

## **ENGINUITY 2022 COMPETITION**

### PERFORMANCE REVIEW FOR 'The Wolves of Milano - The Return'

## MANAGEMENT TEAM

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## **SPONSOR**

Jacobs

## THE CHALLENGE



It is the **beginning of 2022**.

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 :-

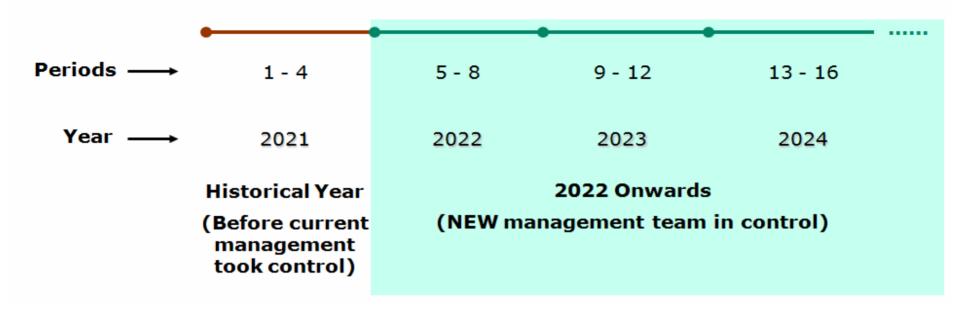
- The economic environment in which the company is operating
- The **strengths and weaknesses** of the business as it currently stands

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)

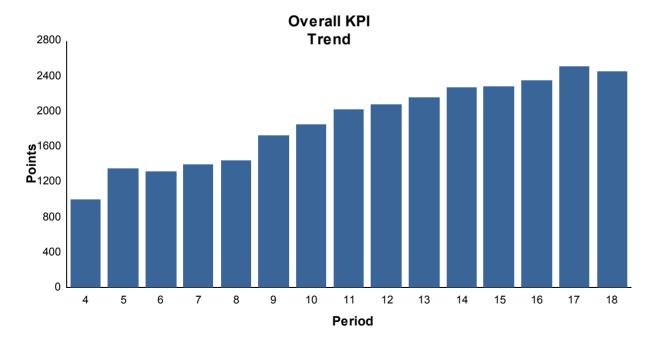
During the Later Years the teams compete 'head to head' against each other for work. This creates an even more uncertain and pressurized environment in which the skills and team dynamics formed in the early years are really put to the test.

## **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 2,461 points

				Gross	Operating								
End				<b>Profit To</b>	<b>Profit To</b>	Company	Capital	Contract	Forward	Forward	Share	Client	Total
Period	l Status	Year/qtr	Turnover	Turnover	Turnover	Value	Employed	Completion	Workload	Margin	Price	Satifaction	Rating
4	History	2021 (Q4)	40	170	120	170	130	80	70	100	70	50	1,000
5	Early Years	2022 (Q1)	55	172	159	178	171	97	151	228	75	69	1,355
(	Early Years	2022 (Q2)	68	130	94	175	200	114	160	237	54	88	1,320
	Early Years	2022 (Q3)	81	143	134	187	217	119	147	208	54	111	1,401
8	B Early Years	2022 (Q4)	96	157	178	207	226	119	122	167	53	126	1,451
g	Early Years	2023 (Q1)	107	178	229	235	239	155	173	210	56	152	1,734
10	Early Years	2023 (Q2)	117	193	263	264	248	167	172	207	56	173	1,860
11	Early Years	2023 (Q3)	127	210	303	303	256	187	175	208	59	195	2,023
12	Early Years	2023 (Q4)	134	209	304	322	261	187	179	216	64	210	2,086
13	Later Years	2024 (Q1)	141	220	322	356	264	217	168	169	69	239	2,165
14	Later Years	2024 (Q2)	144	222	323	375	268	232	201	171	71	268	2,275
15	Later Years	2024 (Q3)	150	211	303	383	272	232	217	169	67	286	2,290
10	Later Years	2024 (Q4)	158	212	310	417	275	264	186	151	69	314	2,356
17	Later Years	2025 (Q1)	163	209	303	438	278	277	227	205	75	343	2,518
18	Later Years	2025 (Q2)	167	213	313	474	275	312	135	128	75	369	2,461



