7 July 2011



7 July 2011

Jon de Souza



7 July 2011

Allan Wilén



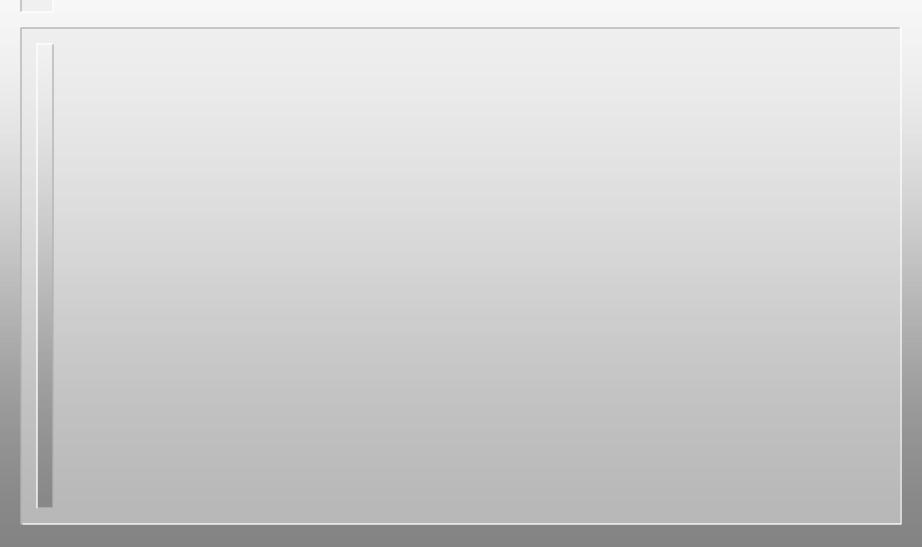


Lessons from the 2011 KPIs

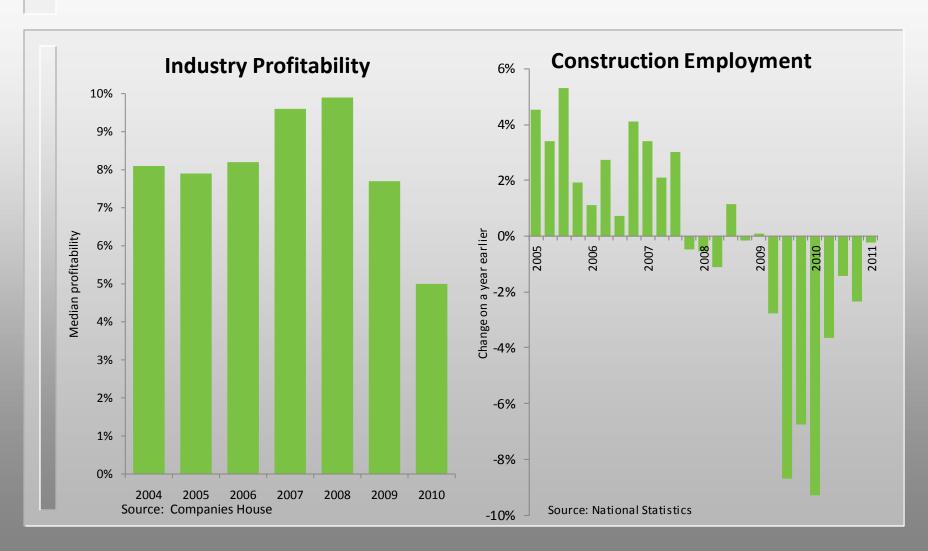
Allan Wilén Head of Business Market Intelligence

