Alternative Procurement Options

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Forty 1 South

Agenda

- What makes a successful Project
- Procurement Options
  - Traditional
  - Collaborative / Early Contractor Involvement / Relationship
- Contract Conditions
- What's Best?
- Lessons Learnt
- Opportunities to Improve
- Discussion

What Makes a successful Project?

- Delivered on Time?
- Delivered within budget?
- No Defects?
- Good Safety & Quality Record?
- No Complaints or public disruption?
- Awards?
- Minimal Variations?
- A healthy profit?
- No environmental impacts?

What Makes a successful Project?

- Customer Satisfaction

  (Client / Stakeholders / End Users)

- An Enjoyable Project

Procurement Options - Traditional

Investigate - Design - Construct

- Delivery Models
  - Measure & Value
  - Lump Sum
  - Cost Reimbursement
- Contractual Arrangements
  - NZS 3910
  - ICE 5/6
  - FIDIC

Traditional Procurement

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- Well defined scope
- Client involvement
- Flexibility (at a price)
- Client Control & input
- Single point of contact for the client
- Cost certainty?

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- Risk Ownership/Transfer?
- Misaligned project objectives
- Inefficiencies – Focus on claims?
- Cost & Programme blow outs
- Limited scope (or incentive) to add value
- Focus on lowest design / construction cost
- Whole of life costs not considered
- Difficult to manage complex projects with multiple suppliers

Newbury Bypass – ICE 6th

Dowse to Petone – NZS 3910

Alternative Procurement Options

Various studies including Latham Report (Constructing the team) & Egan Report (Rethinking Construction) concluded that the construction industry was performing very poorly;

- Client Dissatisfaction
- High levels of inefficiency
- Adversarial Relationships
- Claims Culture
- Low or no profit margins
- Late and over budget delivery the norm!

Action had to be taken.................

Procurement Options – Collaborative

- Delivery Models
  - Design & Construct
  - Early Contractor Involvement
  - Alliance (PPP / PFI / DBFO / DBO / BOOT)
- Contractual Arrangements
  - NZS 3910 / ICE 5th / 6th
  - NEC3
  - Project Specific Agreements

Design & Construct

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- Clear Client scope/objectives
- Hands off Client
- Opportunity for innovation
- Appropriate Incentives
- Clear Risk allocation
- Increase price certainty
- Reduced Programme

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- Minimum Standards
- Price of Changes
- Tender duration & costs
- Early scope is critical

Felixstowe Trinity Terminal III

SH1 MacKay's Crossing

Early Contractor Involvement

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- Selection by value
- Buildability Challenges
- Opportunity for innovation
- Client Involvement
- Target Price
- Accuracy of estimating
- Programme Savings
- Collaborative approach

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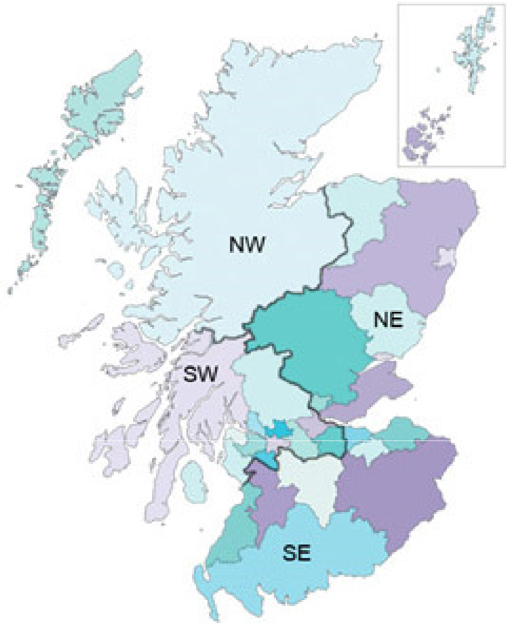
- Reduced price tension
  (value 4 money – Perceived or real?)
- Must have a clear project objective
- Incentive to deliver?
- Resource Requirements



