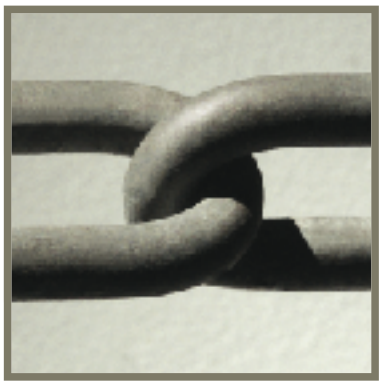
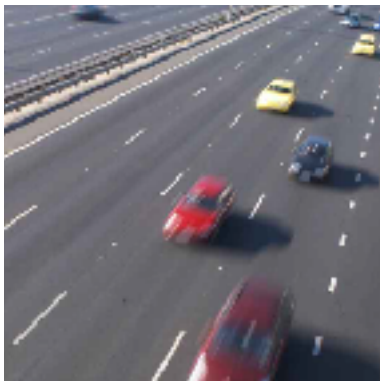
Project Alliancing
Practitioners' Guide

April 2006





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April 2006

Treasurer's Foreword

Project alliancing is about providing better value for money and improved project outcomes through a more integrated approach between the public and private sectors in the delivery of infrastructure projects.

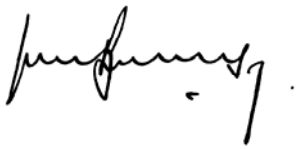
Alliancing reflects a shift from more traditional procurement methods which focus on strict risk allocations, to a collaborative approach. This involves Government working with one or more service providers to align incentives and objectives, and manage project risks and issues.

The Victorian Government is the first state in Australia to introduce whole of government *Project Alliance Guidelines*. The Guidelines reinforce Victoria's commitment to world's best practice in meeting the State's infrastructure needs, whilst adding to the suite of procurement initiatives already established and supported by this Government, including the *Partnerships Victoria* Policy in 2000 and *Gateway* in 2003.

Alliancing is an alternative to other infrastructure procurement methods and is suitable for larger, more complex projects where the specific output requirements are less well defined.

When used appropriately, Project Alliances have the potential to produce many positive outcomes for the State including greater certainty over project costs, opportunities for innovation and improved performance in delivery of infrastructure projects.

We will continue to work with the private sector in the future to ensure that Victoria remains at the cutting edge in the delivery of world class infrastructure.



JOHN BRUMBY MP

Treasurer

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Acronyms

AAA	Alliancing Association Australasia, formerly the Alliance Industry Association
AFA	alliance financial auditor
ALT	alliance leadership team
AMT	alliance management team
AOC	actual outturn cost
DCP	defects correction period
DOI	Department of Infrastructure (Victorian)
DTF	Department of Treasury and Finance (Victorian)
EOI	expression of interest
FA-E	financial auditor – establishment
FIDIC	Federation Internationale des Ingenieurs-Conseils (*International Federation of Consulting Engineers*)
GBE	government-backed enterprise
GRP	Gateway Review Process
GST	goods and services tax
IE	independent estimator
IP	intellectual property
IPAA	interim project alliance agreement
IRR	internal rate of return
JV	joint venture
KPI	key performance indicator
KRA	key result area
NEC	New Engineering Contract *(set of contracts in the UK)*
NOP	non-owner participant (Note that this includes any service provider such as designers, constructors, specialist consultants, etc. and could also include an agency or government-backed enterprise acting as a service provider rather than owner.)
NPV	net present value
POS	overall performance score
PAA	project alliance agreement
PAB	project alliance board
PI	professional indemnity
PV	*Partnerships Victoria*
QT	Queensland Transport
REOI	request for expressions of interest
RFP	request for proposals
SPV	special purpose vehicle
SRO	senior responsible owner
TCE	target cost estimate (*refers to an entire estimate)*
TOC	target outturn cost *(refers to a single number – the bottom line of the TCE)*
VFM	value for money

Part 1: Introduction to alliancing

Part 1 (chapters 1-3) is an introduction to the guide and the alliancing process, including the key features, benefits and risks of the project alliance model and when to use it. Part 1 also describes government approval processes and the steps involved in making an informed decision about using an alliance to deliver a project.

1 Introduction to the Guide

1.1 Overview

Project alliancing refers to a form of procurement where the State or another government entity collaborates with one or more service providers to share the risks and responsibilities in delivering the capital phase of a project.

There are a number of business and contractual relationships involving partnership-type models that are referred to as 'alliances'. This Guide applies to project alliances that conform with the following definition.

Project alliance - definition

A project alliance is a commercial/legal framework between a department, agency or government-backed enterprise (GBE) as 'owner'-participant and one or more private sector* parties as 'service provider' or 'non-owner participants' (NOPs) for delivering one or more capital works projects, characterised by:

- collective sharing of (nearly) all project risks;
- no fault, no blame and no dispute between the alliance participants (except in very limited cases of default);
- payment of NOPs for their services under a '3-limb' compensation model comprising:
  - reimbursement of NOPs' project costs on 100 per cent open book basis
  - a fee to cover corporate overheads and normal profit, and
  - a gainshare/painshare regime where the rewards of outstanding performance and the pain of poor performance are shared equitably among all alliance participants;
- unanimous principle-based decision-making on all key project issues; and
- an integrated project team selected on the basis of best person for each position.

* In certain circumstances, it may be appropriate for an agency or GBE to participate in a project alliance as an NOP, distinct from the government owner-participant.

Project alliances were first used in Australia to deliver major oil and gas projects in Western Australia in the early 1990s.[1] They first emerged in the Australian public sector when Sydney Water used a project alliance to deliver the Northside Storage Tunnel Project[2] in the late 1990s. Since then, project alliancing has been used by the Commonwealth and governments in other states to deliver a wide range of engineering infrastructure.[3]

Project alliancing has not been widely used by the Victorian Government. However, it is increasingly being proposed as a procurement method following its success interstate. A brief history of the evolution of project alliancing is set out in Appendix 1.

[1] Wandoo Alliance, *Wandoo B Offshore Oil Platform*, 1997. (See References.)

[2] Henderson, A and Cuttler, R, 'Northside Storage Tunnel Project', March 1999. (See References.)

[3] These have covered road and rail transport; water supply, storage and treatment; solid and liquid waste; communications; channel and port facilities; defence material; and other infrastructure sectors.

Project alliancing has a number of potential benefits when used appropriately. These benefits include an enhanced ability to:

- achieve project objectives by aligning the incentives and objectives of project participants; and

- manage project issues and risks – project participants collectively own the project, project risks, and outcomes; subsequently there is a collaborative, flexible approach to the management of the project.

While project alliancing can deliver benefits, there are also issues and risks associated with this form of procurement which need to be addressed. These include:

- the absence of legal recourse against the private (non-owner) participants (NOPs) in a project alliance;

- potential difficulty in demonstrating value for money where the owner and the NOPs develop and agree the targeted cost of the project (target outturn cost – TOC) and other performance targets in the absence of direct price competition;[4] and

- the significant costs, specialist expertise, high level of resources and input from senior management needed to establish and maintain project alliances.

Project alliancing should generally only be considered in the delivery of complex and high-risk infrastructure projects, where risks are unpredictable and best managed collectively. The decision to use project alliancing must be based on a robust understanding of the project risk, including risks that cannot yet be determined or scoped. Organisations must also ensure they have the understanding and resources required to deliver projects through project alliancing.

This Practitioners' Guide provides a basic overview of project alliancing, and sets out a framework for selecting and establishing project alliances. It has been developed to help ensure that project alliancing is used appropriately and successfully in the Victorian Government.

The Guide aims to ensure that:

- project alliancing is only used as a procurement method where it will provide optimum outcomes for government, and where the decision to use it is based on a rigorous assessment by appropriate people and stakeholders;

- all risks and opportunities resulting from the alliance procurement method itself are identified and managed effectively;

- departments and agencies are aware of the skills and expertise required to successfully deliver alliancing projects;

- projects delivered under alliances provide demonstrable value for money to government; and

- lessons learned from project alliancing are captured in continuously evolving and improving versions of this Guide.

[4] It is expected that there will usually be a significant component of price competition, even where the owner and the NOPs agree the TOC without any direct price competition, since many goods and services will be procured through price competitive sub-procurement.

The framework reflects the Victorian Government's preferred position on key project alliancing issues. It is not intended to be overly prescriptive and also does not replace the need for specialist input and advice on establishing project alliances.

All Victorian Government departments and entities should use the Guide once a decision has been made to adopt project alliancing to deliver the capital phase of a project. It may also be used in reaffirming a decision to use project alliancing.

The Department of Treasury and Finance (DTF) is responsible for ensuring that information on the establishment and performance of project alliances, and feedback on the Guide, are systematically incorporated into future updates. Updates will be published from time to time on the Gateway website (www.dtf.vic.gov.au/gateway).

1.2 Scope of application

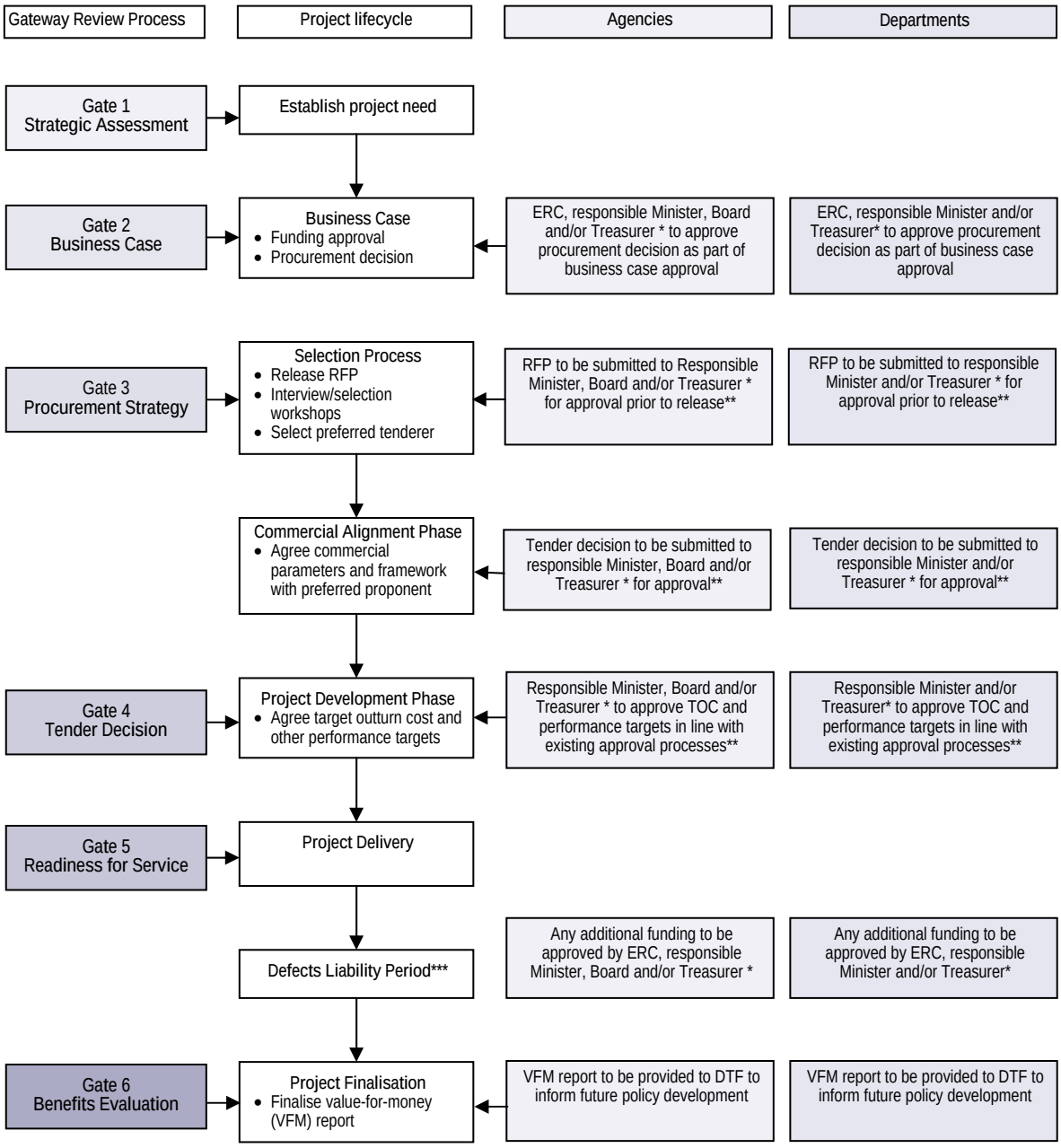
The Guide is primarily intended to apply to one-off projects undertaken as project alliances. However, the principles and many of the practices described here also apply to a series of strategically linked projects delivered as a program (program alliances). Appendix 2 provides further guidance and a brief outline of some of their distinguishing features. The Guide does not apply to project alliances used to provide maintenance or asset management services.

To date, project alliancing has been most widely applied in delivering civil infrastructure such as road and rail transport, water, communications etc. While this Guide is intended to apply equally to building projects, it should be noted that the knowledge and experience on which the Guide is based are primarily derived from civil infrastructure projects.

1.3 Government approval process

Figure 1.1 illustrates the key phases of a project alliance in a typical project lifecycle within the context of existing Victorian Government funding and approval processes.

Figure 1.1: Project alliance approval and review processes



* The approvals required will depend on the reporting and funding arrangements for the project. Water initiatives require approval from either Minister for Water, the Treasurer, or ERC depending on funding threshold. Projects requiring a Treasurer's guarantee require Treasurer's approval. **Approvals to be copied to DTF to inform policy development. *** Equals the defects correction period in project alliancing.

Key considerations in the funding and approval process include:

- Departments and agencies should ensure that appropriate approval processes are in place at the key points in the project alliance process (identified in Figure 1.1), in line with existing governance arrangements.

- It is noted that the Gateway Review Process (GRP) is a mandatory requirement for all high-risk[5] projects undertaken by Victorian Government departments and entities. Project alliancing is generally only appropriate for inherently complex projects, which are likely to be classified as high risk. Any project being considered for an alliance should therefore already be participating in the GRP at the time the decision to use an alliance is made.

- At the conclusion of the project, departments and agencies are required to finalise a value-for-money report (detailed in Chapter 5). A copy of this report, with other key project documentation, should be provided to the Department of Treasury and Finance to inform future development of this Guide.

1.4 Structure of the Guide

In using this Guide:

- Familiarity with Chapter 2 is recommended before considering the use of a project alliance.

- Chapters 4, 5 and 6 need to be understood by those intending to follow this Guide for establishing and implementing a project alliance.

PART 1	**INTRODUCTION TO ALLIANCING**
Chapter 1	Explains the context and purpose of the Guide and its intended application.
Chapter 2	Provides a general introduction to project alliancing and the key features/mechanisms of the project alliance model.
Chapter 3	Details the steps involved in making an informed decision about using an alliance to deliver a project.
PART 2	**KEY FEATURES OF THE ALLIANCE FRAMEWORK**
Chapter 4	Describes the project alliance compensation framework.
Chapter 5	Deals with how to achieve and demonstrate value for money using a project alliance.
Chapter 6	Gives an overview of the legal framework for a project alliance and the approach to dealing with key legal issues.
PART 3	**KEY STAGES IN ESTABLISHING AN ALLIANCE**
Chapter 7	Provides guidance on setting up a project alliance, including development of the alliance model and selection of the non-owner participants.

[5] as defined by the Gateway Review Process (GRP) project profile model. For more information, refer to the GRP website, www.dtf.vic.gov.au/gateway.

Chapter 8 Provides guidance on some aspects of operating a project alliance that are unique to alliancing.

APPENDICES

Appendix 1: Evolution of project alliancing
Appendix 2: Program alliances
Appendix 3: Single TOC approach rationale
Appendix 4: Multiple TOC approach
Appendix 5: Examples of comparative assessment of outcomes
Appendix 6: IPAA/PAA versus single alliance agreement
Appendix 7: Further discussion of limb 1 issues
Appendix 8: Further discussion of limb 2 issues
Appendix 9: Further discussion of limb 3 issues
Appendix 10: Generic compensation model with worked examples
Appendix 11: Specialist advisers and their role
Appendix 12: Further discussion of issues before RFP release
Appendix 13: Further discussion of issues during proponent selection

Certain documents and examples referred to in the Guide are listed at Appendix 14.

References and further reading

2 Introduction to project alliancing

2.1 Overview

2.1.1 Introduction

Project alliancing involves the collaboration of owner and non-owner participants to deliver the capital phase of a project, with all participants sharing the responsibility for project risks and for achieving project objectives. The project alliance model creates a commercial framework where all participants win or all lose, depending on their collective performance[6] against agreed project objectives. This creates both an incentive to achieve project objectives and a 'best for project' focus among participants.

In comparison with traditional forms of procurement, project alliances rely more on developing trust and strong relationships to drive performance than on the legal and contractual relationship between participants.

Project alliances are based on clearly understood principles to which all participants are fully committed. A project alliance is typically founded on the following generic principles:

- All participants win, or all participants lose, depending on the outcomes actually achieved.
- The participants have a peer relationship where each has an equal say in decisions for the project.
- Risks and responsibilities are shared and managed collectively, rather than allocated to individual participants.
- Risks and rewards are shared equitably among the participants.
- All participants provide 'best-in-class' resources.
- The participants are committed to developing a culture that promotes and drives innovation and outstanding performance.
- There is a clear definition of responsibilities in a no-blame culture.
- All transactions are to be fully open-book.
- Communication between all participants is open, straight and honest.

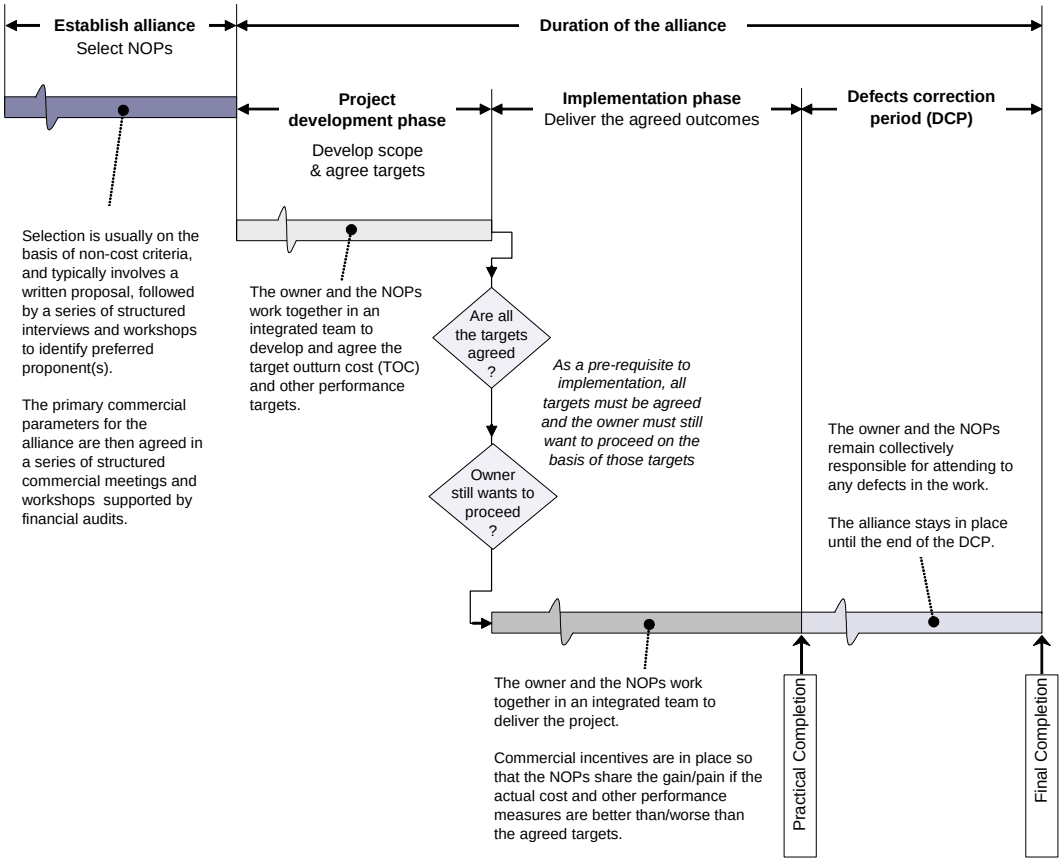
Important decisions should be made on a 'best for project' basis according to the principles above and not on the basis of organisational positions.

[6] In the context of a project alliance, where obligations are collective, it is generally not relevant or appropriate to refer to the performance of individual participants. References to 'performance' in this Guide mean the collective performance of the alliance participants, unless stated otherwise.

2.1.2 Phases of a project alliance

Figure 2.1 provides an overview of the typical phases in the establishment and delivery of a project using project alliancing.

Figure 2.1: Project alliancing project delivery – typical phases



2.1.3 Risk allocation

Under a traditional form of contract, different parties have specific individual obligations, and risks are generally allocated to the party considered best able to manage them. There are commercial/legal consequences where a party performs poorly or fails to fulfil their obligations properly.

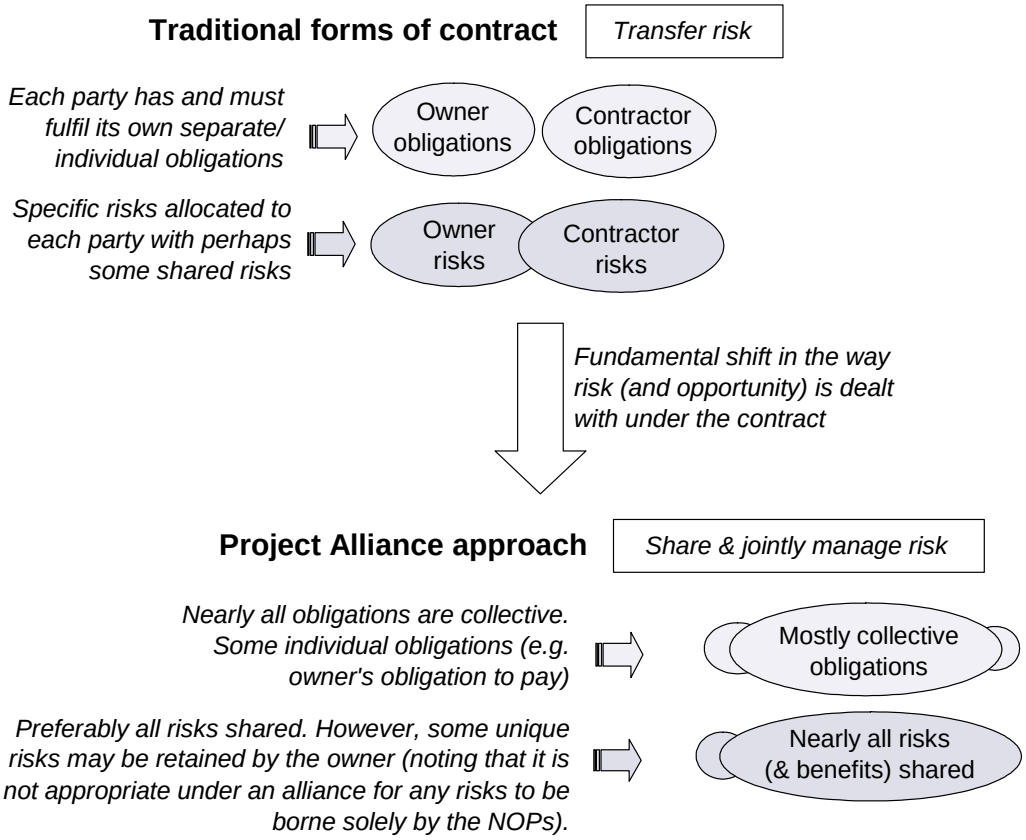
Under a project alliance, risks and responsibilities are shared and managed collectively, rather than allocated to individual parties. Performance targets, including the targeted cost of the project (target outturn cost/TOC), are developed and agreed by the participants during the project development phase.

Once the performance targets have been agreed, the alliance participants assume collective ownership of the risks and responsibilities associated with delivery of the project, with equitable sharing (in pre-agreed ratios) of the 'pain' or 'gain', depending on how project outcomes compare with pre-agreed targets. Although risks (and opportunities) are collectively 'owned', and are not directly linked to the performance of individual alliance participants, the quantifiable impact of these risks and benefits is still precisely allocated

through the pain/gain arrangements.

The difference in risk allocation between traditional contracts and project alliances is illustrated in Figure 2.2.

Figure 2.2: Characteristics of traditional contracts and project alliances



2.1.4 Creating the right psychological foundation

Entering into a project alliance is a different 'psychological bargain' than a traditional contract requires. It is integral to the success of a project alliance that all participants understand the importance of the human dimension to the alliance process.

The structures, processes and leadership within a project alliance should support the development of a peak performance alliance culture and maintain it throughout the project.

To create this kind of environment, there must be a comprehensive program to manage the sociological aspects of the project and the psychology of the relationships – i.e. strategies that focus on people, the relationships they form, their beliefs and aspirations, their commitments and their behaviours. The driving force should be an absolute commitment to meeting or exceeding specific and demanding project objectives. The alliance framework is designed to create a psychological foundation for the commercial relationship where:

- The relationship is established on the premise of mutual trust, based on a recognition that trust must be earned and that there must be a commitment to earn that trust through particular behaviours and results.

- Actions are based on clearly articulated and well understood principles, not on

individual positions or self-interest.

- The best and only way to serve the interest of any one participant is to advance the interests of the alliance so that there is no need for any hidden agendas.

2.2 Compensation framework

The compensation framework of an alliance is a key mechanism for aligning the objectives of the NOPs with the project objectives. Under a project alliance, the owner and the NOPs develop and scope the project jointly and agree a target cost and performance targets. The alliance participants then take collective responsibility for delivering the project and achieving the agreed targets, sharing in financial pain or gain, depending on how actual outcomes compare with the agreed targets.

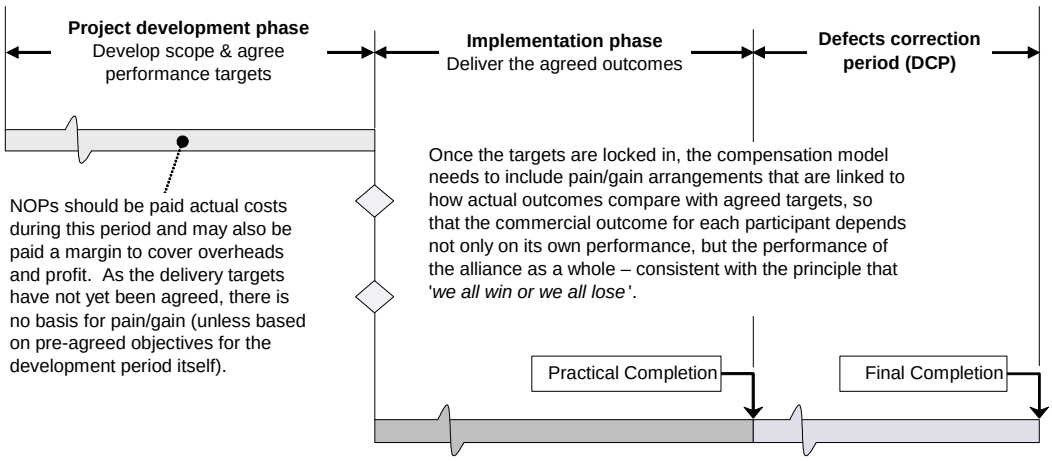
Once the target cost and performance targets are locked in, compensation to the NOPs during the delivery phase of the project can be characterised as a '3-limb model', where each NOP is paid as follows:

Limb 1 = Expenditure on the work under the alliance and project-specific overheads related to that work are reimbursed at actual cost, subject to audit.

Limb 2 = This involves a fee to cover 'normal' profit and a contribution towards recovery of non-project-specific (i.e. corporate) overheads.

Limb 3 = In this limb of the model, there is an equitable pre-agreed share of the 'pain' or 'gain', depending on how actual outcomes compare with pre-agreed targets (in both cost and non-cost performance areas). Normally, the NOPs' downside risk is capped at the loss of the limb 2 fee.

Figure 2.3: Project alliance compensation model and phases



During the development phase of the project, when the owner and the NOPs are developing and scoping the project and performance targets, the NOPs are generally reimbursed for their actual costs, with a margin for profit and overheads (i.e. compensation is usually limited to limbs 1 and 2 only).

The pain/gain arrangements should be designed to ensure that the NOPs assume an equitable share of the pain/gain, along with the owner, where actual outcomes are worse or better than the agreed targets. This is consistent with the principle that 'all participants win, or all participants lose, depending on the outcomes actually achieved'.

Chapter 4 of the Guide covers how to set up the compensation arrangements for a project alliance and describes a generic compensation model that can be applied to most (single) project alliances.

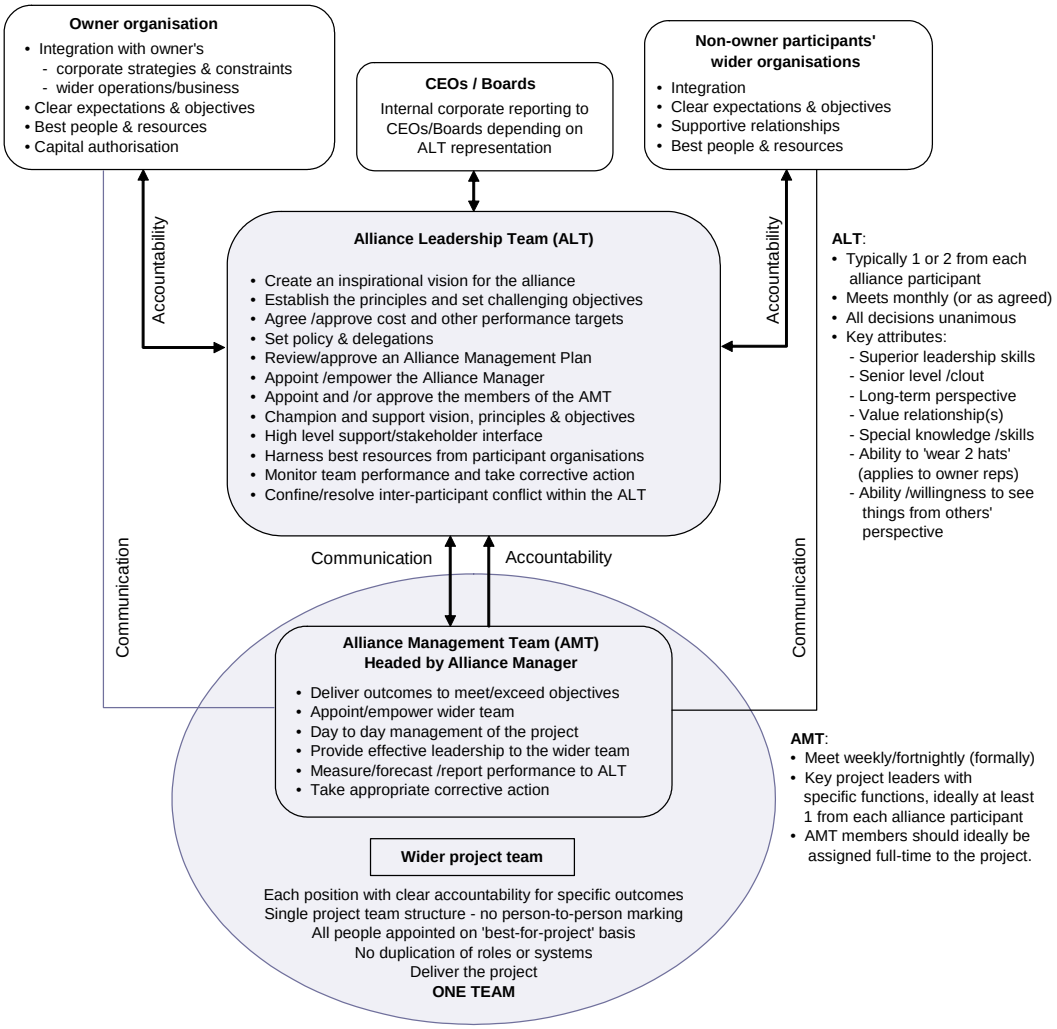
2.3 Governance

2.3.1 Overview

Project alliances operate as 'virtual organisations' performing all of the functions required to deliver a project. In these alliances, the commercial interests of each alliance participant are best served by meeting or exceeding the agreed alliance objectives.

The structure in Figure 2.4 is generally used for the governance, leadership and management of alliances.

Figure 2.4: Project alliance governance and management typical framework



Typically an alliance is formed between the owner and one or more NOPs who collectively have most of the critical resources needed to deliver the project. The alliance team is responsible for procuring all goods and services required to deliver the project, on a 'best for project' basis.

This generally includes:

- services provided from the in-house resources of alliance participants (e.g. project management, planning, design, procurement, construction and other areas requiring inputs of staff, labour, equipment etc.);

- engagement of consultants, constructors and others to provide services not available from the in-house resources of project alliance participants, or services that can be procured more efficiently from an external source; and

- purchase of materials, plant, assets, commodities etc. from external sources.

The project alliancing model aims to create an alliance of high calibre resources working 'as if they own the company' where behaviours at all levels of the project (including consultants, contractors and suppliers, not just the alliance participants themselves) are in line with agreed values and work towards achieving the overall project objectives.

2.3.2 Alliance leadership team (ALT)

The alliance leadership team[7] (ALT) consists of senior representatives from each of the alliance participants. The team provides leadership, governance and oversight to the alliance. The overriding function of the ALT is to ensure that the alliance achieves its objectives and that the participants fulfil all their alliance obligations, while also satisfying the corporate requirements and constraints of all alliance participants.

Consistent with the principle that 'the participants have a peer relationship where each has an equal say in decisions for the project', all decisions of the ALT related to the alliance must be unanimous. For the ALT to function effectively, ALT members need the right attributes, including:

- superior leadership skills, including an ability to challenge their own preconceived ideas and a commitment to further develop their leadership capabilities through the alliance;

- delegated authority and the ability to make high-level ALT decisions on behalf of their organisation;

- a long-term perspective on the business aspirations and strategies of their respective organisations and a high regard for the relationships with the other participants;

- particular skills in an area that will add value to the alliance; and

- the ability to 'wear two hats' to ensure that both their organisation and the alliance achieve their objectives, and an ability and willingness to see things from each other's perspective.

In addition, government representatives on the ALT need to have:

- the ability to secure timely support from higher authorities for proposed ALT decisions where matters are outside their level of delegated authority; and

- the ability to lead their respective organisations through the cultural change necessary to participate effectively in a successful project alliance.

[7] For consistency, the term alliance leadership team (ALT) is adopted in this Guide, although the term project alliance board (PAB) is also used widely elsewhere.

2.3.4 Alliance management team (AMT)

Day-to-day leadership and management of the project is the responsibility of an alliance management team (AMT), headed by an Alliance Manager who is accountable for ensuring that the alliance meets or exceeds the agreed alliance objectives.

The AMT provides day-to-day leadership to the wider project team and manages the day-to-day activities of the alliance. Each member of the AMT and the wider team is appointed on the basis that they are the people best qualified to fulfil their role, not on the basis of which company employs them. The AMT consists of senior project personnel, preferably people who are working full-time on the project (although it may be unavoidable or even appropriate that some members of the AMT are only part-time on the project). While it is preferable that each participant is represented on the AMT, this should not take precedence over the principle that each role should be appointed on a 'best person for the job' basis.

2.3.5 The leadership factor

As in any successful organisation, the drive and commitment must come from the top. Under a project alliance, the ALT and AMT each play a critical role in providing effective leadership to turn the aspirations and commitments of the alliance participants into reality.

As the peak leadership body within the alliance, the primary role of the ALT is to create and sustain an environment in which the alliance objectives can be met or exceeded. Similarly, the AMT, as a leadership group, must create and sustain an environment conducive to producing the results it has committed to.

2.3.6 Managing inter-participant conflict

The aim of any alliance is to create a seamless organisation without duplication of responsibilities, free from an 'us and them' attitude. To the extent that the interests of the individual participants need to be considered separately from the interest of the alliance, then such conversations should take place at the ALT. One of the key functions of the ALT is to ensure that inter-participant conflict is confined to and resolved within the ALT itself.

One of the owner's roles as an alliance participant is to manage certain inherent tensions, including:

- the alliance's focus on achieving agreed targets, versus the need for proper quality checks and balances;
- a commitment to establishing breakthroughs, balanced with an understanding of proven and often long-standing pre-existing standards;
- reaching alignment on the TOC and other performance targets; and
- managing unmatched or diverging priorities after the TOC has been locked in, where the priorities of the owner may not fully match the priorities of the NOPs or the stated objectives of the alliance.

2.4 Legal framework

A key feature of project alliancing is the absence of legal recourse between participants, except in the event of wilful default and acts of insolvency.

A project alliance is a complex business relationship and the expectations, rights and obligations of the participants must be set out in clear terms in a legally binding contract – referred to in this Guide generally as an 'alliance agreement'. Chapter 6 of the Guide examines the alliance legal framework and provides guidance on how to structure an alliance agreement.

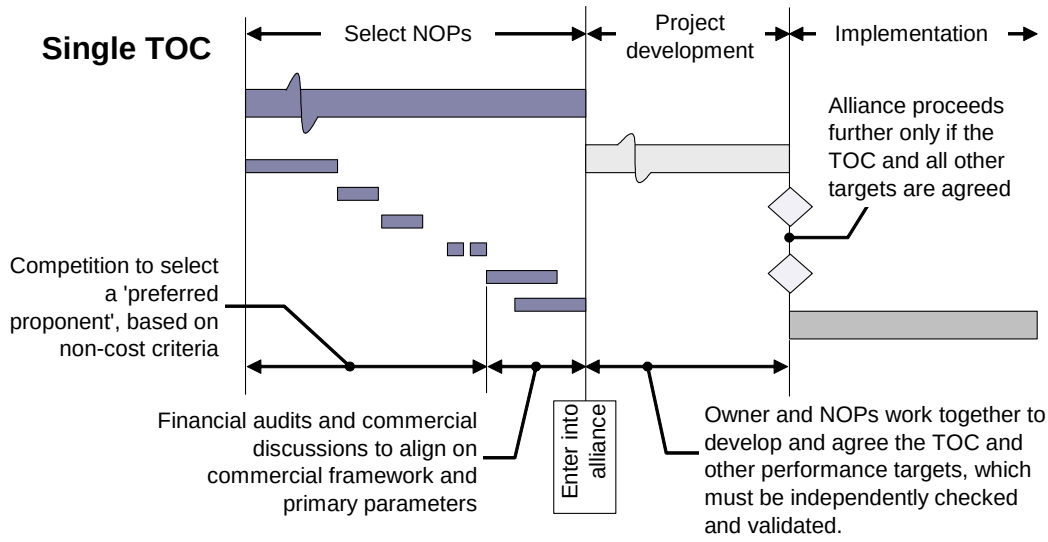
2.5 Single versus multiple TOC approach

There are two alternative approaches to establishing a project alliance, the single and the multiple TOC approach.

In the single TOC approach, a preferred proponent is selected on the basis of non-cost criteria, and, following a series of meetings and financial audits, the owner and the preferred proponent agree the commercial framework and primary parameters for the alliance.

The owner and the non-owner participants then work together as an integrated team through the project development phase to develop the target outturn cost (TOC) and other performance targets for the project. Once the targets are agreed, the alliance team works together to deliver the project with the aim of achieving or doing better than the agreed targets. Figure 2.5 outlines this process.

Figure 2.5: Single TOC approach in outline



As the single TOC approach does not include direct price competition, it requires comprehensive strategies to ensure that the alliance delivers value for money and is able to demonstrate this. These strategies are discussed in detail in Chapter 5.

