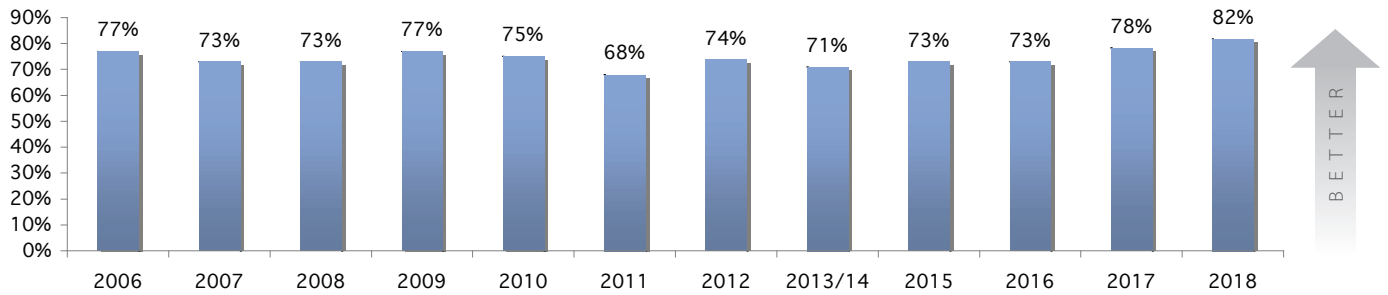
In 2018 value added per employee (adjusted) was £70,300, a 10.4% increase on 2017. Although welcome the increase follows a drop in productivity: Revisions to the ONS' implied output price deflator mean that the productivity fell 2.1% during the previous year.

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 KPI climbed four percentage points to a record high of 82% in 2018.

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	2018	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%	3.2%	▲	▼
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	1.1	2.3	▲	▲
Safety – Industry ¹	Mean accident incidence rate	1143	1162	1080	765	735	681	701	613	578	537	486	415	424	400	399	▼	▼
Working Hours	Median usual hours worked per week	41	41	40	40	40	40	40	40	40	40	40	40	40	39	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%	32%	▼	▼
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	2.2	▲	▲
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%	18%	▲	▶
Staff Loss	Median % direct employees who left employment	-	-	-	-	-	-	-	-	-	9.1%	7.7%	6.3%	7.0%	8.5%	6.1%	▼	▼
Construction Skills Certification Card	Median % direct employees that hold a CSCS	-	-	-	-	-	-	-	-	-	56%	61%	55%	75%	42%	86%	▲	▲
Make-up of Staff - Women	Median % women employed	-	-	-	-	-	-	-	-	-	15%	19%	13%	12%	23%	26%	▲	▲
	Mean % women employed	-	-	-	-	-	-	-	-	-	11%	12%	12%	12%	12%	12%	▶	▶
Make-up of Staff - People from BME	Median % people from black or minority ethnic backgrounds	-	-	-	-	-	-	-	-	-	0%	0%	0%	0%	0%	0%	▶	▶
	Mean % people from black or minority ethnic backgrounds	-	-	-	-	-	-	-	-	-	4%	3%	3%	4%	4%	5%	▲	▶
Make-up of Staff - Aged under 24	Median % people employed aged under 24	-	-	-	-	-	-	-	-	-	8%	7%	6%	5%	7%	2%	▼	▶
	Mean % people employed aged under 24	-	-	-	-	-	-	-	-	-	12%	10%	8%	8%	8%	11%	▲	▼
Make-up of Staff - Aged over 55	Median % people employed aged over 55	-	-	-	-	-	-	-	-	-	11%	10%	10%	10%	15%	15%	▶	▲
	Mean % people employed aged over 55	-	-	-	-	-	-	-	-	-	16%	12%	14%	17%	17%	17%	▶	▲
Make-up of Staff - Disabled People	Median % people employed who are disabled	-	-	-	-	-	-	-	-	-	0%	0%	0%	0%	0%	0%	▶	▶
	Mean % people employed who are disabled	-	-	-	-	-	-	-	-	-	1%	0.5%	0.3%	0.2%	0.3%	0.1%	▼	▼