7th July 2011



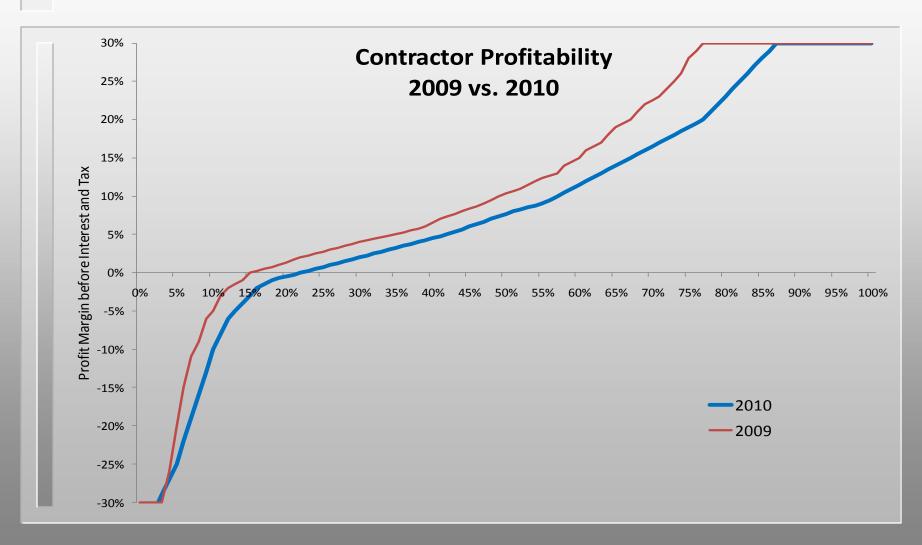


Cost base squeezed Genigan Constructing Insight



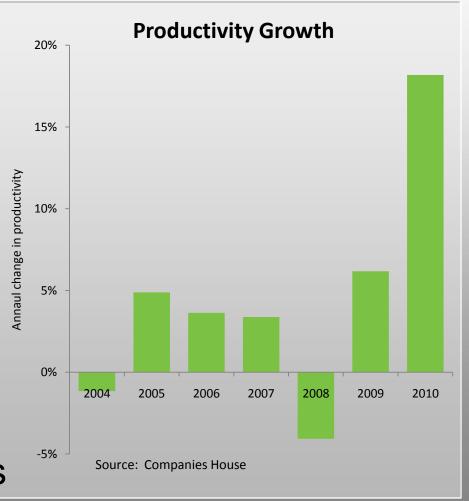
Contractor Profitability





Productivity Chimera Glenigan Constructing Insight

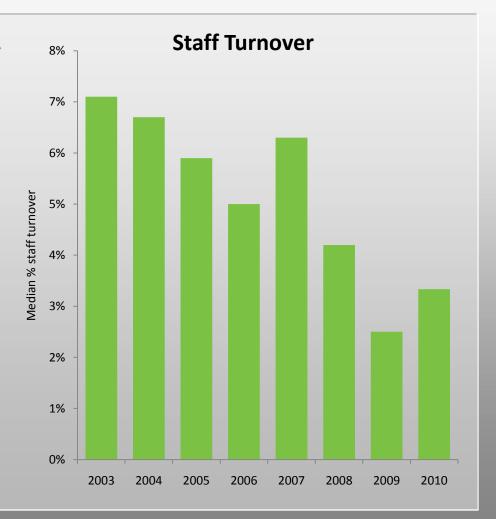
- Productivity jump
- Reversing earlier slowdown
- Impact of recession on
 - Staffing levels
 - Profit margins
- Masking underlying productivity changes

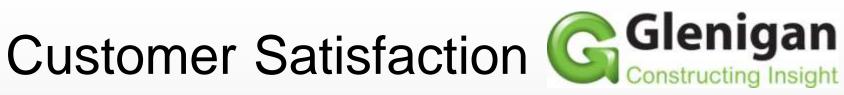


Respect for people



- Low staff turnover
- Training provision halved
- Investors in People
- Rise in skills base
- Accident rate unchanged

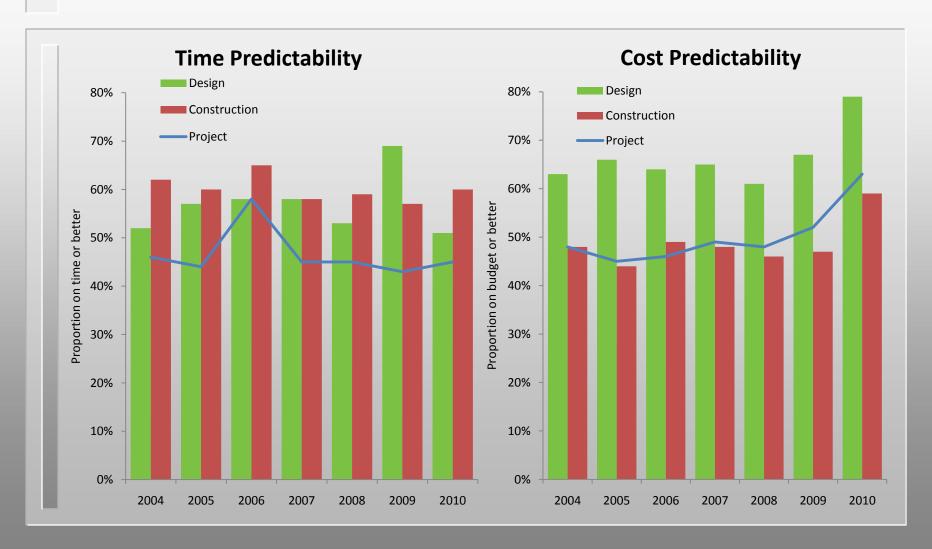






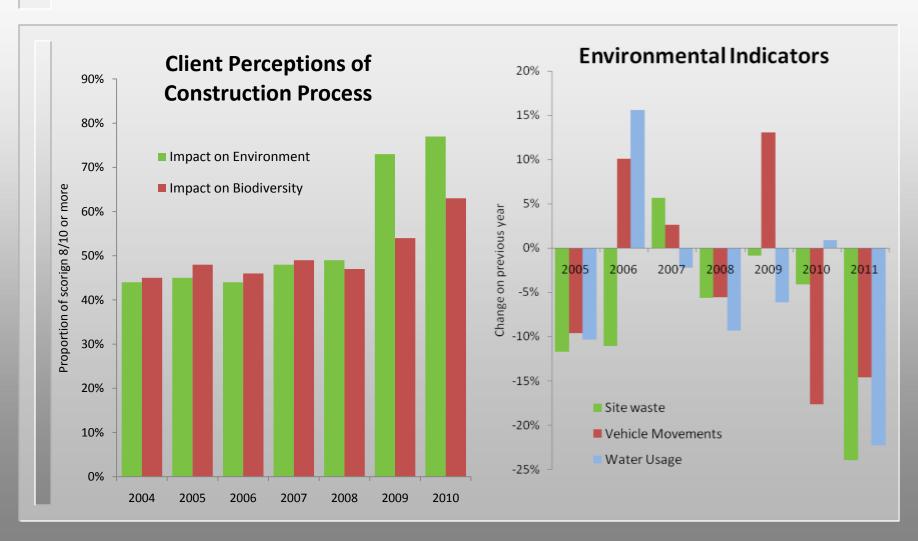
On time & to budget Glenigan Constructing Insight





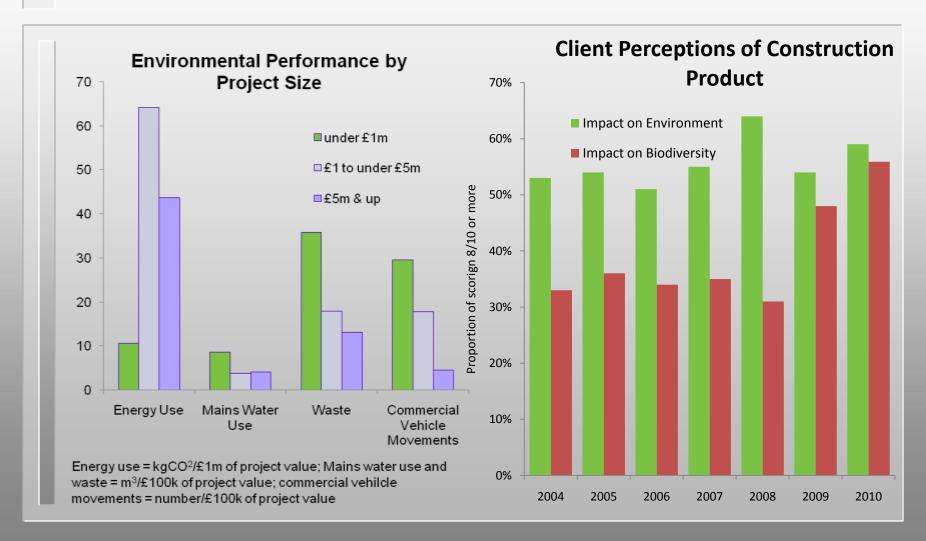
Environmental Perceptions and Performance Constructing Insight and Performance