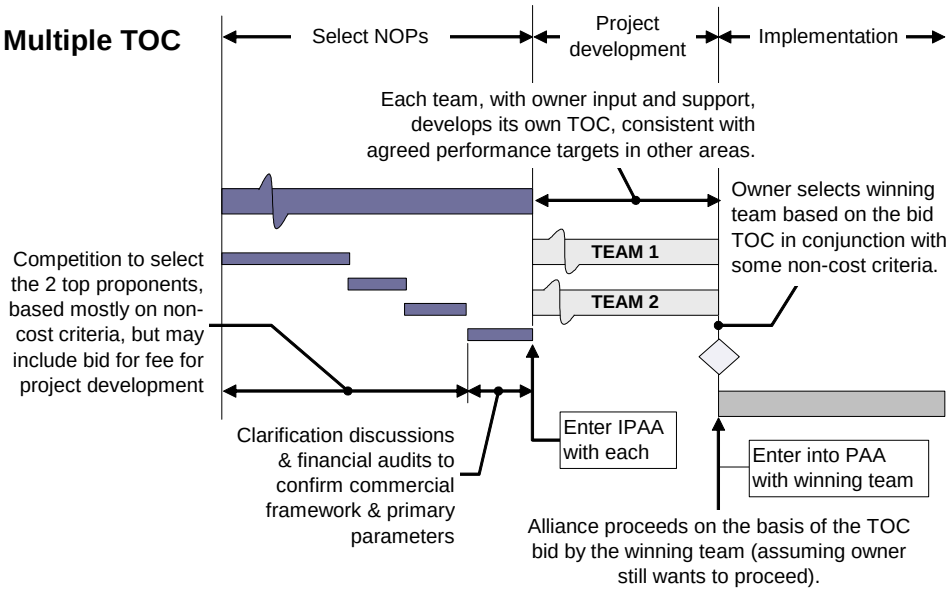
The alternative multiple TOC approach has arisen primarily in response to concerns that, in the absence of direct cost competition in the single TOC approach, the non-owner

participants (either knowingly or subconsciously) may take an unreasonably conservative approach to the development of the TOC and performance targets, especially to risk provisions/contingencies that are highly subjective and difficult to benchmark.

In the multiple TOC approach, the owner selects the two preferred proponents and negotiates separately with each to agree the commercial parameters for the alliance. The owner then enters into an interim project alliance agreement (IPAA) with each group to develop separate TOCs, and other performance targets.

The owner then selects a preferred proponent on the basis of the lowest or best TOC and some non-cost criteria, and enters into a project alliancing agreement (PAA) with that proponent to deliver the project. Figure 2.6 shows the typical multiple TOC process.

Figure 2.6: Multiple TOC approach in outline



The single TOC approach, the more commonly adopted of the two methods, is the recommended approach in this Guide. Appendix 3 examines the reasons for this in more detail. The multiple TOC approach may be appropriate where the nature of a project means that in selecting the preferred proponent:

- the owner must make a choice between competing proprietary technologies/solutions; and

- the choice of technology could have a substantial impact on the capital and/or the operating cost of the project or facility.

This Guide does not provide comprehensive guidance on the use of the multiple TOC approach. However, it is noted that the processes for selection and project development in this approach vary considerably from the single TOC approach. Appendix 4 highlights a number of areas to be aware of when adopting the multiple TOC approach.

2.6 Benefits and risks

2.6.1 Benefits

The key benefits of the project alliance model include:

- The commercial framework creates a joint 'best for project' focus among all participants by creating incentives that align all participants' objectives.
- There is an improved ability to manage risks, such as material changes to the project and uncertainty, due to:
  - a shared responsibility and incentive for all participants to be proactive in mitigating and/or managing risk; and
  - collaboration between more pools of resources.
- Earlier involvement of construction and cost planning expertise in the pre-construction planning phase leads to more informed decision making.
- The elimination of the need for resources to administer contractual activities (i.e. site surveillance, variation claims administration, resolving disputes, litigation) means that such resources can be refocused on achieving project objectives.
- There is a strong focus on encouraging and enabling high performance and innovation.
- The collaboration of the organisations provides a development opportunity for both owner and non-owner participants through:
  - exposure to phases of the project not normally managed by their organisation;
  - undertaking roles not normally available within their organisation;
  - gaining an insight into other organisations' processes, practices and issues; and
  - developing industry networks.

In addition to these benefits, some key benefits of project alliancing for owner participants include:

- The pricing of the project, including all contingencies and allowances for risk, is transparent, giving the owner greater confidence in the robustness of the budget and its achievability.
- It is more likely that project objectives will be achieved because of the increased incentives for non-owner participants to achieve them.

Some key benefits of project alliancing for non-owner participants include:

- superior returns available for outstanding performance;
- a cap on exposure to risks of loss of profit and corporate overheads;
- a broader and more effective level of influence on the project; and
- an enhanced reputation if the alliance is considered to have performed well.

2.6.2 Risks

The key risks or downsides of the project alliance model include:

- The absence of legal recourse against participants is limited to acts of wilful default and acts of insolvency.
- All participants are required to accept a broader range of risks than they would normally accept, and they are liable for the behaviour and performance of the other project participants, which is beyond their control.
- The absence of price competition in the development of the TOC and performance targets can lead stakeholders to question the veracity of these targets, and whether value for money is achieved.
- A change in a key player can seriously undermine the alliance.
- Project alliances typically require significantly more involvement by senior representatives than traditional forms of contract.

In addition to these risks or downsides, other downsides of project alliancing for owner participants include:

- There is no cap on the potential cost of the project.
- Substantial resources and a very high level of input from senior management are required to establish and maintain an alliance. These resources can be difficult to source.
- The ability to make unilateral decisions on the project is constrained, since any such decisions may reset the commercial framework.
- There is potential for misuse by NOPs, as with other contracting methods, by:
  - promising an 'A team' during selection process but providing the 'B team';
  - unfair or inflated allocation of costs to the alliance; or
  - an unreasonable approach to resolving commercial issues (i.e. variations).

Some key risks or negative aspects of project alliancing for non-owner participants include:

- The non-owner participants' total profit and overhead are at risk.
- There could be serious damage to reputations if the alliance is considered to have performed badly.
- For designers and consultants, the cost of tendering may be higher compared with alternative forms of procurement. (For contractors, the tender process is not necessarily more expensive than other forms of procurement, though it does require a much higher level of commitment from senior management, rather than business development personnel.); and
- It may be difficult to support normal business activity while providing appropriate priority and support for the alliance.

3 Selection of project alliancing

3.1 Introduction

3.1.1 Context

Perhaps the most critical decision in the life-cycle of a project alliance is the owner's decision to use project alliancing as a procurement method in the first place.

While project alliancing can provide a number of opportunities for government, the consequences of using this procurement method inappropriately are potentially more significant than for other forms of procurement.

The procurement decision should be based on an analysis of how the risks and opportunities associated with a project can be managed for each available procurement method.

Project alliancing is typically suited to projects with the following characteristics:

- numerous complex and/or unpredictable risks with complex interfaces
- complex stakeholder issues
- complex external threats or opportunities that can only effectively be managed collectively
- very tight timeframes (driven by project risk rather than organisational capacity)
- output specifications which cannot be clearly defined upfront, and/or a high likelihood of scope changes during design and construction (e.g. due to technological change, political influence etc.)
- a need for owner involvement or significant value adding during delivery etc.

Alliancing is generally not suited to projects where:

- Risks can be clearly defined, costed and allocated, without the need for owner involvement.
- The project offers significant whole-of-life efficiencies and opportunities, and these would not be available if an alliance is used.
- The project is of a scale where any benefits that could be achieved from using project alliancing would be offset by increased procurement costs associated with that method.
- The case for alliancing is marginal compared with other procurement methods.

3.1.2 The procurement decision

Chapter 3 sets out a recommended process to be used to ensure that government departments and agencies only embark on an alliance where there is a clear business imperative for doing so.

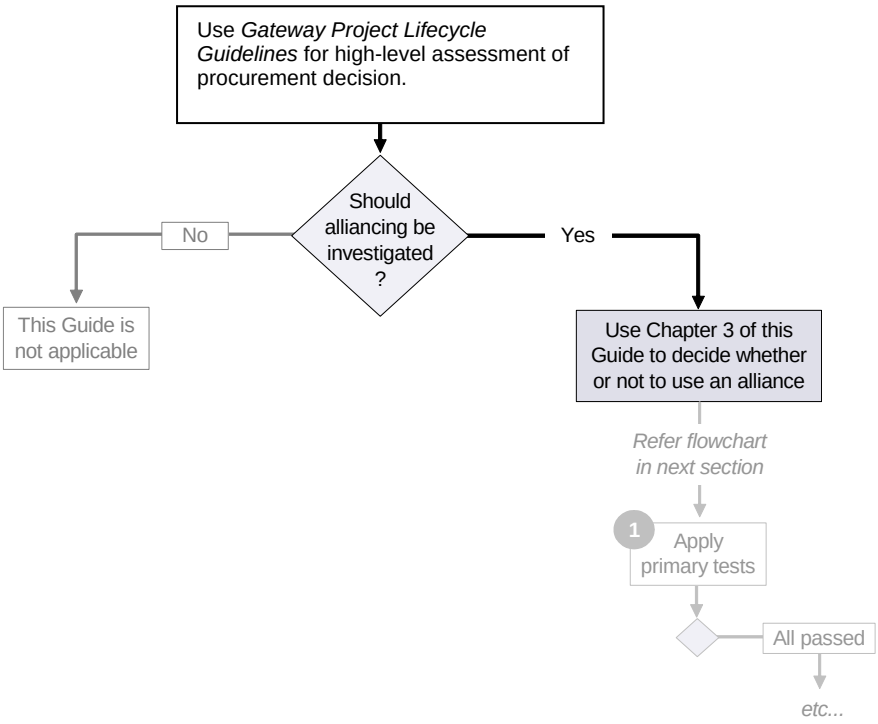
In selecting the procurement approach for a project:

- Agencies should initially consider the Gateway Project Lifecycle Guidelines (published by the Department of Treasury and Finance). They consider the procurement decision at a relatively high level and will lead project owners to a recommended procurement method.

- Chapter 3 of this Guide should then be used to assist in confirming the appropriateness of that procurement decision. This process is illustrated in Figure 3.1.

It is noted that this Guide builds on the Gateway Project Lifecycle Guidelines but does not replace or duplicate them.

Figure 3.1: Use of Gateway initiative guidelines and project alliancing guidance

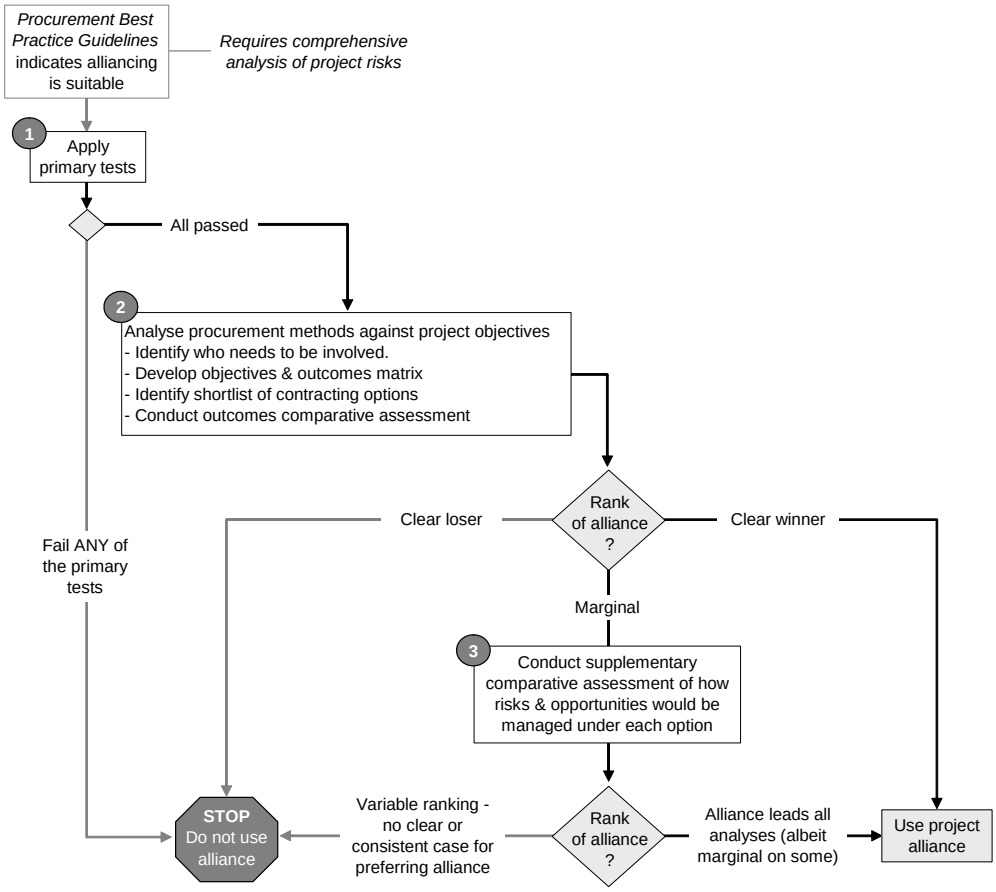


3.2 Recommended process

3.2.1 Decision-making process

The recommended process in confirming the appropriateness of project alliancing is illustrated in the Figure 3.2.

Figure 3.2: Decision making – use of the project alliancing approach



The steps in this process are addressed in the following sections.

3.2.2 Step 1 – Primary tests

In confirming the appropriateness of project alliancing as a procurement method, the relevant agency or department (owner) must satisfy a number of primary tests, including that:

1. They have undertaken a full risk assessment on the project, including stochastic/probability modelling, to cost the risks associated with the project, reviewing the quantifiable risks and showing an understanding of the risks that cannot yet be determined or scoped.

2. They have assessed all project risks and can demonstrate that:

    - There is a significant degree of uncertainty involving risks that cannot be

adequately quantified and which would result in large risk premiums under traditional forms of procurement.

- Changes or disruptions that also cannot yet be adequately scoped are expected during the project term.

- These risks, should they materialise, will have a material impact on project cost and/or the achievement of project objectives.

- The uncertainty surrounding these risks is due to the nature of the project, rather than inadequate planning, scoping or time, and additional time and/or resources will not clarify or quantify these risks.

- The risk is best managed collectively with joint input from government and service providers, improving the effectiveness and reducing the overall cost to the project.

3. The organisation is capable of delivering the project using project alliancing.

A number of issues relating to the owner organisation's attitude and culture may make project alliancing an unwise choice, even where a project's characteristics ideally suit an alliance.

One of the greatest risks to the success of a project alliance is that the owner organisation does not properly recognise or address the importance of developing a psychological foundation enabling high alliance performance. As a key step in confirming the decision to use project alliancing, the senior responsible owner (SRO) of the project should carefully consider the following questions. Unless the SRO is able to answer yes to ALL the questions, then an alliance may not be the appropriate way forward.

Table 3.1: Questions to use in considering whether to use project alliancing

Primary test/question		Yes	No
Q1.	A. The SRO has read Chapter 2 of this Guide thoroughly and is fully aware of what an alliance is, what it takes to create a successful alliance, the risks associated with using a project alliance and the steps involved in establishing an alliance.		
	B. The SRO has identified at least two people as suitable candidates for the ALT. Each has all the required attributes for ALT members as listed in section 2.3.2.		
Q2.	There is at least one person within the owner's organisation who is closely involved with the project and who could take on a senior project role at AMT level – allocated on a full-time basis to the alliance.		
Q3.	The SRO can access at least two people who can be allocated on a full-time basis to undertake technical and/or administrative roles as members of the wider project team.		
Q4.	The alliance will not have an undue negative impact on the owner's broader organisation, given the level of resources required.		
Q5.	The owner is willing to engage the necessary specialist advisers and facilitators to assist with the proper establishment and support of the alliance. This could include a probity adviser, alliance adviser/facilitator(s), alliance lawyer, FA-E, IE and budget reconciliation advisers.		

If the primary tests are met, the agency must then demonstrate that they have assessed alternative procurement methods showing that alliancing offers the best value for money.

3.2.3 Step 2 – Analysis of procurement methods against project objectives

There four main steps in analysing which procurement methods will best meet the project objectives. These include involving the right people, assessing the project objectives, identifying viable contracting/procurement methods and assessing the likelihood of each procurement method to achieve the project objectives.

1. Identify and involve the right people

Ensure that the right people are involved in this process so that the decision is fully informed, and 'owned' and supported at appropriate levels. Some key steps in this stage are:

1.1 List potential key stakeholders: List all the relevant people who have (or who may feel they have) a need to be involved in the assessment or the decision.

1.2 Confirm participants in the process: Confirm those who actually need to be involved and categorise them as follows:

- the assessment group – the group who will undertake detailed assessment and make a recommendation;
- the decision-maker(s);
- those who should be kept informed but not directly involved, e.g. end-users, operators or maintainers.

1.3 Confirm/commit to the process: Develop a detailed schedule showing each step in the process and make sure that all key stakeholders commit to the schedule.

2. Develop objectives matrix

The objectives matrix should set out the outcomes the owner requires from the project, with relative weightings assigned to each. Once the assessment group and decision makers (the Stakeholder Group) have been gathered, the recommended steps are to:

2.1 List potential objectives/outcomes using a brainstorming process.

2.2 Agree on a few broad categories of objectives (e.g. financial performance, stakeholder and social objectives, broader corporate/strategic objectives etc.).

2.3 Extract from the brainstorming list what the Stakeholder Group agrees are significant objectives and assign them to appropriate categories. Do not include every single objective. Limit the lists to the genuinely significant ones. Use the '80:20' rule.

2.4 Assign weightings to each category so that the total of the weightings adds up to 100 per cent.

2.5 Assign weightings to each of the items in each category so that the sum of the sub-weightings in each case adds up to 100 per cent.

2.6 Review the overall matrix and confirm that it properly reflects the owner's objectives and priorities for the project.

It is important that the Stakeholder Group devotes sufficient attention to this process and that group members are fully aligned on all aspects of the matrix. Any attempt to alter the weightings subsequently (e.g. to give a bias to a particular contracting strategy) will invalidate the whole process.

Differences of views need to be worked through rather than reach a forced agreement. This may require specialist training in communications and conversational techniques. In this respect, practitioners should seek specialist advice or facilitation.

3. Compile informed short-list of procurement methods

The next step is to identify a short-list of procurement methods that could realistically be deployed on the project. It is important that members of the Stakeholder Group adequately understand each option and the kind of drivers and behaviours that are likely to emerge with each. The recommended steps in this process are (using specialist advisers/facilitators where necessary):

3.1 Run a preliminary pass to filter out procurement methods that obviously do not apply.

- Different variations of a particular approach should be treated as separate options.
- Where there is a case for using the multiple TOC approach, the single TOC and multiple TOC approaches should be treated as different options, with their own distinct advantages and disadvantages.

3.2 Compile a summary table for each viable procurement method, setting out the main features of the option, upsides/advantages and downsides/risks.

3.3 Review and discuss the features, benefits and risks of each procurement method within the Stakeholder Group until there is a reasonable level of understanding of the main features, and general alignment on the benefits and risks of each.

- The Stakeholder Group may need guidance to ensure its members understand project alliancing enough to be able to make fully informed assessments.
- It is important to take the time to ensure that all members of the Stakeholder Group have the same understanding of the key features, benefits and risks of each procurement method.

4. Conduct a comparative assessment of outcomes

The next step is to assess the Stakeholder Group's level of confidence that the stated project objectives will be achieved for each procurement method. The recommended steps are:

4.1 For each of the short-listed procurement method, the Stakeholder Group should make an assessment of their level of confidence that each sub-element of the objectives matrix will be achieved.

4.2 The Stakeholder Group completes an overall review/sanity check to confirm that it is satisfied with all its assessments.

4.3 A decision is made on the Stakeholder Group's recommendation. If the outcome is not clear, then the group should undertake a more detailed analysis and proceed to

Step 3, outlined in section 3.2.4.

(Appendix 5 contains the outputs of comparative assessments of three hypothetical sample projects.)

3.2.4 Step 3 – Supplementary comparative assessments

Where Step 2 indicates that project alliancing may be appropriate, but not by a clear margin, the Stakeholder Group should undertake a comparative assessment of how risks and opportunities would be managed under each of the short-listed procurement methods. Note that this analysis is different from the detailed assessment of project risks required under the Procurement Best Practice Guidelines.

A comparative analysis of how risks and opportunities would be managed under different procurement methods can be a complex process requiring several structured workshops. Practitioners may need to engage specialist advice or facilitation. The main steps are highlighted below.

1. Conduct workshop(s) to identify and assess those risks which might prevent the stated project objectives from being achieved, and those opportunities that might mean the project exceeds the stated project objectives. This should be related back to the objectives matrix (developed in Step 2). The main steps in doing this are:

    - Brainstorm risks/opportunities.
    - Decide on risk/opportunity categories.
    - Cull the list to the more significant items and allocate them into categories.
    - Agree on a method for calculating a numeric risk/opportunity score.

2. Split the Stakeholder Group into separate sub-groups, with at least one sub-group focussing on risks and at least one sub-group dealing separately with opportunities.

3. Each sub-group makes an assessment of the risk/opportunity score for each sub-item for each of the short-listed contracting options and then calculates an overall risk/opportunity score for each contracting option (using agreed weightings where appropriate).

4. Each sub-group does an overall review/sanity check to confirm that it is satisfied with all of its assessments.

5. The whole group reviews and compares the assessments of the various sub-groups.

6. A decision is made on the group's recommendation and a final report compiled:

    - If an alliance ranks ahead on all analyses (objectives, risks and opportunities), then it should be recommended as the preferred approach.
    - If the results of the assessments are variable/uncertain, then the group should recommend against the use of an alliance.

Part 2: Key features of the alliance framework

Part 2 covers the commercial/compensation framework for project alliances, the process for establishing value for money and the legal framework (chapters 4-6).

4 Compensation framework

4.1 Introduction

4.1.1 Scope and context

While risks (and opportunities) are collectively 'owned' under a project alliance, risks and benefits are effectively allocated through the pain/gain arrangements. It is therefore important that the compensation arrangements are set out clearly in the alliance agreement and properly understood by the participants. Chapter 4 discusses the compensation framework, suggests key principles and describes a generic compensation model that can be adapted to most (single) project alliances. Worked examples are provided in Appendix 10. Key commercial principles are discussed throughout Chapter 4.

4.1.2 The 3-limb compensation model

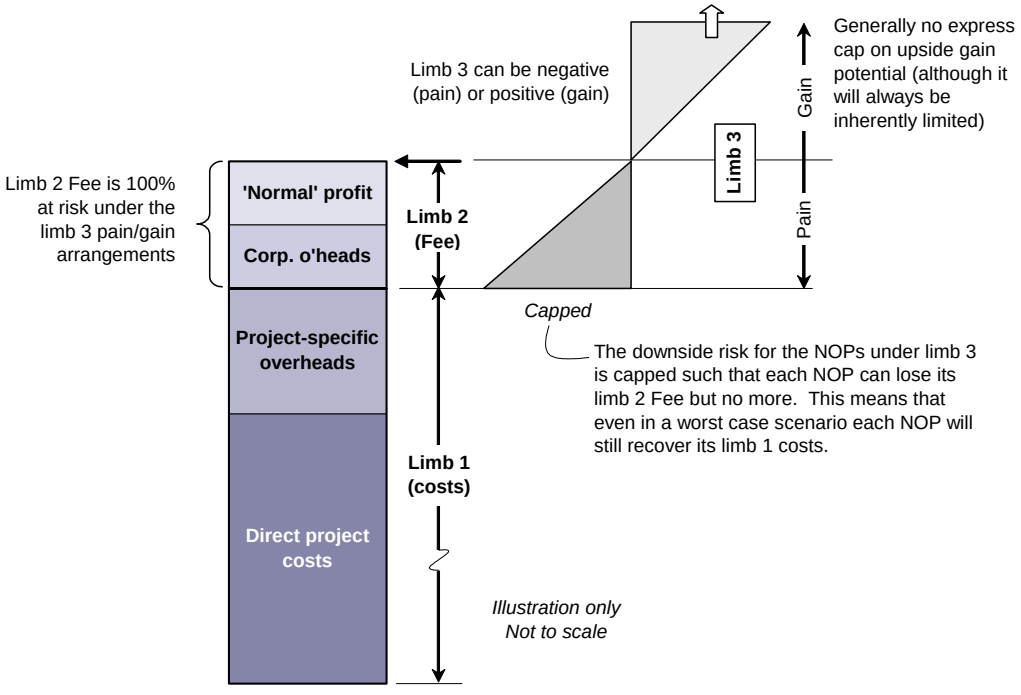
During the development of the target cost estimate (TCE), the target cost of the project, performance targets are agreed and compensation to the NOPs could be characterised as a '3-limb model', illustrated in Figure 4.1, where each non-owner participant (NOP) is paid as follows:

Limb 1: Expenditure on the work under the alliance (including mistakes, rework and wasted effort) and project-specific overheads related to the work under the alliance are reimbursed at actual cost, subject to audit.

Limb 2: A fee (the fee) to cover 'normal' profit and a contribution towards recovery of non-project-specific (i.e. corporate) overheads

Limb 3: An equitable pre-agreed share of the 'pain' or 'gain', depending on how actual outcomes compare with pre-agreed targets (in both cost and non-cost performance areas)

Figure 4.1: 3-limb compensation model



4.1.3 Principles for design of limb 3

The pain/gain arrangements should be designed to ensure that the NOPs assume an equitable share of the pain/gain, along with the owner, where actual outcomes are worse/better than the various targets agreed by the alliance. This is consistent with the principle that 'all participants win, or all participants lose, depending on the outcomes actually achieved'. The pain/gain mechanisms should generally be jointly developed in line with the guiding principles set out in section 4.5.1.

4.1.4 Compensation during project development phase

During the project development phase (i.e. the interim project alliance agreement (IPAA) period if the IPAA/PAA approach is used) compensation is limited to limbs 1 and 2 only, noting that:

It may be appropriate in some circumstances to make payment of some or all of the limb 2 fee conditional on reaching alignment on the performance targets.

Generally there is no limb 3 pain/gain component, since the performance targets have not yet been established/agreed. There may be situations where it makes sense to introduce limb 3 pain/gain based on specific outcomes (agreed before the start of the alliance) of the project development phase itself. However, this needs careful consideration as the introduction of incentives may be more of a hindrance than a help at this critical stage when the alliance is being established and implementation targets are being developed.

4.2 Structure of the target cost estimate

4.2.1 Context

During the project development phase, the owner and the NOPs, working as an integrated team, develop and agree on the various performance targets that form the basis for the limb 3 pain/gain arrangements, specifically:

- the target cost estimate (noting that the TCE refers to the whole estimate, while the TOC is the bottom-line figure in the TCE);
- other performance targets, along with full details of how they will be measured.

4.2.2 Sample target cost estimate

The hypothetical example showing a high level summary of the TCE for a notional $100 million infrastructure project is used here to illustrate the methodology for calculating the limb 2 fee and the pain/gain under limb 3.

For ease of explanation, the sample TCE is based on the relatively simple situation of having one constructor (NOP1) and one designer/consultant (NOP2). While in practice the situation could be a lot more complex – with multiple constructors and consultants, specialist suppliers or technology providers, even multiple owners – the basic principles/mechanisms will remain the same as illustrated in Table 4.1.

Table 4.1: Target cost estimate for a notional $100m infrastructure project

A	B	C	E	H
	Element	**Pre-TOC** (actual)	**Post-TOC**	**Combined**
Owner	Staff	250,000	1,000,000	1,250,000
	Consultants	450,000	750,000	1,200,000
	Other directly incurred costs	200,000	1,150,000	1,350,000
	Expenses	100,000	350,000	450,000
	Risks/unallocated contingency	-	1,247,000	1,247,000
NOP1 (constructor)	Salaried personnel	1,000,000	3,600,000	4,600,000
	Construction plant	-	12,000,000	12,000,000
	On site wages	-	13,000,000	13,000,000
	Materials	-	17,000,000	17,000,000
	External hired equipment	-	7,900,000	7,900,000
	Subcontract	600,000	11,000,000	11,600,000
	Site amenities and facilities	650,000	3,000,000	3,650,000
	Other project-specific overheads	300,000	2,500,000	2,800,000
	Provisions for specific risks	-	5,000,000	5,000,000
NOP2 consultant	Salaried personnel	1,000,000	3,500,000	4,500,000
	Contract staff	-	550,000	550,000
	Subconsultants	-	400,000	400,000
	Expenses/other costs	450,000	550,000	1,000,000
	Totals	5,000,000	84,497,000	**89,497,000**
	NOP limb 2 Fee$ (calculation explained further below)			**10,503,000**
	TOC (comprising owner costs + NOP limb 1 + NOP limb 2)			**100,000,000**

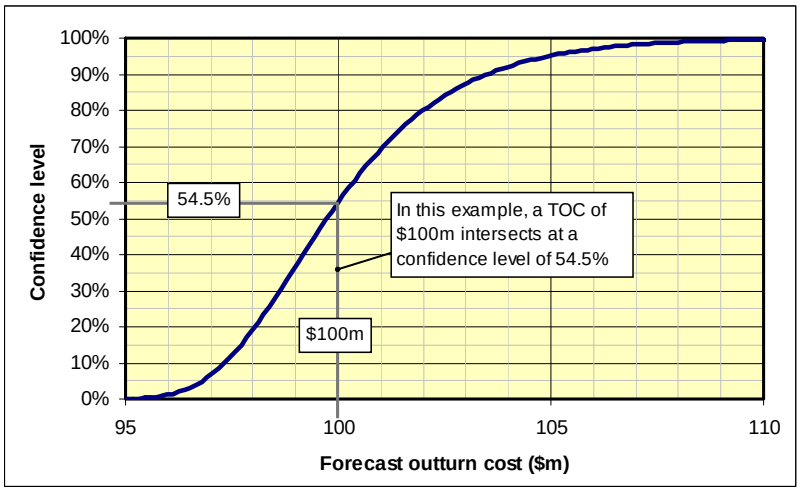
Some points to note about the TCE in general and the sample TCE above in particular:

- The TOC consists of several distinct components:
  - the alliance's estimate of the amount that will be incurred directly by the owner and allocated to the alliance cost ledgers (i.e. 'owner alliance costs'). There will be many other owner costs outside the TCE, such as those relating to project planning, property resumptions, the financial auditors in the establishment stage and for the alliance project, the independent estimator (IE), internal overhead charges, and other costs for establishing the alliance;
  - the alliance estimate of the NOP's limb 1 costs (discussed further in section 4.3);
  - the NOP's limb 2 fee (calculation is explained in section 4.4.1).
- The owner would also typically make some further provision/contingency (outside the TCE) to cover:
  - the owner's share of possible cost overruns;
  - amounts the owner might end up paying to the NOPs for achieving better-than-targeted outcomes in non-cost KRAs; and
  - contingency against alliance variations.
- It is recommended that the amounts already incurred during the project development phase are included as part of the TCE (as shown in the sample TCE). At the time the TCE is agreed, the costs up to that time are already known.
- Although it is expected that variations, if any, will be very limited, the alliance agreement needs to include a mechanism for adjusting the TOC and other targets if

there are variations. (See discussions on variations in section 6.2.8 and section 4.5.6.)

- The TOC is locked in as a single point estimate. However, as is discussed later in section 4.5.2, the alliance's estimate should be in the form of a cost probability distribution. The TOC is then determined by selecting a particular point along the cost distribution curve. In the example below, a TOC of $100 million equates to an intersection point of 54.5 per cent. While each case needs to be considered on its own merits, as a general principle the intersection point for selecting the TOC should lie between the median (the P50 point) and the mean, unless there are compelling reasons for selecting a point outside this range (see further discussion in sections 4.4.3 and 4.5.2).

Figure 4.2: Cost probability distribution curve



Section 4.4.3 sets out various principles for establishing the TOC and other performance targets.

4.3 Limb 1 – reimbursement of costs

4.3.1 General principles

The guiding principles for reimbursement under limb 1 are straightforward.

- Each NOP is reimbursed their actual costs incurred on the project, including costs associated with mistakes and rework. (The sharing of pain/gain under limb 3 ensures that each NOP shares equitably in the pain associated with wasted effort and rework.)

- Reimbursement under limb 1 must cover actual costs – no more and no less. It must not include any contributions to corporate overhead or profit. There are no contributions to administrative or support functions not directly involved in performing the work under the alliance agreement and under the Alliance Manager's control.

- All costings and financial transactions are 100 per cent open book and subject to audit.

4.3.2 Application in practice

To ensure these principles are adhered to in practice, the following steps are recommended.

1. Explain the proposed commercial framework clearly in the RFP documents, including a clear statement on the underlying commercial principles.

2. Before entering into the alliance, conduct establishment audits to ensure that everyone is aligned on what is intended to be reimbursable under limb 1 and how it will be costed and verified in practice. It should be clear what kind of things limb 2 is intended to cover and which will therefore not be directly reimbursable under limb 1.

   Typically limb 1 will cover staff, wages, use of NOP-owned plant and equipment, direct project expenses, purchases including subcontracts and suppliers, etc. Limb 2, in addition to profit, covers items generally considered to be corporate or non-project-specific overheads. Rather than list what is covered by limb 2, one approach used in some alliance agreements is to state that limb 2 is deemed to cover any items not reimbursable under limb 1. On this basis, it is very important that the establishment audits confirm everyone's understanding of what is actually reimbursable under limb 1.

3. Owner and NOPs jointly develop and agree a rigorous audit verification regime (detailed in a compensation audit plan).

4. Implement and adhere to the compensation audit plan.

Determination of limb 1 is relatively straightforward for some organisations (although it still requires rigorous costing and audit). For instance, the demarcation between limb 1 and limb 2 is fairly clear for a constructor where project costs are generally site-based and quite separate from corporate overhead costs and structures. For a designer/consultant, it is generally more complicated because, in their normal business operations, project work is conducted from a central office that also houses their corporate facilities and there is no easy way to distinguish between project-specific and corporate overheads.

Appendix 7 sets out some key issues to be addressed in administering limb 1 properly.

4.4 Limb 2 fee – corporate overhead and profit

4.4.1 Overview

Each NOP should be paid a fee that reflects their 'normal' business margin for corporate overheads and normal profit, consistent with the scope and context of the alliance and the principles discussed later in section 4.4.3. In practice, before entering into the alliance, a percentage figure is agreed (fee%) for each of the NOPs (by referring to the findings of the establishment audits). This is calculated on the basis that the fee% will be used to calculate the limb 2 fee, either:

1. as a fixed lump sum (fee$) by applying the fee% to appropriate elements within the TCE in the way shown in Table 4.2 once the TOC is locked in; or

2. as a percentage of actual costs by applying the fee% to appropriate components of actual costs as incurred.

Whichever method is used, at the time the TOC is locked in, the amount included for the limb 2 fee is the same – as illustrated in Table 4.2 using the sample estimate.

Table 4.2: Limb 2 fee calculation, notional $100m project

A	B	I	K	N	O
	Element	**Estimated $**	**Make-up of the Fee$s**		
			Fee%s	**Fee$**	NOP Fee$
Owner	All estimated owner alliance costs	5,497,000	n/a	n/a	n/a
NOP1	All estimated NOP1 costs	77,550,000	11.00%	**8,530,500**	8,530,500
NOP2	Salaried personnel	4,500,000	40.00%	**1,800,000**	1,972,500
	Contract staff	550,000	15.00%	**82,500**	
	Subconsultants	400,000	10.00%	**40,000**	
	Expenses /other costs	1,000,000	5.00%	**50,000**	
	Totals	**89,497,000**		**10,503,000**	10,503,000
	Limb 2 Fee$s	**10,503,000**			
	TOC	**100,000,000**			

Some points to note about the limb 2 fee in the example above:

- If the fixed fee approach has been adopted, then the limb 2 fee$ will remain fixed regardless of whether the actual cost is more than or less than the amounts estimated within the TCE. If the latter approach is used, then the limb 2 fee will be more or less than the figure that appears in the TCE, depending on whether the actual cost is more or less than the TOC.

- The fee%s used in the example are purely hypothetical. In this respect:

  - The constructor fee% is indicative only. The actual fee% can vary significantly, depending on the industry sector and the type and size of the project. The fee% should be based on actual overheads and demonstrated profit record as verified through the FA-E and following the guiding principles discussed in section 4.4.3.

  - The consultants' fee%s are indicative only. They can vary widely depending on how the office costs are allocated between limb 1 (directly reimbursable) and limb 2 (part of the fee$) and how the organisation normally spreads its margin across the different inputs. The actual elements and associated percentages need to be agreed during the commercial discussions, based on the feedback from the establishment audits.

  - No inference should be taken from any of the hypothetical figures used in the example. The fee%s have been chosen for illustration purposes only and are not intended to give any indication of what the actual fee%s ought to be.

4.4.2 Limb 2 – fixed or percentage of actual costs?

There are no set rules for deciding whether to use a fixed or 'floating' limb 2 fee. There are arguments for and against each method and the owner and the NOPs should discuss their preferences as part of the commercial alignment process before entering into the alliance. It is becoming more common on infrastructure projects to adopt a mixture of the two methods, where the constructor's limb 2 fee is fixed, while the designer's limb 2 is paid as a percentage of actual costs. The implications of this arrangement, and the thinking behind it, are discussed further in Appendix 8.

4.4.3 Principles and processes – establishing limb 2 fee%s

The establishment audits will provide detailed information for each member of the preferred proponent. The audits will detail corporate overhead structures and costs, and target and actual profit margins for all relevant parts of the business. During the commercial alignment

discussions, the owner and the members of the preferred proponent companies should hold conversations seeking to understand each other's perspectives and reach alignment on limb 2 parameters (i.e. the fee%s and the methods for applying those percentages). This should result in a limb 2 fee that provides fair and appropriate return for each NOP for participating in the alliance. In this respect, it is recommended that the following guidelines and general principles be applied:

1. As far as practicable, the historical data should be restricted to the operating division/business unit(s) that will be participating in the alliance. Historical data should take into account three full years (if available) of past results and should include both tender data and actual outturn data. Historical data should be relied on in preference to forward forecasts and current budgets/targets.

2. Pain share/gain share relating to previous alliances should be removed from historical data (to avoid a 'ratchet' effect), unless it can be shown that this would unreasonably disadvantage the NOP.

3. Historical fee%s should be adjusted to reflect the particular context of the alliance. Appendix 8 sets out reasons why an owner might expect the fee% to be lower than historical trends.

4. The fee% should represent an equitable return in an alliance context for delivering outcomes in line with the pre-agreed targets, so that the NOPs should not have to rely on upside gains under limb 3 to restore them to a reasonable margin return. There are several points to consider:

    - Since the preferred proponent will have been chosen as best-in-class from a quality field, the 'neutral' points for the purposes of limb 3 (i.e. the TOC and other targets) should reflect a high performance alliance with best-in-class NOPs. The neutral point targets will be expected to match industry best practice or better.

    - Similarly if the limb 2 fee% represents a reasonable business return and the cost probability distribution incorporates a balanced assessment of risk/opportunity, there is generally no compelling reason why the TOC should be set higher than the median (P50 point) or mean as suggested in the final dot point in section 4.2.2.

5. In the first instance, fee%s should be developed on the basis of the company's own validated financial records. However, it is reasonable for the owner to take into account normal industry ranges and to expect that the limb 2 fee%s will be within the 10 to 90 percentile range of known outturn gross margins for similar work on projects of similar types/scope.

Owners need to be careful when comparing the fee%s between different organisations with widely different fee%s. For instance, in the case of consulting firms with different business and costing structures, the overall multipliers may be similar even though the fee%s are very different.

In all cases, the owner organisation should ensure it has sufficient information to adequately understand the financial structures of the business and satisfy itself that reimbursement under the alliance is appropriate and in line with the agreed principles.

4.4.4 Components that attract limb 2 fee%

The fee% cannot be considered in isolation. It must be considered in connection with elements within the TCE to which it will be applied. This is particularly relevant for constructors where a single uniform fee% is generally applied to all the limb 1 elements.

For this reason, the participants need to be aligned in their expectations of how major items will be procured – specifically through whose books major purchases will be processed, as this could significantly impact on fees and reported margin returns. This needs to be discussed in detail during the commercial alignment discussions. As a matter of principle, the fee% and how it is applied should reflect any differences in the mix of operations under the alliance compared to the historical mix on which the percentages taken from the establishment audits are based. This is also discussed further in Appendix 8.

4.5 Limb 3 – pain/gain

4.5.1 Overview and general principles

As noted in section 4.1.3, the pain/gain arrangements under limb 3 are intended to ensure that the NOPs assume an equitable share of the pain/gain, along with the owner, where actual outcomes are better/worse than the various targets agreed by the alliance.

The guiding principles in jointly developing limb 3 pain/gain mechanisms are:

1. Pain/gain must be linked to project outcomes that clearly add to (or detract from) value to the owner.

2. The result for all alliance participants should be either win:win or lose:lose for all alliance participants.

3. If performance by the alliance is better than pre-agreed targets, it should lead to better-than-normal returns for NOPs and vice versa, so that the return for all participants is commensurate with the actual performance of the alliance, and the only way the NOPs can achieve an outstanding return is for the alliance to deliver an outstanding project outcome.

