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Project Alliancing – Sharing Risks and Rewards Through a Collaborative Agreement

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Project alliancing was first used in the U.K. in the early 1990's to deliver improved outcomes in the design and construction of offshore oil and gas projects. Alliancing methods have been used to deliver infrastructure projects in Australia over the past ten years. Australia and New Zealand are leading the use of alliancing to deliver the planning, design and construction of infrastructure projects worldwide. There have been over fifty alliance projects.

I. What is Alliancing?

A project alliance is a relationship where one or more owners form an alliance through a commercial/legal framework with one or more service providers (designer, constructor, supplier, etc.) for the purpose of delivering a specific project. It should not be confused with other forms of collaborative relationships such as strategic alliance, joint ventures, partnerships, teaming agreements, etc.

Under traditional forms of contract, responsibilities and risk are allocated to different parties with commercial and/or legal consequences for the individual parties where they fail to manage their risks or properly discharge their contractual/legal obligations.

Under a "pure" alliance, the alliance participants:

- Assume collective responsibility for delivering the project.
- Take collective ownership of all risks associated with the delivery of the project.
- Develop and agree performance targets including the target outturn cost.
- Share in the pain or gain, depending on how actual project outcomes compare with the pre-agreed targets that they have jointly committed to achieve.

Reference describes project alliancing in considerable detail.[2]

II. What Is Different About Alliancing?

[2] Project Alliancing, A Practitioners Guide (April 2006), www.dtf.vic.gov.au/alliancing.

Alliances can be differentiated from traditional design and construct delivery methods in the following ways:

A. Contractual Framework

The contractual framework is the fundamental difference. Without a contract that supports the philosophy of a pure alliance, you are left with something like partnering, which has the track record of sometimes working and sometimes not. Some of the key differences in an alliance agreement include:

- No Litigation or arbitration permitted between the alliance participants.
- No or few variations.
- Required alliance behaviours are written into the agreement.
- Insurance is sought for the project.
- There is a full sharing of the risk and reward.

An alliance agreement would typically contain the following:

- Setting the tone – behavioural commitments.
- Governance and decision making.
    - ❖ The leadership team.
    - ❖ Owner reserved powers.
    - ❖ Alliance management team.
    - ❖ Dealing with conflicts of interest.
    - ❖ Compensation, invoicing and payment.
- Dealing with variations in cost and time.
- The principle of “no blame”.
    - ❖ No Dispute.
    - ❖ Wilful default.
- Indemnities and insurance.

- Termination for convenience.
- Defects correction period.

B. Commercial Framework.

The commercial model is constructed to drive the appropriate behaviours of the alliance participants. Typically a three-limb model is used:

- Limb 1: 100 percent of what is expended directly on the work, including project-specific overheads.
- Limb 2: A fixed, lump sum fee to cover corporate overheads and normal profit.
- Limb 3: An equitable sharing among all alliance participants of the gain/pain, subject to the overriding principles that:
  - ❖ All payments are 100 percent open-book and subject to validation by independent audit.
  - ❖ The maximum risk for the non-owner participants under limb 3 is the loss of their fee described in limb 2. In other words, the worst outcome would be that they recover limb 1 costs only. Typically, the client has taken fifty percent of the gain/pain share and the constructor and designer have divided the remaining fifty percent share on an 80/20 basis.

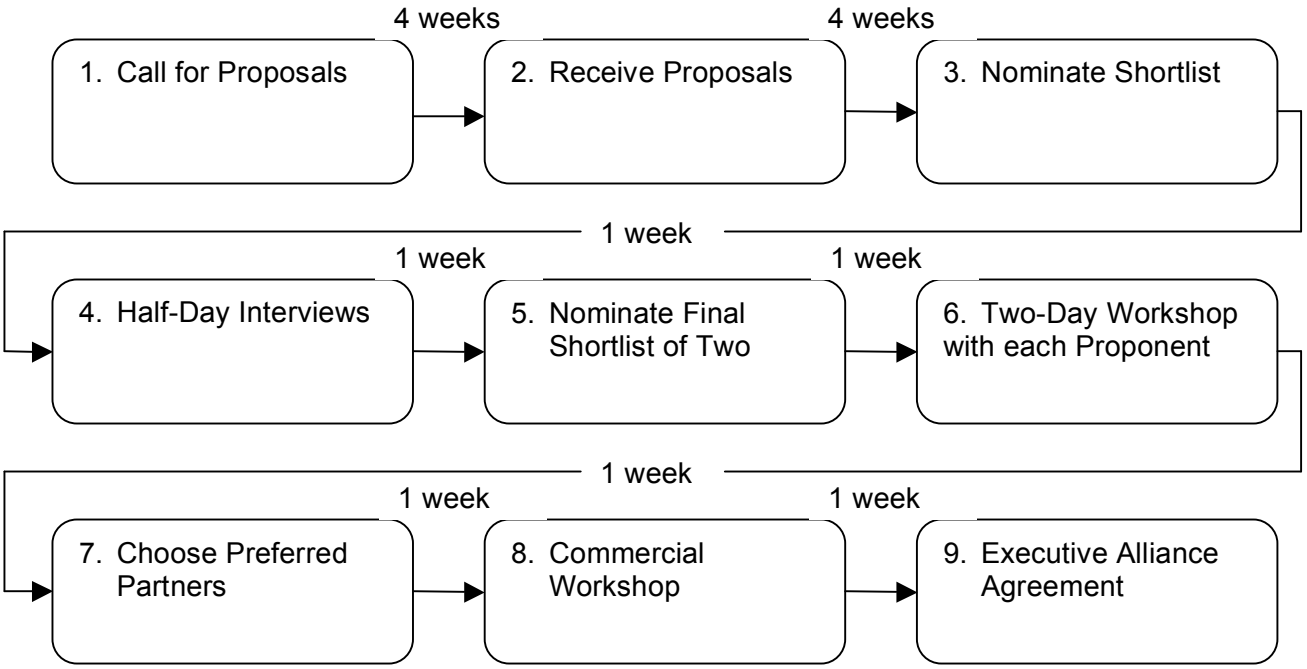
C. Selection Process.