Scottish Water – WQUP (NEC2)

Alliance

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- Large Complex Projects
- Client involvement
- Selection by value
- Opportunity for innovation
- Alignment of objectives
- Shared Vision
- Best for project Decisions
- No Blame Culture
- Managing a package of work
- Cost & time savings

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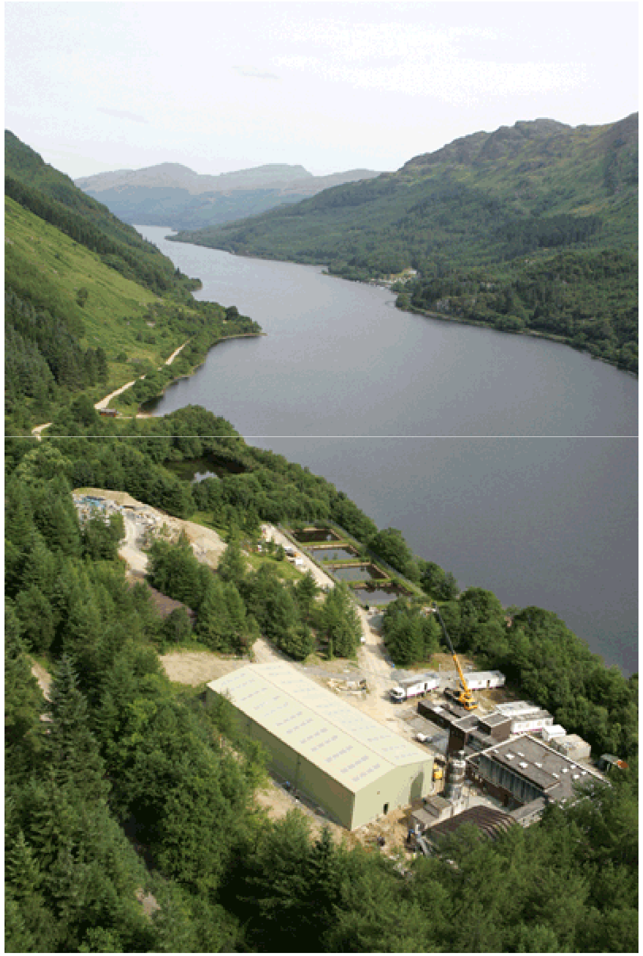
- “new” – learning curve
- Strong leadership required
- Dispute resolution
- Appropriate incentives
- Profit through the process
- High set up & tendering costs
- Resource requirements
- Culture of alliance Partners



Scottish Water Solutions Alliance & NEC2

FORTY 1° SOUTH

Forms of Contract

NZS 3910	NEC3
Engineer to the Contract	Project Manager
Project Specification	Works Information
NTC / NTE	Early Warning
No Risk Management Process	Encourages proactive Risk Management
Provides the rules of engagement	Encourages & supports collaborative Working
Contract Programme to be provided	Programme led
	Target Cost Options
Support Document	Lead Document

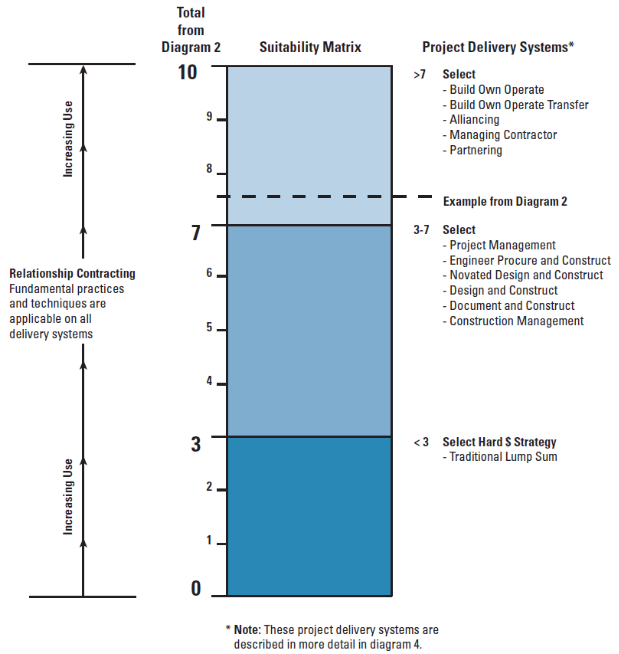
So What’s Best?

