

A Forum hosted by the USI of the ACT
on behalf of RUSI OF AUSTRALIA



“DEFENCE WHITE PAPER - THE RELEVANCE OF DEFENCE INDUSTRY”

A CONTRIBUTION TO THE 2008 DEFENCE WHITE PAPER
COMMUNITY CONSULTATION PROCESS

CANBERRA, 17 SEPTEMBER 2008







RUSI OF AUSTRALIA

“The aim of the Institute is to promote informed debate and to improve public awareness and understanding of defence and national security”

“THE DEFENCE WHITE PAPER – THE RELEVANCE OF DEFENCE INDUSTRY”



**THE PROCEEDINGS OF A RUSI OF AUSTRALIA FORUM
HELD IN CANBERRA, 17 SEPTEMBER 2008**

AND

**SUBMITTED AS
THE SECOND OF TWO RUSI OF AUSTRALIA
CONTRIBUTIONS TO THE
2008 DEFENCE WHITE PAPER
COMMUNITY CONSULTATION PROCESS**

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“THE DEFENCE WHITE PAPER – THE RELEVANCE OF DEFENCE INDUSTRY”

PART 1

FOREWORD BY NATIONAL PRESIDENT



The Royal United Services Institute of Australia (RUSI) is a non-profit organisation based on volunteers whose collective aims are to promote informed debate and to improve public awareness and understanding of defence and national security. Through its state and territory chapters across Australia, RUSI regularly pursues these aims by convening presentations by experts in the fields of national security and defence. Periodically, RUSI hosts international seminars featuring key overseas and national speakers, and these have been recorded in RUSI Journals that are held in major national security and defence libraries.

In holding its second open Forum on “**The Defence White Paper – The Relevance of Defence Industry**” at the Australian Defence College, Canberra on Wednesday 17 September 2008, RUSI continued well over 100 years of tradition in promoting informed discussion and debate on defence and national security issues in Australia.

This document contains the proceedings of this second open Forum and is provided to the Department of Defence as the second of two submissions by RUSI of Australia to the 2008 Defence White Paper Community Consultation process. RUSI state chapters agreed to The United Services Institute of the Australian Capital Territory hosting this Forum and our thanks are due to the President of the USI of the ACT, Air Commodore Peter McDermott AM, CSC RAAFAR, and his Council for this effort.

Other RUSI chapters and all RUSI members also contributed to the Consultation process. This product, however, is the sole submission of RUSI of Australia. The views contained in this submission are those of the individuals concerned and do not represent the collective view of RUSI as an organisation.

In holding this Forum, RUSI’s specific aim was to present as its contribution to the 2008 Defence White Paper Community Consultation process, a diverse set of informed views which would contribute to a broader understanding of key national security and defence issues.

I believe this aim has been well met and recommend this document as a valid and significant contribution to open discussion and debate on Australia’s national security.

Chris Ritchie
Vice Admiral, AO (Retd)
National President
RUSI of Australia

Canberra

September 2008





**“THE DEFENCE WHITE PAPER –
THE RELEVANCE OF DEFENCE INDUSTRY”**

PART 2

MODERATOR’S COMMENTS BY

WGCDR Bob Howe (Retd)

NATIONAL SECRETARY, RUSI OF AUSTRALIA





**Moderator's Comments by:
Wing Commander Bob Howe, (Retd)
NATIONAL SECRETARY, RUSI OF AUSTRALIA**

Before asking our panelists to give their presentations which will then be followed by an open session of discussion and hopefully debate, I would like to make a few introductory remarks.

**DEFENCE WHITE PAPER FORUM
THE RELEVANCE OF DEFENCE INDUSTRY
“HOW MIGHT WE BETTER INTEGRATE INDUSTRY?”**

QUOTE:

“Australia’s defence industry is a fundamental element of our national security – often referred to as the ‘4th arm of Defence’. Over many years, governments of all persuasions have developed defence industry policies that acknowledge this fundamental relationship.”

QUESTIONS:

**To what extent is the Australian Government committed to such policies?
Is Australian defence industry really a 4th arm of Defence?**

At our first 2008 Defence White Paper forum held on this campus on Wed 6 August, the Defence White Paper Discussion Paper entitled “Key Questions for Defence in the 21st Century” served as the basis for discussion and debate. Thanks to the Community Consultation panel, copies of this reference were made available and distributed amongst the audience, as we are also doing so tonight in case you don’t have a copy.

During our first Forum, criticism was raised of this Discussion Paper for its unsophisticated approach to a very serious and complex subject. Maybe that is so, but I thought that some of the basic questions asked in Chapter 5 – “Choices for Defence” - were framed in such a way as to draw out from the community at large a diversity of opinion, informed or less-informed.

In the limited time set aside for the first RUSI Forum, I thought that our panel and audience together covered fairly well most of the generic questions asked in Chapter 5 - bar one – “How Might We Better Integrate Industry?” Because of the significance of this issue, the Council of the USI of ACT agreed that it was worthy of a Forum its own.

In the context of the community consultation process associated with the preparation of the Defence White Paper, the role of the USI of ACT, on behalf of our parent body, the RUSI of Australia, is to ensure that informed opinion is put forward, aiming to achieve a more balanced and informed public perspective. This fits in very well with our aims of promoting discussion and better informing the public of important national security and defence issues.



QUOTE: The challenge for the future is equally fundamental. In recent years we have seen a substantial rationalisation of the defence industry sector.

QUESTIONS:

Is such rationalisation in the national interest?

What are the strategic risks of industry rationalisation?

Are there better options?

That's why we have some very experienced and distinguished panelists here tonight, well known for their ability to think deeply on such matters and also to be willing to speak their minds. The Discussion Paper addressed the matter of Defence Industry's relevance in Chapter 5 in a frank and open manner and I expect that we will continue in this vein.

QUOTE:

"We may need to consider the capacity of Australia's defence industry (less than 1 percent of total industry capability), and its reliance upon overseas sources of innovation and technology."

QUESTIONS:

What is the optimum capacity from a national strategic perspective?

Who should be responsible for establishing and sustaining a viable defence industry?

Who is the champion for Australian defence industry?

I would like to go as far as saying that the author or authors of Chapter Five deserve congratulations for providing a firm platform on which to base a robust discussion and debate on Australia's defence industry and how it should be regarded and treated at a strategic level. And I emphasise - at a strategic level - and exhort participants here tonight to resist the temptation to drag the debate down to the micro level of detail, unless of course they are offering specific examples to illustrate strategic points.

QUOTE:

"New challenges are emerging for both bureaucracies and companies in building a defence industry base capable of supporting and sustaining Defence's activities in both peace and conflict. These challenges have included the decline in Australia's manufacturing capability, the deskilling of Australia's workforce - including within Defence itself - and industry's capacity to surge beyond peacetime limits to support and sustain ADF on operations".

QUESTIONS:

What fundamental defence technologies are needed?

Is systems integration and engineering the solution?

Are there better options?

As these few slides show, some very fundamental questions can arise from the rudimentary statements contained in Section 5 of the Discussion Paper.



QUOTE:

“As a consequence, choices may need to be made about the ways in which we develop and maintain a sustainable and skilled workforce that can adapt international best practice to Australian needs. The new White Paper will need to address these issues”.

QUESTIONS:

**Is a skilled Australian defence industry a strategic national capability?
Should it be treated as the 4th arm of Defence?**

As far as I am aware, it is an extremely rare occurrence for open discussion and debate to take place on the strategic relevance of Australian defence industry. I must admit to some curiosity as to whether or not any of the underlying reasons for this will surface during the conduct of this open Forum, but that is not our main purpose tonight. The real focus is on the strategic issues that are in need of intelligent scrutiny in the light of ever changing geo-strategic circumstances. What better opportunity than during an open Defence White Paper Community Consultation process?

QUOTE:

“Australia’s defence industry is a fundamental element of our national security – often referred to as the ‘4th arm of Defence’. Over many years, governments of all persuasions have developed defence industry policies that acknowledge this fundamental relationship.”

QUESTIONS:

**To what extent is the Australian Government committed to such policies?
Is Australian defence industry really a 4th arm of Defence?**

To what degree these questions, the issues and possible answers or solutions will be addressed this evening remains to be seen. I am hopeful that our intention of avoiding organisational or bureaucratic party line pronouncements is well understood. I expect that we, and through us the broader community, will be rewarded with open dialogue, a range of individual opinions and maybe even some passionate arguments. I suggest that it is very easy to avoid the politically sensitive and somewhat confronting issues that underline any consideration of the strategic relevance of Australia’s defence industry. At the risk of stealing the thunder of one or more of our panelists, let me illustrate what I mean with a recent example.

While his words may have been taken out of a specific context, Parliamentary Secretary Greg Combet was reported by Patrick Walters in *The Weekend Australian’s* Defence Supplement on 7-8 June 2008 in an article titled “No Favours to Local Industry”, and I quote:

“(Minister) Combet says the defence industry is not going to be offset and local content is not going to be mandatory. Rather the focus will be on making Australian firms more competitive in a dynamic global market”. Unfortunately, he then added “There is a bit of a mind-set in some of the defence industry that the purpose of procurement is to sustain the industry”.



Having heard these sorts of throw-away lines many times over 30 years of involvement in defence industry, I despair that genuine efforts to achieve any understanding of these complexities are possible because they are just not politically palatable. Surely there is a case to be made, in the national interest, for a far more intelligent handling of these issues, irrespective of what one's viewpoint is. For starters it seems sensible that we have to educate ministerial advisers as a priority matter if the broader public is to become better informed.

Perhaps ironically, the article in question continued with the quote: "The purpose of defence procurement is to deliver the capability. That is number one". No one will argue with that, but where was there any mention in the article, and presumably the Minister's statements, about Australia's Defence Industry being, or providing, a capability in its own right?

I suggest that the average thoughtful citizen, of which there are many more than we might appreciate, could feel somewhat bemused when such remarks are made in the current political climate where certain government ministers are emotively extolling the strategic values of Australia's maritime and motor vehicle industries. Perhaps they might ask themselves - what about Australia's defence industry? How does it fit into this context? Or as the authors of Chapter 5 put it – "How Might We Better Integrate Industry?"

What I am suggesting here is that we need to be very careful and more precise when we talk about defence industry or - more to the point - how we define Australian defence industry. Indeed, I can recall when advising the South Australian Government on defence industry matters, how difficult it was for the state government bureaucracy, so used to categorising industry commercially under traditional Australian Bureau of Standards, to recognise that its local defence industrial base had to be seen in a different dimension.

Both Premiers John Bannon and John Olsen understood and were well aware of these nuances as they were well advised by knowledgeable senior executives within the Premier's Office. Maybe responsibility for national policy on Australia's defence industry needs to be elevated in a similar manner above or beyond existing bureaucratic constraints. I suggest that its time to be serious about discussing and debating the strategic relevance of Australian defence industry - what it means in the Defence White Paper context and more importantly what it means for Australia's future national security.

Do we ignore the subject because some perceive no threat to our way of life? Is a commitment to defence industry a direct function of our threat perception? Are the defence forces unwilling to confront this issue because they don't want to lose any more in-house resources or let the public have an inkling of how much they really depend on defence industry? Why is the bureaucracy unable to advocate, or be seen to advocate, the benefits of our own Australian defence industry capability?

When we come to Defence White Papers, in my direct experience, the subject of defence industry has traditionally been allocated its own stand-alone chapter, signalling a belated admission by the authors that its omission might generate unwanted adverse



reactions. The efforts of some, including myself back in the 1980s and 1990s, to have it embedded within the core coverage of Defence's overarching set of capabilities in the White Paper context have yet to bear fruit. Maybe it's time to correct this anomaly. To me this says something about the perspective of Defence White Paper authors. After all, defence industry is not only a source of PRODUCTS, it's a major source of HIGH QUALITY ENGINEERING PERSONNEL AND SKILLS, it's a source of national INFRASTRUCTURE, and more fundamentally, at the strategic level, it is a source of CAPABILITY.

In today's world, defence industry capabilities directly, and indirectly, contribute to national capability, not merely as suppliers but increasingly with a combat edge, serving alongside navies, armies and air forces. Has Australia tried to ignore or buck this trend to the detriment of our own national security?

