

How to Identify & Deliver
Genuine Value for Money
in Collaborative Contracting

$$V_{fM} = f(a) + x.f'(a)/1! + x^2.f''(a)/2! + x^3.f'''(a)/3! + \dots + x^n.f^{(n)}(a)/n! \geq f(a) + x^{n+1}.f^{(n+1)}(a)/(n+1)! + \dots$$

CRACKING THE VFM CODE™

JORDAN KELLY

CRACKING THE VFM CODE™

**How to Identify & Deliver
Genuine Value for Money
in Collaborative Contracting**

Jordan Kelly



Jordan Kelly

BID STRATEGIST

www.bidstrategist.com

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Dedication

*To the memory of my loyal, loving and
much-beloved canine companion, Brady.*

“There is no way writers can be tamed and rendered civilised or even cured. The only solution known to science is to provide the patient with an isolation room, where he can endure the acute stages in private and where food can be poked in to him with a stick.”

Robert A. Heinlein (1907–1988)

One of the literary world's 'Big Three' science fiction writers

A Word from the Author

Every now and then, a book passes through a reader's life, a book so full of truth, value and inspiration that the reader wants to carry it in his briefcase, keep it on his nightstand, give it a permanent home on his desk.

I have researched and written this book with the deepest desire that, to those in the growing "collaborative" movement, it be such a book.

Jordan Kelly
Bid Strategist, Coach & Author

Thank You

To Steve Abson

Thank you for your unbending faith in me. It helped drive me on through the many long months of solitude in my “writing cave”.

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Readers

Please note that the views expressed in this book are either (a) those of the interviewees (as attributed) or (b) my own, as author. They do not necessarily reflect those of any of my sponsor organisations or the management of those entities (except in those instances where a representative thereof may form part of the interviewee base of a specific chapter).

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Foreword

I'm constantly reminded by visiting international colleagues, as well as by fellow professionals importing their skill sets into the Australian construction sector, that the size and scale of our capital works infrastructure projects is impressive by any global measure.

The challenges associated with delivering this array of major (and sometimes mega) infrastructure programs has prompted owner agencies—over the past decade and a half—to seek improved efficiency in the delivery and execution of their projects, through the application of collaborative contracting.

There can be no doubt that tremendous inroads have been made across the industry, and that today—as a direct result of project alliancing (as the forerunner and “purest” form of collaborative contracting)—we operate in a significantly more harmonious, more efficient, more owner-and-contractor aligned environment.

Such is the fundamental and positive change in our industry, in all aspects and in all sectors, that Australia's and New Zealand's original alliancing model is increasingly acting as a reference point for infrastructure industries in other parts of the globe.

Somewhere along the way though, here in Australia, a passionate and rigorous debate erupted over what has become the very contentious issue of “value for money” (or “VfM”)—and it has never really been resolved. For better or for worse, this unrest has spawned an ever-expanding variety of hybrids that the industry is, arguably, struggling to keep up with.

This brings me to fulfilling my primary purpose as Foreword writer, which is to introduce Ms Kelly's book—a book that takes a uniquely fresh and contemporary look at alliancing and collaborative contracting in the Australasian construction industry, and at the genuine attainment of value for money.

In the following seventeen chapters she illuminates—in a way that no-one before her has—the subject of VfM. Colleagues,

it is with great pride and pleasure that I give you Jordan Kelly and her *Cracking the VfM Code™: How to Identify & Deliver Genuine Value for Money in Collaborative Contracting*—a book that is as timely as it is timeless, both in its perspectives and in its content.

Ms Kelly has produced an authoritative and broad-ranging commentary at a “holistic” level, as well as in terms of the depth of detail into which she has delved. She offers a fascinating perspective on Australasia’s public infrastructure sector, the collaborative contracting movement, and our ongoing quest to truly nail the “Value for Money” challenge. In that challenge, she has done us proud, I believe; her chapters leave no stone unturned in her coverage of the current industry-wide debate (from all sides), and lead us to some invaluable conclusions and insights.

The book’s timeliness arises from the fact that this substantial body of investigation is launched as the industry hits a monumental crossroads. We stand now at a definitive fork in the road, and the road we take from here will see us either maintain the hugely positive impact that project alliancing has had on our industry or, conversely, it will see the value of its contribution fritter away over time, as a mass of alternative and hybrid contracting models dilutes the foundations that have been laid over the past 15 years.

In a sense, as we stand in the crosswinds of this tension, we by default find ourselves in the self-same process as any effective project alliance: after all the excitement of the early coming-together process, we reach a point where adversities arise and are overcome, and relationships are built and solidified through the thrashing out of differing opinion and the brainstorming of new approaches. Then there’s the ultimate coming together again to move onwards and upwards to reach higher levels of understanding, cohesion and performance.

This highly valuable book crystallises for us, this “higher level” perspective that can help us retain the benefits of the past as we press forward into the future. Certainly, *Cracking the VfM Code™* has provided full voice to numerous interested parties of wide-ranging opinion, from all corners of our large and multi-faceted industry. Particularly fascinating perhaps are those from left field, including those entering into the debate from distinctly non-supportive stances. These all provide us with food for thought and hints for a road map for a better, smarter future. This is a good time and a good opportunity to heed Ms Kelly’s frequent admonition to “think our way to the next level”.

Finally, we may be at a crossroads, but *Cracking the VFM Code™: How to Identify & Deliver Genuine Value for Money* provides us with the formula required to do exactly as the title promises. It provides a real, tangible answer to the quandary that lead us to these crossroads. And it suggests vast fields of opportunity to implement all elements of that answer, to the benefit not only of all industry participants but also to the distinct benefit of the broader community our industry ultimately services.

Steve Abson

President (2009–2011)

Queensland Major Contractors Association

Introduction

Sexed Up, Mystified ... and Very, Very Profitable

Value for Money (or “VfM”, such is the penchant for acronyms within the collaborative contracting sector) has been sexed-up, mystified, supposedly de-mystified, debated and, in some quarters, made into a very profitable concept. Much guesswork, supposed clarification, logic and illogic have spawned an ongoing series of papers, discussions and an endless stream of workshops and seminars.

Despite the fact that more than 500 project and program alliances, Early Contractor Involvement (ECI) and other collaborative hybrids have been conducted throughout Australia and New Zealand since 1996, a practical, working definition for “VfM” is still keenly sought. To some degree, this has been the catalyst for the wholesale shift from the *non*-price competitive selection of alliances to price competition-based alliance selection, and also to the introduction of other price-competitive collaborative hybrids. State Treasury departments haven’t been convinced that VfM is the inevitable outcome of an alliance, just because it’s an alliance.

For both the client-side and private industry, there’s clearly more work to be done to ensure all parties are “on the same page” in all regards, and thus, to actually ensure the delivery of value for money. Which takes us squarely back to the urgency to understand exactly what represents VfM at an individual project level ... and the need to evolve a more sophisticated, project-specific approach to VfM.

"Could a greater miracle take place than for us to look through each others' eyes for an instant?"

Henry David Thoreau
(1817–1862)
**American author,
poet, historian,
philosopher and
transcendentalist**

"A leader is someone who steps back from the entire system and tries to build a more collaborative, more innovative system that will work over the long term."

Robert B. Reich
(1946–)
**American political
economist and
commentator,
professor and author**

"Try not to become a man of success, but rather try to become a man of value."

Albert Einstein
(1879–1955)
**German-born
American theoretical
physicist regarded
as the 'father of
modern physics'**

During my tenure with the industry, I've observed the understanding of value for money evolve (somewhere between slightly and somewhat) from a notion of how many bells and whistles a bidding consortium can throw into its offer, to an appreciation that—whatever VfM is—it's more than that, and its meaning and measure are specific to an individual project.

Indeed, the search for a concrete definition has revolved around multitudinous vagaries, including scope optimisation, community and stakeholder satisfaction, high productivity, effective relationships, achievement of Key Performance Indicators, innovations delivered, good environmental or safety records, value exceeding cost, outcome exceeding expectations, skills transfer, whole-of-life cost efficiencies, or the old marketing chestnut, "on time and on budget" (or ahead of time and under budget).

