# PROJECT ALLIANCES

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#### INTRODUCTION1

There has been abundant discussion in recent years concerning the desirability of implementing general change to the way projects are delivered in the construction industry. The relationship between parties to a conventional construction contract is inherently adversarial, often productive of costly and drawn-out disputes. This arises, in part, from the lump sum character of the traditional remuneration method, which sets the respective interests of client and contractor in fundamental opposition.

Many clients, consultants and commentators have come to the conclusion that innovations which seek to address this state of affairs must do more than merely reallocate risk within the existing adversarial structure. A more radical change as to the nature of the relationship between client and contractor must take place. To this effect, *relationship contracting* has been developed as a new approach to the delivery of construction projects.

This paper specifically discusses *project alliancing* as one emanation of relationship contracting. It will identify project alliancing as a distinct approach to project delivery, and provide some case studies of public sector projects that have been undertaken as alliances. Project alliancing turns upon the implementation of a performance-based contract structure, the alignment of the commercial interests of client and contractor, and a genuine "no blame" culture between the parties. It has the potential to bring clear benefits to the execution of public sector projects. However, as with all innovations, there are aspects of project alliancing which need to be understood in order for measured judgements to be made as to its implementation.

# The move to relationship contracting

It is increasingly recognised that the "zero-sum" mentality—"your gain is my loss"—which traditionally characterises the construction industry is counter-

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productive. The belief that any profit made is at the other party's expense is structurally enshrined in the conventional construction contract, and generates a variety of inefficiencies. At best, it creates a culture of defensiveness. Significant amounts of time and money must be put into the routine of each party defending its contractual position. Even where the parties are on relatively good terms, project management costs will include, for instance, full and detailed documentation in case of later dispute. Where problems do arise, they will be dealt with by blame-allocation rather than by a collaborative search for solutions. Differences of opinion escalate into disputes and claims, as the informal adversarial attitudes of the parties harden into formal conflict. This reappears as defensiveness in the general context of contractual negotiations, which become an exercise in each party attempting to transfer more risk onto the other.

Moreover, the conventional construction contract is not an instrument which facilitates excellence of outcome. The delivery of the project itself is likely to be the lesser for being executed in an adversarial environment. The contractor has an interest in minimising construction costs, even at the expense of producing sub-standard results. Design work is not a matter of exploring the best solution for the client's purposes, but rather of the inflexibility prompted by cost constraints. Importantly, the typical contractual mechanisms, such as liquidated damages and performance security, provide only negative incentive to perform. At most they will ensure compliance with the minimum contractual requirements: there is little in a traditional construction contract to reward outstanding work or to encourage the contractor to strive for an excellent result.

It is in response to this state of affairs that "relationship contracting" has developed. This term embraces a wide and flexible range of approaches to managing the client-contractor relationship, based on a recognition that there is mutual benefit in a co-operative relationship between client and contractor. This is often expressed in the literature as the establishment of a "win-win" scenario. Essentially, relationship contracting seeks to emphasise points of convergence between the respective interests of client and contractor, and, in so doing, parties may well find they have arrived at solutions to areas traditionally characterised by divergence of their interests.

In one sense, the realities of project delivery have always necessitated relationship contracting. As one commentator states,

In truth we [already] have a large volume of relationship contracting. We sign tough contracts but then all the parties put them in the bottom drawer and get on with the job.<sup>2</sup>

However, it is important to recognise the concerted push which has been made in recent years to achieve the widespread restructuring of the basic relationship between client and contractor. The Australian Constructors Association ("ACA"), for instance, has heavily endorsed relationship contracting, as being based on

<sup>&</sup>lt;sup>2</sup> J Service, "Alliancing: For Richer, For Poorer" (1999, July) Chartered Building Professional 8, at 9.

commonsense, open mindedness, adaptability, inventiveness, prudent risk-taking, fairness, commitment, and the reflection of these values in behaviour by the contracting parties; and proven delivery strategies and techniques ... which optimise project outcomes and deliver optimum commercial benefits to all parties involved.<sup>3</sup>

Allowing for the ACA's rose-coloured presentation of relationship contracting as a general panacea, some key ideas in this endorsement are that:

- the client should appreciate that sometimes it can better manage its risks through embracing rather than transferring them;
- aligning the goals of the client and contractor in a gainsharing/painsharing framework facilitates an optimum project outcome; and
- relationship contracting allows for collaborative endeavours to improve project outcomes rather than focusing on penalising non-conformance.

The various manifestations of relationship contracting combine these ideas to differing extents, and to lesser or greater degrees of formality. They range from the cooperative development of projects, partnering, the development of longer-term relationships with groups of contractors, to formal project alliances.

## **Project alliances**

The focus of this paper is one particular approach to relationship contracting: project alliancing. This approach first developed in the oil and gas industries, spreading across to mining and finally to civil and building construction.<sup>4</sup> The distinctive features of the project alliance as a form of relationship contracting are:

- the commercial objectives of the participants are formally aligned;
- it contains a "no blame, no disputes" provision; and
- it is formulated on an individual project basis.

As such, the project alliance is an explicit and robust form of relationship contracting.

#### Alignment of commercial objectives

It is true that all relationship contracting involves some kind of aligning of objectives. However, a project alliance is distinctive in that the alliance agreement will seek to formally align the commercial interests of the respective participants. This is to be contrasted with *partnering*, a term generally used to describe an informal understanding between the client and contractor as to how they will conduct business. There, the parties will

 $<sup>^3</sup>$  Australian Constructors Association, Relationship Contracting: Optimising Project Outcomes, at 5.

 $<sup>^4</sup>$  See G Thomson, "Project Alliances", paper given at Australian Mining and Petroleum Law Association 21st Annual Conference, July 1997.

typically sign a partnering charter which sits behind the standard construction contract, setting out a moral framework of commitment, equity, trust and mutual goals. The usual criticism with such a "gentlemen's agreement" is that, being non-binding and outside the construction contract, partnering can be seen as a disavowal of any legal obligation to act fairly and work co-operatively.<sup>5</sup>

A project alliance will certainly set out shared attitudinal objectives, such as commitment, trust, openness, teamwork and flexibility. It remains, however, a strict business relationship, within which parties actually structure the contract to share commercial risk and reward such that it is in all participants' interests to work co-operatively and openly. This is primarily achieved by the formulation of a performance- or incentive-based structure. The client will agree to meet all the direct costs and some or all of the overheads incurred by non-client participants, and provide additional reward in the form of profit at risk.

