

RISK MANAGEMENT IN THE BID PROCESS

David West & Barry Dickinson

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What sort of bid?

n Bidding for contracts

- Bidding for consultancy
- Bidding for construction
- Bidding for a PPP / PFI etc.

What's special about bids?

- n Bids are projects in their own right, but with very tight and immovable deadlines.
- n During that short bid timeframe you make decisions that will affect your company for many years to come, and could break it.
- n You often end up working nights & weekends, they burn you out.
- n The price target is small. Estimate too high and you won't win, estimate too low and you'll win a loss making job.
- n You'll have carefully calculated the price when at the last minute your MD will change it.
- n They're speculative
- n The bid stage is when you deliberately take calculated risks

Bidding in Context

30 Years +



BID

EVALUATION
& AWARD

INVESTMENT
PROJECT

OPERATION
& REVENUE

DIS-
INVESTMENT

The Bidding Process

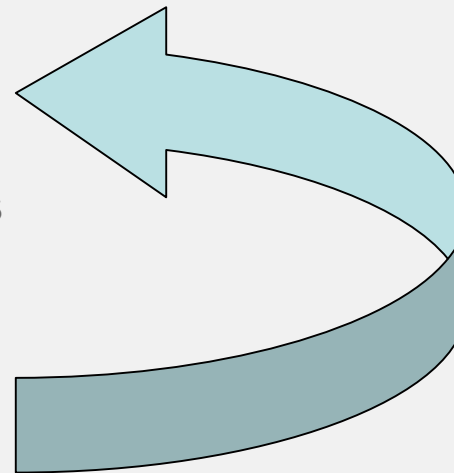
n Pre-qualify / Expression of Interest

- Check for conflicts of interest
- Go / No Go decision
- Identify strategy for winning bid
- Select team to fit, snap up any favourite actors?
- Plan bid production, non standard bid sections
- Delegate drafting of sections
- Pull together 1st draft
- Refine
- Submit
- Pray

The Bidding Process

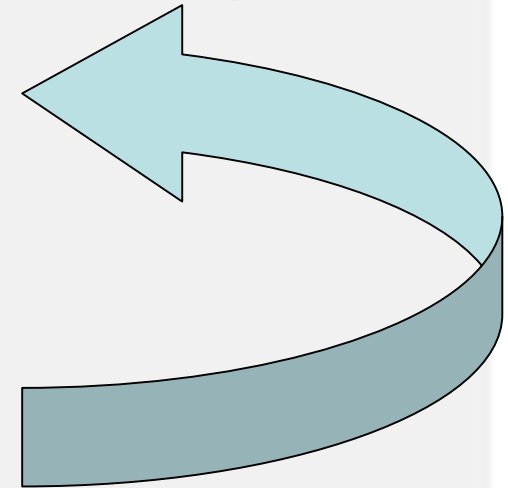
n Invited to Tender / Negotiate – Hurrah!

- Re-check Go / No Go & conflicts of interest
- Internally review bid winning strategy, is team still right one?
- Re-assemble team, distribute documents.
- Team bid strategy meeting – define tasks, plan, delegate
- Establish dialogue with client - questions
- Design work
- Operation & maintenance plans
- Dis-investment / handover plans
- Financial modelling
- First draft document & price
- Review
- Final document & price
- Beauty parade



The Bid Process

- n BAFO – Phew! £0.5m not wasted yet, crikey another ~£2m to go
 - Re-check Go / No Go & conflicts of interest
 - Re-assemble team, distribute documents.
 - Team bid strategy meeting – define tasks, plan, delegate
 - Establish dialogue with client – questions, workshops
 - Detail design work
 - Detail operation & maintenance plans
 - Detail dis-investment / handover plans
 - Detail financial modelling
 - First draft document & price
 - Review
 - Final document & price
 - Beauty parade



The Bid Process

- n Preferred Bidder – Yo! Only another 6 – 12 months / ~ £1m of bidding cost
 - Intense negotiation of contract
 - Mobilization of all parties
 - Financial close
 - Execute project

What risks in bidding for consultancy?

