SADILP 2015 CONCEPT PAPER

HOW SHOULD FUTURE DEFENCE PROGRAMS AND OPPORTUNITIES GUIDE WORKFORCE DEVELOPMENT WITHIN INDUSTRY

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ABSTRACT

Workforce planning and development is standard practice for industry operating in any market.

For Australia's Defence Industry, where the Commonwealth (CoA) is the primary customer, adequate workforce planning requires prior knowledge of the skills needed to develop, introduce and support the capability requirements of the Australian Defence Force (ADF). As such, the Defence Industry is reliant on the forecasting performance of the CoA through key documents such as the Defence White Paper (DWP) and Defence Capability Plan (DCP).

With the DWPs and DCPs in place, balancing the workforce supply with the current and future demands should theoretically be quite simple, however, this is not the case.

While these plans are not expected to be 100% accurate and need to be flexible and adaptable with changing global and regional conditions, the plans communicated by the DCP have rarely shown to be reliable. With political cycles and changes in government these plans are dramatically reshaped every few years.

This level of uncertainty impedes workforce development, in turn creating a less competitive, productive and innovative local Defence Industry.

National security should be one of the most fundamental tasks of government. As such, preserving the necessary skills onshore to fulfill this obligation requires better planning by the CoA.

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The case for change outlined in the First Principles Review, if realised, will go some way to ensuring greater stability of future projects and opportunities, however more is needed.

Better forecasting can be achieved by gaining bipartisan support for Defence policy. This must include the implementation of a long term strategic plan for Defence acquisitions which would in turn create a more stable environment in which Defence Industry can operate. Regardless of electoral cycles and changes in Government, any such plan must be binding for at least three electoral cycles.

While there is little doubt that the CoA has the greatest capacity to ensure stability of future Defence programs, such programs will never be certain. As such, the Defence Industry must become more agile; diversify across other markets with transferrable skills; and pursue export opportunities across Global Supply Chain (GSC) programs.

While it is possible to look to the roles of both the CoA and the Defence Industry independently, it is only through the collaborative efforts of the two that the Defence procurement environment in Australia can be changed. A sharing of workforce planning and identified skills gaps by Defence Industry, and a better time phasing of projects by CoA will naturally smooth the peaks and troughs of a skilled workforce.

A viable and sustainable Defence Industry is predicated on a reliable and continuous flow of work resulting from a long-term, strategic defence acquisition plan that industry trusts and will invest against, both in terms of its product and its workforce. Long-term commitment from governments and investment by industry fosters innovation and develops efficiencies that make an indigenous Defence Industry competitive in the global marketplace.

DISCLAIMER

This paper represents the views of the individual authors as part of the SADILP 2015 program and does not necessarily reflect the position or views of the organisations that they would usually represent.

INTRODUCTION

How should future Defence projects and opportunities guide workforce development within the Australian Defence Industry?

This is quite a broad question that can be answered from many different perspectives, however, this paper focuses on what the Commonwealth, Defence Industry, and the collective powers of both can do to ensure that future Australian Defence projects are well defined, stable and predictable, thereby enabling Industry to invest in workforce development and execute it with confidence.

The key topics and discussion points contained within this paper include:

- The importance of effective workforce planning strategies, and the positive results that it has on workforce development.
- The current state of predictability for Australia's future Defence projects and opportunities, and how it has looked from an historical perspective.
- How Defence Industry is affected by the current Defence procurement and industry engagement models, and the inevitable flow on effects that this has on our nation's defence capability and security.
- And ultimately provide recommendations on how the Commonwealth of Australia (CoA), and Defence Industry can act to provide a clearer definition of our future defence programs and allow themselves to better prepare the workforce.

WORKFORCE DEVELOPMENT AND PLANNING

Workforce development and workforce planning are terms that are often used interchangeably, however, they are two very distinct processes. The former cannot exist without the latter.

Workforce planning is the process of taking stock of the current workforce, forecasting future workforce requirements and identifying gaps and issues. Workforce development relates to strategies and activities that bridge those gaps, such as recruitment, career progression, succession planning, skills and competencies, values and behaviours, KPI's and performance [1].