At its simplest, the alliance agreement will establish a target cost and a risk/reward curve, allowing the benefits of any project savings or the burden of any overruns to be shared according to a prearranged formula. Thus the incentive to perform has a commercial impetus and is contained in the agreement itself. In addition to the basic objectives of meeting the target cost and time of completion, the agreement may introduce other benchmarks, usually known as Key Performance Indicators ("KPIs"), against which performance may be measured and bonuses awarded. KPIs might include, for instance, environmental or safety standards. They, and the target cost, will be established collaboratively by all participants at the outset of the project according to the usual costs of business.

The risk/reward curve can be made considerably more complicated, to give weight to critical objectives, and to multiply rewards for outstanding achievement, or impose penalties for poor performance. Examples of how this can work will be given when case studies are discussed below. At this point, it is sufficient to stress that while partnering does not fundamentally depart from the commercial structure of the conventional construction contract, project alliancing radically restructures the basis of remuneration, such that the agreement itself contains the commercial rationale for working co-operatively. Appendix 1 to this paper illustrates the risk/reward concept (see page 435 below).

"No blame, no disputes"

The second distinctive feature of a project alliance is that it will contain a "no disputes" clause. All disputes are to be resolved by the alliance board, being

<sup>&</sup>lt;sup>5</sup> For discussions of problems associated with partnering see, for instance, J Dorter, "Implications of Partnering for Mining and Construction" (1996) 12 BCL 174; G Dennehy, "Partnering in the Construction Industry—Is it the Answer?" (1997) 54 ACLN 37; P Davenport, "Partnering—the Next Step?" (1994) 36 ACLN 55; and J Tyrril, "The Dark Side of Partnering" (1998) 9 ADRJ 165.

the body which provides guidance and implements decisions under the agreement. Furthermore, participants will agree not to use arbitration or litigation as a dispute resolution technique. An example of such provision is as follows:

The Alliance Participants embrace the fact that one of the prime advantages of alliancing is to avoid disputation and litigation. ALT [the Alliance Leadership Team] will deal efficiently with the many issues and differences of opinion and conflicts of interest which will arise during the performance of the work under this Alliance Agreement ... <sup>6</sup>

The rationale is obviously the avoidance of an adversarial climate, as well as lengthy and inflexible procedures. The typical requirement that alliance leadership team decisions must be unanimous is a further measure aimed at achieving solutions acceptable to all participants, as in this example:

The Alliance Participants shall use their best endeavours to achieve unanimity in respect of decisions to be made by ALT and no decision can be made by ALT unless unanimity is achieved. The alliance Participants shall comply with the decisions of ALT.<sup>7</sup>

Additionally, the agreement will provide that only in the event of wilful default or possibly an insolvency event will the participants have any legal or equitable cause of action against one another. An example of such a clause might be:

The contractual structure is designed to reinforce the fact that there are to be no disputes or litigation, the only exception being in the event of Wilful Default by an Alliance Participant.

To that end, a failure by any Alliance Participant to perform any obligation or to discharge any duty under or arising out of or in connection with this Alliance Agreement will not give rise to any enforceable obligation at law or in equity whatsoever save and except to the extent that the failure also constitutes a Wilful Default.<sup>8</sup>

This concept of "no blame" is considered to be inherent to the project alliance approach.<sup>9</sup>

## One-off arrangement

A third feature of a project alliance is that it is project-based. This is to be distinguished from a *strategic alliance*, which may be defined as a long-term relationship between two or more organisations, which endures beyond any one specific project. <sup>10</sup> The aim of a strategic alliance is to forge an intimate relationship beween members, and reap the benefits of learning curves so that improvements in performance are carried beyond the scope of any one project. The crux of such an arrangement is the guarantee by the client of a "core work program"—the long-term (or open-ended) commitment of

<sup>&</sup>lt;sup>6</sup> Acton Peninsula [National Museum of Australia] Alliance Agreement, clause 7.

<sup>&</sup>lt;sup>7</sup> *Ibid*, clause 4.3.

<sup>&</sup>lt;sup>8</sup> *Ibid*, clause 7.

<sup>&</sup>lt;sup>9</sup> A Abrahams and A Cullen, "Project Alliances in the Construction Industry", (1998) 62 ACLN 31, at 35.
<sup>10</sup> See D Jones and M Thompson, "Strategic Alliances: Will You Respect Me in the Morning?", paper presented to 1995 CIDA National Conference, 14–16 May 1995.

resources by the contractor is recompensed by the allocation to the contractor by the client of a guaranteed amount of work for the period of the alliance.<sup>11</sup>

The project alliance, on the other hand, is limited to one project. A project alliance agreement can take a variety of forms, but it always incorporates or applies to a specific scope of works. For each new project, the client will undertake a rigorous selection process, calling for proposals from either individual organisations or pre-formed consortia, and arriving at the preferred bidders through a procedure involving interviews and workshops on alliancing. Given that in a project alliance, the target cost is established collaboratively after or near the end of the selection of participants, the selection criteria need to be something other than tender price. Thus, selection is according to a range of "soft dollar" criteria. Bidders will be asked to provide historical examples of their ability to:

- complete the full scope of the works;
- achieve outstanding results;
- provide the necessary resources;
- meet the project program;
- innovate:
- meet safety, environment and workplace goals (where applicable); and, importantly,
- understand the requirements of a project alliance, and operate accordingly.<sup>13</sup>

Such criteria, besides representing a departure from the conventional heavy reliance upon tender price, are obviously geared towards choosing organisations which will be most suitably matched in every respect to the project in question.

# Structure of a project alliance

Allowing for divergences between individual models, and differences in terminology, a typical alliancing agreement will have the following structure:

- (a) The alliance participants jointly create the notional entity of the alliance. This may be done either by each participant contracting separately with the client, or, more commonly, by all participants, including the client, signing a single alliance instrument.
- (b) The project is controlled by an Alliance Leadership Team ("ALT"), or alliance board. The agreement will provide for:

<sup>11</sup> The core work program is usually estimated with reasonable certainty over a five- to seven-year period.

<sup>&</sup>lt;sup>12</sup> See "Case Studies", page 417 below.

<sup>13</sup> These criteria are taken from the National Museum of Australia selection process: DHT Walker, "Project Alliancing and Project Partnering: What's the Difference? Partner Selection on the Australian National Museum Project", paper given for the Experience of the Federal Government in Procuring the National Museum Project seminar series, March 2000.