In addition:

4. The owner should be totally committed to the NOPs maximising their returns through the operation of limb 3 gainsharing.

5. The maximum downside risk for each NOP under limb 3 should be capped at the loss of their limb 2 fee (on the basis that the fee includes any limb 2 fee earned during the project development/IPAA phase).

6. There should be no express cap on the NOP upside potential (noting that the upside potential is inherently limited in any case).

7. Pain/gain flowing to or from the NOPs is often shared among the NOPs in direct proportion to their respective limb 2 fees. However, where it is agreed that this arrangement would not properly reflect the relative contributions to/influence on the leadership, performance, outcomes and overall success of the alliance, the sharing ratios should be modified accordingly. For example, designers may argue that their contribution to performance based on their intellectual property may warrant a larger share.

8. There must be complete transparency in all limb 3 arrangements and calculations (as well as in limb 1 and limb 2).

9. The separate elements of the limb 3 arrangements should be interlinked to ensure that

there is no incentive to sacrifice performance in one area to secure reward in another.

10. Limb 3 arrangements should be clear, concise and easy to understand.

4.5.2 Principles for establishing the target outturn cost and other targets

The target outturn cost (TOC) is central to the alliance compensation model and the strategy for achieving and demonstrating value for money. It is suggested that the following guiding principles be followed when the developing the TCE and determining the TOC:

1. The neutral points for the various targets underpinning limb 3 (i.e. the TOC and other targets) should meet or exceed industry best practice.

2. The TOC must be a reasonable estimate (independently reviewed) of what it should take to deliver the agreed scope of work. Appendix 9 sets out some of the factors to be taken into account in this respect.

3. As noted in sections 4.2.2 and 5.3.2 and illustrated in Figures 4.2 and 6.4, when determining the TOC from the cost probability distribution generated from the TCE, the intersection point for selecting the TOC should lie between the median (the P50 point) and the mean, unless there are compelling reasons for selecting a point outside this range. (Note that if the level of uncertainty is so great that the participants are not prepared to lock in on a TOC that lies between the median and the mean, then they may be trying to lock in on the TOC prematurely. In this case, they should undertake further investigations to reduce the level of uncertainty to within an acceptable range.)

4.5.3 Owner alliance costs

Those owner costs best managed by the alliance should be treated as owner alliance costs. Typically, this could be expected to include:

- cost of owner's staff allocated full time or part time to the alliance;

- some items of procurement (typically consultants engaged directly by owner) where the alliance will manage the procurement but the actual contracts will be directly with the owner, and

- risks/opportunities not allocated to a specific NOP.

In this way, all alliance participants become collectively responsible for managing actual costs against these budgets – not just the owner. There is also no incentive for the NOPs to exploit 'free' resources available from the owner to undertake work intended to be carried out by the NOPs.

4.5.4 Typical key result areas

For many projects the primary focus of the limb 3 pain/gain arrangements will be on managing project costs. Aside from capital cost, other key result areas (KRAs) may include:

- timely completion

- whole-of-life/maintenance costs

- performance/output of facility in operation
- areas other than cost and time (other KRAs) such as:
  - community and stakeholder management
  - traffic management
  - social responsibilities (e.g. environment, health and safety)
  - quality/workmanship
  - the legacy left as a result of the project.

In general, unless there are specific reasons to do otherwise, both overruns (i.e. AOC (actual outturn cost)-TOC) and underruns (i.e. TOC-AOC) should be shared 50:50 between the owner and the NOPs (subject to possible adjustment in the sharing percentages, based on performance in non-cost areas discussed further below).

The owner and the preferred proponent should identify the KRAs for the project and develop the overall limb 3 framework around these KRAs during the commercial discussions, before the alliance agreement is entered into. This should include agreed key performance indicators (KPIs) within each KRA. After entering into the alliance agreement, as part of the project development phase the owner and the NOPs need to develop detailed (practical and simple) procedures for how these will be measured.

Appendix 9 discusses the development of the KRA/KPI framework further, and includes a table of suggested guidelines to be used when establishing specific targets across the performance spectrum. Chapters 7 and 8 provide more detail on the key phases and tasks required for establishing and implementing an alliance.

4.5.5 Sharing pain/gain among NOPs

During the commercial discussions, the owner and each of the companies comprising the preferred proponent need to agree how any pain/gain that flows to/from NOPs under the alliance is to be shared among the NOPs. A typical approach is for pain/gain to be shared in direct proportion to the respective NOPs' limb 2 fees (the 'natural' sharing ratios). However, where it is agreed that this arrangement does not properly reflect the relative contributions to/influence on the leadership, performance, outcomes and overall success of the alliance, the sharing ratios should be revised accordingly. This is illustrated in Table 4.3, using the figures from the sample TCE.

Table 4.3: Pain/gain sharing ratios, notional $100m project

	A	B	D	K	L	M
12	Fee$s	Natural%	Owner	50.00%		50.00%
13	8,530,500	81.22%	NOP1 (constructor)	40.61%		35.91%
14	1,972,500	18.78%	NOP2 (designer/consultant)	9.39%	1.50	14.09%
15	10,503,000	100.00%		100.00%		100.00%

In this example:

- The fee$s in column A are as shown in column O in Table 4.2 in section 4.4.1.
- The natural sharing ratios (based on relative proportions of limb 2 fees) within the NOPs are shown in column B.

- The natural overall sharing ratios (with the owner assuming a 50 per cent share) are shown in column K.

The NOPs' share could be increased by applying the 'uplift factor' (1.50), shown in column L, to effectively re-distribute the sharing between the designer(s) and the constructor. If it was agreed that NOP2 would receive an uplift factor of, say, 1.5, the resulting adjusted ratios are shown in column M. Here NOP2's share is uplifted, 'subsidised' by NOP1, whose share is reduced accordingly so that overall NOP share remains at 50 per cent. Any uplift factor would have to be negotiated among the NOPs. While this may appear to be a matter solely for the NOPs, it should be of concern to the owner as it affects the commercial drivers underpinning the alliance. While any such adjustment could be applied to both upside and downside, in some cases NOPs have agreed that an uplift factor is applied only to the upside, while retaining the natural sharing ratios for the downside. The owner should be involved in these discussions to understand the potential impact on drivers.

Proponents should have addressed fundamental commercial issues like this before the two-day selection workshops held as part of the establishment phase of an alliance, in the expectation that they will be discussed in overview at the workshop. During commercial discussions with the preferred proponent, final agreement is based on key principles.

4.5.6 Dealing with variations

It is expected that under the alliance agreement the participants will collectively assume all risks associated with delivering the project within the agreed scope, regardless of:

1. whether or not those risks are within the control of the participants; or
2. whether they could reasonably have been foreseen or not.

This excludes risks specifically agreed to be retained by the owner, which will be identified separately in the contract. Alliance risks are then shared between participants through the limb 3 pain/gain model. This means that situations that would be treated as variations under a traditional contract are not variations under the alliance agreement – they are just part and parcel of delivering the project. Accordingly, the TCE has to include allowances (contingencies) consistent with this all-embracing assumption of risk.

In the context of the alliance, a variation simply means a situation where the participants (via the ALT) agree that the TOC and/or other targets that affect limb 3 should be changed.[8] Certain situations obviously need to be treated as a variation, e.g. the case where the owner wants to include significant extra scope that was not contemplated as part of the alliance works, or remove some of the scope, or changes to the fundamental design parameters/functional requirements for the project. In such cases a mechanism is needed to adjust both the TOC and non-cost targets up or down (noting that limb 1 costs are always reimbursed, whether or not a particular circumstance constitutes a variation).

It is important for the participants to secure early alignment among the ALT and AMT on the principles of what will or will not constitute a variation. Appendix 9 describes a process

[8] Any adjustment to the TOC must incorporate adjustments as appropriate for the NOPs' limb 2 fees. In this respect: Unless agreed otherwise, the limb 2 fee adjustment is normally calculated by applying the same fee%(s) and methodologies to the limb 1 increases (or decreases) associated with the variation that were used to calculate the original fee; and where the limb 2 fee is fixed, the NOPs' fixed fee will be increased/decreased by its respective fee component within the TOC adjustment. In the case of a 'floating' limb 2, the limb 2 fee is paid as a percentage of actual costs anyway, and there is no need for a specific adjustment to the limb 2 payment entitlement.

for that which has been used successfully on numerous project alliances.[9]

4.5.7 Generic model and worked examples

A mechanism is needed to link the outcomes in non-cost KRAs back to financial pain/gain. The generic model described in Appendix 10 can be used for almost any project alliance and can be adapted to provide a wide range of incentive options by varying the parameters of the model.

Appendix 10 also contains worked examples of the operation of the generic model using a hypothetical TCE, with examples of Monte Carlo simulation of the predicted bottom-line outcome for each of the alliance participants.

[9] Ross, J., Introduction to Project Alliancing, p. 9. (See References.)

5 Value for money

5.1 Value for money in a project alliance

Project alliancing can reach or exceed project objectives, such as delivering the project for a cost under the target outturn cost. However, sometimes success can be seen as the result of setting 'soft' targets, rather than due to creditable performance by an alliance.

A number of observers have questioned the veracity or robustness of TOCs and performance targets developed under the single TOC approach, generally on the basis of:

- the financial incentive in the commercial framework for NOPs to set easily achievable targets during the project development phase, such as a higher TOC and more achievable performance targets; and

- the absence of price competition in the development of the TOC and performance targets (price competition being widely considered, correctly or incorrectly, a key part of ensuring value for money).

While the project alliance model has a number of features to reduce the likelihood of soft targets and TOCs being set, this issue needs to be carefully considered and addressed.

In the absence of price competition in the development of performance targets and the TOC, it is incumbent on alliance participants to not only ensure, but to demonstrate to a far greater level of detail than would normally be required, that the TOC and performance targets are robust and that the alliance delivers value for money.

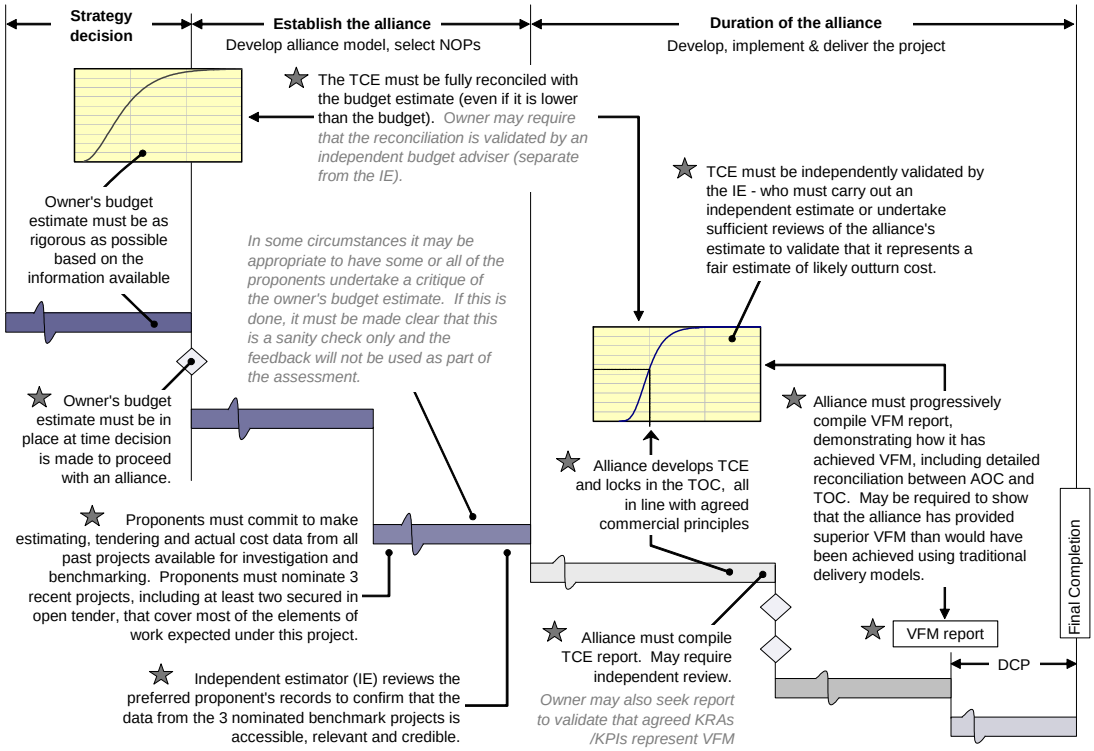
This chapter discusses some of the background issues and recommends a series of initiatives for ensuring and demonstrating that value for money is delivered by a project alliance.

5.2 Value for money strategy

5.2.1 Overview of strategy

Figure 5.1 provides an overview of the strategy recommended in this Guide to help ensure and demonstrate value for money on project alliances.

Figure 5.1: Project alliance value for money reporting



5.2.2 Summary of specific value-for-money initiatives

The following tables set out specific initiatives across each phase of the project cycle. For **shaded** items, or elements in *italics*, readers should use their discretion to decide whether or not it is appropriate to implement that particular measure. Unless an item is shaded or in italics, it is a recommended requirement under all circumstances.

Before the start of the alliance (i.e. during the establishment/selection process)

1. Getting the owner's budget estimate right

- The owner's budget estimate for the project must be as rigorous as possible, based on the information available, and should employ Monte Carlo simulation to predict the realistic range of possible outturn costs.

During the establishment phase (i.e. before the start of the alliance)

2. Commitment to overall value for money (VFM) strategy

- Proponents are assessed on their understanding of and commitment to VFM principles and processes. As a pre-requisite to selection as a preferred proponent, they must agree in principle to all aspects of the owner's VFM strategy as set out in the request for proposals (RFP) documentation.
- The owner and the preferred proponent must align on the details of the various VFM deliverables as a pre-requisite to entering into the alliance.

3. Principles for establishing the limb 2 fee

- Any deviations from the general principles for establishing the limb 2 fee as set out in section 4.4.3 must be agreed and recorded as a pre-requisite to selection as a preferred proponent.
- The limb 2 fee (percentages and methodology) must be locked in as a pre-requisite to entering into the alliance.

4. Establishment audits

- A financial auditor (referred to as the financial auditor – establishment, or FA-E) must carry out investigations (establishment audits) on the financial and cost accounts of each organisation in the proponent consortium. This is to establish a clear basis for the limb 1 reimbursement and all relevant facts for discussions on the limb 2 fee.
- *Undertake detailed analysis of consultant/designer financial data, with reconciliation against information from the audited profit and loss statement and mapping to limb 1 and limb 2 reimbursement model. (Implement at practitioner's discretion.)*

5. Critique of owner's budget estimate

- Short-listed proponents are asked to undertake a review of the owner's budget estimate and provide a detailed critique, including a revised cost outcome probability distribution curve. (Implement at practitioner's discretion.)
- Following detailed discussion of a proponent's critique (at interview or workshop), the selection panel assesses the proponent's commitment to the VFM principles and the credibility of its budget critique. One of the selection criteria rewards proponents who understand, comprehensively review and support the proposed/revised VFM principles. Honest feedback is to be encouraged and proponents should be warned that feedback which is less than totally truthful and open will score poorly. (Implement at practitioner's discretion.)

6. Interim procurement plan

- The final two proponents are required to submit preliminary details of an interim procurement plan explaining how they will achieve best value quotes for the alliance from suppliers and subcontractors in the project development phase – in this case, the best possible pricing consistent with achieving quality and other performance requirements.

7. Principles underpinning the TCE

- Any deviations from the general principles for developing the TCE as set out in section 4.5.2 must be agreed, as a pre-requisite to being selected as preferred proponent.

8. Nominated benchmark outturn cost data

- Before the selection workshops, the two final short-listed proponents are to submit details of at least three recent, relevant projects. At least two of these should have been won on the basis of price in open tender competition. Outturn data on cost, productivity, schedule and other performance measures should be made available for comparison with internal tender estimates.
- The independent estimator (IE) will undertake a preliminary review of the data during the commercial alignment discussions. The IE's confirmation that the data is accessible, relevant, credible and available is a pre-requisite to entering into the alliance.
- The information will be used as a benchmark to validate that unit rate and productivity assumptions in the TCE are consistent with normal tendering practices.

9. Alignment on principles for 'alliance variations'

- As a pre-requisite to entering into the alliance, the owner and the preferred proponent are required to conduct a 'variation alignment process' to ensure that they are reasonably well aligned in their understanding of what will and will not justify an adjustment in the TOC and other performance targets. The 'interim variation guidelines' are an output of this process.

During the project development phase (i.e. before the TOC is locked in)

10. Conduct a TCE launch workshop in the early stages of the project development phase.

- The TCE kick-off workshop clarifies the roles of all key players, including the leaders of the alliance's estimating team, the ALT and AMT, the IE, the budget reconciliation advisers and any specialist advisers involved in the process (e.g. risk, scheduling, etc.).
- Each owner representative at the workshop is required to commit to full agreement with the aligned TOC and to stand behind it. Conversations and processes should be conducted with a view to achieving this outcome. This is intended to ensure that owner representatives are fully engaged and fully informed to deal with any conflict.
- The workshop covers detailed processes in three separate streams of effort:
  - development of the TCE, including reconciliation with the IE;
  - detailed reconciliation of the TOC with the owner's budget estimate (noting, where relevant, feedback provided in that proponent's budget critique); and
  - a further innovations task force (which cuts in once design for TCE development is frozen).

11. Advanced risk/opportunity valuation

- Unless agreed otherwise, the alliance must identify and value risks and opportunities using advance probability (Monte Carlo) analysis.
- The alliance team must validate their understanding of what will and will not justify an adjustment in the TOC and other targets by revisiting and validating or modifying the interim variation guidelines to reflect the latest information and current expectations.

12. Independent estimator

- Based on an independent estimate or a combination of process or content reviews, the IE must confirm that the TOC is a fair and reasonable estimate of the outturn cost, consistent with agreed commercial principles, the target schedule, the risks/opportunities being assumed by the alliance and other relevant factors.
- The IE's review must confirm the probabilities assigned to individual risks and opportunities through Monte Carlo simulation to validate that the allowances for risk and opportunity are reasonable and represent value for money.

13. Financial auditor

- A financial auditor, referred to as the alliance financial auditor (AFA), conducts ongoing audits to substantiate that all payments to the NOPs are accurate and are made according to the terms of the alliance agreement.
- The AFA also works with the IE as necessary to validate that the TCE is based on information that is completely consistent with the findings of the establishment audits.

14. Interim procurement plan

- The alliance is required to comply with the interim procurement plan (developed from the preliminary plan submitted at the selection workshop – see item 6 earlier in this section). Under that plan, project teams must submit details of competitive bidding for all outsourced services and materials over a certain threshold amount, or must justify selection without price competition and demonstrate to the ALT that the invitation process is designed to secure the best possible value, not just reach a 'cover price' for later negotiation after the TOC is locked in.

15. TCE report

- The alliance must produce a comprehensive TCE report including:
  - summary and details of the TCE, with statements from the IE supporting the TCE and/or setting details of any areas of misalignment;
  - reconciliation between the TCE and the owner's budget estimate (referring to that proponent's budget critique where relevant), including a detailed analysis of the facts and reasons for all variances;
  - *The owner may require this reconciliation to be validated by an independent budget adviser, separate from the IE. (Implement at practitioner's discretion.)*
  - details and approximate valuation of all significant improvements and innovations embedded in the TCE, compared to the design/scope on which the owner's budget estimate was based.
  - *The owner may require this information to be independently validated. (Implement at practitioner's discretion.)*

16. KRA validation report

- The alliance is required to produce a report explaining the agreed non-cost performance framework and demonstrating that the agreed KRA/KPI targets and measures represent value for money, consistent with the principles set out in section 4.5. The alliance may be required to have this report independently validated. (Implement at practitioner's discretion.)

During implementation and following completion

17. Progressive development of VFM report

- The alliance is required to progressively develop a comprehensive VFM report, including as a minimum:
  - a detailed reconciliation between the actual outturn cost (AOC) and the TOC in a format that identifies variances under relevant categories, such as:
    - > estimate assumptions incorrect on unit cost or productivity
    - > innovations/breakthroughs
    - > superior/inferior management of considered risk and opportunities
    - > unexpected risks/opportunities
    - > mistakes/errors;
  - a direct reconciliation between the owner's budget estimate and the AOC (a consolidation of the reconciliation between the owner's budget and the TCE, discussed in item 15 above, and the TOC → AOC reconciliation); and
  - a database of innovations including those implemented and those forecast.
- *The VFM report may also be required to demonstrate how the value delivered by the alliance compares with the value that may have been delivered if non-alliance delivery models had been used. (VFM reports for the Port of Brisbane Motorway Alliance[10] and the Grafton Gully Alliance[11] are useful examples from actual alliance projects.) The alliance may be required to have the contents of the VFM report independently validated at prescribed intervals. (Implement at practitioner's discretion.)*
- *Note that the owner has the option of requiring the two final proponents to prepare a preliminary skeletal outline of the proposed VFM report for discussion at the selection workshop(s). (Implement at practitioner's discretion.)*

[10] Port of Brisbane Motorway Alliance, *Alliance Learning Experience: Executive Summary Report*, 2003. Compiled by Evans & Peck, commissioned by the Alliance Leadership Team. Available via the Alliancing Association Australasia (formerly the Alliance Industry Association).

[11] Transit New Zealand, *Grafton Gully Project Alliance Final Report, Value For Money*, June 2005. Available on request from Transit New Zealand.

18. Executive completion report (discretionary item)

- Once the project is complete, the alliance is required review the lessons learned – including the accomplishments and value of all aspects of the project delivery. Based on this process, the alliance prepares an executive completion report which is separate from the final VFM report. The executive completion report takes a wide view of the project.
  - It highlights the ways in which the delivery approach facilitated an increased performance against project objectives, and assisted in exploiting opportunities and mitigating or avoiding risks.
  - It identifies areas that could have been done better, with recommendations for participants to apply in their business practices. (Implement above at practitioner's discretion.)
- The executive completion report is required to make suggestions on how this Guide could be improved. (Implement at practitioner's discretion.)

19. Alliance suitability score

- The ALT and AMT will be required to conduct formal self-reflection/assessments after practical completion. An outcome of this session is the alliance suitability score. This is based on an assessment by the owner and the NOPs of each other's attitudes and behaviours through critical stages of the alliance.

5.3 Project budget

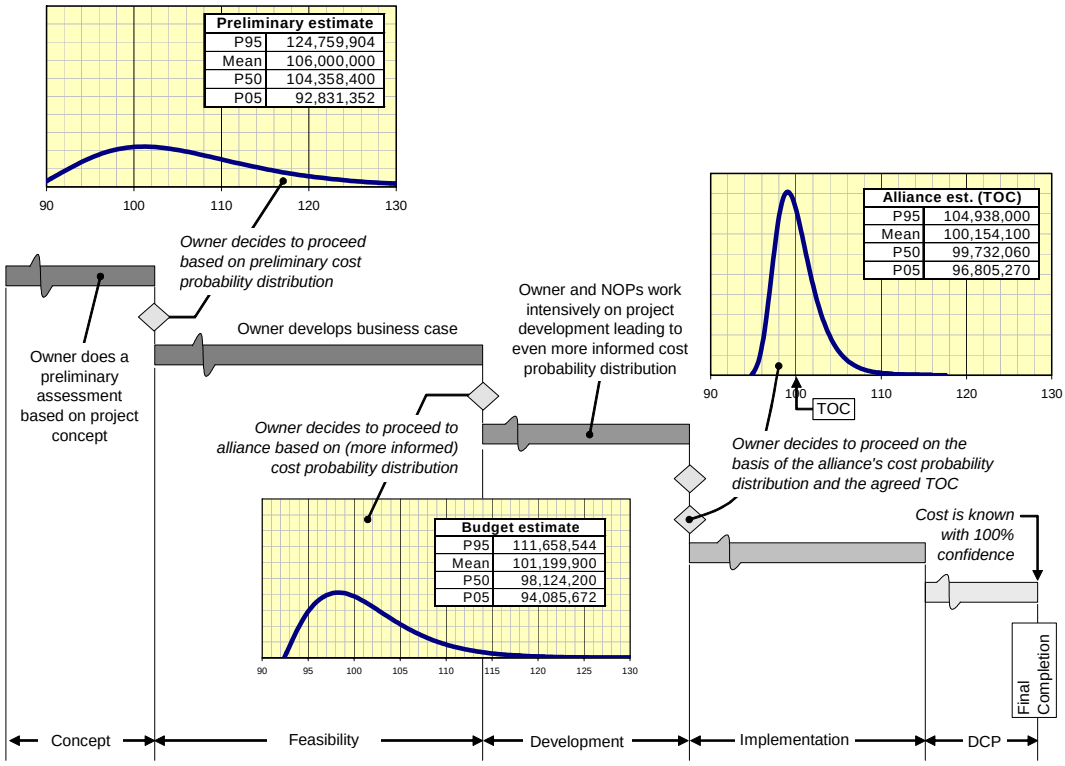
5.3.1 Evolution of the project budget

The ability to demonstrate a clear audit trail from the owner's internal budget estimate to the agreed TOC and the eventual AOC, and to reconcile any discrepancies, is fundamental to demonstrating value for money in a project alliance. It is vital that the owner's budget is robust, with risk provisions fully considered and included.

Given the relative complexity and value of projects delivered through project alliancing, Monte Carlo simulation is considered necessary for developing the owner's budget and the alliance's estimate. This is to ensure the required robustness of project costings during the alliance life cycle.

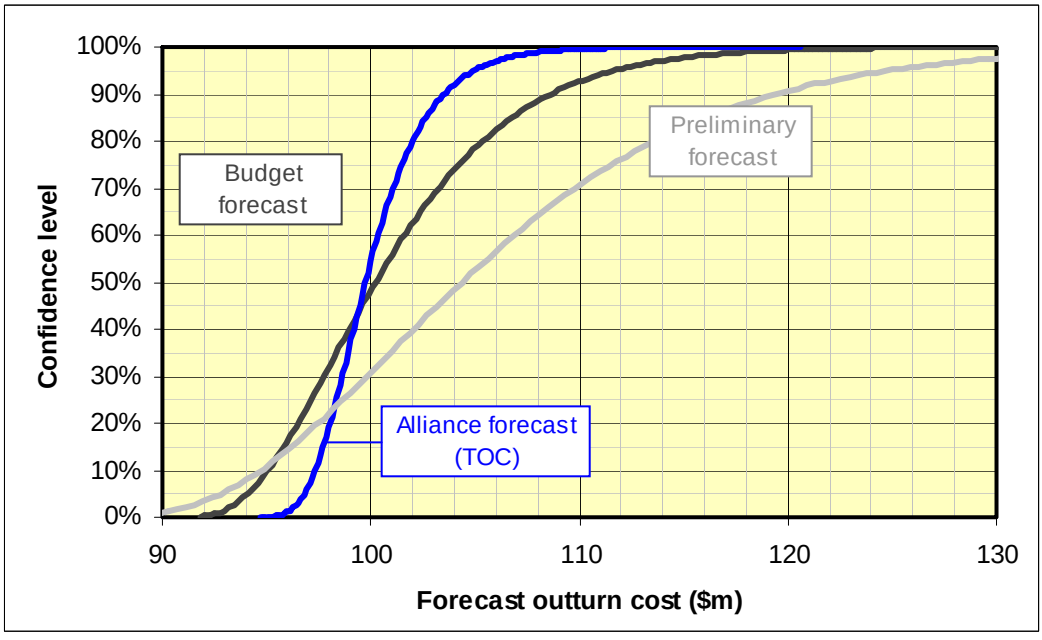
Figure 5.2 illustrates a typical budget evolution for an alliance, using cost probability distributions. As the project progresses through the project development phase, the TOC can be predicted with increasing levels of accuracy.

Figure 5.2: Typical project alliance budget evolution – cost probability distributions



In the hypothetical example in Figure 5.2, the mean of the alliance's cost probability distribution is higher than the cost distribution used for the owner's (business case) budget estimate. However, the overall spread of uncertainty in the alliance's prediction is narrower, as would be expected, based on the intensive work undertaken by the alliance during the project development phase. The cost probability distributions are shown as cumulative distributions in Figure 5.3.

Figure 5.3: Project alliance cumulative cost probability distributions/confidence levels



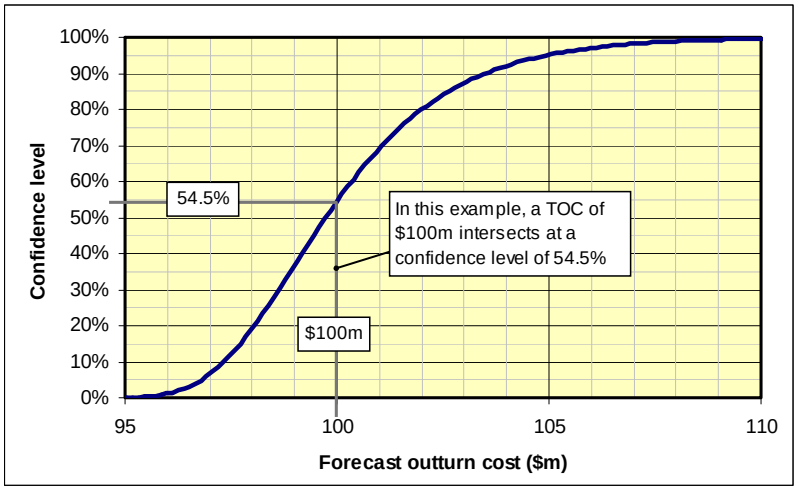
5.3.2 Selecting the TOC from the TCE

A key issue to be considered and agreed with the preferred proponent before entering the project development phase is the point along the cost probability distribution curve that will be selected as the TOC.

As illustrated in Figure 5.4, a confidence level of 95 per cent (P95) would provide a conservative TOC, whereas a confidence level of 5 per cent (P05) would result in an extremely aggressive TOC.

While each case will need to be considered on its own merits, as a general principle the intersection point for selecting the TOC should lie between the median (the P50 point) and the mean, unless there are compelling reasons for selecting a point outside this range.

Figure 5.4: Cost probability distribution curves, confidence levels and TOC selection



6 Legal framework

6.1 Introduction

6.1.1 Context

Chapter 6 introduces some of the key legal issues associated with a project alliance and provides some general guidance. It is beyond the scope of this Guide to examine the associated legal issues in detail.

A key feature of project alliancing is the absence of legal recourse, except in the event of wilful default and acts of insolvency.

There is perception among some people that alliance projects do not need a formal legal agreement in the way traditional contracting arrangements do. This view is incorrect. A project alliance is a complex business relationship. The expectations, rights and obligations of the participants must be set out in clear terms in a legally binding contract (preferably in the form of a deed). This is generally referred to throughout the Guide as an 'alliance agreement'.

Consistent with the basic founding premise of the alliance, participants should collaborate fully and openly on developing the agreement so that the final version is completely accepted and supported.

The sample clauses provided in this chapter are intended to be illustrative only and should not be taken as an endorsement of those sample wordings provided for your particular alliance project. You should obtain legal advice from qualified legal practitioners with specialist expertise in alliance contracting when considering all legal framework issues.

6.1.2 Consolidated versus two-stage structure

There are two broad common approaches to establishing the legal framework of project alliances in Australia:

1. **a single consolidated alliance agreement** covering the duration (all phases) of the alliance (recommended for most situations);

2. **a two-stage framework:** an interim project alliance agreement (IPAA) for the project development phase, followed by a separate project alliance agreement (PAA) covering the subsequent phases.

Both approaches achieve essentially the same outcome and users of this Guide should select the approach that best suits their particular needs. The main characteristics, advantages and disadvantages of each approach are discussed in Appendix 6.

6.1.3 Overall nature of the relationship

An alliance agreement brings two or more parties together to collaboratively deliver a project. The parties share many common objectives, however, it is vitally important to ensure that the alliance relationship does not legally amount to either a partnership or a

joint venture (incorporated or unincorporated) between the owner and NOPs. Such relationships can create unacceptable liability and taxation consequences for government.

There will even be a question of whether the Minister, agency or government entity has the necessary executive power to enter into a partnership or joint venture for a particular government project in the absence of specific legislation[12] expressly authorising it.

As a result, the alliance agreement should expressly state that the parties do not intend to create a partnership or joint venture. While there is merit in declaring the parties' intent, a clause that negates an intention to create a particular relationship (including whether or not a fiduciary[13] relationship has been created) will be insufficient on its own. The project circumstances also need to negate the existence of such a relationship. Specialist legal advice on this and related legal issues should be obtained. Such advice could consider:

a. whether it may be beneficial for the parties to impose a fiduciary relationship between the alliance participants; and

b. if so, the extent to which this may expand the obligations (and remedies) of the participants beyond obligations of good faith and reasonableness and the associated benefits and risks this represents for the participants.

6.1.4 Overview of agreement/deed structure

As discussed in section 2.1.3, a project alliance is based on a fundamentally different premise from traditional forms of contract, as most obligations are collective and nearly all benefits and risks are shared. The language and structure of the alliance agreement therefore need to differ from traditional contracts. For instance they should have:

- **no blame:** Since the alliance agreement precludes liability arising between the participants, except for cases of wilful default or insolvency (see section 6.2.11), there are few (if any) clauses which specifically allocate liability or risk to an individual participant.

- **collective leadership/management:** Because of the collaborative leadership model used in alliancing, most of the procedural and administrative requirements that would normally appear in a traditional contract are either unnecessary or are addressed in alliance plans and procedures (e.g. sub-procurement processes, record-keeping requirements).

- **a compensation model:** The 3-limb open-book compensation model is very different from the payment arrangements under typical contracts. In effect, the 3-limb model sets out the basis for how risks are shared/allocated under the alliance. In this respect the alliance agreement should:

  - explain the 3-limb compensation model precisely and remove doubt about what is and is not reimbursable/payable to/from the NOPs;
  - set out clearly the basis for progress invoicing and payments;
  - explain the requirements for audits of financial transactions.

  This will invariably require extensive drafting, including detailed explanation of the

[12] That express power exists in relation to 'nominated projects' under the *Project Development and Construction Management Act 1994* (Vic).

[13] Fiduciary relationships are 'trusting' relationships and have been held by their 'special' nature or from the circumstances of the relationship to give rise to a special relationship with special obligations; e.g, partners, agents and principals, joint venturers, trustees and beneficiaries.

risk/reward arrangements. It is recommended that the terms of compensation be set out as a separate schedule as part of the alliance agreement.

- **tone/style: To emphasise that performance obligations are collective rather than individual, an alliance agreement is often drafted (in most parts) in the first rather than the third person, i.e. 'we will' rather than 'the alliance participants will'. This language reinforces the parties' commitment to the alliance principles.**

The language and structure, including the framework for establishing and managing project governance arrangements, vary significantly from those contained in standard forms of contract such as those available from Australian Standards (e.g. the AS2124, AS4300, AS4000 standards), the Property Council of Australia, the International Federation of Consulting Engineers, the New Engineering Contracts (UK) etc. These contracts are unsuitable to be used as a starting point for developing an agreement for a project alliance.

In broad terms, a project alliance agreement needs to:

1. state the purpose of the alliance and detail the specific outcomes that the participants are collectively responsible for achieving, including specific performance requirements and any constraints the alliance participants must collectively meet/comply with;

2. state what obligations are collectively owed and what obligations are owed solely by one participant, with details of the intended consequences, if any, for failure to fulfil those obligations;

3. outline the governance, leadership and management controls, systems and protocols and explain how key project decisions are to be made and documented;

4. outline the specific behavioural and commercial principles governing how people communicate and how decisions are made under the alliance;

5. confirm the owner's obligation to pay the NOPs, with details of how they are to be paid for their services, including precise calculations for how pain/gain is to be shared where actual outcomes are worse or better than agreed targets;

6. enshrine the 'no blame' principle by ensuring that liability/enforceable rights only arise in very limited circumstances;

7. identify the principles to be used to determine when a 'variation' arises;

8. set out terms relating to insurances and indemnities, invoicing and payment, resolution of disagreements, termination and withdrawal, confidentiality, conflicts of interest and intellectual property;

9. address various administrative aspects of the alliance.

6.1.5 Other legal obligations

As with all forms of contract, it is important to bear in mind that the alliance agreement does not contain all the legal responsibilities, liabilities and rights of the participants. They are still subject to obligations and liabilities under common law, equitable principles and legislation. For example, the *Trade Practices Act 1974* (C'wlth) will still prohibit misleading and deceptive conduct.[14]

[14] For further illustration, see Chew, A and Hayford, O, 'Ensuring your alliance contract is legally sound', *Australian Construction Law Newsletter*, Nov/Dec 2004.

6.2 Specific issues and approaches

6.2.1 Context

This section looks at some of the key legal issues associated with a project alliance, in general terms. It is not intended to address all the important issues that need to be considered. (Unless noted otherwise below, comments should be taken as referring to the PAA, where the two-stage IPAA/PAA framework is being considered. Section 6.2.20 comments briefly on legal issues to be considered when drafting the IPAA.) To acknowledge and illustrate different drafting approaches, examples are provided from a number of different actual or draft alliance agreements.

6.2.2 Setting the tone

An alliance agreement typically sets a different tone from standard contracts, by making initial statements about the nature of the relationship(s) and recording the participants' commitment to certain behaviours and principles. A typical example is reproduced below.

Alliance agreement sample – Behavioural commitments

1. Our behavioural commitments

1.1 We will work together in an innovative, cooperative and open manner so as to produce outstanding results in delivering the Alliance Works (in accordance with the Scope and Design Brief set out in Schedule 2).

1.2 We acknowledge that a key purpose of our alliance is to avoid disputation and we commit to notify each other of perceived or real differences of opinion or conflicts of interest immediately they arise and to strive to promptly resolve those differences or conflicts.

1.3 Each of us will fully disclose to the other Participants any conflict of interest or duty that exists or may arise in connection with the performance of the Work under the Alliance and we will not participate in any decision that relates to the matter which gives rise to the conflict unless and until we have the consent of all other Participants. (*Note that some alliance agreements deal with the issue of conflict of interest more specifically, as discussed in section 4.2.5*.)

1.4 We undertake to act reasonably and to do all things properly and reasonably within our power that are necessary to give effect to the spirit and intent of this PAA and to give due regard to the representations of all Participants when reaching any decisions, including decisions as to the giving or withholding of consent or approval, or when exercising any other discretion pursuant to this PAA.

1.5 We undertake to act in good faith in conducting all activities arising out of this PAA and will:

a. be fair and honest;

b. not impede or restrict each other's performance;

c. fully disclose to each other any conflict of interest or duty that exists or may arise in connection with the performance of the Work under the Alliance before we participate in any decision that relates to the matter which gives rise to the conflict; and

d. make decisions on a 'best for project' basis, giving as much weight to the interests of the Project as to our own self interest.

1.6 We undertake to conduct the Work under the Alliance in a manner consistent with the commitments and principles set out in the Alliance Charter in Schedule 3, and to take all reasonable steps to ensure that our employees, sub-contractors, suppliers and other agents (and their employees, sub-contractors, suppliers and other agents) involved with the alliance make a similar commitment.

6.2.3 Governance and decision making

The alliance agreement must establish and require/empower the alliance leadership team to provide the kind of governance and leadership discussed in section 2.3. A typical example is reproduced in the following text-box.

Alliance agreement sample – Leadership team

4. Establishing the alliance leadership team (ALT)

4.1 We have established the ALT. The role of the ALT is to:

a. lead our Alliance;

b. create the Alliance Vision, Alliance Principles and the Alliance Objectives;

c. empower the AMT to deliver our commitments in Clause 2.2 and perform our obligations under our Alliance Agreement;

d. promote and encourage the development of our commitments, our Alliance Vision, Principles and Objectives among all people within our Alliance; and

e. promptly resolve any Dispute elevated to it by the AMT on a Best for Project basis, as more fully described in Schedule 2.

Representation

4.2 We have each appointed the two representatives identified in Schedule 2 as our individual representatives to the ALT.

4.3 We agree that each of the representatives appointed to the ALT will have the power delegated to them by their respective Alliance Participant to represent and bind each of us respectively on any matter relating to our Alliance and our Alliance Agreement.

It is also important that the ALT members are fully committed to the alliance. This can be emphasised in the alliance agreement, as illustrated in the following example.

Alliance agreement sample – Commitment to attend ALT meetings

4.9 We each acknowledge that the continuous representation on, involvement in and attendance at the ALT meetings of our nominated ALT representatives is critical to our success. We each commit to a principle of not allowing substitutes, other than in the event of a conflict of interest (as that term is defined in this Clause 4) or in exceptional circumstances, to attend ALT meetings in lieu of our nominated ALT representatives.