The implementation of these processes results in the balancing of workforce supply against the current and future demands within the given industry. It is extremely difficult to implement workforce development, without a thorough and stable workforce plan in place.

From the perspective of Defence Industry, workforce planning requires prior knowledge of the skills needed to develop, introduce and support the capability requirements of the Australian Defence Force (ADF). Due to the fact that Defence Industry's primary customer for medium and large acquisitions is the CoA, industry is heavily reliant on the forecasting performance of the CoA.

The CoA publicise their future projects and opportunities through the periodic release of the Defence White Paper (DWP) and the Defence Capability Plan (DCP). These are ideal resources for Defence Industry, because it allows them to drive their individual workforce planning and development strategies, and enables them to be in a position to bid for and be prepared for future programs of work.

With the DWPs and DCPs in place, balancing the workforce supply with the current and future demands within Defence Industry should theoretically be quite simple, however, this is not the case.

THE DEFENCE ENVIRONMENT

Planning

The DWP provides guidance on Australia's long term defence and security needs, and drives the capability needs of the ADF. The DCP addresses capability shortfalls identified through the DWP and provides valuable guidance on major capital acquisitions that will generate work for Defence Industry in the future. This includes work conducted through acquisition or sustainment phases and as Prime Contractors, subcontractor/Small to Medium Enterprises (SME), and above-the-line contractors.

These plans are not expected to be 100% accurate and need to be flexible and adaptable as global and regional conditions change, however plans communicated by the DCP have rarely shown to be reliable. With political cycles, changes in government, and mid-term leadership changes, these plans are dramatically reshaped every few years.

The last 10 years have seen four public releases of the DCP (2006, 2009, 2011, 2012) and a number of draft/unreleased versions. A new DCP, included in the Defence Industry Policy Statement (DIPS), is due shortly along with an updated DWP.

Whilst it is recognised that the DCP is an evolving document that changes based on the requirements of the Australian Defence Force, a survey of programs from the 2012 DCP [2] shows that government decision on as many as 80% of planned projects have been delayed from their first inception. Many of these programs originate as far back as the 2006 DCP. Delays in decision dates range from as little as one year to as much as eight years, with an average of three years. A subset of these programs have been effectively cancelled/shelved only to return in later DCPs or cancelled altogether. The spread of delayed programs shows no significant bias to LAND, SEA, AIR or JOINT programs.

This level of uncertainty prevents Defence Industry from conducting workforce planning for significant projects with any level of confidence.

Contracting

When programs are released to Defence Industry, potential bidders are often given short notice and minimal tender periods resulting in less than accurate estimates of schedule and budget. The lengthy Capability Acquisition and Sustainment Group (CASG) evaluation and contracting process contributes to further delays.

It is acknowledged that in many cases this is due to under staffing within CASG as a result of previous government reviews and cutbacks. Notwithstanding this, compressed program schedules often occur as a result of the need to meet rigid in-service dates and maintain ADF capability.

Skilling

Whilst the UK ship building industry was the focus of the RAND report [3], a number of the findings are relevant to other sectors of Defence Industry. As illustrated by Figure 1, time frames for achieving effective and efficient competency (70-80%) in required skills range from 6-8 years.

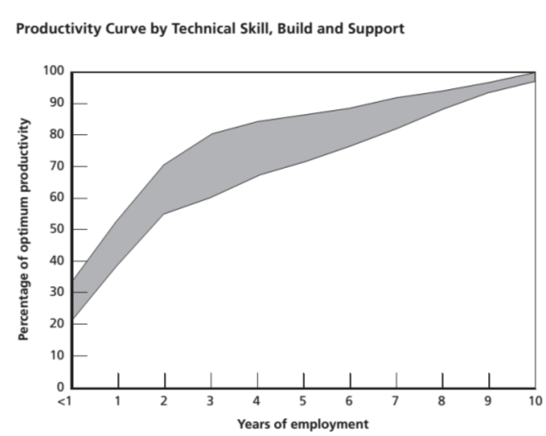

FIGURE 1

Resource demands change across the lifecycle of a program, meaning that a single program will experience a ramp up of particular resources for the initial Design Process, and then ramp down shortly before the Build Process (Figure 2). A similar profile is experienced for skilled resources required for the Build Process.