But while the discussion has evolved, nobody seems yet to have conclusively solved this enduring mystery. That said, if this whole, seemingly endless "VfM" debate is the only way the industry can develop an appreciation for each others' perspectives, then it's making an invaluable contribution to all parties . . . especially in the context of *collaborative* contracting.

Macro, Micro . . . Everybody's Got a Point

The truth is, there's room for everybody's definition to be right in its own way. All that's required is for the lens to be pulled back to a macro focus, to see that there are quite a few, distinct layers of VfM that apply to any given project. Having identified those layers that apply universally to all projects, it's then a matter of zooming right in to a micro, or *project-specific* focus, to investigate the detail within each of those layers. The analogy of a set of Russian dolls comes to mind.

VfM, in effect, shouldn't even *be* a concept in its own right. It should be the flow-on of clearly identified, clearly communicated and clearly received project funder priorities and, further on from that, the natural end-product of a collaborative contract's component parties' (i.e. the client-side and the service providers) deep understanding of each other. That understanding should revolve both around the construction, design and specialist technical team's appreciation of the client organisation's (aka "project owner's") broader operating environment, its priorities and constraints, its desires, fears and visions . . . and around the fact that it has a master and a mandate i.e. the project funder, be that a State Treasury department or other type of investor.

Meantime, for the project owner's part, a healthy appreciation of its private sector partners would include the specialist and industry insights they offer the various phases of not only the design and delivery stage but also of the procurement process itself. It would also include an appreciation of their own needs for economy and value throughout the endeavour, especially in the bidding phase—a phase that can be both tremendously expensive and, often, tremendously wasteful.

To some degree VfM *is* complex . . . a multi-layered equation, a code comprising various levels of combination. Yet to anyone that can assimilate those levels and layers, it's actually quite obvious and simple. It's not really the magical, mystical formula it's been drummed up to be. And it's certainly *not* the separate science there have been dogged attempts to turn it into.

It is, however, a code that has to be cracked for every *individual* infrastructure project. And the key to cracking the code lies in understanding the project, its backdrop, its characteristics and its challenges; understanding the project owner (or "client"), its priorities, its people, and other important aspects of its operating environment; understanding the multiple stakeholder groups and the concerns and desires of each; and understanding that, aback of all this, is a project funder (a State Treasury department, for example) which sets the initial and ultimate priorities from which all others cascade.

Cracking the VfM code doesn't end with these understandings . . . it *begins* with them. It is the *depth* of understanding across the *breadth* of aspects surrounding a project that provides the foundation for, and catalyses, the identification and delivery of genuine value for money by a bidder or a collaborative contracting team—in *all* phases of an owner's project.

Moral & Economic Imperative to Stretch the Public Infrastructure Dollar Further

Achieving and optimising value for money on public infrastructure projects has become non-negotiable against the backdrop of a rapidly growing, ageing and continually urbanising population. In Australia, over 80 percent of the population now lives in cities.

Australia is set for a 60 percent population increase by 2050, according to the Commonwealth Treasury's *Australia to 2050: Future Challenges* report. Traffic-choked Sydney's population is, for example, predicted to grow by 50 percent in the next 40 years. By 2050, Sydney's population will top 7.5 million, Melbourne will swell from four to seven million,

spe·cif·ic

*"Clearly defined,
precise and clear;
explicit, definite;
peculiar to somebody
or something;
of a special or
particular kind."*

*"There is a principle
in exercise called the
principle of specificity.
What it says is, if
you want to do a
particular activity
very well, you
need to train
specifically for it."*

**Don Harris
(1936–1978)
Popular NBC
correspondent,
killed in
(journalistic)
action**

*"Your pain is the
breaking of the shell
that encloses your
understanding."*

**Kahlil Gibran
(1883–1931)
Lebanese American
artist, poet, and
author of
The Prophet**

“Most of the important things in the world have been accomplished by people who have kept on trying when there seemed to be no hope at all.”

**Dale Carnegie
(1888–1955)
Author of business
classic, *How to Win
Friends and
Influence People***

Brisbane’s population will double to reach four million, and the increasingly popular Perth will by then be home to 3.4 million people. Clearly, the current infrastructure dollar has to be stretched further . . . a *lot* further.

The correspondent growth in infrastructure requirements is set against an increasing expectation placed on Government infrastructure agencies to protect the environment and maintain community harmony, as well as to deliver supplementary value in these additional aspects of a project.

Further still (potential mining tax contributions aside), in terms of funding from taxpayers, Australia has only its current, ageing population base of 20 million to fund the gearing-up of infrastructure to service the needs of its future 35 million-strong population.

At the time this book went to press (late-2011), the Australian and New Zealand infrastructure sector faced a serious backlog of major infrastructure projects, a situation exacerbated significantly by 2010’s “summer of natural disasters”—from the horrendous flooding throughout Queensland, some in New South Wales and significant inundation in many parts of Victoria, to the blockbuster earthquake that took out the Christchurch CBD, 181 lives and a huge amount of the city’s infrastructure.

Meantime, the relatively short cycles of Federal and State Government terms, and their resultant regularly changing priorities are, arguably, ultimately unhelpful to the country’s infrastructure backlog. This is particularly the case in New South Wales, with its rapid turnover of political leaders in recent years. As the backlog builds, the need to stretch the available budget intensifies.

Are project alliancing and the broader collaborative contracting movement capable of a meaningful contribution in this regard?

A Softer Way of Doing Hard Business

For those readers new to the practice of collaborative contracting, the concept is best explained with a description of the original, “full-blown” version of this form of contracting: the non-price competition based (or “pure”) project alliance.

According to the definition attributed to this concept by the Department of Treasury & Finance Victoria’s *Practitioners’ Guide to Alliance Contracting* (October 2010 edition):

“Alliance contracting is delivering major capital assets, where a State agency (the Owner) works collaboratively with

private sector parties (Non-Owner Participants or NOPs). All parties are required to work together in good faith, acting with integrity and making best-for-project decisions. Working as an integrated, collaborative team, they make unanimous decisions on all key project delivery issues. The alliance structure capitalises on the relationships between the parties, removes organisational barriers and encourages effective integration with the Owner.

“Alliance agreements are premised on joint management of risk for project delivery. All parties jointly manage that risk within the terms of an ‘alliance agreement’, and share the outcomes of the project. (However, the financial outcomes are not always shared equally between the Owner and the NOPs.)”

The Guide lists seven key features that characterise and enable alliancing:

- Risk and opportunity sharing
- Commitment to “no disputes”
- “Best for project” unanimous decision-making processes
- A “no fault, no blame” culture
- “Good faith”
- “Open book” documentation and reporting, and
- A joint management structure

Based on reservations stemming from the absence of price competition (and subsequent pressure from some State Treasuries), non-price competitive alliance selection is now largely giving way to price-competitive selection, and to other, hybridised versions of the original concept—creating an uncomfortable and nagging divide between the delivery sectors of the industry and Government investment sectors. However, to whatever degree any argument over VfM at an individual project level is valid, no-one can argue the invaluable positive contribution the alliancing concept per se has made to an industry not so long ago riddled with budget blow-outs, inefficiencies and legal acrimony.

Alliancing, and (arguably) the growing number of hybrids it has spawned, offer the critical ability to take a complex and challenging project live quickly, and the increased potential to complete it successfully. *In that respect alone*, they represent valuable options in an environment of substantial infrastructure backlog.

*“We never know the
worth of water
’til the well is dry.”*

Old English Proverb

*“We have always
found that people are
most productive in
small teams with tight
budgets, timelines
and the freedom
to solve their own
problems.”*

**John Rollwagen
Former Chairman
and CEO of Cray
Research Inc.
(Fortune 500)**

*"Talent wins games,
but teamwork and
intelligence wins
championships."*

Michael Jordan
(1963–)
**'Greatest basketball
player of all time'**
(NBA profile)

*"The hardest
problems of pure and
applied science can
only be solved by the
open collaboration
of the worldwide
scientific community."*

Kenneth G. Wilson
(1936–)
**American theoretical
physicist and winner
of Nobel Prize
in Physics**

*"Unity is strength
... when there
is teamwork and
collaboration,
wonderful things can
be achieved."*

Mattie Stepanek
(1990–2004)
**American teenage
poet, New York
Times best-selling
author, peace
advocate and
motivational speaker**

Collaboration in the Face of Calamity

Certainly, in the face of real urgencies, alliancing has established a reputation for trustworthiness and reliability—even selflessness.

