

## **ENGINUITY 2021 COMPETITION**

### PERFORMANCE REVIEW FOR 'The New AECOMers'

## MANAGEMENT TEAM

Alexander Mcilroy

Krist Mak

Juan Sebastian Canavera Herrera

Aymaan El Halimi

Weronika Rybinska

## **SPONSOR**

**AECOM** 

## THE CHALLENGE



It is the **beginning of 2021**.

A UK-based **global construction business** that has only been in existence for one year needs a **new management team** to run the company for the foreseeable future.

The company **operates in a number of sectors**, with jobs, clients, rival competitors, and people worldwide.

To grow the business the new management team will need to devise an **effective business strategy**.

Developing an effective strategy will involve acquiring an understanding of :-

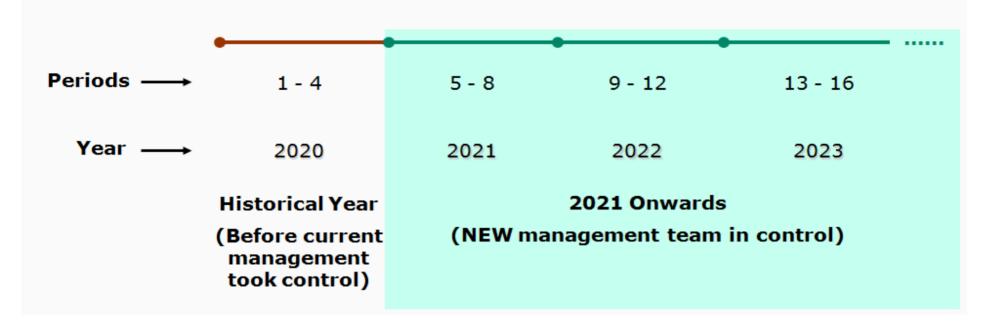
- The economic environment in which the company is operating
- The strengths and weaknesses of the business as it currently stands

To implement the strategy **decisions** will have to be made in a number of key areas :-

- Financial management
- Overhead management
- Procurement
- Job progression

## **TIMEFRAME**

Decisions are made for a period, representing 3 months, or a quarter, in the real world.



The new management team were in charge for two different stages.

## THE EARLY YEARS (PERIODS 5-12)

During the Early Years the competition for jobs comes from a number of simulated companies. Each one has their own unique profile and bidding history, and a careful assessment of the opposition is required to formulate an effective procurement strategy.

## THE LATER YEARS (PERIODS 13-18)

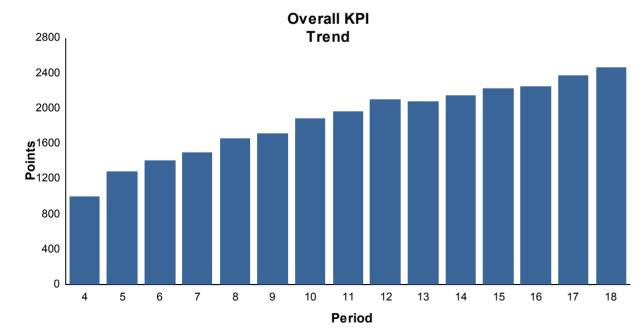
During the Later Years the teams compete 'head to head' against each other for work. This creates an even more uncertain and pressurized environment in which the skills and team dynamics formed in the early years are really put to the test.

## **OVERALL PERFORMANCE (KPIs)**

Performance Indicators were used to measure company progress, weighted at the end of the History to reflect their variability, initially to 1,000 points.