- Data not available before first year shown

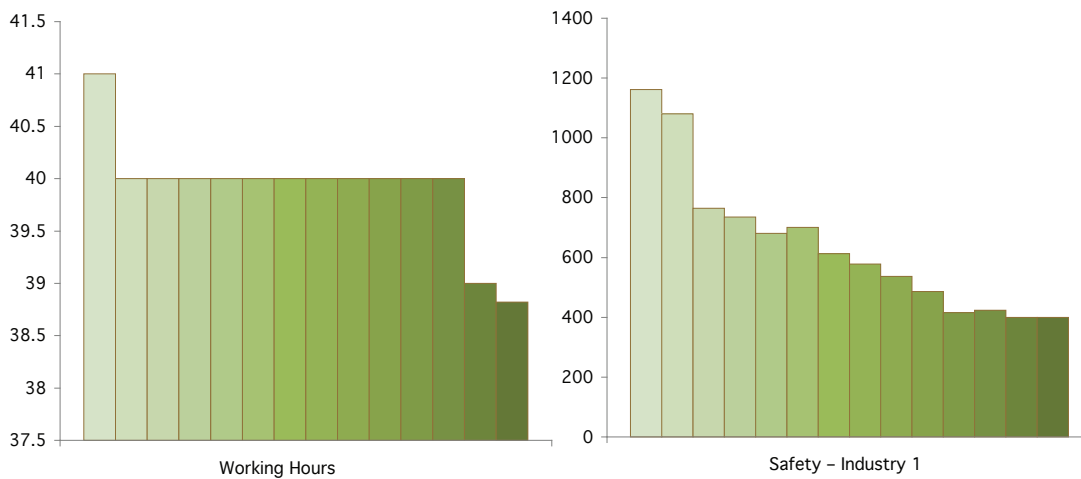
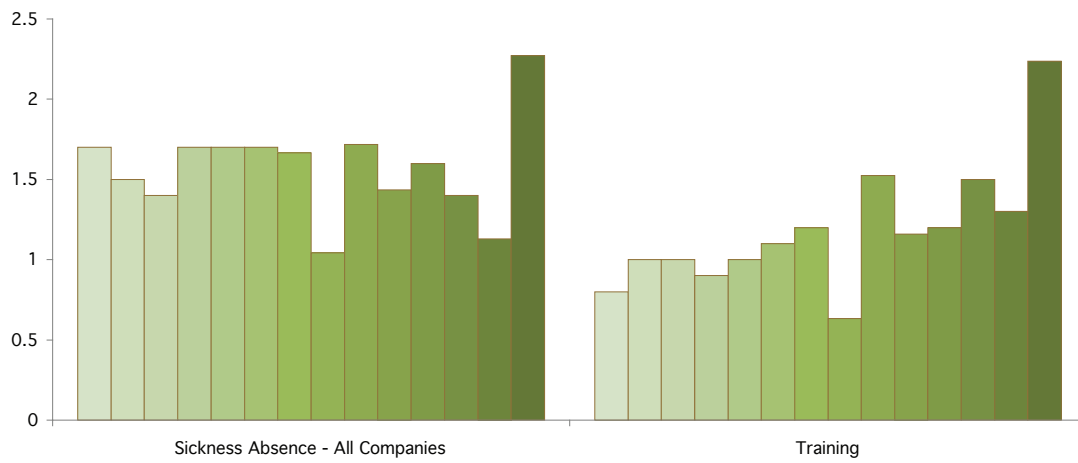
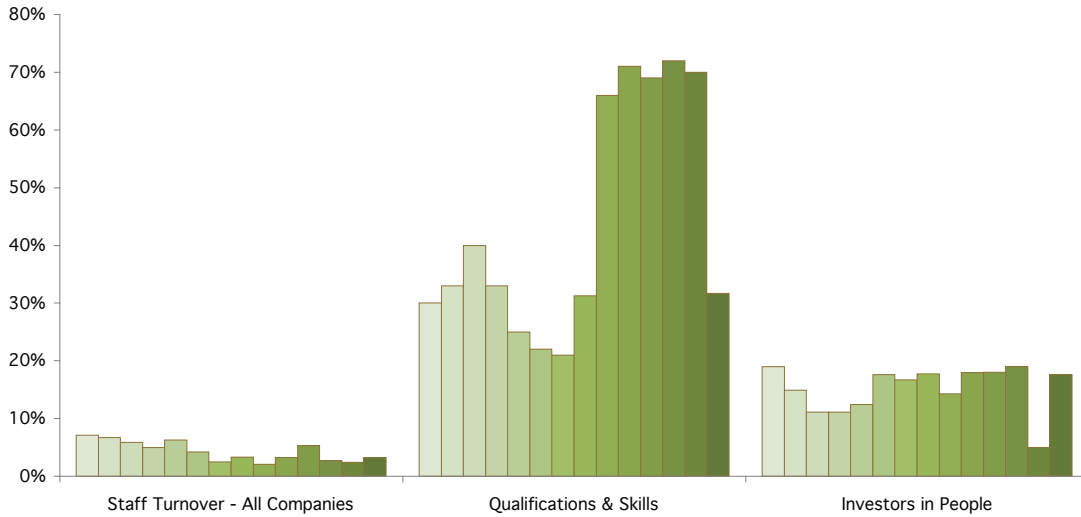
1 1 Based on "Rates of reported injury in Great Britain by main industrial classification" statistics published by the Health and Safety Executive