The alliance agreement should outline the key duties and responsibilities of the ALT, consistent with its role as discussed in section 2.3.2, and as illustrated in the following example.

Alliance agreement sample – Role of the alliance leadership team

6.4.1 The duties of the ALT are to:

a. Set a visible example for all to see of senior management commitment to the Alliance Charter. This may include individual ALT Members acting as a 'champion' for specific principles or objectives of the alliance.

b. Set policy and give philosophical and strategic direction for the Alliance within the boundaries set out in this PAA.

c. Set out a clear vision, purpose and specific performance objectives for the alliance.

d. Provide high-level leadership to the alliance aimed at creating and sustaining a cultural environment that enables and facilitates achievement of the project objectives.

e. Appoint the Alliance Manager and review and approve (or reject as appropriate) the Alliance Manager's nominations related to the appointment of people within the AMT.

f. Establish with the Alliance Manager and the AMT clearly defined objectives, outcomes and deliverables for the Work under the Alliance.

g. Initiate and/or approve the commitment of resources to the alliance and provide high-level support to the Alliance Manager and the AMT, including making sure that they have the resources they need to meet or exceed the alliance objectives.

h. Approve the Alliance Management Plan ('AMP') and any subsequent modifications to it. The ALT must ensure that appropriate controls, delegations, systems and procedures are embodied within the detailed plans that comprise the AMP and that the requirements of each plan are adhered to.

i. Monitor the performance of the alliance against agreed objectives and implement appropriate measures to correct undesirable trends, including (should it be necessary) changing the Alliance Manager and/or the structure or membership of the AMT.

j. Issue various directions, approvals and decisions as required by this PAA.

k. Implement decisions and directions received from [Owner] in relation to any [Owner] Reserved Power.

l. Make decisions as required under the terms of compensation set out in Schedule 7, including decisions related to a Variation.

m. Resolve any differences and issues that are referred to it, including dealing with any Alliance Disagreement.

The following example deals with the timing and protocols of ALT meetings and the critical concept of unanimous decision-making.

Alliance agreement sample – Alliance leadership team: meeting protocols

6.3 ALT meeting, voting and decision-making protocols

6.3.1 Unless we agree otherwise, we will hold a meeting of the ALT at least once every month.

6.3.2 All ALT Members must be present to enable the ALT to hold a meeting or make a decision. However, provided there is at least one representative from each Participant attending the meeting in person, other ALT Members can be considered to be present if they are connected to the meeting by any means of instant voice and/or video communication that enables full and clear communication between all ALT Members.

6.3.3 All decisions by the ALT will be by vote as follows:

a. each ALT Member will be entitled to cast a vote;

b. all votes must be cast, and

c. subject to clauses 6.5 (Owner Reserved Powers) and 12.2, every decision by the ALT must be unanimous – i.e. it must be supported by all ALT Members and each member holds power of 'veto'.

6.3.4 The ALT will arrange for a secretary to record minutes of all resolutions of the ALT and all actions arising out of each ALT meeting. A copy of the minutes will be forwarded to each ALT Member and the Alliance Manager as soon as practical after each meeting.

The requirement for unanimous decision-making will occasionally conflict or overlap with a legislative requirement for a particular participant to be legally responsible for managing a legislative obligation.[15] A conflict or overlap of that nature must be specifically addressed in the alliance agreement. Specialist legal advice will be needed.

Similarly, there may well be statutory powers and discretions of the owner participant as a government entity that cannot be hampered by the alliance agreement.[16]

Some alliance agreements include the concept of 'owner reserved powers', where the owner has the right to unilaterally direct the alliance on specified matters and the alliance is obliged to implement those directions (which may initiate a variation). If owner reserved powers are included in the alliance agreement:

- They should be limited to those rights that all participants agree should properly remain the preserve of the owner.
- They do not undermine the fundamental concept of collective decision-making for matters that should properly sit within the responsibility of the alliance.
- The decision on the commercial impact of carrying out the direction remains with the ALT, not the owner acting alone.

[15] For example, the Environmental Protection Act 1970 (Vic) places non-delegable statutory obligations on 'occupiers' of premises for clean up responsibilities, pollution abatement notices etc. and general civil and criminal liability, independent of any liability that may arise for the licence holder of a 'works approval'.

[16] See Seddon N, 1999, *Government Contracts*, Ch.5, Federation Press, Leichardt, NSW.

The following extract shows an example of owner reserved powers.

Alliance agreement sample – Owner reserved powers

6.5 Owner reserved powers

6.5.1 Although we intend that decisions affecting the Work under the Alliance will be made collectively as required by clause [X], we acknowledge that the final decision on the following matters ('Owner Reserved Powers') ought to be, and is, reserved for unilateral determination by [Owner]:

a. functional requirements, scope and fundamental design parameters for the Alliance Works;

b. urgent protection of the Alliance Works or the environment;

c. a suspension of the Alliance Works under clause [Y];

d. media communications;

e. site access arrangements; and

f. the determination of a Separable Portion under clause [Z],

and we will abide by and implement such [Owner] decisions/directions as though they were decisions of the ALT.

[Owner] will (except where more urgent action is required) exercise its rights with respect to Owner Reserved Powers through the process of the ALT.

6.5.2 However the decision on what impact, if any, the exercise of an Owner Reserved Power has on compensation to the NOPs under this Alliance Agreement will be made by the Participants collectively in accordance with the ALT decision-making protocols set out in clause [XX], not unilaterally by [Owner].

6.2.4 Decision-making within the alliance management team

There are no hard and fast rules about decision-making within the alliance management team (AMT), apart from the overriding requirement that decisions should always be on a 'best for project' basis. On some alliances, AMT decisions need to be unanimous, as is required with the ALT. However, the more common approach is to insert a requirement for the Alliance Manager to make every reasonable effort to arrive at a consensus on all matters affecting the work under the alliance. The Alliance Manager is authorised to make decisions and give directions at their discretion, even if the decision is not supported by all members of the AMT. The Alliance Manager can also refer issues to the ALT for a decision where appropriate and should inform the ALT of any significant areas of disagreement.

The intention is to ensure that Alliance Managers have a mandate to 'get on with the job', but that in doing so they exercise appropriate leadership communication, consistent with alliance principles.

6.2.5 Dealing with conflicts of interest

Some alliance agreements deal more specifically with conflicts of interest, as illustrated in the following example.

Alliance agreement sample – Conflicts of interest

Conflicts of interest (Personal and Corporate)

14.2 Each representative appointed to the ALT shall fully disclose any actual or potential personal or corporate conflict of interest ('conflict of interest') that an Alliance Participant or any of its representatives appointed to the AMT or the ALT may have in respect of any action, decision, determination or matter to be considered by the AMT or the ALT.

We agree that a representative's employment by one of us, or directorship of or shareholding in one of us will not, by itself, amount to a conflict of interest.

The ALT shall, adopting our Alliance Principles and best corporate governance practices, consider the conflict of interest and determine, on a Best for Project basis, the method of resolving the conflict of interest.

6.2.6 Management systems and controls

It is important that appropriate management information and control systems are developed, documented and implemented. One particularly important management system that will be included in the alliance management plan will be a workplace health and safety plan. That plan provides a good illustration of the importance of appropriately dealing with legislative obligations.

The *Occupational Health and Safety Act 2004* (*Vic*) places specific responsibilities on employers and people (including public sector officers) who have the management or control of a workplace. Liability under the Act also extends to employees, independent contractors, suppliers and manufacturers of plant, and designers of buildings and structures. In such cases, the alliance agreement needs to reinforce the fundamental obligations the Act places on people managing or controlling the worksite, while recognising the risk management role that all participants in the alliance have in relation to occupational health and safety, regardless of where legal liability might fall.

6.2.7 Compensation, invoicing and payment

Under a traditional delivery model, the contractor's entitlement to a progress payment is usually linked to the amount of work actually delivered at the time of the progress claim. The 3-limb compensation regime under a project alliance is very different. It requires a different approach to the drafting. A suggested approach is as follows:

- Provide a separate schedule, setting out in full detail the terms of compensation under the 3-limb model. (Chapter 4 of the Guide describes the 3-limb compensation regime.) This schedule should also state precisely what the NOPs can include in progress claims through the various stages of the alliance.

- Within the main body of the alliance agreement:

  - state the owner's obligation to pay the NOPs for providing the services under the alliance; and

- set out the terms relating to the timing and payment of progress claims/payments, auditing and payment of GST, mindful of the impact of the Security of Payment legislation.

6.2.8 Dealing with variations

Not all changes will trigger a variation to the TOC or an adjustment to performance targets. The objective should be for the alliance to absorb the majority of changes without adjusting the compensation model.

Section 5.2.2 describes a recommended 'variation alignment process' designed to ensure that the alliance participants are aligned in their understanding of what will or will not justify an adjustment in the TOC and other performance targets – i.e. what will/will not constitute a 'variation' of the alliance agreement. That process culminates in the preparation of a separate document, often called Variation Benchmarking Guidelines, which is then used in the alliance agreement. This approach is illustrated in the following extract.

Alliance agreement sample – Dealing with variations

4.2 Variation Benchmarking Guidelines

4.2.1 We expect that most, if not all, Changes will relate to design development and evolution or clarification of the Work under the Alliance while remaining within the scope of what was contemplated/required by the *Scope and Design Brief* in Schedule 2, and those Changes will not justify a Variation. However we acknowledge that where a Change represents:

a. a significant increase or decrease in the size/scope of the Alliance Works, or

b. a significant change in the fundamental parameters or core functionality requirements underlying the design of the Alliance Works

then a Variation may be justified.

4.2.2 We intend to share all risks and opportunities associated with the delivery of the Alliance Works, regardless of:

a. whether or not those risks/opportunities are within our control; or

b. whether or not we could (or should) reasonably have foreseen them,

except for risks/opportunities that we have agreed will be retained solely by [Owner].

4.2.3 Prior to agreeing the TOC and the other targets upon which the sharing of pain/gain is based, the members of the ALT and the AMT (and others) conducted workshops where they considered the kind of Changes and risks/opportunities that might eventuate during the delivery of the Project. Based on those workshops:

a. we reached alignment on the kind of (very limited) situations that would give rise to a Variation (i.e. Changes that justify a Variation and risks/opportunities that are retained solely by [Owner]) and recorded these in a Variation Benchmarking Guidelines document, and

b. we made certain provisions within the Target Cost Estimate (TCE) for other Changes and risks and opportunities which will be shared collectively by us,

and we agree that in assessing whether a Change or other circumstances should constitute a Variation, the ALT will have regard to the Variation Benchmarking Guidelines and that the consequences of all other Changes and risks/opportunities, apart from those referred to in a. immediately above, will be shared collectively by us notwithstanding that we may not have made any provision for them in the TCE.

An alternative approach used sometimes is to provide that only a direction given by a nominated person within the owner organisation and requiring a 'substantial' or 'material'

change to the works can be a variation which adjusts the commercial framework. If using this approach, care should be taken to ensure that all the key players are aligned from the outset on what a 'substantial' or 'material' change to the works actually means.

6.2.9 Extensions of time

The target completion date and any milestones along the way are generally treated similarly to any of the non-cost objectives that the alliance participants commit to achieving. There is no change to these targets unless a variation occurs. In this case, the ALT must decide the extent to which each of the various targets will require adjustment. This permits a more flexible approach to managing the project schedule, allowing the ALT to decide how best to balance the potentially competing objectives of time and cost. As a result, there is generally no express 'extension of time' mechanism in most alliance agreements, just as there is no express mechanism to deal with adjustments to any of the other non-cost targets.

6.2.10 Resolving alliance disagreements

Generally, the ALT has the primary responsibility for resolving alliance disagreements and disputes. The emphasis is on resolution by agreement, not resolution by reference to an independent person (i.e. a judge, arbitrator or expert).

Typically, alliance agreements are silent on what happens if the ALT is unable to resolve a disagreement, despite pursuing all reasonable opportunities to remedy it. In such exceptional circumstances, the parties to the alliance may agree to termination. Feedback from alliances with no express deadlock-breaking mechanism suggests that the absence of an independent dispute resolution mechanism is a highly desirable feature, as ALT members are compelled to resolve disagreements themselves. Of course there is nothing to prevent the ALT from engaging external experts and/or facilitators in appropriate circumstances.

Should the participants feel that a deadlock-breaking mechanism is desirable, the task of drafting a suitable mechanism should be completed by a qualified legal practitioner with specialist expertise in alliance contracting and project dispute resolution.

An example of an 'ALT-only' dispute resolution clause is set out in the next section. As illustrated in that example, it is common for alliance agreements to deal with dispute resolution and 'no blame' provisions concurrently.

6.2.11 Incorporating the principle of 'no blame'

The notion of 'no blame' is fundamental to the concept of a project alliance and this must be properly reflected in the alliance agreement. This is usually achieved by stating that liability between the participants will only arise in cases of insolvency or deliberate conduct (including reckless disregard) with potentially significant consequences (referred to as wilful default). Key elements for a 'no blame' clause include:

- expressing the overall intention of the parties;
- defining what acts or omissions will give rise to liabilities/enforceable rights (between the participants) and confirming that otherwise no liabilities/enforceable rights will arise (linked to the definition of wilful default), and
- what happens if the participants are unable to resolve a disagreement.

The provisions relating to the concept of no blame require particular care in their drafting so that if/when the participants have to deal with internal tensions and commercial conflict, there is no opportunity for participants to rely on drafting ambiguity to abandon the original intention of collective responsibility/no blame or to circumvent the intent of the agreement.

Concerns have been raised[17] that the drafting of 'no blame' or 'no litigation' provisions in some alliance agreements may be void because breaches of them are claimed not to be under the court's jurisdiction, apart from those involving wilful default. Specialist legal advice should be obtained to manage this risk. Such advice should ensure that the relevant clauses exclude all liability (other than wilful default) and the limits to alliance risk sharing are reinforced through the prescribed payment regime, rather than resorting to 'no litigation' clauses.

It is also important to be aware of the impact that 'no blame' clauses have on project alliance insurance arrangements. (See section 6.2.17.)

The following extract from a draft alliance agreement shows how one alliance sought to deal with this.

Alliance agreement sample – No dispute

3 No Dispute

3.1 We recognise and agree that the potential for conflict and disputation within traditional contracting relationships is a significant factor restricting the ability to achieve Gamebreaking Performance in project outcomes. We commit to working cooperatively to identify and resolve issues to our mutual satisfaction so as to avoid all forms of Dispute in performing our obligations under our Alliance Agreement.

3.2 We believe that our Alliance, by focusing on our Alliance Principles, Alliance Objectives, collective responsibility for all project risks and the equitable sharing of risks and rewards, reinforces our commitment to No Dispute.

3.3 We will promptly notify each other of any Dispute or potential Dispute when it arises and, when the AMT cannot resolve a Dispute, elevate it to the ALT for resolution.

3.4 The ALT will deal proactively with any Dispute on a Best for Project basis and determine whatever action it believes is necessary to achieve unanimous resolution (which may include the appointment of an independent expert or mediator to assist the ALT to unanimously resolve any Dispute).

3.5 We agree that any act or omission of an Alliance Participant in performing the work under our Alliance Agreement which:

a. amounts to a Wilful Default or an Act of Insolvency will give rise to enforceable obligations at law and/or in equity; or

b. does not amount to a Wilful Default or an Act of Insolvency will not give rise to any enforceable obligations at law or in equity;

and we agree to release each other from any effects at law or in equity of any act or omission in performing our obligations under our Alliance Agreement that do not amount to a Wilful Default that we may have had recourse at law or in equity but for this No Dispute clause.

[17] Chew, A., 'Alliancing in delivery of major infrastructure projects and outsourcing services – an overview of legal issues', April 2005. Available from www.mallesons.com. For an alternative view, see Gallagher J, 'Default and Termination in Alliance Agreements', Commercial and Legal Framework Alliance Contracting Conference, Sydney, 28 April 2005.

The effect in practice of the 'no blame' provision depends on how wilful default is defined (and partly on the enforceability of the clause by a court, where tested). If the definition is too wide, then it opens up the opportunity for the participants to take action against each other in times of crisis. Those are the very times when the participants need to be unified in their commitment to the alliance objectives and principles.

Wilful default should be limited to conduct that is deliberate or recklessly indifferent and which has significant consequences, as outlined in the following example.

Alliance agreement sample – Wilful default

A **Wilful Default** means any of the following:

1. In respect of any significant duty, obligation or stipulation arising out of this PAA, an intentional wanton or reckless act or omission by a Participant which:
   a. is a breach of that duty, obligation or stipulation, and
   b. which the Participant knew or ought reasonably to have known would cause harm to another Participant, and
   c. causes harm to another Participant;
2. a failure by a Participant to honour an indemnity referred to in clause [X];
3. a failure to make a payment that has become due under this PAA;
4. an intentional failure of, or refusal by, a Participant to effect and maintain an insurance policy which under clause 15 is to be effected and maintained by that Participant;
5. an intentional refusal of, or failure by, a Participant to honour its obligations under clause 20 [Audit of Financial Transactions];
6. an intentional breach by a Participant of its obligations in relation to third-party intellectual property rights set out in clause 27.3;
7. a fraudulent act or omission by a Participant or any of its officers, employees or agents

but does not mean any innocent act, omission, mistake or error of judgement, whether negligent or not, by a Participant or any of its officers, employees or agents acting in good faith.

6.2.12 Indemnities

It may be appropriate under certain circumstances to provide third-party indemnities under the alliance agreement, for instance:

- indemnities relating to the consequences of breaching the intellectual property rights of a third party (as noted in the definition of wilful default above);
- indemnities in relation to claims from a third party against one or more of the alliance participants, arising out of personal injury, death, property damage and associated economic loss.

These indemnities should be drafted carefully by an experienced legal practitioner in the context of the more general 'no blame' alliance culture. This will allocate liability among participants and limit the risk of promoting a culture of blame. Specialist advice from qualified legal practitioners and insurance advisers with expertise in alliance contracting is essential. This should ensure expert drafting of indemnities and adequate multi-party project insurance arrangements are in place to indemnify alliance participants from any third-party liability.

6.2.13 Termination for convenience

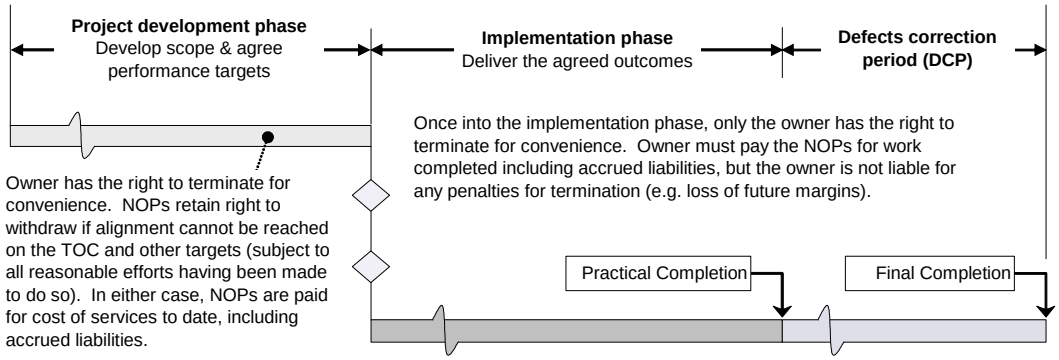
One of the key drivers for the owner in an alliance is flexibility. The owner might need to alter, delay or even abandon a project. It is therefore essential that the owner retains the right to terminate the project at their own convenience at any stage of the alliance. The recommended approach is:

- If the participants are unable to reach agreement on the TOC (or other performance targets) despite their best efforts to do so, it remains open for the NOPs to withdraw from the project (noting that the owner always retains the right to terminate). (Under some alliance agreements, the owner is empowered to direct the amendment or alteration of the TOC and TCE documentation, and the ALT is required to action this direction and then determine, on a best for project basis, the effect on the works under the alliance agreement.)

- Once the TOC and other performance targets are locked in and the owner directs the alliance to proceed to implementation:

    - The owner retains the right to terminate for convenience without incurring a penalty (e.g. for loss of future profits), but if the owner exercises this right it must pay fair compensation to the NOPs for all work they have carried out (including costs associated with clean-up and demobilisation and any accrued liabilities).
    - The NOPs do not have the right to terminate the alliance for convenience, although they may withdraw from the alliance if the owner commits a wilful default and refuses to remedy it (see section 6.2.14).

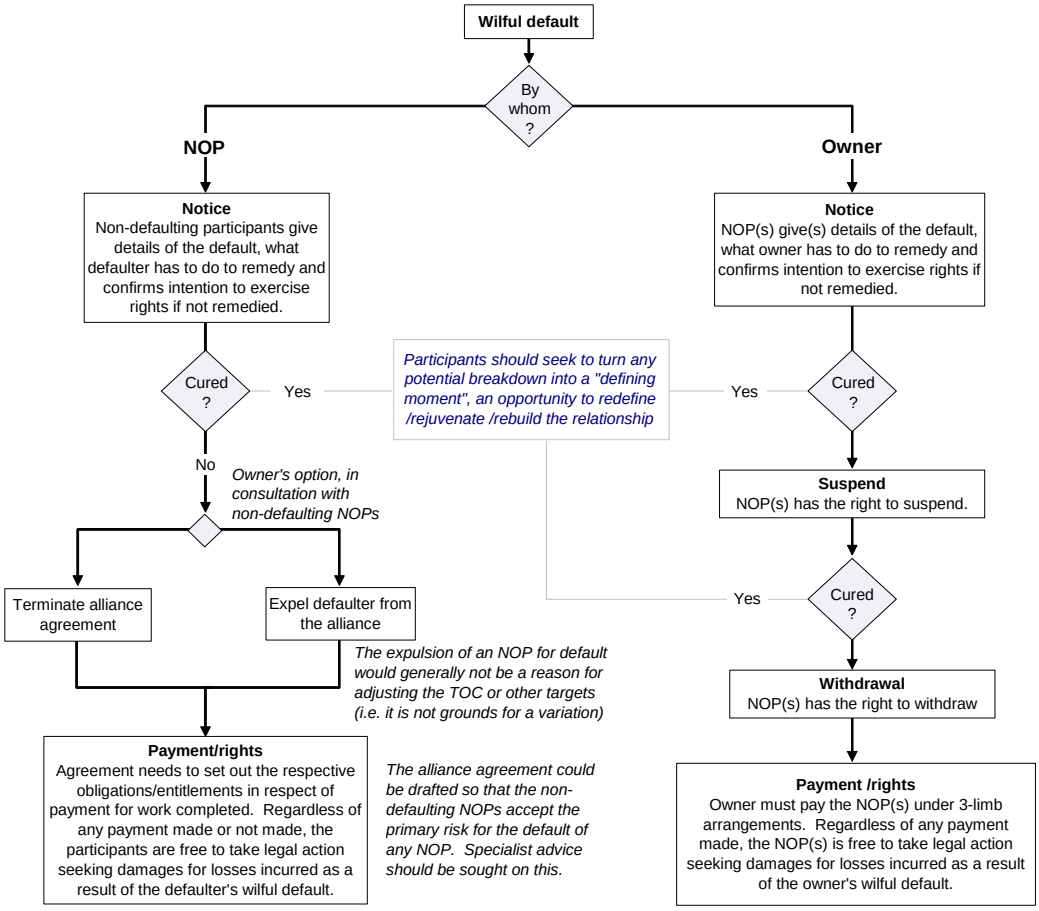
Figure 6.1: Termination for convenience at particular project phases



6.2.14 Termination for default

As in any contract, the provisions relating to actions and consequences after default need to be drafted carefully. The alliance agreement should distinguish between acts of insolvency (where there should be an immediate right to suspend/exclude) and wilful default where a 'cure regime' is provided. The typical approach for dealing with wilful default is illustrated in Figure 6.2.

Figure 6.2: Actions and consequences after default: typical approach



As explained in section 6.2.11, the participant who has committed the wilful default remains fully liable to the other participants for the consequences of that default.

6.2.15 Defects correction period

The provisions relating to the defects correction period (DCP) are generally relatively straightforward, specifically:

- During the DCP, the alliance participants remain collectively responsible for attending to any defects in the alliance works. The definition of what constitutes a defect is generally no different from what would be the case under a design and construct contract.

- The 3-limb NOP compensation arrangement continues through the DCP so that:

  - costs incurred by the NOPs in attending to defects are reimbursed at cost;

  - the NOPs may also be paid a fee associated with the rectification work depending on whether the limb 2 fee is fixed as a lump sum or paid as a percentage of actual costs; and

  - all costs incurred on rectification (by the NOPs or the owner) are added to the actual cost ledger and the eventual overrun/underrun is adjusted accordingly.

The DCP begins on practical completion. Given that the risk of having to attend to defects is shared – and that the DCP is also often used to measure the performance of the project in actual operation (this may be part of the KPI measures under limb 3) – the period is usually longer than the defects liability period for an equivalent project delivered under a conventional contract. The length of the DCP on a typical infrastructure alliance project is 24 months.

6.2.16 Intellectual property rights

On certain types of projects, intellectual property rights could present major issues. In such cases, the participants need to seek specialist legal advice to ensure that they fully understand the issues and options and that the alliance agreement reflects their intentions. Intellectual property issues will generally be a significant concern where, in the course of undertaking the project, the alliance participants:

- might develop new ideas systems, processes or products that could have inherent value capable of being deployed/exploited beyond/after the project;

- might develop improved or customised ideas, systems, processes or products using as a starting point the pre-existing intellectual property of one or more of the participants.

Normally each party retains ownership of any intellectual property that it brings to the project, allowing it to be used by the alliance, but only to the extent necessary to undertake and deliver the project. However, it may also be necessary to provide a perpetual irrevocable licence to the owner, beyond the project delivery period, to enable the owner to operate and, if necessary, upgrade the facility over the full life cycle of the facility.

New and/or pre-existing intellectual property substantially developed by the alliance may be more difficult to address. Many alliances provide for joint ownership of those rights. However, this approach may give rise to practical difficulties relating to the subsequent exploitation of the new technology.[18]

As a default position, consideration should be given to whether it is more appropriate to ensure that intellectual property vests:

- in the owner with appropriate licences granted to the NOPs; or

- in the party most likely to exploit the technology, while ensuring that the owner is licensed to use the technology in similar projects without further payment for that technology.

Ultimately, it is a commercial decision between the alliance participants, although any government intellectual property policy should also be considered.

6.2.17 Insurance under a project alliance

Insurance is a highly specialised and constantly changing area of commerce and law and users of this Guide should seek advice from suitably qualified legal and insurance specialists. It is beyond the scope of the Guide to provide detailed guidance on structuring alliance insurance. Project insurance advice should be obtained from an insurance adviser experienced in establishing major project insurance arrangements, in conjunction with

[18] Chew, A., 'Alliancing in delivery of major infrastructure projects and outsourcing services: An overview of legal issues', April 2005. Available from www.mallesons.com.

relevant legal advice.

There are some significant differences in approach when obtaining liability insurance for a project alliance, requiring appropriate consideration and advice.[19]

For instance, as the 'no blame' provisions of an alliance agreement preclude liability arising between the alliance participants (except in cases of wilful default), traditional individual professional indemnity policies will not cover loss incurred by a participant if it arises through the professional negligence of another participant.

Subject to specialist insurance advice, this difficulty may be overcome by obtaining a project specific 'no blame' project insurance policy that covers 'first party' losses between each of the alliance participants arising from breaches of professional duty[20] by the alliance participants or any subcontractors engaged to deliver the project.

Alternatively (and particularly where such insurance is not available at an acceptable premium), the participants may need to discuss and resolve the basis on which the alliance can proceed with that risk effectively uninsured.

To a lesser extent, there is also the potential for public liability insurance to present difficulties in alliance projects, particularly where reliance is placed on individual public liability policies held by the alliance participants rather than on one policy covering all participants.

6.2.18 Sub-procurement issues

In general, the alliance agreement does not need to set out the details of how subcontract and supply contracts will be entered into. This will be set out in detail in the alliance management plans (including appropriate governance and probity issues). When developing sub-procurement arrangements, it may be appropriate to differentiate between contracts above and below a contract value threshold in order to match the rigour of such arrangements with the contract value.

One approach is for individual participants to engage third-party providers (subcontractors, subconsultants, suppliers) on their own account and not on behalf of the owner or the other participants or as an agent for them. It is desirable to avoid any inference that the other participants are jointly and severally liable to the third party for payments under their contracts.

Under this arrangement, all costs incurred by an NOP associated with the subordinate contract are reimbursable to that NOP (including the costs associated with claims, legal action, etc.). Accordingly, while the NOP and the external party are the contracting parties, the full benefit/risk associated with the subordinate contract is eventually shared by all participants via the limb 3 pain/gain model. Because of this, the management of the contract must be the concern of all the participants.

One significant pitfall to be avoided is the unintentional loss of the benefit of subordinate contractor, consultant and supplier warranties. Because of the 'no blame' arrangements between participants and the conclusiveness of the certificate of final completion, it is

[19] See the useful analysis of these differences in the introductory article, R. Box, 'Why Project Alliances need new Insurance Products', *ANZIIF Journal*, April-May 2002.

[20] A similar result may be achieved if the alliance agreement contains a liability release between the alliance participants that operates to the extent that the joint project insurance policy does not respond. However, arguably, by creating further exceptions to the collective responsibility of the alliance participants, the founding alliance principle of 'no blame' is more prone to being undermined.

important to ensure that these warranties are given directly to the owner rather than to other participants, so that the owner is able to rely on the warranties after final completion.

On some alliances, the practice has been for all the main alliance participants to be direct parties to every outsourced contract, although the obligation to pay the subcontractor/supplier may rest with one participant only. While this reinforces full alliance involvement, there is no legal need for it in most cases and it may give rise to unnecessary legal and administrative complexity.

Another approach is for the alliance participants to establish an alliance special purpose vehicle (SPV) to streamline the establishment and management of third-party contracts. Alternatively, some alliances have registered a business name for specific use in the alliancing procurement for similar reasons. Either approach ensures the benefit that the alliance participants are able to proceed on the basis of a direct contractual right against a supplier. Each approach also ensures that warranties are owed to the owner rather than solely to the contractor.

6.2.19 Usually allocated risks

Although the underlying principle of an alliance is that project risks are shared, it is appropriate that some risks are fully retained by one participant where that participant has either the legislative responsibility for the risk (e.g. health and safety, Commonwealth taxation) or full control of the risk without any input from the alliance. The most common example of the latter is possession of or access to the site, a risk which is usually assumed by the owner. Other risks which may also be fully retained by the owner (particularly where full control of the management of the risk is also desirable) are native title, cultural heritage and material procurement with long 'lead' times. However, allocated risks should be kept to the absolute minimum to reinforce the collective responsibility of the participants for delivering the project.

6.2.20 Issues – interim project alliance agreement

It is beyond the scope of this Guide to detail the key legal issues associated with the drafting of the interim project alliance agreement. Since it is effectively an agreement between each NOP and the owner for providing and paying for services, and is not intended to give rise to rights and obligations between the NOPs themselves, the IPAA is a simpler form of agreement than the PAA. Some of the areas that need to be considered include:

1. ensuring that the drafting is compatible and consistent with the PAA;

2. governance and decision-making: given the commercial context through the project development phase, should the ALT still be required to make unanimous decisions?

3. defining the scope of work and expected deliverables of the alliance at the end of the project development phase;

4. insurance, in particular interim insurance that may be placed while the substantive alliance insurance program is established;

5. compensation, which is usually limited to limbs 1 and 2 only, invoicing payment and audit arrangements, and clarification of obligations for managing expenditure against the agreed budget;

6. mutuality of the right of termination for convenience;

7. intellectual property, conflict of interest and confidentiality;

8. administration and interpretation.

A sample table of contents is listed in Appendix 14.

Part 3: Key stages in establishing an alliance

Part 3 (chapters 7-8) provides guidance on setting up an alliance, including developing the alliance model and selecting the non-owner participants. Chapter 8 covers some aspects of the operation of a project alliance that are unique to alliancing.

7 Establishing a project alliance

7.1 Overview of processes

7.1.1 General overview

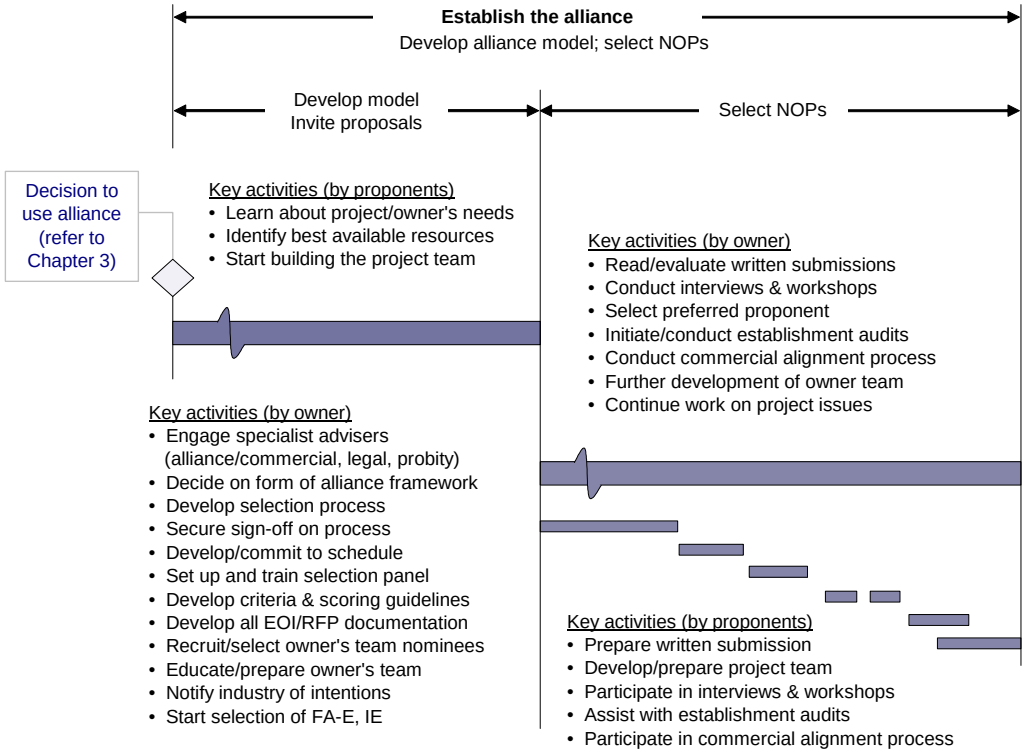
Having made the decision to use a project alliance, the next most critical step for the owner is to set up the alliance framework properly and select the right participants to join the alliance and deliver the project.

For the purposes of the Guide, the overall process is considered in two distinct stages:

1. **Request for proposals (RFP) development:** develop the alliance model and invite submissions from proponents; and
2. **Evaluation and selection:** selection of the NOPs.

The key activities in each stage are summarised in Figure 7.1.

Figure 7.1: Stages in establishing the alliance framework



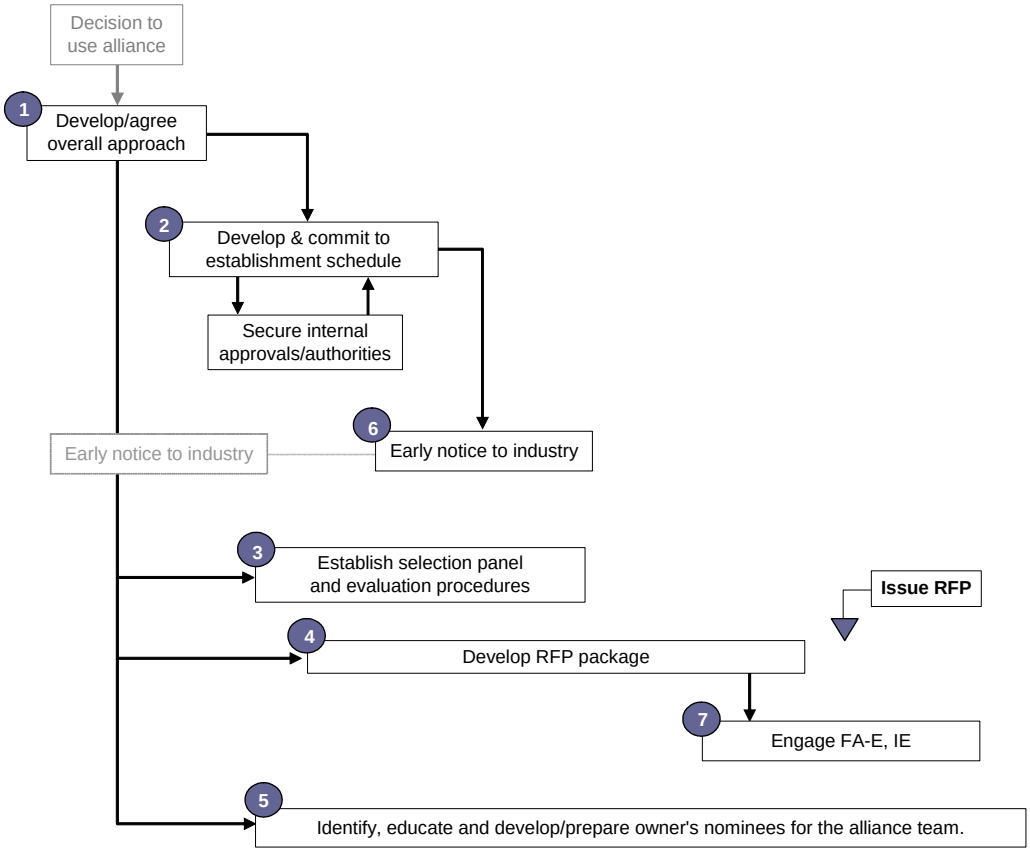
In most cases, the owner will use some form of competitive process to select the NOPs for the alliance. This part of the Guide is predicated on that basis. There are some situations, however, where this may not be the case and the owner may need to engage the NOPs on a 'sole-source' basis (as discussed briefly in section 7.1.4).

The discussion in this part of the Guide should be considered as establishing the framework for the process of selecting NOPs for a particular alliance project. Each procurement process needs to comply with all relevant procurement policies and procedures, including Chapter 15, 'Government Procurement', of the Australia–United States Free Trade Agreement.

7.1.2 Request for proposals development stage – overview

In most cases, having decided on the form of the alliance and the evaluation and selection process, the owner issues an RFP giving details of the project, the alliance, the evaluation and selection process and inviting suitably qualified proponents to submit proposals. The key activities leading up to the issue of the RFP are summarised in Figure 7.2.

