
Supplying and Supporting *Force 2030*: Defence Policy for Australian Industry

Robert Wylie

The White Paper has reaffirmed 2007 plans to link defence industry policy to enhanced defence strategic planning. This promising initiative risks being blunted by over-emphasis on off-the-shelf solutions to military capability requirements and by preoccupation with the need to intervene if the market fails to sustain strategically important local industry capabilities. As part of the Strategic Reform Program, strategic planners should become more accountable for judging industry capability priorities and setting defence industry policy objectives, while an increasingly autonomous Defence Materiel Organisation should be accountable for implementing them.

The 2009 Defence White Paper reaffirms

the important role that defence industry plays in support of ADF [Australian Defence Force] capability, from the provision and maintenance of military equipment to the delivery of a wide range of support services.¹

But the 2009 Defence White Paper devotes just over 3 pages to defence industry policy. This article analyses this abbreviated statement of policy in terms of *what* local industry capabilities the government seeks and *how* it plans to ensure the domestic industry capabilities it wants are developed and maintained. It concludes by analysing the implications for defence industry policy of changing Defence organisational arrangements.

What Local Industry Capabilities Do We Want?

The 2009 White Paper's treatment of defence industry policy hinges on 'Priority Industry Capabilities' (PICs), which are

those industry capabilities which would confer an essential strategic capability advantage by being resident within Australia, and which, if not available, would significantly undermine defence self-reliance and ADF operational capability.²

The government initially decided not to publicly identify PICs to avoid, it said, helping an adversary and compromising Defence commercial leverage.³ It subsequently acknowledged that these concerns were outweighed by the

¹ Department of Defence, *Defending Australia in the Asia Pacific Century: Force 2030* (Canberra: Commonwealth of Australia, 2009), p. 127.

² *Ibid.*, p. 128.

³ *Ibid.*

importance to defence industry of access to such information to enable robust commercial planning and investment decision making.⁴ Accordingly, two months after releasing the 2009 White Paper, the Government announced that the following industry capabilities would confer an essential strategic capability advantage by being resident in Australia: Electronic warfare; High frequency and phased array radars; Through-life and real-time support of mission- and safety-critical software; Anti-tampering capabilities; Signature management for submarines, naval vessels, land and air platforms; In-service support of the COLLINS Class submarines' combat system; Acoustic technologies and systems; Ship dry docking facilities and common user facilities on Australia's east and west coasts and in its northern ports (for patrol boats); Capability to manufacture selected high usage ballistic munitions, ammunition components, propellants and explosives; Infantry weapons and remote weapon stations; and combat clothing and personal equipment..⁵

PICs are emerging as the focus of the focus of defence industry *policy*. But they are not the focus of defence *business*: PICs account for a mere 6-7% (or about \$700 million per annum) of defence annual total expenditure on acquisition and support of materiel which, in 2009-10 was over \$10.9 billion.⁶ Defence will compete the remaining business on a standard value for money basis noting that, if necessary, it will increase the amount of local offshore expenditure to a level that allows for a more managed, sustainable and achievable local industry growth rate.⁷

Announcement of the PICs constitutes a significant development in Australian public policy. The PICs policy legitimises government intervention should the defence market fail to sustain strategically important industry capabilities in Australia. In announcing the PICs, Ministers stressed the distinction between PICs and the companies hosting them:

it would be incorrect for any defence company to interpret the PICs as some form of exclusive right to a Government procurement contract. Competitiveness will remain a key to successful tendering.⁸

Defence industry policy has yet to develop the degree of sophistication required to sustain such intervention. Such policy development will

⁴ John Faulkner, 'Defence Capability Planning: The Way Forward for the Defence-Industry Partnership', speech to the Defence + Industry Conference, Adelaide, 1 July 2009.

⁵ Defence Materiel Organisation, *Priority Industry Capabilities Fact Sheet* (Canberra: Department of Defence, 2009).

⁶ Greg Combet, 'Force 2030: Government and Industry', Address to the Defence + Industry Conference, Adelaide, 1 July 2009, p. 17.

⁷ Department of Defence, *Force 2030*, p. 128.

⁸ Combet, 'Force 2030: Government and Industry', p. 18.

necessarily be a key feature of the next iteration of defence industry policy—the eleventh in some two decades—foreshadowed by the Minister.⁹

More generally, defence industry policy has yet to catch up with the evolution of wider strategic thinking evident elsewhere in the White Paper. The generalised references to ‘self reliance’ that characterise the definition of PICs do little to inform either industry or Parliament how the government envisages managing “the risk that a foreign supplier might limit or withhold support in a contingency for political reasons.”¹⁰ Or, it might be added, how the government would respond to less coercive constraints on external supply stemming from, for example, preoccupation by US decision makers with support for US operations elsewhere, US or West European production difficulties, or commercial constraints on overseas companies’ willingness and ability to accommodate a surge in Australian demand.

