



In supporting Defence acquisition decisions and acquisition management, what role can defence industry play over the next two years as a result of the First Principles Review?

**Industry is “A FUNDAMENTAL INPUT TO CAPABILITY”**

## SADILP 2015 Concept Paper

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## Executive Summary

### Industry is a “Fundamental Input to Capability”...

**The First Principles Review is the tenth review in ten years for defence.** The key message throughout the Review is “One Defence”. The Capability Development Group and Defence Materiel Organisation now no longer exist as separate entities with their functions dispersed into a more streamlined structure under the Secretary of Defence. However the rationalisation and recommendations are inward focused with little consideration of external stakeholders, specifically Defence industry. To implement the 76 recommendations in the Review an increased engagement with industry is required.

Defence industry is an integral part of Defence capability and as such, needs to be recognised as a “**Fundamental Input to Capability**”. For this to be successful there needs to be enhanced engagement and collaboration between Defence and industry. A champion is needed to be accountable for industry engagement ensuring Defence seeks significant industry involvement. To support the First Principles Review recommendations of arm’s-length contestability, this champion should sit outside Defence and instead sit within the Industry, Innovation and Science Portfolio.

This champion will lead the **Defence Industry Engagement Team (DIET)** bringing together industry specialists to **lean out** the capability trade-off process in the new three-pass approval process. DIET will work with Defence stakeholders to efficiently drive the development of capability options and provide expertise to the contestability function offering a commercial reality in the assessment of technical and financial elements of the capability need.

For this to be an effective long term and sustainable partnership, there needs to be a true sharing of risk and return between Defence and industry. There has been a positive shift from Fixed Price contract models towards Performance Based Contracts, but these have been applied in an inconsistent manner. DIET will be tasked to with the aim of establishing more effective performance based models and provide guidance on appropriation of incentives for cost saving initiatives.

With collaboration and partnering, Defence and Industry will have the capacity to work through future capabilities with more clarity, for swifter delivery to where it is needed most, the front line. The enhanced collaboration and engagement ultimately means Defence gains optimum solutions delivered to budget and schedule whilst leading to sustained military capability.

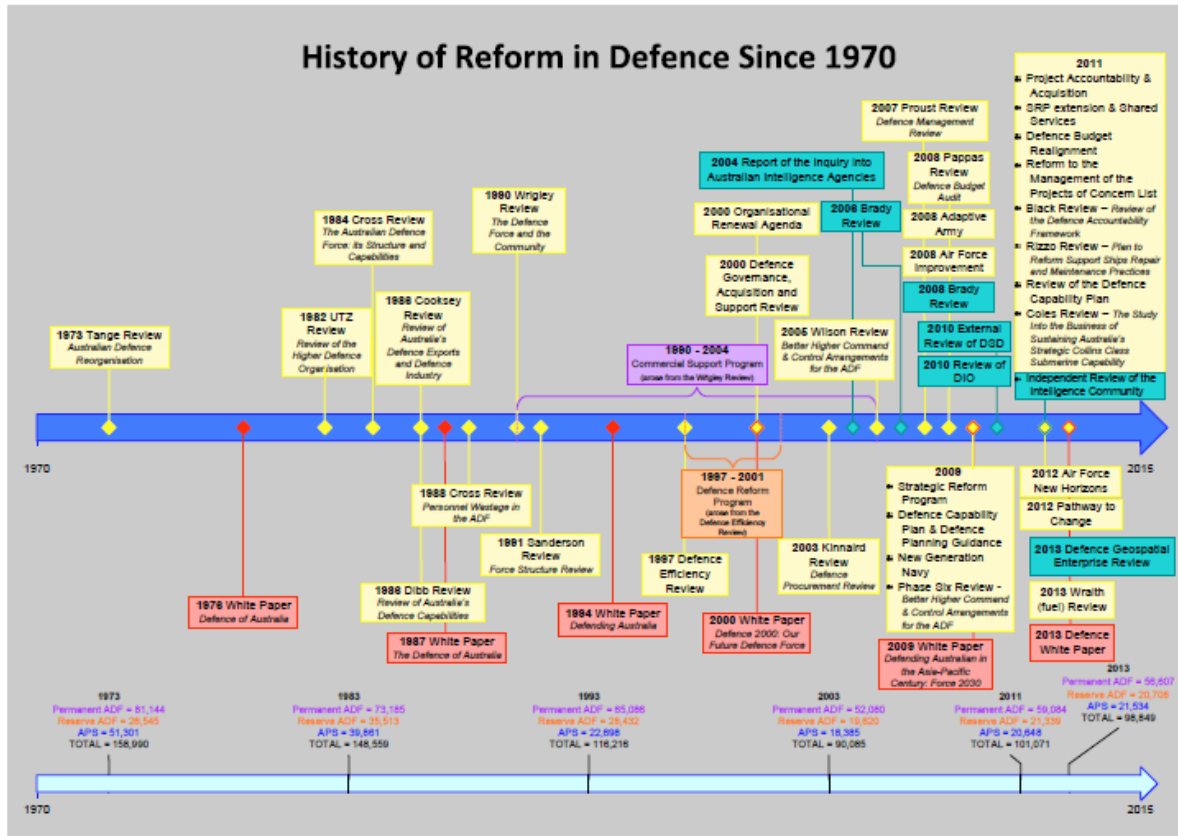
To ensure longevity and meaningful input from DIET and to support the timeframe of the First Principles Review an aggressive timeline is required over the next 12 months to ensure a seamless integration. **Without an effective and vibrant indigenous Defence industry the sovereignty of Australia is at risk. There is an urgent need for the Defence Industry to take action now and lead the way.**