Figure 7.2: Steps leading to issuing a request for proposals



The duration of this stage will vary depending on the circumstances. Each step in the process is discussed in section 7.2. There may be circumstances where it is necessary or appropriate to begin the process with a request for expressions of interest (REOI) before the RFP; for instance, where:

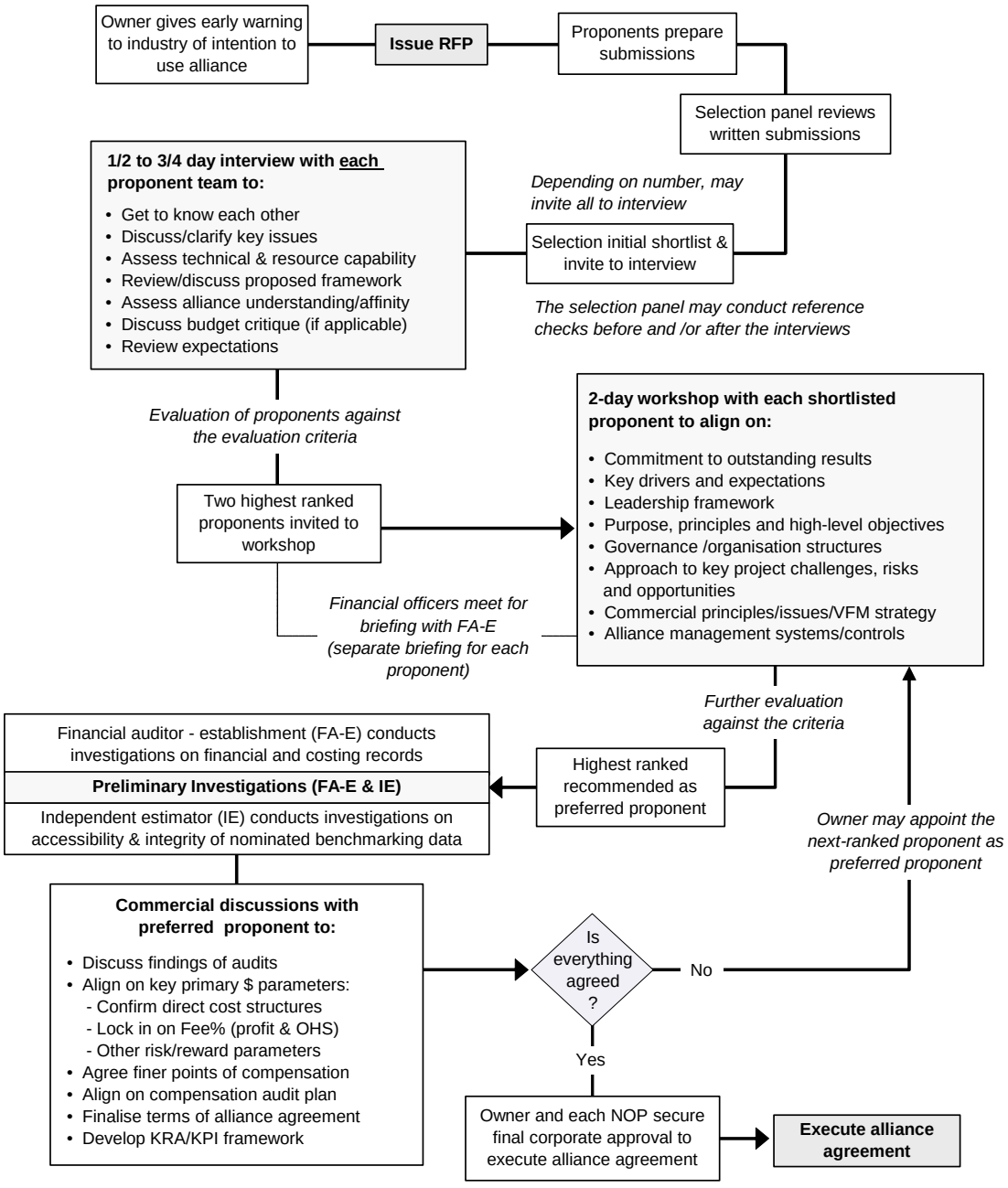
- the owner is uncertain about the level of capability/interest in the marketplace; or
- there is a concern that there will be too many responses to an RFP and it would be less wasteful for everyone to filter the number of proponents through an EOI process.

Unless there is a compelling reason for an EOI stage, it is recommended that the owner goes straight to an RFP. This is the basis of the more detailed guidelines set out in this part of the Guide.

7.1.3 Overview of the selection process

The selection process should be designed and implemented with the aim of developing the right psychological foundation for the eventual alliance. The right process can help build momentum for the launch of the alliance and minimise the cost of the process to the owner and to industry. For most situations, the recommended process for selecting the NOPs is as illustrated in Figure 7.3.

Figure 7.3: Recommended process for selecting alliance non-owner participants

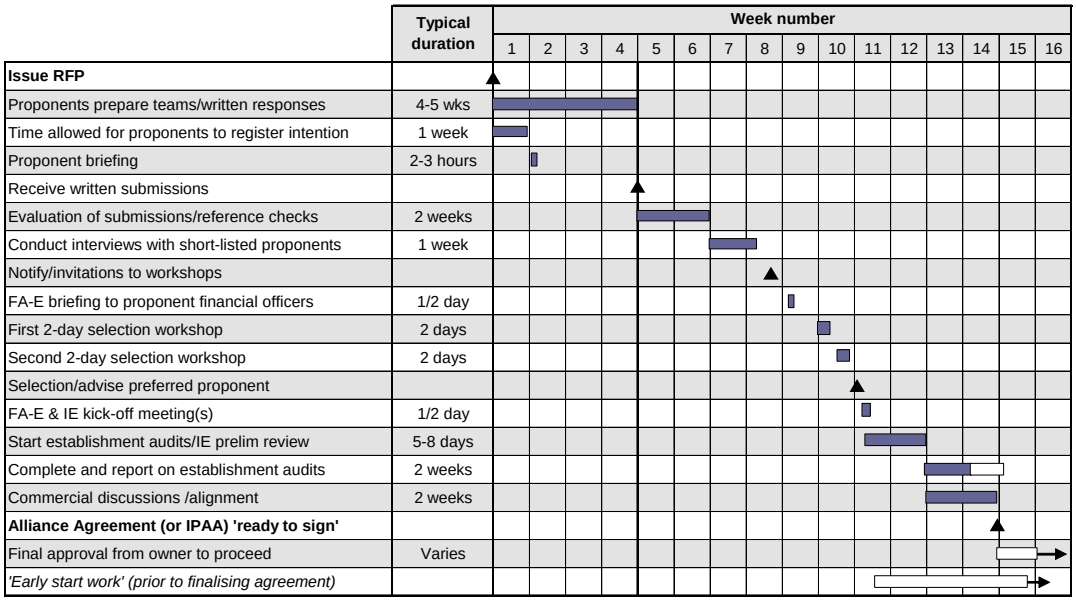


The process above is designed to ensure that the owner meets the team directly involved

in actually leading and delivering the project (not the business development or the sales team). It is recommended that the owner uses a specialist alliance facilitator to ensure that the owner's team and the selection panel in particular understand the subtleties of the process and have the insights and skills to implement the process effectively.

Figure 7.4 shows a typical timetable for the selection process. Each of the main tasks is discussed further in this section.

Figure 7.4: Typical timetable for selecting alliance non-owner participants



It is becoming more commonplace for the owner to request/agree that some project development work gets underway as soon as the preferred proponent has been selected. In this case, the 'early start work' proceeds in parallel with the establishment audits and commercial alignment process, before the execution of the alliance agreement. The scope of this early start work is usually limited to just a few of the key players from the proponent's team (e.g. Alliance Manager and other AMT members). They work with the owner's team to better understand the project and start establishing some of the systems and processes for the alliance project office. Those involved must ensure that all government approvals are satisfied and in place before agreeing to any early start work for which the owner may be obliged to pay.

7.1.4 Other considerations

Individual or consortium approach

The owner needs to decide whether to undertake a separate selection process for each of the key participants (e.g. designer, constructor, etc.) or to allow industry to form its own allegiances and make submissions as consortia incorporating the required range of capabilities. The biggest drawback for the owner in allowing industry to form its own consortia is that the owner's choice is limited to the consortia that result. The owner does not have the option to 'mix and match'. It must choose the best of the consortia offered, notwithstanding concerns about any of its members. However, while the alternative approach of conducting separate selection processes allows the owner to seek the best individual companies, it has many downsides, for instance:

- The process is more complicated and takes longer.

- While the owner might get the best individual companies, it may not get the best team, since the two selected teams may not be a good cultural fit. The owner won't know this until after the selection is made. Under the consortium approach, the companies will have already bonded into an effective team by the time they engage with the owner's team.

In the vast majority of cases, the owner chooses to use the consortium approach. The guidelines below take that approach.

Specialist advisers

In addition to a probity adviser/probity auditor, the owner will need to engage the assistance of certain specialist advisers, who may include some or all of the following:

1. alliance adviser/facilitator(s)
2. alliance legal adviser
3. financial auditor(s)
4. independent estimator(s).

Each of these is discussed in Appendix 11. The owner may also need to engage the services of an insurance specialist, but it is beyond the scope of this Guide to provide guidance on this.

Selection on sole-source basis

In most cases, the owner will need to adopt the competitive process described in this section of the Guide to select the NOPs for the alliance. There are some situations, however, where this may not be the case. For instance, only one company/consortium may be capable of delivering the project and the owner may need to select on a sole-source basis (subject to complying with relevant procurement policies and procedures).

In such cases, the owner still needs to undertake some of the selection process steps described below to ensure that the alliance is established on a sound commercial and psychological foundation.

7.2 Request for proposals stage

7.2.1 General

What an owner does (or fails to do) during the RFP development phase can often set the tone for the eventual alliance. The owner should ensure that from the moment they decide to adopt an alliance, every action they take and every communication they make with industry (whether direct or implied) sends a clear message about the kind of performance and behaviour that the owner is expecting from a high performance alliance. To ensure this occurs, it is recommended that alliance members adhere to the steps set out below.

7.2.2 Step 1: develop/agree overall approach

The owner must set out clearly their ideas for how the alliance will operate and the steps needed to get it established. Recommended steps are:

1. **Engage key advisers** (see the discussion in Appendix 11).

2. **Decide/confirm the owner's nominee(s) for the ALT**.

    - It is recommended that this is done as early as possible. (Ideally it should have occurred earlier so that the ALT nominee(s) were involved in making the decision to use an alliance.) In this way the ALT nominee(s) can start providing the kind of leadership they will be called upon to provide in the alliance itself.

3. Decide on the alliance framework and selection process.

- The owner, with the support of key advisers, must decide on the overall alliance framework and the main features of the selection process. (The owner should be fully familiar with the contents of Chapters 2 to 6 of this Guide.)
- The owner will need to make some key early decisions about the alliance and procurement strategy,21 such as:
    - What skills does the owner believe will be needed within the core alliance?
    - What capabilities does the owner need within proponent consortia?
    - Should the owner impose particular constraints/requirements (e.g. advise that proponents must use a particular technology pre-arranged by the owner)?
- The nature/context of the selection process needs to be properly understood within the owner's organisation. This is discussed further in Appendix 12.

7.2.3 Step 2: develop and commit to establishment schedule

It is recommended that once the owner has decided on the overall selection process they should develop a detailed schedule identifying and logically arranging all the key activities involved in establishing the alliance. This is a critical tool for the owner. Setting out a timetable for the selection process, and keeping to it, sends a clear message that alliance participants, including the owner, are expected to deliver what they say they will, and keep to schedules. This is discussed further in Appendix 12.

7.2.4 Step 3: establish selection panel and evaluation procedures

The owner must have the right people on the selection panel and the evaluation procedures must be designed carefully to align with the selection process. Recommended steps are:

1. Choose the right panel members.
2. Develop appropriate evaluation criteria.
3. Design/confirm the evaluation process that aligns with the alliance section process described in section 7.3.

Each of these steps is discussed in detail in Appendix 12.

[21] If there are proprietary technologies involved, or other factors that justify the use of the multiple TOC approach, this decision will have been made prior to this. The selection process described in this chapter is based on the single TOC approach.

7.2.5 Step 4: develop the RFP documents

The owner should decide as soon as possible on the structure, format and contents of the RFP and what information needs to be issued as part of the RFP package. The RFP should set out clearly the owner's vision for the project and their ideas, preferences and expectations for the alliance. An RFP package will typically include the following parts:

1. **The main RFP document**: The RFP needs to provide an outline of the owner's thoughts on the alliance commercial framework. Two examples are included in this Guide – VicRoads' Tullamarine Calder Interchange and the Boggo Road busway project from Queensland Transport (QT). For example:

   - For the Tullamarine Calder interchange, section 3.9 of the RFP document summarises the proposed key commercial features and section 3.10 sets out principles and ideas for the gainsharing regime.
   - In the case of the Boggo Road busway, QT's ideas on the commercial framework are set out in a separate document titled Proposed Commercial Framework (PCF).

   In both cases, the two final short-listed proponents received a detailed commercial briefing paper.

2. **Draft alliance agreement(s):** These should be noted as being provided as a starting point for joint development of the final form of the agreement(s).
3. **Technical and other information about the project.**
4. **Where relevant, full details of the owner's budget estimate**, especially where the proponents are being asked to provide a budget critique.

The RFP cannot be finalised until the selection panel has completed the evaluation criteria. Ideally this will not occur until the detailed scoring guidelines have been locked in.

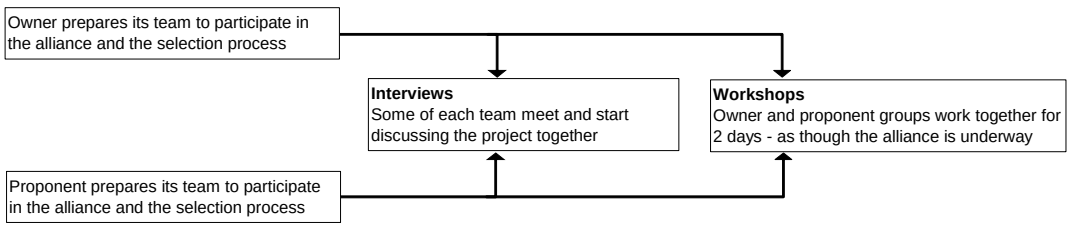
Some follow-up information may be provided after the RFP has been issued but before the closing date. For instance, curriculum vitae for the owner's nominated personnel may need to be held off until after the first few internal team development workshops, so that the nominees have a better understanding of the project and their associated aspirations and contributions.

Appendix 12 lists some key decisions that the owner will need to make early on in the development of the RFP.

7.2.6 Step 5: developing the owner's team

During the lead-up to the interviews and workshops, both the owner and the proponents must prepare to participate in the selection process and the eventual alliance.

Figure 7.5: Preparation for the selection process and the alliance



It is important for the owner to make the effort to build their team in advance of the

interviews and workshops, specifically:

1. The owner needs to advise proponents of their nominees for the alliance team, including details of their capabilities, what they want to get out of the alliance and what they expect to contribute to it. The owner's team needs to spend time together learning about alliancing and the project and discussing their aspirations and expectations in order to gather this information properly.
2. The owner's team needs to be functioning effectively as a team already in order to participate in a balanced and consistent way in the selection workshops.
3. The owner needs to identify and develop candidates who can operate effectively within an alliance environment.

Appendix 12 sets out some suggested steps for developing and preparing the owner's team.

7.2.7 Step 6: early notice to industry

Proponents who are selected for an alliance typically form their consortia and start identifying and building their team long before the owner issues the RFP. It is in the owner's interest to give industry as much notice as possible of their intention to use an alliance. This allows sufficient time for companies to align themselves with suitable partners and to start work identifying and building their teams. Ultimately the owner is the main beneficiary of this early work.

Users of this Guide must ensure they have the necessary approvals before giving any notice or indication to industry. If early notice is given, care must be taken to properly qualify any statements so that the owner does not provide conflicting or misleading information. Assuming the necessary approvals have been granted, the following approach is recommended (although this will need to be refined to suit particular circumstances):

1. Provided the owner is able to give a general indication of the scope/scale of the project and the timeframe, as soon as the decision to use an alliance is made, then they should inform industry, using appropriate means (notice to industry associations, newspaper advertisement, etc.). It may even be appropriate to hold a short general industry briefing at this stage.
2. Once the alliance establishment schedule has been locked in, the owner should update industry, advising them of the expected date for issuing the RFP and other key milestones in the selection process (i.e. closing date, interviews and workshops, signing of the alliance agreement). Again, it may be appropriate to conduct an industry briefing.

7.2.8 Step 7: engage financial auditor – establishment and independent estimator

Subject to having the necessary approvals, practitioners will usually need to initiate the engagement of the financial auditor – establishment and independent estimator before the RFP is issued, so that as soon as the preferred proponent is announced:

1. the financial auditor – establishment is engaged in time to be able to start the establishment audits, and
2. the independent estimator is available to conduct the preliminary review of the data associated with the benchmarking projects nominated by the preferred proponent.

7.3 Evaluation and selection

7.3.1 General

Once the written submissions have been received from the proponents, selection of the preferred proponent involves the following key steps:

1. Review/score written submissions. → Select initial shortlist.
2. Interviews → Select final shortlist of two.
3. Selection workshops → Decide preferred proponent.

The approximate/typical timing is shown in Figure 7.6.

Figure 7.6: Typical timing for selecting the preferred proponent

	Typical duration	Week number						
		5	6	7	8	9	10	11
Receive written submissions		▲						
Evaluation of submissions/reference checks	2 weeks	■	■					
Conduct interviews with short-listed proponents	1 week			■	■			
Notify/invitations to workshops					▲			
FA-E briefing to proponent financial officers	1/2 day					■		
First 2-day selection workshop	2 days						■	
Second 2-day selection workshop	2 days						■	
Selection/advise preferred proponent								▲

Each step in the process is described briefly below. (The evaluation process and procedures used by the panel for each step have been noted in section 7.2.4 and are described in detail in Appendix 12. They are therefore not repeated here.)

Note that the selection panel's job is complete once the preferred proponent has been selected (apart from the requirement to debrief proponents at a later date). However, some members of the selection panel may be involved in the subsequent commercial alignment process.

7.3.2 Sequencing and notifications

To succeed in this process, a proponent needs to commit senior management and operational personnel for substantial blocks of time to develop the written response and prepare their team for the project and the selection process. They need to be available for the interviews and workshops. This is particularly demanding for proponents.

1. Very senior personnel (i.e. ALT nominees) need to devote much more time than they would for a conventional tender.
2. Nominees for the AMT and the wider team are taken out of their normal operational roles, often causing significant disruption to their current projects.
3. The proponent's marketing, business development and estimating personnel, whose role it is to secure work, have little or no role to play in the process.

The owner needs to be mindful of this and to conduct the process in a way that minimises the disruption for proponents and also makes it as easy as possible for proponents to have

their key people available for interviews and workshops.

7.3.3 Interviews

Based on their written submissions, proponents are assessed against the evaluation criteria set out in the RFP, using documented/detailed scoring guidelines. Depending on the circumstances, the selection panel will usually decide on a shortlist (typically four to five proponents) to be invited to interview.

The panel needs to undertake reference checks under the agreed/documented evaluation procedures.

The primary purpose of the interview is to give the selection panel the opportunity to meet the proponent's key nominated team members. The aim is to enable the panel to better assess the proponent against the evaluation criteria. Based on the interviews, and having followed the evaluation procedures discussed in section 7.2.4, the selection panel selects the two highest ranked proponents who are each invited to participate in a two-day alliance selection/development workshop.

It is important that the interviews are conducted in as relaxed a way as possible. They should take the form of an open discussion rather than a formal interview. Formal presentations should be discouraged and no projection/presentation facilities should be made available. It may be appropriate to incorporate some short breakout sessions to focus on specific issues/groups. Interviews typically last from four to six hours with an agenda along the following lines:

- welcome/personal introductions;
- establish/confirm agenda; interview topics are structured around the evaluation criteria and might include topics such as
    - questions/clarifications regarding proponent's track record and experience
    - proposed approach to dealing with key challenges, risks and opportunities
    - project resourcing
    - alliance understanding and attitude
    - strategies for ensuring value for money
    - strategy for developing and sustaining peak performance
    - clarification of commercial and other issues arising from written submissions;
- facilitated discussions covering agreed items/issues/questions;
- short break-out sessions in smaller groups focused on specific issues with reporting back to the main group;
- review of expectations/way ahead;
- reflections/feedback on the alliance, the participants and the selection process; and
- closing comments.

All members of the selection panel must attend all interviews. Other non-panel owner personnel may also attend. Typically the proponent is invited/instructed to bring their nominees for the ALT and the AMT, key discipline leaders and possibly others as appropriate or necessary. It is usual to give some guidance to the proponent on the

expected number or maximum number of people to bring to the interview and a typical proponent representation might be approximately 12. The owner should ensure that proponents advise them who is coming to the interview(s) in advance.

7.3.4 Selection workshops

The primary objective of the selection workshops is to identify the team with the greatest potential to deliver outstanding project outcomes as assessed against the evaluation criteria. At the same time, the workshops should establish with each of the two final proponents the foundation of a high performance team. The selection/development workshop provides the opportunity for the owner and proponent teams to start working closely with each other to develop a shared understanding of the project vision and objectives and to start preparing their consolidated leadership and project team to deliver the project. Based on the workshops, and having followed the evaluation procedures discussed in section 7.2.4, the selection panel selects the highest ranked proponent as the 'preferred proponent'.

The two final short-listed proponents, on being invited to the workshop, are issued with workshop briefing papers[22] and asked to prepare further written material in preparation for the workshop. This might typically include:

- information to enable more focused discussions, e.g. detailed organisation and accountability tables, mobilisation plan, key drivers/expectations for the alliance, etc.);
- detailed clause-by-clause feedback on the draft alliance agreement(s);
- a budget critique.

Each workshop is usually conducted over two days and ideally is held in a suitable conference facility where the participants are away from their normal daily routine and able to focus intensively on the project, without distractions. The best environment is created where all participants stay overnight at the venue.

Each workshop should be conducted on the assumption that the participants will eventually form an alliance to deliver the project – in other words on the basis that the alliance has in effect already started with this workshop. All participants should be encouraged to participate on this basis. Representation at the workshop(s) is typically:

- the selection panel – Note that panel members do not act as passive observers; rather they must be active participants through all stages of the workshop, dispersed among different groups as appropriate, consistent with their prospective roles in the eventual alliance.
- all nominees for the ALT and AMT
- discipline leaders/key nominees for the wider project team
- others as appropriate.

The owner representation depends on the number of people the owner has nominated as potential candidates for the alliance. It could vary from few as eight (including the selection panel) to as many as 20. Note that for consistency the owner's representation must be the

[22] The two final short-listed proponents are usually issued with detailed briefing papers on the commercial alignment process at this stage also – refer to section 7.4.3.

same for both workshops. This means that if one of the owner's people is not available for one or both days of one workshop, then they cannot attend on those days for the other workshop either. As with the interviews, it is usual to give guidance to the proponent on the expected/maximum number of people to bring to the workshops. A typical proponent representation might be 12 to over 20. The owner should ensure that proponents advise them in advance who is coming to the workshop(s).

The workshops are normally designed by the alliance facilitator in consultation with the selection panel and run by the alliance facilitator. While each set of workshops needs to be customised to suit the particular circumstances, the workshop would typically cover:

1. formation of the ALT and appointment of the Alliance Manager
2. alignment on the purpose of the alliance – vision, mission and high-level objectives
3. leadership development
4. key risks and opportunities
5. key drivers, concerns, contributions and expectations
6. critical review of organisation structure
7. commercial framework and key principles
8. principles of 'gamebreaking' and strategies for achieving 'peak performance'
9. project logistics and resourcing
10. achieving and demonstrating value for money
11. communications/stakeholder management
12. mutual expectations and commitments of ALT, AMT and team
13. clarification/confirmation of scope of pre-agreement work by preferred proponent
14. reflections/feedback on the alliance, the participants and the selection process.

7.3.5 Panel debriefings to proponents

The final task of the selection panel is to provide feedback to proponents when the process is complete. The feedback can be provided to all proponents after the alliance agreement has been executed, or the panel may prefer to give feedback progressively to unsuccessful proponents after each stage of the process. Regardless of the timing, it is suggested that these steps are followed:

1. The owner should make it clear from the start that the selection panel will debrief each proponent in person.
2. As many of the panel members as possible should attend each feedback session.
3. The feedback should be open, frank and as direct as possible.

7.4 Commercial alignment

7.4.1 Key outcomes

Once the preferred proponent has been selected, senior personnel from the owner and the preferred proponent, with authority to reach final agreement on commercial issues, need to conduct a series of meetings/workshops to reach alignment on the commercial framework for the alliance and to agree on the terms of the alliance agreement(s).

The key outcomes from the commercial discussions are:

- alliance agreement ready for signing;
- agreement on the limb 3 framework and all primary parameters of the pain/gain model, including an outline of the KRA/KPI framework and measures. While agreement should be reached on as many aspects of the limb 3 framework as possible, typically there will be certain aspects that cannot be resolved until during the project development phase. It may be appropriate to seek provisional alignment on certain aspects in the commercial discussions, on the understanding that these will be reviewed and finalised during the project development stage; an example of this might be the NOP sharing ratios;
- agreed budget for the project development phase;
- agreement in relation to the specific value for money initiatives outlined in Table 7.1. (The reference numbers relate to those in section 5.2.2.)

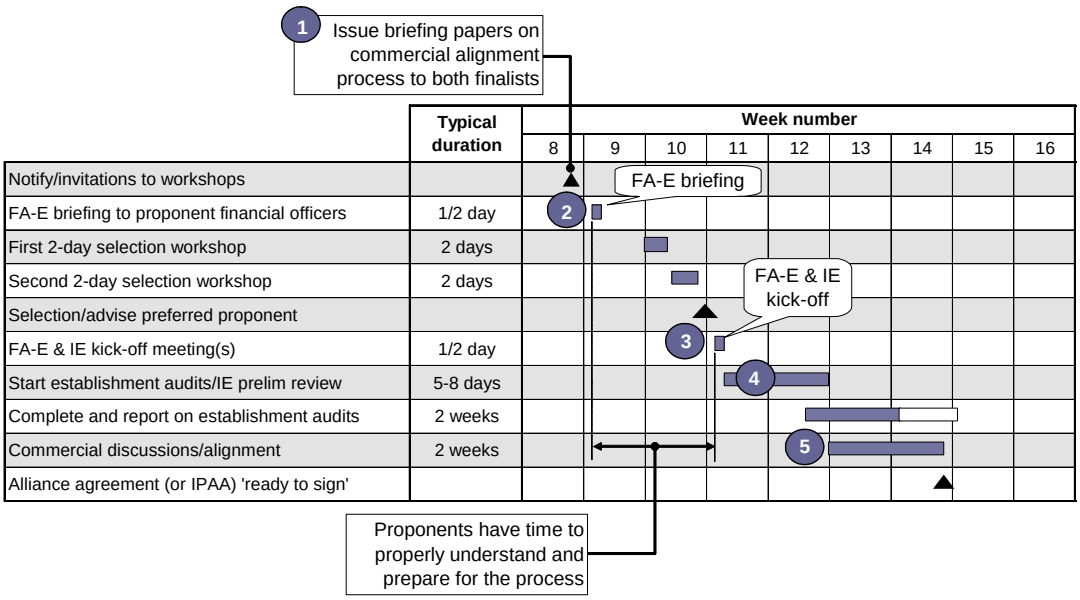
Table 7.1: Commercial framework for owner/preferred proponent agreement

Ref no. (s 5.2.2)	Items to agree
2	Details of various value for money deliverables
3, 4	The FA-E report including: - all details of limb 1 costing - limb 2 fee%s and methodology for applying them - draft compensation audit plan
5	The proponent's budget critique
8	Confirmation by the independent estimator that the data from nominated benchmarking projects is accessible, relevant, credible and available.

7.4.2 Overview of process

The key steps and typical timing are illustrated in Figure 7.7 and each step is discussed briefly in this section.

Figure 7.7: Steps and timing in selecting preferred proponent



Some of the key issues to be considered before beginning the alliance include:

1. The people involved in the process must have the authority to make commercial decisions on behalf of the organisations they represent.
2. The process should deal with all relevant commercial issues. Significant commercial/contractual items that can be addressed before entering into the alliance should be dealt with before the alliance is started.
3. Consistent with the importance of establishing the right psychological foundation for the alliance, the commercial alignment process should be conducted in a way that builds relationships. This may require specialist coaching to ensure that conversations are open and effective and are always conducted in line with alliance principles.
4. The commercial alignment process provides a first test of how the future alliance participants address and resolve complex commercial issues where their respective commercial interests are not necessarily aligned. The participants should use the process as an opportunity to learn about themselves and how they relate to each other and, in doing so, better prepare themselves for dealing with complex issues that arise during the alliance.

7.4.3 Step 1: issue briefing papers

As discussed in section 7.2.5, the RFP package should include an overview of the commercial alignment process and the owner's thinking on the proposed commercial framework. However, this information is unlikely to be detailed enough to enable the preferred proponent to fully understand and prepare for the commercial alignment process.

When notifying the two final short-listed proponents and inviting them to workshop, the owner should issue them with briefing papers containing enough information to enable them to understand:

- full details of what is involved in the commercial alignment process and the inputs required of the preferred proponent to support the process;
- further insights into the owner's perspective on key issues and principles that will underpin the alignment;
- what the proponent has to do in advance to properly prepare for the process.

In particular, the briefing papers should include/set out:

- the draft briefing for the FA-E and IE (which should address in more detail the issues discussed in Appendix 11);
- any further details on the commercial/compensation framework (as discussed in Chapter 4) not already included with the RFP package.

Although ultimately the commercial alignment process will only apply to the preferred proponent, it is appropriate to issue the briefing papers to both short-listed finalists because:

- if left until after the preferred proponent is announced, there will generally not be enough time for the preferred proponent to absorb the information and prepare for the process; and
- it provides the opportunity to discuss the commercial alignment process and associated issues with each proponent at the development workshop(s).

The briefing papers could be issued with the RFP, but this is not recommended as it may distract proponents with irrelevant and unnecessary details.

7.4.4 Step 2: FA-E briefing to financial officers

It is recommended that the relevant financial officers from the proponent attend a briefing with the financial auditor – establishment (FA-E) shortly after being notified and invited to attend a selection workshop. Each proponent would meet separately with the FA-E.

The purpose of the briefing with the FA-E is to make sure the proponent fully understands the establishment audit process, commits the appropriate resources to support it, and is fully prepared for the process. The briefing also ensures that the right people are made available for the FA-E kick-off meeting (see next section).

Attendance at this briefing should be limited to those people who will be involved in facilitating and supporting the establishment audit process (typically the financial officer and financial administration staff).

7.4.5 Step 3: auditor/IE kick-off meeting

The purpose of the kick-off meeting is to ensure full alignment on the briefing documents for the FA-E and the IE and to get their respective investigations under way as a matter of priority. The meeting is usually held soon after the announcement of the preferred proponent in order to provide as much time as possible for the FA-E to conduct the establishment audits before the start of the main commercial alignment discussions. A typical agenda for the kick-off meeting might be as outlined in this table.

Table 7.2: Typical agenda – estimator/establishment auditor initial meeting

Item		Time (mins)
1	Preliminaries	15
2	Independent estimator Review draft IE briefing document and IE methodology Confidentiality Align on purpose/IE role for preliminary check on benchmark projects Scope and timing of IE preliminary investigation work Confirm logistics/actions/timing	90
3	Establishment audits Review/revise/finalise FA-E brief Confidentiality Confirm logistics/actions/timing of FA-E work	120
4	Close	15

7.4.6 Step 4: establishment audits and preliminary investigation

1. FA-E Establishment Audits: Appendix 11 contains an outline of the role of the FA-E and the scope of the establishment audits. Some of the key points to be considered for this part of the process include:

- The process must be conducted in a way that supports the alliance principles.
- Depending on the number, nature and location of the companies comprising the preferred proponent, it may take a significant commitment of FA-E resources to complete the investigations in time for the main commercial discussions. The owner must ensure that the FA-E has sufficient resources to be able to do this.

The FA-E should be required to issue a written report before the start of the main commercial alignment discussions. This should set out the preliminary findings relating to each company for discussion in person at the first meeting of the commercial alignment group.

2. IE preliminary investigations: Appendix 11 contains an outline of the role of the independent estimator. The main role of the IE relates to the development of the TCE during the project development phase. The sole purpose of these preliminary investigations is to review and confirm that the data associated with the nominated projects is accessible, relevant and credible. Typically the process only takes several days and can be fitted in comfortably in parallel with the establishment audits. The IE should be required to provide a brief written report confirming the findings of the investigations to present to the commercial alignment group.

7.4.7 Step 5: commercial alignment discussions

The commercial alignment process is usually conducted as a series of meetings and/or workshops. The exact process needs to be designed to suit the particular circumstances. For instance:

- Where all the players are local, it may be best to conduct the process as a series of meetings with some time in between to allow people to develop a deeper understanding of the key issues and prepare for the next meeting.
- Where some of the key people have to come from interstate or overseas, then the

process may be better structured as intensive workshops to minimise the length of the process.

The overall aim of the commercial discussions process is to establish the primary commercial parameters for the alliance and to finalise the terms of the alliance agreement, in a way that builds relationships in line with alliance principles. Ideally the process would address the following key topics, although it may not be practical to cover all items and some items as indicated can be deferred until later.

1. Confirm overall commercial/contractual framework.

2. Agree all basic compensation issues (limb 1) for the non-owner participants.

3. Confirm the mechanism for determining the limb 2 fees (as discussed in section 4.3).

4. Develop the overall limb 3 pain/gain framework, including alignment on all primary parameters and a process and timetable for developing and agreeing the finer details during the project development phase. As noted in section 7.4.1, typically there will be certain aspects that cannot be resolved until during the project development phase.

5. Reach alignment on all commercial principles, including guiding principles for what risks are to be assumed by the alliance and what kinds of risks are retained solely by the owner. If time permits, this may include development of interim variation benchmarking guidelines using the process described in Appendix 9. However, this workshop can be held over until the project development phase, provided there is reasonable understanding and alignment on the overall guiding principles.

6. Outline the key principles underpinning the strategy for demonstrating value for money. The actual strategy can be developed at a separate workshop during the project development phase.

7. Confirm acceptance of the FA-E's draft compensation audit plan, setting out the scope, procedures and protocols for ongoing audits for the duration of the alliance.

8. Finalise the alliance agreement ready for signature. (If using an IPAA/PAA, the IPAA should be ready for signing and all terms of the PAA, apart from the performance targets and measurement framework, would be agreed.)

9. Consider any other significant issues or concerns that need to be dealt with before entering into the alliance.

Note that it may not be practical to deal with all decisions at this stage. Points of alignment should be tested to ensure that they are aligned with the agreed principles, to avoid any tendency to revert to traditional position-based negotiations.

8 Alliance implementation issues

8.1 Overview

8.1.1 Context/scope

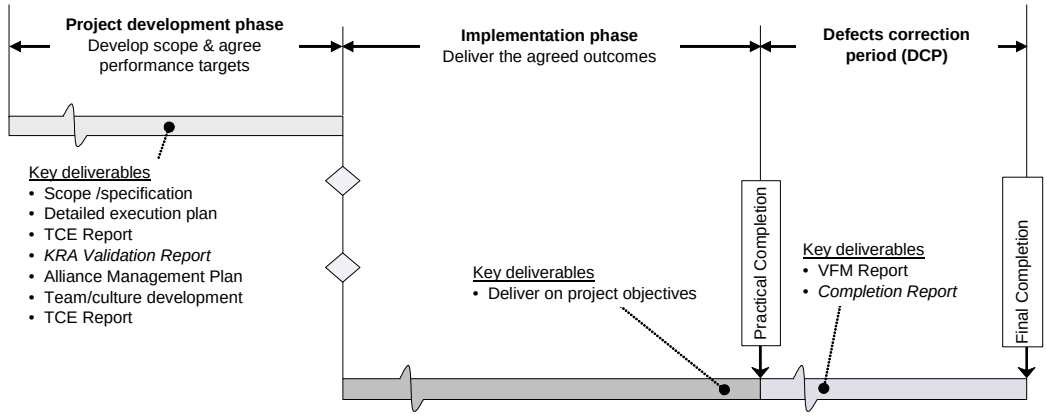
Once established, it is expected that an alliance will use best practice business and project management systems and processes through all stages of project delivery. It is beyond the scope of this Guide to address good project management practices. However, certain aspects of project development and implementation are unique to alliancing. Many of these have already been addressed in earlier chapters of the Guide. The following aspects are addressed briefly in Chapter 8:

1. overview of purpose and outcomes
2. alliance management plan
3. developing and agreeing the TCE/TOC
4. effective project governance
5. developing and sustaining alliance culture
6. closure.

8.1.2 Phases of the alliance: key deliverables

The focus of the alliance changes to suit the context of each phase, with key deliverables in each phase, as shown in Figure 8.1.

Figure 8.1: Project alliancing phases and key deliverables



The governance, leadership and management approach and systems need to be structured to match the circumstances of each phase.

8.1.3 Project development phase

During the project development phase the alliance is focused on getting the team established, defining/clarifying the scope of work and agreeing the TOC and other performance targets for the implementation phase. Some key issues need to be addressed, including:

1. Establish the project team, specifically:
    - logistics: office, administration, network systems, communication protocols, etc.;
    - people: set up organisation structure and appoint personnel, roles responsibilities and accountabilities, team culture, etc.
2. Secure all necessary approvals.
3. Define the scope of work – the process could vary considerably depending on the circumstances, for instance:
    - In some cases, the alliance may need to consider various functionality, scope and engineering options before settling on a preferred solution or option. In such cases, a first priority on beginning the alliance is to get ALT approval of the process to be used to develop options and select the preferred solution.
    - In other cases, the owner will already have settled on a preferred option and the alliance will develop the scope/design within the parameters of that option.

    Regardless of the context, it is likely that the alliance will need to undertake a range of activities including risk/opportunity identification and quantification workshops, value management and optimisation studies and the usual range of design outputs including technical specifications and drawings.
4. Develop an alliance management plan incorporating the various policies and plans that will be used to guide and manage the project (see section 8.2.1).
5. Prepare the TCE and agree the TOC (see section 8.2.2).
6. Develop and agree the KRA/KPI framework, including details of all targets and measurement methods.
7. Procure all necessary insurances for the implementation phase.
8. Conduct workshops and other processes necessary to develop a high-performance alliance culture (see section 8.2.4).

8.1.4 Implementation phase

The focus throughout this phase is on meeting or exceeding the agreed project objectives. Key issues unique to alliances to be addressed during implementation include:

1. leadership, governance, management controls and reporting
2. sustaining peak performing alliance culture (see section 8.2.4).

8.1.5 Defects correction period

The alliance is responsible for attending to any defects that emerge during the defects correction period. If the project is going well, this should not involve a significant amount of work.

The defects correction period may also be used to measure various aspects of the

performance of the facility under operating conditions. These measures may be linked to the key result area/key performance indicator framework.

8.2 Specific implementation issues

8.2.1 Alliance management plan

The alliance management[23] plan should incorporate the policies and plans to be used to guide and manage the project. The plan is one of the key tools for the alliance leadership team to use to ensure there is good governance and control over the project. In this respect, the plan should:

- set out key policies, procedures and systems relating to work to be carried out by the alliance;
- specify delegated limits of financial and general authorities and specify the protocols for reviewing and changing those delegated limits;
- include detailed plans for managing all key aspects of the work; and
- where relevant, specify what aspects can be amended with approval from the Alliance Manager and what aspects can only be amended with approval from the ALT.

While the alliance management plan should incorporate normal project plans (including health and safety, environment and quality plans), certain plans are especially noteworthy in the context of an alliance, including:

1. **alliance culture/peak performance plan** (see section 8.2.4);
2. **compensation audit plan:** This sets out in detail the regime and protocols for auditing financial transactions that affect payment to/from the NOPs. It would typically include relevant auditing standards, timing and extent of audits, level of substantiation required, responsibilities and accountabilities, communications and reporting protocols, etc. The key elements of the compensation audit plan should already have been agreed during the commercial alignment discussions before entering into the alliance (see section 7.4);
3. **finance and administration plan:** It is important to set out clearly the delegations and financial authorities within the alliance;
4. **procurement plan:** This is a critical document as it provides the means by which the ALT can be satisfied that due standards of risk management, accountability and probity are being adhered to in all sub-procurement undertaken by the alliance;
5. **project reporting** (see section 8.2.3);
6. **plan for measuring performance in non-cost KRAs** (see Appendix 9).

[23] The term 'alliance management plan' is used in this Guide for convenience. The collection of project policies and procedures may be given another name or may not be assigned any particular collective name.

8.2.2 Developing and agreeing the target cost estimate and target outturn cost

Developing the target cost estimate (TCE) is one of the biggest challenges faced by an alliance. It requires the owner and the NOPs to overcome inherent conflict in their commercial interests to reach alignment on a target outturn cost (TOC). In addition they must do this in a way that builds, rather than undermines, their relationship(s) as they progress into the implementation phase. Some key issues to be addressed include:

1. **The process for developing the TCE and the role of the independent estimator (IE):** This is best developed/agreed at a 'TCE kick-off workshop' early on in the project development phase. The TCE kick-off workshop should be attended by:

   - the leaders and key players involved in the preparing the estimate, including owner personnel who will be embedded within the estimate team;
   - the IE; and
   - some, preferably all, the ALT members (at least for parts of the workshop).

   Typically a TCE workshop would aim to:

   - clarify/confirm the roles and responsibilities of everyone involved in the process including the IE(s). Typically the TCE development process will involve three streams of effort, specifically:
     - development of the TCE itself (including risk/opportunity);
     - reconciliation with the owner's budget estimate; and
     - innovation/optimisation review, which may work in parallel with, but separate from, the main estimate group;
   - reach alignment on the objectives/constraints of the TCE process, including the desired cultural/relationship outcomes;
   - clarify how the TCE will relate to and be reconciled with the owner's budget estimate;
   - confirm acceptance of the principles for developing the TCE and agreeing the target outturn cost (see section 4.5.2);
   - agree the process for clarifying what risks/opportunities sit within/outside the scope of the alliance (e.g. variation alignment process as discussed in section 4.5.6);
   - agree on tools and processes, including software, structure, presentation and reconciliation formats, etc.;
   - agree how the alliance is to secure best price quotations from industry and how this is to be validated by the IE;
   - share information on basic costing elements and strategies;
   - agree the estimate review process;
   - agree ongoing communications and progress reporting plan/protocols; and
   - develop a detailed action plan.