Environmental Perceptions Glenigan and Performance Constructing Insight and Performance





Summary



- Recessionary spur to productivity
- Industry retrenchment
- Improved client satisfaction
- Working to retain capacity & skills base
- Threat of further capacity loss from renewed downturn
- Rising to environmental performances challenge

The KPI Review

7 July 2011

Jon de Souza



Our purpose is to

Improve industry performance

The outcome will be

A demonstrably better built environment



What we mean by Collaborative Working

Six key aspects of integration

- Client focussed KPIs
- Early involvement
- Selection by value
- Modern commercial arrangements
- Long-term relationships
- Common processes and tools



Background

- Constructing Excellence responsible for publication of KPIs since their inception
- Department for Business brought publication and data collection together in 2009 – CE and Glenigan appointed to take forward
- Appointed to June 2012 with funding diminishing to zero
- Full review of data collection methodology and the data collected and published carried out



Data collection methodology

Key changes

- Surveys now issued to all projects in Glenigan database
- Survey issued within a month of a project completing on site
- Surveys now issued electronically rather than on paper
- Separation of project and organisational surveys



Data collection methodology

What this has meant

- Surveys issued to more projects has brought in more responses
- Ability to provide more granular reporting of data
 - By project size
 - By region
 - By sector
 - By procurement route
- Smoother experience for the industry



Why?

- Aware that there had been parts of industry were not using the indicators as they were not fit for purpose
- Lack of alignment with other measurement regimes
- Danger of industry measuring lots of different things in lots of different ways – no ability to map trends or properly benchmark



What we did

Brought together a steering group from industry:

Richard Saxon CBE
 Consultancy for the Built Environment

Michael BennettHighways Agency

David BentleyGlenigan

Rob DavisGlenigan

Nick Edwards Construction News

Keith FolwellBIS

Scott Mclew NSCC

Andrew Quirke
 City West Housing Trust

Andrew Thomas
 Centre for Construction Innovation

Jane Thornback
 Construction Products Association

Charles Tincknell Willmott Dixon

Allan WilénGlenigan

Jon de Souza
 Constructing Excellence

Results

- Reintroduced product manufacturer KPIs and widened M&E measures to all sub-contractors
- Changed methods of measurement to convert as many as possible from being subjective to objective
- Introduced a small number of new measures
- Removed indicators not valued by the sector



New KPIs – Waste to Landfill

- To go alongside existing waste produced KPI
- % material diverted from landfill
- Both indicators now can be filtered for just:
 - Demolition
 - Construction
 - Both



New KPIs – Responsible Sourcing

- Part of Strategy for Sustainable Construction Strategy
- % of material used secured under schemes that are recognised for responsible sourcing



New KPIs – Organisational Carbon Performance

- To assist companies in their reporting against the Global Reporting Initiative
- Measures of:
 - Carbon emissions from corporate travel
 - Emissions from corporate offices



New KPIs – Project Safety

- Company safety KPI already exists
- Project-based Accident Incidence Rate (reportable accidents per 100,000 man hours)



New KPIs – Apprentices

- Many in the sector had already requested a KPI be developed to measure use of apprentices
- Apprentice days x £100,000 project spend



New KPIs – Staff Leaving Organisation

 To work alongside existing 'Staff Turnover' measure which calculates churn



New data for comparison – BREEAM, Code for Sustainable Homes, BIM

- Three new positional questions to enable more opportunities for performance comparison
 - What BREEAM level did the project achieve?
 - What Code level did the project achieve?
 - Do you think that the project used Building Information Modelling?



Amended KPIs – Energy Use on Site

- Existing KPI was being tweaked by individual contractors and so no benchmarking possible. Developed in partnership with Strategic Forum for Construction
- New measure in line with ENCORD protocol and Global Reporting Initiative. Download new protocol from here: http://bit.ly/poOZ7Y



Amended KPIs – Equality and Diversity

- Replaces existing subjective measure of project performance as rated by client. Developed in partnership with EHRC.
- Now objective measures of level of employment and level of senior representation within businesses across the following underrepresented groups in our sector:
 - Women
 - Black and minority ethnic people
 - Disabled people
 - Those aged 25 and under
 - Those aged 55 and over



Removed KPIs

- Range of indicators not valued or used by the sector
 - Actual project cost
 - Actual project time
 - Subjective biodiversity indicator
 - Subjective general environmental indicators
 - Selection of questions that did not contribute to KPIs!



What comes next?

- Post-project review indicators (surveys sent two years after completion)
 - Actual outturn cost
 - Predictability of energy use
 - Predictability of water use
 - Predictability of operational and maintenance costs
 - Level of post-project capital cost requirement
- Local labour KPI
- International comparison
- Anything else?