Overall company performance improved from 1,000 to 2,464 points

				Gross	Operating								
End				<b>Profit To</b>	<b>Profit To</b>	Company	Capital	Contract	Forward	Forward	Share	Client	Total
Period	Status	Year/qtr	Turnover	Turnover	Turnover	Value	Employed	Completion	Workload	Margin	Price	Satifaction	Rating
4	History	2020 (Q4)	40	170	120	170	130	80	70	100	70	50	1,000
5	Early Years	2021 (Q1)	49	181	142	182	152	113	126	182	82	78	1,287
6	Early Years	2021 (Q2)	56	204	175	200	163	129	124	183	82	99	1,415
7	Early Years	2021 (Q3)	62	223	204	224	171	129	124	164	82	120	1,503
8	Early Years	2021 (Q4)	69	237	225	252	179	164	133	174	82	149	1,664
9	Early Years	2022 (Q1)	74	241	227	269	182	184	127	155	86	174	1,719
10	Early Years	2022 (Q2)	78	246	232	287	187	196	168	199	97	201	1,891
11	Early Years	2022 (Q3)	83	245	237	308	191	213	165	189	109	223	1,963
12	Early Years	2022 (Q4)	87	247	240	325	195	238	194	208	122	252	2,108
13	Later Years	2023 (Q1)	94	231	223	334	198	250	172	173	133	277	2,085
14	Later Years	2023 (Q2)	102	225	219	361	200	309	150	123	143	321	2,153
15	Later Years	2023 (Q3)	102	222	209	362	200	309	201	126	142	353	2,226
16	Later Years	2023 (Q4)	108	220	209	389	202	324	172	86	151	386	2,247
17	Later Years	2024 (Q1)	111	213	201	399	203	354	219	104	162	416	2,382
18	Later Years	2024 (Q2)	114	207	194	407	205	381	227	112	167	450	2,464



#### TURNOVER

An indication of how much work the company has done

#### GROSS PROFIT TO TURNOVER

A measure of how profitable the company's jobs have been

#### OPERATING PROFIT TO TURNOVER

A measure of how profitable the company is after considering all operating factors

#### COMPANY VALUE

A measure of the asset value of the company

#### CAPITAL EMPLOYED

A measure of how well the company's infrastructure is being utilised

#### CONTRACT COMPLETION

An indication of how successful the company is in completing contracts

#### FORWARD WORKLOAD

The remaining turnover (value) of jobs still in progress

#### FORWARD MARGIN

The remaining profit of jobs still in progress

#### SHARE PRICE

A measure of the strength of the company's share price

#### CLIENT SATISFACTION

An indication of the strength of the relationship build up with the company's clients