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## 1. Introduction

There have been many reviews into how Defence procures and supports capability, with the First Principles Review being the 10th attempt in 10 years as shown in Figure 1.



**Figure 1 – Timeline of Defence Reviews since 1970 [Ref 1]**

The review would have you believe that it is a remarkable change for Defence; noticeably DMO no longer exists as a semi-autonomous organisation and is now a new entity under the Deputy Secretary for Capability Acquisition and Sustainment, titled the Capability Acquisition and Sustainment Group (CASG). The number of members on the defence committee has been reduced to six, and absent will be the Chiefs of the three individual services. In addition the Capability Development Group has also been disbanded with capability requirements transferred to the Vice Chief of the Defence Force and the Service Chiefs. The reduction in management layering and consolidation of Capabilities should help in the actual decision making and reduce the cost to the tax payer, but apart from this the CASG appears to be a rebranded DMO with a different chain of responsibility.

The review appears to be deliberately inward focused punishing those at the top, and in being so has missed the opportunity to drive real change and address the critical issues that impede Capability Definition, Acquisition and Management. Archaic contracting arrangements which prohibit risk sharing and a culture which is

resistant to change; complex processes needing to be followed which are prohibitive in thinking, or even considering, looking outside the box.

Many of the findings and recommendations presented in the First Principles Review call for increased engagement with industry but provide no direction as to how to achieve this. Now is the time to drive the changes needed and there is a huge opportunity for Defence Industry to lead the way. This paper focuses on key areas where industry engagement is paramount to implementing the recommendations and where industry believes change is needed.

### **Establish a single end-to-end capability development function [Ref 1]**

- Required change: Move to a leaner ‘Smart buyer’ model that better leverages industry
- Current state: An unsophisticated approach to engaging industry, especially early in the project life cycle
- Reliant on an enhanced relationship with industry

### **Introducing a new formal gate into the process at the entry point – Gate Zero: Investment portfolio entry [Ref 1]**

- Current two-pass process has moved away from the original intent as outlined by Kinnaird. Instead of first pass being agreement to assess realistic options, it is often the point at which a preferred solution is agreed

### **A strong and credible contestability function be built and led by the Deputy Secretary Policy and Intelligence [Ref 1]**

- Responsible for: Scope, technical and cost contestability
- Must build a strong external network of experts that contest key project deliverables (such as scope, schedule, budget, risk, technical aspects) throughout approval processes.

