

## President's Message

### Primary Purpose

Hello everyone, and welcome to the Autumn edition of Value Times.

As I said in the Summer edition, our Institute is in the business of helping people and organisations achieve best 'value for money', regardless of the activity.

I want to continue the 'value for money' theme in this edition.

In the last edition, I wrote about the 10 Core Principles that are at the heart of getting best 'value for money' and I'll continue today by highlighting some of them.

In the last edition, I wrote about the first principle which is *separating value from money*.

This is SO important, yet people — even people associated with Value Management intentionally — try to mix them up causing heaps of confusion.

It really is essential that we keep on separating 'value' from 'money' and we do this throughout Value Management exercises.

The second core principle is this: *engage all the key stakeholders*.

We need to carefully identify who the players are — who has a stake in the outcome. In most cases encountered in program and project management there will be multiple stakeholders but, in very rare cases, there might be just one person.

Whatever the situation, these stakeholders need to be engaged in the very early stages

of briefing, planning and design including participating in meetings with one another.

These people need to be engaged in the early meetings in the project planning process. In these meetings, the first thing to do is to produce a 'Value Statement', where we will collectively agree to the primary purpose of the entity, the perceived benefits that the entity will deliver and the important features of the entity.

We will also agree to a set of 'givens' and 'assumptions'.

Once they have all of these, the project team may proceed further.

We are frequently told that it is extremely difficult, if not impossible, to get the most senior people (from stakeholder organisations) to attend such events, yet they are the very people who need to engage in the early stages.

The Value for Money Labs (online VM using Zoom or Teams) make this task a lot easier. I've written several articles about these labs but one issue is critical — we get the Directors attending because the sessions only go for about one hour at a time.

The third core principle in achieving best 'value for money' is this: *Build **shared** knowledge and understanding of value factors, givens and assumptions*.

The keyword here is 'shared'. I cannot over-emphasise this.

It is absolutely crucial, in seeking best 'value for money', to ensure that stakeholders know and understand requirements, boundaries and what is

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*“The second core principle is this: engage all the key stakeholders.”*

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being requested *by the other stakeholders*.

We have seen time and time again that people change their requirements based on what others have asked for and what is important to them.

This is in stark contrast to the more common method of producing Statements of Requirements or Project Briefs.

These are typically compiled, collated and co-ordinated through a single agency that receives lists of requirements from all stakeholders (acting independently).

I recall one occasion where we were working on a major project in Singapore (with my colleague, Mark Neasbey), where a Head of Department said that she had listened carefully to the discussion and now she was aware of other's requirements, her Department's requirements would change substantially.

This one action resulted in close to 12 months of design development being saved.

The fourth core principle is this: *Stay focused on **Primary Purposes***. I often tell people that if they simply keep asking questions about Primary Purposes, they'll definitely improve 'value for money'.

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It doesn't matter what the object is: it could be something like a regular meeting (are we getting good 'value for money' by meeting like this?) or it could be a whole new mine plan worth billions of dollars.

Clarifying the Primary Purpose of whatever it is we're looking at is the single most important activity in achieving best 'value for money'. But it's not sufficient of itself to achieve best 'value for money'— we need to apply all the other principles, too!

Sometimes, it takes quite a while to get a group to agree on a Primary Purpose.

This might surprise you since, initially at least, you would think it might be obvious — but nothing could be further from the truth!

It doesn't matter what the project is — a new hospital, a new main road, a sewerage scheme, a prison, a school — every project is unique and has its own Primary Purpose.

Once you've identified and agreed to the Primary Purpose the key is to **stay focused** on it and to ensure that whatever is done can be tracked back to it. This requires the facilitator to constantly ensure that the group is truly focused and not straying into 'side issues'.

In the last edition of Value Times, I reflected on my walk back to my hotel after buying breakfast at a local cafe.

It occurred to me that whether we're talking about a \$15 breakfast or whether we're taking about a billion-dollar mining project, the principles in deciding which option delivers best 'value for money' are exactly the same.

This is always in the back of my mind. More core principles next time!