Collaborative effort—borne of *collaborative spirit*—showed exactly what could be pulled off against the odds when the Brisbane community at large galvanised to restore each others' homes and lives in the aftermath of the January 2011 flooding.

Interestingly, moving that spirit into the infrastructure restoration effort, Queensland's Department of Transport & Main Roads used elements of collaborative contracting to fast-track recovery, getting people re-connected with their communities and re-opening the state's economic arteries.

Across the Tasman, the three infrastructure organisations heading the Christchurch earthquake rebuild decided on an alliance with the same five contractors who had been previously working on the September 2010 reconstruction mission. With the re-build bill now standing at NZ\$2 billion and the damage dwarfing the earlier September 2010 quake, a full-scale alliance was seen as the best vehicle to respond to the urgency of the situation, and also to take into account the now-constrained industry resources.

Meantime, the seemingly growing frequency of natural disasters around the world (with some of the rescue and recovery teams who attended the Queensland floods being sent off almost immediately to deal with the Christchurch earthquake aftermath, hot on the heels of which came the Japanese earthquake and tsunami) there is a non-debatable need for the collaborative spirit . . . at a global level.

Exacerbating the challenge of incorporating this into planning, the great majority of major cities around the world are faced with the immediate, "clear and present" dangers of badly ageing and inadequate infrastructure. Certainly, much of the infrastructure on which we currently rely is not designed or built to withstand the magnitude of natural disasters we are now seeing, with a run of one-in-500-year type events where we might, at most, have expected the possibility of one-in-100-year events. For this reason, and for the fact that humanity is becoming an increasingly impatient breed and will not wait indefinitely to return to business as usual following a major natural or other disaster, infrastructure of far greater resilience needs to be one of the new top-of-agenda items.

With the world's population heading for an estimated total of seven billion by 2015, it could be fairly said that the world's

governments have dragged their feet when it comes to anticipating and catering for the infrastructure needs of their respective populations.

We have also—as a civilisation—ignored the now-grave urgency for the development of alternative, clean, non-environmentally damaging and renewable sources of energy: Governments have allowed themselves to be overpowered by commercial interests in a search that should long ago have been conducted and successfully concluded. Leaders of commerce, on the whole, have not stepped up to the plate. And the great unwashed have continued to do what they do best—put their heads in the sand, and wait for “the Government” or “big business” to solve a problem they don’t want to ruin their day by thinking about.

And that’s not exactly a full summary of the global community’s current problems. In more ways than one, time is running out.

A Lofty Challenge

In the final Part of this book, I’d like to offer my own challenge to the leaders of the collaborative contracting movement:

The underlying philosophies of project alliancing—and the very special type of “collaborative” leadership skill it is actively honing—just possibly, could make a valuable contribution in many of these regards. After all, why couldn’t the principles of this highly successful form of collaboration be employed to solve problems bigger than the delivery of a tricky bridge project or meeting a challenging timeframe on a motorway upgrade?

Is there any reason we shouldn’t think such lofty thoughts? After all, is it not the very calling of alliances to set out on an often near-impossible mission, with little idea at the outset as to exactly how they are to achieve it?

Why not encourage some of the human leadership success stories the movement has spawned, to step up to the challenge? And why shouldn’t we—“Down Under”—lead the way?

While alliancing’s prototype projects originated in offshore oil and gas projects in British waters, it was Down Under that we picked up the ball and ran with it. Australia and New Zealand have been the undisputed leaders in the development of alliancing since the mid to late nineties. Let’s keep the spirit of evolution and leadership alive, taking it into future decades, and expanding the reach of this powerful form of collaboration.

I urge the leaders in the collaborative contracting movement to seriously consider the value they could bring the world at large through the lessons alliancing has provided, and the collective

*“Earth provides
enough to satisfy
every man’s need,
but not every
man’s greed.”*

**Mahatma Gandhi
(1869–1948)
Indian ethical,
spiritual and
political leader**

*“Never doubt that
a small group
of thoughtful,
committed citizens
can change the world.
Indeed, it is the only
thing that ever has.”*

**Margaret Mead
(1901–1978)
American cultural
anthropologist and
media spokesperson
on Western culture**

*“It is not the strongest
of the species that
survives, nor the most
intelligent, but the
one most responsive
to change.”*

**Charles Darwin
(1809–1882)
Originator of theory
of evolution and
natural selection**

"Here is the test to find whether your mission on earth is finished; if you're alive, it's not."

Richard Bach,
Author of
modern classic
Jonathan Livingston
Seagull

and individual skill sets it has honed. One of the catchcries of alliancing is that it encourages participant team members at all levels to be part of something "bigger than themselves".

I audaciously throw down this challenge to the movement's leaders:

Ratchet that up one very large notch, and—**at a personal, individual level**—offer up your expertise in alliancing's powerful principles and practices towards the solution of some of the world's current and most pressing global urgencies. From this loftier perspective, you might even see one sitting right on your own doorstep.

Cracking the VfM Code in Collaborative Contracting

I'd like to make two things very clear about the book you are about to read:

Firstly, this is an independent publication by an independent author, and is published by an independent publishing company (mine). While I received (and am grateful for) contributions towards its hard costs, the book is 100 percent directed by my own independent experiences and observations, and all commentators were sought out in accordance with these. Where commentators may have been included from an organisation that is also my client, it should be noted that, in every instance, these were sought out by me for the direct relevance of their anticipated input to the topic in question. Similarly, no influence—in any shape or form—was attempted, by any party, over its content.

Secondly, this is **NOT** a "PR" production or other such disguised marketing tool for alliancing or collaborative contracting. To the contrary, when I embarked on the research for this book—a full two years ago now—my sponsors gave me their full blessing (in fact, **urged** me) to "speak to all the naysayers", and produce a no-holds-barred, up close and personal, tell-it-like-it-is, warts-'n'-all commentary on the movement.

Above all, they challenged me to "crack the VfM code". I trust that I—together with the many interviewees and other contributors to this mission—have fulfilled the brief.

Jordan Kelly

Bid Strategist, Coach & Author

www.bidstrategist.com

2

Turning Towards the Private Sector for Growth

. . . Yes or No?

One area that won't be offering much scope for project alliancing (in its purest form) to pick up the slack of recent times is the private sector. At least not any time soon.

The content and conclusions of this chapter have diverged significantly from my original rationale for writing it. That rationale was to investigate private sector opportunities for the application of alliancing skills and experience, as honed on public infrastructure projects over the past decade and a half.

As it turns out, there's still a long way to go to mould the purer forms of collaborative contracting to deliver private investors' and infrastructure owners' tougher, stricter versions of value for money (at least, in terms of their perception, and by virtue of the way in which they define alliancing).

“There are two possible outcomes: If the result confirms the hypothesis, then you’ve made a measurement. If the result is contrary to the hypothesis, then you’ve made a discovery.”

**Enrico Fermi
(1901–1954)
Italian-American
physicist and winner
of the 1938 Nobel
Prize in physics for
his work on induced
radioactivity**

“Part of the reason alliancing hasn’t experienced the same rate of uptake in the private sector as the public sector is because, an industry like oil and gas, for example, already has well-defined, tried and tested ways of ensuring they get value for money.”

**Malcolm Washbourne,
Alliance facilitator
and coach**

One particularly hard nut to crack will, ironically, be the oil and gas sector, from which the current version of alliancing was largely born. (Progressive thinkers might, in fact, use this as the impetus to apply alliancing’s strengths to sectors and enterprises pursuing more enlightened endeavours—specifically those developing and commercialising clean, plentiful energy sources. With innovation and sustainability the catchcries of alliancing, what more befitting challenge?)

Let’s examine the private sector’s definition and measures of “value for money”.