#### 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

Part		History	Since	Change Basis	Additional information
Company value	Number of periods	4	14		
Share price   1,0   1,1   5   78   End fermissme   1,4 (8,76,88   6,173,08   51   1,7	FINANCIAL MANAGEMENT				
Average capital base unilsations (5 % 93 % 1948 period of timeframe Narrage tuntover (676 644 17.44 \$7.74 \$7.70   154% Each period of timeframe Narrage tuntover (687 644 17.44 \$7.70   154% Each period of timeframe Narrage tuntover (687 644 17.44 \$7.70   154% Each period of timeframe Narrage tuntover (687 644 18.48 \$6.18 % 19.40   154% Each period of timeframe Narrage tuntover (687 644 18.48 % 16.18 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each period of timeframe Narrage (687 644 18.48 % 19.40   154% Each of timeframe Narrage (18.48 % 19.40	Company value	4,670,589	13,025,120	179 % End of timeframe	
Average capital base utilisation 6,976.444 1,7743,570 1,48	Share price	1.07	1.15	7 % End of timeframe	
Average turnover holds profit of the profit of timeframe belts profit of timeframe to help profit of timeframe to help profit of the profit of timeframe to help profit of timeframe to help profit of the profit of timeframe to help profit of the profit of the profit of timeframe to help timeframe t	Average capital base	4,087,638	6,173,108	51 % Each period of timeframe	
Lobe profit   4.8 %   6.1 %   During whole timeframe   2 s a % of job costs	Average capital base utilisation	51 %	93 %	Each period of timeframe	
Dverhead costs	Average turnover	6,976,444	17,743,570	154 % Each period of timeframe	
Net operating profit Dividend paid 3.3 % 0.1 % During whole timeframe Forward workload 16,026,520 30,862,350 End of timeframe Forward workload 16,026,520 30,862,350 End of timeframe Forward margin Forward margin Forward margin Forward margin Forward margin Forward workload 16,026,520 30,862,350 End of timeframe Forward margin Forward	Job profit	4.8 %	6.1 %	During whole timeframe	As a % of job costs
Dividend paid 1.0.02.65.20 3.0.8.0.2.50 End of timeframe Forward margin 5.86.224 749.851 End of timeframe Market share split (UK) 5.5% 30.% During whole timeframe Market share split (UK) 5.5% 70% During whole timeframe Head office staffing level 100% 112% During whole timeframe Head office staffing level 100% 118% During whole timeframe POISE staffing level 100% 18.% During whole timeframe POIS	Overhead costs	3.1 %	1.7 %	During whole timeframe	As a % of job costs
Forward margin   16,026,520   30,862,350   End of timeframe   Forward margin   586,224   749,851   End of timeframe   Forward margin   586,224   749,851   End of timeframe   Forward margin   Fo	Net operating profit	1.4 %	3.7 %	During whole timeframe	As a % of job costs after tax and interest
Forward margin 586,224 749,851 End of timeframe  OVERIEAD MANAGEMENT  Warket share Split (UK) 35 % 30 % During whole timeframe Market share split (UK) 35 % 70 % During whole timeframe Head office staffing level 100 % 112 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 118 % During whole timeframe Measurement staffing level 100 % 12 Market M	Dividend paid	3.3 %	0.1 %	During whole timeframe	As a % of job costs
Market share Market share split (UK) More of split spl	Forward workload	16,026,520	30,862,350	End of timeframe	
Market share Market share split (UK) 35 % 30 % During whole timeframe Market share split (UK) 65 % 70 % During whole timeframe Project staffing level 100 % 112 % During whole timeframe Bidding success rate 100 % 12 45 During whole timeframe Bidding success rate 100 % 12 47 % During whole timeframe Bidding success rate 100 % 12 During whole timeframe Bidding success rate 100 % 12 During whole timeframe Bidding success rate 100 % 12 During whole timeframe Bidding success rate 100 % 12 During whole timeframe Bidding success rate 100 % 10 Uring whole timeframe Bidding success rate 100 % 10 Uring whole timeframe Bidding success rate 100 % 10 Uring whole timeframe Bidding success rate 100 % 10 Uring whole timeframe Bi	Forward margin	586,224	749,851	End of timeframe	