# PERFORMANCE SUMMARY

Number of periods		History	Since	Change Basis	Additional information
Company value         4,953,70         11,857,040         39%         64 of timeframe           Average capital base         4,086,19         6,469,816         5%         Each period of timeframe           Average capital base will sation         73%         95%         Each period of timeframe           Average capital base will sation         11,827,670         20,030,960         6%         Fach period of timeframe           Average turnover         12,2%         2,2%         During whole timeframe         Ax 8 % of job costs           Overhead costs         1,8%         1,4%         During whole timeframe         Ax 8 % of job costs           Forward workload         1,8%         1,6%         During whole timeframe         Ax 8 % of job costs           Forward workload         1,8%         1,6%         During whole timeframe         Ax 8 % of job costs           Forward workload         1,0%         2,6%         During whole timeframe         Ax 8 % of job costs           Forward workload         1,0%         2,6%         During whole timeframe         Ax 8 % of job costs           Forward workload         1,0%         2,6%         During whole timeframe         Ax 8 % of job costs           Forward workload         1,0%         2,6%         During whole timeframe         Ax 6 % of job cost	Number of periods	4	14		
Name price	FINANCIAL MANAGEMENT				
Average capital base will station   17 %   9.5 %   18.4 he prior do f timeframe   1.5 %   1.	Company value	4,953,073	11,857,040	139 % End of timeframe	
Nerring capital base utilisation   13,27 km   20,903,906   20,903,903,906   20,90	Share price	1.03	2.46	139 % End of timeframe	
Average turnower   1,82 / 760   20,90 / 960   8   Paire herriod of timeframe by phorific   4,2 2   5,2 2   5   2   2   2   2   2   2   2   2	Average capital base	4,086,919	6,469,836	58 % Each period of timeframe	
July profit	Average capital base utilisation	73 %	95 %	Each period of timeframe	
Nerhoe   1.8 %   1.4	Average turnover	11,827,670	20,030,960	69 % Each period of timeframe	
Net operating profit prividend paid 1.8% 1.5% 1.5% 1.5% 1.5% 1.5% 1.5% 1.5% 1.5	Job profit	4.2 %	5.2 %	During whole timeframe	As a % of job costs
Divided paid   1.8%   0.6%   End of timeframe   Forward wargin   1280.34%   75,4420   End of timeframe   Forward margin   7280.34%   772,041   End of timeframe   Forward margin   7280.34%   772,041   End of timeframe	Overhead costs	1.8 %	1.4 %	During whole timeframe	As a % of job costs
Forward workload	Net operating profit	1.9 %	3.2 %	During whole timeframe	As a % of job costs after tax and interest
Forward margin   692,358   772,041   End of timeframe   Forward margin	Dividend paid	1.8 %	0.6 %	During whole timeframe	As a % of job costs
Forward margin   692,358   772,041   End of timeframe   Forward margin		17,800,340	57,647,420	End of timeframe	
Market share Market share split (UK) 0% 0% 0% 0 During whole timeframe Market share split (OV) 0% 0% 0% 0 During whole timeframe During whole timeframe 0% of the overall new work in the market identified % of the market share in the UK % of market share to the turn's % of market share (were also (utside the UK) Optimum level is 100% Out of 10 During whole timeframe During whole timeframe Publication of the optimum level is 100% Out of 10 During whole timeframe During whole timeframe Publication of the	Forward margin		772,041	End of timeframe	
Market share Market share split (UK) 0% 0% 0% 0 During whole timeframe Market share split (OV) 0% 0% 0% 0 During whole timeframe During whole timeframe 0% of the overall new work in the market identified % of the market share in the UK % of market share to the turn's % of market share (were also (utside the UK) Optimum level is 100% Out of 10 During whole timeframe During whole timeframe Publication of the optimum level is 100% Out of 10 During whole timeframe During whole timeframe Publication of the	OVERHEAD MANAGEMENT				
Market share split (UK)         0%         0%         During whole timeframe Market share pilt (UV)         % of the market share in the UK           Market share split (OV)         10%         0%         During whole timeframe During whole timeframe Parket share (UK)         % of market share of the warket share (ustide the UK)           QHSE staffing level         100%         130%         During whole timeframe Parket share (UK)         Optimum level is 100%           Measurement staffing level         100%         30%         During whole timeframe Parket share (UK)         Optimum level is 100%           PROCUREMENT         **Optimum level is 100%         Optimum level is 100%         Optimum level is 100%           Number of jobs won         6         31         During whole timeframe Parket share in the UK           10 by Share of jobs won         6         31         During whole timeframe Parket share in the UK           10 by Share of jobs won         6         31         During whole timeframe Parket share on the UK           10 by Share of jobs won         6         31         During whole timeframe Parket share on the Share of Share Parket share on the UK           10 by Share of jobs won         8.2         8.3         During whole timeframe Parket share on the Share of Share Parket share on the Share of Share Parket share on the Share of Share Parket share on the Share Parket share on the Share of Share Parket share on the Share Parket share on	Market share	11 %	26 %	During whole timeframe	% of the overall new work in the market identified