- n Underestimate time required to bid and consequently
 - Fail to submit on time > lose > wasted effort
 - Submit poor bid > lose > wasted effort
 - Submit inadequate price > win > lose money
- n Overestimate time or resources required for commission
 - Lose bid > wasted effort
- n Underestimate time or resources required for commission
 - Lose money
 - Lose reputation

What risks in bidding for construction

- n Underestimate time required to bid and consequently
 - Fail to submit on time > lose > wasted effort
 - Submit poor bid > lose > wasted effort
 - Submit inadequate price > win > lose money
- n Overestimate time or resources required for construction
 - Lose bid > wasted effort
- n Underestimate time or resources required for construction
 - Lose lots of money
 - Laing at Cardiff Stadium (£121m bid, loss =£31m)
 - Multiplex at Wembley (£352m bid, loss =£148m)
 - Lose reputation
 - Lose lives

What risks in bidding PPP / PFI

- n Underestimate time required to bid and consequently
 - Fail to submit on time > lose > wasted effort & money
 - Submit poor bid > lose > wasted effort & money
 - Submit inadequate price > win > lose more money
- n Overestimate total time or resources required
 - Lose bid > wasted effort & money
- n Underestimate time or resources required for design e.g. Early PFIs
 - Lose money
 - Lose reputation
 - Lose time available for construction, which could lead to delay in revenue stream

What risks in bidding PPP / PFI

- n Underestimate time or resources required for construction
 - Delays & penalties
 - Delay to revenue stream
 - Lose money
 - Lose reputation
 - Lose lives
- n Underestimate resources required for operation & maintenance
 - Lose money
 - Lose reputation
 - Lose lives

What risks in bidding PPP / PFI

- n Overestimate revenue stream
 - Lose money
- n Underestimate time or resources required for Disinvestment (e.g. decommissioning nuclear power stations, Windscale, Dungeness, Sizewell etc.)
 - Lose money
 - Lose lives
- n Underestimate Cost of Capital
 - Lose money

Bidding for The Problem with Projects

Projects, as opposed to processes, are one off events creating unique outcomes.

The word *project* comes from the Latin *projectum* from *projicere*, "to throw something forwards".

Projects to deliver unique outputs are authorized based upon estimates of time and cost before designs have been worked through in detail.

The project is then thrown forwards through the fire of emerging design issues; changing client requirements; technological change; market forces; third party approvals; etc. etc.