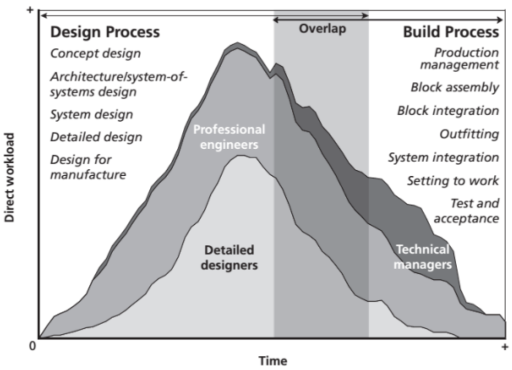

FIGURE 2

The end of a program is too late to be addressing poor workforce utilisation. Without long term certainty, Defence Industry will struggle to find work for existing employees, let alone consider the skills required to execute future programs. Skilled workers with no opportunities will seek or be forced to seek employment elsewhere.

If Defence Industry is unable to provide the ongoing opportunities required by it's workforce, then the skills will be transferred to other industries, many never to return. The "Valley-of-death" scenario currently experienced in South Australia's Naval ship building industry is a prime example.

THE IMPACT

What does this lack of predictability of demand mean? It means a vicious cycle that continues to reinforce itself.

Taking the lack of predictability of demand as a starting point, it is clear that this directly impacts the ability of Defence Industry to perform efficient and effective workforce development. At any given point in time the workforce capability in place is lower than it could be. As is well understood in the business world, the capability of an organisation is first and foremost driven by the capability of its workforce. Workforce capability can be thought of as both the possession of specific required skills as well as the operation of the workforce as a cohesive force. This takes time to develop and stabilise, and determines the ability of the workforce to meet the demands placed on it now and in the immediate future.

The lower capability in the workforce, caused by poor predictability, degrades Defence Industry's contract performance and leads to a poorer perception of Defence Industry by both the 'customer' and the Australian public. Confidence in Defence Industry is reduced. The availability of funding to spend on Defence is reduced as it becomes more difficult to 'sell' government expenditure in Defence to the Australian public.

To mitigate the impact of challenged funding, the CoA executes competitive acquisition processes for most, if not all, contracts. CoA acquisition processes are expanded in response to the lower level of confidence. Bureaucracy increases and intermediate steps in addition to the Request for Tender (RFT) / 1st and 2nd pass process are inserted. The time to contract increases and industry must respond by increasing the tendered costs and taking on greater risk in their tender submissions in order to recover their administrative, tendering, business development and standing army costs.

The CoA is left with a tough choice to make: spend their Defence acquisition and sustainment funds locally at higher cost and risk; or spend this money with foreign entities (including the Foreign Military Sales (FMS) process). The CoA must also decide whether to develop products locally, which would increase local Defence Industry capability and aid the development of Australian made equipment; or buy Military off the Shelf

(MOTS) solutions. Due to the poor performance in contracts by industry, foreign purchases of MOTS solutions become a more attractive proposition.

All of this reduces the predictability of award to Australian Defence Industry resulting in an amplifying effect : a vicious self-reinforcing cycle.

Why does this matter? Purchasing more foreign product and providing a lower level of stability in the Defence Industry workforce demand causes a lower level of job security and lower number of jobs in general. This loss of jobs takes away all of the social and economic benefits that come with people being employed and impacts the livelihoods of Australians.

To understand the magnitude of the impact, consider South Australia. Defence State Strategy 2025 [4] identifies that South Australia employs 17,000 people directly in Defence Industry with as many as 25,000 indirectly employed due to Defence Industry activities. The multiplier affect where every dollar spent in Defence Industry cascades into re-spending of earnings on local products and services means an even greater impact.

Looking past jobs and considering the broader picture, it is clear that Defence and CoA spending isn't aimed to prop up industry or provide an employment program for Australians. Poor predictability leads to the purchase of more foreign products and services, Australia loses local capability and this creates greater sovereign risk as we are more dependent on foreign countries for our National Security.

Poor workforce development leads to worse program performance, money wasted and lower capability for our Defence Force. CoA Defence spending and Defence Industry exists for the support of the Australian warfighter. The objective for all parties must be to provide Australia's Defence Forces with the most effective and sustainable capability.