2. **Making sure there is collective ownership of the TCE/TOC:** It is important for all the key players, especially the ALT members, to commit to an outcome where they will all 'own' and defend the estimate that they align on. This can be achieved by ensuring the owner participates in a hands-on way in developing the TCE, and the ALT is appropriately involved in review and decision-making throughout the process. This commitment is best secured at the TCE workshop.

8.2.3 Effective project governance

It is critical that the alliance leadership team functions effectively throughout the project. Governance and leadership are discussed in section 6.2.3 in the legal context. Some key risks and issues of this important aspect of implementation include:

1. **Getting the right people on the ALT:** In this respect, the ALT members should:
    - have the right attributes, as set out in section 2.3.2;
    - be willing and available to perform the role of an ALT member: This could require up to one or two days a month for most of the project, with more intensive inputs for initial workshops, TCE review, etc.;
    - meet regularly and be available when required: ALT meetings will normally be scheduled well in advance to ensure that the ALT members have the time set aside. Use of alternative members is not recommended, as it can lead to lack of understanding, commitment and accountability and uneven leadership.
    - adopt a particular aspect or key objective/principle of the alliance and 'champion' it through critical stages of the project.
2. **Effective use of the alliance management plan:** It is important that the ALT does not try to micro-manage the project, but equally important that it ensures there are appropriate controls in place to make sure that the project team adopts appropriate and effective management practices. These need to comply with the policies and standards of all the alliance participants. In this respect, the alliance leadership team must ensure that all relevant policies, practices and controls – including delegated authorities – are set out to its satisfaction in the alliance management plan.
3. **Effective project reporting:** As the peak leadership body for the alliance, the ALT should in its conversations appropriately balance past, present and future aspects of the project. A significant portion of the team's time should be spent in discussing future directions and possibilities. Project reporting should be designed to support and drive this focus. In this respect the report should:
    - be designed to provide vital information in a format that can be assimilated quickly by senior personnel who typically do not have the time to sift through lots of detail; detail should be provided as supporting information;
    - provide the facts about performance to date highlighting key accomplishments and key disappointments;
    - provide past and predicted trends against the stretch/breakthrough targets, so that the team focuses on performance against various possibilities.
4. **Effective ALT meetings:** The ALT meetings should involve more than just information from the Alliance Manager about what has happened on the project. While this is important information, it should be contained in a report. All ALT members should commit to reading reports before they come to ALT meetings. Discussion of past events should then be confined to key issues, maximising the time available for the ALT to provide effective leadership and focus on future directions and possibilities.

8.2.4 Developing and sustaining the alliance culture

The alliance framework and the selection process described in Chapter 7 set the scene for developing a high-performance alliance team. The alliance framework is designed to drive organisational peak performance by:

1. aligning the commercial interests of key players who need to work very closely together – so powerful relationships can develop to achieve optimal results; and

2. by using the aligned group as the catalyst, focusing intensively on people to ensure organisational peak performance at all levels of the project (not just among those within the core alliance).

Once the alliance is established, it is the responsibility of the alliance leadership team and the alliance management team to develop and implement strategies to ensure that a peak performing project team is developed and sustained. In this respect a peak performance plan[24] for a project alliance should focus intensively on people issues. This overall approach might be taken:

1. Maintain an inspiring vision for the project and set out clear and challenging objectives consistent with that vision, providing a clear purpose and focus for the alliance. Renew the objectives as needed as the project progresses.
2. Ensure that all stakeholders and personnel are aligned with the project vision, support agreed project strategies and are totally committed to achieving or bettering target project outcomes.
3. Create and sustain a high-performance team environment.
4. Maintain an absolute focus on action and results.
5. Create and maintain seamless interfaces between various project teams.
6. Monitor and critically assess performance and take quick and effective corrective action when necessary.

The alliance framework set out in the Guide is designed to facilitate and acknowledge the importance of people and a peak performance culture. However, there are many different ideas and strategies on how to develop a peak performing organisation and the Guide does not prescribe any particular approach. This is a complex area requiring specialist skills in project management and human behaviour and practitioners are encouraged to seek specialist advice and facilitation suited to the particular needs and preferences of their project(s).

8.2.5 Alliance closure

In addition to the normal range of project hand-over, hand-over of documentation, demobilisation and close-out activities, the alliance will need to undertake certain other activities soon after practical completion, specifically:

1. Compile the final draft of the VFM Report and (where relevant) the executive completion report (see items 17 and 18 in the table in section 5.2.1).
2. Conduct formal self-reflection/assessments and discuss their respective alliance suitability ccores (see item 19 in the table in section 5.2.1).

In addition to all the normal project completion activities, some key issues to consider for inclusion in the final reports mentioned above might include:

- overall performance of the alliance – achievements and disappointments;
- aspects done well and things that could have been done better (and how);
- culture and people;
- impacts of the project on the owner, NOPs, people involved;

[24] The term 'peak performance plan' is used here for convenience, referring to a plan designed to get the best out of people within the alliance organisation. In practice many different names are used to describe such a plan.

- residual risks to final completion and beyond; and
- feedback that might/should be reflected in updates of this Guide.

Appendices

Appendix 1: Evolution of project alliancing

Background of growing dissatisfaction

All capital works projects involve inherent risks, e.g. political or economic change, climate, technology, ground conditions, engineering uncertainties, miscommunication, human error, industrial disputes, land issues, environmental issues, stakeholder management and many more.

For optimal outcomes, the owner of a project must select the most appropriate strategy for managing these risks while meeting or exceeding the project objectives.

Under traditional design, construct or combined design and construct forms of contract, risks are allocated to different parties and each party is responsible for managing their own particular risks. The contract sets out the respective obligations and rights of each party to the contract. In this respect, typically:

- The owner is obliged to provide sufficient access, information and cooperation to enable the contractor(s)[25] to undertake the work and to pay the contractor(s) according to the terms for carrying out the work under the contract.
- The contractor is obliged to carry out the work according to the terms of the contract.
- The contract is supposed to set out clearly what risks are carried (or not carried) by the respective parties.

While it is widely accepted that risks under these traditional forms of contract should be borne by the party best able to manage them,[26] in some instances contractual disputes appear to result from inappropriate allocation of risk.

Since the mid-1980s there has been growing dissatisfaction with the increasingly adversarial nature of these traditional contracting models. In the late 1980s a group representing a cross-section of government and private sector interests in the Australian construction industry[27] concluded that claims and disputes had become endemic in the construction industry in the developed world and that there was no indication that the incidence of claims and disputes was decreasing.

Initiatives for improvement

A number of initiatives around the world since 1990 have aimed at reducing adversarial behaviours, improving inter-party relationships and generally improving the efficiency of the building and construction industry.

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[25] The term contractor is used in this Guide as a generic term for a company that undertakes to provide goods or a service to an owner under a contract. A contractor could include designers, specialist consultants, constructors, suppliers etc.

[26] NPWC/NBCC Joint Working Party, No Dispute – Strategies for improvement in the Australian building and construction industry, Fyshwick ACT, NPWC and NBCC, 1990.

[27] Barrell, T. et al, 'Strategies for the Reduction of Claims and Disputes in the Construction Industry', unpublished, 1988.

These include the following:

- Agencies in the US developed what they referred to as a 'partnering' – a formal management process designed to facilitate better understanding and closer collaboration between parties while still working under a traditional form of contract. The partnering process is not intended to alter the nature of the underlying contract or the fundamental rights or obligations of the parties, although some argue that the undertakings given and representations made as part of the partnering process can and do affect the legal rights and obligations of the parties.

- First published in 1993, the New Engineering Contract (NEC) in the UK is described in the NEC website[28] as 'a modern day family of standard contracts that truly embraces the concept of partnership and encourages employers, designers, contractors and project managers to work together through both a powerful management tool and a legal framework to facilitate all aspects of the creation of construction projects'.

- Project alliancing was first used in the UK in the early 1990s to deliver step change improvements in the delivery of complex offshore oil and gas projects.[29]

In Australia:

- Following its launch in the early 1990s, partnering was used on many public sector civil and building projects around Australia.[30].

- In the late 1990s the Australian Constructors Association[31] developed and promoted the concept of 'relationship contracting' – which it defined as 'a process to establish and manage the relationships between the parties that aims to remove barriers, encourage maximum contribution and allow all parties to achieve success'.

- Various states introduced guidelines and codes of practice to improve the standard of administration on government contracts and legislation, providing more protection to those at the lower end of the contracting chain.

- Project alliances were used to deliver some major oil and gas projects in Western Australia in the early 1990s.[32]

- Sydney Water used a project alliance to deliver the Northside Storage Tunnel Project[33] in the late 1990s.

- Since then, project alliancing has been used by various state and local governments and by the Commonwealth to deliver a wide range of engineering infrastructure, covering road and rail transport, water supply, storage and treatment, solid and liquid waste, communications, channel and port facilities, defence material, and other sectors.

- A project alliance was used to successfully deliver the National Museum Infrastructure

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[28] www.newengineeringcontract.com/contracts/index.asp

[29] Knott, T., *No Business As Usual*, London, The British Petroleum Company p.l.c., 1996.

[30] CIDA and Master Builders Association, *Partnering – A Strategy for Excellence*, Sydney, CIDA and Master Builders, 1993.

[31] Australian Constructors Association, *Relationship contracting – Optimising Project Outcomes*. Available from www.constructors.com.au/pages/site_frame.htm, 1999.

[32] Wandoo Alliance, Wandoo B Offshore Oil Platform, 1997. Available from Leighton Contractors or Ove Arup.

[33] Henderson, A. and Cuttler, R. (1999) Northside Storage Tunnel Project, 10th Australian Tunnelling Conference. Melbourne, March 1999.

Project in Canberra.[34]

- However, the application of project alliancing (as defined in this Guide) to other public sector building projects has been limited.

[34] Walker, D., Hampson, K. & Peters, R. *Relationship-based procurement strategies for the 21st century*, AusInfo, Canberra, 2002.

Reference list of public sector alliances in Australian and New Zealand

The projects/programs listed below are understood to use a form of project alliancing that meets the definition set out in section 1.2. This is not intended to be a complete list of such projects/programs in the public sector, and does not include any alliances undertaken by owners in the private sector.

	Approx. start date	Project description	Location	Industry sector	Type	Approx. $ (mil)	Owner	? x TOC
1	1997	Northside Storage Tunnel	Sydney, NSW	Wastewater infrastructure	Project	465	Sydney Water	1
2	1998	National Museum	Canberra, ACT	Building	Project	150	Commonwealth (DCITA)	1
3	1999	Norman River Bridge	Normanton, QLD	Road infrastructure	Project	5	QLD Department of Main Roads	1
4	1999	ElectraNet Capital Program	Various locations, SA	Electricity transmission	Program	4 to 25	ElectraNet	1
5	2000	Pacific Motorway Package 4	Brisbane / Gold Coast, QLD	Road infrastructure	Project	60	QLD Department of Main Roads	1
6	2000	Woodman Point WA21	Perth, WA	Wastewater infrastructure	Project	140	Water Corporation, WA	1
7	2001	ANZAC Ship Alliance	Various states	Defence Material	Program	>1,000	Commonwealth, Dept of Defence (DMO)	n/a
8	2001	Awoonga Dam Raising	Gladstone, QLD	Water supply infrastructure	Project	150	Gladstone Area Water Board	1
9	2001	Sydenham Electrification Project	Melbourne, VIC	Rail infrastrcuture	Project	30	Department of Infrastructure	n/a
10	2001	Port of Brisbane Motorway	Brisbane, QLD	Road infrastructure	Project	100	Queensland Motorways Limited	1
11	2001	SewerFix Alliance	Sydney, NSW	Wastewater infrastructure	Program	230	Sydney Water	n/a
12	2001	Grafton Gully *freeflow* Alliance	Auckland, NZ	Road infrastructure	Project	100	Transit NZ	1
13	2002	Priority Sewerage Program	Sydney, NSW	Wastewater infrastructure	Program	200	Sydney Water	n/a
14	2002	Inner Northern Busway section 3	Brisbane, QLD	Road /busway infrastructure	Project	35	Queensland Transport	1
15	2002	Future Port Expansion Alliance	Brisbane, QLD	Port infrastructure	Project	90	Port of Brisbane Corporation	1
16	2002	Brisbane Water Enviro Alliance	Brisbane, QLD	Wastewater infrastructure	Program	140	Water Corporation, WA	1
17	2003	North Queensland Gas Pipeline	QLD	Gas distribution	Project	140	Enertrade	1
18	2003	Wivenhoe Dam Spillway Upgrade	QLD	Water supply infrastructure	Project	70	SEQWater	1
19	2003	Burnett River Dam Alliance	QLD	Water supply infrastructure	Project	150	Burnett River Dam Authority	2
20	2003	Lawrence Hargrave Drive Alliance	NSW	Road infrastructure	Project	45	Roads & Traffic Authority (RTA)	1
21	2003	Trevallyn Upgrade Project	TAS	Hydroelectricity Generation	Project	35	Hydro Tasmania	1
22	2003	Roe Highway Stage 7	Perth, WA	Road infrastructure	Project	70	Main Roads WA	1
23	2004	Cultural Centre Busway Centre	Brisbane, QLD	Road /busway infrastructure	Project	10	Queensland Transport	1
24	2004	Tungatinah Upgrade Project	TAS	Hydroelectricity Generation	Project	35	Hydro Tasmania	1
25	2004	Northern Gateway Alliance	Auckland, NZ	Road infrastructure	Project	200	Transit NZ	1
26	2004	WWTPs Automation and Centralisation	Perth, WA	Wastewater infrastructure	Project	30	Water Corporation, WA	1
27	2004	Bunbury WWTP upgrade	Bunbury WA	Wastewater infrastructure	Project	2	Water Corporation, WA	1
28	2005	Inner Northern Busway section 1	Brisbane, QLD	Road /busway infrastructure	Project	150	Queensland Transport	1
29	2005	Tullamarine Calder Interchange	Melbourne, VIC	Road infrastructure	Project	140	VicRoads	1
30	2005	Boggo Road Bus Corridor	Brisbane, QLD	Road /busway infrastructure	Project	100	Queensland Transport	1
31	2005	Karratha to Tom Price Stage 2	Northwest WA	Road infrastructure	Project	90	Main Roads WA	1
32	2005	Tugun Bypass Alliance	Gold Coast, QLD	Road infrastructure	Project	300	QLD Department of Main Roads	2
33	2005	The New Perth Bunbury Highway	Perth, WA	Road infrastructure	Project	370	Main Roads WA	1
34	2005	Great Eastern Highway Alliance	Perth, WA	Road infrastructure	Project	30	Main Roads WA	1
35	2005	Gippsland Water Factory	East Gippsland, VIC	Wastewater infrastructure	Project	140	Gippsland Water	1
36	2005	Normanby Cycle Link Alliance	Brisbane, QLD	Road infrastructure	Project	6	Queensland Transport	1

Appendix 2: Program alliances

Context

There may be situations where it makes sense for an owner to bundle a number of projects that could be delivered as separate projects into a single 'program alliance'. Typical situations might include:

- A series of smaller projects, each of similar scope, where resources can be better managed using a program-wide strategic approach and where some performance criteria can only be assessed on a program-wide basis, for example, Sydney Water's SewerFix Program.

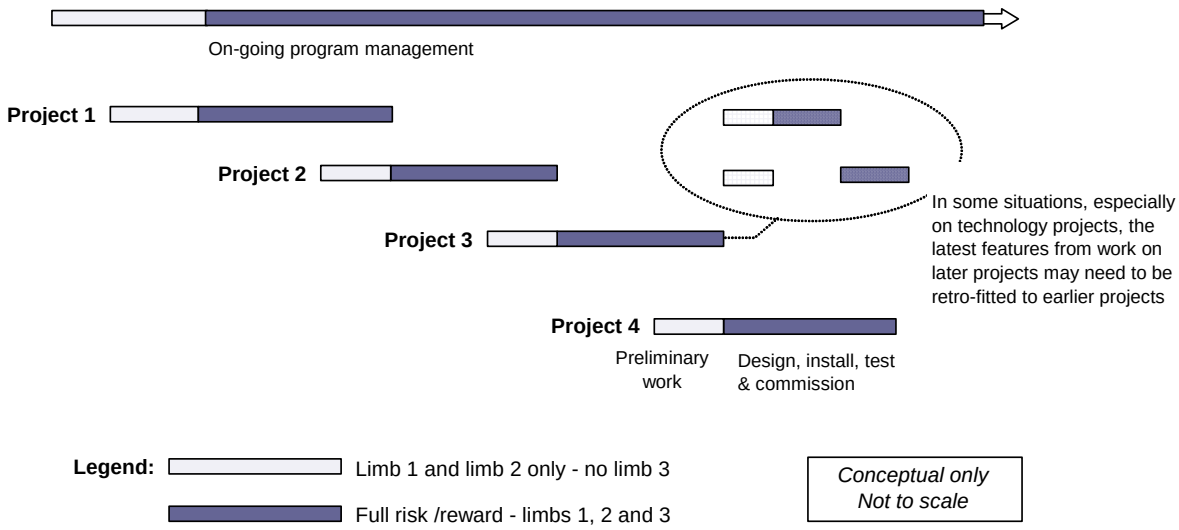
- The individual projects themselves are not directly linked, but grouping the projects together is more attractive for service providers and results in better control over timing and resource allocation, for example, ElectraNet's 1999-2003 capital works program.

In some cases, such as Sydney Water's SewerFix Alliance, the individual projects within the program may be small and relatively straightforward, but the large volume of projects presents a major challenge and an opportunity for the alliance to optimise resources and outcomes through effective program-wide planning and management.

Some distinguishing features of program alliances

While most of the principles and processes set out in the main text of this Guide can apply to program alliances, certain features of a program alliance need special consideration. Figure A2.1 illustrates a simple situation where four separate projects are delivered in sequence (noting that the situation will generally be a lot more complex than this in practice).

Figure A2.1: Program alliances involving multiple projects, sample delivery sequence



Under this arrangement, the owner would still undertake a process to arrive at an informed decision to use an alliance (as suggested in Chapter 3), select a preferred proponent and enter into the alliance agreement using the selection/development processes outlined in Chapter 7. Once the alliance agreement is executed, the key features that distinguish the program alliance from a single project alliance would include:

1. In the early stages of the alliance the owner and the NOPs would need to develop and reach agreement on the following items:
    - scope of the program
    - how the overall program will be managed (as distinct from the individual projects)
    - scope of project 1
    - TOC and other specific performance targets for project 1
    - budget target for program management, across the whole program, or for the first year/period of the program
    - KPIs within the various key result areas across the whole program. These are likely to be linked to the owner's strategic objectives for the program.
2. The owner and the NOPs would subsequently develop/agree the scope, the TOC and other performance targets for the other projects, and where applicable, budgets for program management during subsequent periods.
3. Given that the alliance agreement needs to provide for recurring development/agreement on the TOC and other performance targets, there is less benefit in having a separate IPAA for a program alliance.

Table A2.1 summarises some of the key issues and questions that might typically need to be considered in program alliances.

Table A2.1: Program alliance questions to consider

Alliance program area	Questions to consider
Compensation model	Guiding principles for how information/knowledge gained in the course of completing one project is used when developing the scope, TOC and other performance targets for subsequent projects? For instance: - If actual productivities for a particular activity on Project 1 were 10% better than the best practice levels allowed for in the TCE for Project 1, would the estimate for those items within the TCE for Project 2 be set at 10% better than for Project 1? - What if the performance on Project 1 was 10% worse than the best practice levels allowed within the Project 1 TCE? Should there be incentives for continuous improvements across the program? Should the limb 2 fee%(s) be held firm for the duration of the program? If not, what are the protocols for review/resetting? Is the NOPs' downside risk under limb 3 applied on each project, or across the entire program? (Having the risk cap applied across the overall program means that the NOPs could lose a lot more than their limb 2 fee on a particular project, providing a much greater potential risk exposure for the NOPs.)

Alliance program area	Questions to consider
Legal issues	What happens if the owner and the NOPs are unable to reach alignment on the scope, TOC or other performance targets for a subsequent project? Can the owner terminate a particular project without terminating the overall program? If the owner terminates the overall program, what is the impact on projects already underway? Can these continue to completion?
People/team	How will the participants maintain a high-performance team across different projects and possibly over a long period of time? In this respect, some of the key issues to be considered will typically include: - succession planning for key staff - changes in composition of the ALT and AMT - renewing challenges for the alliance so that the purpose of the alliance remains fresh and worthwhile in the minds of alliance team members.

Appendix 3: Single TOC approach rationale

While the single TOC approach is the preferred method for project alliances in this Guide, the multiple TOC approach is not without advantages. The multiple TOC approach is covered more fully in Appendix 4, but in brief, the potential advantages of this approach include:

1. The owner can rely on the traditional argument that the use of cost competition inherently demonstrates value for money.
2. The competing proponent teams are more likely to actively seek out and incorporate innovations to reduce their respective TOCs and give them the best chance of securing the work.
3. The multiple TOC approach provides the opportunity for the owner to work with each of the two final proponents over several months and make a more informed assessment of their respective capabilities.

However, as noted in section 2.1.4, the alliance framework in this Guide is designed to create a particular psychological foundation for the alliance where:

- The relationship is established on the premise of mutual trust, based on a recognition that trust must be earned and that there must be a commitment to earn that trust through particular behaviours and results.
- Actions are based on clearly articulated and well-understood principles, not on individual positions or self-interest.
- The best and only way to serve any individual's interest is to advance the interests of the alliance so that there is no need for any hidden agendas.

Primary reason for using the single TOC approach

The single TOC approach is considered to be most consistent with the principles above – creating the right psychological foundation. The alliance must be founded on the premise that the participants, owner and NOPs alike, will approach the development of the TOC in good faith, but with sufficient checks and balances in place to ensure that if this premise is not correct, it can be identified and dealt with effectively, with appropriate protection for the owner. It must also be underpinned by a comprehensive strategy (as described in Chapter 5) to ensure value for money is (demonstrably) achieved.

Other reasons for using the single TOC approach

Other reasons for using the single TOC approach (provided it is underpinned by the value-for-money processes set out in this Guide) include:

1. Where there are complex stakeholder issues, as is likely to be the case for most project alliances, it may unduly complicate matters to have two separate proponent teams interacting with stakeholders through the project development phase.
2. Introducing cost competition/tension may sharpen the approach, especially in areas that are difficult to benchmark such as the provisions for risk. However, the nature of the multiple TOC process precludes the kind of close collaboration and integration that can lead to opportunities for innovation.
3. Notwithstanding joint risk and opportunity workshops that may be held during the

process to provide consistency between the two proponents, the competitive element may drive the competing proponents to underplay the possibility and/or consequence of risks. This could give rise to potentially harmful consequences where the resulting target outturn cost (TOC) does not contain adequate contingency – for instance:

- The owner's decision to proceed to implementation may be based on an unrealistic estimate of the TOC and (in hindsight) may be seen to have been the wrong decision.
- Lack of joint ownership of the TOC means NOPs may be more inclined to seek variations to the TOC to get back to what they see as a reasonable position.
- An increased focus on separate commercial agendas can lead to a reduced sense of one team with a common purpose.

4. It may be difficult to make a fair comparison between the two TOCs when using the multiple TOC approach. There may be a lack of clarity, consistency, ownership of the TOC and commitment to it where the opportunity for full and open conversations based on principles is limited by the need for the two competing proponent teams to remain separate.
5. The additional cost that is often associated with running two teams in parallel, including the owner's extra staffing requirements, is likely to offset any reduction in the TOC through cost competition. In this respect:
    - If cost savings under the eventual alliance are shared 50:50 between owner and NOPs, for the owner to break even, every additional $1 the owner spends on the multiple TOC process (compared to the single TOC approach) will need to be matched by a $2 reduction in the winning TOC (compared to a non-contested TOC).
    - Given that significant portions of the TOC under the single TOC approach are likely to be market tested, any such cost saving/reduction would have to be extracted from a portion of the estimate, making it less likely that the owner's investment in the extra TOC can be recouped.
6. To achieve the full benefits of the multiple TOC approach, both teams need to be the best available from the proponent organisations. This means two sets of quality personnel are dedicated to the project for an extended period of time, although only one set will continue through to deliver the project.

Appendix 4: Multiple TOC approach

If the owner decides to adopt the multiple TOC approach, they should seek specialist advice on the establishment and project development phases. Table A4.1 sets out some of the key risks/issues with the use of the multiple TOC approach and some general guidelines on how they should be addressed.

Table A4.1: Methods for addressing risks and issues in the multiple TOC approach

Key issue/risk	How to address
The psychological/relationship aspects require greater attention.	Set out clearly the reasons for using cost competition and make it clear in all communication with the proponents that the process is not intended to alter the fundamental premise of trust on which alliancing is based. Ensure that the commercial arrangements are in line with the framework set out in Chapter 4 in all respects, apart from the introduction of cost competition to establish the TOC. Acknowledge the additional resources required from the owner and the proponents to properly support the parallel TOC process. Make sure the owner has sufficient resources, including specialist advisers/facilitators, to support a process through the project development phase. Take all reasonable steps to discourage proponents from underbidding in an attempt to secure the work.
Proponents treat the process more like a design and construct bid.	Ensure that the initial selection process is designed so that proponents must put forward their best available team to secure selection. Assign a significant weighting to non-cost elements in selecting the eventual proponent. Ensure that workshops to assess people and attitudes are compatible with alliancing principles and are focused on more than the TOC and other deliverables.

Appendix 5: Examples of comparative assessment of outcomes

Introduction

The hypothetical examples in this appendix show typical results (outputs) of a comparative assessment of outcomes. The examples cover three different kinds of projects that might be considered for treatment as alliances. The examples are entirely hypothetical and are provided to illustrate how the comparative assessment process is applied. This appendix expands on the material in Chapter 3, Selection of project alliancing.

Example 1: road project

In this road project case, project alliancing ranks well behind non-alliance delivery methods, as the project has few features that make it suitable for alliancing.

Project	**10 km stretch of new road between X and Y**
Site	Terrain is flat with existing low level scrub. Geotechnical report indicates local gravel type able to be used for building road base. Local quarry is only 10 minutes away.
Environment	Already has EPA approval
Community	No immediate local community. There are quite a few local rural properties, but they are supportive of the project, as it will assist them in getting their stock/product to market more quickly.
Land acquisition	All land is Commonwealth property.
Heritage claims	No claims to date but will need to be monitored throughout.
Quality	Will need to comply with VicRoads standard specification.
Time	Aim is to complete road within two years of award of contract.
Budget	$20 million – federal funding; State may top up if tenders are higher.

	B	C	D	E	G	H	I	J	K
1	© PCI				In-house design, tender for construct	Outsource design, tender construct	Design & construct	Managing contractor with GMP	Project alliance
2			Victorian Government agency						
3			**Road from X to Y - 10 km**						
4			20-Sep-06						
6				Wgt%	Score	Score	Score	Score	Score
7	**50%**		**Capital Budget**	*100%*	**89.25**	**88.50**	**83.50**	**77.25**	**73.50**
8	A 1		Capital cost must come in at or below $20m (budget P95 limit)	85%	90	90	85	75	75
9	A 2		Owner's contract administration costs to be <=$500K	15%	85	80	75	90	65
18	**25%**		**Road Quality**	*100%*	**90.00**	**90.00**	**83.50**	**90.00**	**90.00**
19	B 1		Must comply with Vic Roads standard as a minimum	85%	90	90	85	90	90
20	B 2		Road noise index to be <=0.9	15%	90	90	75	90	90
29	**5%**		**Time**	*100%*	**85.00**	**85.00**	**85.00**	**80.00**	**95.00**
30	C 1		Must complete within 2 years of award of contract	100%	85	85	85	80	95
40	**20%**		**Maintenance**	*100%*	**77.50**	**77.50**	**75.00**	**75.00**	**75.00**
41	D 1		Projected annual operating cost index must be equal to or less than 1.0	50%	75	75	70	80	80
42	D 2		NPV of 25 year projected maintenance must be <$25m	50%	80	80	80	70	70
122									
123	Summary collection		Capital Budget	50%	89.25	88.50	83.50	77.25	73.50
124			Road Quality	25%	90.00	90.00	83.50	90.00	90.00
125			Time	5%	85.00	85.00	85.00	80.00	95.00
126			Maintenance	20%	77.50	77.50	75.00	75.00	75.00
133									
134	*100%*		**Weighted confidence level (0-100)**	100%	**86.88**	**86.50**	**81.88**	**80.13**	**79.00**
135				**Ranking**	**1**	2	3	4	5

Example 2 – complex infrastructure project

Project:	**Extension of land and coal railway line at a port**
Description	The existing land at Port X needs to be extended by about 20 km to service coal container ships further away from the mainland and in particular further from the environmentally sensitive local mangroves and sea grass areas. The project has been developed in direct response to the overwhelming environmental evidence that the current situation is degrading local waterways at a rapid rate. As part of this project, the existing railway line will also need to be extended and the port has decided to take the opportunity to upgrade some of their loading processes.
Site	Port X
Funding	$100 million from the port authority and $40 million from mining companies A and B
Client partners	Port authority, mining company A and mining company B
Time	18 months from award of contract – needs to be quick to minimise impact on overall business

Some key issues

- The EPA is still deciding how they will assess the project – which has been developed to overcome existing environmental issues. The EPA has requested further information about the impact of the proposed project.
- Community groups: The two main groups interested are a local fishing group and a local waterways group.
- Other mining companies are concerned about the impact it will have on their business.
- The new coal loading processes are highly controversial and the team will need to prove to all concerned parties that the processes will add value.
- The ownership/lease of the existing railway line is currently up for review and this may affect how the railway line is finally delivered.

	B	C	D	E	G	H	I	J	K
1	**© PCI**								
2			Victorian Government agency		In-house design, tender for construct	Outsource design, tender construct	Design & construct	Managing contractor with GMP	Project alliance
3			**Extension of Port and coal railway line**						
4			1-Mar-07						
6				Wgt%	Score	Score	Score	Score	Score
7	**35%**		**Financial performance**	*100%*	**62.50**	**66.00**	**79.50**	**83.00**	**80.50**
8	A	1	Capital cost must come in at or below $170m (budget P95 limit)	50%	60	65	85	85	80
9	A	2	Projected annual operating cost index must be equal to or less than 1.0	10%	75	75	80	85	85
10	A	3	NPV of 25 year projected maintenance must be <$125m	20%	65	70	75	80	80
11	A	4	Revenue ramp up index for 1st 5 years must be 1.0 or greater	20%	60	60	70	80	80
18	**10%**		**Maximises future business opportunities**	*100%*	**80.50**	**78.50**	**76.50**	**82.00**	**90.00**
19	B	1	Facilities must match and in some cases lead international standards	40%	85	80	75	85	90
20	B	2	Rail linkage provided in the most long term cost effective manner	30%	75	75	80	80	90
21	B	3	Flexibility provided for future facility expansion	30%	80	80	75	80	90
29	**15%**		**Environment**	*100%*	**72.50**	**72.50**	**75.00**	**87.50**	**90.00**
30	C	1	Satisfy EPA requirements	50%	80	80	75	90	90
31	C	2	Improve existing situation in regards to degradation to waterways	50%	65	65	75	85	90
40	**10%**		**Optimising stakeholder participation**	*100%*	**73.50**	**73.50**	**79.00**	**82.50**	**88.00**
41	D	1	To be inclusive of each of the local community groups	30%	70	70	75	80	90
42	D	2	Local council to be satisfied	20%	80	80	80	85	85
43	D	3	Improve public perception	20%	70	70	75	80	85
44	D	4	To be no unscheduled/non publicised interruption to existing users	30%	75	75	85	85	90
51	**30%**		**Time**	*100%*	**70.00**	**70.00**	**75.00**	**80.00**	**90.00**
52	E	1	Absolutely must be delivered within 18mths - Port Authority will suffer significantly if this cannot be achieved	100%	70	70	75	80	90
122									
123	**Summary collection**		Financial performance	35%	62.50	66.00	79.50	83.00	80.50
124			Maximises future business opportunities	10%	80.50	78.50	76.50	82.00	90.00
125			Environment	15%	72.50	72.50	75.00	87.50	90.00
126			Optimising stakeholder participation	10%	73.50	73.50	79.00	82.50	88.00
133									
134	*100%*		**Weighted confidence level (0-100)**	100%	**69.15**	**70.18**	**77.13**	**82.63**	**86.48**
135				**Ranking**	5	4	3	2	**1**

Example 3 – building precinct

Project:	**Collaborative research precinct for alternative energy**
Site	Inner city redevelopment of the old docks with buildings of varying quality/safety
Funding	World Bank - $100m, United Nations - $50m, Australian Government - $100m, LG$20m, Microsoft - $50m, Victorian Government - $150m. This group will be known as the Research Building Funding Group (RBFG)
Partners in research	The World Bank went to international tender for a country to respond to developing a research centre solely focused on alternative energies offering the real possibility of commercialisation. The World Bank is not only committing $100 million to infrastructure but will also give $10 million a year for research.
The successful team	Monash University, CSIRO, University of Queensland, Stamford University, Greenpeace, LG, Microsoft, and the Victorian Government. This group will be known as the Collaborative Research Team (CRT).
Precinct	The project will consist of facilities focused on particular energy research.

Some key issues

- Some of the research will be controversial and some of the local community may object.
- The project will be displacing many homeless people. The social impact could be high.
- The local council ear-marked the dock area for a commercial/retail/residential redevelopment and won the last election on that basis.
- Both the RBFG and the CRT have not aligned yet on the exact facilities they need.
- The capital funding from the World Bank is linked to performance of the research outcomes and the Victorian Government has underwritten this.
- Some coal mining groups are lobbying government very hard.
- World Bank has given a three-year deadline for completion and they have appointed independent assessors to give quarterly reports on progress. The Bank has the option to withdraw from the project if milestones are not met.
- The EPA has concerns about the impact of the development on an already degraded river precinct.

	B	C	D	E	G	H	I	J	K
1	**© PCI**								
2			Victorian Government agency						
3			**Collaborative Research Precinct (Alternative Energy)**		In-house design, tender for construct	Outsource design, tender construct	Design & construct	Managing contractor with GMP	Project alliance
4			1-Mar-07						
5									
6				Wgt%	Score	Score	Score	Score	Score
7	**35%**		**Financial performance**	*100%*	**64.00**	**67.50**	**68.75**	**71.00**	**85.00**
8	A	1	Capital cost must come in at or below $420m (budget P95 limit)	60%	60	65	80	70	85
9	A	2	Projected annual operating cost index must be equal to or less than 1.0	15%	65	70	60	60	85
10	A	3	NPV of 25 year projected maintenance must be <$300m	10%	70	75	50	80	85
11	A	4	Revenue ramp up index for 1st 5 years must be 1.0 or greater	15%	75	70	45	80	85
18	**20%**		**Facilities maximise collaborative research opportunities**	*100%*	**69.25**	**72.75**	**68.50**	**75.00**	**86.00**
19	B	1	Facilities must match and in some cases lead international standards	35%	70	80	75	80	85
20	B	2	Linkages are created with other research bodies	15%	60	60	60	70	75
21	B	3	Provide research flexibility and diversity	15%	75	75	70	80	90
22	B	4	Facilities will encourage further investment from private groups	35%	70	70	65	70	90
29	**5%**		**Satisfy Heritage Requirements**	*100%*	**77.50**	**77.50**	**70.00**	**80.00**	**90.00**
30	C	1	Satisfy Heritage Requirements	50%	75	75	70	80	90
31	C	2	Architectural response suits the given context	50%	80	80	70	80	90
40	**25%**		**Optimising stakeholder participation /perception**	*100%*	**70.00**	**56.75**	**69.00**	**72.75**	**86.25**
41	D	1	To be inclusive of both the RBFG and CRT	30%	70	65	75	75	90
42	D	2	Local Council needs to be consulted for expectations	25%	70	65	75	75	90
43	D	3	Improve public perception of the Research Precinct	15%	75	50	70	70	85
44	D	4	Social impacts to local area to be managed sensitively	15%	75	50	65	70	90
45	D	5	Look at opportunities to include the mining industry	15%	60	40	50	70	70
51	**15%**		**Time Imperative**	*100%*	**50.00**	**50.00**	**80.00**	**75.00**	**95.00**
52	E	1	Must make milestones set by Word Bank	70%	50	50	80	75	95
53	E	2	Completion date is not negotiable	30%	50	50	80	75	95
122									
123	**Summary collection**		Financial performance	35%	64.00	67.50	68.75	71.00	85.00
124			Facilities maximise collaborative research opportunities	20%	69.25	72.75	68.50	75.00	86.00
125			Satisfy Heritage Requirements	5%	77.50	77.50	70.00	80.00	90.00
126			Optimising stakeholder participation /perception	25%	70.00	56.75	69.00	72.75	86.25
127			Time Imperative	15%	50.00	50.00	80.00	75.00	95.00
133									
134	*100%*		**Weighted confidence level (0-100)**	100%	**65.13**	**63.74**	**70.51**	**73.29**	**87.26**
135				**Ranking**	4	5	3	2	**1**

Appendix 6: IPAA/PAA versus single alliance agreement

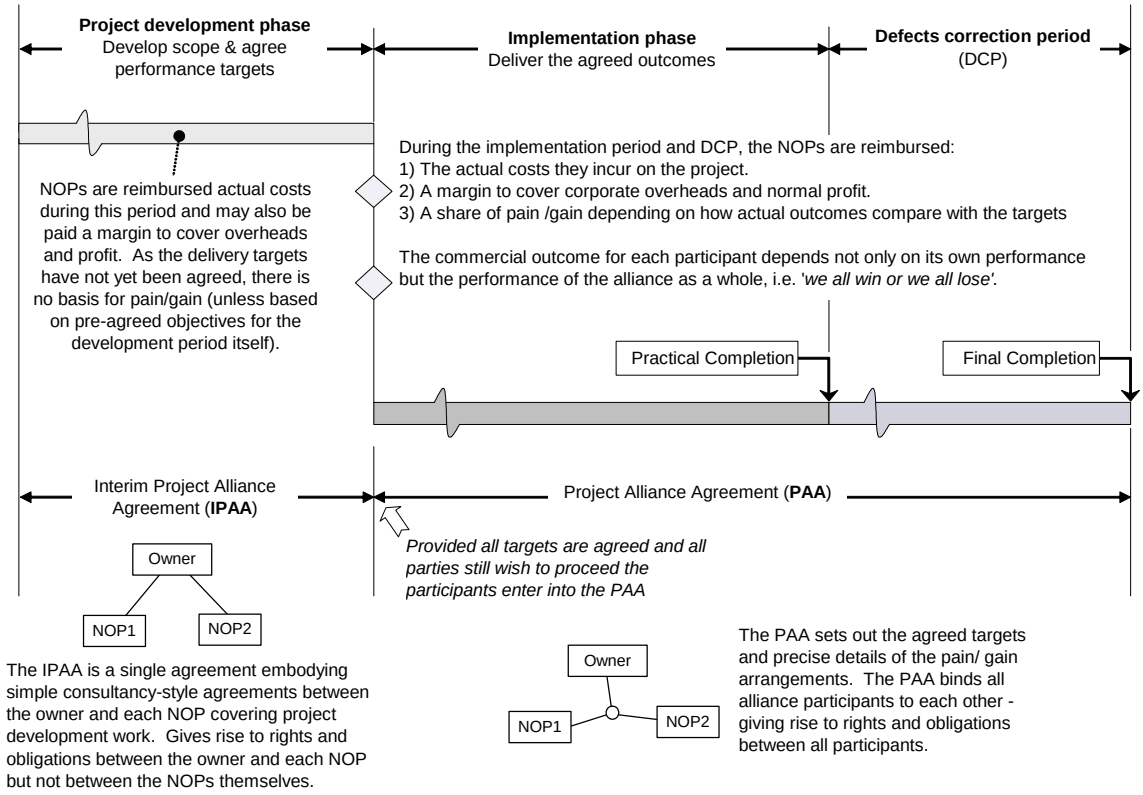
As noted in Chapter 6, there are two broad approaches to setting up the legal framework for a project alliance. In practice, the two-stage IPAA/PAA framework (with an interim project alliance agreement stage) and the single alliance agreement approach achieve essentially the same net effect. The main characteristics of each approach and associated advantages and disadvantages are described briefly in this appendix. Users of this Guide should select the approach that best suits their particular needs, noting that the single consolidated approach is recommended for most situations. Future versions of this Guide may include standard generic templates for each approach. In the meantime, a typical/sample table of contents for each is listed in Appendix 14.