Market share split (UK) 65 % 70 % During whole timeframe Head office staffing level 100 % 118 % During whole timeframe Potestaffing level 100 % 118 % During whole timeframe Potestaffing level 100 % 118 % During whole timeframe Potestaffing level 100 % 118 % During whole timeframe Potestaffing level 100 % 118 % During whole timeframe Potestaffing level 100 % 118 % During whole timeframe Potestaffing level 100 % 118 % During whole timeframe Potestaffing level is 100% 100 % 100 % 100 % During whole timeframe Potestaffing level is 100% 100 % PROCUREMENT  Number of jobs won 100 % 12	OVERHEAD MANAGEMENT				
Market share split (UK) 65 % 70 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split (OV) 65 % 65 % During whole timeframe charget split	Market share	11 %	28 %	During whole timeframe	% of the overall new work in the market identified
Head office staffing level  QHSE staffing level  QHSE staffing level  100 % 118 % During whole timeframe Optimum level is 100%  118 % During whole timeframe Optimum level is 100%  QHSE staffing level  100 % 118 % During whole timeframe Optimum level is 100%  QHSE staffing level  Optimum level is 100%  O	Market share split (UK)	35 %	30 %	During whole timeframe	% of the market share in the UK
PROCUREMENT Number of jobs bid for 12 45 During whole timeframe observations and the project manager resignations 100 8 12 485 During whole timeframe observations and the project manager resignations 100 8 12 1485 Tolking whole timeframe observations in job costs (risk) due to targeted investments 100 8 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Market share split (OV)	65 %	70 %	During whole timeframe	% of market share Overseas (outside the UK)
Measurement staffing level 100% 118% During whole timeframe Number of jobs bid for 12 45 During whole timeframe Number of jobs won sa a % of jobs bid for 5 21 During whole timeframe Number of jobs won sa a % of jobs bid for 5 21 During whole timeframe During whole timeframe Number of jobs won sa a % of jobs bid for 5 21 During whole timeframe Number of jobs won sa a % of jobs bid for 5 21 During whole timeframe Number of jobs won sa a % of jobs bid for 5 21 During whole timeframe Number of jobs won sa a % of jobs bid for 5 2 During whole timeframe Number of jobs finished early 100s finished early 100s finished late 100 11 During whole timeframe Number of jobs finished late 100 11 During whole timeframe Number of jobs finished late 100 11 During whole timeframe Number of jobs finished late 100 11 During whole timeframe Number of jobs finished late 100 11 During whole timeframe Number of jobs finished late 100 11 During whole timeframe Number of jobs finished late 100 11 During whole timeframe Number of jobs consiste 100% 16% During whole timeframe Number of jobs costs (risk) due to targeted investments 100% 10% 10% 10% 10% 10% 10% 10% 10% 10	Head office staffing level	100 %	112 %	During whole timeframe	Optimum level is 100%
Measurement staffing level 100% 118% During whole timeframe Number of jobs bid for 12 45 During whole timeframe Bidding success rate 42% 47% During whole timeframe Bidding success rate 42% 42% During whole timeframe Bidding su	QHSE staffing level	100 %	118 %	During whole timeframe	Optimum level is 100%
Number of jobs bid for Number of jobs won 5 21 During whole timeframe Bidding success rate 42 % 47 % During whole timeframe Bidding success rate 42 % 47 % During whole timeframe Jobs won as a % of jobs bid for SUBSPHORESSION  ***Project manager weighting 8.0 8.6 During whole timeframe Project manager resignations 0 0 During whole timeframe Jobs finished early 100s finished on time Jobs finished on time Jobs finished ate 100s finished on time Jobs finished late 100 0 During whole timeframe Jobs finished late 100 0 During whole timeframe Jobs finished ate 100 0 During whole timeframe Jobs finished late 100 0 During whole timeframe Jobs finished on time Jobs finished on time Jobs finished late 100 0 During whole timeframe Jobs finished late 100 0 During whole timeframe Jobs finished late 100 0 During whole timeframe Jobs constructor labour used on site 100 0 During whole timeframe Reduction in job costs (build) due to targeted investments 100 0 0 During whole timeframe Reduction in job costs (fisk) due to targeted investments 100 0 0 During whole timeframe Reduction in job costs (fisk) due to targeted investments 100 0 0 During whole timeframe Reduction in job costs (fisk) due to targeted investments 100 0 0 During whole timeframe Reduction in job costs (fisk) due to targeted investments 100 0 0 During whole timeframe Reduction in job costs (fisk) due to targeted investments 100 0 0 0 During whole timeframe Reduction in job costs (fisk) due to targeted investments 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Measurement staffing level	100 %	118 %		Optimum level is 100%