## **2. Fundamental Input to Capability**

In the First Principles Review definitions, industry is defined as the critical partner for development, supply and support of capability. In the Defence Capability Development Handbook [Ref 2] it states, “Capability is made up of the combined effect of multiple inputs”. Within Defence these inputs are commonly known as Fundamental Inputs to Capability, which among others include Personnel, Organisation, Training, Command & Management, and Support. Only one minor subsection of Support refers to civil & private companies or industry & contractors.

**Defence Industry needs to be recognised as a “Fundamental Input to Capability” as Defence Industry is the lifeblood of capability delivery.**

## 2.1. Prior to First Principles Review

The Capability Development Group (CDG) worked closely with the Capability Managers from the Army, Navy, Air Force and other areas of Defence to develop and maintain the most operationally effective and cost-efficient mix of capabilities required to achieve Government's strategic objectives. CDG's work is largely focused on implementation of the 'two-pass' approval process for developing capability and provide Government sufficient information at each Gate review to enable selection of the most appropriate acquisition to fulfil the required capability [Ref 4].

The current two-pass process was defined by Kinnaird in his Defence Procurement Review 2003 [Ref 8]. Within the first pass Government considers the capability options to be further developed and the resources (workforce and financial) required for Defence to undertake detailed analysis of the agreed capability options; with the second pass, Government considers funding the acquisition of the recommended capability option which has a well-defined budget, schedule and risk profile [Ref 2].

## 2.2. Key Changes

The key slogan throughout the First Principles Review is "One Defence". From an organisational structure perspective the CDG and DMO now no longer exist as separate entities. Both have been disbanded and their functions dispersed into a more streamlined structure under the Secretary of Defence. The Capability Acquisition and Sustainment Group with its new Deputy Secretary will manage projects from their definition through to delivery while the new Deputy Secretary Policy and Intelligence provides, amongst other things, the strategic and contestability function of capability needs.

The move to CASG becoming a 'Smart Buyer' is a significant opportunity for Defence Industry. Many existing or legacy contracts have arrangements where the majority of risk resides with industry. There are multiple examples, such as the Wedgetail program [Ref 3], with Defence experiencing delays to receiving the required capability and industry suffering substantial losses. The implementation of Smart Buyer opens the opportunity to introduce alternate mutually beneficial contracting models.

## 2.3. Industry Engagement

In spite of the multitude of reforms there remain fundamental issues with the engagement of industry in the early stages of major Defence acquisitions. Industry continues to state that [Ref 5]:

- There is a lack of industry participation early in the definition phases of new major acquisitions;
- Industry wants to understand the capability function not just project requirements imposed on them;

- Industry wants the ability to help define realistic project requirements; and
- Wants to be seen as a partner, not just a supplier.

This can become reality by overhauling the approach to engaging industry. Previously Defence has gone it alone with their internal reforms, now it is time for Industry to be engaged and assist with the implementation.

### 3. Defence Industry Engagement

Defence Industry requires a champion to be accountable for industry engagement in the early phases in a project lifecycle; ensuring Defence seeks significant industry involvement and that industry contributes on a neutral playing field. In conjunction with this appointment, all restrictions to working above/below the line should be abolished. To support the First Principles Review recommendations of arm's-length contestability, this champion should come from within the Industry, Innovation and Science Portfolio under the Minister for Industry, Innovation and Science: The Hon Christopher Pyne MP.