- composition (e.g., two representatives of each participant);
- structure (e.g., to be chaired by a representative of the client);
- voting (equal voting rights); and
- unanimity (it is recommended that there be no dispute resolution mechanism to deal with the case of deadlock—the ALT should be forced to resolve issues).
- (c) An Integrated Development Team ("IDT") will be established under the guidance of the ALT, to be led by a project manager. Positions on the IDT are filled by drawing upon the best resources available to each of the participants, as the project may require.
- (d) The commercial arrangements will be set out and include provisions concerning:
  - no disputes:
  - remuneration;
  - personal injuries, property damage and third party liabilities;
  - joint/several liabilities;
  - limitation of liability;
  - default of a party;
  - dispute resolution.

Outsiders, such as suppliers and sub-contractors, will either enter into conventional contracts with the alliance, or will be invited to join with the alliance in "sub-alliances" conducted on a risk/reward basis.

This basic structure of a project alliance is represented in Appendix 2 to the paper (page 436 below).

#### CASE STUDIES

Having looked at the essential features of a project alliance, it should be stressed that the method remains flexible in that the precise form it takes will depend upon the requirements of the particular client and project. The following section looks at three case studies of public sector project alliances, the Northside Storage Tunnel, the Port of Brisbane Motorway, and the National Museum of Australia projects, by way of illustration of some of the forms a project alliance can take. Where possible, there is also discussion of outcomes and some lessons which have emerged during their implementation.

# The Northside Storage Tunnel

# The project

The Northside Storage Tunnel ("NST") is an early action measure to improve water quality in Sydney Harbour by reducing sewage overflows. Two new tunnels totalling approximately 20 km in length have been built 40–100 metres below sea level in the northern suburbs of Sydney. After wet weather,

the tunnels will temporarily store 500 million litres of rainwater and diluted sewage that would otherwise overflow into the Lane Cove River, Scotts River, and the Harbour. The tunnels will then convey the sewage for treatment at the North Head Sewage Treatment Plant. This will reduce overflow events by 80–90 per cent. The NST is a project alliance for the Sydney Water Corporation ("SWC"), of which the other alliance members are Transfield (contractor), Connell Wagner and Montgomery Watson (engineering consultants).

The principal reason why SWC used a project alliance was schedule. The Environmental Protection Agency had requested the project's completion before the Olympics, so SWC sought a contract approach which was able to avoid a schedule blow-out. Alliancing was thought to be the method best able to address this concern, and would also deliver the subsidiary benefits of flexibility in design and delivery methodologies, and the opportunity for outstanding results. From prior to the formation of the alliance, SWC had fixed upon five project objectives: schedule, cost, environment, community and safety.

# The bidding process

SWC invited consortia to submit proposals based on a risk/reward curve and requirements issued to the industry. Eight responses were initially received. Assessment was based on such "soft dollar" criteria as:

- experience with high speed, large scale tunnelling;
- ability to handle full scope of design and construction;
- satisfactory safety performance;
- financial capability to undertake project;
- demonstrated understanding of and affinity for alliance contracting;
- quality of personnel in each major discipline;
- robustness of the proponent group.

Two groups were shortlisted, who then each had to attend a two-day workshop to establish the alliance principles, commitment to achieving outstanding results, the target schedule, an integrated project team, and the alliance leadership team. The preferred alliance was then selected, and negotiations entered into as to the risk/reward structure, the final alliance agreement, and the direct cost framework based on "business as usual" (BAU) rates. During this negotiation period, the other shortlisted group was "kept to one side" in the case of a failure to reach agreement with the preferred group. As it turned out, agreement was reached with the preferred alliance consortium.

# The alliance agreement

The alliance agreement was a single document, signed by each alliance member, setting out the alliance principles, the project objectives, the risk/reward curve and the Project Alliance Leadership Team ("PALT"). The alliance principles were:

- act in a way that is "best for project";
- build a "champion" team which is integrated across all disciplines and organisations;
- commit to a "no-blame" culture;
- use breakthroughs to achieve exceptional results in all project objectives;
- commit corporately and individually to openness, integrity, trust, co-operation, mutual support and respect, flexibility, honesty and loyalty to the project;
- deal with and resolve all issues with the Alliance;
- spread the Alliance culture to all stakeholders.

# Establishing benchmarks

Benchmarks for each project objective were established so that performance in respect of each objective could be rated poor, "business as usual", best practice or outstanding. The target cost was set according to analysis of "business as usual" ("BAU") direct costs. Benchmarks for each non-cost objective (environment, community and safety) were developed by breaking each objective into sub-categories of desired standards. For the non-cost objectives, benchmarks took into consideration both "process" and "outcome" elements, in accordance with SWC's policy that the alliance should not benefit from outstanding outcomes achieved at the risk of poor or accidental processes. Some benchmarks were completely novel: "community" had never before been used in a project of this kind, and "safety" had never before included process evaluation in addition to outcome evaluation. After the participants had agreed on the benchmarks, they were verified by an independent expert for the purposes of probity and viability.<sup>14</sup>

# The risk/reward curve

The risk/reward curve was established to the following effect. Maximum reward was made to delimit maximum risk. The basic breakdown was that cost overruns/savings would be shared by SWC and the other participants in

<sup>&</sup>lt;sup>14</sup> In respect of the BAU ("business as usual") direct costs estimate, the assessment technique employed by the independent expert was as follows. The expert used probability analysis to draw up a bell curve plotting the likely spread of tenders, had the project been let out as a conventional lump sum contract. On the assumption that the winning tender would be drawn from the lower 20–50 percentile band, he placed the BAU estimate on the bell curve in comparison. As it turned out, the BAU estimate was slightly outside the 20–50 percentile, meaning that the expert had evaluated the estimate to be slightly too high. The estimate was reevaluated by the alliance, and contingency allowances were reduced. In particular, the

the ratio of 60:40. However, the curve was complicated to allow the risk/reward regime to take into account non-cost considerations in two key ways. Firstly, SWC would put 50 per cent of any savings it was entitled to into an "incentive pool" created for the remuneration of the other participants in the case of an outstanding result in any non-cost objective. This meant that the other participants had the opportunity to reap very significant rewards, but only if the project came in under the target cost. If savings were not available the incentive pool would remain at an initial, relatively modest, value separately funded by SWC. Secondly, a "fee modifier" mechanism operated so that a poor result in one non-cost objective would reduce net savings gains by 50 per cent. Poor results in two or more non-cost objectives would reduce net savings gains by 100 per cent. Thus, the penalties for poor performance were potentially quite severe, notwithstanding that the alliance agreement did not impose such traditional negative incentives as liquidated damages.