**Dr Roy Barton**  
President, IVMA

## IVMA Corporate Member Profile:

### Stantec

**Stantec is in its second year of Corporate Membership of the IVMA. A brief profile of the company and its interest in Value Management is provided below.**

Stantec is a global professional services company providing consulting and design services in planning, engineering, architecture, and environmental science. It has more than 29,000 designers, engineers, scientists, architects, surveyors, and project managers working in more than 400 locations around the world.

Its headquarters are in Edmonton, Canada and it is listed on both the Toronto and New York Stock Exchanges.

In Australia, Stantec has around 2,400 staff, providing services in the water, transport, building, environment and geosciences, energy and resources, and community development sectors.

Stantec decided to become a Corporate Member of the IVMA as it recognised the strong overlap between the IVMA's purpose of helping everyone achieve best value for money and Stantec's promise to design with community in mind.

Everyone, including clients and the communities they serve, needs 'value for money' assets and infrastructure.

"We recognised several years ago that while all of our clients are striving for improved innovation, improved 'stakeholder alignment' and better value for money (including affordability for their customers), the use of 'best practice' Value Management methodologies in the Australian water sector was very low," said Paul Kersey, Business Operations Leader – Water Australia at Stantec.

"In 2018, we developed a plan to bring 'best practice' Value Management to our clients. This included significant investment in training for key staff and important discussions with our clients," he said.

Jane La Nauze, Stantec's Water Business Leader for Vic/SA said, "We are really seeing a lot of interest from our larger clients now, as they grapple with providing improved 'value for money' in infrastructure investment in an environment of constrained budgets, increased regulation, and customers that not only expect high quality, safe and reliable services, but all at minimum cost."

Stantec's Australian Water Business Regional Director, John Ciccotelli thinks it's important for industry to support the valuable work done by the volunteers of the IVMA.

"We are also a member of Value Analysis Canada for similar reasons, and recently completed studies for Melbourne Water, Yarra Valley Water and Sydney Water. Based on the results of this work and the feedback received, we expect to see increasing use of best practice value management across the sector in the future," said John.

*The IVMA acknowledges Stantec's support and encourages other organisations to join as Corporate Members. For a modest annual fee, the value for money is high! Benefits include up to 10 Associate Memberships for staff members, that provides access to member-only guidance material. If you are interested please contact IVMA Director Colin Davies on 0417 697 218 or [cgdavies@optusnet.com.au](mailto:cgdavies@optusnet.com.au)*

**Colin Davies**  
Director, IVMA

# Gerrard Young, VM Study Facilitator, IVMA

At its March 2024 meeting the IVMA Board agreed that Gerrard Young's IVMA Membership should be upgraded from Ordinary Member to Accredited Value Management Study Facilitator.

We congratulate Gerrard on obtaining this important accreditation.

Gerrard is currently the Business Development & Strategy Manager, Water (Vic) for Stantec and is also a Board member of IVMA.

Gerrard has gained his knowledge of Value Management facilitation through training programs delivered by trainers accredited by the Institute of Value Management (UK) and IVMA.

Additional training has been obtained via workshops conducted by the Society of Value Engineers International (USA).

He has also achieved 'Endorsed Facilitator' accreditation from the International Association of Facilitators.

Gerrard has had a decade-long interest in facilitating collaboration exercises and has conducted numerous workshops related to infrastructure planning, design development and business strategy development.

Gerrard's extensive Value Management (VM) facilitation experience to-date has



Gerrard Young, VM Study Facilitator, IVMA

mainly been associated with major water supply treatment and sewerage treatment plants in Australia.

VM Study clients have included Sydney Water, Melbourne Water, Yarra Valley Water and Southern Rural Water.

The IVMA Register of Accredited Value Management Study Facilitators is located at: <https://ivma.org.au/value-management-register/>

## **David Baguley**

Chair, Appointments and Accreditation Committee, IVMA

## US Defense use of Value Engineering

### Background

Australia's defence system is becoming increasingly integrated with the defence system of our major ally, the USA; the major acquisition of AUKUS submarines being only the most recent example.

With the run-away costs and questionable 'value' of recent Australian Defence purchases covered in two articles in the Summer 2024 Value Times, there is perhaps a need to look at what our principle defence partner does with regard to achieving 'value for money' (VfM) and functionality in its defence acquisitions.