This is a public forum and the proceedings of this forum will be submitted to the Defence White Paper Community Consultative Panel as well as being placed on the RUSI website for all to see. Although all of our panelists have day jobs and we might feel tempted to label them accordingly, please don't expect their views to be those of their organisations, just as nothing said here tonight represents RUSI or USI or ACT views. We are after a wide variety of personal opinions. As with our previous Forum, we will refrain from summarising issues or herding them into neat compartments. Any and all views are equally welcome. If, however, in discussing and debating the place of defence industry in our society, there is some repetition, I don't believe that this will be a bad thing – it serves to emphasise points and place them in perspective.

Biography: Wing Commander Bob Howe, RAAF (Retd)



Bob graduated from the real RAAF College at Point Cook in 1960 and enjoyed a fabulous flying career chasing submarines in 10 Squadron's Neptunes, serving as 2 Squadron's bombing leader on Canberras in Vietnam and hitting speeds of Mach 2 in F-4E Phantoms. His staff life was also diverse and interesting, starting with a year's Aero Systems education in the UK, a posting to Washington at the Air Attache's Office and finally managing a range of new era weapons systems projects in Canberra. He then embarked on a second 20 year-long career in the defence industry, starting with 7 years as the Canberra-based marketing manager for then wholly-owned Australian company - Computer Sciences of Australia, where he was responsible for spreading the word on Australia's brand new systems engineering industry. Thereafter he set up his consultant's shingle and represented over 30 commercial clients for the next 15 years or so. He was the Canberra face and voice of the South Australian Government throughout the 1990s, starting in the Bannon years, continuing to serve under Premier John Olsen. During this time he was intimately involved with evolving Collins submarine and Air Warfare Destroyer programs and a range of other major procurements. He created and ran the Canberra-based Defence Representatives Association and became actively involved in policy matters through such joint defence-industry mechanisms as the Contracting Consulting Forum (CCF) and the Commercial Support Program Consulting Forum (CSPCF), becoming co-chair of the latter. He was pro-active in 'persuading' defence procurement executives to define what they meant by Value for Money, he took part in preparing many submissions on defence industry policy - even to the extent of personally fronting the Productivity Commission on its hearings into defence industry - and also pioneered the creation of the Capability Development Advisory Forum (CDAF), aimed at bringing defence industry and the ADF closer together. He was an active participant in the ill-fated Defence Logistics Division's development of policy in the late '90s concerning industry's engagement with the ADF in Areas of Operations (AOs). Having failed to retire gracefully, in 2005 he agreed to take over RUSI and USI of ACT secretary-ships and since then has worked hard to help make them relevant in a rapidly changing national security and defence environment. For Bob, this Forum is part of a long continuum.





**“THE DEFENCE WHITE PAPER –
RELEVANCE OF DEFENCE INDUSTRY”**

PART 3

PANEL PRESENTATIONS

Mr Chris Jenkins, Managing Director, Thales Australia

Mr Andrew Davies, Australian Strategic Policy Institute (ASPI)

Mr Brice Pacey, ASC Pty Ltd

Mr Trevor Thomas, 'Australian Defence Business Review'





Mr Chris Jenkins, Managing Director, Thales Australia Ltd

Introduction

- Thales Australia welcomes the Government's approach to a new White Paper on Defence issues.
- A fundamental and inclusive assessment of Australia's strategic circumstances and national security is overdue and comes at a critical time for this country.
- Thales Australia acknowledges the importance of broadening the debate through the community consultation process and welcomes the opportunity to provide input.



Australia's central security problem

- Australia's central security problem always has been, and to some extent always will be, the uncertainty surrounding the range of military threats to its national and international interests.
- Achieving a best fit, in terms of military force structure and its attendant industry support capabilities, will always be a challenge for Government.
- Investing in a defence industry base that can design, build, supply and support a nation's force structure is a critical differentiator and force multiplier that imparts a degree of independence of action and self determination when employing military force.

A focused approach

- Developing a focused military spectrum capability (ie the USA being a full spectrum capability), with broad strategic application and an affordable industry capability scaled to match, is a balanced approach to take under these circumstances.
- The question for this White Paper then becomes, does Australia have a defence industry which is able to match the operational demands of the ADF's focused spectrum capability of today, and is it positioned to support the proposed spectrum of capabilities for 2016 and beyond?
- Australia's strategic circumstances are characterised by uncertainty, which means that in order to provide flexible military response options, the capability of the ADF and of industry must be structured around a range of focused mission challenges.

Tailored solutions

- The capacity of Australia's defence industry to tailor equipment and solutions to meet the ADF's needs is a force multiplier.



- This is achieved either through local development or by providing a critical interface between the user community and the international supplier base that develop systems and technologies beyond the reach of Australia's domestic industry.
- The approach to tailoring equipment is often criticised for contributing to increased technical, cost and schedule risk, and the creation of 'orphan' systems.
- However, based on the low numbers of platforms and systems acquired by Australia, with very long intervals before replacement, the need to modify, extend and improve system capabilities is essential in order to extract the maximum value from the money spent on defence procurement and support.
- The ability to produce tailored solutions for the ADF's defence needs is essential to support a small, high technology force that fights in ways unique to Australia's strategic and economic circumstances.

Reinvigorating defence policy

- Today the ADF is more dependent on industry for product, support and services than at any previous period in the country's peacetime history.
- This brings Australia and the ADF into line with most other Western countries where industry, rather than Government, is the source of deep support for the nation's military power.
- What sets Australia apart from other nations is the extent to which it has pursued a deliberate policy of competing widely for the ADF's materiel requirements.
- This strategy has created an industrial landscape shaped by individual project decisions based largely on competitive factors, in isolation from and sometimes in contradiction with, Australia's defence industrial policies to: develop intellectual property locally; employ SMEs; export goods and services; and sustain local capability investment.
- The White Paper of 2008 should restate and reinforce the objectives of supporting the ADF, creating wealth, employment, technology and intellectual value in Australia, as the central tenets of a reinvigorated defence industry policy.

Industry participants

- Australia's defence industrial sector is relatively small, but comprises significant skills and know-how that is vitally important to the ADF.
- The number of companies in Australia that can manage a high level of complexity and risk in defence projects, across a range of capability domains, is arguably:
 - BAE Systems (UK)
 - Thales Australia (France)
 - Raytheon Australia (USA)



- Australian Aerospace (France)
- Boeing Australia (USA)
- ASC (Australian Government)

Interconnected industry and investment

- The broader interests of Government, the specific needs of the ADF and the sustainability of industry are all highly interconnected.
- The challenge before Australia, now that it has established such an open market for defence goods and services, is to encourage global industry to invest locally.
- The world's military industrial players are essentially free to invest or disinvest in the Australian defence market according to individual company assessments of competing investment opportunities in the global market.

Encouraging local industry

- The key challenge for Government is to attract the investment attention of the global market, and work closely with foreign companies to support domestic growth and knowledge development.
- Developing strategic working relationships with the major primes and system integrators is essential in order to deliver the Government's go-to-market channels for small to medium enterprises in local industry.
- This outcome is best achieved by leveraging the advantages of an open defence market in Australia by:
 - Working strategically with the small number of Tier 1 players that manage the majority of the ADF's supply networks for and on behalf of the sector as a whole.
 - Ensuring that in a globalised economy Australia is seen as a progressive and profitable market in which defence companies can invest.
 - Demonstrating that a financial, managerial and reputational commitment by a company to successfully manage complex defence programs is valued and rewarded.

Supporting SMEs

- Thales Australia supports the idea of clustering with SMEs in order to deliver complete capability solutions.
- Thales Australia's success on the Minehunter, FFG and Bushmaster projects has been highly dependent on the creation and management of sound commercial arrangements with hundreds of individual suppliers and contractors.
- Government and Defence have quickly become dependent on large companies to support their SME policies. The best avenue for SMEs wishing



to do defence business in the future will be through close and enduring partnership with a prime or major sub-contractor.

- As a consequence, Defence and Government need to re-visit their SME policy and ensure it supports and recognises the efforts of large companies to foster the go-to-market opportunities for SMEs.
- If Australia wishes to have a healthy SME base to support defence capability, it must have large domestic companies commercially capable of acting in that leadership role.

Gaining a competitive advantage

- Defence's current acquisition strategies recognise and rely upon a world of globalised industries, interdependent economies and rapid (relatively) open information flows.
- Much of the technology underpinning advanced defence systems is either COTS or MOTS.
- Given that COTS technology is available to all and, increasingly, advanced MOTS to many, it is strategically important to be clear about the areas in which we need to coordinate Defence and industry efforts to develop and sustain key capabilities for the ADF.

Where must Australia excel?

- Australia must continue to pull its weight militarily and industrially or risk becoming dependent upon, rather than a contributor to, global security.
- Furthermore, Australia must not allow interdependence to undermine its belief in its own capability and in its will to be as independent and as self reliant as technically and fiscally possible.
- So, in what areas must Australia excel? Thales Australia offers the following list:
 - Local investment
 - The ability to tap into the global market
 - Project management
 - Platform/systems integration
 - Systems engineering and integration
 - Software development
 - Information technology and telecommunications
 - Exploiting the dimension of space
 - Management of the defence capability supply chain from start to finish
- Serious and substantive involvement in design, system integration, configuration management, project management etc, will ensure our indigenous companies can build and maintain the capability to support affordable yet superior defence systems.



- The often specialised manner in which the ADF conducts operations invariably demands tailored capability solutions which themselves emerge from a clear understanding of the military limitations of a small ADF.
- To maximise the ADF's effectiveness, Australia will need to develop the local wherewithal to take global capabilities and package them in unique ways that overcome these limitations in scale and resources.

Biography: Mr Chris Jenkins

Chris started in the defence industry as a mechanical engineer with Racal in 1981, Plessey in 1983 and then GEC Marconi in 1990 heading up their Underwater Systems business in Australia. He was a key player in the creation of Thales Underwater Systems (TUS) in Australia as a joint venture for Thales and GEC in 1996. During his time at TUS he was also the director of projects for two years, and marketing and sales director for two years prior to his appointment as Managing Director of TUS in 1999. From 2003 to 2005, he was the CEO of the East/West Consortium led by Thales in the Netherlands, introducing the national Public Transport Smartcard Program. Chris then became Vice President for Operations and an Executive Director on the Thales Australia Board. He was appointed Managing Director of Thales Australia on 15 January 2008.





Mr Andrew Davies, ASPI

Before I begin, let me say that I don't consider myself an expert on defence industry. Ideally Mark Thomson would be here – but since he is indisposed due to a severe case of Whitepaperitis, I'll have to do. These comments should therefore be interpreted as those of an interested—and hopefully intelligent—observer. You should feel free to educate me appropriately during the discussion session that follows.



Let me start by spelling out my basic assumptions and observations that inform what is to come:

- 1) Australian defence industry is one part—and sometimes a vital one—of the provision of defence capability to government.
- 2) It is appropriate in some instances for government to effectively subsidise some parts of industry in order to maintain capabilities judged to be of strategic value.
- 3) But defence industry is not an end in itself—and it follows from that that it is not the business of defence policy and funding to support Australian defence industry for its own sake. The government has a Department of Industry with the job of setting policy for industry as a whole. It's not Defence's job.
- 4) (This is a corollary of the previous point.) Building things in Australia is not intrinsically worthwhile—the business case must be there. Otherwise it would be collectively better if the project managers, engineers and skilled workers were employed in a more efficient sector of the economy.
- 5) But—and this is a big but—the worldwide defence market operates with a high degree of distortion based on perceived (and often erroneous) notions of national interests, resulting in unfair competitive practices, pork barreling and continued support of poor practices that would otherwise be winnowed out through competition. It is therefore a long way from the most efficient competitive model. It is not realistic to think that we can operate a completely free model in Australia with those boundary conditions.

The conclusion I come to from all of that is that finding a way to encourage efficiency and innovation in Australia's defence industry is a tricky balance of national strategic interest, value for money in government purchasing and the vested interests of some very canny players in industry.

I'm going to kick off by talking about some of the general issues that arise when we talk about defence industry, competition and efficiency. Then I'll come back and discuss those aspects of Australian industry where I think there is a genuine strategic imperative for accepting a less than completely competitive approach.