#### Sub-contractors

Sub-contractors and suppliers contracted notionally with the alliance, even though the alliance was not a legal entity. All ordinary sub-contracts and supply contracts were entered into as conventional agreements. However, three sub-contracts were considered to be critical enough to affect the prospects of the project. These were the marine (all equipment and spoil had to be moved by barge), electrical and surveying sub-contracts. In each of these cases, the sub-contractors were "brought into the fold" of the alliance. That is, sub-alliances were established between each of the critical sub-contractors and the alliance on a risk/reward, co-operative basis.

## Outcomes

The project is ongoing, but as of the August 2000 Progress Report to the PALT<sup>15</sup>:

- safety is rated outstanding (the project is the first construction project in Australia to have achieved the "Advanced Level" SafetyMAP Standard for safety management criteria);
- community and environment are at best practice levels; and
- schedule is rated BAU.

customary allowance for interface problems between the owner's operations and project construction was thought to be reducible, given that such problems if they emerged would be within the control of an alliance member (i.e. SWC), and could be dealt with as a management issue. The revised BAU estimate came within the 20–50 percentile, and was adopted as the target cost.

<sup>&</sup>lt;sup>15</sup> The report is a composite of evaluations undertaken by independent experts in each of the project objectives.

No objectives have been rated as poor, and the fee modifier has not been triggered. However, there have been no cost savings (although cost blowouts have been avoided by absorbing the costs of, for instance, latent conditions, within the alliance). This has meant that the incentive pool has remained at its initial level. <sup>16</sup>

#### **Problems**

The most problematic aspect of the project was the target cost, which gave rise to two significant issues. Firstly, the alliance faced serious difficulties in having to defend the target cost in the political sphere. Despite independent verification, and the fact that the alliance structure allowed the participants to absorb risks for which allowance in the cost price would have been made under a conventional contract, 17 this problem arose because the initial cost estimate, made before negotiations and completion of the design scope, was some \$100 million less than the BAU estimate. This lower figure proved simply to be unrealistic, but it was nonetheless the one seized upon by politicians, to the effect that the alliance was and is under constant pressure to justify the target cost in comparison to the initial estimate. This problem was felt by the participants to be particularly frustrating because it did not derive from any fault in the alliance procedure for arriving at a BAU estimate, but rather from interference from the political sphere. The lesson was felt to be that the client should be extremely cautious about releasing initial estimates before the full design scope is finalised.

A second cost-related problem arose in that the BAU estimate in fact turned out to be too low. As is typical of underground work, serious latent conditions were encountered. Here, however, the target cost did not make sufficient provision for geo-technical contingencies. This was partly because of the above-mentioned political pressures, and partly because the participants were simply too optimistic about physical conditions. Although a cost blowout was avoided by the participants' absorption of risk, the fact that no savings were made, and subsequently no outstanding rewards allotted, was largely because the target cost was too low. This again was considered frustrating, because it illustrates how an inaccurate target cost can cause the participants to miss out on outstanding rewards, even though outstanding results were achieved and the fundamentals of the alliance were thought to have been correct.

It should be noted that the alliance participants must work to overcome the difficulties of transition from conventional contractual attitudes to alliancing attitudes. On the client side, there was some perception of a loss of control over the project, although it has been independently found that SWC had

<sup>&</sup>lt;sup>16</sup> It is interesting to note that the various progress reports show a general improvement in the outcomes on all non-cost objectives. This is attributable in part to the detailed ongoing evaluation, which has seen the project become an excellent learning structure for the participants.

<sup>17</sup> See note 14, above.

some difficulties in establishing "a clear ownership of the project", and defining "the boundaries ... between SWC and the Alliance". <sup>18</sup> This was found to have been remedied as the project went on. On all sides, the flexibility and openness to collaboration required in an alliance was achieved in time with the conscious encouragement of these qualities in individual personnel by the participant organisations.

# The Port of Brisbane Motorway

# The project

The Port of Brisbane and its surrounding industrial area are expected to expand beyond the capacity of the existing local transport infrastructure. In response, the Queensland Department of Main Roads ("DMR") will produce the Port of Brisbane Motorway ("PBM"). The PBM will have to satisfy the requirements of increasing freight movement, while providing an "aesthetic facility" that satisfies environmental requirements.

Stage 1<sup>19</sup> of the PBM project is divided into four packages, of which only Package 3 is in the form of an alliance. Package 3 will involve the construction of on and off ramps and an intersection, motorway formation earthworks and construction, and ten major bridge works.

The DMR released to the industry the Request for Proposal, the Planning and Preliminary Design Report and other project information in September. The closing date for the submission of proposals is 28 October 2000. The public sector members of the alliance will be Queensland Motorways Ltd ("QML"), a GBE which operates other Queensland motorways on a commercial basis, and the Major Projects Group ("MPG"), the project management section within the Transport Technology Division of the DMR. Other alliance members will comprise a constructor and a designer.

The primary reason given by the DMR for adopting a project alliancing approach was the perceived ability to control the scope of the project and cost management. Other perceived benefits of alliancing were quality control breakthroughs, and the acquisition of enduring skills on the part of participants.

# Formation of the alliance

The consortium selection process will be conducted in a similar fashion to that of the Northside Storage Tunnel, through assessment, interviews and workshopping, with such selection criteria as:

the ability to manage/deliver the full scope of work;

<sup>&</sup>lt;sup>18</sup> NSW Audit Office, Auditor-General's Report to Parliament 1999, Volume Three, at 871.

<sup>&</sup>lt;sup>19</sup> Stage 2 will be undertaken at some time in the future.

- capacity and commitment to excel as alliance participants and achieve outstanding results;
- ability to innovate; and
- ability to achieve outstanding outcomes in key objective areas.

However, the process differs from the NST alliance in that after selection of the preferred consortium, QML/MPG and that consortium will enter an Interim Project Alliance Agreement ("IPAA"). This will be akin to a simple form of consultancy agreement, to reimburse the non-client participants for their efforts in establishing the target cost, the schedule, the design, and negotiating the risk/reward curve. If the Target Cost Estimate ("TCE") is agreed upon, the participants will progress to the Project Alliance Agreement proper. The Project Alliance Agreement will be one document signed by all participants.