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 2018



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	2018	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	363.0	▲	▲	
Energy Use (Constant 2016 Values) ⁵	Median energy use kg CO2 / £100k project value	434	458	219	229	228	169	223	240	255	176	201	194	243.2	326.2	370.6	▲	▲	
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	5.8	▶	▼	
Mains Water Use (Constant 2016 Values) ⁵	Median water use m3 / £100k project value	11.3	13.8	6.1	6.9	6.8	6.2	5.8	6.1	4.7	6.2	3.8	4.0	5.2	5.8	5.9	▲	▼	
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	18.0	▶	▼	
Waste (Constant 2016 Values) ⁵		65.5	67.0	31.1	28.9	32.6	32.5	33.9	33.8	25.5	17.4	21.2	21.0	18.8	18.0	18.4	▲	▼	
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	14.4	▼	▼	
Commercial vehicle movements (Constant 2016 Values) ⁵	Median movements onto site / £100k project value	66.3	49.1	22.0	23.7	24.5	23.3	26.2	22.2	18.9	14.4	10.5	19.5	16.4	16.8	14.7	▼	▼	

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.

6 Insufficient data to publish a result in 2018. The 2007 result used for 2018.

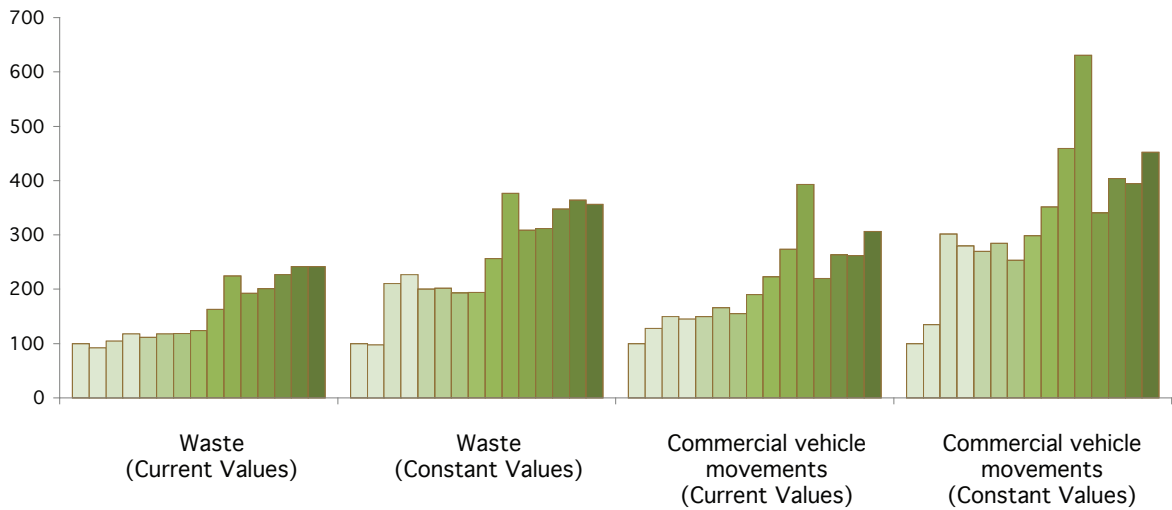
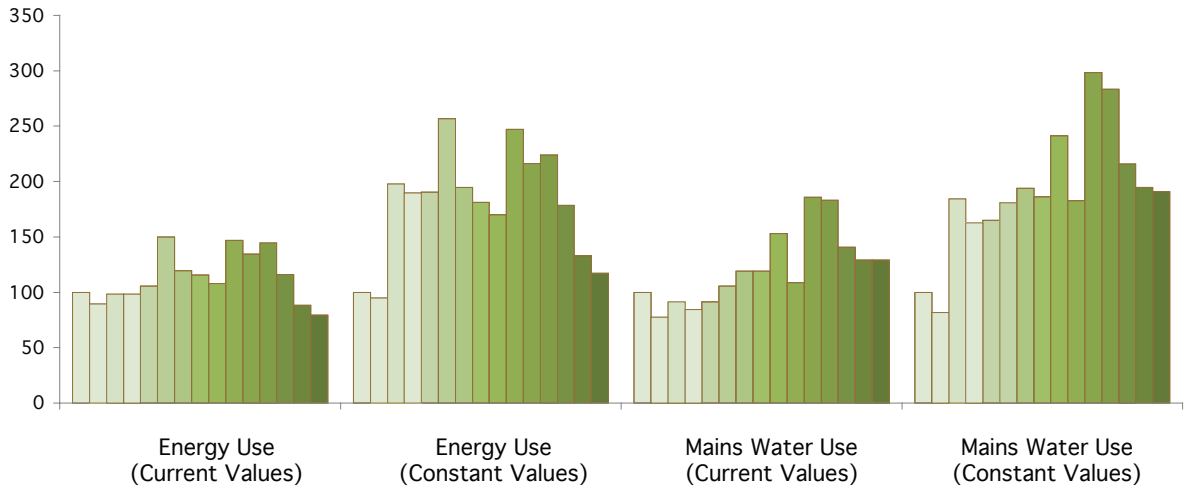
Environment KPIs - All Construction

Year-on-Year Comparisons (cont.)



Supported by **BRE SMARTWASTE**

Legend: 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013/14, 2015, 2016, 2017, 2018