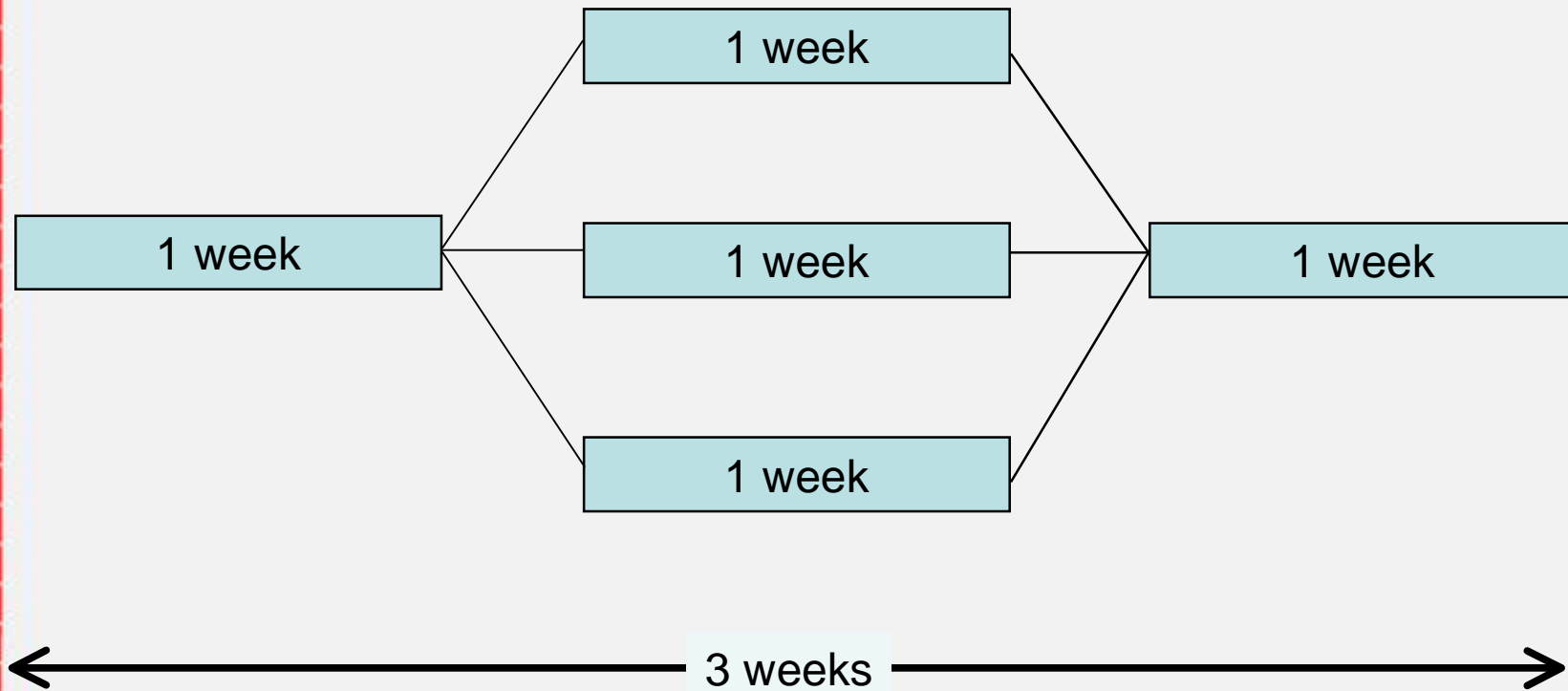
Some Problems with Bid Management

- n The whole bid SCOPE is often vague and subject to change
- n Cost estimates often have holes in them, papered over with the word “EXCLUDED”.
- n Timescales are often HEROIC
- n Bid Managers like to be cast as Heroes

AND

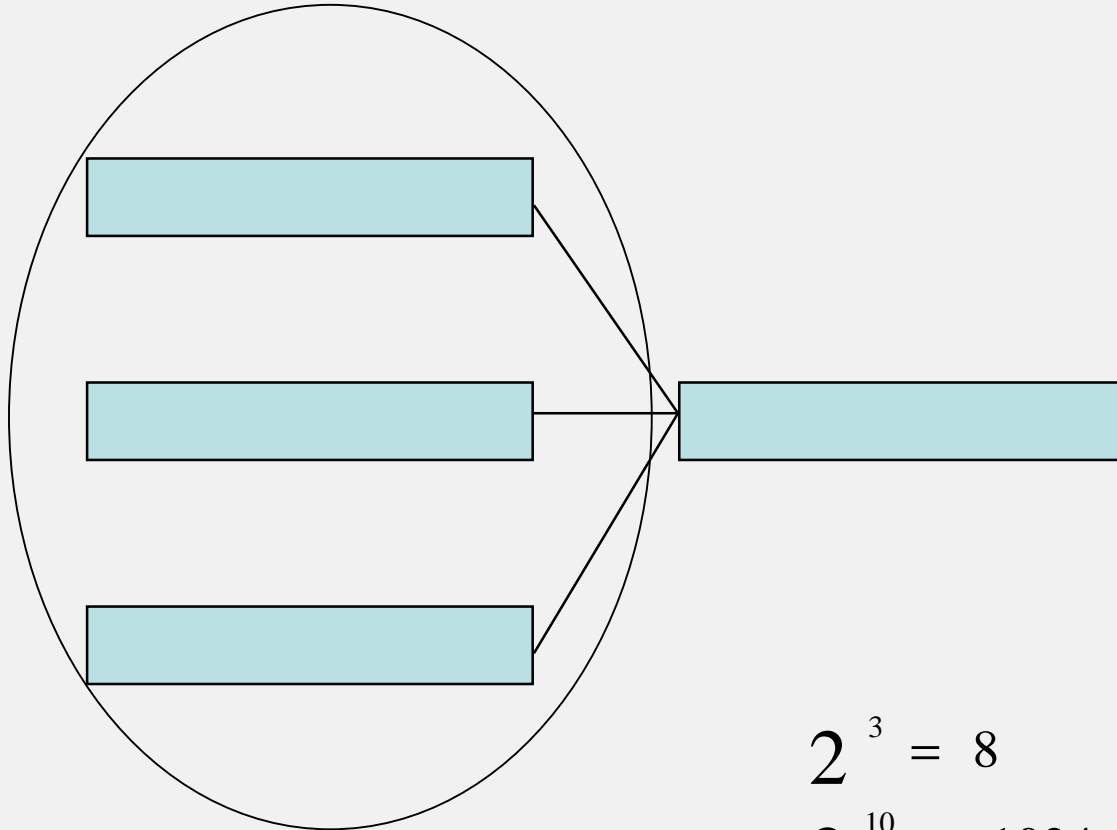
- n The problem of parallel activities which leads more often than not to programme optimism