The alliance will take a similar structure to that of the NST alliance, with governance provided by a Project Alliance Board, made up of senior representatives from QML/MPG and one or more senior representatives from each of the non-client participants. The PAB will appoint a project manager to head up an Integrated Alliance Team, made up of personnel drawn from all alliance participants on a "best for project" basis.

# Key objectives

At this stage it is of course unclear as to the precise form the risk/reward curve will take. However, QML has prescribed its key objectives, which echo those applied in the NST alliance, with the following additions:

- risk—the alliance must manage all the risks (technical and other) to ensure optimal outcome;
- quality—the alliance shall ensure the specified quality requirements are not compromised;
- traffic—the work is to be carried out without undue disruption of traffic through and across the site, in particular the Gateway Motorway. Existing traffic flows are to be maintained at all times;
- interface—the alliance must conduct its operations in such a way that enables Packages 1, 2 and 4 to meet their respective objectives in line with the requirements of the overall project.

How performance will be measured against these objectives will be settled during the IPAA period.

# Interaction of alliance with other packages

An interesting aspect of the PBM alliance is that it is an alliance structure within a broader traditional project framework, and this has had to be factored into the alliance agreement. There are three other packages to the overall motorway project being executed concurrently, and each of these will

be executed through conventional contracting.<sup>20</sup> The alliance participants will be required to do whatever is necessary to liaise and co-ordinate the alliance works with these other packages so as to ensure the success of the whole of Stage 1, not just Package 3. The importance of this aspect of the work is such that, as seen above, interface will be formalised as an objective against which performance is measured.<sup>21</sup> This is a potentially difficult situation, as performance assessment in respect of the interface objective will presumably have to cope with the added variable of the attitude and actions of those outside persons executing the other packages.

# National Museum of Australia

# The project

in 1996, the Commonwealth Government announced its decision to proceed with the design and construction of the long-awaited National Museum of Australia ("NMA"), a project which had been "in the pipeline" for several decades. The NMA is believed to be the first alliance project between a government agency and the private sector for a traditional building project. The museum opened in March 2001.

The total project is worth \$130 million, funded by the Commonwealth as part of the celebrations of the centenary of Australian Federation. The NMA complex will also include facilities for the Australian Institute for Aboriginal and Torres Strait Islander Studies, and is located on the Acton Peninsula on the foreshore of Lake Burley Griffin in central Canberra.

The alliance participants are as follows:

- Commonwealth Department of Communication, Information Technology and the Arts ("DCITA")—client;
- Australian Capital Territory Government—client;
- Ashton Raggatt McDougall and Robert Peck von Hartel Trethowan architects;
- Bovis Lend Lease—project management;
- Anway & Co—exhibit designers;
- Bassett Consulting Engineers—electrical and mechanical services consultants;
- Honeywell—security and BMS; and
- Tyco International—mechanical services.

# Why an alliance?

A project alliance was thought by the clients to be the most promising vehicle of project delivery in the following circumstances:

 $<sup>^{20}</sup>$  Packages 1 (early works, wick drains and preloading), 2 (Hemmant Road Overbridge) and 4 (Lytton Road upgrade) are outside the alliance.

<sup>&</sup>lt;sup>21</sup> It will be recalled that in the NST alliance, interface was thought to be able to be managed by the client, as the relevant interface was a client operation.

- there was an absolute cap on the available project funds;
- the works were technologically demanding (breaking new ground in several areas); and
- the opening date was absolutely fixed (the project is to be a flagship of the Centenary of Federation celebrations).

Besides this, the Commonwealth has professed itself to be keen to take a lead role in fostering new forms of industry groupings and delivery processes aimed at reform and innovation in contract management.<sup>22</sup>

## Forming the alliance

The architects for the project were selected by a different and earlier process. The design of the NMA had been the subject of an international architectural competition and the winners thereof, Ashton Raggatt McDougall in joint venture with Robert Peck von Hartel Trethowan, were appointed as architects.

After this, the DCITA established a design brief with the aid of specialist museum and exhibition consultants and academics, such that the brief contained very stringent requirements for lighting and humidity controls and so forth. Expressions of interest in an alliance contract were then called for on the basis of the design brief, and applicants were shortlisted and finally selected through the now familiar procedure of interviews and workshops.

The alliance agreement is one document signed by the Commonwealth, the Australian Capital Territory Government (which is funding the ACT Cultural Centre on the same site), and each non-client participant. The usual alliancing commitments (outstanding results, openness, no disputes, and so forth) are appended to the agreement in an alliance charter, along with commitments to collective ownership of all decisions, and "achieving a balanced quality of life". The agreement further establishes the alliance board and project management team, remuneration structures, and the circumstances for variation, termination, and any liabilities which may arise (for wilful default only).

# Risk and reward

The risk/reward structure is as follows. The target outrun cost ("TOC") is the sum of profits, overheads and direct costs, agreed to at the workshop stage, based on BAU estimates (historically derived). The risk/reward curve operates along the TOC according to the following elements:

 cost: any movement in costs at completion over or under the TOC is shared in pre-agreed proportions;

<sup>22 &</sup>quot;The search for excellence in contract management is arguably one of the most pressing challenges for the Australian Public Service": Joint Committee of Public Accounts and Audit, Official Committee, Hansard, 29 March 2000, at 85.

- time: substantial monetary penalty incurred by non-client participants for late completion, no monetary benefit for early completion;
- design integrity: this verified by an independent panel on an ongoing basis, and if not maintained, non-client participants incur substantial cost penalty; and
- quality: The clients have funded a reward pool which will be accessed by the non-client participants in the event of outstanding results in:
  - workmanship;
  - cultural excellence;
  - safety;
  - environment;
  - public relations; and/or
  - employment of indigenous people.

(Achievement here is rated either below BAU, BAU, or above BAU, and scoring is independently verified.)

#### **Outcomes**

At this stage, the following may be said about project outcomes. Although it commenced on site three months late, the project is currently on schedule (aided by the use of innovative document management technology). Design integrity is intact, and the project is currently on budget. Eight sub-alliances have been established with important sub-contractors.