Economic KPIs - All Housing

Year-on-Year Comparisons



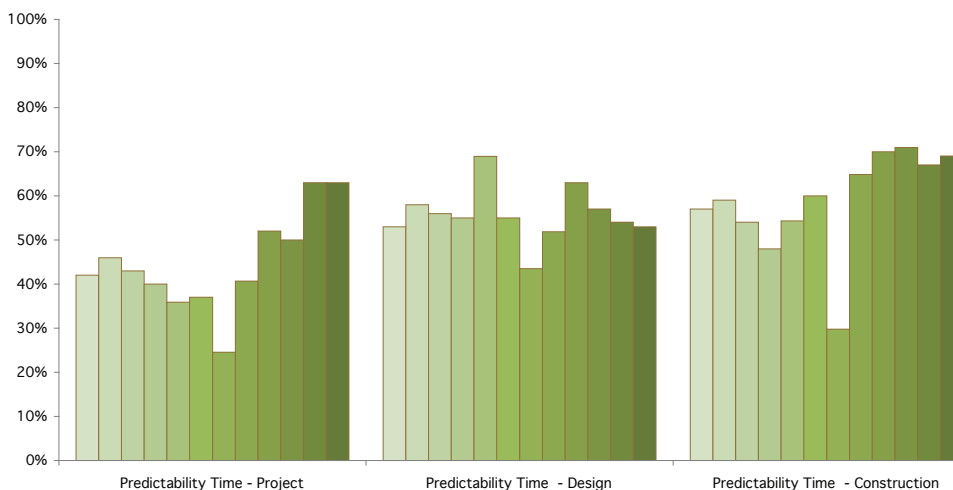
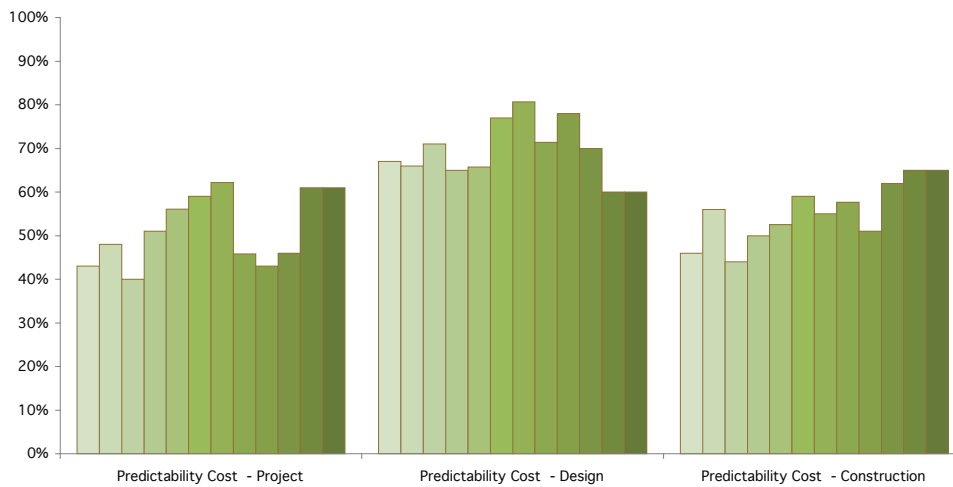
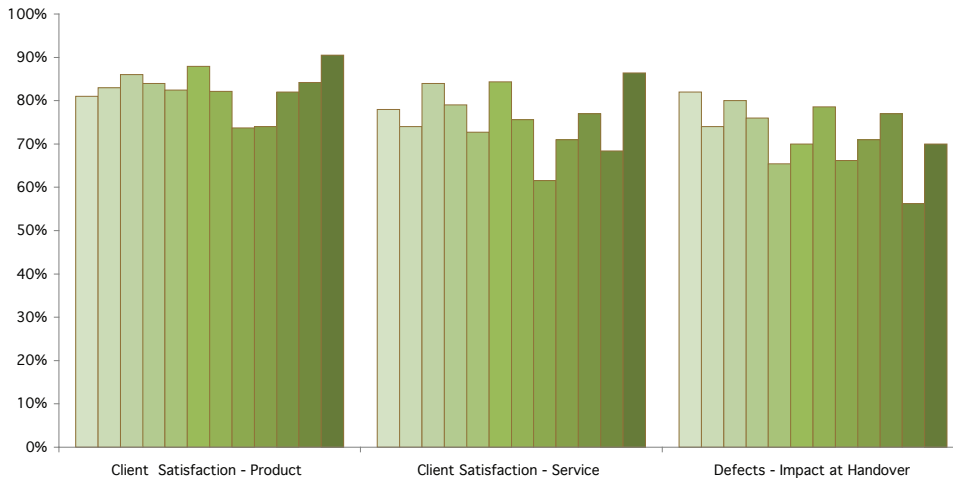
KPI	Measure	Performance															Trend	
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	2018	Last Year	Last 10 Years
Client Satisfaction - Product	% scoring 8/10 or better	81%	86%	87%	81%	83%	86%	84%	82%	88%	82%	74%	74%	82%	84%	90%	▲	▲
Client Satisfaction - Service	% scoring 8/10 or better	74%	80%	80%	78%	74%	84%	79%	73%	84%	76%	62%	71%	77%	68%	86%	▲	▲
Defects - Impact at Handover	% scoring 8/10 or better	73%	78%	78%	82%	74%	80%	76%	65%	70%	79%	66%	71%	77%	56%	70%	▲	▲
Predictability Cost - Project	% on cost or better	49%	60%	45%	43%	48%	40%	51%	56%	59%	62%	46%	43%	46%	61%	61%	▶	▲
Predictability Cost - Design	% on cost or better	66%	66%	67%	67%	66%	71%	65%	66%	77%	81%	71%	78%	70%	60%	60%	▶	▲
Predictability Cost - Construction	% on cost or better	48%	56%	49%	46%	56%	44%	50%	53%	59%	55%	58%	51%	62%	65%	65%	▶	▲
Predictability Time - Project	% on time or better	46%	49%	44%	42%	46%	43%	40%	36%	37%	25%	41%	52%	50%	63%	63%	▶	▲
Predictability Time - Design	% on time or better	51%	55%	51%	53%	58%	56%	55%	69%	55%	44%	52%	63%	57%	54%	53%	▼	▶
Predictability Time - Construction	% on time or better	62%	62%	56%	57%	59%	54%	48%	54%	60%	30%	65%	70%	71%	67%	69%	▲	▲

