Selecting the Delivery Model

The Construction Client's Group

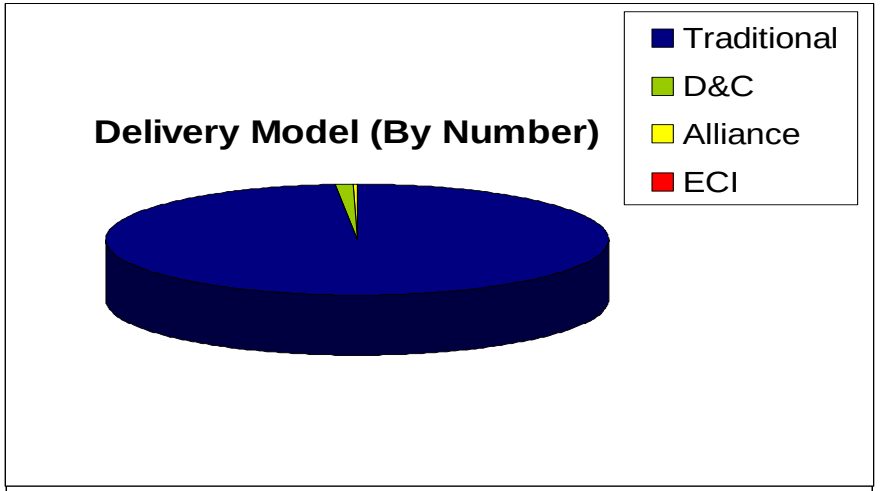
Craig Turner

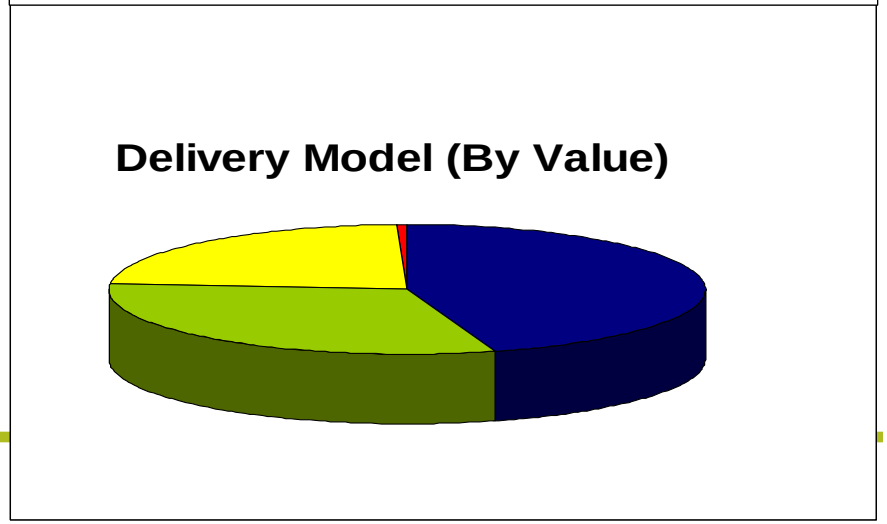
I WILL COVER…

- ✓ The current suite of delivery options
- ✓ Our portfolio procurement strategy
- ✓ Our approach to delivery model selection
- ✓ Where project alliances are likely to be most effective
- ✓ Pure Alliance vs Competitive Alliance

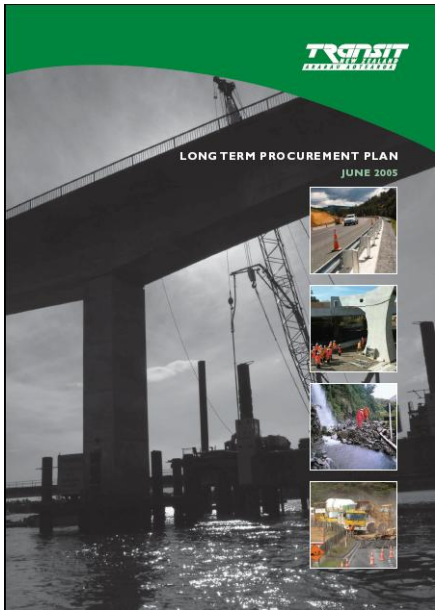
WHAT ARE THE DELIVERY OPTIONS?