Interviewed for *Cracking the VfM Code*™ SRD Consulting Principal, Malcolm Washbourne provides, from his perspective, the “private sector” insider’s view of alliancing—as it emerged, and later, as it **diverged** from that sector’s VfM frameworks.

Washbourne—an alliance facilitator—cut his collaborative contracting teeth on the world’s first project alliances—the early and mid-nineties’ North Sea oilfield projects BP Hyde and BP Andrew. He and his SRD colleagues have since facilitated, coached and advised extensively both on private and public sector alliances, in Australia, New Zealand and as far afield as South Africa and Mozambique. Washbourne’s own private sector experience has included the oil and gas, mining, nuclear and aluminium smelting sectors.

He says many of the value drivers in the private sector bear no relevance to today’s public sector VfM debate.

Back to the Future . . . Or Maybe Not

“Part of the reason alliancing hasn’t experienced the same rate of uptake in the private sector as the public sector is because, an industry like oil and gas, for example, already has well-defined, tried and tested ways of ensuring they get value for money.”

He says that these VfM processes also differ significantly “in convention”, between the various private sector industries:

“As an example, mining operates off a ‘bankable feasibility study’. This is the formal document they go out to the banks with to get project finance.

“In oil and gas they don’t have that. Instead, they go through a project delivery process that takes a phased lifecycle approach.

“When an operator locates a reservoir of hydrocarbons that it thinks it can turn into a project, it assesses, develops and commercialises it on the basis of a five-phase series of assessments. Value for money measures and tests are built integrally into each.

“In the first phase the owner is asking the question, will we get the benefits we expect from this? In other words, *‘If we do this and spend this much + or – 50 percent, what return will we get?’*

“They have hurdle rates—or a range of assessment criteria—to gauge whether the project is going to deliver, as a minimum, the return on investment (ROI) stipulated by the organisation’s board as acceptable.

“The different oil companies have different required ROI hurdle rates. A small operation like Apache’s Australian arm would have a different hurdle rate than would Shell, for example.”

The next two phases in the process focus on refining this initial assessment from a broad + or – 50 percent range down to five percent, Washbourne says.

“Phase 2 includes looking at all the delivery options to achieve the ROI target. The type of conversations that would go on—at a high level—would be: *‘Based on X concept, is this hydrocarbon field going to deliver the ROI that is acceptable to the board?’* They’re looking at all the alternatives, all the routes for the pipeline, all the subsea lay-outs e.g. vertical or horizontal trees, flexible or rigid rises, pipeline routes, and a line on the best one.

“They use a variety of tools and techniques to do this. Some of them—referred to as ‘value improvement practices’—are designed specifically to improve value.”

A value-assured Financial Investment Decision (FID)—i.e. to execute the project or not—results from Phase 3, a phase which includes development of what is known as the Front-End Engineering Design (FEED). This is a process in which the preferred alternative from Phase 2 is detailed and a project execution plan produced for the objective of making the final assessment of whether or not to proceed.

Phase 4 revolves around execution of detailed design and construction. The deliverable from this phase is the commissioned facility—working and ready to hand over to Operations.

Phase 5, says Washbourne, involves a post-investment review, which asks the question: *“Did we get the ROI and other elements of value that we promised to the board in the business case? And what are the lessons we’ve learned along the way?”*

“When an operator locates a reservoir of hydrocarbons that it thinks it can turn into a project, it assesses, develops and commercialises it on the basis of a five-phase series of assessments. Value for money measures and tests are built integrally into each.”

Malcolm Washbourne

“The most serious mistakes are not being made as a result of wrong answers. The truly dangerous thing is asking the wrong question.”

**Peter F. Drucker
(1909–2005)
Author and
globally-renowned
management
consultant**

"One of the great mistakes is to judge policies and programs by their intentions rather than their results."

Milton Friedman
(1912–2006)
American statistician
and professor
of economics;
winner of the
Nobel Prize in
economic sciences

"Here's the real critical differentiator between the public and private sector objectives in this regard: The private sector doesn't view these as 'value for money' items. They are simply the costs of doing the project the right way; they're not part of the ROI calculation; they're on the other side of the ledger. In the public sector, they put them in the 'benefits' column and try to measure them there. They attempt to put a dollar value on these soft measure achievements."

Malcolm Washbourne
on the triple-bottom
line value equation

Critical Differences between Public & Private Sector Projects

Washbourne points out that the critical difference between private and public sector projects—in terms of VfM assessment—is the fact that in public infrastructure projects, the entire process begins at what, in the preceding private sector infrastructure investment example, is essentially “Phase 4”. Yet it’s the prior three phases that have, inherently within them, processes that identify, improve, ensure and realise value, he says.

But does this private sector assessment not represent a very limited, dollar-based version of value? Surely this is only a subset of what the public sector must define, and concern itself with, in terms of value for money?

“Not at all,” says Washbourne. “That makes the assumption that the major driver of any private sector organisation is simply to monetise the resource and it isn’t so. Every project not only has a cost or ROI objective, it also has objectives around whole-of-life, safety, environment, sustainability and community (particularly if an owner is operating in under-developed countries).

“Woodside Petroleum is currently working its way through establishing an LNG facility along a section of the Western Australian coast that is covered with Aboriginal rock art. Meantime, Chevron has had to convince Federal and State Governments it will not impact the pristine environment of the A class reserve associated with its LNG development on Barrow Island.

“These things are all examples of private sector projects that have additional, non-monetary objectives—the same as any public sector alliance.”

Then how does the private sector measure the value of achieving this additional layer of objectives?

“They don’t. These are just non-negotiables. It is just part of the cost estimates. They employ people to take care of these things.

“Here’s the real critical differentiator between the public and private sector objectives in this regard: The private sector doesn’t view these as ‘value for money’ items. They are simply the costs of doing the project the right way; they’re not part of the ROI calculation; they’re on the other side of the ledger.

“In the public sector, they put them in the ‘benefits’ column and try to measure them there. They attempt to put a dollar value on these soft measure achievements.”

Washbourne acknowledges that the public sector “has to do it this way, because its drivers are different. Its ROI is not usually

purely commercially-based, or even commercially-based at all. They're doing these public infrastructure projects not for an ROI, but because there's a groundswell of public demand to shave 30 minutes off travel time by car from Perth to the southwest, or because regulations governing dams have changed and there's a need around compliance, or because stricter environmental regulations regarding sewerage outfall have been introduced.

"When they *are* commercially-based, they tend to be delivered under a PPP. In other words, someone else is going to make the investment to provide the facility e.g. the motorway, the tunnel or the water supply, and is also going to reap the benefit of its delivery to the user-public."

Proving Value to a Tougher Audience: A Bridge Too Far?

Aside from this, what else is behind the alliancing and collaborative contracting block that senior procurement circles in the resources and other privately-dominated, major capital project-delivering industries, seem to have?

"Most of the private sector's senior procurement and commercial executives are contract engineers who have always been around traditional forms of contract.

"They have 'tried and trusted' remedies for delivering major projects. So if it's a very simple job like a road, where all the parameters are known, then the answer is to go to a lump sum. They do find themselves having to deal with complexities like community and environment, and multiple and divergent stakeholders in the same way that a public infrastructure body would, but they nonetheless stick to these tried and trusted remedies. They will break down and package up the components of the overall project in small enough pieces to enable effective management of these broader elements via their traditional contracts.

"Not only that, they will cut the package up into different contractual forms based on the level of uncertainty within it.

"So it's not uncommon to see, within one package of work, the bit that's well-known delivered as a lump sum, the bit that's less well-known delivered via a Schedule of Rates, and where there is most uncertainty, a cost plus.

"Let's take a road. I have the specification; I have everything nitted out for 80 percent of the project. So I'll run that part as a lump sum. But 20 percent of this road is going to go through marshy terrain that we have very little authoritative geological data for. So I will contract this bit out on a Schedule of Rates.

"They have 'tried and trusted' remedies for delivering major projects. So if it's a very simple job like a road, where all the parameters are known, then the answer is to go to a lump sum. They do find themselves having to deal with complexities like community and environment, and multiple and divergent stakeholders in the same way that a public infrastructure body would, but they nonetheless stick to these tried and trusted remedies."