Market share split (OV)         0 %         During whole timeframe (During whole time	Market share split (UK)	0 %		C	% of the market share in the UK
Head office staffing level 100 % 121 % During whole timeframe Aeasurement staffing level 100 % 130 % During whole timeframe Optimum level is 100% Optimum				_	% of market share Overseas (outside the UK)
QHSE staffing level         100 %         130 %         During whole timeframe voluming whole timeframe thatfing level         Optimum level is 100% Optimum level is 100%           PROCUREMENT           Number of jobs bid for Number of jobs won         6         31         During whole timeframe voluming whole timeframe puring whole timeframe puring whole timeframe puring whole timeframe project manager weighting         During whole timeframe voluming whole timeframe project manager resignations         During whole timeframe project managers resignations         Out of 10           Net gain from bonus payments to project managers         43,544         606,372         During whole timeframe puring whole timeframe project managers         Out of 10           Jobs finished early         0         21         During whole timeframe puring whole timeframe plots finished on time         0         21         During whole timeframe plots from the project managers         43,544         606,372         During whole timeframe plots whole timeframe plots finished late         0         21         During whole timeframe plots whole timeframe plots whole timeframe plots finished late         0		100 %			
Measurement staffing level         100 %         130 %         During whole timeframe         Optimum level is 100%           PROCUREMENT           Number of jobs bid for         11         70         During whole timeframe         Nouring whole timeframe         Jobs won as a % of jobs bid for           Humber of jobs won         65         31         During whole timeframe         Jobs won as a % of jobs bid for           JOB PROGRESSION           Project manager weighting         8.2         8.3         During whole timeframe         Out of 10           Project manager resignations         8.2         8.3         During whole timeframe         Due to insufficient bonus levels or being headhunted           Net gain from bonus payments to project managers         43,544         606,372         During whole timeframe         Due to insufficient bonus levels or being headhunted           Jobs finished acarly         0         21         During whole timeframe         Due to insufficient bonus levels or being headhunted           Jobs finished on time         0         9         During whole timeframe         Due to insufficient bonus levels or being headhunted           Infective labour on site         1         1         During whole timeframe         As a % of total labour           Job completion efficiency         n/a <td< td=""><td></td><td></td><td></td><td></td><td>*</td></td<>					*
Number of jobs bid for Number of jobs won 6 6 31 During whole timeframe Bidding success rate 55% 44% During whole timeframe Jobs won as a % of jobs bid for 55% 44% During whole timeframe Jobs won as a % of jobs bid for 55% 44% During whole timeframe Jobs won as a % of jobs bid for 55% 44% During whole timeframe Jobs manager resignations 8.2 8.3 During whole timeframe Project manager resignations 0 3 During whole timeframe Project manager resignations 0 3 During whole timeframe Jobs finished early 0 21 During whole timeframe Jobs finished on time Jobs finished late 0 0 0 During whole timeframe Ineffective labour on site 11% 11% During whole timeframe Subcontractor labour used on site 8% 11% During whole timeframe Job costs (risk) due to targeted investments 0.0% 0.6% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.3% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.3% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe O=No contingency, 1=sensible level, 2=full risk cost incurred before mitigating factors 56% 75% During whole timeframe 0-No contingency in the bid Change in risk cost incurred due to mitigating factors 0.39.2% 4.48.8 During whole timeframe 0-No contingency in the bid					•
Number of jobs bid for Number of jobs won 6 6 31 During whole timeframe Bidding success rate 55% 44% During whole timeframe Jobs won as a % of jobs bid for 55% 44% During whole timeframe Jobs won as a % of jobs bid for 55% 44% During whole timeframe Jobs won as a % of jobs bid for 55% 44% During whole timeframe Jobs manager resignations 8.2 8.3 During whole timeframe Project manager resignations 0 3 During whole timeframe Project manager resignations 0 3 During whole timeframe Jobs finished early 0 21 During whole timeframe Jobs finished on time Jobs finished late 0 0 0 During whole timeframe Ineffective labour on site 11% 11% During whole timeframe Subcontractor labour used on site 8% 11% During whole timeframe Job costs (risk) due to targeted investments 0.0% 0.6% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.3% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.3% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.5% During whole timeframe O=No contingency, 1=sensible level, 2=full risk cost incurred before mitigating factors 56% 75% During whole timeframe 0-No contingency in the bid Change in risk cost incurred due to mitigating factors 0.39.2% 4.48.8 During whole timeframe 0-No contingency in the bid	PROCUREMENT				