The Problem of Parallel Activities



The Problem of Parallel Activities

LLL
LLE
LEL
LEE
EEL
ELE
EEL
EEE



$$2^3 = 8$$

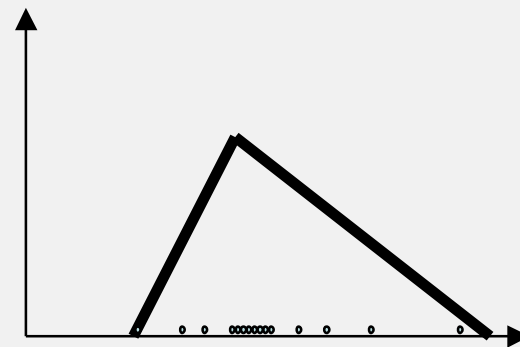
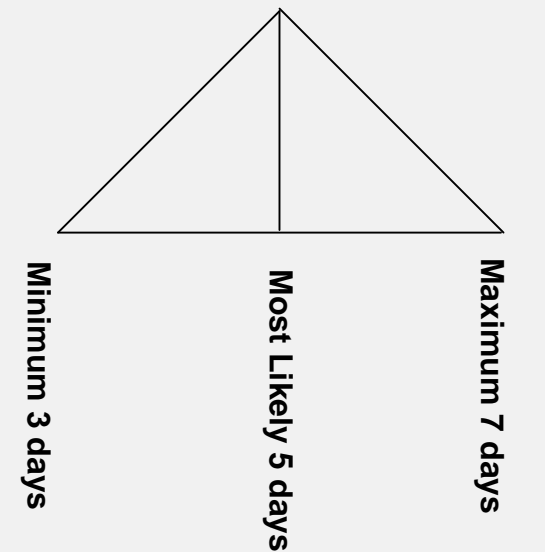
$$2^{10} = 1024$$

Risk Analysis

- n In cost plans all the low estimates will be equally as valid as the high estimates whereas
.....
- n As we have seen, programme logic “*conspires*” to frustrate the effect of the low estimates. Programme logic is like a non return valve for time

Risk Analysis

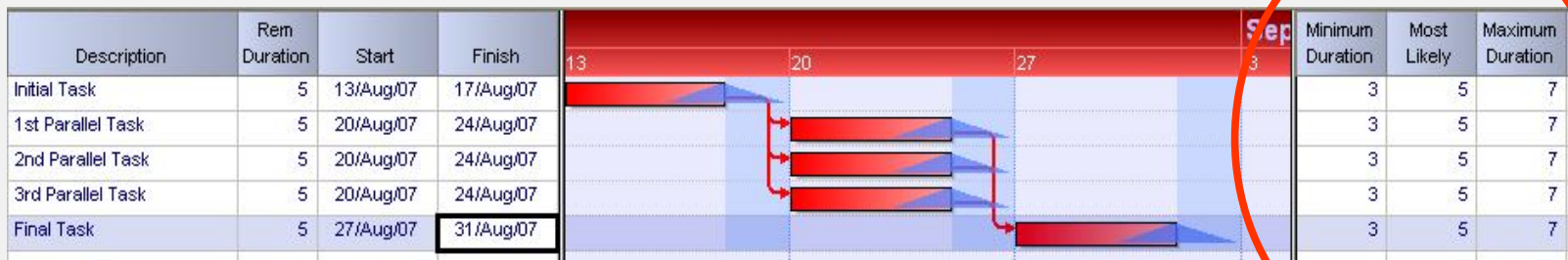
- n Monte Carlo simulation replaces discrete estimates with probability distributions. Thus 1 week might become
- n Monte Carlo simulation runs thousands of iterations modelling the probability distributions defined. It throws a powerful spotlight on the problem of parallel activities. However, all too often it is used on cost plans but not on programmes