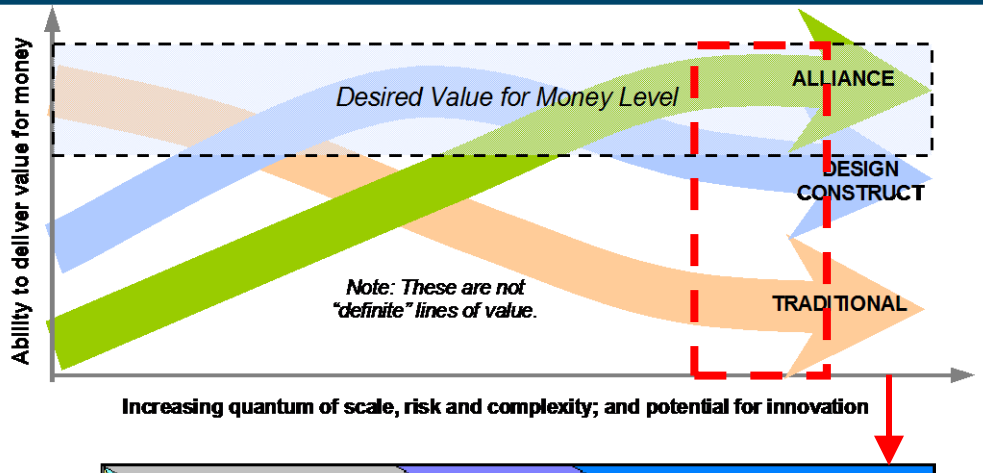
- Increasing number of delivery options
  - ✓ ***Traditional***
  - ✓ ***Design Construct*** – since 2001
  - ✓ ***Pure Alliance*** – since 2001
  - ✓ ***ECI*** – since 2006
  - ✓ ***Competitive Alliance*** – since 2007
  - ✓ ***PPP*** – ….in the near future
- Increasing complexity
- Which delivers best value for money?