Using the single agreement approach, the participants enter into the alliance agreement at the start of the project development phase. They do this when they undertake to develop and agree the various performance targets and the finer details of associated pain/gain arrangements during the project development phase on this basis:

- If they align on the targets, those targets and the details of the associated pain/gain arrangements will be documented in line with agreed administrative procedures.
- If they are unable to align on the targets, the alliance will be terminated.

The two-stage framework is designed to reflect the distinctly different commercial contexts of the project development and subsequent phases, as illustrated in Figure A6.1.

Figure A6.1: Two-stage IPAA/PAA framework



Under the two-stage framework:

- In the first instance, the participants enter into an interim project alliance agreement (IPAA). All the substantive terms of the project alliance agreement, apart from the details of the performance targets and finer details of the pain/gain arrangements, are generally agreed before entering into the IPAA.

- Once all performance targets are agreed (and assuming the owner still wishes to proceed to implementation based on those targets) the participants then enter into a project alliance agreement (PAA).

Advantages and disadvantages

In both approaches, a budget for the project development phase is agreed before any alliance agreement is entered into and the rights of termination are essentially the same. Table A6.1 is an overview of the perceived advantages and disadvantages of each approach (on the assumption that each approach is properly set up and administered).

Table A6.1: Advantages and disadvantages of IPAA/PAA vs single agreement approach

	Pros and cons	
	IPAA/PAA approach	**Single agreement approach**
Advantages	Mirrors the distinctly different commercial contexts of the project development and subsequent phases.	Differences recognised and can be dealt with effectively using a single agreement.
	May be easier to navigate government processes (e.g. Gateway initiative) as approval can be sought for IPAA expenditure initially, with approval for implementation after all targets have been agreed.	
	Full details of the performance targets and the precise operation of the pain/gain model are set out in the PAA.	Actual targets and finer details of pain/gain are not available at the time the agreement is signed.
	Can finalise the details of insurances during the IPAA and include full details in the PAA.	Details are generally not available at the time the agreement is signed.
	Allows the IPAA to get underway without necessarily having agreement of all the terms of the PAA.	
	More easily adapted to accommodate two competing teams when using the multiple TOC approach).	A single agreement is not suitable when using the multiple TOC approach.
Disadvantages	That there are two separate agreements may result in some extra legal costs and additional time commitments for the ALT members.	Only one agreement to be negotiated and signed
	May be perceived that the alliance is only in 'trial mode' during the IPAA, resulting in a lack of initial resolve within the alliance.	Stronger initial symbolism that the alliance has been formed
	Allows the parties to defer final alignment on the terms of the PAA.	No opportunity to defer discussion/alignment on the terms of the agreement, although some terms not developed in full detail
	Could reduce the pressure for the owner to undertake a rigorous up-front assessment of likely project costs.	Same reduction of pressure could occur with the single agreement approach

Appendix 7: Further discussion of limb 1 issues

Overview of key issues

Some of the main limb 1 issues that need to be addressed by the establishment audits and reflected in the compensation audit plan include the following:

1. External purchases (services, materials, equipment hire etc.) should be relatively straightforward as they are based on the NOP's normal records, e.g. invoices and payments.
2. Costing of internal charges (e.g. staff and wages for personnel, internal plant and equipment, disbursements etc.) requires detailed consideration. For instance:
    - Reimbursement of staff may be on the basis of actual payroll records, with a pre-agreed increase to cover accrued and statutory liabilities. Alternatively, some companies prefer to develop an hourly or daily charge (reflecting the actual cost without mark-up). In this case, the rate needs to be structured carefully to ensure the participant does not receive a windfall or suffer under-recovery where actual working hours and salary payments differ from the assumptions on which the rate is based.
    - Internal plant and equipment must reflect the actual cost to the participant of providing the item (including departmental overheads) without any contribution to corporate overhead or profit. The bases on which 'internal' plant is charged needs to be examined carefully to ensure that this intention is achieved in practice.
    - Contract staff need to be costed at exactly what it actually costs the NOP. For instance if the contract rate already includes a mark-up to cover payroll tax and a workers' compensation premium (WorkCover), then these must not be included a second time.
3. There needs to be a clear demarcation between items reimbursable under limb 1 and items that are treated as corporate overheads and are therefore deemed to be covered by the limb 2 fee. In this respect:
    - In the case of constructor-type organisations, the demarcation is usually fairly obvious, although certain items (e.g. corporate functional support, training, bonuses etc.) need to be clarified.
    - The distinction between limb 1 and limb 2 is not as clear for designer/consultant-type organisations where the business uses corporate facilities for undertaking project work. Based on the FA-E's investigations, the participants need to agree what allowance is to be made within limb 1 for project use of corporate facilities and what items are excluded from limb 1 and deemed to be covered by limb 2. The arrangements need to recognise any reduced cost to the participant where staff members are assigned for significant periods to a dedicated project office (set up for the project where the facilities are paid for by others). This is discussed in more detail in the following section.

Limb 1 issues in design/consultancy firms

Developing an equitable reimbursement model for designer/consultancy organisations is complicated by a number of factors, including:

1. Under a typical design/consultancy business model, most project staff work from the designer's premises, servicing a range of clients. In doing so, project staff make use of the facilities in the consultant's office – occupying space, using equipment and consuming various overhead costs. The demarcation between project overheads and corporate overheads is not clear.

2. In a typical situation the working profile of each staff member is a mixture of:

   - paid time during which the person is available for work – this is time that is normally charged and some time that is not chargeable to a client; some of this is allocated to corporate overheads such as marketing, management and administration tasks, while some may be allocated to a project but not charged to the client;
   - paid time when the person is not available for work, comprising:
     - paid time off work (PTO) such as annual leave and public holidays, sick leave and long-service leave;
     - paid time attending structured training/staff development.
   - time worked but not paid, some of which may be chargeable to the client.

   To make the business viable, the designer/consultant needs to recover in their charge-out rate all the 'lost' time, other project-specific overheads (that are not otherwise reimbursable from the client), corporate overheads and a profit margin. However, the working profile under an alliance may be quite different from the typical non-alliance working profile, especially where staff members are working from a project office. In that case, most of their available time would be costed to the project. The business-as-usual costing model may not then be appropriate. To this end, the amount of full-time staff versus part time-staff for the different NOPs should be considered.

3. The consultant's reimbursement structure under an alliance needs to recognise the unique circumstances of the alliance, such as:

   - The actual working profile of staff assigned to the alliance, who may have a higher than usual percentage of their available time costed to the project.
   - Multipliers for project staff need to reflect actual on-costs and accrued liabilities. This needs to be carefully analysed, especially in respect of overtime, given that many of the usual on-costs and accrued liabilities are fully recovered/spread across ordinary time.
   - Different working implications of working out of a dedicated project office including reduced occupancy and consumption at the consultant's premises. (However, the fact that a person who normally occupies a workstation at the consultant's premises relocates to a project office does not mean that the costs associated with that person in the consultant's premises are eliminated. It may not be possible to 'backfill' that workstation and the person will need to be accommodated back at the consultant's premises when he/she finishes work on the alliance. The expectation is that there will be some reduction, but not a complete elimination, of associated costs at the consultant's premises.)
   - The extent to which introduction of the alliance impacts on the fundamental structure of the consultant's business.
   - Contract staff working from a project office are unlikely to require/consume any of the overheads at the consultant's premises, but it may still be appropriate that they attract some recovery of overheads.

Appendix 8: Further discussion of limb 2 issues

Rationale for mixing fixed fee$ and 'floating' fee%

As noted in section 4.4.2, it is becoming more common on infrastructure projects for constructor's limb 2 fees to be fixed while the designer's limb 2 fee is paid as a percentage of actual costs. The thinking behind this arrangement and its implications are, in summary:

- The limb 2 fee for the constructor is fixed at the time the TOC is locked in. They receive that fee (subject to any agreed variations to the TOC), regardless of whether their actual limb 1 costs are less than or more than the amount allowed within the TCE.

- In contrast, the designer/consultant's limb 2 fee is linked to their actual costs. This means that the actual limb 2 fee cannot be finally determined until work is complete and the full extent of actual costs is known.

The general preference is to avoid rewarding participants for spending more. However, the logic behind the arrangement above is that designers may be called upon to invest additional time (well beyond what is allowed in the TCE) to investigate options and innovations for the overall benefit of the alliance. If the designer's limb 2 fee is fixed, it could create a situation where it is not in a designer's commercial interests to carry out additional work and commit extra resources because of their relatively small share of any prospective benefits. An alternative way of addressing this is to keep the designer's limb 2 fee fixed, but increase their share of the limb 3 upside. This would create an appropriate incentive to carry out the additional work in the overall interests of the alliance.

It is up to the participants to manage expenditure on engineering and consulting hours collectively. The limb 1 cost and the limb 2 fee associated with any unnecessary inputs by designers are included in the actual outturn cost (AOC). This is compared with the final TOC to calculate the overrun/underrun. Therefore, any waste is borne equitably by all participants under the limb 3 arrangements.

Why owners might expect fee%s to be lower than historical

It is noted in section 4.4.3 that historical fee%s should be adjusted to reflect the particular context of the alliance. In this respect it may be reasonable for the owner to expect the fee%s to be lower than historical trends as indicated in Table A8.1.

Table A8.1: Factors in setting fee%s in project alliances

Factor	Elements
Risk/opportunity profile	• The overall risk for the NOPs is capped (limited to the loss of the limb 2 fee, with reimbursement of limb 1 assured). This is downside protection that is generally not provided, especially for constructors, under non-alliance forms of contract. • Greater opportunity for innovation • Greater control over own destiny; because of the requirement for unanimous decisions at ALT level, cannot have solution imposed. • No residual risk for defects beyond final completion
Joint development of the TCE	The TCE is developed on the principle that the TOC represents a genuine pre-estimate of the most likely outturn cost for the project, based on a rigorous joint analysis and shared understanding of all aspects of the estimate, including provisions for risks and opportunities. The fee% should reflect this.
Lower bid cost	The cost of winning the work may be significantly lower than for traditional contracts, at least in the case of constructors.
Strategic benefits	The NOPs stand to secure considerable strategic benefits from their participation in the alliance – including enhanced relationships and reputation, accelerated development of leadership and management capabilities and much greater staff satisfaction. It is not unreasonable to recognise this at a corporate level and perhaps take it into account when establishing the fee%s.
Better spread of corporate overheads	In some cases, the introduction of the alliance work into the business unit can significantly increase the turnover of the business, without incurring an equivalent increase in the corporate overheads of the business. This should result in a reduced corporate overhead percentage, as the overheads can be spread over a larger base.

On the other hand, other factors may tend to increase the fee% compared to historical trends; for instance:

- Senior people will be required to provide support as ALT members at no direct charge to the project, on the assumption that those costs are recovered in the corporate overheads. Alliance contracts tend to take up a disproportionate amount of senior management time.

- The cost of winning the work may be higher than for traditional contracts, at least for consultants.

Appendix 9: Further discussion of limb 3 issues

Historical linkage

The TOC must be a reasonable estimate of what it should take to deliver the agreed scope of work, taking into account:

- the as-targeted outcomes the participants have committed to achieving through:
  - the schedule
  - quality/performance specifications; and
  - target outcomes in all other non-cost performance areas; these targets must be equal to or better than current best practice, consistent with a high-performance project team;
- current best-in-class efficiency practices in design, construction, installation and commissioning of similar projects, consistent with the standards expected of a high performance project team;
- demonstrated productivities achieved by NOPs on previous comparable projects – using data from nominated benchmark projects and other sources as a reference;
- the risk being assumed by alliance participants (see discussion on variations in section 6.2.8 and section 4.5.6);
- all information available at the time the estimate is compiled, including any innovative ideas/strategies emerging at the time.

Developing the KRA/KPI framework

Apart from cost and time targets, key performance indicators (KPIs) in other key result areas (KRAs) tend to be difficult to measure objectively. In this respect, some of the key risks/issues to be considered include:

1. KPIs should focus on the most important aspects for the owner and the measurement framework should be as simple as possible. It is better to have a few measures that team members can easily understand and rationalise than too many measures, or measures that are too complex and try to address every single aspect of the project.
2. It is important for the team members to have a sense of ownership and to be fully committed to achieving the various targets. However, because measurement is so subjective, any attempt to get a large team involved in developing the measurement framework can be wasteful, since different people have very different ideas on how things should be measured. A suggested approach/process to counter this is:
   - Conduct a brief workshop with relevant owner representatives to identify the areas that are most important to the owner and develop initial thoughts on associated KPIs and how they might be measured. (This should be linked to the objectives analysis discussed in section 3.2.3.)
   - A small group, led by someone with specialist expertise in developing KRA/KPI measurement frameworks, develops a preliminary draft of proposed KRA/KPI measurement framework based on the outcomes of the initial workshop. Keep it simple and focused.

- Issue the draft KRA/KPI framework as part of the RFP package and seek general feedback from proponents on the proposed approach in written submissions and/or at interviews or workshops.
- Further discuss the proposed framework with the preferred proponent during the commercial alignment discussions and agree on the higher level parameters (e.g. KRAs, main KPIs, weightings, how they will be linked into the limb 3 pain/gain model, etc.)
- Once the alliance is established, a small joint team is given the task of developing the final measurement framework for review/approval by the AMT and ultimately the ALT. The taskforce needs to be provided with clear guidance on what aspects of the framework are already locked in and what aspects it is free to further explore/develop.

Of course, the general approach needs to be customised to suit the circumstances of the project. It may not be practical to follow the process as mapped out above. It may be appropriate for the owner to engage external specialists with experience in developing/facilitating KRA/KPI measurement frameworks.

3. Whatever method is used, the finally agreed framework should be documented in some sort of plan. Such a document, which might form part of the overall alliance management plan, might typically include the following sections or topics:
   - introduction (covering background, context, authorities for change to procedures etc.)
   - summary of owner's key drivers, objectives and associated rationale
   - overview of KRA/KPI measurement framework, including key principles, linkage to pain/gain etc.
   - procedures for how each element is measured and scored, including timing and responsibilities, validation etc.
   - worked examples to demonstrate the methodology.
4. Aligning on broad principles about what would constitue inferior, normal or superior performance is is another issue to consider. In this respect, Table A9.1 sets out the general guidelines adopted by one alliance for establishing specific non-cost KRA targets across the performance spectrum.

Figure A9.1: Non-cost KRAs for a sample alliance

Breakthrough/ gamebreaking	• Haven't seen it done before. • Can't be done using past practices. • Paradigm shift/requires a new way of thinking. • Don't know how to do it. • We can imagine it; we believe it can be done; we are committed to it.
Stretch	• Has been done before, but only rarely. • We can see a way to do it. • Can use previous practices, but will have to stretch resources/people to the limit to achieve it. • Not a paradigm shift/does not require a new way of thinking.
As targeted	• Significantly better than has been consistently achieved by the individual participants working in a non-alliance environment. • Expected levels of performance, consistent with a best-in-class project team.

Variation alignment process

The following process has been developed and used[35] to secure alignment among ALT and AMT members on the principles underpinning what will and will not constitute a variation.

1. Before substantive work is done on quantifying the project risks, a joint taskforce compiles a questionnaire with 30 to 40 different scenarios describing situations that could arise during the implementation (pain/gain) stage of the alliance.
2. Representatives from all participants (including proposed ALT and AMT members and some members of the wider team) are asked to give their individual opinions on whether each of the hypothetical scenarios should/would constitute a variation. This is based on their interpretation of the alliance agreement, as well as their own experience, judgement and expectations.
3. All responses are consolidated into a single spreadsheet to highlight areas of alignment and misalignment.
4. A workshop is conducted to review all responses and reach alignment on each scenario. The outcome of this workshop will be recorded in an 'interim variation benchmarking guidelines' document.
5. The thinking behind the interim variation benchmarking guidelines is to use them during TCE development to help inform the risk/opportunity profile that all participants will share under the alliance. In effect, the risk profile reflected in the interim variation benchmarking guidelines provides the initial premise for what risks/opportunities the estimating team should allow for within the TCE.
6. Towards the end of the project development/IPAA phase, before the TCE is finalised, the variation benchmarking guidelines are revisited and finalised in a review workshop. The aim of the review is to include any additional scenarios and reflect any changes in thinking coming from the evaluation of risks and opportunities during the development of the TCE. The general purpose is to ensure all key players are still fully aligned as they enter into the implementation (pain/gain) phase of the alliance. The alignment reached at this further workshop should be recorded in a final variation benchmarking guidelines document.

It is not intended that the variation benchmarking guidelines document itself forms part of the alliance agreement. Rather, it is an informal reference for those who participate in the benchmarking process. It is also a primary guide for the AMT when deciding whether or not to recommend a variation and for the ALT when making a decision on a variation. (On that basis, it is important as the alliance proceeds that the ALT ensures that any new person joining the ALT undergoes a similar process before they are accepted into the ALT. The aim is to ensure that they are aligned with the thinking of the rest of the group. Similarly, although this is not as critical, newcomers to the AMT should be brought up to speed on the principles for the risks that the alliance takes collectively.)

[35] Ross, J. *Introduction to Project Alliancing*, 2003, p. 9. (See Reference list.)

Appendix 10: Generic compensation model with worked examples

Context

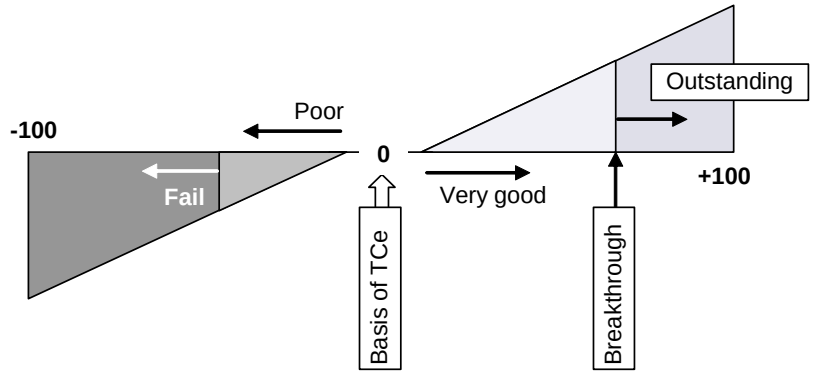
Appendix 10 describes a generic compensation model that can be used on almost any project alliance and can be adapted to provide a wide range of incentive options by varying its parameters.

Worked examples of the operation of the model are provided, based on a hypothetical TCE, with examples of Monte Carlo simulation of the predicted bottom-line outcome for each of the alliance participants.

Standard measurement scale for non-cost performance

Performance in each of the KRAs (other than cost overrun/underrun) is measured using KPIs, expressed in all cases as a KPI score between -100 and +100 where the scoring is mapped to a performance spectrum as illustrated in Figure A10.1.

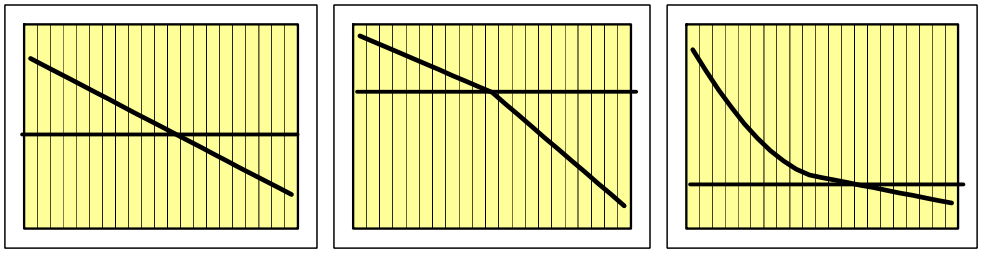
Figure A10.1: KRA performance spectrum



A KRA score (also between -100 and 100) is calculated as the weighted average of the various KPI scores in each KRA. An overall performance score (OPS) is then calculated as the weighted average of the various KRA scores. KPI and KRA scores would usually be monitored on a regular basis during the alliance. However, linking the OPS to limb 3 pain/gain would typically only be done at key milestone points during the project, such as practical and final completion.

Note that the pain/gain profile for particular KPIs may not be symmetrical and the curves may not be linear. The actual profiles will need to reflect the actual value to the owner.

Figure A10.2: Samples of pain/gain profiles



The OPS reflects the outcome across all the KRAs it covers, specifically:

- If the score is greater than zero, then the alliance, on balance, will have achieved better outcomes than targeted. As a means of sharing some of the associated additional value created by the alliance,[36] the owner undertakes to pay a 'reward' to the NOPs.

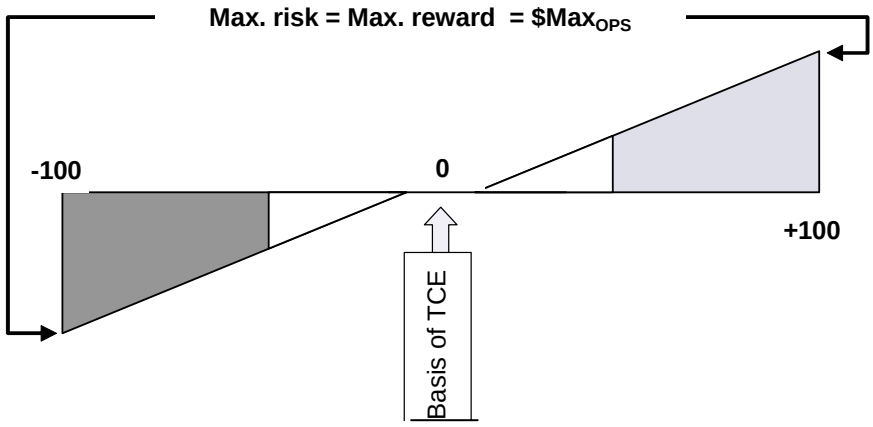
- If the score is negative, then the alliance, on balance, will have achieved outcomes that are inferior to those targeted. As a means of sharing some of the associated 'pain' suffered by the owner (however difficult this may be to quantify), NOPs will make a payment to the owner.

Linking non-cost KRAs into the limb 3 pain/gain model

The two mechanisms described below are possible/practical ways of linking the OPS to limb 3 pain/gain payment(s):

1. The OPS could be linked to a fixed (maximum) lump sum pain/gain amount. If the OPS exceeds zero, the owner would make an extra payment to the NOPs on a linear sliding scale up to the pre-agreed maximum ($MaxOPS) for an OPS = +100. Conversely, if the OPS is negative, the NOPs would make a payment to the owner on a linear sliding scale, up to a maximum of $MaxOPS for an OPS of –100. If the OPS was zero, then there would be no payment either way, since the outcomes achieved by the alliance (on balance) would be in line with the pre-agreed targets on which the TCE was based.

   Figure A10.3: Linking the OPS to the lump sum pain/gain amount



[36] It may be impossible to accurately quantify in conventional terms the value to the owner of superior or inferior outcomes in some of these areas – particularly those that relate to social responsibilities and levels of stakeholder satisfaction.

2. As a further (independent and additional) incentive to ensure that performance in these areas is not compromised in pursuit of cost savings, the NOPs' share of any underruns or overruns can be modified. This can take the share from the default 50 per cent up to a pre-agreed maximum percentage deviation (Sens%), on a sliding scale in proportion to the actual OPS.

   For instance, if Sens% = +/-20 per cent, the default underrun/overrun sharing ratio of 50 per cent is adjusted by up to +/-20 per cent, depending on the OPS. On this basis, the underrun sharing ratio for the NOPs would be as shown in Table A10.1.

Table A10.1: NOPs' underrun sharing ratio

For an OPS of →	-100	-50	0	+50	+100
Deviation from 50%	-20%	-10%	-	+10%	+20%
Underrun share	30%	40%	50%	60%	70%

Pain via reduced share of underrun

Gain via increased share of underrun

A similar adjustment would/could be made to the default 50 per cent sharing for overruns. For example, NOPs' share of overruns would be reduced for superior OPS (> 0) and increased for inferior OPS outcomes (< 0) as illustrated in Table A10.2.

Table A10.2: NOPs' overrun sharing ratios

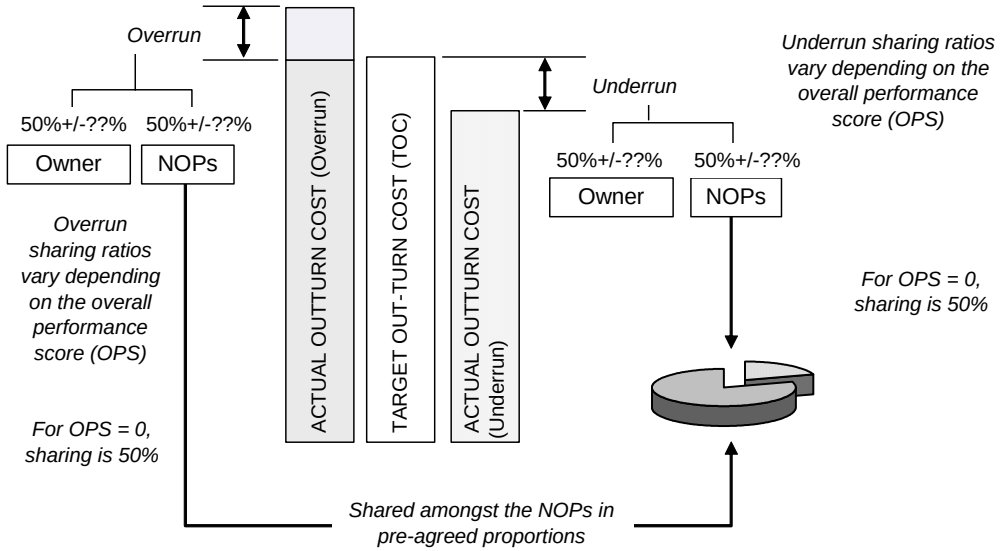
For an OPS of →	-100	-50	0	+50	+100
Deviation from 50%	+20%	+10%	-	-10%	-20%
Overrun share	70%	60%	50%	40%	30%

Pain via increased share of overrun

Gain via decreased share of overrun

The effect of the second mechanism is illustrated in Figure A10.4.

Figure A10.4: Sens% mechanism for moderating share of overruns/underruns



These mechanisms can be used together or in isolation. Another option would be for mechanism two (Sens%) to apply only in the case of underruns (i.e. not applied to any overruns). While mechanism two (Sens%) on its own may provide a strong pain/gain incentive, the closer the AOC is to the TOC, the less commercial impact it has. For example, if the AOC equals the TOC, then the operation of Sens% has zero commercial impact.

By combining mechanism two with mechanism one, there will always be an amount at stake on performance in the non-cost, non-time KRAs, regardless of the cost outcome. The further the pendulum swings into an underrun/overrun situation, the more there is at stake for these KRAs. The magnitude of this increase will be determined by the size of Sens%. This should counteract any tendency to achieve reductions in cost by compromising performance in non-cost KRAs.

The commercial deal can be 'tuned' by changing the model parameters. For instance, by increasing $\$Max_{OPS}$ and decreasing (or even eliminating) the Sens%s, the impact of a good/bad OPS would be less sensitive to (or independent from) the cost outcome. Further, individual KPIs could be treated separately from the OPS. For example, schedule performance is often set up as a pain/gain mechanism in its own right and this could be kept separate from the OPS.

Worked examples of generic model

The following examples of the application of the generic model are generated from an Excel spreadsheet on the basis that:

1. All examples are completely hypothetical, and are based on a sample TCE used above and the following limb 3 model parameters:

    - Default sharing for underruns/overruns is 50:50 (i.e. owner 50 per cent : NOPs 50 per cent).
    - Constructor NOP1's limb 2 fee$ is locked in, based on the numbers in the TCE. Consultant NOP2's limb 2 fee is determined by applying the fee%s to the actual limb 1 costs incurred.
    - Sharing of painshare/gainshare between NOPs is based on the proportion of the eventual limb 2 fees. There is no uplift on NOP2's share of pain/gain (to keep examples simpler).

- OPS is linked to pain/gain with the following parameters:
  - $MaxOPS = +/-$3,000,000 (and owner sets aside a provision against 50 per cent of upside).
  - Sens% of +/- 20 per cent (applies to both underrun and overrun).
- Capping on NOPs' upside/downside – no express cap on upside potential, and downside risk capped at loss of limb 2 fee.

2. For each scenario, the following input variables determine the level of performance (referring to a sample extract in Table A10.3):

- The figures in the first row of columns D, E and F show the budget performance factor (PF) for each participant, i.e. the ratio between actual cost and the amount in the TCE for that participant in respect of PAA work.
- The OPS (25) is shown in column D.

Table A10.3: Generic compensation model – data

	A	B	C	D	E	F	G	H	I
1				**Owner**	**Constructor**	**Consultant**	**–NOPs**		**Total**
15	**Actual**	**Post-TCE**	Budget PF	1.10	0.97	1.06	0.98		0.98
16			Limb 1	4,946,700	72,750,000	5,300,000	78,050,000		82,996,700
17			Limb 2		8,250,000	1,643,000	9,893,000		9,893,000
18			Total	4,946,700	81,000,000	6,943,000	87,943,000		92,889,700
19									
20		**Combined**	Limb 1	5,946,700	75,300,000	6,750,000	82,050,000		87,996,700
21			Limb 2		8,530,500	2,065,500	10,596,000		10,596,000
22			**AOC**	5,946,700	83,830,500	8,815,500	92,646,000		98,592,700
23									
24			**Savings**	(449,700)	2,250,000	(393,000)	1,857,000		**1,407,300**
25									
26	**Limb 3**	Gainsharing ratios		50.00%	40.25%	9.75%	50.00%		
27				Within NOPs	80.51%	19.49%	100.00%		
28									
29		Direct from OPS for OPS =		25	603,801	146,199	750,000		
30		Underrun share		55.00%	623,135	150,880	774,015		
31		Overrun share		n/a	-	-	-		
33		**Total limb 3 all sources (before caps)**			1,226,936	297,079	**1,524,015**		
34					*No gain cap*	*No gain cap*			
35		**Total limb 3 (with caps applied)**			1,226,936	297,079	1,524,015		

The bottom-line result for each of the participants is shown separately. While it is appropriate for each of the participants to consider how the 'performance' of other participants may affect their own bottom line, it is intended that once the alliance is set up, it would be neither meaningful nor appropriate to consider the performance of one participant apart from the performance of the alliance as a whole. The analysis is designed to be used to help participants understand the implications of proposed pain/gain arrangements. It is not intended to be used retrospectively once the alliance is up and running.

Scenario 1: Everything exactly as planned

	A	B	C	D	E	F	G	H	I	J	K
1				**Owner**	**Constructor**	**Consultant**	**–NOPs**		**Total**		
15	**Actual**	**Post-TCE**	Budget PF	1.00	1.00	1.00	1.00		1.00		
16			Limb 1	4,497,000	75,000,000	5,000,000	80,000,000		84,497,000		
17			Limb 2		8,250,000	1,550,000	9,800,000		9,800,000		
18			Total	4,497,000	83,250,000	6,550,000	89,800,000		94,297,000		
19											
20		**Combined**	Limb 1	5,497,000	77,550,000	6,450,000	84,000,000		89,497,000		
21			Limb 2		8,530,500	1,972,500	10,503,000		10,503,000		
22			**AOC**	5,497,000	86,080,500	8,422,500	94,503,000		100,000,000		
23											
24			**On budget**	-	-	-	-		**-**		
25											
26	**Limb 3**		No pain /gain	50.00%	40.61%	9.39%	50.00%				
27				Within NOPs	81.22%	18.78%	100.00%				
28											
29			Direct from OPS for OPS =	0	-	-	-				
30			Underrun share	50.00%	-	-	-				
31			Overrun share	50.00%	-	-	-				
33			**Total limb 3 all sources (before caps)**		-	-	**-**				
34											
35			**Total limb 3 (with caps applied)**		-	-	-				
36											
37	**Overall Summary**			**Owner**	**Constructors**	**Consultants**	**–NOPs**		**Total**		
38	**Target**	Limb 1		5,497,000	77,550,000	6,450,000	84,000,000		89,497,000		
39		Limb 2			8,530,500	1,972,500	10,503,000		10,503,000		100,000,000
40		Limb 1 + Limb 2		5,497,000	86,080,500	8,422,500	94,503,000		100,000,000		1,500,000
41		Limb 2 as a % of Limb 1			11.00%	30.58%	12.50%				101,500,000
42											Owner alliance budget
43	**Actual**	Limb 1		5,497,000	77,550,000	6,450,000	84,000,000		89,497,000		
44		Limb 2			8,530,500	1,972,500	10,503,000		10,503,000		
45		Limb 3			-	-	-		-		100,000,000
46		Limbs 2 + 3 (gross margin)			8,530,500	1,972,500	10,503,000				Owner actual
47		Limbs 1 + 2 + 3 (revenue)			86,080,500	8,422,500	94,503,000				
48											Owner savings
49	**Margin**	L2+3 as a % of original limb 1 target			11.00%	30.58%	12.50%				1,500,000
50		L2+3 as a % of actual costs			**11.00%**	**30.58%**	12.50%				0.9852
51		L2+3 as a % of revenue			9.91%	23.42%	11.11%				Owner spend factor

Scenario 2: Good all round performance

	A	B	C	D	E	F	G	H	I	J	K
1				**Owner**	**Constructor**	**Consultant**	**□NOPs**		**Total**		
15	**Actual**	**Post-TCE**	Budget PF	0.95	0.95	0.95	0.95		0.95		
16			Limb 1	4,272,150	71,250,000	4,750,000	76,000,000		80,272,150		
17			Limb 2		8,250,000	1,472,500	9,722,500		9,722,500		
18			Total	4,272,150	79,500,000	6,222,500	85,722,500		89,994,650		
19											
20		**Combined**	Limb 1	5,272,150	73,800,000	6,200,000	80,000,000		85,272,150		
21			Limb 2		8,530,500	1,895,000	10,425,500		10,425,500		
22			**AOC**	5,272,150	82,330,500	8,095,000	90,425,500		95,697,650		
23											
24			**Savings**	224,850	3,750,000	327,500	4,077,500		**4,302,350**		
25											
26	**Limb 3**	Gainsharing ratios		50.00%	40.91%	9.09%	50.00%				
27				Within NOPs	81.82%	18.18%	100.00%				
28											
29		Direct from OPS for OPS =		35	859,146	190,854	1,050,000				
30		Underrun share		57.00%	2,006,588	445,752	2,452,339				
31		Overrun share		n/a	-	-	-				
33		**Total limb 3 all sources (before caps)**			2,865,734	636,606	**3,502,339**				
34					*No gain cap*	*No gain cap*					
35		**Total limb 3 (with caps applied)**			2,865,734	636,606	3,502,339				
36											
37	**Overall Summary**			**Owner**	**Constructors**	**Consultants**	**□NOPs**		**Total**		
38	**Target**	Limb 1		5,497,000	77,550,000	6,450,000	84,000,000		89,497,000		
39		Limb 2			8,530,500	1,972,500	10,503,000		10,503,000		100,000,000
40		Limb 1 + Limb 2		5,497,000	86,080,500	8,422,500	94,503,000		100,000,000		1,500,000
41		Limb 2 as a % of Limb 1			11.00%	30.58%	12.50%				101,500,000
42											Owner alliance budget
43	**Actual**	Limb 1		5,272,150	73,800,000	6,200,000	80,000,000		85,272,150		
44		Limb 2			8,530,500	1,895,000	10,425,500		10,425,500		
45		Limb 3			2,865,734	636,606	3,502,339		3,502,339		99,199,989
46		Limbs 2 + 3 (gross margin)			11,396,234	2,531,606	13,927,840				Owner actual
47		Limbs 1 + 2 + 3 (revenue)			85,196,234	8,731,606	93,927,840				
48											Owner savings
49	**Margin**	L2+3 as a % of original limb 1 target			14.70%	39.25%	16.58%				2,300,010
50		L2+3 as a % of actual costs			**15.44%**	**40.83%**	17.41%				0.9773
51		L2+3 as a % of revenue			13.38%	28.99%	14.83%				Owner spend factor

Scenario 3: Poor performance all round

	A	B	C	D	E	F	G	H	I	J	K	L
1				**Owner**	**Constructor**	**Consultant**	**NOPs**		**Total**			
15	**Actual**	**Post-TCE**	Budget PF	1.20	1.05	1.30	1.07		1.07			
16			Limb 1	5,396,400	78,750,000	6,500,000	85,250,000		90,646,400			
17			Limb 2		8,250,000	2,015,000	10,265,000		10,265,000			
18			Total	5,396,400	87,000,000	8,515,000	95,515,000		100,911,400			
19												
20		**Combined**	Limb 1	6,396,400	81,300,000	7,950,000	89,250,000		95,646,400			
21			Limb 2		8,530,500	2,437,500	10,968,000		10,968,000			
22			**AOC**	6,396,400	89,830,500	10,387,500	100,218,000		106,614,400			
23												
24			**Overrun**	(899,400)	(3,750,000)	(1,965,000)	(5,715,000)		**(6,614,400)**			
25												
26	**Limb 3**		Painsharing ratios	50.00%	38.89%	11.11%	50.00%					
27				Within NOPs	77.78%	22.22%	100.00%					
28												
29			Direct from OPS for OPS =	-10	(233,329)	(66,671)	(300,000)					
30			Underrun share	n/a	-	-	-					
31			Overrun share	52.00%	(2,675,105)	(764,383)	(3,439,488)					
33			**Total limb 3 all sources (before caps)**		(2,908,434)	(831,054)	**(3,739,488)**					
34												
35			**Total limb 3 (with caps applied)**		(2,908,434)	(831,054)	(3,739,488)					
36												
37	**Overall Summary**			**Owner**	**Constructors**	**Consultants**	**NOPs**		**Total**			
38	**Target**	Limb 1		5,497,000	77,550,000	6,450,000	84,000,000		89,497,000			
39		Limb 2			8,530,500	1,972,500	10,503,000		10,503,000		100,000,000	
40		Limb 1 + Limb 2		5,497,000	86,080,500	8,422,500	94,503,000		100,000,000		1,500,000	
41		Limb 2 as a % of Limb 1			11.00%	30.58%	12.50%				101,500,000	
42											Owner alliance budget	
43	**Actual**	Limb 1		6,396,400	81,300,000	7,950,000	89,250,000		95,646,400			
44		Limb 2			8,530,500	2,437,500	10,968,000		10,968,000			
45		Limb 3			(2,908,434)	(831,054)	(3,739,488)		(3,739,488)		102,874,912	
46		Limbs 2 + 3 (gross margin)			5,622,066	1,606,446	7,228,512				Owner actual	
47		Limbs 1 + 2 + 3 (revenue)			86,922,066	9,556,446	96,478,512					
48											Owner overspend	
49	**Margin**	L2+3 as a % of original limb 1 target			7.25%	24.91%	8.61%				(1,374,912)	
50		L2+3 as a % of actual costs			**6.92%**	**20.21%**	8.10%				1.0135	
51		L2+3 as a % of revenue			6.47%	16.81%	7.49%				Owner spend factor	