Number of jobs won Bidding success rate 55 % 44 % During whole timeframe Bidding success rate 55 % 44 % During whole timeframe Dobs won as a % of jobs bid for 55 % 44 % During whole timeframe Dobs won as a % of jobs bid for 55 % During whole timeframe Project manager weighting 8.2 8.3 During whole timeframe Project manager resignations 0 3 During whole timeframe Net gain from bonus payments to project managers 43,544 606,372 During whole timeframe Jobs finished early 0 21 During whole timeframe Jobs finished on time 0 0 0 During whole timeframe Ineffective labour on site 1 % 1 % During whole timeframe Subcontractor labour used on site 1 % 1 % During whole timeframe Subcontractor labour used on site 8 % 11 % During whole timeframe Reduction in job costs (build) due to targeted investments 0.0 % 0.6 % During whole timeframe Reduction in job costs (frisk) due to targeted investments 0.0 % 0.3 % During whole timeframe Reduction in job costs (frisk) due to targeted investments 0.0 % 0.3 % During whole timeframe Reduction in job costs (frisk) due to targeted investments 0.0 % 0.5 % During whole timeframe Residency in cluded in bids 0.0 % 0.5 % During whole timeframe Measure of risk contingency included in bids 0.0 % 75 % During whole timeframe Risk cost incurred before mitigating factors 56 % 75 % During whole timeframe Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe Change in risk cost incurred before mitigating facto		11	70	During whole timeframe	
Bidding success rate 55% 44% During whole timeframe Jobs won as a % of jobs bid for  JOB PROGRESSION  Project manager weighting 8.2 8.3 During whole timeframe Project manager resignations 0 3 During whole timeframe Post finished early 0 21 During whole timeframe Jobs finished on time 0 9 During whole timeframe Jobs finished on time 0 0 9 During whole timeframe Jobs finished late Ineffective labour on site 1 % 1 % During whole timeframe Subcontractor labour used on site 1 % 1 % During whole timeframe Reduction in job costs (build) due to targeted investments 0.0% 0.3% During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0% 0.3% During whole timeframe Reasure of risk contingency included in bids 1.0 0.9 During whole timeframe Measure of risk contingency included in bids 1.0 0.9 During whole timeframe Change in risk cost incurred due to mitigating factors 2.39.2% 41.8% During whole timeframe During whole timeframe Por Daving whole timeframe Change in risk cost incurred due to mitigating factors 2.39.2% 41.8% During whole timeframe Por Daving whole timeframe Change in risk cost incurred due to mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incurred before mitigating factors 2.39.2% 41.8% During whole timeframe Change in risk cost incur					
Project manager weighting Project manager resignations 10 10 10 10 10 10 10 10 10 10 10 10 10		55 %	44 %	_	Jobs won as a % of jobs bid for
Project manager resignations  0 3 During whole timeframe Net gain from bonus payments to project managers 43,544 606,372 During whole timeframe Jobs finished early 0 21 During whole timeframe Jobs finished on time Jobs finished late Ineffective labour on site Subcontractor labour used on site Job completion efficiency Reduction in job costs (build) due to targeted investments Reduction in job costs (risk) due to targeted investments Reduction in job costs (risk) due to targeted investments Reasure of risk contingency included in bids Line Reasure of risk contingency included in bids Change in risk cost incurred due to mitigating factors  3 During whole timeframe A3,544 606,372 During whole timeframe During whole timeframe Puring whole timeframe During whole timeframe Puring whole timeframe During whole timeframe Puring whole timeframe Pur	JOB PROGRESSION				
Project manager resignations  1	Project manager weighting	8.2	8.3	During whole timeframe	Out of 10
Net gain from bonus payments to project managers  43,544  606,372  During whole timeframe  Jobs finished early  Jobs finished on time  Jobs finished on time  Jobs finished late  The ffective labour on site  Subcontractor labour used on site  Subcontractor labour used on site  Subcontractor labour used on site  The ffective labour on site  Subcontractor labour used on site  The ffective labour on site  The finished late  The fin		0	3		Due to insufficient bonus levels or being headhunted
Jobs finished early Jobs finished on time Jobs finished on time Jobs finished on time Jobs finished late Ineffective labour on site Ineffective labour on site Ineffective labour used on site Subcontractor labour used on site Job completion efficiency Inequation in job costs (build) due to targeted investments Inequation in job costs (risk) due to targeted investments Inequation in job costs	Net gain from bonus payments to project managers	43,544	606,372	During whole timeframe	
Jobs finished on time  Jobs finished late  Ineffective labour on site  Subcontractor labour used on site  Subcontractor labour used on site  Neduction in job costs (build) due to targeted investments  Reduction in job costs (risk) due to targeted investments  Neduction in job costs (risk) due to targeted investments  Neasure of risk contingency included in bids  Neasure of risk cost incurred before mitigating factors  Neasure of risk cost incurred due to mitigating factors  Neasure of risk cost incurre		0	21	During whole timeframe	