***Washbourne
on the private
sector infrastructure
procurement mindset***

"The only man who behaved sensibly was my tailor; he took my measurement anew every time he saw me, while all the rest went on with their old measurements and expected them to fit me."

**George Bernard Shaw
(1856–1950)
Irish literary critic,
playwright, essayist
and winner of
the 1925 Nobel Prize
for literature**

That reduces risk and cost uncertainty associated with the amount of materials for base course.

"So now I have 100 percent of my risks covered by using two contractual forms in the same package of work.

"Everyone in my world is happy. The procurement/contract engineers stay well within their comfort zone, and the project funders see, and are secure, that the risks have been dealt with adequately in the contract strategy. They also see that traditional forms of legal redress can be embedded in a standard contract."

Washbourne also explains that this breed of heavily conservative procurement operative "translates the alliancing procurement strategy simplistically as a cost plus margin arrangement. In his mind, the only thing that makes it any different is that there is a target cost in place.

"Their cynicism lies at the point at which it turns pear-shaped, in that it remains cost plus, and the owner continues to wear the risk, even when the contractor has lost its margin. The fact that they don't have the capacity to sue doesn't sit comfortably with them either . . . the fact that, in an alliance, all you can sue for is wilful default.

"So you have several critical layers of comfort zone stripped right away with the alliancing strategy, and it's a bridge too far."

However, he says, there are times when the private sector *does* embrace a project alliance. And that's when it deems there to be a genuine and compelling reason to do so.

Washbourne was invited by Origin Energy to help with the rescue mission of an on and offshore gas field project—the 2005 NZ\$1.3 billion Kupe Gas Project—off the Taranaki coast of New Zealand's North Island.

The initial procurement strategy—i.e. for a design competition for the Front End Engineering Design (FEED), with the winner going on to deliver the project—wasn't, says Washbourne, a particularly well thought-out strategy, given the-then very heated oil and gas market conditions. After the design competition had been let, one of the two players pulled out to pursue larger opportunities, leaving the client over the proverbial barrel, commercially speaking.

The project was converted to an alliance; it having been determined that this was the only move that could turn the fate of the project around.

Fortunately, the remaining player in the design competition had some alliancing experience, and accepted the alliance outlined by Origin in a "Key Features" document that Washbourne had

helped formulate. These key features, he says, were classic of an alliance—integrated team, reward for performance with profit at risk, principles-based, no blame . . . “the normal stuff; the whole nine yards.”

Senior managers from both the project owner and the contracting organisation went on to work together over an extremely demanding timeframe to define the target cost. The project was delivered using the resources of both the NOP and the project owner out of Perth, Adelaide, New Zealand and Kuala Lumpur.

This conversion to an alliance ultimately saw the project—Origin’s first offshore development—go on to become a phenomenal success. For the first time in Washbourne’s experience in oil and gas, “and in the experience of many others in the industry, too”, the offshore portion of a project was completed ahead of schedule and under budget.

Washbourne says “things just came together in a way you don’t usually see on this type of project. While the project experienced some difficulties in the onshore gas plant portion of the project, these were all overcome to deliver a win/win result for the participants . . . and they were overcome by virtue of good faith and fair dealing by both organisations at the executive level, underpinned by the collaborative approach on the ground.”

So why hasn’t the oil and gas industry spotlighted this case study and implemented more alliances?

Washbourne answers:

“The NZ\$1.3b size of the project was reasonably small compared with the megaprojects being delivered right now. I’m working on one now, for example, that is valued at \$38 billion.

“On a megaproject you have many, many different groups of supplier type. Consequently on this size of project, you’d end up having to put together, say, 40 alliances to do the whole thing. And it’s just too hard. It’s easier to go the tried and tested way of doing a project.

“The other reason is the very high oil price and gas price. It really doesn’t matter if a project goes a bit awry because the payback potential is so quick and so high.

“Oil and gas people only do an alliance when they’re driven to it. And the driver, in this instance, was the need to re-gain control and reach a commercial arrangement where they weren’t at the complete mercy of the prime contractor.

“Origin Energy—even with this very positive experience behind them—is delivering its current major coal seam gas development, the Australia Pacific LNG (APLNG) Project, with

“Project alliancing originated in the North Sea. We evaluated all of these projects and we know them very well. All was not always as it seemed. What we found is that many of those North Sea alliances that were viewed as quite successful actually suffered terrible operability problems afterwards. The immediate cause was poor quality, especially in both engineering and in the fabrication of the platforms which, later on, translated into operability problems.”

**Ed Merrow,
Founder and
president of global
consultancy,
Independent Project
Analysis (IPA)**

"Quality must be monitored by owners. If they don't monitor it, they're just plain stupid."

Ed Merrow

"I know it's going to be the private sector that leads this country out of the current economic times we're in. You can spend your money better than the government can spend your money."

**George W. Bush
(1946–)
43rd President
of the United States
(2001–2009)**

Conico Phillips (a major oil and gas operator out of the U.S.) in the traditional way."

'We Are Not Impressed'

Independent Project Analysis (IPA) is considered in private sector chemical processing spheres, such as the petroleum industry, to be one of the pre-eminent advisory firms on all matters relating to project profitability assessment, and contractual selection and administration.

IPA has blossomed from its one-person 1987 beginnings to a firm of over 120 project and research analysts in the Americas, Europe, and Asia Pacific. IPA's Australian operations (based in Melbourne) were established in 1997. Its staff of 18 includes 14 project analysts. These analysts service the mining, and oil and gas exploration sectors across the Asia Pacific region.

Founder and President of IPA, Ed Merrow, has an impressive resume. It includes degrees from Dartmouth College and Princeton University, and a "first job" as an Assistant Professor at UCLA, where he taught mathematical economic modelling and industrial organisation. He later developed and directed the global Rand Corporation's research program for the chemical processing sector. Merrow has testified before the United States Congress in matters pertaining to overruns in major capital projects, has served as a panel member (advising on project risk analysis matters) for the United States' National Academy of Sciences & National Academy of Engineering, and was the 1998 recipient of the U.S. Construction Industry Institute's highest honour, the Carroll H. Dunn Award of Excellence, with a more recent award for "outstanding contributions to the industry". He has also lectured internationally for the U.S. Society of Petroleum Engineers (SPE). His most recent high-profile achievement was the completion of his 2011-released book, *Industrial Megaprojects*, published by John Wiley & Sons.

Interviewed from his Virginia, United States base, Merrow spoke of a series of major studies undertaken by IPA (the largest of which involved a research sample of 2800 process industry participants) which studied the influence of different forms of contract on ultimate project outcomes. This included project alliancing.

Merrow is quick to make the distinction between strategic alliances and project alliancing.

Long-term strategic alliancing has a mixed track record, he states, drawing the comparison, a tad alarmingly, to modern marriage, in that "about half of them succeed".

His research statistics for project alliancing, however, depict a far more clear-cut picture. He has the benefit of being able to add to this statistical base, his own inside knowledge.

“Project alliancing originated in the North Sea. We evaluated all of these projects and we know them very well. All was not always as it seemed. What we found is that many of those North Sea alliances that were viewed as quite successful actually suffered terrible operability problems afterwards.

“The immediate cause was poor quality, especially in both engineering and in the fabrication of the platforms which, later on, translated into operability problems.

“The underlying reason that problem occurred—and why it unfortunately *still* occurs in project alliances, is that the owners have failed to appreciate that they have set up an incentive structure that is very much like an EPC (Engineer, Procure and Construct) Lump Sum, with respect to quality.

“In EPC Lump Sum contracts everyone understands that there is an incentive to cut corners. The reason is that, on a lump sum, any money that I save, I put into my pocket. ‘Gain shares’ represent exactly the same incentive structure. And so what happens—a lot—is that people cut corners and we have operability problems.

“Of course, that’s a problem that’s correctable, if owners do their quality assurance and quality control. Quality *must* be monitored by owners. If they don’t monitor it, they’re just plain stupid.