7 July 2011

Tea / coffee



7 July 2011

Richard James



Willmott Dixon Environmental KPIs





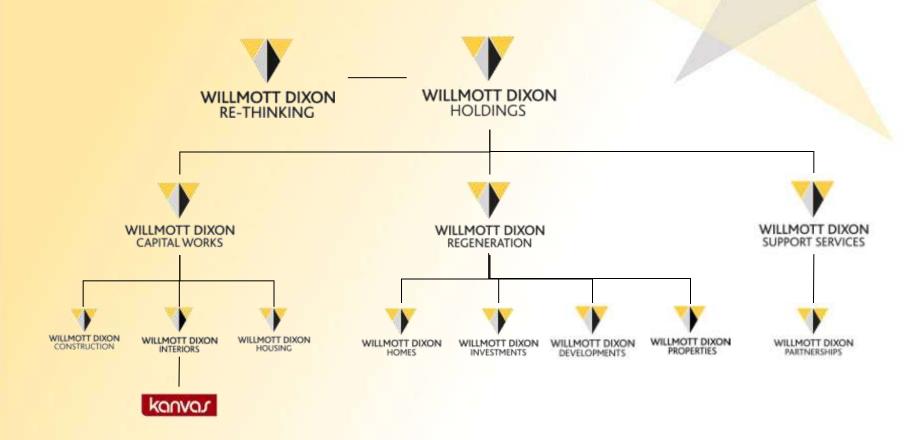


Richard James
Senior Consultant
Willmott Dixon Re-Thinking

7th July 2011



Willmott Dixon Group



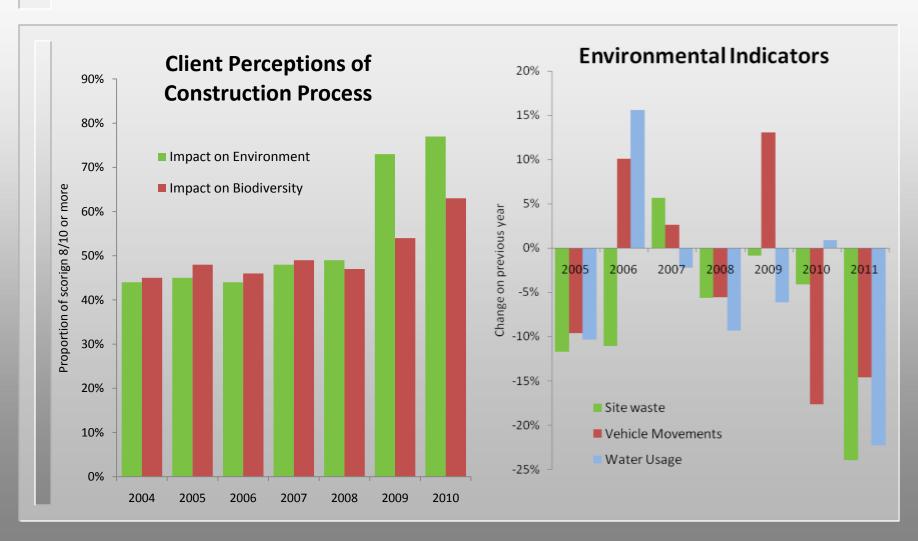
Structure

- » Introduction
 - Willmott Dixon and Re-Thinking
- » Willmott Dixon & Environmental KPIs
 - History of WD data collection
 - ▼ Why?
 - Where we've come from
 - What we've achieved
 - Challenges, Solutions & Benefits
- » Where next?



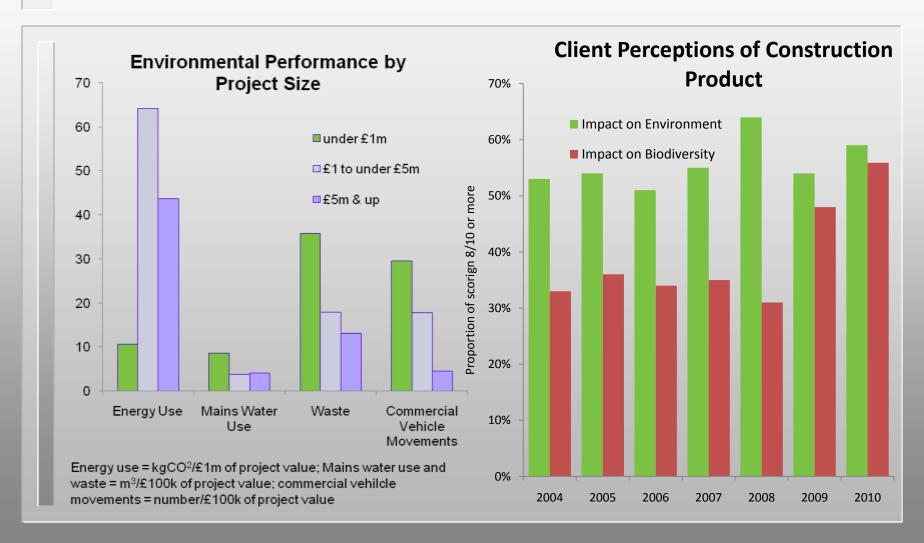
Environmental Perceptions and Performance Constructing Insight and Performance





Environmental Perceptions Glenigan and Performance Constructing Insight and Performance





Introduction

- » Environmental KPIs collected on Construction projects since July 2005
- » The KPIs we collect:
 - Construction Process KPIs
 - Impact on Environment
 - Impact on Biodiversity
 - Energy Use
 - Water
 - Waste
 - Others as necessary (e.g. Commercial Vehicle Movements)
- » Monthly data collection & reporting
- » Initial target 60% CE benchmark performance scores (i.e. better than average)

All Projects



The beginning... (July 2005)

» Why begin to collect Environmental KPIs?

- Environmental Management System
 - Requirement to measure, benchmark, target & report
 - Six month benchmarking exercise
 - ISO 14001 Certification achieved Jan 2006

▼ BREEAM

- 'Construction site impacts' credits
 - 1. Monitor, report and set targets for CO₂ or energy arising from site activities
 - 2. Monitor, report and set targets for water consumption arising from site activities
 - 3. Monitor construction waste on site
- Along with other EMS procedures gained maximum available credits
- Constructing Excellence KPIs specifically referenced
- Employer's requirements
 - Increased client focus on project environmental impact



The early days... (2006-07)

Embedding Environmental KPI processes within the business

» Challenges

- Increasing focus on Environmental data collection
 - Seen as additional 'administrative burden' for site teams
- Improving accuracy of data collection
 - Inconsistent scores

» Solutions

- Report as part of monthly Commercial procedures
- Reported at regional & divisional Board level alongside Financial, H&S and Quality data
- Include in H&S Inspection regime internal fines & prohibition notices for non-compliance

» Benefits

- Better understanding of the business
 - No two projects are alike!