Let me start with an example of a model that I think has resulted in some wins for genuinely competitive Australian firms. The participation by Australia in the Joint Strike Fighter program has allowed companies like GKN Engineering and Production



Parts to demonstrate that they can compete with the world for some seriously impressive work on one of the largest defence programs in history. It is a case of the Australian government making an investment that resulted in industry opportunity – not in the firms directly, but in opening the door for them to compete. (Incidentally, that’s an example of the market distortions I mentioned a minute ago. Just reflect on the possible impact on JSF costs if there was a completely open competition for services and products, rather than ‘only if the government signs the MOU’ approach.)

But there are two problems with this example. Firstly, most programs don’t run that way—it’s an artefact of the JSF consortium approach. And, secondly, even given those successes, it’s still not clear that the overall result has been positive for the country. That could only be evaluated by taking the cost to government of participating in the program and offsetting the value of the work won, less the opportunity cost of the work that those firms and their employees would have done if they weren’t doing JSF work.

And here’s where it gets very tricky—and where I think there is much sleight of hand, both from industry and from government. Simply, it is very hard to evaluate the net cost or benefits of doing business in certain ways. Either the opportunity costs are hard to assess, the flow-on effects are hard to evaluate, or both. And while there may be those who can reliably calculate the ‘recycling’ of defence money spent in Australia to the rest of the economy, I readily confess to not being one of them.

Let’s look at the example of building air warfare destroyers in Australia. I have written—and have been criticised for it in some circles—that there is a large premium, of order 30-40%, for building them here. The riposte I received is that the only differential between Australian shipyards and overseas ones is the cost of labour. Everything else, the argument runs, is purchased at market prices—the commodity steel, copper wire, through to the Aegis system. When you do the sums, you conclude that the differential is closer to 5%.

But that misses a fundamental point. That sort of argument will give the right answer only when both production lines are mature. When we set out to build AWDs, we incur a whole bunch of fixed costs before we start cutting steel, and the first vessels are at the start of the learning curve and therefore significantly more expensive than later ones. Of course, we then stop at three (or maybe four)—well before the benefits of learning mature. When you factor all of that in, you get my answer, which I stand by.

And that example suggests a criterion that I think we might usefully use when considering whether to build here or buy off-the-shelf:

Is there a reasonable prospect of on-going work, allowing economies of scale to be attained and learning curves to be negotiated?

But you might be asking yourself ‘does it *have* to be the cheapest way to procure something? What about Australian jobs, and isn’t it to our advantage to have high-tech industries here?’ Well, maybe not. Most of us who study the entrails of Defence for a living have realised that there are some serious budget difficulties coming up, even with the promised 3% real annual increase. So spending money it doesn’t have to is not in Defence’s interest. And as for Australian jobs, I would simply reiterate the opportunity cost—especially in an economy suffering a skills shortage.



Which brings us to the one argument—in my view—that has the possibility of holding up to scrutiny: is there a strategic (in the military sense) imperative for having things done by Australian industry?

Brice raised some very valid concerns that I think would benefit from more explicit discussion in Australian defence circles. And his point about being clear about our motives when committing to undertakings that cannot be justified on purely economic grounds is essentially the point I am trying to make here. Rather than asserting that we shouldn't build air warfare destroyers here, my point is that decisions like that sometimes seem to be made without really understanding all of the costs and benefits. I don't know if the government believes the 5% premium argument, and I'm pretty sure it doesn't believe my 30+% one. But it does know that every shipyard is in someone's electorate. And, at some visceral level, it does seem nice to see big projects delivered in-country. I am as susceptible to that notion as anyone else.

But let me leave the warm and fuzzy part of the equation and get back to strategy. Let me take up a couple of Brice's points. Firstly, he points out that there is a very real disconnect—geographically as well as functionally if I understand him right—between Australia and the suppliers of critical military equipment. A disconnect that means that we could quite conceivably find ourselves with insufficient warstocks in a drawn-out conflict. The questions, of course, are to what extent does that matter, and what is the alternative?

I think the answer to the first might be 'less often than you first think'. With the exception of major powers, everyone is in the same boat—smart weapons and their ilk have to come from somewhere else. And if we are in a conflict with a major power that has greater strategic depth than ourselves, restocking with a new shipment of weapons will, at best, buy a little time. In that circumstance, either our own major power ally is with us and can resupply us, or we lose.

And I'm not sure that the alternatives are particularly attractive. We could simply buy more stuff and stockpile it—which in most circumstances will mean writing off very large sums when life of type occurs. Or we could manufacture and support equipment ourselves. Sweden does it (mostly), with a population about half of ours. But we made different economic and social decisions a long time ago. The Swedish tax take is still almost 60% of its GDP. Australia's is closer to 35%. Like it or not, we have nationally made a decision to eschew the centralist approach in favour of something much more free market in its nature. Given that we already sit at the upper end of the OECD defence spending table at 2% of GDP (except for the United Nations Security Council countries), it would be a major decision to spend more of GDP to become more self-sufficient in terms of weapon systems. (And we would also have to hope that our R&D people could produce stuff that competed with the products of other larger manufacturers.)

So, barring some very significant shifts in thinking and resourcing, I think we are left pretty much where we are. That is, Australia will continue to obtain the bulk of its material from elsewhere. Australian industry will, for the most part, have to work within that framework. And I'd note in that context that Brice's comments about the



ponderous nature of doing business with Defence makes it clear that even that is more difficult than it needs to be.

But that doesn't mean I see no role for Australian industry. There are instances where Australia really can't satisfy its requirements from the world market. And there are capabilities that are so important and so enduring that it really is worth the strategic investment to have a level of capability here. And, though this is often overlooked, having a design and manufacturing capability almost invariably makes for more canny buying. I ran a major project at one stage that outsourced millions of dollars worth of software engineering. Without Australian industry, we couldn't have delivered the capability that we did. But having a team of very capable software engineers in house was also of immense value in assessing tenders and managing projects. We had enough work to keep both in-house programmers and out-house programmers (as the in-house guys invariably called them) busy. And the arrangement increased efficiency on both sides. My guys knew that I could outsource work, and the contractors knew that we understood where the bodies were likely to be buried and which rocks to turn over during the periodic project reviews.

As well, no matter what transpires in the acquisition world, we need the capacity to repair and maintain equipment. The depth to which we need to be able to go in-country could be debated, as could the extent to which we could contract for it as part of acquisition. The bottom line is that we will use the materiel here, so the people servicing it will have to be here.

So I have some sympathy for the idea that the Australian government should identify strategic defence industries. I'll suggest a few – electronic warfare, explosive ordinance, computer network defence and submarine manufacture.

But problems appear once such a list is developed. Firstly, the firms whose capabilities don't appear on the list have a tendency to start lobbying. That can generally be managed. The more serious problems sometimes arise for those that do appear on the list. Do they automatically get the inside running on procurement decisions? That alone is hard to answer. If we say 'yes', then where is the incentive for firms to innovate and keep at the bleeding edge? If the answer is 'no', then why should they make the investment in people and capital that is required?

The recent sonar decision for the AWD is a case in point. Thales have made a significant investment—scores of people—in an Australian-based sonar facility, in part at least due to underwater detection being identified as a strategic industry. Yet the decision went, as many of you will know, to an off-shore company in Ultra. I have no visibility of the technical merit of the two proposed solutions, and I trust that the correct decision has been made in terms of capability. But I also wonder what Thales now thinks of the extant industry policy. (Disclosure – Thales is a sponsor of ASPI)

Sometimes the decision goes the other way—we eschew an off-the shelf solution from overseas in order to buy locally. And sometimes that means we get an ALR-2002, losing time, money and capability in the process. While I included electronic warfare in my list of strategic industry capability, this example gives me pause for thought.



I'll stop now, and I'm acutely aware that I have provided little in the way of clear direction. That is because I don't think there are any easy answers. My natural inclination is to encourage maximum competition at every turn. But the world doesn't necessarily work that way. If not for some very successful lobbying in the US, our air-to-air refuellers could have been part of a world-wide fleet of hundreds with all the advantages that would accrue with that (and might still be, but I wouldn't count on it). But I'll be honest, even recognising the problem of a skewed world market for defence products, I still struggle to find a solution that is compatible with maximising the efficiency of Australian industry and providing genuine strategic depth and capacity. I look forward to being enlightened in the general forum.

Biography: Mr Andrew Davies

Andrew is a theoretical physicist by training, and published research papers in the area of high-energy particle physics while at the University of Melbourne and the Australian National University. Andrew joined the Analytic Studies Group in the Department of Defence in 1994. He worked on a range of scientific studies in support of Defence decision making, including submarine detection for the RAN, Army firepower options and RAAF stand-off weapons effectiveness. He led the Capability Analysis Branch within Defence Headquarters for a time, before moving into the world of signals intelligence and information security with the Defence Signals Directorate, where he held a number of positions. Andrew joined the Australian Strategic Policy Institute as director of the Operations and Capability Program in 2006. He has written extensively on ADF capability issues, the significance of military transformation in Asia and nuclear proliferation issues.





Mr Brice Pacey, ASC Pty Ltd

Assumptions about the Nature of Future Conflict

In recent years it has been politically and bureaucratically convenient to adopt a range of comfortable assumptions about Australia's strategic circumstances and the implications these have for strategic industry policy. Strategic industry policy has, for a long time, been either neglected or developed in the absence of any rigorous strategic framework.



This policy neglect is evident in the White Paper public discussion paper *Key Questions for Defence in the 21st Century*, which identifies key questions relating to the role, structure and affordability of Australia's armed forces, but makes little mention of broader aspects of our national security, such as the capacity of our industrial base to assist in the development and sustainment of those forces.

Although seldom explicit, the assumptions about the nature of future conflict that accompany this neglect would seem to include:

- Future conflict will be asymmetrical and sustained, or conventional but short;
- There is no need to be concerned about the strategic disconnection between Australia and its major sources of equipment in North America and Europe;
- There is no need to worry about extended and possibly vulnerable sea lines of communication;
- Australia will be able to obtain its materiel needs from a functioning defence market;
- Australia will have unrestricted access to the best technology available in that market;
- The market will not accord a higher priority to meeting the needs of other customers during periods of high demand; and,
- Australia's strategic depth allows it to be relaxed about the concentration and lack of protection of key strategic industries.

The Department of Defence would appear to rarely question these assumptions, nor define indicators that would show if these assumptions were failing. Nor does it appear to identify explicitly those aspects of policy that would need to be revisited if these assumptions were found to be failing. In short, Australia's approach to industry policy in general, and defence procurement in particular, has been developed in the absence of any strategic, economic or historical framework. We have failed to heed the lessons of the past and are unprepared for the challenges of the future.

What Is Different About Strategic Industries?

Part of the problem has been tension between strategic and economic objectives, and the application of neo-classical economic theory to strategic industries. This approach overlooks important differences between the civil and defence industry sectors:



- Defence industry is different from other sectors in that it must deliver and sustain the Australian Defence Force (ADF) not only during peace, but also during periods of war or conflict. In order to accommodate the surges in demand associated with conflict, key defence industry sectors have to retain surplus and unique capacities.
- Furthermore, it can be difficult to get a commercial rate of return on defence industry investments in a purely open market. The cost of the propellant facility at Mulwala, for example, consists of a capability payment to maintain a surge capability, not simply a return on investment required to meet a predictable and much lower peace-time demand for propellant.

The sometimes crude application of competition policy has contributed to the atomisation of Australian defence industry and a significant transfer of ownership from Australian to foreign investors. This has left no single major Australian player in the defence market, and has left many smaller Australian firms operating below the critical mass that is required to survive over the longer term or to compete in the international defence market.

This has had a secondary effect of reducing the options for new firms to establish themselves in Australia because there are now few options for teaming with Australian companies with relevant skill sets and facilities.

These problems have been compounded by poor investment planning by the Department of Defence generating very uneven demand. It has been argued that the large bureaucratic procurement organisation has also imposed costs and raised the barriers of entry to Australian defence markets. The costs of administering the procurement program and contracts add significantly to the cost of defence equipment, lowers the affordable level of capability, and adds to the technical and schedule risks of programs.

This can effectively work to the advantage the traditional large system ‘primes’, which are used to operating in the Defence environment (largely foreign owned), and to the disadvantage of new entrants to the defence market (very often Australian small to medium enterprises that have been operating in adjacent markets). We are now facing a critical juncture: in the very recent past, we had three vendor-independent military systems integrators in Australia, ADI, Tenix and ASC. We could soon have none.