“But that still isn’t the core problem with alliances. The core problem is that when trouble happens, the contractual form is actually not at all helpful in understanding how to resolve disputes. This is why alliances are particularly problematic on large projects. It’s OK to have this ‘contract in the bottom drawer’ approach, but when you pull it out you want it to be helpful.

“Because the contract isn’t that useful in this regard—in the private sector, at least—then when the project starts to unravel, the alliance disintegrates, and what was a manageable problem, becomes intractable.

“Let’s say we’re in the first few months of an alliance and we’re all expecting to make most of our profit via the gainshare, when all of a sudden we start experiencing cost growth.

“Our lead engineering contractor now understands that things are not looking good. And by the way, when we do have projects that overrun, the lead engineering contractor will know this in the first few months.

“Frankly, I’d like to see the government get out of war altogether and leave the whole field to private industry.”

**Joseph Heller
(1923–1999)
American satirical
novelist, short story
writer, playwright
and author of the
influential novel,
Catch-22**

“Overall, I am not a fan of cost incentivisation in contracts. It fundamentally de-professionalises the project. What I, as an owner, am essentially saying is, ‘I need to bribe you to do a good job on my project.’ You shouldn’t assume contractors are rookies. These contractors are professional services firms who should be paid appropriately for their work, and rewarded for their good work and service, with the next job.”

Ed Merrow

"The Great Depression, like most other periods of severe unemployment, was produced by government mismanagement rather than by any inherent instability of the private economy."

Milton Friedman

"(An important aside here is that the projects that IPA has studied and been involved in are going to have been significantly more engineering-intensive than the average infrastructure project, unless they've been a particularly high-tech project like high-speed trains. Most infrastructure projects, by comparison, are more construction-intensive.)

"So we're now facing cost growth, and what this means is that many of the subcontractors or suballiances that haven't even **started** on the project are now looking forward to three years of a project with no profit. So they tend to bail out of the alliance. In some cases, critical members refuse to get into the alliance in the first place, saying that the alliance is fundamentally unfair. Their catchcry is: *'Why should I lose money because of the errors of somebody else?'*

"Bear in mind that, in my projects i.e. in the oil, mineral and resources sector, there will be a number of contractors that are part of the alliance, and some of them will not be scheduled to start work until the project is 50 to 60 percent of the way through. They may find themselves in a loss position before they ever start, and they find that infinitely unfair."

'93 Percent Failure Rate'

Marrow provides some specific statistics from his researched observations of project alliancing in large oil, chemical, mineral and resources projects. An astounding 93 percent of these alliances were classified as failures.

"Let me give you some data that tells you just how bad they were:

"The alliance contracts averaged, in inflation-adjusted terms, a 51 percent cost overrun, a 35 percent slip in the execution schedule/program (from sanction to authorisation to completion) and 57 percent of them had severe and continuing operability problems for the first two years—at least."

It's an ugly picture from a fairly decent-sized comparative sample: A total 308 megaprojects, of which 37 were project alliances . . . a failure rate Marrow says is definitely atypical of private sector industrial megaprojects.

So what's going on?

"These megaprojects in the process industries are very difficult projects. They do tend to run into problems, and the projects that are successful are those that can cope well with those problems; those that are robust in what is a difficult environment.

“One element that is absolutely critical is the robustness of the contractual vehicle.

“The comparative vagueness and overly flexible nature of the alliancing form of contract adds markedly to the fragility of an already difficult megaproject.”

And that, he says, isn’t the only problem.

“Our research shows that the owners tended to believe they didn’t need to be as actively involved in alliancing projects as they would have been in projects delivered under other contractual forms.

“That was a bad misconception. The owners need to be *all over* these big projects—or they fail.”

Morrow stresses again the engineering-intensive and technically-complex nature of these projects.

“One of the things about that is that it renders many of the problems invisible to the naked eye. So, if mistakes have been made, they can either be covered up or they’re not immediately obvious anyway, and the owner can end up with a plant that is unsafe and inoperable—despite the fact that it passes visual inspection. That’s different to most infrastructure projects, where errors are perfectly apparent to everybody.

“What that then means is that, in some cases, the alliance could appear to succeed in the project, but the project outcome itself—from the owner’s perspective—is catastrophic, because the facility doesn’t work.

“That’s a critical difference between the type of project we assess and the average public infrastructure project.”

True Co-operation, Fairness of Contract & the Old Fat Target Cost Syndrome

“One of the things I find in smaller project alliances outside of the megaprojects is that, if the lead engineer was also the engineer for the front end prior to sanction, there’s a very great temptation to pad the estimate with every single dollar you can possibly get into it, because it’s much easier to make money against a soft target.

“In the case of infrastructure projects, padding is difficult to recognise. Many aren’t competitively benchmarked for cost competitiveness, and as a consequence it may be that projects look good because they under-run against big fat cost estimates, that can be beaten easily and quite handsomely. But that doesn’t make the projects good; it just makes the team look good.

*“Let me be clear,
I think co-operation
and collaboration
are wonderful.
And what I’m sure
about is that those
projects that achieve
a strong degree of
co-operation don’t do
it just because of the
contract type . . .
I have never, ever
seen an engineer
withhold an idea
because the contract
was lump sum,
reimbursable,
or whatever.”*

Ed Morrow

*“Markets are
designed to allow
individuals to look
after their private
needs and to pursue
profit. It’s really a
great invention and
I wouldn’t under-
estimate the value of
that, but they’re not
designed to take care
of social needs.”*

**George Soros
(1930–)
Hungarian-American
financier,
chairman of Soros
Fund Management
and notable
philanthropist**

"We did three small alliances for a publicly-listed commodities company, for the building of storage facilities in various parts of Australia. These did work very successfully—and it was because they put the management effort into it, to work with the NOPs, immediately resolving any problems that cropped up."

**John Easdown,
Project alliance
auditor**

"Let me be clear, I think co-operation and collaboration are wonderful. And what I'm sure about is that those projects that achieve a strong degree of co-operation don't do it just because of the contract type. The co-operation is a function of a good project manager, especially on the owner's side—one who treats everyone with respect and listens to everyone's ideas.

"After all, engineers do what they do, firstly, in order to make a living and feed their families. But secondly, they do projects because they can do work that, to them, is fun. They can be creative. They can contribute their ideas. I have never, ever seen an engineer withhold an idea because the contract was lump sum, reimbursable, or whatever.

"The engineer contributes the idea because he or she feels they'll be listened to and it will make a difference. They don't care how their firm is being reimbursed. They're co-operative because they're in a position to make a contribution. All co-operation is individual, not collective. So I see great project teams with almost any form of contractual approach.

"Unfortunately, in the private sector, I see more teams at loggerheads in alliances than I do in other approaches.

"For the most part, with most projects, we're not *really* all in this together. We have certain responsibilities and certain roles, and you can't fully operate as though that weren't the case. I am not in a position to control your work, or even in many cases to understand whether your work is being done well or not. I know my area of responsibility, and if I fulfil it well I expect it to be compensated. If I foul it up, there will be negative repercussions for that. Fair enough.

"If we're all contributing to a single organisation and doing the same work on the project, then alliancing would make perfectly good sense, or it would make more sense for the companies to merge. But as long as we are specialists (and in my projects, specialists are the norm), I contribute my specialty, I expect to do it well, and I expect to be paid."

In closing, Merrow points out that, in the context of the private sector megaprojects he has been discussing here, in many cases the alliance agreements (or the contractual componentry related to painshare and gainshare) were not signed until well into the project's execution, "because they were so contentious with the contractors involved.

"They were in a position of having to start without it in place. People agreed in principle they'd sign it, but we could be a year into execution before it was finally agreed and signed. This is

a measure of how reluctant some of these participants are to be involved in an alliance in this industry.”

‘Make the Existing Pool Bigger’

Back to Malcolm Washbourne, who summarises his own view on the future of project alliancing and other versions of collaborative contracting:

“There’s a place for alliancing. It’s been highly successful in Australia in public sector civil engineering projects. Therefore, it should be leveraged from that position into other types of public sector infrastructure projects, and in other, appropriate parts of the world. I think the emphasis should be on making the existing swimming pool bigger, rather than trying to jump into other swimming pools.