Improving performance... (2008-09)

» Challenges

- Additional data requirements
 - SWMP Regulations source activity, waste streams, destination etc.
- Growing business
 - 2006 report 44 projects; 2011 report 144 projects
- Benchmark performance
 - Energy Use & Waste still outside average benchmark performance

» Solutions & Benefits

- ▼ Improved, multi-layered Environmental KPI reporting
- Initiated discussions with CE and other major contracting organisations to review benchmarks
 - CE open to discussion & review
 - Sample exercise showed CE data to be accurate!
- ▼ Increased CE KPI scope & depth
 - Waste to landfill



Dynamic business... (2010-11)

» Challenges

- Advanced data requirements
 - 'Quick wins' achieved
 - Drill down into Environmental KPI impact areas

Restructure

- Coordinating consistent KPI collection across new structure
- ▼ 180 projects ~100,000 raw data points

» Solutions & Benefits

- Separate items under Willmott Dixon direct control
 - Continue to influence all impact areas on-site
- Online data reporting system
 - Increased data interrogation
 - Reinforce audit trail



What next...

- » Continue to collect, improve and expand Environmental KPI data
 - Better understanding of our business and impacts
 - Automated data collection for real-time reporting
 - Remote energy monitoring
 - Electronic waste transfer notes
- Continue positive discussions with CE to review scope and depth of benchmarks
 - Energy Use:
 - ▼ Electric / diesel / gas
 - Site accommodation / construction site activities
 - Metrics:
 - m² floor area/project footprint
 - construction activity turnover





Thank you!

richard.james@willmottdixon.co.uk

www.willmottdixon.co.uk



2011 KPI Launch

7 July 2011

Mike Cornelius



2011 KPI Launch

7 July 2011

Vicky Hutchinson



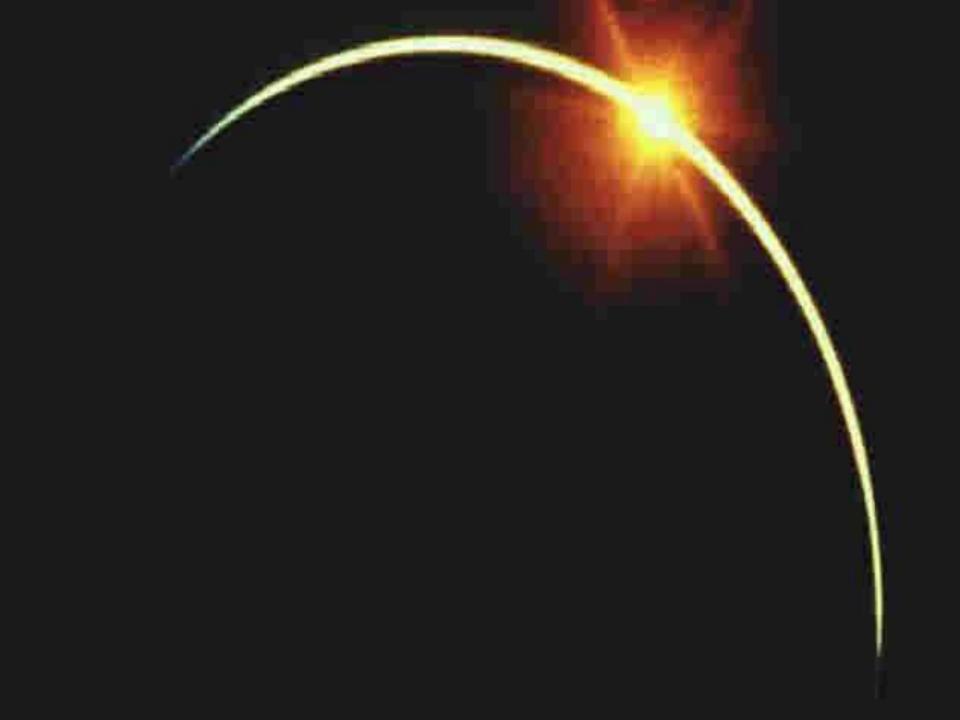
Dr Vicky Hutchinson

How to measure your performance
7 July 2011









are you INSPIRED?





Want to do some measurement but not sure where to start?





Got some KPI data but not sure what happens to it?



Gather KPI data but want to drive more value from it?







Want to do some measurement but not sure where to start?







Absolute Beginners: Client Satisfaction

Client Satisfaction - Service - Questionnaire

Based on a score of 1 - 10

9 -10	Completely Satisfied
7 - 8	Mostly Satisfied
5 - 6	Neither Satisfied Nor Dissatisfied
3 - 4	Mostly dissatisfied
1 - 2	Completely dissatisfied

Number	Question	Score (1-10)
1	How satisfied were you with the overall service provided by the main contractor?	
2	How satisfied were you with the contractor's response to requested information?	
3	How satisfied were you with the effectiveness of the contractors communication?	
4	How satisfied were you with the ability of the contractors to work as a team?	
5	How satisfied were you with the overall management on site by the contractor?	
6	How satisfied were you with the contractor's flexibility to changes in the project schedule?	
7	How satisfied were you with the contractor's management of public relations	
8	How would you rate the contractor's willingness to "go the extra mile"?	

by	
Please return this completed questionnaire to :	
Date :	
Organisation :	
Name :	









Indicator Search

Key Performance Indicator (KPI) Groups

♪ SPIs

Login KPIs



Legacy Data

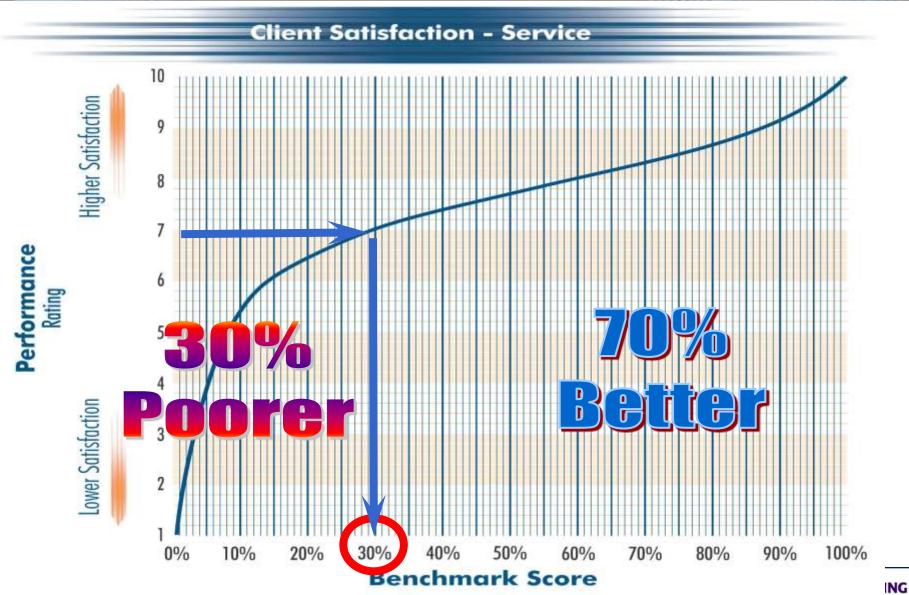
Choose the KPI Group by clicking on the relevant sector picture. This will take you to the KPI records for that group.