Industry needs policy guidance to inform commercial judgements about investment in capacity to supply the *future* ADF (in accordance with the capability development principles outlined in the 2009 Defence White Paper), and to support the *preparedness* of the ADF in-being (in accordance with increasingly refined preparedness directives). Parliament needs such guidance in holding the Executive arm of government accountable for the use of the resources involved. The White Paper acknowledges that ADF preparedness depends on local industry support. But past government initiatives like the Commercial Support Program and the Defence Efficiency Review¹¹ have pushed Defence demand for these services well beyond maintaining, repairing and upgrading equipment and the manufacture, storage and distribution of spare parts and consumables. For example, industry now operates the ADF’s strategic communication facilities. The 2009 Defence White Paper also signals an intensification of local industry’s importance to ADF preparedness: It foreshadows greater use of contractors on operations.¹² The Defence Strategic Reform Program relies on industry-related initiatives like smart maintenance and streamlined logistics to yield gross savings of \$4.4 billion and \$320 million by 2018-19.¹³

The 2009 Defence White Paper is not the place for detailed assessment of what all this mean for defence industry policy. But the government might have used the White Paper to explain how it will manage the financial, capability and policy trade offs involved. Instead, the White Paper focuses

⁹ Ibid, p. 21.

¹⁰ Brendan Nelson, *Defence and Industry Policy Statement 2007* (Canberra: Department of Defence, 2007), p. 9.

¹¹ For a fuller description see Robert Wylie, ‘Supplying and Supporting Australia’s Military Capability’, in Catherine Baldwin and Ian Marsh (eds.), *The Business of Defence: Sustaining Capability* (Melbourne: Committee for Economic Development of Australia, 2006), pp. 50-63.

¹² Department of Defence, *Force 2030*, pp. 91-92.

¹³ Nick Warner and Angus Houston, *Strategic Reform Program: Delivering Force 2030* (Canberra: Department of Defence, 2009), p. 8.

on the government's need to intervene should the 'market' fail to sustain strategically important local industry capabilities. The nature and scale of any such intervention would be decided, we are told, by the National Security Committee of Cabinet (NSC) having regard to the criticality of the industry capability to self-reliance, the value for money of intervention, the health of the industry sector, and market structure.¹⁴

The White Paper does not articulate the principles and concepts that would shape advice to the NSC. It does not explain, for example, how industry requirements and defence force capability requirements will be traded-off in bundling defence contracts, what actually constitutes a 'critical industry capability', what weight to accord 'defence self reliance', and how to compare the value for money of competing defence industry development proposals. This defence industry policy lacuna stands in sharp contrast to the full explanation elsewhere in the White Paper of the principles that will inform equally demanding judgements about force structure and preparedness.

The newly appointed Minister for Defence Personnel, Materiel and Science is now a member of the NSC. The next iteration of defence industry policy will need to take this substantial responsibility into account. The following statement points the way:

Close to home, it would be more likely that we would be able to do something decisive about contingencies that require military responses, and that no-one else would have as deep an interest in acting. Further away, such as in Afghanistan, it would be likely that our capacity to act decisively through military means on our own would be more limited, and others would in any event almost certainly be involved with as great, if not greater stakes.¹⁵

Can we, for example, interpolate the UK Government's notion of appropriate strategic sovereignty¹⁶ and conclude that this means higher priority for those industry capabilities that help maximise an Australian Government's sovereign discretion in deciding how to use Australia's armed forces in contingencies close to home?

Importantly, the 2009 Defence White Paper does reaffirm the commitment—made in the previous government's 2007 *Defence and Industry Policy Statement*—that Defence will link its recommendations to government about the need for government intervention in support of PICs to the annual Defence Planning Guidance (DPG). The classified DPG articulates the strategic priorities that guide the Australian Defence Organisation in producing the military outcomes sought by government. It is the primary

¹⁴ Department of Defence, *Force 2030*, p. 128.

¹⁵ *Ibid.*, p. 45.