Since 1954 the US Department of Defense has applied Value Engineering (VE) to its defence acquisitions initially to combat the rapidly increasing cost of acquiring and operating ships in the post-war era.

It was subsequently found that the application of VE could more accurately deliver the required functionality of a product or project at the lowest lifetime cost.

VE has the same roots and a similar methodology to that of Value Management (VM) as practiced in Australia.

These techniques stem from the General Electric Corporation's (GEC) endeavour to deliver its customers' needs in a post-World War II environment of materials shortages.

These constraints resulted in a search to really understand from first principles, the functions that clients really needed and then to fulfill these functions accurately and reliably at the lowest total cost of ownership.

Intensive research and development, the use of VE and other management techniques resulted in GEC being one of the highest capitalised companies in the world from 1950 until 2000 and the highest capitalised company in the world in 2000.

### US Federal Acquisitions Generally

At the highest level of US Government, the US Federal Office of Management and Budget requires that consideration should be given to applying VE to all federal acquisitions with a value exceeding \$5 million:

"The value management methodology (also known as value analysis and value engineering) should be considered for use in the Planning and Budgeting, Acquisition, and Management-In-Use Phases of capital programming."

<https://www.whitehouse.gov/wp-content/uploads/2018/06/a11.pdf>

Similarly the US General Services Administration urges "Client initiated VE and Contractor or Supplier initiated VE Change Proposals in accordance with Acquisition.gov website, most recent VE update being 23 February 2024."

<https://www.acquisition.gov/far/part-48>

### US Defense

In the US Defense environment, VE is in use in the following areas: Army, Navy, Air Force, Defense Logistics Agency, Defense Threat Reduction Agency, Aviation and Missile Command and the Missile Defense Agency.

Application of VE in US Defence is controlled by the Department of Defense (DoD) Instruction 4245.14, "DoD Value Engineering (VE) Program," implements 41 USC 1711, "Value Engineering," and the Office of Management and Budget Circular No. A-131, "Value Engineering".

The US Defence approach to applying VE is strongly biased towards applying it in the purchase stage of the project life as a 'cost saving' technique. There are two approaches in its acquisition strategy as described in the 2024 Federal Government acquisition strategy (<https://www.acquisition.gov/far/part-48>):

'(1) The first is an incentive approach in which contractor participation is voluntary

and the contractor uses its own resources to develop and submit any *value engineering* change proposals (VECPs). The contracts provide for sharing of savings and for payment of the contractor's allowable development and implementation costs if a VECP is accepted. This voluntary approach *should* not in itself increase costs to the Government.

(2) The second approach is a mandatory program in which the Government requires and pays for a specific value engineering program effort. The contractor *must* perform *value engineering* of the scope and level of effort required by the Government's program plan and included as a separately priced item of work in the contract Schedule.

No *value engineering* sharing is permitted in architect engineer contracts. All other contracts with a program clause share in savings on accepted VECPs, but at a lower percentage rate than under the voluntary approach.

The objective of this *value engineering* program requirement is to ensure that the contractor's *value engineering* effort is applied to areas of the contract that offer opportunities for considerable savings consistent with the functional requirements of the end item of the contract.'

The US Army Corps of Engineers has a long history of performing VE studies during the design development stage of its projects.

At a presentation rewarding participants for substantial VE initiated cost savings Todd Hutto, Value Engineering Manager of the Army Materiel Command stated that "Any equipment that is expensive, complex, has multiple uses, and/or is facing obsolescence or inadequate sources of supply, can benefit by going through the VE process".

Hutto also said that "Value Engineering makes Army equipment more capable, reliable, safer, and less expensive."





HMAS Waterhen, Waverton, NSW. This project was the subject of three Value Management studies in 1991/92

The US DoD regularly reports on the savings made through the application of VE in its various divisions.

For example, the 10-year total for VE savings to 2011 exceeded \$21 billion. Involving specialists in a VE study initiated an air traffic control system saving of \$36.9 million by switching from an obsolete commercial system to a system that the government already owned.

**Australian Defence use of Value Management**

In the decade prior to 2000 the Australian Department of Defence conducted a large number of Value Management (VM) studies mainly on infrastructure projects.