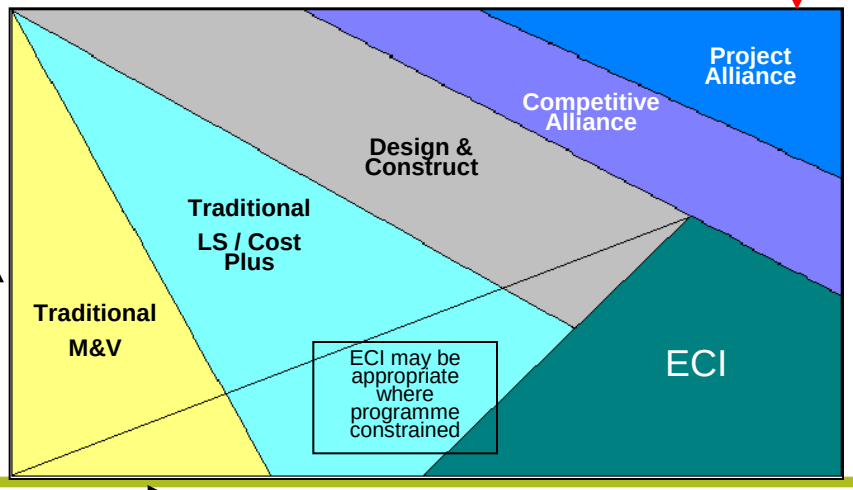




PORTFOLIO PROCUREMENT STRATEGY







The NZTA's Procurement Strategy – 2010

New CPP

NZ TRANSPORT AGENCY
WAKA KOTAHI

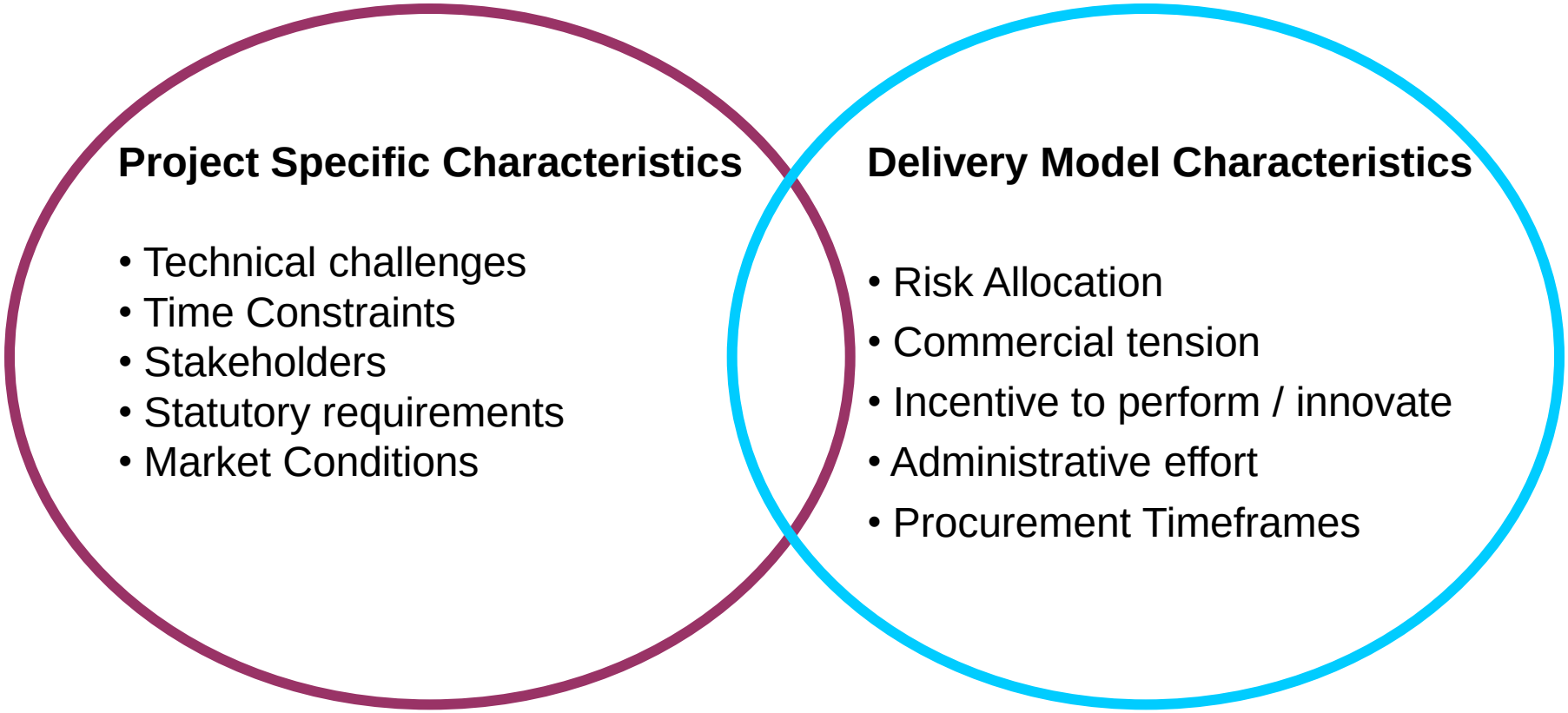
New Zealand Government

PORTFOLIO PROCUREMENT STRATEGY

What are the key principles?

- Delivery models developed with a consistent set of selection criteria
- Procurement to consider market impacts
- Maintain diversity in available delivery models to:
  - ✓ Enhance supplier selection possibilities
  - ✓ Learn different lessons from each model
  - ✓ Avoid the manipulation of a single process
- Specific project objectives to be considered in delivery model selection

DELIVERY MODEL SELECTION

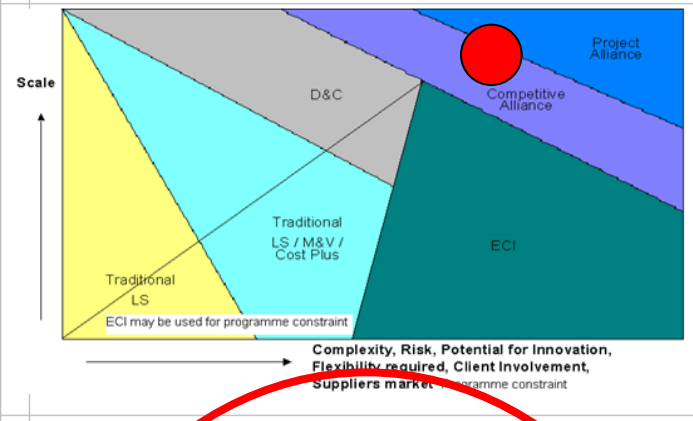


DELIVERY MODEL SELECTION

- **10 Generic Factors**
  - ✓ Scale
  - ✓ Complexity / Scope for Innovation
  - ✓ Programme Constraint
  - ✓ Market Conditions
  - ✓ Risk
  - ✓ Stakeholders
  - ✓ Client Involvement
  - ✓ Focus on non-cost areas
  - ✓ Tangible demonstration of value for money
  - ✓ Flexibility to deal with change