“To go past public sector infrastructure, however, and convince people in other market sectors that their existing ways of doing things are less efficient and effective than an alliance, is rowing uphill. We’re up against the IPAs of the world who have deep, detailed and powerful data demonstrating that alliancing is, in fact, less effective than their normal forms of contact.

“And you’re fighting with one hand tied behind your back because those parties that have grown alliancing in the public infrastructure sector have never benchmarked anything against anything. They can’t tell you the outcomes of a project delivered under one form of contract against the outcomes of projects delivered under any other form. They can’t tell you whether the target cost really is the right number. And in the private sector, that’s all it comes down to.

“That’s the real world of people who are doing \$30 billion developments around the globe.”

Why Don’t the Two Sets of Data Match?

There are surely reasons additional to those expressed in this chapter thus far, why the results public sector alliances record, in general, are so vastly different to the private sector alliances included in the admittedly very large IPA research sample.

Indeed there are, says collaborative contracting consultant John Purcell, who believes one of the principal reasons the two sets of data are so polaristically opposed is “the vastly differing working definitions and application to which the concept of ‘project alliancing’ is subject.”

“A bankers’ paradigm is based on risk and risk transfer. Collaborative contracting, on the other hand, is about embracing and sharing risk. There’s a clear divide between the two.”

Malcolm Washbourne

“Rule No. 1: Never lose money.

“Rule No. 2: Never forget rule No. 1.”

**Warren Buffett
(1930–)
Legendary investor,
industrialist and
philanthropist**

“Wherein lies the truth? The label ‘alliance’ means different things to different people, and should not be used in isolation from the specific context in which it is being applied. If you try to do that, you risk the concreting of divided camps, each of which – in their own worlds – may be right. You really have to understand the circumstances and the context of each application to understand the drivers of success or failure.

“This reality often underlies any divergence of opinion about the effectiveness of alliances, and also helps to explain why all of the different views may well be, in their own right, correct and valid: they’re all based on their own experiences in their own contexts, and what they see the alliance concept as representing. And therein lies the problem. It means something different to everybody, especially across major different industry types.”

**John Purcell,
Collaborative
contracting
specialist**

“When you’ve got private sector commentators citing a 93 percent failure rate for alliances and, at the same time, you have something close to a 93 percent success rate being experienced by Australian public infrastructure sector alliances, the first place you’ve got to look for a reason for that difference is a divergence in definitions.

“It’s critical to understand the way in which the alliance model has been implemented, along with the different circumstances under which it is being implemented, to draw any meaningful comparison between these sorts of results.

“There are, quite plainly, different ways in which the concept of ‘alliancing’ can be interpreted, and an even greater number of ways in which it can be implemented,” Purcell points out. “It is clearly not possible to draw meaningful comparisons purely from the word ‘alliance’.

“One of the first questions to be asked in order to get clear on how ‘alliance’ is being defined in any particular instance, would be whether or not the principle of collective responsibility is being applied.

“What’s the attitude of the owner and their advisors to their industry partners in the alliance: Is it still a master/slave relationship, or is it indeed a truly integrated team? And there are different levels of integration, so things can differ there, too.

“If the contract remains essentially a master/slave arrangement, then many of the benefits of a fully collaborative and integrated team will not be realised. On the other hand, if a genuinely integrated team is formed then all parties will accept collective responsibility for success and for managing challenges that might arise. This creates true alignment of interest, as opposed to apportioning blame between the parties, which occurs in a more traditional form of contract.

“Another point of difference in definition and application can be, at what point has the alliance actually commenced?

“So, before any meaningful conclusions can be drawn, you must ascertain to what extent the principles of alliancing (as applied in Australian public infrastructure projects) are being applied to these international projects and their specific circumstances. In other words, make sure you’re talking apples in both cases, because when you start looking at all the ways the principles or frameworks are applied from one industry to another, you realise what a broad label ‘alliance’ actually is.

“And that takes you to the next point for consideration in this conversation, which is the level of maturity and sophistication

of participants, in terms of their experience in alliancing and their commitment to making the concept work.

“I’m not forwarding any solutions here. I’m just pointing out that perception is reality, and what you have to understand is that—on the topic of project alliancing—definitions and, therefore, perceptions differ markedly—especially between the public and private sectors.

“What is inarguable is that ‘alliance’ means different things to different people, and one should not be assessed in isolation from the specific context in which it is being applied. You really have to understand the circumstances and the context of each application to understand the real reasons behind either success or failure.

“Also, frequently, the issue is not whether a project is an alliance or not, it’s about appropriate selection of procurement and contracting methodologies to suit the way people need work together to solve a particular project’s problems. Alliancing is just a mechanism that aims to deliver those outcomes, but it depends on how it is applied in any given set of circumstances as to whether it actually delivers those outcomes.

“So, again, at the end of the day it’s about what ‘alliancing’ is deemed to be by the parties in question, and all the component elements of that definition, and then how proficiently and intelligently that specific version is applied in the prevailing circumstances.”

‘They Think They Know It All’

Meantime, John Easdown of Easdown Consulting, a specialist project alliance auditing firm, admits that smaller, “on land” private sector infrastructure alliances also often have difficulties, and offers his own observations on the reasons for this.

“The main difficulty that we have experienced on private sector alliances is that, because the principals have participated in the public sector and think they are now skilled-up and self-contained, they tend to shortcut the effort needed in the establishment stage. This causes problems at a later date.

“One of the big problems is that they often don’t employ a facilitator; they think they know it themselves.

“We followed three fairly large private companies that attempted to run alliances. One failed to sign the alliance agreement even though the contract was well under way. The second negotiated a fee before the establishment audit had been done. This fee

and the multipliers of the base salary rate ended up causing problems. The third one—a large mining company—got two-thirds of the way into establishing the alliance and then sacked the contractor, based on a belief that the contractor had been overcharging on the same mining contract while it was in a Design and Construct arrangement, before the conversion of that contract to an alliance.

“We did three small alliances for a publicly listed commodities company, for the building of storage facilities in various parts of Australia. These *did* work very successfully—and it was because they put the management effort into it, to work with the NOPs, immediately resolving any problems that cropped up. At the end of the day, we sat down and did the Limb 3 (the gain between cost and project budget) calculations together and signed off. It was all very streamlined.”

Easdown believes firmly that private organisations attempting an alliance should use a facilitator “as is done in the public sector”, to ensure the framework and the understanding of the concepts of the alliance are in place before it goes live.

“If this is not done, there’s a very high likelihood of the alliance concept going off the rails because the effort hasn’t been put into dotting the i’s and crossing the t’s in the establishment of the alliance, which ultimately results in people trying to manage something that is not complete in its formation.

“For example, there needs to be absolute crystallisation of the multipliers of the base rate of the salary component, and the understanding of what constitutes cost and how the fee is to be applied. We witnessed one private alliance where they agreed the multiplier would be applied on a 55-hour week but where the base was only 40 hours a week. This led to an over-recovery of on-costs. With no facilitator, this ended up getting locked into the contract and became a binding sum, and it blew the ultimate costs out of the water.

“People think they know how to do it. But in reality they don’t have the experience that is needed to pull it all together. And then, when problems occur, each of the NOPs uses the alliance agreement to suit its own ends. The ultimate outcome of that is the failure of the alliance, with disharmony amongst the alliance partners, cost over-runs, and it just goes on.

“I’m not saying this for the benefit of all the facilitators out there, either; it’s simply my experience.”

The Banker's Perspective

It is generally considered that the large investment banks and their representatives are not particularly attuned to project alliancing.

Malcolm Washbourne provides his observations—from his private sector experience—of project financiers' attitudes to alliancing and similarly-based collaborative contracting models.

"The lenders are asking the question, *'What are the risks associated with me lending these guys this money? Will they be able to deliver the project for the amount I'm lending them and will I get my money back and the promised ROI?'*

"The conversation a banker has with himself is: *'How can I be sure the number is the right one and that all the risks are dealt with in that number? Are all the bonds and guarantees firmly in place on this deal? If things go pear-shaped, are mechanisms in place for me to recoup the money by legal means?'*

"A bankers' paradigm is based on risk and risk transfer. Collaborative contracting, on the other hand, is about embracing and sharing risk. There's a clear divide between the two.