In a paper published last year, Jim Service, the Chairman of the NMA and of its Construction Co-ordination Committee, drew attention to the following "issues of principle" that emerged from the NMA alliancing experience.<sup>23</sup>

- The most critical issue is attitudes: the selection of all players, which is a client responsibility, absolutely must focus on the mindset and philosophy as well as the skill sets and demonstrated performance record, of all potential participants. It seems that because the architects were chosen by an earlier and different process, "there was an extra layer of complexity in settling the risk/reward content of the Alliance, so as to accommodate existing fee expectations". This would appear to be inevitable where one participant is brought in and established before the terms of the alliance (the risk/reward curve, and the management of risk) have properly become the subject of negotiation between all alliance participants.
- Echoing the NST experience of excessive optimism in respect of the target cost, Service writes that "[g]etting the concepts right is not that difficult. As always, the devil is in the detail". 25 The effort involved in

<sup>&</sup>lt;sup>23</sup> Service, *op cit*, note 2, at 9–10.

 $<sup>^{24}</sup>$  *Ibid*, at 10.

<sup>&</sup>lt;sup>25</sup> *Ibid*.

- settling the target cost, the performance quality benchmarks and their methods of measurement, and the risk reward curve, and in identifying the risks altogether, should not be underestimated.
- Jim Service also notes that there remains the problem of bringing the alliance culture to workforce level. "If we are to reap the potential benefits of trust building, problem solving and reward sharing, we need the guys and girls doing the physical work to be players." Exploration of ways to extend alliance culture to workforce level would be worthwhile, given that the attitude and degree of cooperation of workers can have a bearing upon performance (even directly, should it suit a public sector client to include workplace relations as a KPI), and that much problem-solving can occur at the hands-on level.

#### COMMENT

# A qualified thumbs-up

There are arguable benefits to public sector agencies in utilising alliancing as a method of project delivery, in respect of both meeting the demands of budgetary austerity, and of ensuring the special requirements of public works projects are achieved. In comparison to the conventional construction contract, the project alliance as a mode of project delivery facilitates or requires many circumstances and practices which result in ultimate cost savings. These may be summarised as follows:

- The contractor gains a better understanding of the client's needs from the outset of the project.
- The client is better able to utilise the other participants' skill in defining its requirements and avoiding wasteful practice.
- There is a reduction in the costs associated with each party's defence of its contractual position.
- Problems which arise are met by a creative and collaborative search for solutions.
- There is incentive to strive for best practice and outstanding results, rather than to do merely the minimum required to avoid penalty.

These factors add up, in the avoidance of dispute and all kinds of waste, such that the project alliance has enormous potential to bring the project in at (or under) cost and on schedule, a fact recognised by its increasing implementation by various Australian government agencies. <sup>27</sup>

Additionally, project alliances allow public agencies to more rigorously assure performance in respect of the non-cost objectives which may be crucial

<sup>26</sup> Ibid

<sup>&</sup>lt;sup>27</sup> On the general level of acceptance of project alliancing in government bodies, see J Prately, "Project Alliancing: Does it Work?", (1999, July) *Building Australia* 33.

to the client. Intense scrutiny of the delivery of public works projects by stakeholders and the public at large make it overwhelmingly desirable to the client that it can strictly monitor such non-cost objectives as environment and safety. As seen in the NST case study, for instance, the establishment of the client's non-cost objectives was the key to outstanding and best practice results, in both outcome and process, in such areas as environment and safety. Furthermore, the flexibility of the benchmark mechanism is such that the kinds of objectives which the client can entrench as performance measures are limited only by what can be broken down into an objective measurement scheme. As we saw in the NST alliance, the client introduced the novel objective of "community", and the NMA alliance incorporated the objective of the employment of indigenous people. This demonstrates that the project alliance structure can be adapted to meet the circumstances of the particular client and project.

There are, however, some issues to which attention must be drawn. The two main areas concern probity and the approach to liability. These are discussed below.

## **Probity issues**

The public sector is unlike the private in that it is accountable to the public and subject to audit and political scrutiny. Thus a particular issue in respect of public sector project alliances is the need to demonstrate probity in three particular areas:

- the procurement process;
- the establishment of a target cost and other KPIs; and
- the assessment of performance.

It should be apparent that the arrangement observes the core principles of value for money, open and effective competition, fair dealing, and accountability and reporting.<sup>28</sup> This is more complicated where selection does not include valuation of lump sum contract prices. Furthermore, it must be clear that there is no taint of collusion between alliance members in a structure where adversarial scrutiny is replaced by collaboration not only in establishing the project cost, but in assessing the criteria for remuneration.

It is possible to adopt procedures to meet these concerns.<sup>29</sup> It is important to remember that the project alliance is conducted in the context of open-book accounting, but there are also specific techniques which do much to ensure probity. In relation to the selection of participants, the requirement that the process be competitive is able to be met by ensuring an

<sup>&</sup>lt;sup>28</sup> Commonwealth Department of Finance and Administration, *Commonwealth Procurement Guidelines: Core Policies and Principles* (1998), at 3. See also, e.g., New South Wales Government, *Policy Statement: NSW Government Procurement*, White Paper (1999).

<sup>&</sup>lt;sup>29</sup> A strategic alliance is more open to the criticism that it is merely a "cosy" relationship between the parties: see R Palles-Clark, "Objective Assessment and Selection of Partners by Government", (1998) 14 Const LJ 240.

open and transparent process. The publication and release to the industry of the call for proposals and the basis of selection represents no significant departure from current practice. A further strategy to maximise competition can be found in the NST example of the client's "keeping the runner-up on the backburner", even while entering detailed negotiations with the preferred contender, in order to maintain alternative options right up until the deal was signed. The requirement of securing best value for money is achieved by application of the proper selection criteria. For instance, the criterion of "demonstrated ability to minimise project capital and operating costs without sacrificing quality" was acceptable to the Australian National Audit Office as sufficient observation of the value for money principle in respect of procurement for the NMA project. Office and the suggestions for cost savings on the NMA project and the methodology proposed to minimise costs without sacrificing quality.

A key issue is how to assess the probity of the target cost arrived at by the participants. This will generally be evaluated in two ways: firstly, by independent verification of the BAU estimates provided by participants against industry norms; secondly, by assessing the target cost against a probabilities-analysis estimate of tender prices had the project gone to conventional tender. This may necessitate the downward revision of the target cost initially arrived at by the participants. 31 In respect of the evaluation of performance against the target cost and other KPIs, the alliance will have to ensure either independent assessment of performance, or independent verification of performance assessment undertaken by alliance members. It is crucial to develop a detailed and comprehensive assessment regime with objectively quantifiable benchmarks, such that the transparency and accountability principles are satisfied. There are, therefore, effective techniques which ensure probity in a project alliance, but they will involve significant cost, incurred in both the time taken to develop KPIs and benchmarks,<sup>32</sup> and in the requirement of independent scrutiny.