Scenario 4: Mixed performance

	A	B	C	D	E	F	G	H	I	J	K
1				**Owner**	**Constructor**	**Consultant**	**NOPs**		**Total**		
15	**Actual**	**Post-TCE**	Budget PF	1.20	0.97	1.48	1.00		1.01		
16			Limb 1	5,396,400	72,750,000	7,400,000	80,150,000		85,546,400		
17			Limb 2		8,250,000	2,294,000	10,544,000		10,544,000		
18			Total	5,396,400	81,000,000	9,694,000	90,694,000		96,090,400		
19											
20		**Combined**	Limb 1	6,396,400	75,300,000	8,850,000	84,150,000		90,546,400		
21			Limb 2		8,530,500	2,716,500	11,247,000		11,247,000		
22			**AOC**	6,396,400	83,830,500	11,566,500	95,397,000		101,793,400		
23											
24			**Overrun**	(899,400)	2,250,000	(3,144,000)	(894,000)		**(1,793,400)**		
25											
26	**Limb 3**		Painsharing ratios	50.00%	37.92%	12.08%	50.00%				
27				Within NOPs	75.85%	24.15%	100.00%				
28											
29			Direct from OPS for OPS =	20	455,081	144,919	600,000				
30			Underrun share	n/a	-	-	-				
31			Overrun share	46.00%	(625,710)	(199,254)	(824,964)				
33			**Total limb 3 all sources (before caps)**		(170,628)	(54,336)	**(224,964)**				
34											
35			**Total limb 3 (with caps applied)**		(170,628)	(54,336)	(224,964)				
36											
37	**Overall Summary**			**Owner**	**Constructors**	**Consultants**	**NOPs**		**Total**		
38	**Target**	Limb 1		5,497,000	77,550,000	6,450,000	84,000,000		89,497,000		
39		Limb 2			8,530,500	1,972,500	10,503,000		10,503,000		100,000,000
40		Limb 1 + Limb 2		5,497,000	86,080,500	8,422,500	94,503,000		100,000,000		1,500,000
41		Limb 2 as a % of Limb 1			11.00%	30.58%	12.50%				101,500,000
42											Owner alliance budget
43	**Actual**	Limb 1		6,396,400	75,300,000	8,850,000	84,150,000		90,546,400		
44		Limb 2			8,530,500	2,716,500	11,247,000		11,247,000		
45		Limb 3			(170,628)	(54,336)	(224,964)		(224,964)		101,568,436
46		Limbs 2 + 3 (gross margin)			8,359,872	2,662,164	11,022,036				Owner actual
47		Limbs 1 + 2 + 3 (revenue)			83,659,872	11,512,164	95,172,036				
48											Owner overspend
49	**Margin**	L2+3 as a % of original limb 1 target			10.78%	41.27%	13.12%				(68,436)
50		L2+3 as a % of actual costs			**11.10%**	**30.08%**	13.10%				1.0007
51		L2+3 as a % of revenue			9.99%	23.12%	11.58%				Owner spend factor

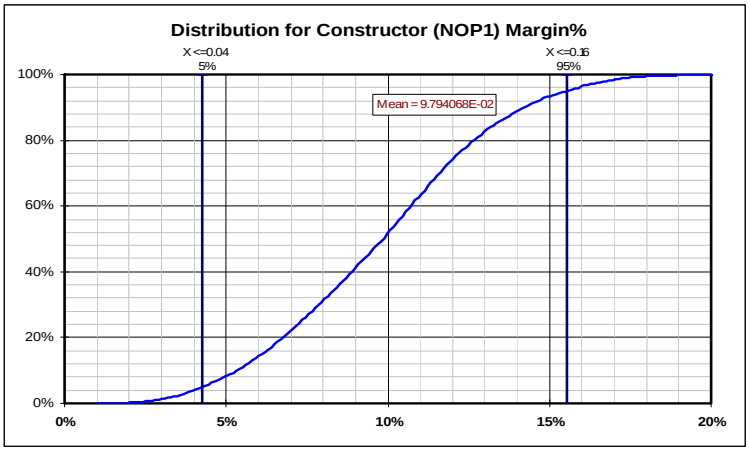
Scenario 5: Disastrous performance

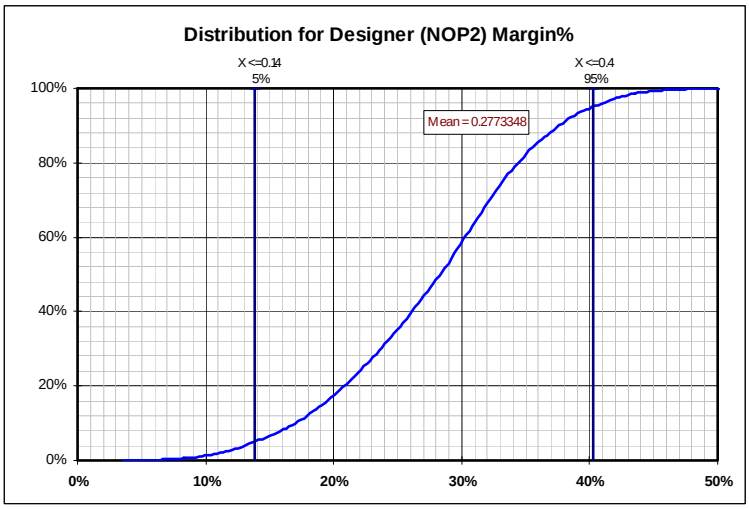
	A	B	C	D	E	F	G	H	I	J	K
1				**Owner**	**Constructor**	**Consultant**	**NOPs**		**Total**		
15	**Actual**	**Post-TCE**	Budget PF	1.10	1.20	1.50	1.22		1.21		
16			Limb 1	4,946,700	90,000,000	7,500,000	97,500,000		102,446,700		
17			Limb 2		8,250,000	2,325,000	10,575,000		10,575,000		
18			Total	4,946,700	98,250,000	9,825,000	108,075,000		113,021,700		
19											
20		**Combined**	Limb 1	5,946,700	92,550,000	8,950,000	101,500,000		107,446,700		
21			Limb 2		8,530,500	2,747,500	11,278,000		11,278,000		
22			**AOC**	5,946,700	101,080,500	11,697,500	112,778,000		118,724,700		
23											
24			**Overrun**	(449,700)	(15,000,000)	(3,275,000)	(18,275,000)		**(18,724,700)**		
25											
26	**Limb 3**	Painsharing ratios		50.00%	37.82%	12.18%	50.00%				
27				Within NOPs	75.64%	24.36%	100.00%				
28											
29		Direct from OPS for OPS =		-25	(567,288)	(182,712)	(750,000)				
30		Underrun share		n/a	-	-	-				
31		Overrun share		55.00%	(7,789,686)	(2,508,899)	(10,298,585)				
33		**Total limb 3 all sources (before caps)**			(8,356,974)	(2,691,611)	**(11,048,585)**				
34											
35		**Total limb 3 (with caps applied)**			(8,356,974)	(2,691,611)	(11,048,585)				
36											
37	**Overall Summary**			**Owner**	**Constructors**	**Consultants**	**NOPs**		**Total**		
38	**Target**	Limb 1		5,497,000	77,550,000	6,450,000	84,000,000		89,497,000		
39		Limb 2			8,530,500	1,972,500	10,503,000		10,503,000		100,000,000
40		Limb 1 + Limb 2		5,497,000	86,080,500	8,422,500	94,503,000		100,000,000		1,500,000
41		Limb 2 as a % of Limb 1			11.00%	30.58%	12.50%				101,500,000
42											Owner alliance budget
43	**Actual**	Limb 1		5,946,700	92,550,000	8,950,000	101,500,000		107,446,700		
44		Limb 2			8,530,500	2,747,500	11,278,000		11,278,000		
45		Limb 3			(8,356,974)	(2,691,611)	(11,048,585)		(11,048,585)		107,676,115
46		Limbs 2 + 3 (gross margin)			173,526	55,889	229,415				Owner actual
47		Limbs 1 + 2 + 3 (revenue)			92,723,526	9,005,889	101,729,415				
48											Owner overspend
49	**Margin**	L2+3 as a % of original limb 1 target			0.22%	0.87%	0.27%				(6,176,115)
50		L2+3 as a % of actual costs			**0.19%**	**0.62%**	0.23%				1.0608
51		L2+3 as a % of revenue			0.19%	0.62%	0.23%				Owner spend factor

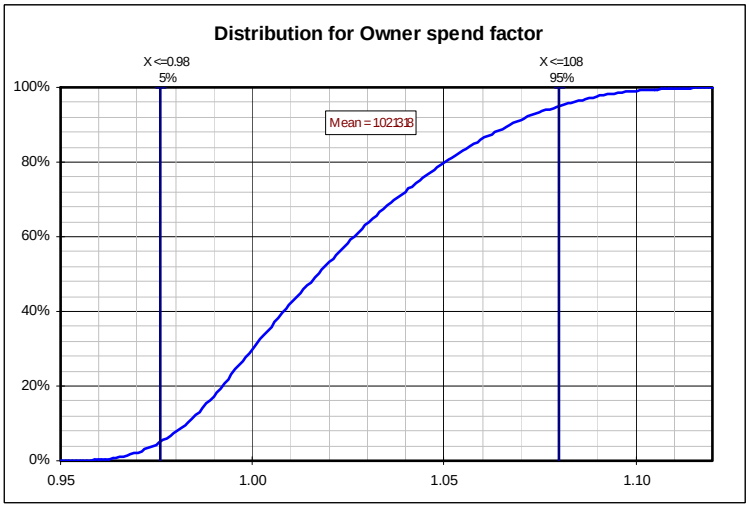
Scenario 6: Outstanding performance

	A	B	C	D	E	F	G	H	I	J	K
1				**Owner**	**Constructor**	**Consultant**	**NOPs**		**Total**		
15	**Actual**	**Post-TCE**	Budget PF	0.90	0.90	0.90	0.90		0.90		
16			Limb 1	4,047,300	67,500,000	4,500,000	72,000,000		76,047,300		
17			Limb 2		8,250,000	1,395,000	9,645,000		9,645,000		
18			Total	4,047,300	75,750,000	5,895,000	81,645,000		85,692,300		
19											
20		**Combined**	Limb 1	5,047,300	70,050,000	5,950,000	76,000,000		81,047,300		
21			Limb 2		8,530,500	1,817,500	10,348,000		10,348,000		
22			**AOC**	5,047,300	78,580,500	7,767,500	86,348,000		91,395,300		
23											
24			**Savings**	449,700	7,500,000	655,000	8,155,000		**8,604,700**		
25											
26	**Limb 3**		Gainsharing ratios	50.00%	41.22%	8.78%	50.00%				
27				Within NOPs	82.44%	17.56%	100.00%				
28											
29			Direct from OPS for OPS =	60	1,483,852	316,148	1,800,000				
30			Underrun share	62.00%	4,397,901	937,013	5,334,914				
31			Overrun share	n/a	-	-	-				
33			**Total limb 3 all sources (before caps)**		5,881,753	1,253,161	**7,134,914**				
34					*No gain cap*	*No gain cap*					
35			**Total limb 3 (with caps applied)**		5,881,753	1,253,161	7,134,914				
36											
37	**Overall Summary**			**Owner**	**Constructors**	**Consultants**	**NOPs**		**Total**		
38	**Target**	Limb 1		5,497,000	77,550,000	6,450,000	84,000,000		89,497,000		
39		Limb 2			8,530,500	1,972,500	10,503,000		10,503,000		100,000,000
40		Limb 1 + Limb 2		5,497,000	86,080,500	8,422,500	94,503,000		100,000,000		1,500,000
41		Limb 2 as a % of Limb 1			11.00%	30.58%	12.50%				101,500,000
42											Owner alliance budget
43	**Actual**	Limb 1		5,047,300	70,050,000	5,950,000	76,000,000		81,047,300		
44		Limb 2			8,530,500	1,817,500	10,348,000		10,348,000		
45		Limb 3			5,881,753	1,253,161	7,134,914		7,134,914		98,530,214
46		Limbs 2 + 3 (gross margin)			14,412,253	3,070,661	17,482,914				Owner actual
47		Limbs 1 + 2 + 3 (revenue)			84,462,253	9,020,661	93,482,914				
48											Owner savings
49	**Margin**	L2+3 as a % of original limb 1 target			18.58%	47.61%	20.81%				2,969,786
50		L2+3 as a % of actual costs			**20.57%**	**51.61%**	23.00%				0.9707
51		L2+3 as a % of revenue			17.06%	34.04%	18.70%				Owner spend factor

Instead of looking at discrete scenarios, a probability profile can be assigned to each of the input variables, generating a probability distribution for the outcome for each participant, using Monte Carlo simulation (as illustrated below). The model's base parameters can then be changed and tested by generating a further set of simulations until the participants align on a preferred combination of parameters.







Appendix 11: Specialist advisers and their roles

Alliance adviser/facilitator(s)

Typically the owner engages an experienced alliance adviser/facilitator to provide advice on alliance structures and processes and facilitate services. Some of this support may exist internally. More than one person may be required to provide the broad services required. The range of potential services (up to the time the alliance is established) could include the following:

- educating and training the owner's team on alliance principles and practices;
- advising on and/or facilitating some of the steps discussed in Chapter 3 which are designed to ensure that the owner makes an informed decision about using an alliance;
- assisting the owner to develop the overall alliance strategy, establishment process and schedule;
- general advice on probity, legal and commercial aspects of the alliance process and advice on engagement of the relevant specialist;
- development of the proposed commercial framework and commercial advice including input on the development of the draft alliance agreement;
- assistance with preparing the RFP and associated documentation, industry notices and briefings etc.;
- assisting the owner in establishing and coaching the selection panel and facilitating panel discussion and decision sessions;
- providing high-performance team coaching for the owner's nominated team before they participate in the selection workshops and the eventual alliance;
- facilitating interviews and workshops; and
- facilitating and reporting on commercial alignment discussions, and input into the development of the final 3-limb compensation model and the final alliance agreement(s).

Once the alliance is established, it is the role of the ALT to ensure that the cultural environment supports the alliance team's goal to meet or exceed project objectives. A coach in high-performance teamwork is generally an important element of the strategy for creating and sustaining a peak performance alliance culture.

The ALT must decide what ongoing support, if any, is required from a specialist alliance facilitator/coach. The role of this person differs somewhat from that of the alliance adviser/facilitator during the establishment phase. The emphasis shifts from commercial and structural aspects of the alliance (although some of these elements still remain) to a greater focus on leadership and personal growth, effective communication/conversations and the development of high-performance teamwork.

Once an owner has experience of project alliancing, in-house resources may undertake some of the tasks noted above, provided they understand alliances and have the necessary facilitation skills.

Alliance lawyer

The owner will need the support of a qualified legal adviser, with specialist expertise and experience in setting up project alliances. The alliance lawyer should be able to support the process through the establishment phase, including through:

- general advice on alliance strategy, structures and approach;
- developing draft alliance agreements to be included in the RFP package;
- support on legal issues during the commercial alignment process, including specialist advice on insurance, intellectual property, native title, cultural heritage, occupational health and safety legislation, termination provisions, sub-procurement structures, special purpose vehicles, confidentiality etc.;
- development of the final form of the alliance agreement; and
- advice on associated legal issues and development of legal documents (e.g. deeds of access with adjacent property holders, joint development agreements etc.).

Although engaged in the first instance by the owner, some alliance lawyers suggest that they should act on behalf of the alliance rather than the owner. In the right circumstances, this creates a very efficient streamlined process (although there will be times when this approach is not appropriate). The approach is illustrated in the following extracts from a typical law firm letter confirming the firm's engagement as alliance lawyer.

Sample letter confirming appointment as an alliance lawyer – extracts

Although we have been appointed by [owner], it is our understanding that the firm will be regarded as the lawyers for the alliance rather than the lawyers for any one party in particular. We understand this to mean that [firm] would act for all the parties that will constitute the alliance. We see no difficulty with this appointment of the firm as the solicitors for the alliance along these lines provided [X], [Y] and [Z] appreciate that we will not be in a position to provide advice to any one of them which might have the effect of advancing their position at the expense of the other parties. Of course each party will be free at any time to obtain separate legal advice on any issue.

Any of the parties would be entitled to request our advice as to the meaning or effect of provisions of draft agreements and any proposed amendments and we would provide that advice openly and objectively. For the sake of probity, we would ensure that advice which is provided to a particular party is documented and available for review by the other parties.

In the event of a dispute between the parties, [firm] would not accept instructions to act for any one party. Our files and records would be available for inspection by all parties and no claim of privilege would be asserted to prevent any party from having access to any document on our files.

Financial auditor(s)

A fundamental feature of the alliance compensation model is that costs incurred by NOPs are reimbursed at actual cost, based on full open-book accounting.

A financial audit program must be set up. Its main role is to validate key parameters for setting up the compensation framework for the alliance and to ensure that payments to NOPs under the alliance are made according to the terms of the alliance agreement. The following approach is recommended to fulfil this requirement:

- Before the alliance agreement is entered into, a suitably qualified financial auditor (referred to as the financial auditor – establishment or FA-E) will conduct detailed investigations (establishment audits) of the financial and costing records of the companies comprising the preferred proponent.

- A suitably qualified financial auditor (referred to as the alliance financial auditor, or AFA, who may or may not be the same person/company as the FA-E) will carry out ongoing due diligence audits of financial transactions throughout the project to final completion.

The scope of services for the FA-E and the AFA are summarised briefly further below.

Given that the primary role of the FA-E/AFA is to ensure that there is full transparency and accountability in all payments under the alliance, they need to be engaged by the owner. However, while, in effect, they are engaged by the owner to look after that owner's interests, investigations and audits should be conducted in a way that reinforces the good faith, openness and cooperation underpinning the alliance. While the audit program must have integrity and be thorough, the AFA/FA-E must be mindful of the way in which they interact with NOPs (and prospective NOPs). For instance, the following guidelines should be followed by the FA-E during and after the establishment audits:

- The FA-E must liaise openly and directly with all parties/participants involved.

- If the FA-E has any concerns or questions, these are to be raised directly with the organisation(s) concerned in the first instance, before being reported to the owner.

- Any issues/concerns that cannot be resolved at working level can then be raised openly with the owner in the presence of the organisation(s) concerned.

- If the issue remains unresolved, the FA-E may submit a written report to the owner, giving full details of the issue/concern. To reinforce the culture of openness, reports are to be copied to any organisation referred to in the report.

The AFA needs to adopt a similar approach to any investigations and reports during the alliance.

The owner should engage the FA-E in sufficient time for that person to begin the establishment audits as soon as the preferred proponent is announced. Depending on the timing, the owner can often discuss potential FA-E candidates with the proponents at interview. This helps ensure that there are no conflicts of interest or concerns with the companies the owner is considering for the FA-E role. The decision on the appointment of the AFA should be made by the owner, following consultation with the NOPs.

The role of the financial auditor – establishment

In the first instance, the financial auditor – establishment (FA-E) conducts investigations of the costing and accounting structures and procedures of member companies of the preferred proponent, where these relate to compensation under the alliance. The overall aim of these establishment audits is to:

- ensure there are no misunderstandings about what items are reimbursable and what items are deemed to be covered by the (limb 2) fee;

- validate statements made by NOPs that might be relied on by the owner as part of the discussions to reach alignment on the methodology and quantum of the (limb 2) fee(s);

- ensure all parties are clear on the finer points of how the open-book compensation is intended to work and that they have a common understanding of the nature and extent of the ongoing audit program.

To satisfy these aims, the FA-E, having become familiar with relevant background information, should be required to:

1. confirm (or advise otherwise) that the rates for salary and other internal costs, or the methods by which they are to be determined are/will be an accurate reflection of the actual cost of these items;
2. establish clear guidelines on how direct costs are to be reimbursed under the alliance, including application of statutory and other on-costs to payroll costs, and how these costs are to be distinguished from items that are deemed to be corporate overheads and covered by the payment of the (limb 2) fee.
3. investigate, advise and report on the proposed methodology for calculating and reimbursing 'direct overheads' where these are not easily identified as project-specific costs; confirmation that these reflect an accurate and equitable allocation of actual overheads to the project;
4. prepare a detailed draft compensation audit plan for an ongoing cost-effective program of audits to validate reimbursement of costs under the alliance. In this respect the compensation audit plan should:
    - describe in detail the ongoing audit regime, including relevant auditing standards, the timing and extent of audits, the level of substantiation required, responsibilities and accountabilities, communications and reporting protocols etc.; and
    - be reviewed openly with all parties and the FA-E (and/or the AFA) before being approved for implementation;
5. provide any other advice/comments that the FA-E considers to be relevant on issues that they come across in the course of the establishment investigations; and
6. comment on how the overhead costs and profit levels compare with industry norms, if asked to.

The role of the alliance financial auditor

The alliance financial auditor (AFA) is required to carry out financial audit services and provide advice according to the approved compensation audit plan. The compensation audit plan sets out in detail the scope of work for the ongoing audits. As a guide, it is expected that the compensation audit plan would typically include the following elements:

Conduct routine audits on progress claims under the PAA at prescribed intervals (which may be monthly, three-monthly or six-monthly). Liaise with the Alliance Manager and others, culminating in the qualified endorsement of progress payment certificates. (Initial audits may need to be more comprehensive to ensure that the intent of the audit program is being met.)

- Conduct more comprehensive audits at prescribed intervals with a detailed audit report.

- Provide written reports to the ALT from time to time on:
    - any discrepancies or concerns that arise;
    - areas where further clarification is required; and
    - recommendations on what corrective action should be taken.

The AFA might be required to oversee and work with an in-house auditor, appointed by the owner, who will prepare or audit routine progress claims and payments.

All audit work should be undertaken in a professional, cost-effective way and according to Australian auditing standards. The specific duties of the AFA would include as a minimum the following:

1. Validate that limb 1 items reimbursed (including but not limited to salaried/wages labour, plant, materials, subcontractors/subconsultants, goods and services procured from other suppliers) were incorporated into the works or consumed in the process of planning, designing and installation. In this respect, unless directed otherwise, the AFA would normally not be required to personally verify usage/consumption, but would be required to validate that appropriate records and systems are in place to provide satisfactory evidence of usage/consumption.
2. Ensure that reimbursement under limb 1 does not include any contribution to corporate overheads and profit, except where expressly provided for in the alliance agreement(s).
3. Ensure that in all cases there is an auditable trail that validates actual costs.
4. Confirm that payments under limb 2 (for corporate overheads and profit) are made in accordance with the terms of the alliance agreement(s).
5. Confirm that all payments under limb 3 (both pain and gain) are calculated according to the terms of the alliance agreement. This may require the AFA to audit the owner's alliance records, to the extent that what is costed into the alliance affects reimbursement to NOPs. In this respect, the AFA would normally not be required to carry out any measurements of actual performance against pre-agreed targets in non-cost areas. The AFA could rely on documentary evidence of actual performance provided by the Alliance Manager.

Where the project development phase is undertaken under an IPAA, the AFA would normally be required to provide a close-out audit on completion of the IPAA.

Independent estimator

The overarching role of the independent estimator (IE) is to provide independent assurance/validation to the owner and the NOPs that the TCE is fair, reasonable and defensible (for all participants) in the context of a high performance alliance. In this respect, depending on the circumstances:

- The IE may be required to carry out a completely independent estimate; or
- Where an independent estimate is considered to be an unnecessary duplication, the IE may only be required to provide an overall review and validation of the alliance team's estimate. This involves 'top-down' benchmarking/comparison, with independent bottom-up elemental analysis in specific areas at the IE's discretion. Using that approach, the IE might produce an estimate for comparison with the TCE proposed by the alliance, but without a full elemental analysis of every line in the estimate.

The TCE typically covers many different disciplines. In many cases the IE – as a single person – will not have the expertise to prepare and/or validate cost estimates across all areas of the project. In such cases, the IE should be required to bring together and lead a team of people with the necessary expertise to meet the requirements of the IE brief. (In this respect, where the context requires it, references below to the IE should be taken to mean the IE team.) To fulfil their brief on a typical infrastructure project, the IE would require skills in elemental estimating, quantity surveying, scheduling and risk assessment, with experience in:

- carrying out elemental first-principles estimates for project management, investigation, planning, design, procurement, construction and completion activities associated with the range of tasks expected to be involved in the project;
- analysis of allowances for risks and opportunities using Monte Carlo simulation techniques;
- commercial negotiations at a senior level; and
- development and analysis of complex critical path schedules.

It is essential that the IE is capable of developing an elemental estimate in the same way as the alliance team and at a similar level of expertise. The IE's estimate must be capable of being reconciled directly with the alliance team's draft/proposed TCE. The alliance team should normally develop its estimate from the ground up, using elemental estimating techniques for most of the build-up of the estimate. If the IE comes up with different numbers using only a top-down approach, there is no rational basis for the different groups to seek to fully understand and reconcile the differences. This can lead one or both groups to false conclusions about intentions and integrity.

As with the FA-E and AFA, the IE must be engaged by the owner, primarily to protect the owner's commercial interests. However, in the context of principled relationships such as alliances are intended to be, the IE should be required to act impartially and professionally, not solely to protect the owner's interests, but always with the aim of ensuring that the process is conducted in line with agreed alliance principles.

As noted in Chapter 5, as part of the VFM strategy, proponents should be required to submit (before the selection workshops) details of at least three recent and relevant projects, at least two of which were won on the basis of price in open tender competition. Outturn data on cost, productivity, schedule and other performance should be available for comparison with internal tender estimates. In addition to the main work of the IE discussed above, it is recommended that the owner asks the IE to undertake a preliminary review to confirm that the data associated with the nominated projects is accessible, relevant and credible.

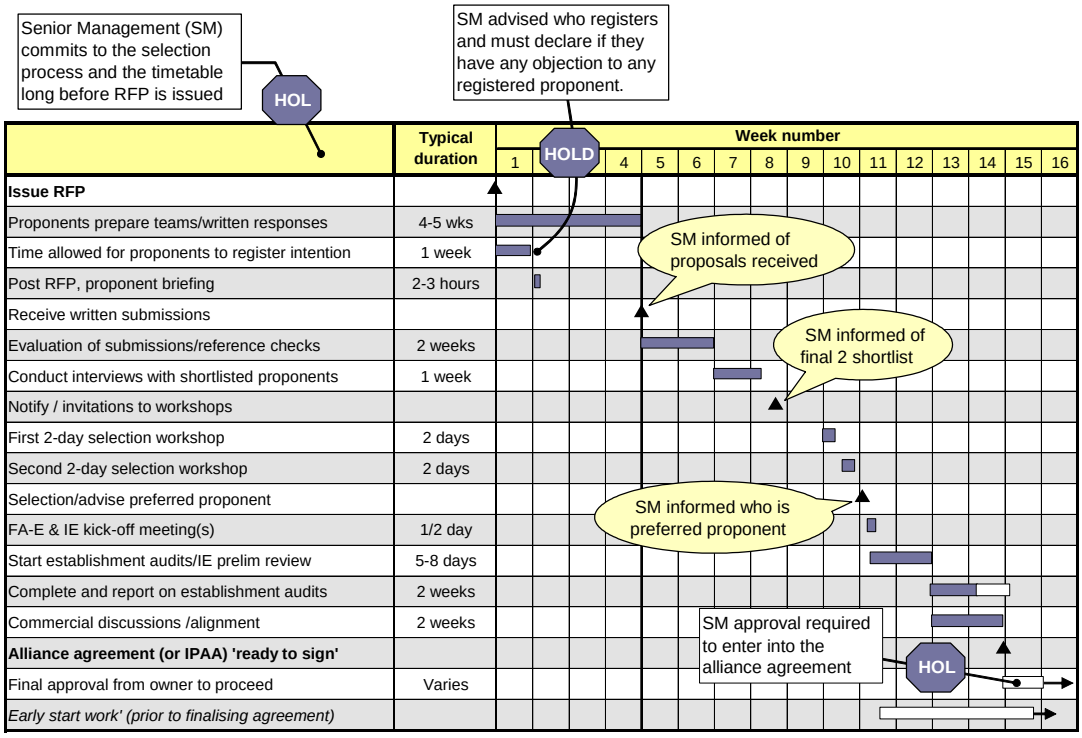
Appendix 12: Further discussion of issues before RFP release

Decision hold points

Under traditional procurement processes, 'hold points' are often provided to enable senior management to challenge or approve recommendations for short-listing etc. This does not make much sense in the context of an alliance selection process. To ensure the approach is rational:

1. The selection process should be documented clearly, setting out full details of all procedures, checks and balances, who is on the selection panel, key decision points, form of panel reporting, etc.
2. Make sure relevant senior managers are fully aware of the evaluation and selection process and that they accept that the review points at appropriate stages of the process. Logical hold points and advisory points are noted in Figure A12.1.

Figure A12.1: Selection process hold points and advisory/approval points



Establishment schedule (Step 1)

The establishment schedule can be used to help the owner to:

- identify all critical steps and stakeholders in the process, including internal approvals and constraints;
- secure commitment from key players for their own actions, e.g. reviews, approvals, etc., required to meet the timetable;
- provide early and confident advice to industry on the timing of the process, so that industry has a better start preparing teams for the alliance.

Choosing the right panel members (Step 2)

The members of the selection panel should be chosen to meet the following criteria:

1. The ideal number is between three and six, depending on the size and nature of the project. At times a larger number may be required. However, since achieving consensus can be very difficult in a large group, the panel should be kept to the minimum practical size.
2. If practical, most of the panel members should be prospective members of the alliance team. This is highly desirable because:
   - They are likely to be more interested and better informed about the project.
   - They will learn about alliancing, the project and the people they are likely to be working with. The owner will benefit less from this experience/knowledge if the panel members have no role on the project beyond the selection process.
3. Notwithstanding the value of continuity on the team, it is also helpful to have a good cross-section of experiences and perspectives represented on the panel and it may be a requirement or desirable to have an independent member from outside the owner's organisation. Between them, the people on the panel should have appropriate qualifications and experience to make valid assessments across the range of the evaluation criteria. If necessary, the panel can seek input from outside specialists.
4. The panel members must have time to support the process. A typical selection process could require an more than 20 working days, spread over several months, as summarised in the following table. This includes time working together as a panel, as individuals and for participation in training sessions, interviews and selection workshops.

Activities	~Time (days)
Preliminary training and coaching specific to panel members	1
General training for owner team (if nominee for project team)	3
Developing procedures including criteria and scoring guidelines	2
Working alone, reading and scoring written submissions	4
Working as a panel to align on scores for written submissions	1
Interviews, including panel deliberation and scoring	5
Selection workshops including deliberation and scoring	5
Preparing panel report to senior management	1
General liaison and administration	1
Total number of days	**23**

Evaluation criteria (Step 3)

It is important for the evaluation criteria to properly address the issues that are important to the owner and those which will enable the selection panel to differentiate between different proponents, rather than to focus on items which are likely to be approximately the same for all proponents. The panel members should seek advice from the alliance adviser/facilitator to help them develop the evaluation criteria. Two different approaches are illustrated in the example RFPs listed in Appendix 14, specifically:

1. In the RFP for VicRoads' Tullamarine Calder Interchange, sections 5.5 and 5.6 list the selection criteria; section 6 gives instructions to proponents on what they should address/include in their written submissions.

2. In the RFP for QT's Boggo Road busway, the criteria are set out in section 4.8, while

section 4.9 provides guidelines on how to address each sub-criterion in the written submissions.

Typically (e.g. for Tullamarine Calder Interchange and the Boggo Road busway) the weightings for the primary criteria are shown in the RFP, but the weightings for the sub-criteria are not disclosed. It is recommended that the panel proceed as follows:

1. Decide on the primary criteria and assign weightings.
2. Develop first pass of the sub-criteria within each primary criterion.
3. Decide on a scoring profiling methodology. For instance, if scoring was on a scale of 1 to 100, the panel might agree that scoring will be to the nearest increment of five within the following brackets:

01 to 25	*Very poor*
26 to 50	Poor to OK
51 to 75	Good to very good
76 to 100	Very good to outstanding

4. Develop detailed scoring guidelines for each sub-criterion that provide a consistent framework of 'pictures in words' showing what would be needed to fall within each bracket. This is a demanding but very worthwhile tasks for several reasons:

   - It forces the panel members to align their thinking on what each sub-criterion really means and may lead the panel to refine/improve the sub-criterion.
   - The completed scoring guidelines provide a valuable reference benchmark for panel members when they are doing the scoring. Initial scoring is then more consistent and the task of aligning the views of the panel members on each sub-criterion is easier.
   - The process also helps the panel members to work better together as a team.

5. Review/modify the sub-criteria within each primary criterion as needed, as part of developing the detailed scoring guidelines.
6. Assign weightings to the sub-criteria within each criterion.
7. The panel undertakes a final review and all members confirm their understanding of and commitment to the agreed criteria, sub-criteria and scoring guidelines.

Evaluation process/procedures (Step 4)

The evaluation process should be stated in detail in the evaluation procedures. The following procedures are designed to ensure fairness and consistency throughout the process.

1. **Review/scoring of written submissions**

   - Written submissions are first reviewed to ensure they meet any mandatory criteria. Submissions failing to meet mandatory criteria are not considered further. (This should not happen if the owner communicates effectively with industry before and during the RFP phase.)
   - Each panel member reads each submission and assigns scores, using the scoring guidelines as a reference benchmark.
   - Panel members come together and align on the scores for all written submissions. The panel members work through each criterion/sub-criterion and align on the score for each proponent against that criterion/sub-criterion. The panel must discuss and align on a panel score. Averaging should not be used to derive the panel score. The panel members must seek to understand and refine their different perspectives until they are aligned. An experienced facilitator can help the panel

members communicate and align effectively.

2. Interviews

- The panel prepares itself for the interviews, including agreement on conduct and protocols designed to ensure that the process is relaxed, informal and enjoyable for all. The panel needs to decide on generic questions/issues for all proponents, individual questions for specific proponents, who will facilitate/chair the interviews and which person is responsible for initiating each part of the discussion.
- The interviews should be conducted according to the agreed process/protocol. Immediately after each interview, once the proponent personnel have left, these steps should take place:
  - The overall views of the interview by any non-panel owner personnel who attended the interview should be given to panel members. Such personnel need to be encouraged to speak their mind by the panel members, but not be led in any way. The panel only asks questions during this process. At no stage should they divulge their own opinions. The non-panel members then leave.
  - The panel members record their views/impressions.
  - The panel members then revisit the scores in all of the criteria/sub-criteria – previous ratings against these criteria/sub-criteria are reviewed and, where agreed, adjusted up or down, depending on changes in the panel's perceptions as a result of the interview.
- The same process is repeated for/after each interview. After the initial re-score of the last proponent at the end of the interviews, the panel should take a short break before reconvening. On reconvening, panel members review scores, make a comparative assessment and determine the final short-list.
- The panel records its assessment, updates the draft panel report, and agrees on the wording of letters advising proponents. The panel chairperson contacts each of the proponents by phone or in person to advise them of the outcome, and issues emails/letters by fax at the same time.

3. Workshops

- All owner personnel scheduled to attend the selection workshops, including panel members, must attend a team preparation and training session before the workshops. This prepares the team and panel members for the selection workshop(s) and is designed to ensure that the owner's team and the panel members participate in a way that is both effective and fair to both proponents.
- The first workshop is conducted according to the process agreed with the alliance facilitator. Immediately after the workshop, after the proponent personnel have left, the following steps are taken.
  - All members of the owner team are invited to stay to attend a short briefing with the panel. Non-panel members are asked to voice their opinions/impressions in turn. They need to be encouraged by the panel members to speak their mind, but should not be led in any way. Again, the panel only asks questions during this process. At no stage should they divulge their own opinions. The non-panel members then depart.
  - The panel members record their views/impressions in a 'brain dump' session.
  - The panel members then revisit the scores in all the criteria/sub-criteria – the previous ratings against these criteria/sub-criteria are reviewed and, where agreed, adjusted up or down, depending on how the panel's perceptions have changed as a result of the workshop.

- The same process is repeated for/after each interview. After the initial re-score of the last proponent after the second workshop, the panel should take a short break 'to clear their heads' before reconvening. On reconvening, panel members review, make a comparative assessment and determine the preferred proponent.
- The same process is repeated for the next workshop.
- After the initial re-score of the last proponent, the panel members again take a short break 'to clear their heads' before reconvening.
- On reconvening, the panel members review, make a comparative assessment and determine the preferred proponent.
- The panel records its assessment, prepares the final panel report and agrees on the wording of letters advising both proponents. The panel chairperson contacts each of the two proponents by phone or in person to advise them of the outcome, and issues emails/letters by fax at the same time.

Where the owner can confidently predict the maximum number of submissions and has sufficient time in the schedule, it is recommended that interviews be conducted with all proponents.

Some owners provide pro-forma response sheets for the proponents to use when addressing the evaluation criteria/sub-criteria in the written submission. The aim of this is to reduce the level of effort required to respond and to save proponents from investing too much time and cost on the style, rather than the substance, of their written submissions.

Key early decisions relating to the RFP (Step 5)

The owner will need to make certain key decisions early on in the development of the RFP, including:

1. Legal structure – will it be an IPAA/PAA or single consolidated alliance agreement?
2. What are the key features of the proposed commercial framework?
3. What information should be provided with the RFP?
4. How long should the proponents be given to respond/prepare?
5. Is there value in getting the proponents to undertake a budget critique? If so, should all proponents be asked or just short-listed proponents? Will they have enough information and/or time to do it properly?
6. What additional information might the owner ask for, beyond that required for assessment against the evaluation criteria?
7. Should the owner interview all proponents, and if so, should the panel delay its first scoring until after the interviews?
8. Should the owner produce the RFP in-house or engage outside assistance to provide documents of a publication standard?

Preparing/developing the owner's team (Step 6)

Suggested steps for development and preparation of the owner's team are as follows:

1. **Identify/confirm the owner's ALT member(s) for the alliance.**
2. **Decide on the appropriate/desired level of owner input into the alliance team.** This will depend on the structure of the owner organisation and the particular circumstances. It is better if the owner has a full-time member of the AMT and several people spread throughout the wider alliance team. It should be noted that the alliance is not organised along traditional contracting lines – there is no duplication of roles, so

the kind of roles traditionally occupied by owner personnel (i.e. watching over or 'marking' the equivalent contractor personnel) should not exist. This does not mean there are no roles for the owner to fill, for instance:

- Provided they have the necessary skills/attributes and/or potential, owner personnel may be able to fill roles traditionally held by consultants/contractors, including senior project roles, even the role of the Alliance Manager.
- A project alliance often involves non-traditional roles which are unique to alliancing. They relate to stakeholder management, team development, maintaining effective 'portals' into the wider owner organisation and government, for example. Owner personnel may be ideally suited to these kinds of roles as they have the necessary contacts, insights and influence.

3. **Identify suitable potential candidates within the owner organisation.** It may be appropriate to 'advertise' internally to attract interest by letting people know about the alliance and what it could offer. The owner needs to be careful to make it clear that all proposed team members will only be nominees and that it is up to the alliance members to decide jointly who will be on the alliance team.
4. **Conduct a series of education and team development workshops**. These are generally along the following lines:
   - Workshop 1 – focus on the project, alliancing and its application to the project. Continue to the next step with those who are genuinely interested and who could add value to the alliance.
   - Workshop 2 – focus further on the project, key risks and opportunities, leadership and organisation, the selection process, individual aspirations concerns and potential contributions. Select nominees and develop/issue cvs.
   - Workshop 3 – focus on team and leadership development, the selection workshops and how to participate effectively and fairly.

Appendix 13: Further discussion of issues during proponent selection

Suggested process for sequencing and notification

The following approach is suggested to help ensure that the selection process is conducted in a way that minimises the disruption for proponents and makes it as easy as possible for proponents to have their key people available for interviews and workshops.

1. Let the proponents know the overall schedule and then stick to it. It can be very difficult for proponents, particularly senior management personnel, to accommodate changes in the schedule.
2. Allocate specific dates for interviews and workshops as soon as possible.

    - Dates are usually allocated by random draw in the presence of the probity auditor. (Based on alliance selection processes reviewed to date, there is no evidence to suggest that a proponent is better off in any particular position in the sequencing of interviews or workshops.)
    - In order to be seen to be fair to all proponents, some owners stagger notifications so that each selected proponent has exactly the same time to prepare for interviews/workshops. While, on the face of it, this seems very even-handed, it is not considered necessary or even appropriate, because:

        - It makes it more difficult for the proponents to plan availability for interviews/workshops and means that unsuccessful proponents are kept guessing or hoping until all the successful proponents have been announced.

        - Even with this approach, the relative preparation time may be uneven, as one lead time may include all working days while another straddles a weekend.

        - Most proponents would prefer to know the outcome (for better or for worse) as soon as possible and they are generally not concerned that one team might have some extra time to prepare, provided the decision on the date which they are assigned is random.

        If, despite these points, the owner has a probity concern about unequal lengths of preparation time, then the owner can ask proponents to state in their written submissions if they would prefer to have staggered notifications. If any of the selected proponents requests staggered notifications, then the owner should do this. If none of the selected proponents states a preference for staggered notifications, then the owner can proceed to notify them all at the same time.

Appendix 14: Related documents

The following related documents are available from DTF for use in preparing project alliances. Relevant documents will be added regularly to the Gateway site, www.dtf.vic.gov.au/gateway.

1. Sample table(s) of contents from alliance agreements

Typical IPAA table of contents (provided by PCI)	4 pages
Typical PAA table of contents (provided by PCI)	4 pages
From Alliance Agreement issued by VicRoads with the RFP for the Tullamarine Calder Interchange alliance	4 pages

2. Examples of two different forms of alliance RFP

Tullamarine Calder Interchange – VicRoads (Feb 2005)

Boggo Road *Busway* – Qld Transport (May 2005)

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