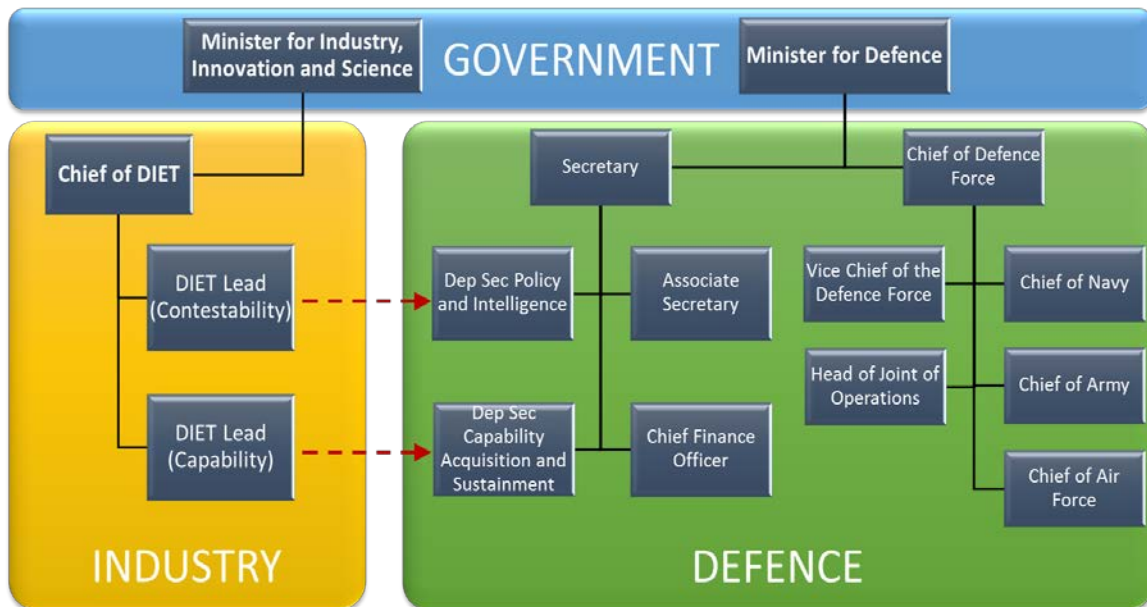
We need more than just a champion, we need a new organisation:

#### **The Defence Industry Engagement Team (DIET).**

This new team would be split to align with the Defence organisational structure recommended by the First Principles Review, as shown in Figure 2. The DIET Capability Lead and the DIET Contestability Lead will have the responsibility of engaging industry and compiling a team of specialists provided by industry who bring expertise from a diverse range of organisations. The Chief of DIET and the two branch leads should be members from the Department of Industry, Innovation and Science to ensure impartiality is retained, with the remainder selected individuals from potential prime or sub-contractors or individuals with the required specialist skills from the wider industry.

DIET will be funded via the mutual cost savings to both Industry and CASG that will result from early engagement, improved contracting models, collaboration and reduced tendering costs. The net outcome will be an overall saving to CASG, Defence, Government and Industry.





**Figure 2 – The Defence Industry Engagement Team Structure**

### 3.1. The Role of DIET

Implementation of DIET will create a collaborative group bringing industry together to be the Capability Options Trade-Off Partner for Defence. Defence is somewhat limited in its ability to trade off capability options as it is in the business of delivering capability, not developing the next new thing. Often this results in Defence missing out on opportunities to include new key technological developments which would give Australian Defence an edge.

One arm of the group, led by the DIET Capability Lead, will provide the collective view point of industry and aid CASG with the development of capability options. The other arm, led by the DIET Contestability Lead, will provide the expertise and credible contestability function specified by the First Principles Review. This group will work with the Independent Project Performance Office and Defence Science & Technology Group to ensure the technical and financial elements of the capability need can be delivered.

DIET will inform the smart buyer of the financial and capability risks and opportunities for each of the options that are to be presented through the new three-pass approval process. Increased collaboration early, benefits the process by having a much more robust and commercially realistic assessment of options to trade-off performance, cost, delivery schedule, technological maturity, and other risks according to customer's priority from an industry perspective. Industry as a whole will provide commercial reality to the development and acquisition of capability by bringing its wider pool of knowledge and experience in all facets of the development lifecycle.



## 4. Collaboration and Industry Engagement

The current environment of early industry engagement makes it challenging to strike a balance between industry participation and competition. To be an effective advisor companies are required to contribute on aspects such as target costs, time scales and performance. However this above-the-line contribution can exclude involvement below-the-line at the Request for Tender (RFT) stages.

Competition, participation and partnership; competition remains the primary tool for achieving value for money in defence contracts but strategic sub-contracts or partnerships have become the norm for dealing with probity situations. Primes position themselves as System Integrators and sub-contract smaller organisations for delivery. Primes are then able to influence members of the sub-contractors who are able to participate in the above-the-line capability definition.