Examples



Discrete Model without Risk

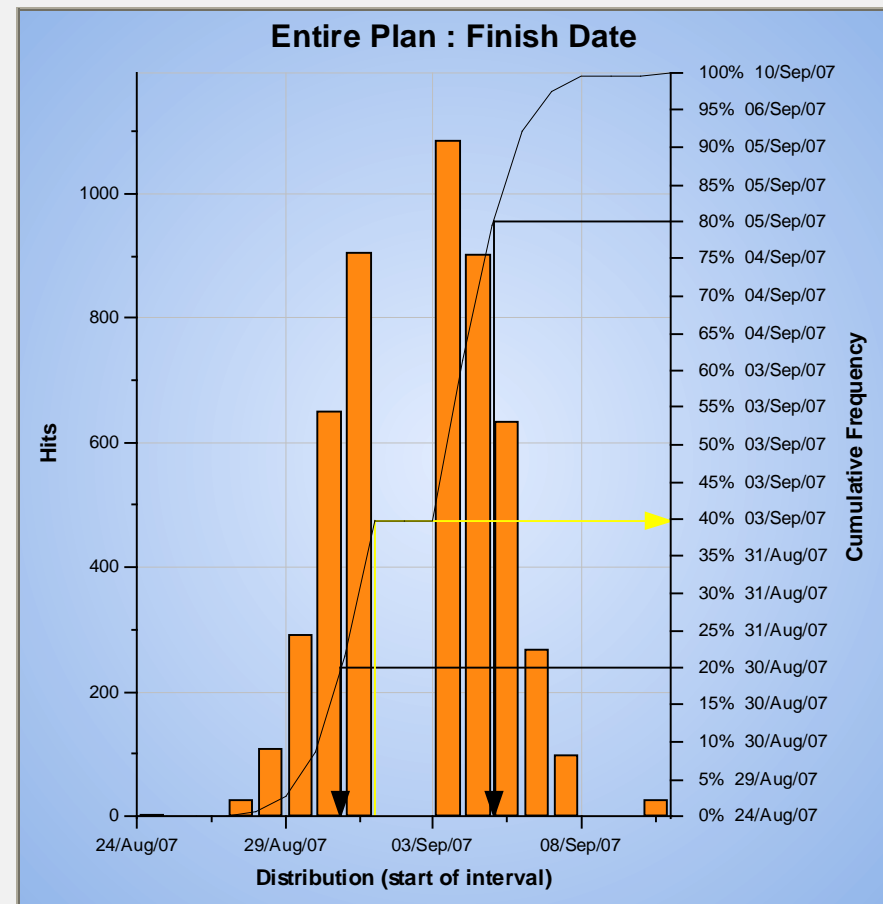


Probabilistic Model with Risk Estimates

+ / - 2 days, each activity

Results of Example

- n The programmed end date now has a probability of 39%
- n 80% confidence in +20%
- n That's just a three week 5 activity programme. Imagine the effect on a 2,000 activity 3 year programme!
- n We don't have to, Major Contractors Group survey of 57 PFI projects in 2005 showed average delay of 8 months at delay cost of £1.21m per project



STOP!!!