Number of jobs won Bidding success rate 42% 47% During whole timeframe DeNo contingency, I=sensible level, 2=full risk cost Risk cost incurred before mitigating factors 7.2% 3.97% During whole timeframe During whole timeframe DeNo contingency in the bid	PROCUREMENT				
Bidding success rate 42 % 47 % During whole timeframe Jobs won as a % of jobs bid for   JOB PROGRESSION  Project manager weighting 8.0 8.6 During whole timeframe Project manager resignations 0 0 0 During whole timeframe Project managers 21,485 731,496 During whole timeframe Jobs finished early 0 11 During whole timeframe Jobs finished on time 0 11 During whole timeframe Jobs finished late 0 0 11 During whole timeframe Jobs finished late 0 0 0 During whole timeframe Jobs finished on site 2 % 2 % During whole timeframe Jobs constructor labour used on site 0 % 16 % During whole timeframe Jobs constructor labour used on site 0 % 16 % During whole timeframe Jobs constructor labour used on site 0 % 16 % During whole timeframe Jobs constructor special project 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 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments 0.0 % 0.4 % During whole timeframe John Contingency, 1=sensible level, 2=full risk cost incurred before mitigating factors 7.2 % 39.7 % During whole timeframe During whole timeframe As a % of the contingency in the bid	Number of jobs bid for	12	45	During whole timeframe	
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Project manager weighting  8.0  8.6  During whole timeframe Project manager resignations  0  0  0  0  During whole timeframe Dobs finished early Dobs finished late Ineffective labour on site Subcontractor labour used on site Dob completion efficiency Reduction in job costs (risk) due to targeted investments Reduction in job costs (risk) due to targeted investments Reduction in job costs (risk) due to targeted investments Measure of risk contingency included in bids Risk cost incurred before mitigating factors  8.0  8.6  During whole timeframe Measure of risk contingency included in bids During whole timeframe Measure of risk contingency included in bids During whole timeframe Measure of risk contingency included in bids During whole timeframe Durin	Bidding success rate	42 %	47 %	During whole timeframe	Jobs won as a % of jobs bid for
Project manager resignations Net gain from bonus payments to project managers 21,485 731,496 During whole timeframe Jobs finished early 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 Measure of risk contingency included in bids Risk cost incurred before mitigating factors  4 8 6 9  During whole timeframe Description of the contingency, 1=sensible level, 2=full risk cost During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid During whole timeframe Description of the contingency in the bid	JOB PROGRESSION				
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Jobs finished early Jobs finished on time Jobs finished on time Jobs finished on time Jobs finished late Jobs finished early Jobs finished eitineframe Jobs a % of total labour Job to 1, where 1 is the optimum level Job to 1, where 1 is the opti	Project manager resignations	0	0	During whole timeframe	Due to insufficient bonus levels or being headhunted
Jobs finished on time Jobs finished on time Jobs finished late Jouring whole timeframe Jouring whole timeframe Jobs finished late Jouring whole timeframe Jouring whole timeframe Jouring whole timeframe Jouring whole timeframe Joe Jouring whole timeframe  Joe Jouring whole timeframe  Joe Jouring whole timeframe  Joe Jouring whole timeframe  Joe	Net gain from bonus payments to project managers	21,485	731,496	During whole timeframe	