The selection process for the alliance team is very robust (Figure1), and an enormous effort is put into choosing the right partners. Selection is typically based on choosing the team that has the greatest potential to achieve out-standing outcomes. The commercial aspects are not considered by the client in choosing its preferred alliance partner.

Most alliances have been for design and construct projects. In most cases the owner has called for designers and constructors to join in preparing a proposal and offering as a

potential partner with the Owner. Some Owners have trialled calling for designers and constructors separately and then after each selection put a team together.

Figure 1: The Process of Selecting the Alliance Team



D. Project Team Structure and Performance.

The project team structure is substantially different for alliances. The key differences are:

- The integrated alliance team (IAT) that delivers the project is a virtual organization with no company boundaries – the focus is clearly on project processes and outcomes.
- The IAT is usually located under one roof. The integration and innovation benefits from this simple measure are significant.
- The project is led and governed by an alliance leadership team (ALT) or board comprised of senior managers from each participant. The ALT concept ensures participation from the senior decision-makers from each participant at the project level from day one.

- Alliance Coaches are often used to increase the leadership skills of key people and provide tools to enable the team to excel.

A key to the success of an alliance project is how well alignment on goals is achieved and maintained between the partners. The alliance provides the environment where trust is created and knowledge freely shared and where communication between all participants is open, straight and honest.

E. Scope and Budget Development.

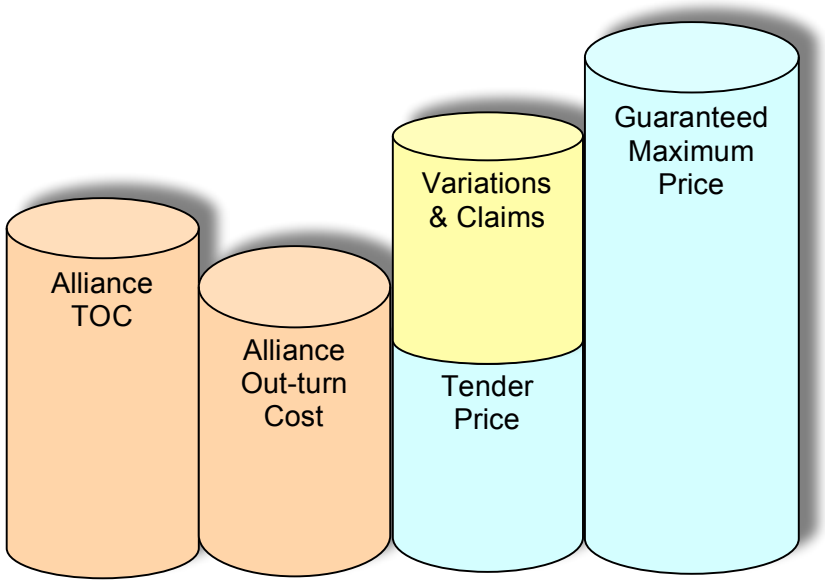
Sitting with the client and developing the scope and budget together may seem logical, but this rarely happens under traditional delivery methods. There are many benefits from this exercise, including the ability to truly understand the functional requirement of the project and then provide a "fit for purpose" scope and standards. The scope of the project incorporates:

- Functional requirements to be delivered including levels of service, standards and timeframe for delivery.
- Form of the project including costs and risks; dimensions, location and work activities.
- Environment that the project is delivered in including permitting requirements.