Economic KPIs - All Housing

Year-on-Year Comparisons (cont.)



■ 2006
 ■ 2007
 ■ 2008
 ■ 2009
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 ■ 2012
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Economic KPIs - All Non-Housing

Year-on-Year Comparisons



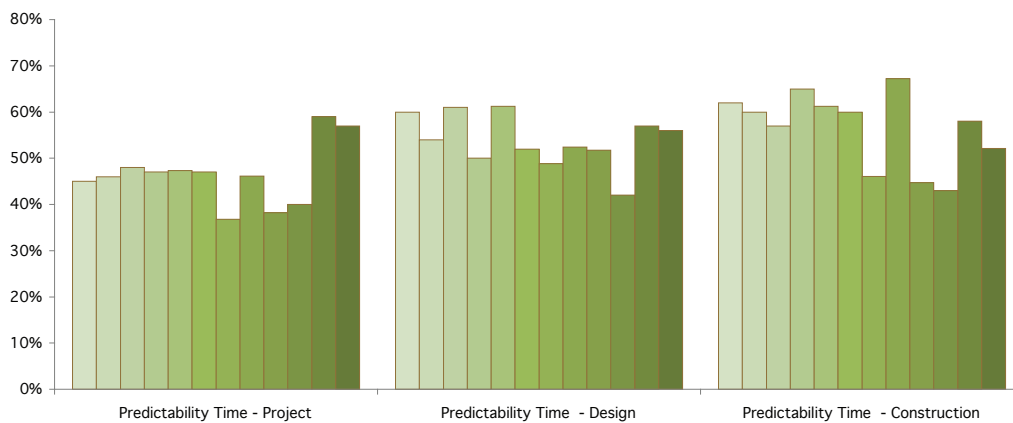
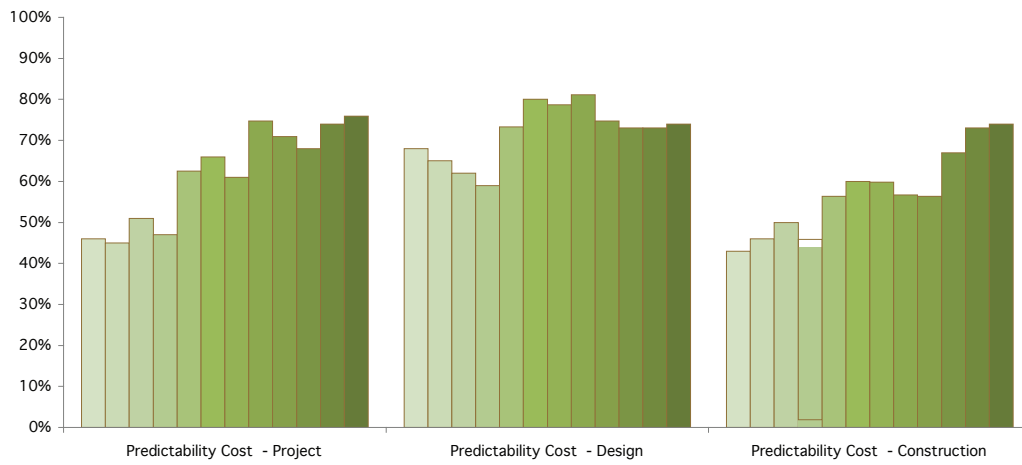
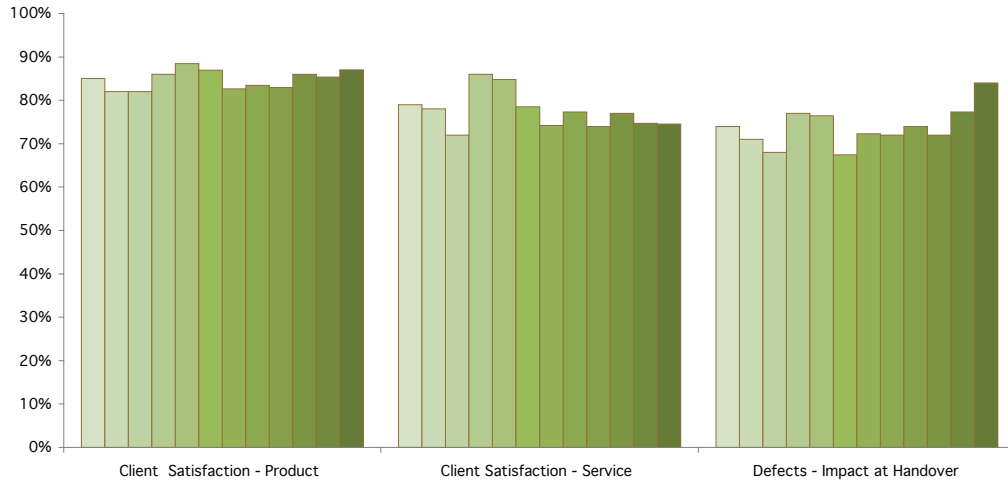
KPI	Measure	Performance															Trend	
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013/14	2015	2016	2017	2018	Last Year	Last 10 Years
Client Satisfaction - Product	% scoring 8/10 or better	76%	77%	81%	85%	82%	82%	86%	88%	87%	83%	83%	86%	85%	87%	▲	▲	
Client Satisfaction - Service	% scoring 8/10 or better	70%	73%	75%	79%	78%	72%	86%	85%	78%	74%	77%	74%	77%	75%	75%	▶	▶
Defects - Impact at Handover	% scoring 8/10 or better	64%	60%	66%	74%	71%	68%	77%	76%	67%	72%	72%	74%	72%	84%	▲	▲	
Predictability Cost - Project	% on cost or better	54%	50%	48%	46%	45%	51%	47%	63%	66%	61%	75%	71%	68%	74%	76%	▲	▲
Predictability Cost - Design	% on cost or better	66%	63%	63%	68%	65%	62%	59%	73%	80%	79%	81%	75%	73%	74%	▲	▲	
Predictability Cost - Construction	% on cost or better	52%	48%	47%	43%	46%	50%	44%	56%	60%	60%	57%	56%	67%	73%	74%	▲	▲
Predictability Time - Project	% on time or better	46%	41%	46%	45%	46%	48%	47%	47%	47%	37%	46%	38%	40%	59%	57%	▼	▲
Predictability Time - Design	% on time or better	57%	60%	54%	60%	54%	61%	50%	61%	52%	49%	52%	52%	42%	57%	56%	▼	▲
Predictability Time - Construction	% on time or better	59%	59%	65%	62%	60%	57%	65%	61%	60%	46%	67%	45%	43%	58%	52%	▼	▲