RECOMMENDATIONS

Having identified that the uncertainty and unpredictability of future defence projects is impeding workforce development, in turn creating a less competitive and innovative local Defence Industry, it is important to consider how greater predictability can be achieved and, more importantly, where responsibility for this lies.

Commonwealth

Should the CoA be expected to single handedly support the Defence Industry, or does Defence Industry need to step up and manage its own workforce planning and development, irrespective of future program certainty? The answer lies in a balance between the two.

It must be noted that Australia, and indeed the world, is heading into a period of great uncertainty in terms of national security. Complex and fast-shifting strategic circumstances face our political leaders, which will undoubtedly affect the nation's future Defence acquisitions. For this reason, achieving future program certainty or greater predictability is going to be more challenging than ever. Despite this, there are changes than can be made.

The CoA must establish the value to the nation of an indigenous Defence Capability. In December 2005 the United Kingdom's Ministry of Defence (MoD) published its Defence Industrial Strategy which stated that its aim was to promote a sustainable industrial base, that retained in the UK those industrial capabilities needed to ensure national security. The strategy specified that "*onshore capability is driven by two* *fundamental strategic requirements: the need to support military capability throughout its life; and the ability to mount operations from the UK base."* (RAND Report [3]).

While stopping short of suggesting the CoA should view an indigenous defence capability as a jobs creation/retention strategy, it should certainly be considered as an industrial policy in terms of our national security.

CoA support for industry through programs such as Skilling Australia's Defence Industry (SADI), the Global Supply Chain (GSC) program and the export support offered by CASG through Team Defence Australia, are acknowledged as enhancing the performance and capability of Australia's Defence industry.

Equally, the changes outlined in the First Principles Review [5] are a significant step forward and, if successfully implemented, will lead to a more efficient organisation with less duplication and fewer layers of bureaucracy. This will create greater stability of future programs and opportunities, and give Defence Industry the clear, unambiguous, predictable procurement process it requires.

Achieving bipartisan support for defence policy is critical to ensuring greater stability of future programs. This must include the implementation of a long term strategic plan for defence acquisitions, which would help to depoliticise the portfolio and in turn create a more stable environment in which the Defence Industry can operate.

An example of such bipartisan support can be seen in Denmark, where the country's defence needs are covered by a five year agreement that has the support of seven diverse political parties. The five year agreement [6], which is effectively the country's DWP, DCP and Industry Policy rolled into one, enables the Danish Parliament and Defence Department to tackle issues such as major acquisitions without being dominated by political considerations.

While political parties receive an annual status update where amendments can be made if needed, they effectively agree to support the plan regardless of which party is in power at the time. This in turn provides the Danish Defence Industry with the stability and security needed to make investment into both projects and its workforce.

Despite its success, five years is still a short period of time. In Australia, it is suggested such an agreement be extended to at least nine years - three Federal electoral cycles.

Industry

With more predictability of future programs and opportunities, normal workforce planning and development processes are simple for industry. However, while there are steps that can be taken to stabilise future defence contracts, it must be understood that these opportunities will never be certain. As such, the Defence Industry will be required to better manage the peaks and troughs associated with defence projects, take some risks and invest in their workforce.

Importantly, Defence Industry support for the ADF must be both effective in meeting contracted requirements, and efficient in delivering on agreed cost reduction targets over the life of the contracts.

There's no doubt that Defence is a long term market, therefore the Defence Industry must become more agile, diversify across other markets, with transferrable skills, and pursue export opportunities across GSC programs.

Industry alliances are just one way for the Defence Industry to achieve greater agility and break into new, larger markets. By working collaboratively with SMEs in Alliance type arrangements, the Defence Industry can broaden their capabilities and increase their capacity to undertake larger, more inherently Prime Contractor dominated markets.

Recognising the challenges associated with supplying Defence, very few within the Defence Industry should expect to work exclusively in Defence. By working across multiple sectors and markets with transferrable skills and products, industry is able to increase its pipeline of work and thus implement normal and effective workforce planning and development. For the few working exclusively in defence, predominantly the major international primes, the challenge still exists, but they are able to sustain their pipeline of work through export opportunities.