Well that depends?

Diagram 2: Suitability Matrix - Project Delivery Systems (Worked Example)

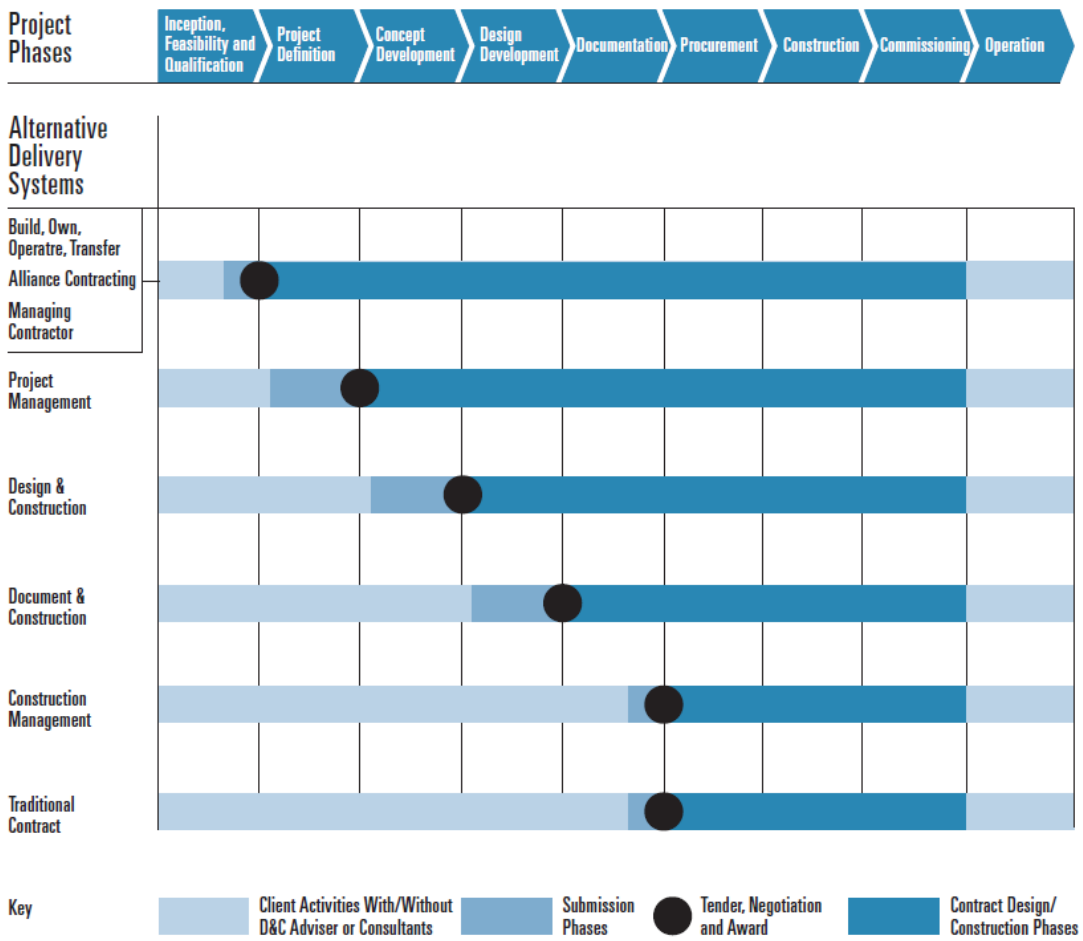
	Weight	Low rating	1	2	3	4	5	6	7	8	9	10	High rating
1 Is early delivery of project of value to owner?	20%	No value at all									1.80		Of great value
2 Nature of work - green field versus brown field?	15%	Total green field site								1.20			Many critical interfaces with existing operating facilities
3 Technology - proven or radical?	10%	Well proven stable technology (will not evolve during project)							0.70				New and/or evolving technology
4 Risk culture of owner?	10%	Totally risk averse - risk transfer culture								0.80			Strategic management of risk - sophisticated view of risk
5 Tight guaranteed maximum price (GMP) essential for project sanction?	10%	Tight GMP essential							0.70				Owner flexible within range
6 Industrial relations environment?	10%	Very low risk									0.90		Very high risk
7 Proven relationship contracting record with potential engineering contractors?	8%	No track record or bad track record								0.64			Good track record
8 Sensitivity to disruption from aboriginal/heritage/environmental issues?	7%	Very low risk							0.49				Very high risk
9 Owner's understanding/experience of project delivery process?	5%	Little experience					0.25						Very experienced
10 Will construction require single (multi-discipline) or many contractors?	5%	Will require many different contractors				0.20							Could be constructed by one contractor
	100%	Drop-down totals	-	-	-	0.20	0.25	-	1.89	2.64	2.70	-	= 7.68 (Refer Diagram 3)