¹⁶ Secretary of State for Defence, *Defence Industrial Strategy* (London: Ministry of Defence, 2005), p. 17.

instrument by which governments consider how best to manage defence aspects of strategic risk. It identifies contingencies Australia might face in the next five years, 10-15 years out and 20 or more years into the future, and identifies the relative priority for a defence capability to respond to or shape the future strategic environment and likely contingencies.¹⁷

According to the 2007 Defence and Industry Policy Statement:

decisions about how to supply and support the ADF form an essential part of strategic planning and, as such, must take account of the full range of credible contingencies that the ADF might be called upon to deal with. It is only by considering such possibilities that the risk of being denied access to overseas support can be properly assessed and the level of resources reasonably committed to preventing or mitigating that risk determined.¹⁸

To this end, according to the 2007 Statement, Defence had envisaged producing a classified Defence Industry Self Reliance Plan, to be derived from the DPG and to underpin planned development of future defence force capability as well as directed levels of preparedness of the defence force in-being. It envisaged detailing the priority local industry capabilities identified in the above Defence Industry Self-Reliance Plan in the public version of the Defence Capability Plan (DCP). This was to include a statement of priority local industry support for both individual projects for development of future ADF capability, and a summary of the support required by the force in being.¹⁹

The 2000 Defence White Paper began promulgating public versions of the DCP to give industry time to plan investments in anticipation of government approval of individual capital equipment projects. Previously published DCPs have focused on generalised opportunities for local industry. The 2009 DCP does the same. Future iterations of the DCP need to provide more detail about strategic priorities for local support of the individual platforms and systems concerned.

Local industry will also be affected by efforts to make the DMO more business-like and accountable. Materiel Sustainment Agreements between Defence capability managers and an increasingly autonomous DMO will drive local industry support for the force-in-being. Similarly, local industry involvement in supply of the future force will be driven by project-specific Materiel Acquisition Agreements between a DMO focused on military off-the-shelf (MOTS) solutions and capability planners. Both capability managers and capability planners will need to guard assiduously against the inevitable tendency of a large complex organisation to place its own interests ahead of its clients.

¹⁷ Michael Pezullo and General David Hurley, *Strategy Planning Framework Handbook* (Canberra: Department of Defence, 2006), p. 13.

¹⁸ Nelson, *Industry Policy Statement*, p. 10.

¹⁹ *Ibid.*

How Do We Get the Industry Capabilities We Want?

Over the years, efforts to define *what* local industry capabilities we want have tended to lag far behind commendable progress in explaining *how* the government envisages using competition for defence contracts to create incentives for companies—both local and overseas—to invest in defence-related industry capacity. Defence’s current approach to fostering local industry capacity is explained in the ‘Toolkit’ for the Australian Industry Capability (AIC) program²⁰ which applies to all Defence procurements of \$A50 million or above (and to projects with a defence mandated industry requirement). For present purposes, three points matter:

- The connection between strategy-based PICs and project-specific Australian Industry Capabilities;
- The role Defence assigns to global supply chains in sustaining local defence industry capacity; and
- The role of defence industry in generating the innovation required to achieve Force 2030 capability goals.

The White Paper’s failure to clarify PIC-related references to an *essential* strategic capability advantage or a *significant* undermining of defence self reliance undermines the above Toolkit’s explanation of *value for money* in developing and sustaining Australian industry capabilities for support of the ADF. The Toolkit can do no more than exhort procurement officers, capability managers and their commercial interlocutors to

consider the strategic and operational value to Defence of having in-country capabilities when access to other sources of capability and support (particularly global supply and support chains) may not be available. Therefore risk of denial within the context of global support with its operational and cost consequences must be considered.²¹

The next iteration of defence industry policy needs to go further. What matters is how much risk of denial Australia is prepared to tolerate and how much it is prepared to invest to reduce a given risk to an acceptable level. The less Defence and government can tolerate the risk of such denial, the larger the proportion of limited defence resources they must divert from other defence priorities to mitigate it.

The 2009 Defence White Paper recognises that the relatively small size of the Australian defence market and the cyclical “boom and bust” characterising much defence procurement can undermine defence industry’s incentive to sustain capability. To help remedy this problem, the White

²⁰ Defence Materiel Organisation, *Australian Industry Capability Toolkit*, <<http://www.defence.gov.au/dmo/id/aic/>> [Accessed 4 June 2009].

²¹ *Ibid.*, pp. 1-2, para 1.6.2.