While industry will welcome the increased involvement during the definition phase, and has stated this on numerous occasions [Ref 5], robust commercial agreements and frameworks of collaborative working must be in place to ensure the early engagement doesn't stifle competition or preclude parties from involvement at the RFT and Contract Award stages.

### *Case Study: RPDE Example of Collaborative Working*

*The Rapid Prototype Development and Evaluation (RPDE) Program was set up in 2005 as a collaborative working group bringing Defence, industry and academia together to rapidly solve complex, high risk problems "bringing together the best and brightest from across the Defence industry spectrum in a neutral, non-competitive environment, knowing that intellectual property and commercial interests are protected". The teams consist of high calibre individuals who bring expertise from a diverse range of small, medium and large organisations. Personnel are engaged from Participant organisations on a two year secondment basis or sourced for a specific project [Ref 6].*

*The Relationship Agreement [Ref 7] signed by the participating organisations on secondment define the Intellectual Property (IP), conflict of interest and exclusions up front. In summary this agreement includes:*

- *The Agreement does not affect the ownership of Background or Third Party IP*
- *Any Foreground IP generated is owned by the Commonwealth*
- *The Commonwealth grants to each Industry Member a royalty free, non-exclusive licence to use Foreground IP only for: (1) its internal purposes (including further joint development with other licensed Participants) within Australia; and (2) Commercialisation.*
- *Engaging in RDPE does not exclude organisations from any future procurement process*

So collaboration is not new, and the foundations are there to build a framework where industry will have greater input into capability.

## 5. Mutually Beneficial Contracting Models

One of the biggest barriers to Defence and Industry collaboration is the Contracting Models employed. There have been many attempts to change the way defence contracts, through initiatives such as changes to the Australian Standard for Defence Contracting (AUSDEFCON) templates and the release of discussion papers on contracting Cost Models & Performance Based Contracting Concepts. Unfortunately these initiatives, while well-meaning, have resulted in limited improvements. Defence has become more risk adverse and now relies more heavily on Military-Of-The-Shelf (MOTS) acquisitions, often via Foreign Military Sales for the acquisition of capability.

Industry is of the view this is fundamentally driven by a disconnect between the needs and requirements of Defence, Government and Industry. The mission of Defence is “to defend Australia and its national interest”; Government is responsible to get the best value from the tax payer dollar, while arguably and in contrast, it is the principle mission of Industry to make a margin. Without sustainable margin Industry cannot survive, let alone innovate, grow and prosper. Industry is in the business of creating products and services, and due to the competitive nature of Industry it strives to be efficient as possible and provide value to the customer.

There has been a shift towards Performance Based Contracts (PBC) such as Cost Plus Fixed Fee as used with the Wedgetail In-Service Support Program. Industry believes PBC are a key factor to removing a barrier to Defence and industry collaboration. PBC have the benefit of holding middle ground in which risk is shared between the buyer and contractor. Additionally the incentive can be applied, or tuned, to meet the key desired outcomes of the contract. PBC can be very simplistic from employing a single performance measure to more complicated models applying a range of performance measures, where incentives and penalties exist that further encourage collaboration and cost reductions.

Currently PBC is applied in an inconsistent manner with no common structure or definition and are seldom used for the acquisition of capability.

Once established, DIET will be tasked to provide a submission to Government with the aim of establishing more effective performance based models. The models will identify common Key Performance Indicators and define when they will be used, how they will be measured, how both incentives and penalties will be applied and provide guidance on appropriation of incentives for cost saving initiatives identified by the customer.

## 6. A Collaborative Operating Model



**Figure 3 – Collaborative Lifecycle**

For all of the above to be possible a new operating model needs to be developed to create the means to deliver direction, strategy and common values. The structure of the model, as shown in Figure 3, will deliver the environment for CASG and industry to effectively collaborate and engage in a mutually beneficial way. The following details the elements of the model:

### Direction, Strategy & Common Values

- Determining common goals
- Develop strategy to deliver these goals
- Provide clear and purposeful collaboration (understand boundaries)
- Establish common agenda with agreed values (ADF & Defence Industry)

### Stakeholder Engagement

- Engage with the right stakeholders
- Understand & capture core requirements
- Refine these requirements to create scope/statement of works

### Metrics and Milestones

- Establishing what is happening when, priorities change
- Key checkpoints to determine tracking (validating progress to goal)

### Drive Capability Investment

- Looking for stretch alternatives/opportunities
- Not being constrained by risk, smart evaluation & acceptance of risk
- Drive innovation

#### Monitoring and Evaluation

- Monitor the effectiveness of the process
- Review against scope and timeline
- Evaluate outcomes
- Improve process based on evaluation

Effective communication is essential and fundamentally underpins this model to ensure success.