Diagram 3: Selection - Project Delivery Systems



So What’s Best?

Diagram 4: Alternative Project Delivery Systems



Involving the key parties very early in the project’s life will maximise the very high potential for effecting optimum project outcomes.

So What's Best?

Factors to consider -

- Clarity of Scope
- Client Risk Culture
- Client involvement
- Project Duration (is programme critical)
- Cost control / certainty
- Client / Supplier Experience (track record)
- Cost of Procurement and Resources Required
- Contract Conditions to be used

Lessons Learned

- There is no magic bullet for the procurement and delivery of a successful project.
- NZ has not gone through the same contractual challenges that the UK construction industry went through in the 80’s & 90’s ***however*** there is room to improve?
  - Only 13 % of NZ projects are delivered on time!
  - Only 40 % of NZ projects are delivered to budget!
- Collaborative working is essential to the success of a project whatever the contract arrangements & conditions you are working under.

Lessons Learned

- People, People, People
- A clear project Scope / Objective
- Alignment of objectives (where possible)
- Appropriate incentives to deliver
- Understanding of Client requirements
- Relationships – Openness / Honesty / Collaboration
- Appropriate Procurement Method
- Best for project decisions

Opportunities to Improve?

Opportunity	Action
Clarity of Scope	- Effort & time into a developing clear project scopes - Avoid changes where possible
Understand and where possible align objectives (all parties)	- Appropriate incentives to deliver clients requirements - Understand objectives of others
Improved understanding of Risk & who best to manage	- Early open risk assessment (developed from day one) - Confront and manage risk
Collaborative Project Delivery	- On all types of project - Can't be written into conditions of contract
Best for Project Procurement	- Appropriate to the project and it's needs
Use of Target Cost	- Incentive to deliver (shared objectives)
Alternative Contract Options (NEC3)	- Consider alternative contract options - Must be a desire and a commitment to use
More efficient Project Delivery	- Accept we can do much better?

Discussion?

"When we think our business is through changing......we're through" (Egan 2007)

"We wish to see, within the next five years, the construction industry deliver its products to its customers in the same way as the best consumer-led manufacturing services industries." (Egan Report 1998)

"It is unwise to pay too much. But it's worse to pay too little. When you pay too much, you lose a little money, that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do. The common law of business balance prohibits paying a little and getting a lot – it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run. And if you do that, you will have enough to pay for something better. There is hardly anything in the world that someone can't make a little worse and sell a little cheaper – and people who consider price alone are this man's lawful prey." (John Ruskin 1860)

"Anything that can go wrong, will go wrong." (Murphy's Law)