Fragmentation of Policy Responsibilities

One reason why this situation has arisen is the fragmentation of relevant policy responsibilities within government. If we look at government interests in strategic industries:

- The sale of Tenix was nominally handled by the Treasurer advised by the Foreign Investment Review Board and the Australian Competition and Consumer Commission.
- The sale of ASC is nominally to be handled by the Minister for Finance and Deregulation advised by the Office of Asset Sales.
- Defence Industry Policy is handled by the Parliamentary Secretary for Defence Procurement with the advice of the Defence Materiel Organisation, but investment



decisions, and their supporting Australian industry involvement and capability decisions are handled by the Defence Minister.

- The security of national strategic infrastructure and lines of communication is the responsibility of the Attorney General.
- Key players in defence industry, such as the Finance Minister and the Parliamentary Secretary for Defence Procurement, are not members of the National Security Committee (NSC).

At the level of the bureaucracy

- The DMO functions as both a consumer and de facto regulator, with publicly-stated priorities of schedule and value for money, even though these priorities may not represent the broader national interest or broader strategic priorities.

It is to the great credit of the current Australian Government that a dedicated and highly competent Parliamentary Secretary has been given a broad remit for defence procurement. Furthermore, we have a strategically literate and supportive Prime Minister. Nevertheless, many of the current reforms are fragile and depend on the personal qualities of the current Parliamentary Secretary. It would be in all of our interests to ensure that the progress that has been made survives a reshuffle of portfolio responsibilities.

Some Key Questions

In the context of a strategic review of Defence policy, there is a need to supplement the questions contained in the public discussion paper *Key Questions for Defence in the 21st Century* with a range of questions regarding strategic industry policy including the following:

- Is Australia prepared, in *extremis*, to pay to maintain a strategic industry capability?
- Is the Government prepared to use methods other than competition to ensure value in industries in which competition proves to be inadequate or only a partially satisfactory mechanism?
- Does the Government need to intervene in the market in some other way, such as the development of publicly-owned and privately-operated facilities, common user facilities, or capability payments to industry along US lines?
- Is there a case for public funding for the hardening or protection of key facilities and vital infrastructure?
- Is government satisfied that the defence procurement agency is the best vehicle for managing strategic industry policy in view of its other responsibilities?
- Why have successive Australian Governments been prepared to intervene in other markets, such as agriculture or the automotive industry, but not in industries central to country's defence and broader national security?



Biography: Mr Brice Pacey

Brice has wide experience in Defence with appointments in the intelligence community, Army Headquarters, and Defence's International Policy Division. He is a graduate of Macquarie University, the Australian National University, and the University of Arizona. He is also an honours graduate of the Armed Forces of the Philippines Command and General Staff College, and the Admiral Griffiths Prize Winner at the Royal Australian Navy Staff College Balmoral. He is a former strategic analyst at the Office of National Assessments and Directorate of Army Research and Analysis, and has instructed at the United States Army Intelligence Centre and School. In recent years, he has been a strategic and operational analyst in the private sector.



Mr Trevor Thomas, ADBR & diar.com



I'd like to make three initial points, and they will probably upset a number of people in the room, hopefully. I'd like to propose that we discontinue procurement as the main driver of defence industry policy, given the majority of what the Department of Defence spends each year consists principally of routine items. This type of purchasing should not be used to drive industry policy – simply, because it's just business. It's not driven with any particular strategic outcome in mind, as it should be. Simple procurement is driven by government seeking value for money, as it should be.

The general process involves officials putting out invitations to tender for goods and services. Firms and individuals respond with standard catalogue items, or materials that can be supplied within a near-term production cycle. Such purchasing is not a good base upon which to drive strategic industry policy. The expenditure is not particularly targeted to any whole of economy industrial objectives, and there is argument its particular orientation can work to distort incentives for alternative, more optimal, industry investment.

So I would say in considering a new era of defence-industry policy in light of the 2009 Defence White Paper's development, that we should abandon the use of military requirements procurement as the principal driver of industry policy, and switch to a set of broader drivers focused on encouraging a new round of research and innovation principally guided by a focus on meeting the challenges thrown up by Australia's uniquely national or natural advantages, with a particular emphasis on labour saving technologies and devices.

There are a few quotes that might put the above into better perspective. The CEO of the Defence Materiel Organisation, Dr Gumley, often speaks about the activities of the DMO in terms of incentives it provides to industry from defence materiel procurement. He talks about 100 billion dollars a year being spent on buying and sustaining military capability, but as Brice would similarly tell us, much of this constitutes day-to-day consumption items. Again, for most firms, responding to such requirements is just business. They do not use it to drive their long-term strategic planning.

The formulation of strategic industry policy takes real thought and insight, leadership and financial commitment to make it happen. I ask you, why would anybody in industry change what they see as their natural strategic business direction to do something else, unless they saw there were real financial returns in it for them? Added to this, I think it was Andrew who said something about the current defence procurement environment being made so expensive, so difficult, so regulation driven, that we are actually driving suppliers away these days. Such externalities, over and above those encountered in normal commerce, only act to reduce competition, and in the end, forces up costs.

I might also take some quotes from the Parliamentary Secretary for Defence Procurement, Greg Combet, because – like many individuals I regularly talk to – people are very impressed by what Greg has been saying to date. I know he says it in



regular monotony, but there is value in revisiting the following half a dozen policy principles: the need to encourage a competitive market; the domination of Australian defence-industry by large multinational corporations; the preponderance of small and medium size enterprises in the local supply base; and the need to support SME efforts to secure work from the primes.

As part of the above quest, Greg talks about the need to leverage off the larger companies, and encourage them to establish a significant presence in Australia (that is, not just a marketing office), which is reflective of their overall position in terms of total Australian defence acquisition expenditures. I think - if I did the numbers right last time we had a look at this in ADBR – with the last restructuring of the upper tier of local defence-industry, the top six firms now take at least 80% of the total value that's put out by the DMO. That's pretty concentrated when it comes to the formulation of strategic industry policy.

Now I know that the primes in turn sub-contract a lot of their work out to SMEs, but as we have learned from the past, when times get tough - like perhaps the next 12-18 months as we experience an accumulating drought on new project approvals - the larger firms have a tendency to suck work back in, thus leaving the SMEs with little to sustain them. It's not that I am already receiving telephone calls of this nature. So I suspect that is what is on Greg's mind when he talks about encouraging international primes to establish a significant presence in Australia, as well as wishing to attract some new players into the market. That's another unique feature of the defence market in Australia - one principal buyer now stands against a diminishing number of sellers, and even less in terms of lead military technology providers.

Now I have had a think about the above principles from where I originally came from in my professional life, and as my bio says it was founded from 1983 on sectoral industry policy initiatives such as the 1983 Steel Industry Plan, the 1984 Textiles, Clothing & Footwear Plan and the 1984 Automotive Industry Plan. Those were the days when local industry benefited from very high tariff protection supplemented by quantitative import restrictions, or quotas. It wasn't uncommon for most consumers to be absorbing upwards of 200% import duty in the cost of a pair of socks, or hosiery, etc. This is because we restricted the number of items that could be imported in any single year in order to reserve the majority of the market for local suppliers. The outcome was less-than-world class products, priced up to a margin just below the peak import duty rate. Expansion of the annual import quota was subjected to a tender, and if you wanted more, you would have to bid for higher volume by offering an incremental tariff rate. If you started at base rate, say 75%, and a 125% tender rate, it's pretty easy to see why you were paying 200% duty on hosiery. Most people don't understand the technicalities of this any more, but when you factor into the equation tariff assistance afforded to other inputs into the TCF or Automotive supply chains, the effective rate of assistance ended up being astronomical.

Of course, once a new national government in the early '80s sat around the table and had a long think about this, the immediate conclusion was that it made no sense at all, particularly when locally made products remained under the standard of imported counterparts. It was clear to those policy makers that the Australian economy needed to be progressively opened up if we were going to have a chance of accessing benefits from the shift of industrial capacity to Asia. One of my early jobs was to work with a



team developing mechanisms to bring this about. The 1983 Steel Plan, I admit, was rushed – it had its genesis in an election environment, and the very real risk Australia would lose its steel industry. As a consequence, a large amount of taxpayers' money went to BHP to initially retain capability, but with a focus on the absorption of new technologies and generation of new products. That initial strategic investment delivered real benefits in terms of new products and production techniques. Does anybody have a Colourbond roof on their home?

We had a bit more time for the Textiles and Passenger Motor Vehicles plans. The idea was to progressively move these industries to a point where they were internationally competitive and sustainable in the longer-term. I guess some of you might say, "Trevor we're still at it" when we reflect on the current national debate over the Steve Bracks and Roy Green reviews. Above the noise of argument, I would say the real point - in terms of future defence-industry policy - is the opportunity these reviews give us to consider more appropriate mechanisms relevant to driving future investment in research & development and innovation, with the aim of securing for Australia the generation of new products and services relevant to changing domestic and international demand patterns over the next 20-30 years.

It is my contention that the structural adjustment programs devised over the early 1980s and their subsequent iterations have had a real influence on getting firms to think about investing in areas more aligned to their natural competitive advantage, and less reliant on low value-added inputs and simple cost cutting. For TCF, the assistance mechanism first adopted was the oddly-titled Import Credits Scheme, and for passenger motor vehicles, I would cite the Automotive Competitiveness Investment Scheme (ACIS). These schemes were based on the provision of a financial incentive for incremental value-added output performance, by stimulating firms to concentrate resources on R&D with a mind to manufacturing, not the product that they wanted to sell tomorrow, but the product they would sell to the next generation of consumers.

Now there's (been) a lot of press since the mid-1980s about the chaos that happened as many TCF firms closed down. Such structural adjustment was also experienced in a number of other Western countries. But, if you look around the industry today, I would say it's actually been quite successfully restructured. I had a little question - if anybody was at the Press Club the other day – for Senator Carr, and goaded him to consider whether the new Bracks/Green proposals for post-2010 TCF and Automotive assistance might not end up crowding out alternative industrial pursuits, potentially offering higher value-added and output outcomes. He gave me a pretty firm answer – public investments to date in these industries have generated a whole range of new and interesting products and technologies that are now making economy-wide contributions.

In the pool, at the Olympics, our swimmers compete in suits cut and melded in very specialist ways that gives them a margin of advantage in terms of reduced resistance to the flow of water over the body. Our technical textiles industry has also moved into some impressive technologies. Years ago there was a company called ADI Limited, which used to have a geriatric military clothing plant at Coburg, just down from the old gaol. In its place there's now a company called Australian Defence Apparel (the result of a management buy out), and they have come up with some very high tech fibre combinations for body armour, that have just found \$80m of success in project Land



125. Without discounting the value of such a contract to the firm, it would be unnatural of me not also to point to the critical role played in restructuring the company's product profile by having access to TCF structural adjustment assistance by way of the Strategic Investment Program.

The attractive thing about what came from the TCF Import Credits Scheme and Strategic Investment Program, was a real incentive to push for change, in terms of boosting financial returns to firms from restructuring efforts to something in the order of 20 cents in the dollar. I see that Chris is looking very interested at that (figure). If you talk to any entrepreneur about achieving a return of 20 cents in the dollar - over and above what you make on the product - might that be sufficient for them to change the nature and focus of their future business activities? I would argue from my experience that it does.

Let's look at the automotive companies - they have a very similar driver. Under ACIS, if they invest in research and development, new plant and equipment, develop new products, and generate export sales, a benefit is generated in the form of credit of import duty. Now, the three majors who build cars in Australia traditionally have used a lot of local componentry - meaning they can't necessarily use all of the credits they generate themselves. In turn, such credits have been accommodated through a private transfer market, and effectively sold for a cash return to importers. 'Cars for cash' if you like - consistent with a financial return above what I have previously spoke about. That has provided local PMV manufacturers with extra, performance-based resources, which they have invested in skills, equipment, technology and process improvements. Similarly, for car importers who buy those credits, they have been used to mediate the duty impost on imported vehicles. So, the whole construct has worked to focus domestic manufacturers on longer production lines of a smaller range of vehicles - thus boosting their competitive advantage, while for consumers, the choice of alternative vehicles has been substantially broadened due to import cost reductions. Again, such economic outcomes were not achieved by directed government procurement, but by the provision of incentives to drive cultural change and industrial renewal.