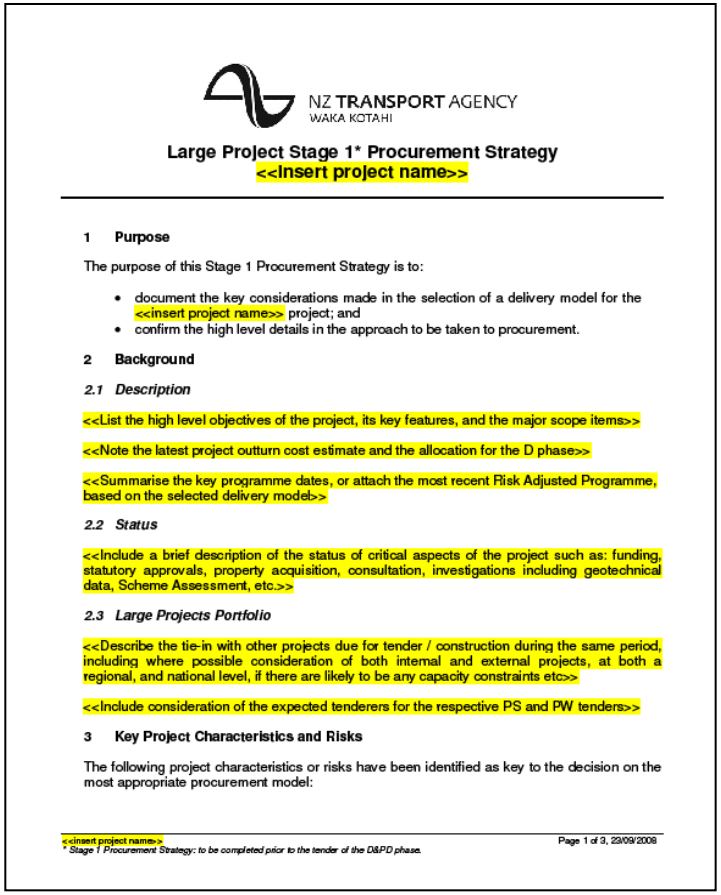
Delivery Model Selection Matrix

Manukau Harbour Crossing



		Rating	Weighting	Comment	Model Rating (out of 5)							
					Traditional M&V	Traditional LS	Traditional Cost Plus	D&C	ECI (LS)	ECI (Prog)	Competitive Alliance	Project Alliance
1	Scale	Est. $100M	5%	Expected Project Estimate Over $250M	1	2	1	5	1	1	5	5
					0.05	0.1	0.05	0.25	0.05	0.05	0.25	0.25
2	Complexity / Scope for innovation	Moderate	5%	Complex interchange and bridge duplication	3	2.5	3	3	3	3.5	3	3
					0.15	0.125	0.15	0.15	0.15	0.175	0.15	0.15
3	Programme constraint	Constrained	20%	Tight delivery timeframe - completion required by mid 2011	2	1	2	3	4	5	4	4
					0.4	0.2	0.4	0.6	0.8	1	0.8	0.8
4	Market conditions	Moderate	15%	Current tight market conditions. Likely to ease over the construction period.	3	3	4	3	2.5	3	3	3
					0.45	0.45	0.6	0.45	0.375	0.45	0.45	0.45
5	Risk	High	10%	Some significant technical issues.	1	3	3	4	4	4	5	5
					0.1	0.3	0.3	0.4	0.4	0.4	0.5	0.5
6	Stakeholders	Many	5%	Numerous stakeholder and consenting issues	2	2	2	2	4	4	5	5
					0.1	0.1	0.1	0.1	0.2	0.2	0.25	0.25
7	Client involvement, control, capability and availability	Moderate	5%	Some resource issues, but desire reasonable level of client involvement and skill development	3	3	3	3	3	2.5	3	3
					0.15	0.15	0.15	0.15	0.15	0.125	0.15	0.15
8	Focus on non-cost success	High	10%	Highly visible infrastructure. Marine environment. Diverse group of end users.	2	3	2	3	4	4	5	5
					0.2	0.3	0.2	0.3	0.4	0.4	0.5	0.5
9	Tangible demonstration of value for money	High	15%	Significant political pressures on the demonstration of value for money	4	4	2	5	2	2	4	1
					0.6	0.6	0.3	0.75	0.3	0.3	0.6	0.15
10	Flexibility to deal with change	High	10%	Incomplete statutory processes likely to necessitate scheme rescoping	3	1	5	1	5	5	4	5
					0.3	0.1	0.5	0.1	0.5	0.5	0.4	0.5
	OVERALL RATING TOTAL		100%		2.50	2.45	2.75	3.25	3.33	3.60	4.05	3.70
	OVERALL RANK				**7**	**8**	**6**	**5**	**4**	**3**	**1**	**2**