Calculating KPIs - Benchmarking





Good to start with

- Time & cost predictability
- Client satisfaction with product & service
- Health & Safety
- · Waste from site or...

Consultant

- Client Satisfaction-Value for Money
- Client Satisfaction-Quality of Service
- Client Satisfaction-Timely Delivery





Moving on to...

- Water use
- Energy use
- Waste to landfill

Or even

- Fair payments
- Local employment
- SME spend











Got some KPI data but not sure what happens to it?







ojects over £12,000									
RIBA Stages								Stages - A	i, B, C.
Project Name	Address / Town	Description	Job Runner	CCC Officer	Order Number	Commission Number	CCC - Commit to Invest Date	Joint (Agreed) Programme Date	Pre- contract Meeting (A)
nerset House	WHITEHAVEN	Light Fitting Replacement Phase 2	DMcQ	RC	200013P	0809 OV0039	31/03/2008	02/08/2008	02/08/2008
tehaven School	WHITEHAVEN	Gas pipework installation	EP	BR	030278P	0809 BR0002	31/03/2008	23/02/2007	23/02/2007
y CE School	WIGTON	Repipe Heating System and Radiators	EP	RC	120080P	0809 OV0005	21/12/2007	14/07/2008	14/07/2008
ton Infant School	WIGTON	Repl Boilers Cont and Pumps	EP	RC	150174P	0809 OV0014	21/12/2007	15/07/2008	15/07/2008
Lakes School	Windermere	Replace DHW Pipework Phase 2 - Block A	AB	RC	160122P	0809 OV0015	21/12/2007	06/03/2008	06/03/2008
kstone Primary School	WORKINGTON	Footbridge	MW	BD	430191P	0809 MO0153	07/01/2009	17/11/2008	17/11/2008
ary	WORKINGTON	Complete External Redecoration	MD	RC	410227P	0809 OV0052	06/08/2008	23/10/2008	23/10/2008
nburn School	WORKINGTON	Replace Heating Installation Block D	EP	RC	150172P	0809 OV0016	21/12/2007	18/02/2008	18/02/2008
inburn School	WORKINGTON	Replace Boiler/Calorifier/Controls - Blk D	EP	BR	,	0910 OV0025	22/01/2009	tbc	tbc
inburn School	WORKINGTON	Replacement Gas Pipe Phase 1	EP	RC	430115P	0809 BR0040	20/01/2009	21/01/2009	21/01/2009
inburn School	WORKINGTON	Replacement Gas Pipe Phase 2	EP	RC	,	0910 BR0001	03/02/2009	tbc	tbc
kington Library	WORKINGTON	Replace Flat Roof	MD	RC	410228P	0809 OV0040	31/03/2008	23/10/2008	23/10/2008



		(1) CI SATISE	LIENT ACTION	(2) QUALITY		(3) COST PREDICTABILITY					
Consultant Team	Project Name	Product	Service	Defects		Design		Construction			
					Estimate	Estimate Actual Variance (%)			Actual	Variance (%)	
Α	Antrim	8	7	10	£500,000.00	£520,000.00	4.00	£5,250,000.00	£5,150,000.00	-1.90	
Α	Lisburn	7	7	8	£300,000.00	£290,000.00	-3.33	£3,000,000.00	£3,100,000.00	3.33	
Α	Enniskillen	5	8	8	£200,000.00	£200,000.00	0.00	£2,750,000.00	£2,850,000.00	3.64	
В	Ballymena	9	9	9	£150,000.00	£120,000.00	-20.00	£2,000,000.00	£2,250,000.00	12.50	
В	Newcastle	8	9	7	£200,000.00	£145,000.00	-27.50	£3,000,000.00	£3,150,000.00	5.00	
В	Cookstown	9	8	8	£100,000.00	£80,000.00	-20.00	£1,000,000.00	£930,000.00	-7.00	
С	Carrickfergus	7	7	8	£150,000.00	£120,000.00	-20.00	£3,000,000.00	£3,250,000.00	8.33	
С	Belfast	9	7	9	£320,000.00	£340,000.00	6.25	£4,000,000.00	£4,250,000.00	6.25	
С	Portadown	10	9	10	£70,000.00	£75,000.00	7.14	£1,000,000.00	£1,250,000.00	25.00	
					£1,990,000.00	£1,890,000.00	-5.03	£25,000,000.00	£26,180,000.00	4.72	
					~ 1,000,000	21,000,000,00	0.00	220,000,000,000	223,100,000,00	7.12	





			(4) TIME PREDICTABILITY					(5) SAFETY				(6) ENVIRONMENTAL	
Consultant Team	Project Name	Design		Construction			Reportable Accidents	Directly Employed	Sub Cont. Employed	Duration of Projects	Product	Process	
		Estimate (months)	Actual (months)	Variance (%)	Estimate (weeks)	Actual (weeks)	Variance (%)	Number	Number	Number	Weeks		
Α	Antrim	6	7	16.67	76	78	2.63	1	32	13	78	9	8
Α	Lisburn	8	9	12.50	72	74	2.78	0	25	6	74	8	8
Α	Enniskillen	6	6	0.00	70	64	-8.57	0	22	8	64	8	8
В	Ballymena	6	5	-16.67	48	50	4.17	1	23	10	50	8	6
В	Newcastle	8	7	-12.50	54	56	3.70	2	25	20	56	8	6
В	Cookstown	5	5	0.00	42	40	-4.76	2	15	5	40	6	6
С	Carrickfergus	8	7	-12.50	52	58	11.54	1	25	10	58	5	8
С	Belfast	6	6	0.00	60	64	6.67	1	30	13	62	10	5
С	Portadown	5	5	0.00	36	38	5.56	1	15	8	38	Skipped	10