Now, the reason I went through those examples with you is because we've now got a new government, and particularly, a new industry (oops - innovation) minister. Senator Kim Carr will tell you, very enthusiastically, that the Button-era plans really did achieve their aims in terms of taking industry along a successful structural adjustment path. I thank him for that. Twenty years later, however, it's now time to look at that period of industrial regeneration, and see what can be done to drive materialisation of the next generation of products and services. There is a myriad of new product and technology opportunities - such as shirts for the military that have embedded into the fabric medicinal substances that in combat, when a soldier is wounded, will release an initial medical preparation which acts to mitigate the injury. There are also proposals to embed copper wire and microelectronics inside military garments, powered by solar cells on the helmet and Velcro stripped to an earpiece and microphone to function as a communications device. Just think about it - a mobile phone and GPS embedded into your jacket - let alone a remote health monitoring device linked back to your GP.



So these are some examples of potential new technologies emerging from current R&D and innovation projects within Australian industry that potentially have wide commercial applications, let alone those for the military. Hence, I would now like to bring this discussion into focus on how such experiences might be utilised in moving to the next iteration of Australian defence-industry policy. To its credit, the Rudd Government has looked outside the Defence White Paper process to apply some great minds to this task, headed by Dr Terry Cutler from the CSIRO. His report - on the emergent National Innovation Strategy - came out a week ago, and although having already once drafted my speech for tonight, a thorough reading of Dr Cutler's report has only made the final version better.

Senator Carr gave this introduction when first presenting Dr Cutler's report to the media. He stated, "some of the guiding principles coming out of this Report are – Australia is a small country with only so many dollars it can devote to research and innovation - it can't be all things to all people. We urgently need to concentrate our efforts and resources if we are to achieve the scale of activity needed to remain globally competitive." I think such sentiments give us a lot of valuable guidance to what we should be thinking about in terms of providing new vigour to Australian defence-industry policy.

Dr Cutler observes that we successfully adopt and adapt 98% of innovative ideas that are generated in the rest of the world, and I dare say that metric would not be too different for the Australian Defence Force. Similar to the small number of firms that dominate the global automotive industry, there are a small number of large players that provide the majority of national security and defence solutions. Hence, it's a very big ask to think that a small firm in Australia who's turning over between five and fifteen million dollars each year is ever going to counter the muscle of an international firm turning over hundreds of millions of dollars. I think we're just asking too much. That's why we should look at better focussing our efforts.

Dr Cutler came up with some very good points. Unlike the world of "redemptions of import credits" that I came from, he has suggested the Government abolish the current research and development tax concession, and replace it with a tax credit. The reason for this is that when we had a 46 cents in the dollar corporate tax rate and a 150% R&D tax concession, the return was something like TCF and Automotive were getting under their industry plans. At the moment, with the company tax rate having fallen to 30 cents in the dollar, and the concession rate down to 125%, the return on investment is about 5 to seven-and-a-half cents in the dollar. Honestly, that's not enough if you're going to make a difference in driving peoples' strategic planning for new R&D and product innovation.

Dr Cutler proposes instead to move to a refundable tax credit system with a 50% benefit for firms with turnovers under \$50 million - that's the new definition of small and medium sized enterprise - and 40% for larger firms (non-refundable credit), will restore incentives to something like when I was involved in crafting up sectoral schemes. Just to explain, a refundable credit can be used whether you are in profit or loss. So for each dollar you invest, you get 50c back from government. More importantly, you get it paid virtually up-front if you are not in a taxpaying situation. If you're a larger company, the benefit kicks-in when you're in a tax paying situation. In



short, you might view the proposed new credit as a form of interest-free loan to innovators.

So how does Dr Cutler propose to focus this new benefit in the manner spoken of by Senator Carr? Well, he came up with five principles to shape new innovation policy and funding. He talked about: leveraging Australia's natural endowments to build its strengths; about focussing on distinctively Australian and global challenges that Australia is advantageously placed to address; about having a focus on re-inventing and transforming existing industries and service delivery; about internationalising Australia's innovation system through global integration; and he talked about investing in national capabilities, facilities and innovation infrastructure that support all of the above. I recommend that all interested in the defence-industry policy debate have a look at this Report.

After looking at appropriate principles to shape this turnaround in terms of focussing on research and development and innovation, Dr Cutler's team then set about developing a set of national innovation priorities. These were broken into two areas: public sector ones, and private sector ones, such as technologies for the resource industries, space and astronomy, finance and risk management and the marine industries.

I'll now turn back to a few more quotes from Greg Combet in one of his recent addresses. He talked about a key issue for Australian SMEs being their ability to access the latest production and processes and technologies. One might translate this into the new government being anxious – just as we were in the mid-1980s – to see new corporate investment in upgrading skills and the adoption of new approaches to the utilisation of equipment and industrial processes to re-invigorate and bring on the next generation of products and services required by the Australian economy. And I think that's the very important thing. If you accept that you don't have all the money in the world, if you accept that you have to have some focus, then you've got to start looking at what are the key priorities and focus them down on things that really do make a difference to the Australian environment and geographical situation, and where local industry is well positioned for the uptake. Of course, in some areas of technological development envisaged by local scientists, there are no extant Australian companies. We similarly need to consider mechanisms to address this.

Around the world, every country is applying research and development support across a broad range of products and technologies. Some countries guide such investments, others do not. Reference to the Australian economic environment and geographical situation, readily generates a long list of unique challenges and, as we have done it in the past, Australian entrepreneurs have regularly brought forward many new technologies that have been very successful, not only in satisfying our own domestic market requirements, but also in addressing needs in other countries.

I'd just sum up by asking - How do we integrate some of Dr Cutler's ideas into assisting the development and growth of Australian defence-industry? Well I would challenge current thinkers by saying this is not appropriately done by dreaming up new concepts of sectoral assistance, even if the concept is disguised by fashionable acronyms like PLICs, which have real potential to drive scarcity economics and introduce additional market distortions. One helpful initiative might be activities to



come to a better understanding of what might be the constitution of defence-industry as we move on to an economy starved of people, as well as water. What thus might be future defence-industry comprise? My answer is - any industrial activity that can potentially offer a national security or defence benefit, whether this be generated from textiles - shirts that will help wounded soldiers in combat; whether this be generated from the automotive industry – via advanced engineering and materials applied to unmanned air and robotic ground vehicles; whether this be generated from IT to help drive systems integration and network centric warfare; or whether benefits emerge from management consultants putting forward ideas for better processes, better solutions, better ways of adapting technologies to leverage benefits over and above those realised by competitors – in commerce, as well as on the battlefield.

To drive this agenda forward, we need to move away from military procurement solely as the driver for defence-industry policy, and embrace a switch to a broader research and development and innovation stance backed by incentives to guide determinations by companies, including foreign multinational corporations, as to where they should put their focus. The next step is to put into place an innovation policy that delivers a real opportunity for firms to get a significant return on their investment for those activities placed in Australia.

This leads us on to opening up a dialogue with multi-national companies in Australia and saying – “Well, guys, if you’re going to put new effort into research and development, the creation of new technologies in Australia, the sponsoring of new products in partnership with SMEs, and the export of new products via incorporating them into your global supply chains, then we’ll give you a real incentive.” Now I don’t mean incentives garnered by the odd strategically placed acquisition contract. What I do mean is looking at broader incentives that return real dollar benefits to companies for R&D and innovation activities marked against tax liabilities for whatever business such companies are doing in Australia. You will sense that I am not against some incremental benefit - over and above that generally outlined by Dr Cutler – for technological endeavours based in Australia that seek to overcome natural domestic security and defence disadvantages, and thus offer the prospect of giving us a one-up on future adversaries.

That is what I have argued tonight the ‘Button’-era policies have done for Australia. As usual, we now find ourselves in different circumstances and there is still much more to be done, and there’s a much broader list of industrial activities in Australia that should be included in new R&D and innovation incentives, as proposed by Dr Cutler.

There’s one other point I’ll quickly make. If you’re getting a good return on investment by being able to do many of the things I have talked about tonight, you can actually open up the prospect of supporting the retention of small scale ‘idle capacity’. By that I mean, in situ industrial skills and plant and equipment - presses, machining equipment, etc - not in regular use everyday, but with potential for quick employment when you are faced with the need to satisfy short-run rapid acquisition production requirements or new technological approaches to counter incremental threats generated on the battlefield.

In the United States, they have a different tax structure for these types of firms which mediates commercial imperatives to generate an annual market-based return on



employed capital in order to keep shareholders happy. Many such facilities are productively co-located or integrated with technical education institutions. Just looking at Dr Cutler's suggestion to switch from tax deductions to tax credits for R&D and innovation, also gives us food for thought in terms of looking for measures that might better position local industry to support the Australian Defence Force. Hence, the 'idle capacity' concept appears to have merit in terms of helping local innovators with infrastructure designed to rapidly move new technological concepts past prototype development, and into short-run manufacture.

In summary, centralised procurement influenced by factors not always perceived as being relevant to value for money outcomes appears to have out-lived its usefulness in guiding the development of strategic defence-industry policy. Industry circumstances and the global economic environment have substantially changed from where they were twenty years ago. The current defence procurement profile is too diverse in terms of developing strategic industry policy, and has a small order orientation which distorts incentives for wider industrial development with potential to offer new national security and defence capability options and supply sources. Hence, I think we need to look at a new range of tools for providing effective incentives to the development of local industry capability relevant to national security and defence, and perhaps locate such activities and tools in a different department or agency in order to engender the required cultural change needed to foster an alternative approach.

Biography: Mr Trevor Thomas

Trevor holds a degree in Economics from the Australian National University, and a post-Graduate Diploma in Business Practice from the Canberra University. He began his career working for the United States Embassy in Canberra, developing economic and political assessments of Australian national and business affairs, and preparing briefs for the U.S. State Department in Washington. He subsequently joined the management team of the Australian Chamber of Commerce, where he was responsible for monitoring Federal Government affairs and researching/developing Chamber business policy. In 1997 he consolidated a number of existing defence publications to create 'Australian Defence Business Review' (ADBR) magazine and the weekly DIAR.com e-Newsletter, which quickly established themselves as 'essential reading' for all those involved in defence policy/procurement decision making. ADBR magazine was further complimented in 2003 with 'ADBR-Entrepreneur' (ADBR-E), a monthly e-Newsletter looking in detail at the impact for business of reforms being progressed to the military capability definition and procurement infrastructure arising out of the Government's adoption of the Kinnaird report. Trevor retains an active personal interest in the synthesis of development programs for Australian industry, and regularly contributes to public discussion of industry issues, drawing on his extensive practical experience in terms of the inter-relationship of Government economic, political and industry policies, and their application and effect on the affairs of the private sector.



**“THE DEFENCE WHITE PAPER –
THE RELEVANCE OF DEFENCE INDUSTRY”**

PART 4

**Question and Answer
Session**





Open Forum – Question and Answer Session

Moderator (Wing Commander Bob Howe, National Secretary RUSI)

This is an open forum aiming to generate thought and debate and is being recorded for transcription into a submission to the Defence White Paper Consultation Panel.

Those who are happy to be identified on the record are asked to state their name and affiliation if any. On the other hand, if for reasons such as facilitating debate, you wish to remain anonymous feel free to do so and state this before you ask your question or state your position.

Air Vice-Marshal Brian Weston (Retd):



I'd like to thank the panel for a very interesting and stimulating discussion. My point comes out from a number of observations said and made. It regards the management and implementation of national defence industry policy. It's currently done within the Department of Defence, which does many other things and there is in some ways a bit of a conflict with some of the things that the Department does and with the requirement to develop within that a defence industry policy. For instance, CDF will want the very best equipment for the war fighter at the very best price and the quickest possible time. That might be quite contrary to what an advocate for a national defence industry policy might be articulating and it's not good to have these resolved within the Department of Defence. It has a number of compromises that it must also make without having to compromise between the demands of procurement with defence industry policy. Almost every other aspect of defence industry, and defence industry is not that much different from others, is subject to deliberations and implementation of policy by a separate Department and it's taken in the context of what is the national industry policy and all sorts of factors are brought into it, because TCF might be different than something else than shipbuilding, which is different maybe to defence industry.