Jobs finished late00During whole timeframeIneffective labour on site1 %1 %During whole timeframeSubcontractor labour used on site8 %11 %During whole timeframeAs a % of total labourJob completion efficiencyn/a0.92During whole timeframe0 to 1, where 1 is the optimum levelReduction in job costs (build) due to targeted investments0.0 %0.6 %During whole timeframeReduction in job costs (risk) due to targeted investments0.0 %0.3 %During whole timeframeFor D&B jobs, change in build cost due to consultant designer0.0 %-0.9 %During whole timeframeMeasure of risk contingency included in bids1.00.9During whole timeframe0=No contingency, 1=sensible level, 2=full risk costRisk cost incurred before mitigating factors56 %75 %During whole timeframeAs a % of the contingency in the bidChange in risk cost incurred due to mitigating factors-39.2 %-41.8 %During whole timeframe	Jobs finished on time	0	9		
Ineffective labour on site 1 % 1 % During whole timeframe Subcontractor labour used on site 8 % 11 % During whole timeframe As a % of total labour  Job completion efficiency n/a 0.92 During whole timeframe O to 1, where 1 is the optimum level  Reduction in job costs (build) due to targeted investments 0.0 % 0.6 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.3 % During whole timeframe  For D&B jobs, change in build cost due to consultant designer 0.0 % 0.9 % During whole timeframe  Measure of risk contingency included in bids 1.0 0.9 During whole timeframe 0=No contingency, 1=sensible level, 2=full risk cost Risk cost incurred before mitigating factors 56 % 75 % During whole timeframe As a % of the contingency in the bid  Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe	Jobs finished late	0	0		
Subcontractor labour used on site 8 % 11 % During whole timeframe Job completion efficiency In Job completion efficiency In Job costs (build) due to targeted investments In Job costs (build) due to targeted investments In Job costs (risk) During whole timeframe In Job costs (risk) due to consultant designer In Job costs (risk) During whole timeframe In Job costs (risk) During Whole timefra	Ineffective labour on site	1 %	1 %		
Job completion efficiency  Reduction in job costs (build) due to targeted investments  0.0 %  0.6 %  During whole timeframe  Reduction in job costs (risk) due to targeted investments  0.0 %  0.0 %  0.3 %  During whole timeframe  For D&B jobs, change in build cost due to consultant designer  Measure of risk contingency included in bids  1.0  0.9  During whole timeframe  During whole timeframe  During whole timeframe  0=No contingency, 1=sensible level, 2=full risk cost  Pouring whole timeframe  During whole timeframe  O=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe  As a % of the contingency in the bid  During whole timeframe	Subcontractor labour used on site		11 %		As a % of total labour
Reduction in job costs (build) due to targeted investments  0.0 % 0.6 % During whole timeframe  Reduction in job costs (risk) due to targeted investments  0.0 % 0.3 % During whole timeframe  For D&B jobs, change in build cost due to consultant designer  Measure of risk contingency included in bids  1.0 0.9 During whole timeframe  0=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe  During whole timeframe  0=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe  Change in risk cost incurred due to mitigating factors  3.2 % 41.8 % During whole timeframe  During whole timeframe  D=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe  D=No contingency in the bid  D=No contingency in the bid		n/a	0.92		0 to 1, where 1 is the optimum level
Reduction in job costs (risk) due to targeted investments  0.0 % 0.3 % During whole timeframe  For D&B jobs, change in build cost due to consultant designer  Measure of risk contingency included in bids 1.0 0.9 During whole timeframe 0=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe 0=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe 0=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe 0=No contingency in the bid  During whole timeframe  O=No contingency in the bid  O=No contingency in the bid	The state of the s	0.0 %			•
For D&B jobs, change in build cost due to consultant designer  Measure of risk contingency included in bids  1.0  0.9  During whole timeframe  During whole timeframe  0=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe  As a % of the contingency in the bid  Change in risk cost incurred due to mitigating factors  -39.2 %  -41.8 %  During whole timeframe  During whole timeframe  As a % of the contingency in the bid					
Measure of risk contingency included in bids  1.0  0.9  During whole timeframe O=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe O=No contingency, 1=sensible level, 2=full risk cost  As a % of the contingency in the bid  During whole timeframe O=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe					
Risk cost incurred before mitigating factors 56 % 75 % During whole timeframe As a % of the contingency in the bid Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe	· · · · · · · · · · · · · · · · · · ·		0.9	•	0=No contingency, 1=sensible level, 2=full risk cost
Change in risk cost incurred due to mitigating factors -39.2 % -41.8 % During whole timeframe				_	
				_	As a % of the contingency in the bid