The focus of these studies was to gain a clear understanding of the current and future needs of the numerous Divisions that comprise Defence and their functional inter-relationships.

From there, functional briefs for Strategy and Design were developed into Tender documents. This approach ensured that functionality and ‘value for money’ were built into the Procurement process from first principles.

Great emphasis was placed on ensuring that representatives of all users and maintainers of a particular facility or piece of equipment were included in the VM study process.

This process resulted in practical and functional facilities and equipment at the lowest life-cycle cost that are still in use today.

Following 2000, changes in personnel within Defence resulted in decreasing use of VM in that Department.

The Department of Defence is by far the highest spending Commonwealth Government entity having expended some

\$38.7 billion (51.72% of Commonwealth procurement) in financial year 2022/23.

Next in the expenditure stakes is the Department of Employment and Workplace Relations spending \$4.5 billion or 6.05% of total Commonwealth expenditure in the same year.

The complexity of Defence requirements and the questionable ‘value for money’ evidenced in the two articles in the Summer 2024 Value Times indicate that the Australian taxpayer would be best served by a firm, consistent, high-level commitment to achieving optimal ‘value for money’ in Australian defence procurements and operations as a matter of urgency.

**John Bushell**

Chair Publications and Events Committee, IVMA

## Of course if you are looking for a short cut to value...

### 'The Potato Score' for Value for Money – the scoring mechanism that ruins your evaluation

When I started my career, Value for Money was what it said on the tin.

You scored quality, calculated price and divided one by another.

If something was 10% better and 10% more expensive than another offer, both bids scored the same.

If something was 10% less expensive but the same quality, it won. Simple.

But too simple for a new breed of Procurement Professionals.

"Hang on," they said. "10% could be a lot of money and maybe we don't want 10% better quality."

Ignoring simpler solutions, like setting quality minimums and just evaluating on price, they set about creating a new set of price evaluation measures which were labyrinthine in their complexity, the most insidious of which looks like this:

$$100\% - \frac{(\text{Your Price} - \text{Lowest Price})}{(\text{Highest Price} - \text{Lowest Price})} \times \text{Price Weighting}$$

The result of this is usually to massively amplify otherwise small differences in price, especially in procurements where the market is already competitive and the specification is clear.

In these markets, it's not unusual to see very tight ranges of bid prices.

Let's say that there are two bidders and their prices are only 5% apart. The buyer uses a relatively normal price weighting of 40%.

In this case, the bidder who managed to squeeze costs by 5% starts the rest of the competition 40% ahead of the other bidder.

That low bid can score only 20% out of 60% on quality and still match a bid which scores full marks for quality. This doesn't do the buyer any favours.

Let's imagine another scenario.

You're buying a house. You and your partner are procurement groupies and decide you should set up a spreadsheet and make your decision on that.

Don't laugh, this is how my friends and I decide where we are going on holiday, but that's another story.

Spreadsheets are good things.

Anyway, you both think House A is the best. It's not perfect, but it's pretty good. You give it 85 points out of 100.

Your partner likes House C but you don't. They score House C at 80 and you score it at 50. You average this for a score of 65. House B is "ish". You both give it 72.5.

Already we see that people rarely score anything below 50%, which is another way procurement undervalues quality. We usually only use half the available range.

Anyway, you run the numbers and find the following:

Your partner is ok with it. They preferred A but, for them, C is 10% cheaper and 5% worse so it's a good enough choice. You are not pleased though.

How can C score 28 points ahead of the house you both love, A, when A is only 10-11% more expensive? Must be the weightings. After all, this is the house you are going to live in for the next ten years.

Price isn't everything. So you convince your partner to run it again with a measly 20% weighting on price.

Huh. Odd. Neither of you really liked B much. Fortunately, your grandfather comes in and asks what the matter is.

He explains that when he used to buy potatoes for the navy, they didn't have computers and so instead, they just gave a score for potato quality and divided it by the price.

They used to call it 'value for money'.

It sounds very old fashioned, but to humour him, you whip out a calculator and do it anyway.

Huh. Feels right. But it's not what the spreadsheet said – so you shake your heads and buy House B.

**Matthew Custance**

Shared via LinkedIn