"Whether the bankers are right or wrong in this immediate thought process, their paradigm is risk transfer. They're more comfortable to loan money in a risk transfer environment, where they can be assured that the owner has defrayed the project risk to others, and not retained it. This drives certain contracting strategies.

"The enduring arguments around collaborative contracting—especially project alliancing—have been, and continue to be, the uncertainty of delivery against the target cost.

"In summary: alliancing per se is too 'pure'. There is no risk transfer and no guarantee of delivery to the cost estimate."

From the Mouths of Financiers

Now let's hear it straight from the horse's mouth, so to speak. Why is collaborative contracting—and project alliancing per se—a sticking point as an investment strategy for the banking sector?

An infrastructure finance professional whom did not want to be named but was more than happy to be quoted, expressed his views on alliancing thus:

"The essence of alliancing is that you do not know the final cost when the project commences.

"Certainty is the mother of quiet and repose, and uncertainty the cause of variance and contentions."

**Edward Coke
(1552–1634)**

**Member of
Parliament,
Solicitor General,
Attorney General,
and producer of
definitive
common law
legal texts
of his day**

“There is this perception that alliances are more risky than traditional delivery methodologies, by reason of the lack of certainty. However, the certainty which project financiers presume to exist in relation to traditional delivery methodologies is debatable.”

Phillip Greenham,
Partner in
Minter Ellison’s
construction,
engineering &
infrastructure
practice

“This lack of certainty makes putting together finance a very difficult proposition. Financiers value certainty above all else. Whilst it’s not impossible to put a financing deal around an alliancing contract, it’s doubtful if there would be any value for money in doing so, given the premium charged by financiers in the face of this type of uncertainty.

“You go to a financier and say, *‘Finance this pipeline.’* He says, *‘How much will it cost?’* You say, *‘I don’t know; somewhere in the vicinity of \$600 million to \$800 million.’*

“The financier will require some payment in relation to the possibility that \$800 million will be required . . . which is clearly fiscally inefficient if the outcome is **less** than \$800m. That’s **not** value for money.

“In addition, the due diligence as to constructability (as would be done for a PPP, for example) is absent in an alliance, because the project is constantly evolving. Part of the benefit you get from a PPP is that, at due diligence, the risks taken are sensibly mitigated. But in an alliance, the mitigation of risks is handled in an evolving way throughout the project.

“I will always agree that project alliancing has its place for complex projects that cannot be defined, but care must be taken that it is not used as an excuse for not properly defining a project upfront.

“One of the potential issues is that a government agency can use an alliance to avoid budget certainty—so it can’t be wrong on an estimate. That makes it difficult to establish a cost benefit analysis as to whether it should have invested in the first place.

“Again, on some projects this will be unavoidable, and alliancing is appropriate in those instances. But it should not be used for the projects where scope could have been defined and the costs ascertained before the government makes the investment decision.”

Project Finance for Public Infrastructure

Specifically on the note of private project finance for public infrastructure alliances, Melbourne-based Partner heading Minter Ellison’s Construction, Engineering & Infrastructure Division, Phillip Greenham, the author of various industry papers on the topic, says:

“For the most part, it has been thought that project financing and alliancing don’t mix, because financiers want to be able to make a reliable assessment of the financial dynamics of the project e.g.:

- How much will it cost to build it?
- How long will it take to build it?
- When will the revenue stream commence?
- If something goes wrong, who is going to be financially accountable?

“The primary concern that financiers have is lack of certainty regarding price, accountability and obligations, and liability.”

And yet, Greenham contends, there may be good reason for project financiers to actually *prefer* alliances or other forms of collaborative contracting, where these haven’t been too diluted.

“There is this perception that alliances are more risky than traditional delivery methodologies, by reason of the lack of certainty,” he says. “However, the certainty that project financiers presume to exist in relation to traditional delivery methodologies is debatable.

“The traditional lump sum fixed price project is rarely delivered for the lump sum, fixed price. In fact, alliance projects have a materially better history of being delivered within time and cost constraints than do projects delivered via a traditional methodology.

“Also, the legal device that traditional methods have relied upon is a complex, lengthy contract in which the parties’ obligations have been rigidly set out—and this has not achieved its objective of delivering projects at a predictable cost and within a predictable timeframe.

“They have evolved over the past four or five decades, and they have become far lengthier because parties find it easier to add to the length of contracts than to subcontract from them,” he explains.

“They seek certainty and predictability with regard to the way a complex project might unfold, and they endeavour to do this by using the document to try to deal with every contingency. The difficulty is that many of these documents are so complex that no one individual in the organisation has a full and clear understanding of what that organisation’s obligations are, and what the obligations of the other organisations in the project are.

“When there’s that absence of understanding, it’s only when a challenging circumstance arises, that calls for each of the parties to examine their roles in each of the circumstances, that they come to understand what the document says.”

Back to his commentary on the financiers themselves.

“They seek certainty and predictability with regard to the way a complex project might unfold, and they endeavour to do this by using the (legal) document to try to deal with every contingency. The difficulty is that many of these documents are so complex that no one individual in the organisation has a full and clear understanding of what that organisation’s obligations are, and what the obligations of the other organisations in the project are.”

**Phillip Greenham
on traditional
construction
methodology
contracts**

“There exists a belief that alliances—in their pure form, at least—are sugar-coated and that if they’re not controlled by intensive competitiveness, and rigid documentation with clear apportionment of responsibility, then they will misbehave. That fear of misbehaviour ultimately reduces to issues over value for money. And yet the degree of examination to which the pricing of an alliance project is subjected is significantly more detailed and intense than the examination of a traditionally delivered model.”

**Greenham,
on alliancing
misperceptions
and value for money**

“So there has been this assumption that only traditional delivery models have delivered the certainty that financiers crave. This really is flawed, and indeed they can enjoy greater certainty through the alliance methodology . . . a certainty that is not delivered through the traditional device i.e. the contract, but *is* delivered through the collaborative organisation which is built around the alliance agreement.”

Greenham says that despite the fact that alliancing has now been in existence in Australia for 15 years and is giving way to a broadened-out range of “collaborative” contract types, there remains a significant lack of understanding in the financial world with regard to what alliancing actually is.

“There’s a reflex view of alliancing as merely a cost-plus arrangement, and financiers fear that it will lead to unconstrained expenditure. The credit committees of the financiers have become preoccupied with whether there is a fixed price, lump sum contract associated with the project. I think the credit committees are perhaps the more conservative elements of these financing institutions, and are perhaps a little more distant from the marketplace.

“There exists a belief that alliances—in their pure form, at least—are sugar-coated and that if they’re not controlled by intensive competitiveness, and rigid documentation with clear apportionment of responsibility, then they will misbehave.

“That fear of misbehaviour ultimately reduces to issues over value for money. And yet the degree of examination to which the pricing of an alliance project is subjected is significantly more detailed and intense than the examination of a traditionally delivered model.”

Greenham says it’s possible to have provisions in an alliance contract to manage the issue of “open-ended cost”.

“While this would provoke the purists into claiming this to be a hybrid, you can find ways to modify the traditional alliance agreement so it doesn’t appear to be as open-ended in terms of cost.

“One mechanism to achieve this is to have a cost point at which a financier can still exit a project (maybe at the beginning of the project where he’s only invested a small amount of capital). Or he can call for a greater amount of security from the client organisation where, for example, the financing of the project is no longer quarantined to the project itself, but the financier is actually able to reach into the balance sheet of the parent. In this sense you’d be creating a double hybrid i.e. a hybridised project finance structure, and a hybridised alliance structure.

“As far as dealing with quality or accountability goes, the project financier could have independent verifiers involved in the project (which is one of the main characteristics of the PPP delivery methodology), to give them comfort as to quality, so that the absence of legal accountability isn’t such a concern.

“This is alliance contracting borrowing from the PPP methodology, and is perhaps the first step along the path of being able to deliver PPP projects by alliance, which is seen to be as much of a challenge as supporting an alliance project with project finance.”