I've always thought the advocacy of defence industry policy in the Department of Defence is not a good place for it to be. Quite often there is a premium to be involved, when you want to advocate some development in industry policy – it's not good for the Department of Defence to be taking that premium out of their own budget, but here might well be a very good case to take the premium out of a national budget. In my view, I believe that it is time for the national defence industry policy, whatever it will be and how it is implemented, should be transferred out of the Department of Defence into a department which has the general oversight for total national industry policy and I'm wondering if the panel would like to comment on that. I think some of you already have in some ways, but not as pointedly as I have put it. It is not, I don't think, a big decision, but it is one it that seems that governments of the day have difficulty making.

Chris Jenkins (Panelist):

A couple of points – there's a lot in that. We've got to be careful in all of the things we say tonight - there's not a "one size fits all" sort of outcome. Certain industry



capabilities and complementary or resultant defence capabilities are going to be treated differently and should be treated differently to others. We were talking about whether you go COTS/MOTS for certain things, whether you go local for certain things – the needle's not hard over on local or hard over on COTS/MOTS – different kind of capabilities where the needle falls somewhere between the two. I think the important thing is that we start to understand where that is. So the process should be for us, I think, a combination of defence and industry representation and procurement representation, we'll look at where the needle on the dial should probably be on these things, given the outcomes of the Defence White Paper. So, one is a consequence of the other. First point.

Who is ultimately responsible for administering the industry part of it? To be honest, I'm not going to make any recommendation. All I would say is that we've seen industry policies before and we've seen probably some of the elements we've talked about tonight. and there's been some positive improvements that I've seen over 25 years working in defence industry, but there's a long way for us to go and if we can get the best value, the best bang for our buck, out of what the taxpayers are putting into Defence spending in Australia, then I think we should be shaping better how the industry's evolving. So I would say that we should be looking at what sort of organisational changes that are needed to make that happen. Whether its inside Defence or outside Defence I'm not going to say because I don't really have a view. I'm not sure it's necessary to take it outside of Defence.

All I'd say, as I mentioned in my speech, is that it needs to have a level of authority about it, to be able to implement the course of the industry policy and the industry direction that you want to achieve. Because without that level of authority and influence in the procurement process as we go forward, the shaping of industry is not happening quick enough and some times you are getting random outcomes that are not in the course that you want to be heading, I think. Whether it is in or out doesn't really matter in as much as the authority it is given.

I also want to say another point. None of the remarks, at least from my side of it and probably the others as well, is in criticism of the existing organisations. The existing organisations work within very, very tight constraints. There are a whole range of constraints placed upon DMO, a range on Capability (Development Group) and everyone is trying to work within those constraints. So I think that part of the Defence White Paper process should be looking at some of these constraints. Maybe it will come out of the Mortimer Review, maybe it will come out of the companion reviews that are going forward. But part of this process needs to be to look at the constraints that are imposing boundaries around what those organisations can do legitimately without ANAO critique, media attack or whatever it might be and really seriously consider what's possible to be removed from these constraints.

So there are two things – we need some authority in decision making on industry policy, inside the organisation where ever it might be and we need to have a very serious look at removing some of the constraints currently posing really serious boundaries around what those organisations can do.



Brice Pacey (Panelist):

The question is phrased in an interesting way, because its based on the assumption that defence industry policy is framed within Defence. What I tried to point out was that some of it is and some of it isn't. In fact, the larger part of it is not, and so therefore where should defence industry policy reside? Well, it should reside in the departments of state that are best equipped to do it and that's a number of different departments and I think the answer to the question is "How do you bring all of that together?" Well, it's very simple – it's the coordinating function of the Department of Prime Minister & Cabinet and specifically within that the Office of National Security, that has to bring all of those disparate elements together. Now I think over recent years we've come a long way.

When I first started writing about that organisation there were only five staff in the Defence part of the Department of Prime Minister & Cabinet. When we looked at the original organisation of the National security Division I think we looked at an organisation of something like 80 and there's probably a greater deal more than that today. But it still at this stage doesn't have an acknowledged responsibility in coordinating our approach to strategic defence industry policy. It deals with some bits of it but I'd like to see that coordinating function strengthened considerably. I know that there are people within the defence organisation that feel threatened by that – the only people who could feel threatened by that are people who don't understand where the responsibilities currently lie, and don't look across the broad spectrum of influences that are defence industry policy and its not simply just defence at the moment.

Trevor Thomas (Panelist):

I'd like to endorse that. Again it's not about criticising the DMO; it's about enlightenment and liberation to be honest with you. It's about giving DMO an opportunity to improve and I fundamentally don't believe that vale for money, and there's nothing wrong with value for money, I don't believe that it can be optimally pursued in an environment where the DMO has to be distracted by things like AIC (Australian Industry Capability program) perceptions that industry has to be put into certain places. So I think that's what brings you back to this view – that all industry is potentially defence industry. If there's only a limited amount of money, then national investment and innovation priorities would be appropriate to put in place. It doesn't mean that one of those national innovation priorities might be robotics. Now robotics are just as applicable to a defence application as they are to an ageing population who will appreciate robotic help when they get older, to improve their quality of life. Optics could be another one of those things for medical science, scanning, gun-sights – it's a matter of opening up the potential for the Australian economy as a whole without trying restricting it in terms of forcing it to do what the Department of Defence wants. If you encourage research and development, product development will come after that and depending on how the national research priorities are set, there'll be a range of areas that are applicable to defence programs. Those technologies will therefore find their way into defence programs; if its the research and development in Australia we'll hold intellectual property and we'll have a job at generating products for exports.



Moderator:

A basic question – should there be an advocate for Australian defence industry and I'm not talking about industry lobbies, I'm talking about within the government process. Are there any views?

Ian White (L-3):



We haven't really defined what the objectives of defence really are, because there are several types of defence industry. There's industry which supports the war fighter. There's the other defence industry which produces bits. Production Parts in Melbourne, for example, is a wonderful group that produces engine parts for the JSF (Joint Strike Fighter) program and it got that business to sell parts to Lockheed-Martin. It did it on its own but that contributes nothing to the Australian war fighter. So that is an important thing to get right. I would suggest that if you're looking at investment in this country, it is a good thing to do it for business reasons but it's not important to defence industry even though it's been pushed all the way.

A second point. The issues of investment in this country in defence start ups are crucial from international companies' perspective and notwithstanding Chris' comment about our loyalties to this country about developing capability; the overseas companies want to invest in this country in developing capability. Overseas companies want to invest in this country, aiming to get a good return on investment. We'd like to get a good return on investment and so we are looking at defence industry policy. We have had lots of policy – and I have in my hand the 2007 policy statement – but we never see any action. Nothing ever translates from policy into actions. Within this document and I have reviewed it, there are several recommendations that have been implemented, but there are recommendations in here but are at the margins. If we are serious about support (to the ADF) from an investment perspective we need to have certainty.

Moderator:

Are there any other comments on the advocacy issue or of defining defence industry? All right – there's one case then for actually having defence industry policy taken out of DMO, on the basis that DMO has an inherent conflict of interest. Then there is another case that suggests that there is no advocate within government for particular issues concerning defence industry strategy.

Neil James (The Australian Defence Association):



My question really leads on from Brian's and Ian's. One of the reasons why there's never any action on this is that the Minister keeps changing. The minister assisting, who is responsible for defence industry policy, changes every 10 minutes (I'm joking) but the average length of an assisting minister in recent years has been terribly short, with the exception probably of Bruce Billson and also, again possibly with the exception of Combet and Billson, most of them have been pretty



ordinary. They've been party hacks rewarded with what's seen to be a politically non-dangerous portfolio.

I'd be interested in the panel's comment, because the DMO is both the customer and the regulator. Do they think it would be improved if DMO was an executive rather than a proscribed agency and do they think the situation of industry policy and regulation would be improved if the Parliamentary Secretary for Procurement was a junior minister and not a parliamentary secretary? The big risk you face of course is, because Combet is able he'll be promoted elsewhere and we'll get another third-rate hack again and 6 months later we'll get another third-rate hack when the first third-rate hack fails.

Andrew Davies (Panelist):

I think there are a number of things that would be improved if DMO became an executive agency, but its ability to handle defence industry issues is not one of them. I think the problem that DMO has is that it has a very clear job – it's to procure and sustain defence materiel. It's not to develop industry policy. It's what I said before – the Government has a Department whose job is industry policy – its not Defence's job.

Moderator:

Should there be an advocate? In the sense that Defence is the market – a monopsonistic market – then what does that mean? Does Defence really lobby in a generic sense or does each company have look after its own interests?

Neil James:

There's unfortunately a crossover between policy and regulation too that you really have to address.

Trevor Thomas:

Can I just refer you to the Cutler Report because he went through the same sort of stuff and at the end of the day he recognised that it is our problem - politicians come and go so his recommendation for sustaining the initiatives he was putting in his report was to recommend the creation of an Office of the Advocate of Government Innovation.

Neil James:

My follow up point was simply that there's a crossover between policy and regulation, because obviously for policy to be effective there has to be some regulation supporting it and for regulation to be effective there has to be a reasonable policy behind it. I agree with Andrew – I don't think that it's the job of DMO to develop industry policy. It's got to be done elsewhere in government and probably outside the Department of Defence. But there has to be some link between the policy and how it is regulated and I'm not convinced that DMO is the suitable regulator either.

AVM Weston:

Underlying my question was my belief that it is much harder now to box up some part of industry and say "This is defence industry". Now I think that as each year goes by



its going to get harder and harder to say “This is defence industry”. Certainly if you hop onto the other side of the fence and you sit on the board of a company and then say “Why am I in this industry, which is so lumpy and it takes me five years to get a contract? I then get very good flow but there’s a peak and a there’s a trough, I have skilling and recruiting problems, I can’t stay in this business. I have to have at least another part of the company working outside in a more sustainable area where my technologies have some form of crossover to that being used by defence”. So there’s a flip side, on the company side, you don’t get companies that I believe are solely focussed on defence industry anymore. They are far wider based and as our technology moves on, I think that’s going to become even more prevalent. So the context of what I was saying earlier is the relevance of defence industry – it’s that we can’t really define defence industry any more. There’s certainly a need for an industry capability to assist the national defence capability and that’s what we should be doing. I believe that’s best done by an agency other than the Department of Defence.

Chris Jenkins:

To tease out a little bit more on one of the points raised there, the question about defence industry being efficient-effective, not efficient-not effective, fat, dumb and happy – even that sort of stuff. I guess there’s enough competition around to suggest that that is not the case, but there are recently quoted figures on productivity growth and comparisons between commercial industry and defence industry, which was rated at 0.9% productivity growth compared with 1.5% productivity growth in the commercial sector. I’d just like to tease that out a little bit because I think the statistics on that need to be understood.

Commercial industry is across a pretty broad base in terms of the scale of what comes out at the other end and when you are dealing in hundreds of thousands of units compared with hundreds or tens of units, there’s a difference in scale, so you get some productivity advantages in that. Defence industry also deals with very high, even the highest level of complexity, and delivering sometimes things which are kind of cutting edge with physics, so there’s a level of vulnerability in going where no-one has gone before, which probably adds to some of those distortions in the gross statistics. But it’s an important point because the more that people hear those kind of statistics, the conclusion that the public draws is that, re defence industry – why would you want one of those if you can only do a productivity growth of 0.9%, where the rest of industry is doing 1.5%. It’s kind of dangerous.

The other side of it is also saying “Well, Defence industry can only deliver late and can only deliver badly and has major project disasters”. There are elements of truth in all that and it’s in the newspapers for everyone to see. But the reasons for it are complex – you are often delivering a level of outcomes that is really specific and once-off first time ever done, and the reason its done that way is because you are delivering something that is specific to the requirement that is required for Australia in this case and that might be the wrong thing to be doing. Maybe we are going too far for that. Maybe we need to pull back our expectations a bit. But if you look back at some of the classic programs where the outcomes have been deemed relatively successful, the question then becomes can we afford not to do some of those far reaching things. Can we afford not to delve into some high level complexity or challenging areas where



others haven't done? And I'll throw on the table one of ours – Bushmaster – because these days everyone is saying “Hey, Bushmasters, fantastic, they are saving lives”. That's a fact, there are hundreds of lives that have been preserved because they've been travelling in Bushmasters, but in 2001-2002 it was one of those programs that everyone wanted terminate. “Why were we buying trucks (locally)? We can buy trucks anywhere.” I'll tell you why, all those other trucks are getting blown apart now in Afghanistan and it's a big issue. So there are times when we should reach a little bit further and beyond, because we have a small defence force relative to the goals we have to achieve and we need to protect it as best as we can and we need to give it the capability edge as best as we can. Maybe we should be first reaching a little bit further sometimes. That's was a bit off track to your point, but it was something I think we needed to address. I don't think it's good for Australia generally to perceive Defence and its goals and the industry that supports its goals as being something inefficient, fat, dumb and happy and not delivering something worthwhile. Anything that saves lives I think is pretty worthwhile.