Jobs finished late 0 0 0 During whole timeframe Ineffective labour on site 2 % 2 % During whole timeframe Subcontractor labour used on site 0 0 % 16 % During whole timeframe Ineffective labour used on site 0 0 % 16 % During whole timeframe Ineffective labour used on site 0 0 % 16 % During whole timeframe Ineffective labour Indicates I	Jobs finished early	0	12	During whole timeframe	
Ineffective labour on site  2 % 2 %  During whole timeframe Subcontractor labour used on site  0 % 16 %  During whole timeframe  As a % of total labour  O to 1, where 1 is the optimum level  During whole timeframe  O to 1, where 1 is the optimum level  During whole timeframe  O to 1, where 1 is the optimum level  During whole timeframe  During whole timeframe  During whole timeframe  During whole timeframe  O to 1, where 1 is the optimum level  During whole timeframe  D=No contingency, 1=sensible level, 2=full risk cost  As a % of the contingency in the bid  During whole timeframe  During whole timeframe  D=No contingency in the bid  During whole timeframe  D=No contingency in the bid	Jobs finished on time	0	11	During whole timeframe	
Subcontractor labour used on site  0 % 16 % During whole timeframe 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 % 0.4 % During whole timeframe Reduction in job costs (risk) due to targeted investments  0.0 % 0.4 % During whole timeframe For D&B jobs, change in build cost due to consultant designer  Measure of risk contingency included in bids  1.0 0.7 During whole timeframe Risk cost incurred before mitigating factors  64 % 86 % During whole timeframe During whole timeframe O=No contingency, 1=sensible level, 2=full risk cost As a % of the contingency in the bid  As a % of the contingency in the bid  During whole timeframe D=No contingency in the bid  As a % of the contingency in the bid	Jobs finished late	0	0	During whole timeframe	
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 % 0.4 % During whole timeframe  D=No contingency, 1=sensible level, 2=full risk cost  During whole timeframe  D=No contingency in the bid  During whole timeframe  D=No contingency in the bid  During whole timeframe  D=No contingency in the bid	Ineffective labour on site	2 %	2 %	During whole timeframe	
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 % 0.4 % During whole timeframe	Subcontractor labour used on site	0 %	16 %		As a % of total labour
Reduction in job costs (risk) due to targeted investments  0.0 % 0.4 % During whole timeframe  As a % of the contingency in the bid  During whole timeframe	Job completion efficiency	n/a	0.94	During whole timeframe	0 to 1, where 1 is the optimum level
Reduction in job costs (risk) due to targeted investments  0.0 % 0.4 % During whole timeframe  As a % of the contingency in the bid  During whole timeframe  As a % of the contingency in the bid  During whole timeframe	Reduction in job costs (build) due to targeted investments	0.0 %	0.6 %	During whole timeframe	
Measure of risk contingency included in bids  1.0  0.7  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  1.0  0.7  During whole timeframe  As a % of the contingency in the bid  During whole timeframe	Reduction in job costs (risk) due to targeted investments	0.0 %	0.4 %	During whole timeframe	
Risk cost incurred before mitigating factors  64 %  86 %  During whole timeframe  As a % of the contingency in the bid  7.2 %  -39.7 %  During whole timeframe	For D&B jobs, change in build cost due to consultant designer	0.0 %	-0.9 %	During whole timeframe	
Change in risk cost incurred due to mitigating factors -7.2 % -39.7 % During whole timeframe	Measure of risk contingency included in bids	1.0	0.7	During whole timeframe	0=No contingency, 1=sensible level, 2=full risk cost
Change in risk cost incurred due to mitigating factors -7.2 % -39.7 % During whole timeframe	Risk cost incurred before mitigating factors	64 %	86 %	During whole timeframe	As a % of the contingency in the bid
	Change in risk cost incurred due to mitigating factors			During whole timeframe	
	Risk cost incurred after mitigating factors		52 %	During whole timeframe	As a % of the contingency in the bid