Paper envisages “encouraging international prime contractors to take up opportunities for local industry participation in international global supply chains.”²² The Australian defence industry record suggests strongly that overseas prime contractors will require a compelling incentive to include Australian defence companies in their global supply chains. But, according to the Toolkit: “Defence industry policy does not support offsets, nor does the AIC Program prescribe any mandatory targets for work to be done in Australian industry.”²³

The success of companies like GKN Aerospace and over 20 others in winning contracts to supply design services and manufacture components for the Joint Strike Fighter Project indicate that, through concerted effort by Australian Governments and companies, international primes like Lockheed Martin can be induced to source goods and services from local companies on a competitive basis. What is less clear, however, is the value of such work in terms of the self-reliant operation of the aircraft in ADF service.²⁴

The 2009 Defence White Paper foreshadows an ambitious defence equipment procurement program to achieve the Force 2030 goals. According to the White Paper, Defence will seek to maximise its spending in local industry subject to acceptable risk in cost, schedule and technical terms. But, the government has accepted Mr David Mortimer’s recommendation that

Any decisions to move beyond the requirements of an off-the-shelf solution must be based on a rigorous cost-benefit analysis of the additional capability sought against the cost and risk of doing so. This analysis must be clearly communicated to government so that it is informed for decision-making purposes.²⁵

In accepting this recommendation the government acknowledged that, in many cases, this will entail acquisition from overseas, and observed that

Pursuing an off-the-shelf approach will certainly produce cost and time efficiencies, though this needs to be balanced against the government’s intent to support Australian industry, Defence’s need for a strong supply chain, and against a continuing need to ensure that equipment purchased meets Defence’s operational needs.²⁶

There can be no sensible objection to a rigorous cost-benefit analysis of any indigenous defence equipment development program. But what is lacking in

²² Department of Defence, *Force 2030*, p129.

²³ Defence Materiel Organisation, *Australian Industry Capability Toolkit*, p. 1-2, para 1.4.4.

²⁴ See Department of Innovation, Industry, Science and Research, *Joint Strike Fighter (JSF): Australian Approach and Information for Industry*, <<http://www.innovation.gov.au/Industry/AerospaceandDefence/Pages/JointStrikeFighterJSFAustralianApproachandInformationforIndustry.aspx>> [Accessed 9 June 2009].

²⁵ Fitzgibbon, *The Response to the Report of the Defence Procurement and Sustainment Review*, p. 22.

²⁶ *Ibid.*

both the 2009 White Paper and the government's *Response to the Mortimer Review* is any discussion of the institutional arrangements needed to sustain such development or how the government would judge what constitutes an acceptable level of risk.

There are two issues here. Firstly, efforts to reduce risk via MOTS solutions may help avoid the kind of difficulties that led to cancellation of the Seasprite helicopter program. But such efforts will do nothing to solve the inevitable challenges Australia will encounter in integrating MOTS platforms and systems into a networked force. The Government's response to the Mortimer Report seems to underestimate the degree of indigenous innovation required to network the ADF. Secondly, without a framework for judging risk tolerance, Australia's prevailing adversarial and risk-averse political culture will combine with an increasingly autonomous DMO and an overburdened Capability Development Division to turn MOTS solutions into potentially insurmountable barriers to domestic innovation.

JORN, one of Australia's most significant defence innovations, illustrates the point. The importance to ADF information superiority of a capability for continuous wide area surveillance of our northern approaches led the government to continue the progressive upgrade of JORN²⁷ and to accord high priority to retention of JORN-related industry capacity. But JORN took some 40 years to develop, required trusted institutions enabling Australia to access critical US information and experience, consumed some 1100 Defence Science and Technology Organisation (DSTO) scientist years' worth of effort and cost some \$A1.24 billion.²⁸ Politicisation of JORN's widely publicised cost, schedule and technical difficulties nearly derailed development. Despite these vicissitudes, the detailed engineering and software management knowledge required to manage the current operation and future development of JORN resides in DSTO and Lockheed Martin Australia, the company responsible for delivering a fully compliant JORN system to the Air Force in May 2003.²⁹

The notion of a defence innovation *system* comprehends the institutions involved in defence planning, local industry involvement in supply and support, and the development and application of science and technology. A defence innovation *policy*, then, would address those elements of a defence innovation system needing adjustment in order to generate self-reliant capability outcomes, including hedging against the risk of denial or unavailability over overseas support.

²⁷ Department of Defence, *Force 2030*, pp. 81-82.

²⁸ Robert Trenberth, *Report on DSTO's Contribution to Australia's Wealth*, Volume 2, (Canberra: Department of Defence/DSTO, 2003), pp. 33-38.

²⁹ Paul Johnson, unpublished speech, 25 March 2003.