Brice Pacey:

Back in the early '90s, I was in the Directorate of Army Research and Analysis and we developed the requirement for the Bushmaster vehicle. In 2000-2001 I worked for ADI and I was leading for a period of time the contract negotiations for the Bushmaster vehicle. Subsequently, in Bruce Billson's office I was the guy who organised support for the sale of Bushmasters to the Netherlands. I think that this brings up a number of issues. The most important one I can pick out of those is that we have a unique Australian way of war, we have a unique Australian value system, we developed a capability requirement for a Bushmaster class of vehicle well in advance of anywhere else in the world and we were able to get that vehicle designed and developed here in Australia. And it now continues to save lives.

Now if we lose that capability to do that organically in Australia, I think it will be a very, very sad day indeed. In fact, I could go on, but I think the Bushmaster is a great example of close cooperation between the ADF, in particular the Army and industry. ADI, now Thales, obtained the original design from a Melbourne engineering company that didn't operate in the defence domain at all. Which brings me back to another point I want to make: we spend too much time in Australia talking about economies of scale and that we will never achieve economies of scale in Australian industry and there's some element of truth to that. What we spend very little time doing is exploring economies of scope and that's where Australia is good. Australia is outstanding at taking a general purpose engineering facility and turning it to a particular task, Bushmaster is one example: HMAS Jervis Bay - a product of Incat, Tasmania – is another example. We could talk about that for the rest of the evening – long range patrol vehicles that are used by the SAS. These are all examples where organic Australian industry capability, coupled with a highly professional ADF, can produce world class product.

Moderator:

I guess that is an Army perspective. When you are talking about Navy and Air Force, particularly when you are buying an overseas product that is 100% developed in a software sense by the overseas company (in conjunction with its government), we have



very little flexibility in tailoring these products to meet unique Australian needs. Maybe there's a problem there in the sense that we may need to free up some of the software in order to be more operationally flexible.

David Wade (USI of ACT):



The focus of this evening has been on defence industry and also the focus has been on DMO, being the organisation that contracts and pays the bills. It's only one part of the defence equation in relation to defence industry. Capability Development Group and the three Service research offices come into play. Is the cause going to be improved by separating the DMO out of Defence altogether as a separate agency – separating it from the capability and logical flow of thought? How does defence industry get into the capability side and how does that train of thought get carried across if Defence is split – the acquisition process, the defence sustainment process - into two entirely separate paths?

Andrew Davies:

That's a really good point that you make and one of the problems, one of the reasons that we have unhappy outcomes with projects sometimes, is that it is the first time that DMO gets a really close look at it when it comes up for either the first or even second pass consideration. Having DMO with some visibility of things when someone says "Hey, I've got an idea, wouldn't it be great if, it would be a really useful thing" because DMO could say "Well, that's going to be a very risky thing because of the following issues ...could you relax this requirement or that requirement or could you think about doing it some other way" and I think no matter what happens with DMO, whether they remain as proscribed or become executive, I think a way needs to be found to insert DMO into the early part of the capability development process.

Roger Phillips:

Roger Phillips, RPDE commercial manager. There's one thing: you've missed a point in looking at bringing DMO in – what about bringing industry in, i.e. what the Rapid Prototyping Development Evaluation organisation is trying to do by getting industry involved. How do you see it evolving in the future/

Trevor Thomas:

I agree with that point. I tried to say in my speech that there is a case for having companies having a revenue flow to allow them to retain idle capacity. I was in America recently looking at some of these types of firms who have special types of tax arrangements. They don't have to focus on the immediate term – they don't pay tax year-by-year, they can have individual revenue – all those sorts of things. But the thing I found interesting was that when we were there, the General was actually in on the floor talking with the industrialists and technologists, developing a rapid capability on the spot. It had them right at the front of the process and this firm had sufficient installed plant that it could actually research and develop the product up to a short run volume and once they got it to that point that's when they took it out to wider industry



to take up. So I'm endorsing that point and there's a mechanism I've seen in the US about the way they go about it.

Chris Jenkins:

It's not dissimilar with what's actually happening with some of the RPDE program and UORS – it's one of the ideal arrangements. I talked before about having an interesting approach between industry and the end users and everything in the middle of it. The more arms length it becomes, the more disconnected it becomes with the potential for delay factors to enter into debates over capability whatever it might be. With the UORS RPDE program we've found the level of cooperation quick decisions on trade-offs and choices to be made because everyone is focussed on delivering on a date. Now people kind of dismiss it sometimes because it's usually a smaller objective and it's usually a tighter time-frame and therefore it's not as complex to deal with. I think that's a real cop out. The fact is that people are really committed to getting there on the date and making really quick trade-off decisions along the way and are authorised to make those decisions. And by the way, they're probably pretty competent enough to make decisions along the way which is a benefit. You've got the right people, you've got the motivations against time and delivery – everyone's working to the one goal – it makes a hell of a difference. I think if you could translate that up into the bigger programs there would be real merit in that.

Moderator:

Rapid Prototyping implies quick reaction capability. In regard to the strategic relevance of defence industry how does it fit into longer term strategies?

Brice Pacey:

I actually put the original proposal for "Rapid" to the CDAF (Capability Development Advisory Forum) and it was industry-led on that as well. I have some recollection of what we were trying to do and that one of the objectives we had was a critical one as far as the group of us were concerned. We wanted to actually use "Rapid" to change the culture of defence procurement, i.e. when we saw an opportunity in the Rapid Prototype Evaluation for actually bringing capability development and industry together and working cooperatively and constantly cycling people from defence and industry through that organisation and gradually over time changing the culture. Now I've seen some evidence of that, and I would like to see the "Rapid" experience generalised across defence procurement as quickly as possible. The level of cooperation shown there and the spirit of innovation is probably a good example of how we should go. We need a way around this cultural and adversarial divide that too often characterises some aspects of defence industry policy and procurement policy.

Andrew Davies:

I'd just amplify that with one comment. Rapid Prototyping tends to suggest that you're not talking about strategic capabilities but I'd argue that when you're routinely putting people in harm's way, the ability to develop quick solutions that makes the



environment safer and their operations more effective, is itself a strategic capability. So it's that the ability to do that, not the actual thing you are developing.

Brice Pacey:

A misapprehension exists however. We made a mistake in calling it "Rapid" to some extent because it's got the word "prototyping" in it. In engineering today, physical prototypes are actually only a very small part of the prototyping process. There's an expectation in some quarters that we were trying to produce things. Now it can produce things, but about 70% of the work of "Rapid" produces paperwork and analysis, and that analysis can inform long term strategic investment decisions. It does that by a quick look process and it does it in a relatively compressed time frame, but the long term implications of that can be quite substantial. This idea of having a physical thing emerging from "Rapid" can happen, and this occurs 10-20% of the time. The vast majority of the work has a much longer term impact but the amount of time that it spends in the "Rapid" organisation is compressed. If it requires more work then it can go to DSTO (Defence Science & Technology Organisation) Concept Technology Demonstrator programs or other such programs. Very often that quick look is about something 5 to 10 years downstream but it's a mechanism whereby defence and industry can get together and have a quick look at this and say that this is the broad sort of area where you might like to go.

Air Vice-Marshal Alan Titheridge (L-3):



Getting back to the broader industry policy issue, from what I'm hearing from the panel there seems to be two issues – there's the industry policy issue which is much broader than defence industry and there's another aspect which is to do with the industry part of defence's strategy or industry's role in defence strategy as a whole. Maybe it shouldn't be a separate issue and I'd appreciate the panels' comments.

Moderator:

I've already given my opinion earlier on when I criticised the Defence White Paper authors in having a separate chapter on defence industry rather than integrating it into the whole. Of course the Discussion Paper asks about integrating industry into defence strategy. Who would like to respond to this?

Chris Jenkins:

I've already said that it should be integrated. My view is that defence industry is an absolutely critical part of Australia's defence capability being achieved and should be built into the outcomes of the Defence White Paper, including the recommendations for an industry policy and also recommendations for change and how it is enacted. Right now and what I've said before I don't think that the authorities are in place, the correct levels of authority to be able to enact the outcomes of any industry policy, the one we've got currently on the table or the next one to come down the pipe. That for me is something that needs to be addressed. Organisationally, how that's handled I don't have any religion on that. It could be equally (well) handled in a number of organisational positions but I think the level of authority in it and therefore the priority



that's been given needs to be much higher – a personal view, again not a criticism of existing arrangements – just quite succinctly if you want to get it changed. I find that it sometimes within my own company if you don't get a change happening, give it to someone with authority and the change starts happening and that is good.

Ms Nola Hennessy (Civilian Defence Employee, Councillor USI of ACT):



I wish to make a point about the key issue around the strategy. AVM Titheridge has made the point that you've confirmed. When we think back to the '70s and the '80s, we had Preferred Supplier Panels, companies that had skills and the government chose the companies with the most skilled, the most competent organisations to supply to them certain types of services and products. Somehow we've moved away from that model. What I am proposing is that we take the policy development aspect to do with defence industry, which I think is a defence-created term - there was no defined defence industry back in the '70s and '80s – and we put that policy stuff rightly where it should be - in the strategic policy area. We have a White Paper that is coming out that should accommodate how we deliver military capability using the best harnessed skills offered internally in the organisation and external to the organisation. Defence industry, as we're all seeming to call it, much as I have an aversion to it, is the fourth employee of defence.

Moderator:

Jeff Patterson, in regard to the '70s and '80s, you were running the Defence Industry Development program back then and you also picked a few winners I seem to recall. Would you care to comment on your experiences and their relevance to today?

Jeff Patterson:



To tell the truth I see the same things happening over and over again. We had the same problems then, but probably we had more freedom to do as we wanted to do and we were orientated to making decisions with respect to defence requirements. The thing I'm noticing from all of this discussion is that the same problems are surfacing again and again and in particular Chris Jenkins raised the issues of lack of policy integration and currently there's an actual disconnect between industry policy and procurement policy and strategic policies and I don't think the current defence industry policy is really addressing that disconnect at the moment.

Moderator:

Would any one of the panellists want to comment further on that?

Andrew Davies:

Actually, I will make a couple of comments – disconnected – but just because things have occurred to me as we have gone along. Firstly, as Trevor said some stuff is just business. The Department of Defence wants a good product or service. It sends out a tender and industry responds. It's just business. But sometimes, Defence is a stake-



holder in what industry is doing and sometimes the industry is a stake-holder in what Defence is doing. It seems to me that knowing the difference between those two situations is actually part of the trick in working out what you are going to do with – we'll call it Defence Industry for lack of a better term – what can you leave to “just business” and what do you have to do to actually get in and manage more capably?

Trevor Thomas:

I know Australia is a small country with only 20 odd million people but I really despair at how important we think we are in the world in terms of defence procurement. We are 1% of the global market and there are companies out there with revenues bigger than the GDPs (Gross Domestic Products) of many nations. It's OK to say “Yes, well, you are all responding to the Australian Department of Defence and you'll be a good person and you're going to sacrifice your corporate goals” but guys, they are not! It's OK to liquidate damages against a big company but you look at some of the turnovers and profits they've got – its petty cash. I'm not trying to diminish it, but we can lever \$30 million of liquidated damages here – it seems like a lot of money but it isn't, so I think that's the difference. In previous times when we looked at industry policy, the western world had a bigger role in the world in total in terms of technological development. Something's happened up north of us over the last 30 years and we are sort of not as involved as we used to be.

Moderator:

Let's try to look at it from a military perspective. I can recall in 1991, when Mike McNamara launched the Commercial Support Program, there was lots of screaming from the various services about losing in-house capabilities to industry and outsourcing went through that CSP phase with some of the principles becoming embedded into the system. What is the military's point of view of defence industry?