Economic KPIs - All Non-Housing

Year-on-Year Comparisons (cont.)



■ 2006
 ■ 2007
 ■ 2008
 ■ 2009
 ■ 2010
 ■ 2011
 ■ 2012
 ■ 2013/14
 ■ 2015
 ■ 2016
 ■ 2017
 ■ 2018



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	2018	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%	75%	▲	▲
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%	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%	76%	▼	▲
Client Satisfaction-Timely Delivery	% scoring 8/10 or better	41%	38%	42%	36%	38%	44%	45%	45%	72%	72%	75%	72%	70%	77%	77%	76%	▶	▲

■ 2006
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 ■ 2017
 ■ 2018



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

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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

SMARTWASTE

delivered by bre

SmartWaste

Environmental site monitoring and reporting software.



SmartWaste can be used across a supply chain, with organisations inputting site data relevant to them, for the client or principal contractor to report and analyse, giving the vital information to identify trends and areas of improvement across your environmental management.

SmartWaste will help you:



Improve records access - Control access to company and project information easily with secure multiuser access levels, 24/7 (where reliable internet access is available).



Save time and money - Cut costs through targeted and achievable reductions in resource use and waste. Save time by storing all of your project info, waste records and other evidence in one secure location for instant access whenever and wherever you are.



Enhance performance management - Use KPIs to track and compare real-time project performance across multiple-impact areas. Allow users to measure other site impacts.



Reduce environmental impact - Reduce environmental impacts on your projects by cutting waste, improving site management, and reducing energy, water, materials and transport use

Smartwaste capabilities

SmartSite's suite of capabilities assists you to reach your company objectives and goals across a 360 degree approach to business best practice.

These capabilities are:

- Waste Management
- Water Management
- Energy Management
- Transport Management
- Materials Management
- Incidents, complaints and visits
- Ecological management.



SmartSite KPIs Performance measurement and productivity software

SmartSite KPIs is an online tool that lets you benchmark the performance of your projects against the rest of the construction industry using the established and nationally recognised Constructing Excellence construction KPIs

- Use established KPIs - The Constructing Excellence set of construction KPIs have been used for 20 years, and are recognised by government and industry
- Improve productivity - Systematically improve your performance by measuring business

SMARTSITE

delivered by **bre**

www.breSmartSite.com

SmartSite KPIs

Performance measurement and productivity software



SmartSite KPIs has been developed in collaboration with Constructing Excellence under the strategic direction of its cross-industry membership.



What is it?

SmartSite KPIs is an online tool that lets you benchmark the performance of your projects against the rest of the construction industry using the established and nationally recognised Constructing Excellence construction KPIs.

By measuring and comparing your project and organisational performance you can improve your productivity and demonstrate excellence.

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Why would it benefit me?

- **Use established KPIs** – The Constructing Excellence set of construction KPIs have been used for 20 years, and are recognised by government and industry
- **Improve productivity** - Systematically improve your performance by measuring business critical success factors and comparing with others
- **Demonstrate excellence** - Provide evidence that your projects and organisation perform highly when compared to the rest of the industry
- **Data Intelligence** – Benchmark performance data from your projects and organisation using a modern digital tool and a recognised methodology

Get in touch

For more information on BRE's SmartSite services go to:

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UK Industry Performance Report

Based on the UK Construction Industry
Key Performance Indicators

2018