PROJECT PROCUREMENT STRATEGIES



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Large Project Stage 1* Procurement Strategy
<<Insert project name>>

1 Purpose

The purpose of this Stage 1 Procurement Strategy is to:

- document the key considerations made in the selection of a delivery model for the <<insert project name>> project; and
- confirm the high level details in the approach to be taken to procurement.

2 Background

2.1 Description

<<List the high level objectives of the project, its key features, and the major scope items>>

<<Note the latest project outturn cost estimate and the allocation for the D phase>>

<<Summarise the key programme dates, or attach the most recent Risk Adjusted Programme, based on the selected delivery model>>

2.2 Status

<<Include a brief description of the status of critical aspects of the project such as: funding, statutory approvals, property acquisition, consultation, investigations including geotechnical data, Scheme Assessment, etc.>>

2.3 Large Projects Portfolio

<<Describe the tie-in with other projects due for tender / construction during the same period, including where possible consideration of both internal and external projects, at both a regional, and national level, if there are likely to be any capacity constraints etc>>

<<Include consideration of the expected tenderers for the respective PS and PW tenders>>

3 Key Project Characteristics and Risks

The following project characteristics or risks have been identified as key to the decision on the most appropriate procurement model:

<<insert project name>> Page 1 of 9, 23/09/2008
* Stage 1 Procurement Strategy: to be completed prior to the tender of the D&PD phase.

- Project Procurement Strategies for all large projects (>$4M)
  - ✓ Selection Matrix used as a rough sorting tool
- Regional Procurement Strategies for Block Programmes (<$4M)
- Empirical approach taken

FOCUSSING ON ALLIANCING

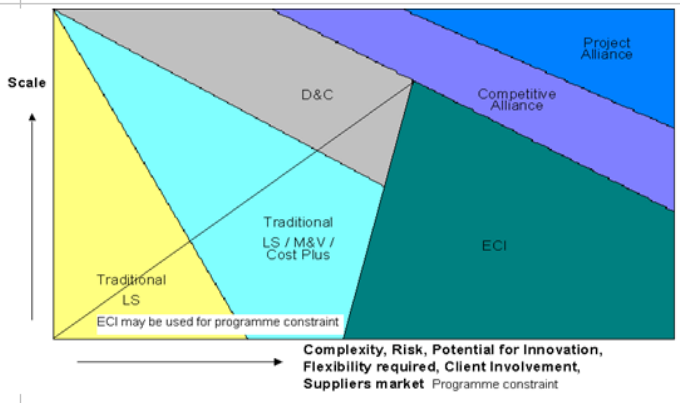
- **Pros**
  - ✓ Best for project focus
  - ✓ Good incentives for performance
  - ✓ Better management of risk
  - ✓ Earlier involvement of Constructor
  - ✓ Reduced contract administration
  - ✓ Skills legacy
- **Cons**
  - ✓ Relatively high overhead
  - ✓ Demand high level of input from senior staff
  - ✓ Price uncertainty
  - ✓ No cap on Client risk
- It's all text book stuff!!! ……how does this translate into the delivery model selection

WHERE DO ALLIANCES WORK BEST?

- What project characteristics lend themselves to Project Alliancing?
  - ✓ Large Scale
  - ✓ High Risk
  - ✓ Complex stakeholder issues
  - ✓ Flexibility required
  - ✓ Difficult environment / Social issues