Vice Admiral Chris Ritchie (National President, RUSI):



I am a director of ASC Pty Ltd. The first observation that I have is, in becoming a Director of ASC which I have been for the past 12 months, it really does give you another view of what the business is all about, and it's not necessarily the view that I had as Chief of Navy. You talked about CSP and all those sorts of things. I guess, traditionally, the military didn't like any of those things, but I think today I would “CSP” as much as we could. I would get everybody in uniform who are not doing something and who's needed in uniform and I include the people in DMO. I think if we can get rid of the military people out of the procurement side of DMO we'd do ourselves a service.

The problem with DMO is that it's also about sustainment and that means that you can't separate it away from Defence unless you kept the sustainment bit in Defence in my view. So the DMO I think has become probably too big. It followed the British model which didn't particularly work. They have the same problems, perhaps in spades, to what we've got. Therefore I think that, although to continually look at the DMO is to do it a disservice and not allow it to get on with what it does, we do need to concentrate on the issues that are there. The issues are generally about procurement as



much as procurement hinges on sustainment, that's the same sort of issue but generally its the stuff that hits the headlines, its the stuff that people in ASPI write about, it's the projects that people are seeing going wrong. Take a lot of the military influence out of that and let it happen.

Moderator:

I must admit that having spent over 20 years in the defence industry I also noticed, even though I attempted to try and explain defence industry to my service colleagues who remained behind, as each of them moved out into industry there was a distinct change in their views. This showed that there was a cultural gap which was quite significant. Maybe AVM Roser has now become "industrialised" but I would be interested to hear any other views from a military perspective.

Air Vice-Marshal Hans Roser (Director, Thales Australia):

I have been "industrialised" for nearly 20 years.

Moderator:

Let me change the approach a little. In 1999-2000, Defence's Strategic Logistics Division or whatever it was called then tried to join together with industry to look at the involvement of contractors in Areas of Operations. I can recall us going through a lot of work as we attempted to define some rules and operating procedures which I believe helped somewhat when the ADF deployed to East Timor. Let me quote from an interview with Senator Barrack Obama with US Defense News on 7 July 2008, when he was asked "Is the Government too dependent on contractors in the war zone?" and he answered "If you start building a military premised on the use of private contractors, and you start making decisions about armed engagement based on the availability of private contractors to fill holes and gaps, over time you are eroding the core of our military's relationship to the nation and how accountability is structured.

I think you are privatizing something that is what essentially sets a nation-state apart, which is the monopoly on violence." Any comments on that?

Chris Jenkins:

Just because the US says something, we shouldn't necessarily follow.

Trevor Thomas:

I suggest that he may regret that statement in the next major deployment.

Moderator:

The point is though: to what extent does industry need to go into war beside the Army, Navy and Air Force?



Mark Stevens:



I had nearly 15 years in the Army and I've had 15 years in the industry so I've been on both sides. I think the quote that you've just given us from Barrack Obama relates to a nation that does have that military-industrial complex, and this whole notion of defence industry that we are talking about is a hangover from our desire to have a similar depth of capability in this country - which we'll never achieve. It's a complete fallacy and I remember in my first week out of the Army when I went to lunch at the Lobby Restaurant in Canberra. It was about Defence Industry – was it relevant? That was about the exact title of the luncheon presentation in 1994. So we've been struggling with this concept for some time.

I think the converse of that though is something that's not talked about as lot and that is the self-interest of the companies which call themselves defence companies. I had three years running the defence business for the world's largest IT company in Asia so covered 32 countries and I was on the global strategy team for that company and certainly on over 10 occasions that I can remember where we started delivery and then withdrew when we were asked by the US State Department because it wasn't in the national interest. Now you talk about 80% of your revenue going to 6 companies. I don't know about Thales but I certainly was on a team that advised Thomson-CSF and Transfield looking at the purchase of ADI. So I saw it from that side.

I think that we've got to be very careful about just presuming that there's a strategic alignment between our interests and the industry provider as far as the outcomes are concerned, that are going to be delivered, because in my experience of that, not only in Australia but in Singapore, Malaysia, the United Kingdom, any country other than North America, it was certainly the case that the State Department had its hands inside the gloves of the delivery of those companies and it was certainly quite ready to get on the phone and call our headquarters and say "You guys are doing this project where ever – we don't believe its in our national interests to continue to deliver that". I think that it's a huge issue as we move forward is about what our notion is of industry and the issues that you've brought out are good. The notion that we have a defence industry is a dangerous one. I think we should have an "industry with a defence capacity". I know Thales has come out recently and said it is broadening its business base because you guys are in defence and to be more representative in other market areas – we're going to see more of that. I just think there's a note of caution that we should be aware of, which is this notion of alliance.

Chris Jenkins:

There are a few points I'd like to comment upon there as the company's name got mentioned. Seems like a segue. I think that I completely agree with you. OK – we've started talking about defence industry and let's scrap the term "defence", let's talk about "industries that deliver to defence" as that's really the concept isn't it. The idea that one of the propositions that I was putting forward was that if we want our defence forces to have certain capabilities, we should be trying to nurture certain capabilities within the industry that supports whatever you call it – defence industry or whether it's from the commercial sector – it's a very important point. Thales has, and a lot of other companies have as well, quite sensibly I think, have chosen a growth strategy which



brings together not only defence base customer work but also commercial based customer work. It spreads risk in terms of when there will be a contract coming your way. It gives you ample opportunity to move your staff, educate your staff, give them a career across one company in a number of different portfolios. It's a good way to grow and retain knowledge.

There's also a good way to demonstrate that you've got a healthy business that is efficient because if you can be competitive in the commercial sector and for exports, either in the defence or commercial sector, it's a company benchmark that says basically "Hey, you know it's not suffering .9% productivity growth. It's not that we would eventually deliver a lower level of efficiency and value for money to the defence end user. I think they are important aspects. Some other merits I think of the industries that have chosen to be working for defence, we should be looking for industries that are investing. It used to be the (Bronwyn) "Bishop Principle" but people are looking for real investment in facilities, real investment in personnel, real generation of work for SMEs, real generation of exports and real substance in innovation.

So I think they are actually pretty good principles. You judge someone on their character – so they're not bad, they're actually making a contribution. The point that Trevor made about 6 major players with 80% of the work in defence – well yes, we sub-contract a hell of a lot of that out. We do a billion dollars a year - \$500 million of it is sub-contracted out, so just because the prime contract lands with the big company doesn't mean that big company does it all. And yes, we work with all the good SMEs – production parts, TCP, the whole bunch of them and they do bloody good stuff and (we) open up export markets to them also. So there's the principle of "industries that deliver to defence" having a balanced portfolio of work in commercial and exports, working with SMEs, creating a solid footprint and capability in Australia. I think that they are merits that should be encouraged and maybe defence industry policy that somehow enunciated that would be good and even better for an organisation that had the authority to enact it would be very good as well.

Air Commodore John Kentish (USI of ACT):

Are you encouraged by getting direct work rather than competing for it?

Chris Jenkins:

This is exactly the point that I was saying before – horses for courses. 30% of the stuff right now that comes out of DMO is sole source, for reasons that are probably full of merit. They're actually looking at people who invest in certain key areas and if you were to compete it and it would cause delay and probably not necessarily advantage the outcome, a whole range of things – its horses for courses. Evaluate whether that capability that you're going to be investing in by procurement is something you want to enhance and grow for the future and determine is the market big enough to compete it and still have it grow as a competitive industry or is the market so small that if you competed, you actually dilute it and diminish the value of it. And there are tipping points for market scales and business sustainability.



I think that we are smart enough – we can look at some of the forward markets and capability and work out which ones would better be served by a sole source directed procurement approach and which would be better served by a competitive approach. Dr Stephen Gumley and I talk about this sort of stuff – it's not a debate – it's a logic of where to find that, where should the dial actually land on this. It's not black and white. Certain market types – capability types – are warranted, but not all.

AIRCDRE Kentish:

Ten years ago the planets were aligned for simulators. We were all going to keep world state-of-the-art simulators and several companies invested in the way you described, under the Bishop Principle, and the next time around DMO awarded a completely open tender. They hadn't aligned with the OEM (Original Equipment Manufacturer) for the prime equipment and they fell out of the market for work in Australia – the biggest ones closed down.

Moderator:

We have five minutes left. Could we change the subject? Are there other questions coming from different angles that we haven't had so far?

Brigadier John Salmon (Retd):



I relate back to the Department of Supply, not that I want to talk particularly about that era. I have had something like 37 years in the defence force and about 20 in defence industry. We've talked and we've heard about constraints and perhaps moving some of those constraints and the value of that. I wonder to what extent, and I'm not naïve enough to think that we'll do away with these two organisations - to what extent does the Auditor-General and the Senate Estimates Committee inhibit, I think is the right word, DMO and procurement of equipment?

Andrew Davies:

I'll start off. I think that it inhibits it to the entirely appropriate degree.

Brice Pacey:

I just add - not at all. If you read the Audit Act, if you have a look at the Australian National Audit Office (ANAO) it's entirely reasonable and I don't believe that you can reduce that level of public oversight any further.

Trevor Thomas:

I support that wholly but express my opinion and my concern on how the Auditor-General's office is being cruelled by this new process, that they have to bow down to and knuckle down by creating a report on the top 30 projects that at the end of the day is delivered by DMO.



Mr Denton Bocking (Engineers Australia):



We are preparing an input to the Defence White Paper. The question I have relates to stabilisation and reconstruction operations. It seems to me that that's an opportunity for industry to be involved but it's not seen as an area that's particularly well covered in policy terms. I am just wondering whether the panellists feel there's a need for more policy guidance for industry when perhaps embarking on stabilisation operations, particularly reconstruction activities in places like East Timor, Solomons Islands and possibly places in the Middle East.

Trevor Thomas:

Is that a "Dorothy Dix" question for the conference that we are running on 14th October? It's one of the things our magazine (Australian Defence Business Review) has identified as a big opportunity for "industry capable of delivering goods, services and technology to defence". You have got to read Jim Molan's book – he goes through a lot of this. It is going to be "Whole-of-Government" delivery of national security outcomes. We just don't have enough resources in any one organisation to deliver all of the outputs we need to deliver an effective tsunami relief or a stabilisation operation. You've seen what we did in East Timor and the Solomons Islands, so I would say that's the next big area for industry policy to have a look at. That's what we'll be trying to do on 14th October.

We are going to take the tsunami scenario and put it into 2015 and try and put that into the context of having the new LHD as the asset which is deployed and we're going to put people around the table and talk about how you go about doing this process. Because when the ship sails out to effect a relief operation it's going to have some defence people on it. If you listen to (Minster Assisting Dr) Mike Kelly it's going to have some NGOs on it.

If you look at some of the other operations that other people have effected, its going to have some private military contractors on it. There's a lot there to work through in terms of a roll out of a response and a lot of industry policy issues to be resolved.

Moderator:

As we draw to a close, I must admit to being impressed that we've spent a full hour in an open session of panel interaction with questions and answers. I am sorry for those who weren't able to ask questions, but we do have the flexibility that if you think seriously enough about an issue, the USI of the ACT, on behalf of RUSI of Australia, will be pleased to take your input and include it with the proceedings of tonight's Forum, which will constitute our submission to the Defence White Paper Community Consultative Panel.



Air Commodore Peter McDermott (President, USI of the ACT):



Thank you Bob and thank you ladies and gentlemen. I think you will agree that we've had a fascinating and stimulating evening. I must admit that I was a touch concerned when Bob suggested this Forum a while ago, that we should have a separate Forum on defence industry separate from the one that we ran on 6 August 2008. You're completely vindicated Bob and thanks for the work that you've put into it. I think the standard of debate that we've heard here tonight – the flow of views across the floor and with the panel - has absolutely been first class. I don't think I agree with what Bob might have said about the panel – if I was putting it together again you would all be my first choice. But we did hear a diversity of views. I didn't see a particular difference in the views that contradicted each other: they supported each other, and despite what some of the panelists said, I thought that there were some very positive thought-provoking and very useful things that the Government should be considering as a result of this seminar that we're going to be putting to them. So, to Andrew, to Brice, to Chris and to Trevor, thank you very much for the preparatory work that you have obviously put into your panel participation, the work that you put into responding to the audience so well and in the way that you have approached the whole discussion this evening.

All views contained in this submission are the personal views of those who contributed to this Forum and do not represent the position of either The RUSI of Australia or The USI of the ACT. For further information visit www.rusiaust.org or contact Secretary, USI of the ACT, Telephone: 02 6266 2167 or act.usi@defence.gov.au