- n We are getting ahead of ourselves
- n The Risk Management Process consists of three stages:
 - Risk Identification
 - Risk Analysis
 - Risk Treatment
- n So lets park risk analysis for a minute and go back to look at risk identification

RISK IDENTIFICATION

- n Document review – contracts; estimates, plans, scope etc. looking for:
 - exclusions ; caveats; gaps; omissions; assumptions; interfaces; errors
- n Interviews with key project players
 - Interviews are useful for exploring issues in depth and getting team members to open up in a way that they might not in front of their peers
- n Risk Brainstorming Workshops
 - Secures team “buy – in” to the process. Also allows one idea to trigger another.
 - Sometimes the first time the team has worked together in one room

CAPTURE RISKS IN RISK REGISTER / RECORD

n Record risk:

- **Descriptions**
- Effects
- Probability
- Impact on cost; time & performance
- **Owner**
- **Mitigation Action**
- Programme activities that the risk affects

bold text = essential

RISK ANALYSIS

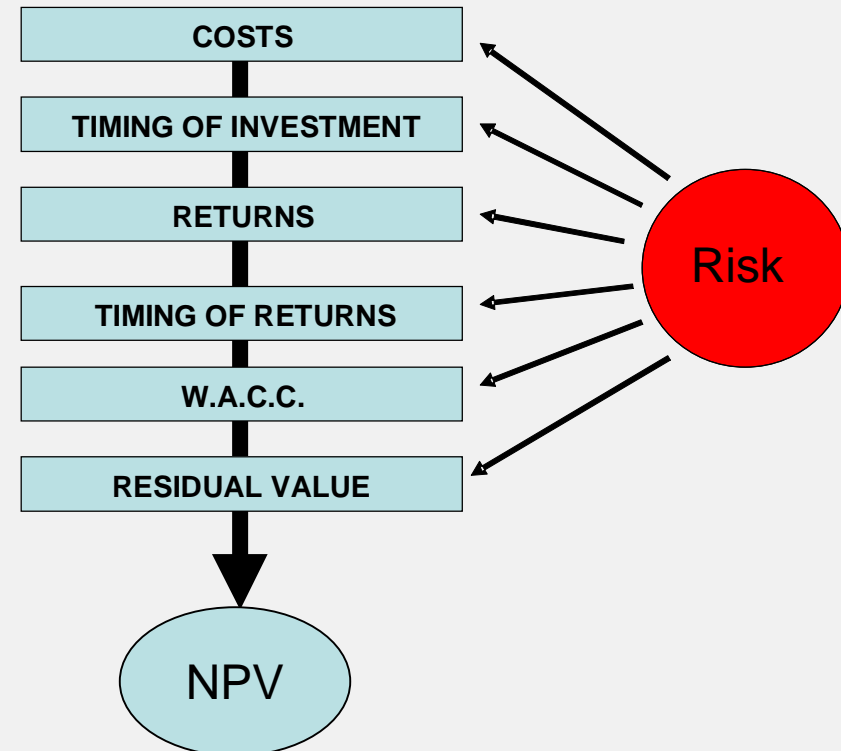
- n The discipline of risk analysis forces the analyst to look under the bonnet of the project models, often with very revealing results:
 - Faulty logic; un-priced exclusions; no resource levelling
 - The era of computer planning packages and the loss of the project network on an A0 drawing board has cast a Harry Potter-esque invisibility cloak around the plan.
 - And the project plan is so important.
 - **PLAN THE WORK and WORK THE PLAN!**
- n Risk analysis gives us a vision of the un-mitigated outcomes, AND
- n Allows us to **PRIORITIZE** risks for treatment

RISK TREATMENT

- n Generically speaking risks can be AVOIDED; TRANSFERRED; REDUCED or ACCEPTED
- n Risk mitigation actions can be identified using:
 - Workshop methods again, engaging the combined brainpower of the project team
 - Benchmarking against other projects
 - Consulting experts
 - Other bid managers
 - Technical / Financial experts
- n Record the mitigation actions in the Risk Register / Record
- n Make sure they are mitigated

The Bid Project Appraisal

- n In the appraisal the estimates of Time, Cost and Performance all come together to make up the NPV, i.e. what Value the project will Add to the organization
- n Risk affects every input to the appraisal
- n So we need to get a handle on the risks and run a Monte Carlo simulation on the project appraisal so as to have an informed probabilistic NPV assessment



That's another fine mess you've gotten me into!