### 7. Mutual Benefits

With collaboration and partnering, Defence and Industry will have the capacity to work through future capabilities with more clarity, allowing for quicker delivery to where it is needed most, the front line.

The result of enhanced collaboration and engagement means Defence gains optimum solutions, delivered to budget and schedule whilst leading to sustained military capability.

At the end of the day, Defence industry needs to make margin in order to be successful and sustainable. This allows for inward investment in Research and Development (R&D) leading to innovation and growth. With greater stability and certainty through a more collaborative approach, Defence industry can be confident in commercialising its R&D. From this, there is potential for end products and capabilities to be modified for further commercial gain in-country or with our allies.

The result of enhanced collaboration and engagement means industry gains sustainable margin, the ability to innovate and grow and pursue commercialisation opportunities.

For this to be an effective long term and sustainable partnership, there needs to be a true sharing of risk and return between Defence and industry.

### 8. Roll Out Plan

To fit the two year timeframe of the First Principles Review the schedule is tight. A twenty year bipartisan plan is required that is beyond any Government's mandate to assist in the implementation of the initiatives detailed in this paper. The following milestones are aggressive to ensure as many jobs as possible can be saved during the current Valley of Death:

**Jan 2016    30 days**    *Champion Minister for Industry, Innovation and Science is chosen and accepted as the Champion (Jan 2016)*

	<b>60 days</b>	<i>The Champion Minister engages with the Defence Minister for Buy-in</i>
	<b>90 Days</b>	<i>The Defence Minister initiates recommendations within CASG</i>
	<b>120 Days</b>	<i>Committee established to promote jobs, industry involvement and greater security</i>
	<b>210 days</b>	<i>Recommendations put forward by the committee</i>
<b>Sep 2016</b>	<b>240 Days</b>	<i>Both Ministers accept the recommendations Accepted</i>
	<b>360 Days</b>	<i>Process in place</i>

The dates above are in line with the possible anticipated Federal Election which must be announced no later than 14 Jan 2017.

## 9. Summary of Recommendations

- 1) Implement the Defence Industry Engagement Team championed by the Industry, Innovation and Science Portfolio to perform the following functions through the new three-pass approval process:
  - i) Be the Capability Trade-Off Partner for CASG;
  - ii) Provide expertise and commercially realistic contestability of options
- 2) Development and promotion of mutually beneficial and risk sharing contracting models
- 3) Develop a new operating model to enable the collaborative early engagement of industry without the perception of conflict of interest.

## 10. Why Is This Important

The implementation of the recommendations is vitally important to not only Defence industry, it is important to the Australian people. Without an effective and vibrant indigenous Defence industry base the sovereignty of Australia is at risk.

The current MOTS acquisition methods are backing off-shore alternatives for many projects which often fall short of filling the actual capability required, and fail to support innovation or provide efficiencies.

This in turn affects our economic stability as is being felt currently in South Australia, which is now in the “Valley of Death”, leading to the State having the highest unemployment ratio in the country.

We are in a very perilous position, urgent action is required now.

## References

ID	Reference
Ref 1.	First Principles Review, Rev B
Ref 2.	Defence Capability Development Handbook 2012
Ref 3.	Website ( <a href="http://www.theaustralian.com.au/news/nation/boeing-to-pay-100m-for-wedgetail-delay">http://www.theaustralian.com.au/news/nation/boeing-to-pay-100m-for-wedgetail-delay</a> ) accessed 01/11/15
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Ref 6.	Interface with RPDE, RPDE Program publication
Ref 7.	RPDE Relationship Agreement
Ref 8.	Defence Procurement Review 2003, Malcolm Kinnaird