Collaboration

Having identified how both the CoA and Defence Industry can independently make changes to ensure greater stability of future defence programs, in turn allowing for better workforce planning and development, it is essential to consider how collaboration between the two can further assist.

There is no doubt that each party can make improvements to current practices, but the collective powers of both, working together, is where significant changes will be derived.

It is essential that the 'us' and 'them' mentality is removed. Industry data around workforce planning and identified skills gaps must be shared with the CoA. In turn, the CoA must conduct better planning and forecasting activities around skills and capability requirements and share this with industry at an early stage in the acquisition process. This will allow better time phasing of projects to naturally smooth the peaks and troughs of a skilled workforce.

Lessons can and should be learned from other nations.

Having decided that an onshore defence capability was essential to ensure national security in the UK, the Government of the day acknowledged that sustaining technical skills in the maritime sector was a significant challenge, particularly as the intervals between the production of new vessels had increased from, on average, eight to sixteen years. As a result, they commissioned RAND to investigate the relationship between the demand created by the ships and submarine acquisition programme and the supply of the technical workforce needed to support that programme. The Report found that to preserve the ability to design, build and support complex ships and submarines, the MoD would need to preserve several key technical skills in the maritime domain. With these industrial goals and capacity in mind, a maritime industrial strategy was developed, identifying six strategic capabilities needed in order to preserve that onshore ability.

Similarly, Australia's 2009 Defence White Paper outlined the Government's commitment to ensure that certain strategically important industry capabilities continue to be available from within Australia. Priority Industry Capabilities (PICs) were identified and defined as those capabilities that confer an essential strategic advantage by being available from within Australia and which, if not available, would significantly undermine defence self reliance and ADF operational capability.

The UK, in order to preserve the six identified strategic capabilities, used the Future Aircraft Carrier Program as a bridging function to provide an additional workload to technical skills at the country's submarine yard.

Arguably, the bringing forward of both the Future Frigate and Offshore Patrol Vessel programs in Australia is an effort to 'bridge' and avoid the 'valley of death', but this is a political decision, made in isolation and one that Defence itself is doubtful can be planned and executed in time.

CONCLUSION

A viable and sustainable Defence Industry is predicated on a reliable and continuous flow of work resulting from a long-term, strategic defence acquisition plan that industry trusts and will invest against, both in terms of its product and its workforce. Long-term commitment from governments and investment by industry fosters innovation and develops efficiencies that make an indigenous Defence Industry competitive in the global marketplace.

While mindful not to place the onus entirely at the feet of the CoA, there is little doubt that they have the greatest capacity to ensure stability of future Defence programs.

National security should be one of the most fundamental tasks of government. As such, preserving the necessary skills onshore to fulfill this obligation requires better planning by the CoA.

Acknowledging both budget constraints and the fast changing strategic circumstances facing Australia's future, there are still policies that can and should be implemented to reduce the disruption to both Defence and Defence Industry by the arbitrary cancellation or deferral, by successive governments, of major capability projects.

> *'Australia's three year electoral cycle can very easily lead to short term decision making by elected members. The consequences for a department which is characterised by programs with long lead times and large capital expenditure are obvious.'*
>
> Senator David Fawcett (ASPI, The Strategist, Defence: the most fundamental task of government?)

However, Australia's Defence Industry has its role to play and must be both efficient and productive while delivering the best capability to the ADF.

It is essential that both the CoA and Defence Industry collaborate to better manage the supply and demand challenge. Offshore acquisitions will always occur, both as a result of budget constraints and capability requirements. Programs will continue to be deferred or cancelled as the strategic requirements of the nation change. Political cycles and changes to political agendas will continue to disrupt defence acquisition processes. As such, the Defence Industry needs to be agile in order to survive.

Workforce planning difficulties affect not only the Defence Industry, but the ADF and Defence public servants too. How do you plan for such uncertain and unprecedented times, especially when budgets are limited? There is no easily identifiable solution and responsibility does not rest with either industry or government alone. The best outcome however, sits with a long term, bipartisan, Defence acquisition plan from the CoA, a more agile and productive Defence Industry, and a strong collaborative relationship between both parties.

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