The 2009 White Paper's emphasis on MOTS and COTS solutions to military capability requirements suggests that efforts to prevent project failures like the Seasprite helicopter program have eclipsed efforts to invest in genuinely self-reliant innovation like JORN. MOTS/COTS solutions will do little to reconcile, on one hand, Australia's dependence on access to US technology for the quality of forces it needs at an acceptable price and, on the other hand, US restriction of access to those especially sensitive technologies which give US forces a winning edge *only* to very trusted partners and then *only* with stringent controls and conditions.³⁰

In reconciling such divergent imperatives within a self-reliant framework defence planners will need to make complex trade offs that subsume defence industry and defence science/technology policies. A defence innovation policy might provide a useful 'lens' through which to view these trade-offs while at the same time drawing on the government's broader national innovation initiatives. Particularly relevant here is the concept of a national innovation system developed in the 2008 Cutler's report to the Minister for Innovation, Industry, Science and Research.³¹

Any such innovation would entail risk. The government has stated that

Defence should not pay a premium for local industry work, unless the costs and risks of doing so are clearly defined and justifiable in terms of strategic benefits.³²

According to the 2007 Defence and Industry Policy Statement, however,

The efficient management of complex programs is impeded by a culture that shows little tolerance for risk. For this reason, a better public understanding of defence projects and the risks they entail is needed. In the future, Defence will clearly set out the level of risk in projects in routine reporting and explain why this risk is necessary.³³

As the description of the top 30 defence projects in the 2009-10 Defence Portfolio Budget Statement shows, the language of risk management now suffuses defence business.³⁴ But identification of 'risk' as such does little to inform defence industry policy and, given the prevailing focus on off-the-shelf solutions, leads all too easily to risk-averse decisions. Perhaps more useful is the notion of "risk appetite". In UK usage, "risk appetite" comprehends both threats and opportunities:

³⁰ Department of Defence, *Force 2030*, p. 93, para 11.5., page 131, para 17.3.

³¹ Terry Cutler, *Venturous Australia: Building Strength in Innovation* (Canberra: Department of Innovation, Industry, Science and Research, 2008), pp. 15-24.

³² Department of Defence, *Force 2030*, p. 128, para 16.20.

³³ Nelson, *Industry Policy Statement*, p. 17.

³⁴ See Defence Materiel Organisation, *Defence Portfolio Budget Statements 2009-10*, Section 2 (Outcomes and Planned Performance), pp. 141-154.

- For *threats*, risk appetite is about the level of exposure which is considered tolerable and justifiable should it be realised and entails balancing the cost (financial or otherwise) of constraining the risk with the cost of the exposure should the exposure become a reality;
- For *opportunities*, it is about how much to put at risk in order to obtain the benefits of the opportunity, and entails comparing the value (financial or otherwise) of potential benefits with the potential losses.³⁵

Conclusion

The DMO is currently responsible both for identifying and monitoring PICs, and for managing defence procurement so as to foster them. But Defence strategic planners and to a lesser extent, defence capability developers are responsible for judging the tolerability of the risk inherent in dependence on overseas supply. The DMO is well placed to advise government on how best to use defence procurement to achieve industry objectives. But its quest for a more business-like and commercial culture³⁶ leaves DMO increasingly poorly placed to advise how much Defence should spend to, say, reduce or eliminate the risk that overseas governments might withhold mission-critical software.

Under current arrangements, the DMO is responsible for setting industry policy objectives and managing industry policy implementation. This conflation of responsibility is likely to impede the formulation of a strategically robust defence policy for Australian industry. It is also increasingly at odds with wider efforts to clarify accountability under the Strategic Reform Plan. Those responsible for strategic planning should therefore assume responsibility for, and be held accountable for, setting defence industry policy objectives, including the appropriate appetite for risk.

But industry policy is, like policy for defence science and technology, a relatively subordinate input into strategic planning. It may therefore be more organisationally effective to assign a small element of the strategic planning community both responsibility and resources for prosecuting a defence innovation policy, synthesizing industry and science and technology policy.

Bob Wylie worked for 25 years as a policy advisor in the Australian public service. He now draws on this experience in teaching at the School of Business, Australian Defence Force Academy and in researching defence technological innovation. r.wylie@adfa.edu.au.

³⁵ HM Treasury, *The Orange Book: Management of Risk—Principles and Concepts* (London: HM Stationary Office, 2004), p. 23, para 5.1.

³⁶ Fitzgibbon, *The Response to the Report of the Defence Procurement and Sustainment Review*, p. 11, para 14.