#### General liability issues

The issue of the contractor's liability under a project alliance is a potentially contentious one. As seen above, the "no blame, no disputes" clause in an alliance agreement will generally free the participants of liability in respect of

<sup>&</sup>lt;sup>30</sup> G Caine, "Ensuring Accountability in Your Alliance Contract—National Museum of Australia Experience", paper presented to Business Law Education Centre Conference, *Government Contracting* 2000, August 2000, at 3.

<sup>&</sup>lt;sup>31</sup> See note 13, above.

<sup>&</sup>lt;sup>32</sup> Also to ensure the proper weighting is given to each benchmark: the NSW Auditor-General found that, in the case of the NST, the schedule objective may have been allowed to overshadow other objectives, such as community consultation. See NSW Audit Office, *Auditor-General's Report to Parliament 1999*, Volume Three, at 856.

everything except wilful default, which is usually given a very narrow definition, such as:

... such wanton or reckless act or omission as amounts to a wilful and utter disregard for the harmful and avoidable consequences thereof, including without limitation failure to pay within 30 days of demand moneys payable pursuant to the terms of this Alliance Agreement, but shall not otherwise include any error of judgment, mistake, act or omission, whether negligent or not, made in good faith by that Alliance Participant or by any director, officer, employee, agent or subcontractor of that Alliance Participant.<sup>33</sup>

While the list of exceptions may not be exhaustive, unless there is a breach which comprises wilful default, the innocent party will probably be left without any remedy.

This means that the client will have no remedy against the other participants for damages or losses or expenses suffered by it as a result of a non-client participant's negligent, inefficient or other defective performance of its obligations under the agreement. Of course, it works both ways, but given that the non-client participants are going to be carrying out most or all of the work, the clause impacts the client much harder than it does the other participants. This, it should be remembered, occurs within a general structure in which the client pays all actual costs incurred by all participants, such that the most non-client participants risk for sub-standard performance is some or all profit. Thus the client inevitably takes a "leap of faith" in initiating a project alliance, and should do so only where it has a high degree of confidence in the alliance participants and the success of the project.

It has been suggested that there is no reason why under a performance-based contract the contractor should not still be liable for those risks clearly within its control.<sup>34</sup> This may be a prudent move, as it is arguable whether the incentive structure alone is robust enough a mechanism to ensure satisfactory performance. This is especially questionable given that there have been instances in Australia where the contractor has included hidden profit in its representation of BAU direct costs. In the case of *Theiss Contractors Pty Ltd v. Placer (Granny Smith) Pty Ltd*,<sup>35</sup> the parties entered into a mining contract on a risk-sharing basis.<sup>36</sup> The remuneration structure was established according to the contractor's representations as to direct costs it would incur in carrying out the mining. As time went on, the client had reason to become suspicious of the contractor's cost estimate, and required the contractor to tender for the outstanding work at the existing mines. The evaluation showed that not only was the cost estimate higher than the tender price, it was substantially higher than other contractors' tenders. The client

<sup>&</sup>lt;sup>33</sup> Clause 1 of the NMA alliance agreement.

<sup>&</sup>lt;sup>34</sup> M Misko and M Fielding, "Performance-based Contracts: Some Legal and Contractual Issues", paper given at FMA Australia, *Performance Contracting Workshop*, May 1999.

<sup>35</sup> Unreported, Supreme Court of Western Australia (Ipp, Steytler and Wheeler JJ), 14 April 2000. 36 In the judgment, this is called a "partnering" contract, but it comes closer to the present definition of a project alliance, with the contractor being paid its direct costs plus an agreed profit under an arrangement to share the risk of cost fluctuations.

terminated the alliance and the contractor sued for loss of profits. The client counter-claimed that the contractor was under an express obligation to act in good faith, and that the contractor breached this obligation by giving direct cost estimates which deliberately contained elements of profit. The court found in favour of the client. The contractor's requirement to provide genuine historical data as to its operating costs was an important element of the agreement.

While this case does indicate a possible avenue of remedy for clients where an alliance participant has concealed a profit margin in its representation as to direct costs, the agreement in question was a very early specimen of relationship contracting.<sup>37</sup> The intervening development of alliancing as a technique may have some bearing on the ability of a client to run such an argument in respect of a contemporary project alliance. For one thing, the intense process of scrutinising potential alliance members, not only on historical costs structures, but on a comprehensive range of criteria, will probably mean that the client takes on such responsibility for the direct costs estimate that it cannot establish reliance on the representations of the contractor. For another, the facts of *Theiss* were that the risk-sharing contract merely replaced a pre-existing conventional contract: there was no bidding process (the contractor was already in place), and no schooling as to the culture of relationship contracting. In other words, there was generally far less control exercised by the client. However, the case remains an indication that the courts may recognise false representation of cost estimates as acts of bad faith under painshare/gainshare arrangements. Taking these factors into account, the problem of hidden profit should not be taken out of context but it should be kept in mind that the mechanism of putting the contractor's profit at risk may prove a limited driver.

Finally, it may sometimes be the case that the alliance agreement expressly vests responsibility for such things as design, procurement, testing and defects liability in "the Alliance". As the alliance is a notional entity with no legal standing, this usage is conceptually confusing. It may be taken to mean a reciprocal responsibility of participants to each other, but this again would entail the client accepting responsibility for tasks clearly within the contractor's control. Such clauses have yet to be judicially tested.

# Specific aspects of risk allocation

Risk allocation remains a crucial aspect of a project alliance. Although it has been said that alliancing requires an attitudinal revolution on the part of lawyers as well as of the parties to the agreement, <sup>38</sup> it should be remembered

<sup>&</sup>lt;sup>37</sup> Entered into in 1991.

<sup>&</sup>lt;sup>38</sup> Thomson, *op cit*, note 4, writes that "A good alliancing lawyer is very much in a facilitator role.... The initial reaction of many lawyers is cynical and/or negative, which is unfortunate" (at 12). However, it has been strongly argued that this statement confuses the rules of the lawyer and the manager: "The concept that a lawyer operates as a 'facilitator' to achieve some higher goal of alliancing places the lawyer outside

that the primary task of a lawyer charged with drafting a contract is to provide clear and certain risk allocation. A good alliance agreement will legislate for risk in certain circumstances. Risk allocation issues are discussed below under the following headings:

- cost-related liabilities; and
- relationship-related liabilities.