- n How did we end up needing to mitigate all these risks?
- n Remember what we said at the beginning
 - n *“Bidding for projects to deliver unique outputs are authorized based upon estimates of time and cost before designs have been worked through in detail.”*
- n Well that's where the risk management should have started! With the bid appraisal and the GO – NO GO decision.

To bid or not to bid, that is the question

n Level of scrutiny – major or minor bid?

n Major bids

- High Price, significant to company performance
- Combination of offices / regions / partners in bid
- High public profile project
- Involves high commercial / technical / brand risk
- Opportunity is beyond normal areas of operation

Risk issues to be dealt with for any Bid

- n Contract clauses out of alignment with PI cover
 - *Duty of care other than “reasonable skill, care and diligence expected of a general practitioner”*
 - *Joint and several liability*
 - *Fitness for purpose warranties*
 - *Liability for economic or consequential loss*
 - *Duty to use best endeavours*
- n Bad debt risk
- n Procedure for agreeing extra work / clear definition of what you are committing to do for the price
- n Sub-contractors / partners
 - ensure back to back contracts
 - Default risk

Major Project Risks

- n High cost of speculative pre-tender work
- n Potential for bad debts
- n Extended lines of communication
- n Lack of resource at required location
- n Differing objectives within company / partners
- n Legal & fiscal complications
- n Insurance levels required
- n Does TUPE apply?
- n Special conditions of contract / warranties / bonds
- n Allowance for inflation significant over long projects
- n Technology risk

PPP / PFI Risks

- n Availability risk
- n Standard of service delivery risk
- n Site risks e.g. ground conditions & latent defects
- n Industrial action
- n Physical damage to asset
- n Demand risk
- n Change of law
- n Termination risk

International Bids – Extra Risk

- n Political risk
- n Heightened credit worthiness / payment concerns
- n Recruitment required
- n Office space
- n Contract legal system
- n Language barriers
- n Payment currency
- n FOREX risk
- n Corporation tax & personal tax liability
- n Withholding tax
- n Corporate registration / legal entity
- n Overseas allowances, travel & subsistence
- n Risks to staff

Need for an impartial gatekeeper

n Personalities

- Desire to win
- Willingness to bet the company (Sporting Stadia)
- Corporate governance

Personalities

ROLE	Motivation	RISK
Project Manager / Bid Sponsor	<ul style="list-style-type: none"> nOwns opportunity nThrives on winning nCraves recognition 	<ul style="list-style-type: none"> nWin = immediate success nCorporate loss is years away
Profit Centre Manager	<ul style="list-style-type: none"> nWants good news nWants turnover for team nWants profit 	<ul style="list-style-type: none"> nWill be more cautious than PM, but wants the win
Bid Manager	<ul style="list-style-type: none"> nQuality bid nWants to win, but pragmatic 	<ul style="list-style-type: none"> nCompeting bids for time
Legal Dept	<ul style="list-style-type: none"> nProtect companies legal exposure 	<ul style="list-style-type: none"> nNo desire to win bid nRisk averse
Gatekeeper	<ul style="list-style-type: none"> nProtect company nImpartial overview 	<ul style="list-style-type: none"> nTo Project Manager can resemble a Dementor

Need for an impartial Dementor

- n Sanity check on project credibility before major bid effort
- n Ensure management commitment to bid
- n Ensure internal bid cost & if successful profit share agreed
- n Ensure client credit checks / payment terms OK
- n Likelihood of winning
- n $(\text{Expected profit} \times \text{Win Probability}) - \text{Required Return vs. Expected bid cost}$
- n Capital required & effect of corporate cash flow
- n Sign off on all major bids

Summary

- n Bidding especially PPP / PFI needs to be far sighted
- n Bids are projects in their own right, with tight, fixed programmes.
- n You may be betting your company
- n The problem of parallel activities is a fundamental reason why most projects be they bids or major PFI projects come under time pressure.
- n Delays cost money
- n Most of the time I get paid to advise on project risks that shouldn't have got past the Go / No Go decision
- n Bidding needs a Gatekeeper

Thank you!
Questions?