Reportable Accidents/Man Years)x 100,000 Note: A man year can be considered about 2,000 hours

Direct Man Hours	102564
Sub-contractor Man Hours	217222
Reportable Accidents	2

Number of Employees Replaced/Total Number Employees) x 100					
Total Staff	49				
Staff Left & Replaced	4				

((Actual Budget – Estimated Budget)/Estimated Budget)) x 100				
Estimated Budget	£1,400,000			
Actual Budget	£1,510,000			









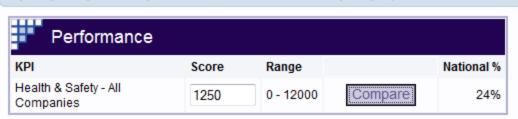




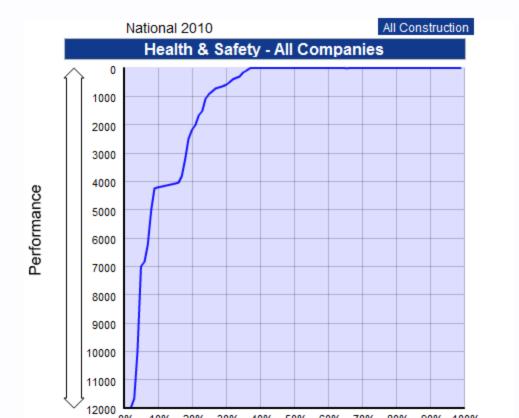
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Find Out More...





Description

Reportable accidents per 100,000 employed by the company per year - the Accident Incidence Rate (AIR).

Reportable accidents are defined by HSE as fatalities, major injuries, and over 3 day accidents to employees, self-employed & members of the public.

Purpose

To measure a companys safety performance. (For use by companies of any size).

Calculation

((Number of Reportable Accidents in the year)/(Full Time Equivalent Employee including Self-employed and Sub-Contractors))* 100.000...

Number of reportable accidents in the year Average number employed in the year

160

Calculate

Method Of Measurement

For use by companies of any size.

Collect the following data for the company for a complete year:

- · the number of reportable accidents. On a properly managed site, details of all accidents will be recorded in the accident book
- the average number employed by the company, including self-employed and sub-contractors.

Calculate the Safety performance using the formula:

Performance (AIR) safety = (Number of reportable accidents in the year

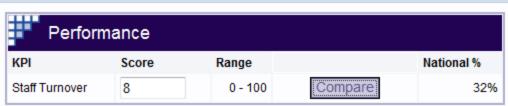




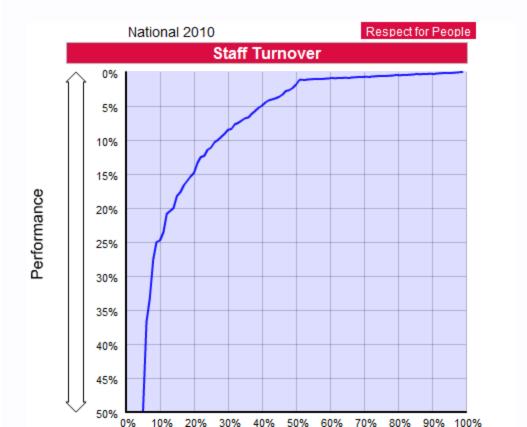
KPIzon



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Find Out More...



Staff Turnover

Description

The number of direct employees that have left and been replaced, expressed as a percentage of the average number of direct employees per year.

Purpose

To determine the rate of staff turnover (churn) among direct employees. (For use by companies of any size). A very high level of staff change has a significal impact on business performance.

Note: this KPI only applies to direct employees.

Calculation

(Number of direct employees who have left your employment and been replaced in the last year / Average number of direct employees in the last year 100...

Number of direct employees who have left and been replaced in the last year

Average number of direct employees in the last year

49

Calculate

Method Of Measurement

For use by companies of any size.

- 1 Collect the following data from your firm's records:
- the number of direct employees that have left your employment and bee replaced
- the average number of direct employees in the last year.
- 2 Calculate the performance using the formula:





KPIzon

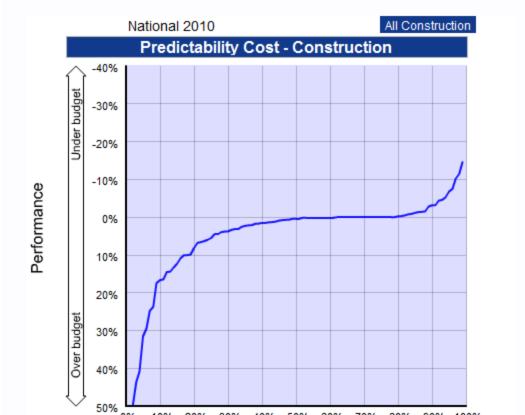
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Find Out More...



Predictability Cost - Construction

Description

Actual cost of the construction process at Available for Use (C) less the anticipated cost of the construction process at Commit to Construct (B), expressed as a percentage of the anticipated cost of the construction process at Commit to Construct (B).

Purpose

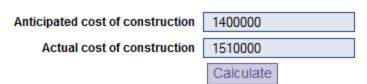
To measure the reliability of cost of the construction stage of a project.

Those wishing to achieve on cost delivery as opposed to cost savings should use the Variance Cost KPIs.

Calculation

((Actual construction cost at C - Anticipated construction cost at B) / Anticipated construction cost at B) x 100

•••



Method Of Measurement

- 1 Collect the following data for the project:
 - anticipated cost of construction at B
 - · actual cost of construction at C.