Arriving at a target outturn cost (TOC) that everyone can align with can be difficult and testing. Significant commitment of time and effort is required by all participants. This aspect of alliancing places extreme pressure on the participants and the industry expert employed by the client to independently assess the TOC. The TOC is an estimate of out-turn costs and, therefore, may exceed what tender prices might be under traditional delivery methods.

The gain/pain arrangements are built around the actual out-turn cost compared with the TOC (Figure2). An under-run activates a Limb 3 return to the alliance participants. An over-run causes a reduction in Limb 2 payment to the alliance participants.

Figure 2: Costs under traditional delivery compared to delivery through an alliance.



F. Outcomes

Traditionally, a specification sets a minimum performance standard that becomes the target in most circumstances, whether the standard is appropriate or not. With alliances, the participants are rewarded for outstanding outcomes for predetermined key results areas. Clients must be willing to pay for better than "business as usual" performance in the key results areas. On the downside, there are considerable penalties for performance below business as usual. Key results would include safety, community, environment, traffic management, time and quality.

G. Establishing Valve for Money

In the absence of price competition in the development of the TOC, it is important that the Alliance participants demonstrate to a far greater level than would normally be required that the TOC is robust and the alliance delivers value for money. Initiatives

include rigorous review of the Owner's budget, independent estimates, nominating benchmark outturn cost data, aligning on variation principles, recording break throughs and cost savings and advanced risks/opportunity valuation.

Some owners have adopted an approach of having two teams prepare a TOC and choose the preferred proponent on this basis. This approach is closer to the traditional design and construct approach.

III. Alliance Experience

For current information on project alliancing activities in Australia, a good reference is the website of the Alliancing Association of Australia www.alliancingassociation.org. Additional examples are also included in Reference 2. [3]

A. Port of Brisbane Motorway

The project involved the Port of Brisbane Motorway connecting the Gateway Motorway with the Port of Brisbane. An Alliance was formed between Queensland Motorways Ltd, Leighton Contractors, PB and Coffey Geosciences to deliver the design and construction. The alliance scope of work, which had a TOC of AU$112 million, are summarized below.

- 4.5 km (2.7 miles) of limited access motorway.
- Twelve major new bridges.
- A multilevel interchange over the Gateway Motorway.
- Modification of three existing bridges.
- Forty year life heavy-duty pavements.

The reasons for forming an alliance included a complex scope and difficult ground conditions along with the fact that the delivery was required within a very tight time frame. In addition, the ultimate owner of the project, Queensland Department of Main

[3] "Beyond Best Practice", G Steele (2007), To Build a Nation (Design Masters Press)

Roads, was committed to relationship contracting and had the desire to find a better way to deliver large, complex projects.

The project got off to a difficult start, with the TOC well above budget that was set in the preliminary planning stages of the project. Some early mistrust in the development of the TOC was replaced by positive working relationships, which saw the project team excel and meet all challenges.

The success of the project was due to an integrated high-performance team that continually searched for a better way. The project also benefited from starting the construction six months late forcing the constructor to do more planning in conjunction with the designer. The project opened to traffic six months ahead of schedule. The final out-turn costs were AU$15million below the TOC.

An independent assessment was undertaken to test "value for money" from the project outcome. This report concluded better value had been achieved than possible by any other delivery.

IV. Benefits from Alliancing.

There are many benefits from using the project alliance approach including:

- Early constructor involvement.
- Better functionality at reduced costs.
- Enhanced relationships between all parties.
- Potentially good financial returns for all participants.
- The ability to test different life-cycle options during development of the target cost estimate.
- Budgets that are not likely to be exceeded.
- Enhanced performance in key result areas such as safety, community and environment.

- Delivery ahead of schedule.
- Professional and personal growth and development of most staff members involved, and tools to develop excellent leadership and management.
- Enhanced management systems.
- A return to good engineering practice as opposed to relying on industry standards, long established practices and general conversation.

V. Conclusion.

The potential benefits of alliancing far outweigh most disadvantages. Considerable benefits have been achieved from design and construction alliances. A few challenges face alliancing if it is to remain as a delivery method of choice. These include:

- Overusing alliancing and, in particular, using it for the wrong projects. It is best for fast track projects with complex risks and many unknowns.
- Ensuring that the TOC is developed through a robust process and everyone agrees that it represents good value for money without compromising the benefits of alliancing.
- Ensuring that whole-of-life aspects are adequately addressed and catered for in the project.
- Seeing that the owner has meaningful representation on the alliance team. The owner must be committed to providing some staff members full-time for the alliance.

One of the best pointer to the success of alliancing is that most of the companies and clients involved have introduced many alliance methods and philosophies into their normal business practices.