Delivery Model Selection Matrix

Manukau Harbour Crossing



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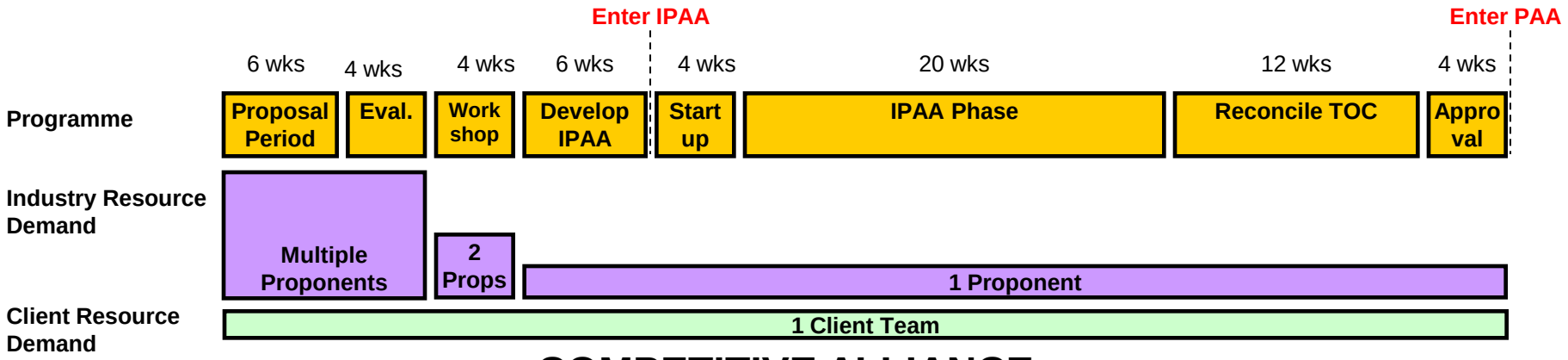
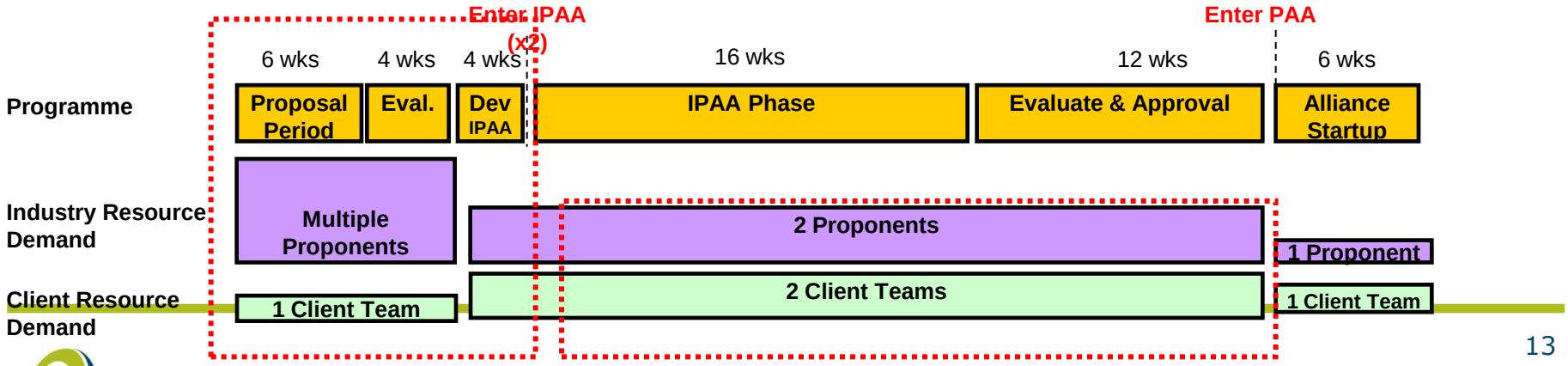
PROGRAM

PURE ALLIANCE



COMPETITIVE ALLIANCE



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PURE VS COMPETITIVE ALLIANCE

PURE

Pros

- IPAA can commence earlier providing greater opportunities for early contractor involvement
- Can adapt more readily to changes
- Selection process based purely on NPA may procure better team

Cons

- "Soft" TOC perception
- Can be expensive in IPAA phase
- Risks around conclusion of the TOC reconciliation process

COMPETITIVE

Pros

- Good incentives for optimising the design during IPAA
- Potential time advantages in procurement
- More opportunities for suppliers
- Relies on market pricing

Cons

- Projects needs to be more developed before IPAA can commence
- Additional cost to industry
- May introduce perverse behaviours

IN SUMMARY

- More and more tools are available to us in the delivery of projects
- There are challenges in matching delivery model to project
- We will continue to look for projects suited to Project Alliancing
- We will continue to trial Competitive Alliancing and other collaborative approaches such as ECI
- There are benefits in the Alliancing approach that could be applied more widely