The anticipated construction cost should, where possible be the amount quotation/tender, agreed target cost or agreed maximum price.

The actual construction cost should, where possible be the amount of the this is not available the best available estimate should be used.





Compare



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Login KPIs SPIs Indicator Search Legacy Data

Performance

KPI Score Range National %

-100 - 100

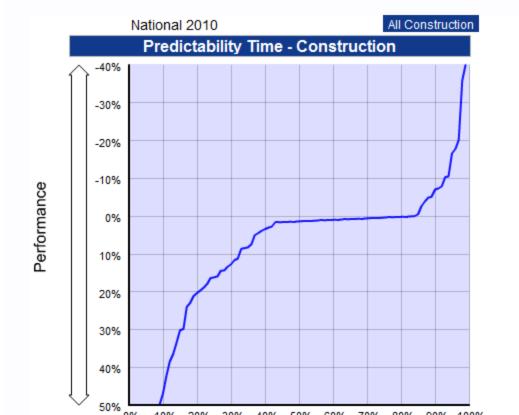
-5

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Predictability Time -

Construction



Predictability Time - Construction

Description

Actual duration of construction process at Available for Use (C) less anticipate duration of the construction process at Commit to Construct (B), expressed a a percentage of anticipated duration of the construction process at Commit to Construct (B).

Purpose

89%

To measure the reliability of time for the construction stage of a project.

Those wishing to achieve on time delivery as opposed to time savings should use the Variance Time KPIs.

Calculation

((Actual construction time at C - Anticipated construction time at B) / Anticipate construction time at B) x 100...

Anticipated construction time 22

Actual construction time 21

Calculate

Method Of Measurement

- 1 Collect the following data for the project:
- · anticipated duration of construction at B
- actual duration of construction at C.

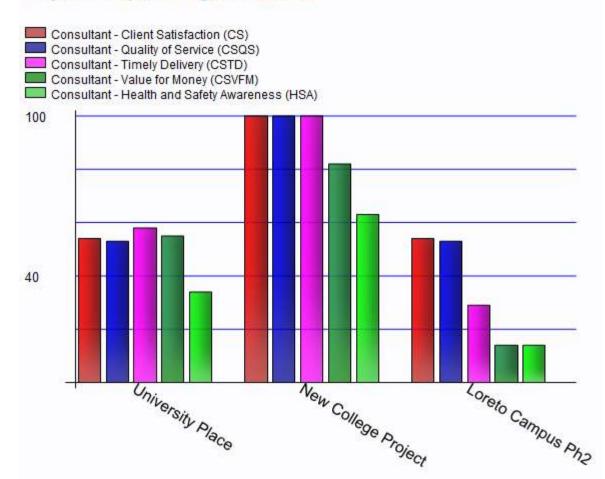
The anticipated construction duration should, where possible be the amount time stated in the accepted quotation/tender.

The actual construction duration should, where possible be the amount of time lapsed between commence on site and completion of the project. If these are not available the best estimate should be used.

Construction time should include all work in the main contract and should an

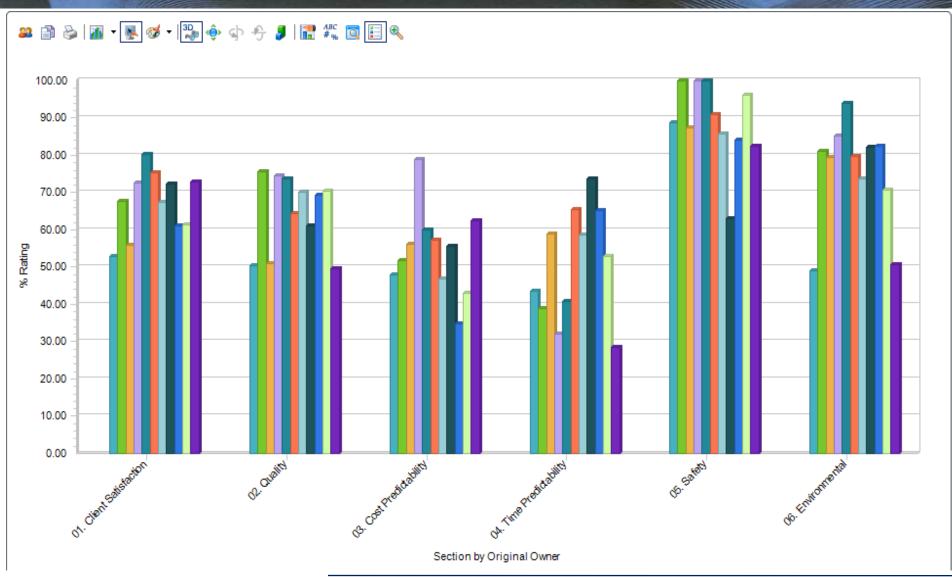
Performance Report

Projects Comparison against National









KPIs demonstrate delivery





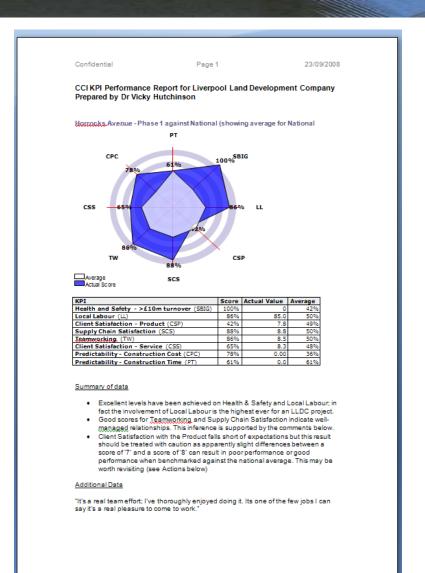
What do we do with our KPI data?

Basic reporting

Must be simple and brief

Must be made available to all those who contribute to the system – project team, bid teams, supply chain

Must be distributed quickly







Gather KPI data but want to drive more value from it?

















Performance measurement



Areas of work

Win work

Demonstrate efficiency improvements

Measuring continuous improvement

Measure, monitor & manage frameworks

Contract incentivisation Individual performance appraisal

Differentiation







Vicky Hutchinson

2.00PM KPI WORKSHOP