#### Cost-related liabilities

As described above, each non-client participant is paid on a cost basis, and is paid its direct costs and some (off-site) overheads regardless of whether the project comes in under or over budget. They will also be paid their costs in respect of, for instance, work which had to be performed twice due to a design fault, or rectification work due to a non-client participant's negligence. Thus the risk of increased or unforeseen costs lies with the client, subject to any agreement on the part of a non-client participant to manage a particular risk.

If the contractor performs defective design or construction work it must of course be rectified. Absent wilful breach, the rectification costs will be borne by the client. The same applies in respect of design. Obviously, the cost consequences of defective or late design can be significant, both in terms of the delay or rectification costs, and possible operating costs arising from failure of the project to achieve design criteria. These sorts of risk under an alliance rest firmly with the client.

This is reinforced by problems which arise in respect of design insurance. Most insurance available to designers is "liability insurance", which means the insurer will not pay unless the designer is "liable". Given that the alliance agreement will state that the designer (like all participants) is not liable except for wilful default, a normal policy is unlikely to respond at all because:

- pursuant to the contractual arrangements, the designer is not responsible for its own negligence; and
- most policies exclude liability for wilful default.

Accordingly, if the client is to have any comfort in this area, it will require some tailored form of insurance. Unfortunately for the client, insurers are generally reluctant to assume risk where the person who will primarily carry out the task does not carry any personal responsibility.

the area of his/her core competency, as many of the alliancing projects have demonstrated.... It is management's role to ensure that cohesive and effective teams are built from different organisations" (A Stephenson, "Alliance Contracting, Partnering, Co-operative Contracting—Risk Avoidance or Risk Creation?", paper presented to Clayton Utz Major Projects Seminar, October 2000, at 11).

<sup>&</sup>lt;sup>39</sup> Provisions, as in the NMA alliance, which seek to ensure compliance with design by including design integrity as a KPI do not address the problem of having a late or defective design in the first place.

## Relationship-related liabilities

There is still a great deal of uncertainty as to the legal and contractual effects of entering into the sorts of relationship contracting commitments involved in a project alliance, or, for that matter, a partnering charter. Committing to such things as honesty, trust and sharing may fundamentally alter the parties' legal obligations. Particular care is needed in the areas of good faith and possible fiduciary relations.

An alliance agreement will typically contain in its commitments clause something to the effect of:

The Alliance Participants undertake to do all things properly and reasonably within their power which are necessary to give effect to the spirit and intent of this Alliance Agreement.... $^{40}$ 

Given an alliance's spirit of good faith, this sort of clause may amount to a legal obligation upon the participants to exercise their rights only in a manner consistent with "reasonableness" or, more widely, "good faith".

Moreover, it has been said that project alliances may have the potential to inadvertently create fiduciary obligations owed mutually between the participants, because such arrangements rely on participants' acting in each others' interests. Fiduciary relationships may certainly arise, for instance, in a partnership. If the concept of fiduciary obligations is applicable to alliancing, two would render the respective obligations of the participants significantly more burdensome. Participants would be obliged to, among other things, disclose all relevant acts and circumstances, act in the utmost good faith, and not permit their own interest to conflict, or potentially conflict, with the interests of the other participants. It would also expose participants who breached a fiduciary obligation to the widest range of remedies available to the court.

The common law relating to good faith and fiduciary obligations is a long way from settled in the context of relationship contracting, and alliancing in particular. To avoid uncertainty in such areas, it is by far the best policy to have anticipated and dealt with them in the alliance agreement. In this respect, the traditional role of lawyer as legislator for risk assumes considerable importance.

<sup>&</sup>lt;sup>40</sup> NMA Alliance Agreement, clause 2.

<sup>41</sup> Misko and Fielding, op cit, note 34, at 13. Their reasoning here is based on an analogy of alliances to joint ventures. For the fiduciary implications of joint ventures, see A Komesaroff, "An Overview of Business Structures for Resources Projects", seminar paper, January, 2000, available at http://www.corrs.com.au/ccwl.nsf/alldocsbyid/30D32878B18E3C494A2568770020AD63.

<sup>&</sup>lt;sup>42</sup> It may not be the case: it may be that participants do not undertake to act in each others' interests so much as attempt to align their interests with those of the other participants. This may be a crucial distinction, given that the critical element in finding a fiduciary relationship may not be vulnerability between the parties but rather the undertaking by a party to act for or on behalf of another party or parties: L Griggs, "Joint Ventures, Partnerships and Fiduciary Obligations" (1994) 24 Queensland Law Society Journal 77, at 81.

#### CONCLUSION

Project alliances provide public sector purchasers of construction services with an opportunity to radically reform the process for delivery of public infrastructure projects.

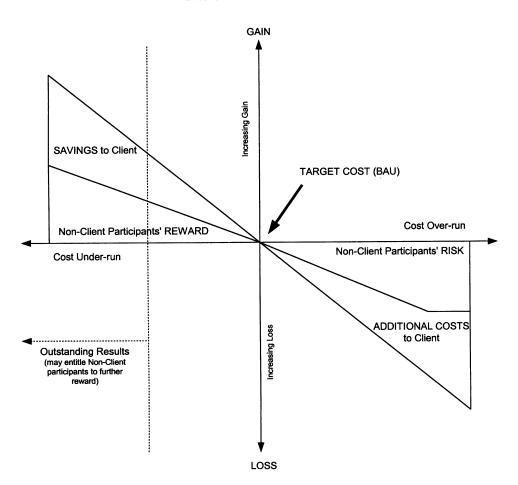
A project alliance represents a paradigm shift in the attitudes of, and the relationships between, government agencies, project management and design professionals, and contractors. The experience so far in Australia indicates that project alliancing may bring real benefits to projects which lack clear definition at the time of appointment of a construction contractor, or require significant flexibility for change during construction.

There are however some significant issues which need to be recognised and dealt with in the implemention of the concept. These include a clear understanding and acceptance of the altered risk regime involved in a project alliance, a process carefully crafted to ensure compliance with principles of probity and transparency, and accountable mechanisms for review during the implementation of the project alliance.

Contractors also need to recognise that the cultural change involved in alliance contracting may represent some challenges for project staff required to operate successively in traditional and alliance contracting arrangements.

# **APPENDIX 1**

# **BASIC RISK / REWARD CURVE**



# APPENDIX 2

